

**BIDDING DOCUMENTS
FOR
PROCUREMENT OF
INFRASTRUCTURE WORKS FOR
EDUCATION AND HEALTH HUB AT COTE
D'OR**

REF No.: LM/CD/OC23/35

Employer: LANDSCOPE (MAURITIUS) LTD



(VOLUME 1 OF 4)

- **PART 1 – BIDDING PROCEDURES**
- **PART 2 – CONDITIONS OF CONTRACT AND CONTRACT FORMS**

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BIDDING DOCUMENTS

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Standard Bidding Document

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PART 1 – BIDDING PROCEDURES

Section I. Instructions to Bidders

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Section I. Instructions to Bidders

A. General

- 1. Scope of Bid**
 - 1.1 In connection with the Invitation for Bids indicated in the Bid Data Sheet (BDS), the Public Body herein after also referred to as Employer, **as indicated in the BDS**, issues these Bidding Documents for the procurement of Works as specified in Section V, Works Requirements. The name, identification, and number of lots (contracts) of the Open Advertised Bidding (open for local and overseas contractors) also referred to (OAB) **are provided in the BDS**.
 - 1.2 Throughout these Bidding Documents:
 - (a) the term “in writing” means communicated in written form and delivered against receipt;
 - (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
 - (c) “day” means calendar day.
- 2. Source of Funds**
 - 2.1 The Works shall be financed by the Public Body’s own budgetary allocation, **unless otherwise stated in the BDS**.
- 3. Public Entities Related to Bidding Documents & Challenge & Appeal**
 - 3.1 The public entities related to these bidding documents are the Public Body, acting as procurement entity (Employer), the Procurement Policy Office, in charge of issuing standard bidding documents and responsible for any amendment these may require, the Central Procurement Board, in charge of vetting bidding documents, receiving and evaluation of bids in respect of major contracts and the Independent Review Panel, set up under the Public Procurement Act 2006 (hereinafter referred to as the Act).
 - 3.2 Sections 43, 44 and 45 of the Act provide for Challenge and Review mechanism. Unsatisfied bidders shall follow procedures prescribed in Regulations 48, 49 and 50 of the Public Procurement Regulations 2008 to challenge procurement proceedings and award of procurement contracts or to file application for review at the Independent Review Panel, if so required.
 - 3.3 Challenges and Applications for Review shall be forwarded to the addresses indicated **in the BDS**.
- 4. Fraud and Corruption**
 - 4.1 It is the policy of the Government of the Republic of Mauritius to require Public Bodies, as well as bidders, suppliers, and contractors and their agents (whether declared or not),

personnel, subcontractors, sub-consultants, service providers and suppliers, observe the highest standard of ethics during the procurement and execution of contracts. ¹ In pursuance of this policy, the Government of the Republic of Mauritius:

- (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 a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;³
 - (iii) “collusive practice” is an arrangement between two or more parties⁴ 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 party⁵ or the property of the party to influence improperly the actions of a party;
 - (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede the Employer’s 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

¹ In this context, any action taken by a bidder, supplier, contractor, or any of its personnel, agents, sub-consultants, sub-contractors, service providers, suppliers and/or their employees to influence the procurement process or contract execution for undue advantage is improper.

² “Another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes Employer’s staff and employees of other organizations taking or reviewing procurement decisions.

³ “Party” refers to a public official; 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.

⁴ “Parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁵ “Party” refers to a participant in the procurement process or contract execution.

the investigation or from pursuing the investigation, or

- (bb) acts intended to materially impede the exercise of the Employer's inspection and audit rights provided for under sub-clause 4.2 below.
 - (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question; and
 - (c) will sanction a firm or an individual, at any time, in accordance with prevailing legislations, including by publicly declaring such firm or individual ineligible, for a stated period of time: (i) to be awarded a public contract; and (ii) to be a nominated^b sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a public contract.
- 4.2 In further pursuance of this policy, Bidders shall permit the Employer to inspect any accounts and records and other documents relating to the Bid submission and contract performance, and to have them audited by auditors appointed by the Employer.
- 4.3 Bidders, suppliers and Public officials shall also be aware of the provisions stated in sections 51 and 52 of the Public Procurement Act which can be consulted on the website of the Procurement Policy Office (PPO): ppo.govmu.org
- 4.4 The Employer commits itself to take all measures necessary to prevent fraud and corruption and ensures that none of its staff, personally or through his/her close relatives or through a third party, will in connection with the bid for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to. If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of Mauritius or if there be a substantive suspicion in this regard, he will inform the relevant authority(ies) and in addition can initiate disciplinary actions. Furthermore, such bid shall be rejected.

^b A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which either 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 are accounted for in the evaluation of the bidder's pre-qualification application or the bid; or (ii) appointed by the Employer.

5. Eligible Bidders

5.1 (a) In accordance with CIDB Act 2008, Contractors currently operating in the construction industry have the statutory obligation to be registered with the Construction Industry Development Board (CIDB) accordingly.

(b) Subject to paragraph (e), Foreign contractors, as defined in the CIDB Act, will have to apply for and obtain a Provisional Registration prior to bidding for this project. If the contract is awarded to the foreign contractor, the latter shall have to apply for and obtain a Temporary Registration before starting the project.

(c) Contractors, whether local or foreign, under an existing or intended joint venture, will be eligible as a joint venture if, in addition to their respective individual registration, they obtain a Provisional Registration for the joint venture prior to bidding for this project. If an existing or intended joint venture is awarded, the contract it shall have to apply for a Temporary Registration prior to starting the project.

(d) Sub-contractors undertaking works are also subject to registration with the CIDB as applicable to Contractors.

(e) Paragraph (b) shall not apply to Foreign contractors who have been carrying construction works in the construction industry during the 20 years preceding 01 March 2017; and where at least two-thirds, or such other percentage as may be prescribed, of the total number of its or his employees are as citizens of Mauritius.

(f) A Foreign contractor referred to in paragraph (e) shall, for the purpose of registration, make an application with the CIDB and obtain a valid registration certificate prior to bidding for this project.

(g) Bidders are strongly advised to consult the website of the CIDB cidb.govmu.org for further details concerning registration of contractors.

5.2 A Bidder may be a natural person, private entity, government-owned entity—subject to ITB 5.6—or any combination of such entities in the form of a joint venture or association (JVA) 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 or association:

(a) **unless otherwise specified in the BDS**, all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms, and

(b) the JVA shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JVA during the bidding process and,

in the event the JVA is awarded the Contract, during contract execution.

- 5.3 A Bidder, and all partners constituting the Bidder, may have the nationality of any country. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related Services.
- 5.4 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:
- (a) they have at least one controlling partner in common; or
 - (b) they receive or have received any direct or indirect subsidy from any of them; or
 - (c) they have the same legal representative for purposes of this bid; or
 - (d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
 - (e) a Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
 - (f) a Bidder participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid;
 - (g) a Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Employer as Engineer for the Contract implementation.
- 5.5 (a) A firm that has been sanctioned by the Government of the Republic of Mauritius in accordance with the above ITB 4.1 (c) shall be ineligible to be awarded a public contract, or benefit from a public contract during such period of time as determined by the Procurement Policy Office.

(b) A firm that is under a declaration of ineligibility by the Government of Mauritius in accordance with applicable laws at the date of the deadline for bid submission and thereafter shall be disqualified.

(c) Bids from contractors appearing on the ineligibility lists of African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank Group and World Bank Group shall be rejected.

Links for checking the ineligibility lists are available on the PPO's website: ppo.govmu.org

5.6 Government-owned entities in the Republic of Mauritius shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law. Also, they shall not be dependent agencies of the Employer.

5.7 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

5.8 Bidders shall be excluded if:

(h) as a matter of law or official regulation, the Republic of Mauritius prohibits commercial relations with that country; or

(i) 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 Republic of Mauritius prohibits any import of goods or contracting of Works or services from that country or any payments to persons or entities in that country.

5.9 This bidding is open only to prequalified Bidders, if it follows an open advertised prequalification.

6. Eligible Materials, Equipment, and Services

6.1 The materials, equipment and services to be supplied under the Contract may have their origin in any country. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

B. Contents of Bidding Documents

- 7. Sections of Bidding Documents** 7.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 9.
- 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
- PART 2 Works Requirements**
- Section V. Works Requirements
- PART 3 Conditions of Contract and Contract Forms**
- Section VI. General Conditions (GC)
 - Section VII. Particular Conditions (PC)
 - Section VIII. Annex to the Particular Conditions - Contract Forms
- 7.2 The Invitation for Bids issued by the Employer is not part of the Bidding Documents.
- 7.3 The Employer is not responsible for the completeness of the Bidding Documents and their addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.
- 7.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.
- 8. Clarification of Bidding Documents, Site Visit, Pre-Bid Meeting** 8.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Employer in writing at the Employer's address **indicated in the BDS** or raise his enquiries during the pre-bid meeting if provided for in accordance with ITB 8.4. 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 respond to such request at latest 7 days prior to the deadline set for submission of bids and forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 7.3, including a description of the inquiry but without identifying its source. Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Documents following the procedure under ITB 9 and ITB 23.2.

- 8.2 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.
 - 8.3 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.
 - 8.4 The Bidder's designated representative is invited to attend a pre-bid meeting, **if provided for in the BDS**. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
 - 8.5 The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Employer not later than one week before the meeting.
 - 8.6 Minutes of the pre-bid meeting, including the text of the questions raised, 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 Documents in accordance with ITB 7.3. Any modification to the Bidding Documents 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 9 and not through the minutes of the pre-bid meeting.
 - 8.7 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.
- 9. Amendment of Bidding Documents**
- 9.1 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Documents by issuing addenda.
 - 9.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 7.3.
 - 9.3 To give prospective 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 23.2.

C. Preparation of Bids

- 10. Cost of Bidding** 10.1 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.
- 11. Language of Bid** 11.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in English. 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 English, in which case, for purposes of interpretation of the Bid, such translation shall govern.
- 11.2 Notwithstanding the above, documents in French submitted with the bid may be accepted without translation.
- 12. Documents
Comprising the Bid** 12.1 The Bid shall comprise the following:
- (a) Bid Submission Form and Appendix to Bid
 - (b) completed schedules as required, including priced Bill of Quantities, in accordance with ITB 13 and 15;
 - (c) Bid Security, in accordance with ITB 20;
 - (d) alternative bids, if permissible, in accordance with ITB 14;
 - (e) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 21.2;
 - (f) documentary evidence in accordance with ITB 18 establishing the Bidder's continued qualified status or, if post-qualification applies, as indicated in accordance with ITB 5.8, the Bidder's qualifications to perform the contract if its Bid is accepted;
 - (g) Technical Proposal in accordance with ITB 17; and
 - (h) any other document required in the BDS.
- 12.2 In addition to the requirements under ITB 12.1, bids submitted by a JVA shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed agreement.
- 13. Bid Submission
Form and
Schedules** 13.1 The Bid Submission Form 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 21.2. All blank spaces shall be filled in with the information requested.

14. Alternative Bids

- 14.1 **Unless otherwise indicated in the BDS**, alternative bids shall not be considered.
- 14.2 When alternative times for completion are explicitly invited, a statement to that effect **will be included in the BDS**, as will the method of evaluating different times for completion.
- 14.3 Except as provided under ITB 14.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Documents must first price the Employer's design as described in the Bidding Documents 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 lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.
- 14.4 **When specified in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Works, and such parts **will be identified in the BDS**, as will the method for their evaluation, and described in Section V, Work's Requirements.

15. Bid Prices and Discounts

- 15.1 The prices and discounts quoted by the Bidder in the Bid Submission Form and in the Bill of Quantities shall conform to the requirements specified below.
- 15.2 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 will not be paid for by the Public body when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
- 15.3 The price to be quoted in the Bid Submission Form, in accordance with ITB 13.1, shall be the total price of the Bid, excluding any discounts offered.
- 15.4 The Bidder shall quote any unconditional discounts and the methodology for their application in the Bid Submission Form, in accordance with ITB 13.1.
- 15.5 **Unless otherwise provided in the BDS** and the 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.

15.6 If so indicated in ITB 1.1, bids are being invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 15.4, provided the bids for all lots (contracts) are submitted and opened at the same time.

15.7 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.

15.8 The bidder shall submit his bid price exclusive of VAT.

16. Currencies of Bid and Payment

16.1 The currency(ies) of the bid and the currency(ies) of payments shall be **as specified in the BDS**.

16.2 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 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.

17. Documents Comprising the Technical Proposal

17.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

18. Documents Establishing the Qualifications of the Bidder

18.1 In accordance with Section III, Evaluation and Qualification Criteria, to establish that the Bidder continues to meet the criteria used at the time of prequalification, the Bidder shall provide in the corresponding information sheets included in Section IV, Bidding Forms, updated information on any assessed aspect that changed from that time, or if post-qualification applies as indicated in accordance with ITB 5.8, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.

18.2 If a margin of preference applies as indicated in accordance with ITB 34.1, domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility indicated in accordance with ITB 34.1.

19. Period of Validity of Bids

19.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Employer in accordance with ITB 23.1. A bid valid for a shorter period shall be rejected by the Employer as non responsive.

19.2 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 20, it shall also be extended for thirty (30) 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 19.3.

19.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, 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**.
- (b) In the case of adjustable price contracts, to determine the Contract price, the fixed portion of the bid price shall be adjusted by the factor **specified in the BDS**.
- (c) In any case, bid evaluation shall be based on the bid price without taking into consideration the applicable correction from those indicated above.

20. Bid Security

20.1 The Bidder shall furnish as part of its bid, either a Bid-Securing Declaration or a bid security **as specified in the BDS**, in original form and, in the case of a bid security, in the amount and currency **specified in the BDS**.

20.2 In case a Bid Securing Declaration is used, it shall be in the form of a subscription in the Bid Submission Form as an undertaking on the part of the Bidder to fulfill its obligation in the same manner as applicable to the Bid Security.

20.3 If a bid security is specified as per ITB 20.1 it shall be in the form of an unconditional bank/insurance guarantee issued by a reputable overseas bank from an eligible country or any commercial bank/insurance company operating in Mauritius.

The bid security shall be submitted using the Bid Security Form included in Section IV, Bidding Forms. The bid security shall be valid for thirty (30) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 19.2.

- 20.4 If a bid security is specified pursuant to ITB 20.1, any bid not accompanied by an enforceable and compliant bid security or a subscription in the Bid Securing declaration, as applicable, shall be rejected by the Employer as non responsive.
- 20.5 If a bid security is specified pursuant to ITB 20.1, the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 42.
- 20.6 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.
- 20.6 The bid security may be forfeited or the Bid Securing declaration executed:
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form or
 - (b) refuses to accept a correction of an error appearing on the face of the Bid, or
 - (c) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 41; or
 - (ii) furnish a performance security in accordance with ITB 42.
- 20.7 The bid security or the Bid-Securing Declaration of a JVA shall be in the name of the JVA that submits the bid. If the JVA has not been legally constituted into a legally enforceable JVA at the time of bidding, the bid security or the Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent referred to in ITB 5.2.
- 20.8 If a bid security is **not required in the BDS** pursuant to ITB 20.1, and
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form Form, except as provided in ITB 18.2, or

- (b) if the successful Bidder fails to sign the Contract in accordance with ITB 40; or furnish a performance security in accordance with ITB 41;

the Employer may declare the Bidder disqualified to be awarded a contract by the Employer for a period of time to be determined by the Procurement Policy Office following a proposal for disqualification by the Employer.

21. Format and Signing of Bid

- 21.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 12 and clearly mark it "ORIGINAL." Alternative bids, if permitted in accordance with ITB 14, 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.
- 21.2 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, **as specified in the BDS**. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.
- 21.3 A bid submitted by a JVA shall comply with the following requirements:
 - (a) Unless not required in accordance with ITB 5.2 (a), be signed so as to be legally binding on all partners and
 - (b) Include the Representatives's authorization referred to in ITB 5.2 (b), consisting of a power of attorney signed by those legally authorized to sign on behalf of the JVA.
- 21.4 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

22. Sealing and Marking of Bids

- 22.1 The Bidder shall enclose the original and all copies of the bid, including alternative bids, if permitted in accordance with ITB 14, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL", "ALTERNATIVE" and "COPY." These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 22.2 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 23.1;
 - (c) bear the specific identification of this bidding process indicated in the BDS 1.1; and

- (d) bear a warning not to open before the time and date for bid opening.
- 22.3 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.
- 23. Deadline for Submission of Bids**
- 23.1 Bids must be received by the Employer at the address and no later than the date and time **indicated 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**.
- 23.2 The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB 9, 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.
- 24. Late Bids**
- 24.1 The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 23. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
- 25. Withdrawal, Substitution, and Modification of Bids**
- 25.1 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 21.2, (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 21 and ITB 22 (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 23.
- 25.2 Bids requested to be withdrawn in accordance with ITB 25.1 shall be returned unopened to the Bidders.
- 25.3 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 Bid Submission Form or any extension thereof.

26. Bid Opening

- 26.1 The Employer shall open the bids in the presence of Bidders` designated representatives who choose to attend at the address, date and time **specified in the BDS**. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 23.1, shall be **as specified in the BDS**.
- 26.2 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. 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. 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. Only bids that are opened and read out at bid opening shall be considered further.
- 26.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the Bid Price(s), including any discounts and alternative offers; the presence or absence of a bid security/subscription to Bid Securing Declaration as applicable; and any other details as the Employer may consider appropriate. Only discounts and alternative offers read out at bid opening shall be considered for evaluation. **If so requested by the Employer in the BDS**, the Bid Submission Form and the Bill of Quantities are to be initialed by representatives of the Employer attending bid opening in the manner indicated in the BDS. No bid shall be rejected at bid opening except for late bids, in accordance with ITB 24.1.
- 26.4 The Employer shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per lot if applicable, including any discounts and alternative offers; the presence or absence of a bid security/subscription or Bid Securing Declaration as applicable. 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.

E. Evaluation and Comparison of Bids

- 27. Confidentiality**
- 27.1 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 such process until information on Contract award is communicated to all Bidders.
- 27.2 Any attempt 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.
- 28. Clarification of Bids**
- 28.1 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. 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 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 32.
- 28.2 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.
- 29. Deviations, Reservations, and Omissions**
- 29.1 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.
- 30. Determination of Responsiveness**
- 30.1 The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB12.
- 30.2 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.

30.3 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 17, Technical Proposal, in particular, to confirm that all requirements of Section V, Works Requirements have been met without any material deviation, reservation or omission.

30.4 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.

31. Non-material non-conformities

31.1 Provided that a bid is substantially responsive, the Employer may waive any non-conformities in the bid that do not constitute a material deviation, reservation or omission.

31.2 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 non-material non-conformities in the bid related to documentation requirements. Requesting information or documentation on such non-conformities 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.

31.3 Provided that a bid is substantially responsive, the Employer shall rectify quantifiable non-material non-conformities 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. The adjustment shall be made using the method indicated in Section III, Evaluation and Qualification Criteria.

32. Correction of Arithmetical Errors

32.1 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.

33. Conversion to Single Currency

33.1 For evaluation and comparison purposes, the currency(ies) of the bid shall be converted into a single currency **as specified in the BDS**. For the purpose of evaluating and comparing bids, when bid prices are expressed in many currencies, the bid prices of all bids shall be converted to a single currency, **as specified in the BDS**, and according to the exchange rates prevalent on the day of opening of the bids as obtained from the Central Bank of Mauritius or from internationally reputed news media.

34. Margin of Preference

34.1 **Unless otherwise specified in the BDS**, Margin of Preference shall not apply.

35. Evaluation of Bids

35.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

35.2 To evaluate a bid, the Employer shall consider the following:

- (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 32.1;
- (c) price adjustment due to discounts offered in accordance with ITB 15.3;
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 33;
- (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 31.3;
- (f) the evaluation factors indicated in 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 these Bidding Documents allows Bidders to quote separate prices for different lots (contracts), and the award to a single Bidder of multiple lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Bid Submission Form Form, is specified in Section III, Evaluation and Qualification Criteria.
- 35.5 If the bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
- 36. Comparison of Bids** 36.1 The Employer shall compare all substantially responsive bids in accordance with ITB 35.2 to determine the lowest evaluated bid.
- 37. Qualification of the Bidder** 37.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid either continues to meet (if prequalification applies) or meets (if postqualification applies) the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 37.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 18.1.
- 37.3 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 next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.
- 38. Employer's Right to Accept Any Bid, and to Reject Any or All Bids** 38.1 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.

F. Award of Contract

- 39. Award Criteria** 39.1 Subject to ITB 38.1, the Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
- 40. Notification of Award** 40.1 Prior to the expiration of the period of bid validity, the Employer shall, for contract amount above the prescribed threshold, notify the selected bidder of the proposed award and accordingly notify unsuccessful bidders. Subject to Challenge and Appeal the Employer shall notify the selected Bidder, in writing, by a Letter of Acceptance for award of contract. The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”) and the requirement for the Contractor to remedy any defects therein as prescribed by the Contract. Within seven days from the issue of Letter of Acceptance, the Employer shall publish on the Public Procurement Portal (publicprocurement.govmu.org) and the Employer’s website, the results of the Bidding Process identifying the bid and lot numbers and the following information:
- (i) name of the successful Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded; and
 - (ii) an executive summary of the Bid Evaluation Report.
- 40.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 41. Signing of Contract** 41.1 Promptly upon notification, the Employer shall send the successful Bidder the Contract Agreement.
- 41.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.
- 42. Performance Security** 42.1 Within twenty-eight (28) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the Performance Security in accordance with the General Conditions of Contract, subject to ITB 35.5, using for that purpose the Performance Security as per the format contained in Section VIII, Annex to the Particular Conditions - Contract Forms. The Performance Security shall be in the form of a Bank/Insurance Guarantee issued through a commercial bank or insurance company operating in Mauritius.

42.2 Failure of the successful Bidder to submit the above-mentioned 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 next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.

**Preference
Security**

42.3 The successful bidder having benefitted from a Margin of Preference shall provide a Preference Security, **as specified in the BDS**. The amount for the Preference Security shall be the difference between the price quoted by the selected bidder and that of the lowest evaluated bid which would have been selected for award of contract, if the said Margin of Preference was not applicable.

43. Debriefing

43.1 The Employer shall promptly attend to all requests for debriefing for the contract, made in writing, and within 30 days from the date of the publication of the award or date the unsuccessful bidders are informed about the award, whichever is the case, by following regulation 9 of the Public Procurement Regulations 2008 as amended

Section II. Bid Data Sheet

A. Introduction	
ITB 1.1	The number of the Invitation for Bids is: LM/CD/OC23/35
ITB 1.1	The Employer is: LANDSCOPE (MAURITIUS) LTD
ITB 1.1	Delete the following phrase from Line 5 “ <i>Section V, Works Requirements</i> ” and replace same by “ <i>Part 3, Employer’s Requirements</i> ”.
ITB 1.1	<p>The name of the OAB is: <u>INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH HUB AT COTE D’OR</u></p> <p>The identification number of the OAB is: LM/CD/OC23/35</p> <p>The number and identification of Lots comprising this OAB is two (2) as described below:</p> <p>Lot 1 – Offsite Works</p> <p>Lot 2 – Onsite Works</p> <p>The Scope of Works comprises, <i>interalia</i>, of the following:</p> <p>(i) <u>Lot 1 - Offsite Works</u></p> <ul style="list-style-type: none"> • Construction of about 0.5 km of dual carriageway road with each carriageway consisting of a 7 wide asphalted carriageway, 1.5m wide paved shoulders, central verge including 3.5m wide landscaped area, 2m wide cycle lane and 1.5m wide concrete sidewalk on both sides of the carriageway • Construction of 3 nos. roundabouts • Construction of a grade separated interchange including dual carriageway reinforced concrete bridge, sliplanes across the Motorway M3 to connect new development to the M3 motorway • Construction/Upgrading of existing roundabout at the Cote D’Or National Sports Complex including realignment of entry and exit sliplanes to the Motorway M3 within the interchange • Construction of cross drainage structures, reinforced concrete culverts and road side drains complete with outlet structures; • Supply, laying and commissioning of approx 6 km of rising main to be connected to existing WMA manhole and construction of a new sewerage lifting station with associated M&E works. • Construction of 2 nos reinforced concrete service reservoirs and pumping station with associated M&E works within the compound. • Construction about 1.6 km of offsite telecommunications network including provisions for telecom ducts, chambers and cabinets. • Supply and installation of street lighting poles and lanterns complete and associated electrical works; • Supply, installation, testing and commissioning of electrical and mechanical installation including associated civil/builders/s works for a borehole pumping station works at location to be provided by the Employer. (The Employer reserves the right not to proceed with this item of work). • Miscellaneous road equipment including road signs, road markings and associated works • Relocation of existing utility services; • Other miscellaneous Works as described in these bidding documents.

	<p>(ii) Lot 2 - Onsite Works</p> <ul style="list-style-type: none"> • Construction of 2 nos. new roundabouts • Construction of about 1.7 km of 7.0m wide single carriageway, 2.5m wide asphalt parking with a 2m wide cycle lane and 1.5m wide concrete sidewalk on both sides of the road. • Construction of about 1 km of 23m wide walkway including 4.5m wide shared walkway (active zone), 5m wide walkway/seating (passive zone), 4.5m wide shared walkway (active zone), landscaping and associated works. • Construction of reinforced concrete culverts and roadside drainage network including catchpits, swales, reinforced concrete drains, masonry drains, desilting basins, amongst other. • Supply and installation of street lighting poles and lanterns complete and associated electrical works; • Miscellaneous road equipment, including road signs, road markings and associated works • Laying of about 2.6 km of DI water pipelines and associated works. • About 2.6 km of telecommunications network including provisions for telecom ducts, chambers and cabinets. • About 2.6 km of electricity network including provisions for HV cables, ring main units, electricity ducts and drawpits. • Laying of about 2.4 km of gravity sewer pipelines including manholes and associated works. • Other miscellaneous Works as described in these bidding documents. <p>The whole of the Works shall be completed within a period of Five Hundred and Forty (540) calendar days from the date of issue of the Engineer's Order to Commence.</p>
ITB 3.1	Not Applicable
ITB 3.2	Not Applicable
ITB 3.3	Not Applicable
ITB 5.2 (a)	The individuals or firms in a joint venture or association <i>shall be</i> jointly and severally liable.
B. Bidding Documents	
ITB 7.1	<p>Delete Sub-Clause 7.1 and replace by the following: The Bidding Documents consist of Parts 1, 2 and 3 which include all the Sections indicated below and should be read in conjunction with any Addenda issued in accordance with ITB 9.</p> <p><u>VOLUME 1 OF 4</u></p> <p>PART 1 Bidding Procedures</p> <ul style="list-style-type: none"> • Section I – Instructions to Bidders (ITB) • Section II – Bid Data Sheet (BDS) • Section III – Evaluation and Qualification Criteria • Section IV – Bidding Forms <p>PART 2 Conditions of Contract and Contract</p> <ul style="list-style-type: none"> • Section V – General Conditions (GC) • Section VI – Particular Conditions (PC) • Section VII – Contract Forms

	<p><u>VOLUME 2 OF 4</u></p> <p>PART 3 Employer's Requirements</p> <ul style="list-style-type: none"> • Technical Specifications <p><u>VOLUME 3 OF 4</u></p> <p>PART 3 Employer's Requirements</p> <ul style="list-style-type: none"> • Tender Drawings <p><u>VOLUME 3 OF 4</u></p> <p>PART 3 Employer's Requirements</p> <ul style="list-style-type: none"> • Supplementary Information - Factual Report on Geotechnical Investigations
ITB 8.1	<p>For <u>clarification purposes</u> only, the Employer's address is:</p> <p>The Chief Executive Officer, Landscape (Mauritius) Ltd, Wing A, 7th Floor, Shri Atal Bihari Vajpayee Tower, Ebene Mauritius Tel: +230 467 6900 Fax: +230 467 6907</p> <p>Email: procurement@landscopemauritius.com</p> <p>Request(s) for clarification should be received no later than 14 (fourteen) days prior to the deadline for submission of bids (i.e. Clarifications should be received by <u>04th January 2024</u>). The Employer shall respond to such request(s) at latest 7 (seven) days prior to the deadline set for submission of bids (i.e. The Employer shall respond by <u>11th January 2024</u>).</p>
ITB 8.4	<p>A Pre-Bid meeting <i>shall</i> take place at the following date, time and place:</p> <p>Date: Tuesday, 28th November 2023 Time: 09.30 hrs (Mauritian Time) Place: Landscape Mauritius Ltd 1st Floor, Boardroom Shri Atal Bihari Vajpayee Tower, Ebene, Mauritius</p> <p>A site visit conducted by the Employer <i>shall be</i> organized on the same day.</p>
ITB 9.3	Delete the word "... <i>should</i> ..." in Line 3 and replace by "... <i>may</i> ...".
C. Preparation of Bids	
ITB 12.1 (b)	<p>The Bidder shall submit with its bid the following additional documents:</p> <p>(i) The following additional schedules</p> <p>Tender Schedule A – Schedule of Quantities (Bill of Quantities) Tender Schedule B – Estimated Monthly Cash Flow Tender Schedule C – Contract Price Tender Schedule D – Contractor's Equipment Tender Schedule E – Key Personnel Tender Schedule F – Sub-Contractors Tender Schedule G – Supervision and Labour Tender Schedule H – Joint Venture Details Tender Schedule I – Method Statements</p>

	<p>Tender Schedule J – Contract Programme</p> <p>Tender Schedule K – Durations of BOQ Portions of The Work</p> <p>Tender Schedule L – Materials</p> <p>Tender Schedule M – Miscellaneous Policy Statements</p> <p>Tender Schedule N – Laboratory Equipment</p> <p>Tender Schedule O – Breakdown of Major Rates</p> <p>Tender Schedule P – Certificate of Site Inspection</p> <p>Tender Schedule Q – Schedule for Payment for Plant and Materials</p> <p>(ii) CIDB Certificate, Forms EQU, ELI-1, ELI-2, CON-2, FIN-1, FIN-3, FIN-4, EXP 2(a) and EXP 2(b) as specified in Section III. Evaluation and Qualification Criteria</p>
ITB 12.1 (h)	<p>The Bidder shall submit with its bid the following additional documents: <i>Documentary evidence that he has access to the line of credits or liquid assets net of other contractual commitments specified.</i></p>
ITB 14.1	Alternative bids <i>shall not be</i> permitted.
ITB 14.2	<p>Alternative times for completion <i>shall not be</i> permitted.</p> <p>If alternative times for completion are permitted, the evaluation method will be as specified in Section III, Evaluation and Qualification Criteria.</p>
ITB 14.4	<p>Alternative technical solutions shall be permitted for the following parts of the Works: <i>Bridge, Service Reservoir and Pumping Station</i></p> <p>If alternative technical solutions are permitted, the evaluation method will be as specified in Section III, Evaluation and Qualification Criteria.</p> <p>Delete the phrase “<i>...Section V, Works Requirements.</i>” and replace by “<i>...Part 3, Employer’s Requirements</i>”.</p> <p>For any alternative technical solution proposed, the Contractor shall submit a Professional Indemnity Insurance.</p>
ITB 15.5	The prices quoted by the bidder shall be <i>shall not be</i> subject to adjustment during the performance of the Contract.
ITB 15.6	Not Applicable
ITB 16.1	The currency of the bid and currency of payment shall be in Mauritian Rupees
ITB 19.1	The bid validity period shall be One Hundred and Fifty (150) days , i.e. up till 14th June 2024 , with the Bid Submission Date (17th January 2024) being counted as Day 1.
ITB 19.3 (a)	Not Applicable
ITB 19.3 (b)	Not Applicable
ITB 20.1	The Bidder shall furnish a Bid Security in the amount of MUR 4,000,000.00 (Mauritian Rupees Four Million Thousand Only) and shall be valid for a period of 180 days from the date of submission of bids, i.e. up till 14th July 2024 .
ITB 20.3	The Bid Security shall be in the form of an unconditional bank gurantee only .
ITB 21.1	In addition to the original of the bid, the number of copies is: ONE (1) HARDCOPY & ONE (1) SOFTCOPY
ITB 21.2	This authorization shall consist of written confirmation and shall be attached to the bid. It may include a delegation of power by resolution of the Board of a company or from the CEO, himself holding power from the Board or through a Power of Attorney. The name and position held by each person signing the authorization must be typed or printed below the signature.

	<p>In the case of Bids submitted by an existing or intended JV an undertaking signed by all parties</p> <ol style="list-style-type: none"> i. stating that all parties shall be jointly and severally liable, if so required in accordance with ITB 5.1, and ii. nominating a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution. <p><i>Note: The Power of Attorney or other written authorization to sign may be for a determined period or limited to a specific purpose.</i></p>
D. Submission and Opening of Bids	
ITB 23.1	<p>For bid submission purposes only, the Employer’s address is :</p> <p>Attention: The Chief Executive Officer Address: Landscape (Mauritius) Ltd Wing A, 7th Floor, Shri Atal Bihari Vajpayee Tower, Ebene Cyber City Ebene, Mauritius</p> <p>The deadline for bid submission is: Date: Wednesday, 17th January 2024 Time: 14:00 hrs (Mauritian Time) Bidders shall not have the option of submitting their bids electronically.</p>
ITB 26.1	<p>The Bid Opening shall take place at:</p> <p>Address: Landscape (Mauritius) Ltd Wing A, 7th Floor, Shri Atal Bihari Vajpayee Tower, Ebene Cybercity Ebene, Mauritius</p> <p>Date: Wednesday, 17th January 2024 Time: 14:30 hrs (Mauritian Time) Electronic bid opening procedures are not applicable.</p>
ITB 26.3	<p>The Bid Submission Form and Bill of Quantities <i>shall not</i> be initialed by representatives of the Employer attending Bid opening.</p>
E. Evaluation, and Comparison of Bids	
ITB 33.1	Not Applicable
ITB 34.1	Not Applicable
F. Award of Contract	
ITB 40.1	<p>Delete Sub-Clause 40.1 and replace by the following:</p> <p>Prior to expiration of the bid validity prescribed by the Employer, the Employer shall notify the successful bidder by fax, confirmed by registered letter, that its bid has been accepted. This letter (hereinafter and in the Conditions of Contract called the “Letter of Acceptance”) shall specify the sum which the Employer shall pay the Contractor in consideration of the execution and completion of the Works and the remedying of any defects therein by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called “Accepted Contract Amount”).</p>
ITB 42.1	Replace “... <i>Section VIII</i> ...” by “... <i>Section VII</i> ...”.

ITB 42.1	The Performance Security shall be in the form of a Bank Guarantee issued by a commercial bank only operating in Mauritius.
ITB 42.3	Not Applicable
ITB 43	Not Applicable

Section III. Evaluation and Qualification Criteria

This Section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders. In accordance with ITB 35 and ITB 37, no other factors, methods or criteria shall be used. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

1. Evaluation

In addition to the criteria listed in ITB 35.2 (a) – (f) the following criteria shall apply:

1.1 Assessment of adequacy of Technical Proposal with Requirements

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilise 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 the Tender Schedules and the Employer's Requirements. The Bidder's Technical Proposal shall also be assessed on the suitability and adequacy of proposed methods for accommodation of traffic on parts of the Works that interface with existing roads and methods to construct the Works with measures that do not cause any complete closure of any public road.

Tender Schedule	Assessment Criteria	Remarks
Tender Schedule A – Bill of Quantities	Not evaluated for the purpose of the Technical Proposal	Will be evaluated for the purpose of Clause 35.2 of the ITB
Tender Schedule B – Estimated Monthly Cash Flow	Not evaluated for the purpose of the Technical Proposal	May be used for the purpose of Clause 35.5 of the ITB
Tender Schedule D – Contractor's Equipment	The bidder's list of equipment demonstrates the bidder's capacity and commitment to mobilise (through ownership or otherwise) of the required number of equipment and with the output criteria specified. Pass / Fail	
Tender Schedule E – Key and Other Personnel	The bidder's project team and organisational structure demonstrate the capacity of the bidder's core team to execute the works and should include all essential roles filled with people of the required experience. CV's should be used to verify the expertise and experience of the bidder's personnel if required. Pass / Fail	Months worked in a full-time position will be used for computation of equivalent years of experience with 12 months being equivalent to one year.
Tender Schedule F – Subcontractors	Not evaluated for the purpose of the Technical Proposal	
Tender Schedule G – Supervision and Labour	Not evaluated for the purpose of the Technical Proposal	May be used for the purpose of Clause 35.5 of the ITB
Tender Schedule H – Joint Venture Details	Not evaluated for the purpose of the Technical Proposal	
Schedule I – Method Statements	The bidder's proposed method statement demonstrates the bidder's capacity to plan and execute the works in a professional and properly	

Tender Schedule	Assessment Criteria	Remarks
	<p>staged manner all in accordance with Good Industry Practice.</p> <p>The bidder shall specifically demonstrate his ability to:</p> <ol style="list-style-type: none"> 1. Open up haul roads within the site 2. implement a management plan of borrow areas including testing and management of environmental measures 3. carry out earthworks in a sustainable manner and make specific reference to volumes of cut and fill and demonstrate via haul diagrams movement of earth from cut to fill sections 4. demonstrate his understanding of the material properties of the materials from cut sections and demonstrate how this material will be re-used for fill with due consideration to adjusting and maintaining an optimal moisture content including protection measures of stockpiles 5. demonstrate how the works will be constructed with no interruption to existing traffic flows including construction of diversions and managements of traffic flows 6. bridge construction methods including road diversions, construction of piles and foundations in waterlogged or under water conditions and accesses maintenance <p>Pass / Fail</p>	
Tender Schedule J – Schedule of programme	<p>The bidder’s preliminary programme demonstrates the bidder’s capacity to plan and programme the works within timelines that are consistent with milestones dates and the project requirements.</p> <p>Pass / Fail</p>	May also be used for the purpose of Clause 35.5 of the ITB
Tender Schedule M – Miscellaneous Policy Statements	<p>The bidder’s quality or implementation manual and preliminary plan demonstrate the bidder’s capacity to consistently be able to construct works to the required quality.</p>	

Tender Schedule	Assessment Criteria	Remarks
	<p>The bidder's health and safety manual and preliminary plan demonstrate the bidder's capacity to consistently construct the works in a suitably safe manner.</p> <p>The bidder's environmental manual and plan demonstrates the bidder's capacity to be able to construct works in an environmentally sound manner.</p> <p>Pass / Fail</p>	
Tender Schedule N – Laboratory Equipment	<p>The bidder's list of laboratory equipment demonstrates the bidder's capacity to deploy the required number equipment specified.</p> <p>Pass / Fail</p>	
Tender Schedule O – Breakdown of Major Rates	Not evaluated for the purpose of the Technical Proposal	May be used for the purpose of Clause 35.5 of the ITB
Tender Schedule P – Site Inspection Schedule	<p>The bidder confirms he has carried out his own due diligence of the site conditions and taken cognizance of the site investigations provided by the Employer and agree to the limitations inherent in these investigations</p> <p>Pass / Fail</p>	
Tender Schedule Q – Schedule for Payment for Plant and Materials	Not evaluated for the purpose of the Technical Proposal	May be used for the purpose of Clause 35.5 of the ITB

1.2 Multiple Contracts

Not Applicable

1.3 Alternative Completion Times

Not Applicable

1.4 Technical alternatives

Alternative Bids may be considered by the Employer at his sole discretion and will not disclose or motivate any reason for the rejection, or otherwise, of any alternative bid. The Employer shall not incur any liability towards any bidder if any proposed alternative is not considered.

Bidders wishing to offer a technical alternative shall, in all cases, submit a priced conforming bid fully compliant to the Employer's Requirements and meeting the responsiveness requirements as detailed in Clause 30 of the ITB. Any alternative submitted without a fully compliant bid conforming to the Employer's Requirements shall be considered as non-responsive and rejected outright.

Only the Technical Alternative of the lowest priced responsive bidder meeting the award criteria of Sub-Clause 39.1 of the ITB shall be evaluated. The alternative bid shall be submitted together with all relevant calculations, motivations, technical documentations and detailed breakdown of pricing for the evaluation of the said alternative bid.

The technical evaluation of the alternative(s) will be based on checking compliance on a pass/fail basis to check adherence in full of the bidder's alternative to following criteria:

- Design to comply with:
 - British standards BS EN 1990- Eurocode 0 and annexes: Basis of structural design
 - British standards BS EN 1991- Eurocode 1 Part 1 and 2 and annexes: Actions on structures
 - British standards BS EN 1992- Eurocode 2 Part 1 and 2 and annexes: Design of concrete structures
 - British standards BS EN 1997-Eurocode 7: Geotechnical design and its norms of application NF94-261
 - BS 8110: Part 1: 1997 – Code of practice for design and construction.
 - BS 6399: Part 1: 1996-Code of practice for dead and imposed loads
 - BS 8007: 1987 – Design of concrete structures for retaining aqueous liquids
- Functional requirements to be similar to the Employer's requirements for:
 - Widths of traffic lanes;
 - Widths of pedestrian and cycle lanes;
 - Hydraulic evacuation of surface run off;
 - Illumination levels
- Consider Good Industry Practice and all applicable Laws of Mauritius so that when completed, the said alternative proposal(s) shall be fit for the purpose for which the Works are intended as defined, or reasonably inferred from, the Contract
- Concrete Reservoir:

The materials to be incorporated in the project shall be appropriate for use in potable water storage and distribution systems. The following materials are prohibited and shall not be included in any components of the works:

 - Asbestos and materials containing asbestos;
 - Polychlorinated biphenyls (PCBs) and materials containing PCBs;
 - Ceramic fibres;
 - Formaldehyde insulation;
 - Halon;
 - Lead based paints;
 - Chlorofluorohydrocarbons (CFCs);
 - Radioactive materials.

The British Standard Code of Practice BS 8007 shall be used as guidance for the design of the concrete reservoir and shall be based on a limit state philosophy as embodied in BS 8110. Code of Practice BS 8007 recommends modifications to the

detailed Limit State design requirements of BS 8110, with the principle features being:

- Factor of safety for loads should be as per Table 2.1 of BS 8110-1:1997.
- Concrete grade: 40 MPa
- Exposure conditions classification of internal members and both faces of members exposed to liquid on at least one face is severe, giving minimum cover of 40 mm.
- Maximum crack width limited to = 0.1 mm.
- At least 75mm blinding concrete below ground slab.
- Appropriate water bars to be provided at all construction joints. No. of construction joints to be as per the Contractor's intended methodology but with however a maximum 3 horizontal joints on the vertical wall of the reservoir
- Shape of reservoir to be decided by bidder and maximum plot coverage to be as per the tender drawing
- Minimum freeboard requirements

The Technical Alternative by the Contractor at tender stage should be accompanied by a Design Brief duly signed by a Civil / Structural Engineer registered with the Council of Registered Professional Engineers of Mauritius. The Design Brief shall include:

- Design data being used
- Design codes
- Preliminary sizing of structural members
- Layout plans and elevations of proposed arrangements

Should the technical alternative be retained and adopted, the successful bidder shall submit to the Employer detailed construction drawings and reviewed design calculations within Two (2) weeks before date of commencement of constructions works.

1.5 Margin of Preference
Not Applicable.

2. **Qualification**

Pursuant to ITB 5.1, Bids will be considered from Contractors who are duly registered with the CIDB under the grade and specialization that cover adequately the size and type of works related to the project.

In case the works requires certain specialization not covered adequately under the registration of CIDB, those field of specialization shall be defined by the Employer in Section III – Sub Factor 2.4.2 (a) and Specific Experience in key activities in Section III – Sub Factor 2.4.2 (b) which the Bidder has to meet as qualification.

<i>Factor</i>	2.1 ELIGIBILITY					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
All partners combined			Each partner	At least one partner		
2.1.1 Nationality	Nationality in accordance with ITB 5.3.	Must meet requirement	Existing or intended JVA must meet requirement	Must meet requirement	N / A	Form ELI-1 and 2, with attachments
2.1.2 Conflict of Interest	No conflicts of interests as described in ITB 5.4.	Must meet requirement	Existing or intended JVA must meet requirement	Must meet requirement	N / A	Bid Submission Form
2.1.3 Government Owned Entity	Compliance with conditions of ITB 5.6	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Form ELI-1 and 2, with attachments
2.1.4 Ineligibility based on a United Nations resolution or Mauritian law	Not having been excluded as a result of the Mauritian laws or official regulations, or by an act of compliance with UN Security Council resolution, in accordance with ITB 5.8	Must meet requirement	Existing JVA must meet requirement	Must meet requirement	N / A	Bid Submission Form

Factor	2.2 HISTORICAL CONTRACT NON-PERFORMANCE					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
All partners combined			Each partner	At least one partner		
<p>2.2.1 History of non-performing contracts</p>	<p>Non-performance of a contract did not occur within the last FIVE (5) years prior to the deadline for application submission, based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one 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.</p>	<p>Must meet requirement by itself or as partner to past or existing JVA</p>	<p>N / A</p>	<p>Must meet requirement by itself or as partner to past or existing JVA</p>	<p>N / A</p>	<p>Form CON - 2</p>

Factor	2.2 HISTORICAL CONTRACT NON-PERFORMANCE					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
				All partners combined	Each partner	At least one partner
2.2.2 Pending Litigation	All pending litigation against the bidder shall in total not represent more than TEN percent (10%) of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement by itself or as partner to past or existing JVA	N / A	Must meet requirement by itself or as partner to past or existing JVA	N / A	Form CON – 2

Factor	2.3 FINANCIAL SITUATION					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
2.3.1 Historical Financial Performance ⁶	Submission of audited balance sheets or if not required by the law of the bidder's country, other financial statements acceptable to the Employer, for the last THREE (3) years to demonstrate the current soundness of the bidder's financial position and its prospective long term profitability. Bidders shall demonstrate having earned profit after tax in at least one during the past three (3) years .		Must meet requirement	All partners combined	Each partner	At least one partner	Form FIN –1 with attachments
			N / A	Must meet requirement	N / A	

⁶ (a) Local bidders who are not required to file Audited Accounts should submit copies of Financial Statements filed at the Registrar of Companies prior to deadline set for the submission of bids.

Factor	2.3 FINANCIAL SITUATION					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
				All partners combined	Each partner	At least one partner
	applicable. Documentary evidence may comprise but not limited to: 1. Bank Certificate 2. Certificate from Auditors 3. Certificate from a Registered Professional Accountant					

Factor	2.4 EXPERIENCE					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
				All partners combined	Each partner	At least one partner
2.4.1 General Experience	<p>Contractors have to be registered with the Construction Industry Development Board (CIDB) under the grade, classes and areas of specialization indicated hereunder:</p> <p>Grade: The contractor should be duly registered with the CIDB under the grade that would allow him to perform the value of works for which he is submitting his bid</p> <p>Classes of works of contractors: Civil Engineering</p>	Must meet requirement	Must meet requirement	N/A	N/A	Valid registration certificate with the CIDB
2.4.2 (a) Specific Experience	<p>Participation as contractor, management contractor, or subcontractor, in at least ONE (1) contract within the last TEN (10) years, each with a value of at least MAURITIAN RUPEES TWO HUNDRED AND FIFTY MILLION (MUR 250 MILLION) that have been successfully and substantially completed and that are similar to the proposed Works. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in the Employer's Requirements and Scope of Works.</p>	Must meet requirement	Must meet requirements for all characteristics	N / A	Must meet requirement for one characteristic	Form EXP 2(a)

Factor	2.4 EXPERIENCE					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture or Association			
2.4.2 (b) Specific Experience in Key activities	b) For the above or other contracts executed during the period stipulated in 2.4.2(a) above, a minimum experience in the following key activities: 1. One project comprising of a reinforced concrete bridge with a minimum of 2 spans, each having a length of at least 15m. 2. One project comprising of at least one pumping station. 3. One project comprising of at least the laying of at least 1 km of pressurised pipelines. 4. One project comprising of a concrete reinforced tank of at least 1000 cubic metres. 5. One project comprising of at least 1 km of civil works related to electrical power supply. 6. One project comprising of at least 1 km of civil works related to telecommunication networks. 7. One project comprising at least of 1 km of roadwork construction in flexible pavement including drainworks. 8. One project comprising at least of the laying of at least 1 km of sewer network in UPVC of minimum diameter 200mm.		Must meet requirements	All partners combined	Each partner	At least one partner	Form EXP-2(b)
		Must meet requirements				

Note:

Bidders may rely on the experience of Sub-Contractors for the purpose of Sub-Criteria 2.4.2 (b) (2), 2.4.2 (b) (3), 2.4.2 (b) (4) and 2.4.2 (b) (8). Such Sub-Contractors, if applicable, shall fulfill the eligibility requirements of Clause 5 of the Instructions to Bidders and shall provide a written undertaking that they shall enter into a contract with the Bidder for the parts of the Works for which the Bidder is relying on their past experience in the event the Bidder is awarded the contract by the Employer. The said Sub-Contractors shall, furthermore, fill in FORM EXP-2(b) to demonstrate such past experience for the purpose of bid submission.

2.5 Personnel

The Bidder shall provide details of the proposed personnel and their experience records using Tender Schedule E – Key and Other Personnel included in Section IV, Bidding Forms. **Key and other Personnel shall be deployed EXCLUSIVELY for the Works and the Contract and shall not be deployed on any other project concurrently.**

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Position	Total Work Experience (years)	In Similar Works Experience (years)	Specific Experience
1	Contracts Manager / Contractor's Representative possessing at least a degree in Civil Engineering from a recognized institution and registered with the Council of Registered Professional Engineers Mauritius.	15	10	Has undertaken at least two (2) projects consisting of a single or dual carriageway road of length exceeding 1 km and of contract value exceeding MUR 200 Million, at least one reinforced concrete bridge with a minimum of 2 spans with a minimum span length of 10m and infrastructural works for services.
2	Site Manager possessing at least a Diploma in Civil Engineering from a recognized institution or an acceptable equivalent qualification.	10	5	Has undertaken at least one (1) project consisting of a single or dual carriageway road of length exceeding 1 km and of contract value exceeding MUR 200 Million, at least one reinforced concrete bridge with a minimum of 2 spans with a minimum span length of 10m and infrastructural works for services.
3	Topographical Surveyor	10	5	Has undertaken at least two (2) projects consisting of a single or dual carriageway road of length exceeding 1 km and infrastructural works for services.
4	Site Engineer (Roads)	10	5	Has undertaken at least two (2) projects consisting of a single or dual carriageway road of length exceeding 1 km and infrastructure works for services.
5	Site Engineer (Bridge)	10	5	Has undertaken at least one (1) reinforced concrete bridge having a minimum of 2 spans with a minimum span length of 15m and infrastructure works for services.
6	Site Engineer (Utilities)	10	5	Has undertaken at least two (2) projects consisting of a single carriageway road of length

No.	Position	Total Work Experience (years)	In Similar Works Experience (years)	Specific Experience
				exceeding 1 km and infrastructure works for services of total length exceeding 1 km including services related to electric, sewer, potable water, telecommunication amongst others.
7	M&E Engineer	10	5	Has undertaken atleast one project consisting of high-tension electrical works including supply and laying of cables and installation and commissioning of electrical equipment.
8	Laboratory Technician	10	5	
9	Health and Safety Officer	10	5	
10	Environmental Manager	10	5	

NOTE: For the above criteria of years of experience in similar works, the number of years of experience should be in a full-time position employed by a Contractor and/or subcontractor carrying out the actual similar works. Experience during a period as consultants, advisors or personnel exercising in a consulting or in a position acting as Client/Employer representative will not be counted as eligible periods for the purpose of establishing experience. Years of experience means full time periods remunerated work in the position being demonstrated in the CV.

The Bidder must demonstrate/undertake that it will have the additional personnel for the positions that meet the following requirements for **each lot**:

No.	Position	Total Work Experience (years)	In Similar Works Experience (years)
1	Foreman (Earthworks)	10	5
2	Foreman (Asphalt)	10	5
3	Foreman (Concrete Works)	10	5
4	Foreman (Utilities)	10	5
5	Document Controller	10	5
6	Quality Assurance Manager	10	5

2.6 Equipment

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

No.	Equipment Type and Characteristics	Minimum Capacity	Minimum Number required
1	Asphalt Plant	80 T / hr	1
2	Concrete Mixer with weight batcher	1 m ³	1
3	Asphalt Paver	155 HP	1
4	Grader	185 HP	1
5	Bulldozer	300 HP	1
6	Loader	1 m ³	1
7	Pneumatic Roller	15 T	1
8	Vibrating Roller	12 T – 20 T	2
9	Excavator	175 HP	2
10	Bitumen Sprayer	6000 L	1
11	Backhoe Loader	10 T	2
12	Lorry with service platform	15 T	3
13	Tipper Lorry	10 T	10
14	Mobile Crane	30T	1
15	Piling Rig		1

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV.

Section IV. Bidding Forms

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Bid Submission Form

**INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH HUB AT COTE
D'OR
REF NO.: LM/CD/OC23/35**

Date: _____

To: **THE CHIEF EXECUTIVE OFFICER
LANDSCOPE (MAURITIUS) LTD
WING A, 7TH FLOOR,
SHRI ATAL BIHARI VAJPAYEE TOWER,
EBENE CYBER CITY
EBENE**

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Document, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 9;
- (b) We offer to execute in conformity with the Bidding Document the following Works: _____

_____;
- (c) The total price of our Bid, excluding VAT and any discounts offered in item (d) below is: _____;
- (d) The discounts offered and the methodology for their application are: _____

_____;
- (e) Our bid shall be valid for a period of **one hundred and fifty (150)** days from the date fixed for the bid submission deadline in accordance with the Bidding Document and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) We hereby confirm that we have read and understood the content of the Bid Securing Bid Security attached herewith and subscribe fully to the terms and conditions contained therein, if required. We understand that non-compliance to the conditions mentioned therein may lead to disqualification.
- (g) If our bid is accepted, we commit to obtain a Performance Security in accordance with the Bidding Document;
- (h) We, including any subcontractors or suppliers for any part of the contract, have or will have nationalities from eligible countries, in accordance with ITB 5.3;

- (i) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 5.4;
- (j) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 5.4, other than alternative offers submitted in accordance with ITB 14;
- (k) We, including any of our subcontractors or suppliers for any part of the contract, have not been declared ineligible by the Government of Mauritius, under the Mauritian laws or official regulations or by an act of compliance with a decision of the United Nations Security Council;
- (l) We are not a government owned entity/ We are a government owned entity but meet the requirements of ITB-5.6;⁷
- (m) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

- (o) We have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption as per the principles described hereunder, during the bidding process and contract execution:
- i. We shall not, directly or through any other person or firm, offer, promise or give to any of the Employer’s employees involved in the bidding process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - ii. We shall not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.
 - iii. We shall not use falsified documents, erroneous data or deliberately not disclose requested facts to obtain a benefit in a procurement proceeding.

We understand that transgression of the above is a serious offence and appropriate actions will be taken against such bidders.

⁷ Bidder to use as appropriate

- (p) We understand that this bid, together with your written acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (q) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name _____ In the capacity of _____

Signed _____

Duly authorized to sign the bid for and on behalf of _____

Dated on _____ day of _____,

Company

Seal: _____

Appendix to Bid

Bidders should fill in the remaining blank spaces. Bidders are required to **sign each page** of the Appendix to Bid. The Appendix to Bid of the successful Bidder shall be part of the Agreement

	Conditions of Contract Clause	
Parties and Persons	1.1.2.2	Employer is: LANDSCOPE (MAURITIUS) LTD
	1.1.2.3	Contractor is:
	1.1.2.4	Engineer is: LUXCONSULT (MTIUS) LTD
Dates, Tests, Periods and Completion	1.1.3.3	Time for Completion of the Works and the Tests on Completion shall be completed and the Taking Over Certificate issued within Five Hundred and Forty (540) calendar days from the Commencement Date for both Lot 1 and Lot 2
Defects Notification Period	1.1.3.7	730 calendar days
Communications	1.3(a)	Agreed systems of electronic transmission is: 1. Registered Postage, and 2. Facsimile 3. Email
	1.3(b)	Address of the Employer is: WING A, 7TH FLOOR, SHRI ATAL BIHARI VAJPAYEE TOWER, EBENE CYBER CITY, EBENE
	1.3(b)	Address of the Engineer is: 7TH FLOOR, THE DOCKS, UNITED DOCKS BUSINESS PARK, CAUDAN, PORT LOUIS
	1.3(b)	Address of the Contractor is:

	Conditions of Contract Clause	
Law and Language	1.4	Law in force governing the Contract is that of the Republic of Mauritius
	1.4	Ruling language of the Contract is English.
	1.4	Language for communication is English.
Right of Access to the Site	2.1	Employer shall give the Contractor access to the Site on The Commencement Date.
Engineer's Duties and Authority	3.1(i)	The Engineer shall seek the prior approval of the Employer for any variation.
	3.1(ii)	The Engineer shall seek the prior approval of the Employer before approving any proposal for Variation submitted by the Contractor.
Performance Security	4.2	Performance Security will be in a form acceptable to Employer in the amount of ten percent (10%) of the Accepted Contract Amount including VAT. The Contractor shall submit the Performance within 28 days of the Letter of Acceptance
Working Hours	6.5	Normal working hours are as per the Labour Law of the Republic of Mauritius
Delay Damages	8.7	Mauritian Rupees Two Hundred and Fifty Thousand (MUR 250,000) per calendar day with a maximum limit of 10% of the Contract Price.
Adjustments for Changes in Costs	13.8	NOT APPLICABLE
Advance Payment	14.2	Total advance payment shall be ten (10) percent of the Accepted Contract Amount (Excluding Provisional Sum and Contingencies). The advance payment will be made in one installment.
	14.2	Repayment of the advance payment shall start after Certification of thirty (30) percent of the Accepted Contract Amount.
	14.2	Recovery of the advance payments shall be an amount of not less than twenty (20) percent of the amount of monthly Interim Payment Certificates.

	Conditions of Contract Clause	
	14.2	Advance payment shall be recovered in full prior to the time when seventy (70) percent of the Accepted Contract Amount has been certified for payment.
Application for Interim Payment Certificates	14.3(c)	Amount to be retained shall be ten (10) percent of Interim Payment Certificates.
	14.3(c)	Limit of retention money shall be Five (5) percent of the Contract Price.
Plant and Materials intended for the Works	14.5(b)(i)	Shall be as detailed in Tender Schedule Q
Issue of Interim Payment Certificates	14.6	Minimum amount of Interim Payment Certificates shall be: MUR 15,000,000.00
Delayed Payment	14.8	Financing charges shall be: Annual Rates of Interest as per Bank of Mauritius Rate plus 1%
Currencies of Payment	14.15	Currencies of payment shall be: Mauritian Rupees
General Requirements for Insurances	18.1	For all purposes, the Insuring Party shall be The Contractor. The Insuring Party shall submit evidence of insurance within fourteen (14) days of the Commencement Date. Insuring Party shall submit copies of insurance policies within fourteen (14) days of the Commencement Date.
Insurance for Works and Contractor's Equipment	18.2	Deductibles per occurrence shall not exceed MUR 500,000 per occurrence.
	18.2	The Contractor shall insure an additional sum of 5 per cent of the value of works representing cost of demolition, removal of debris and professional fees.
Insurance against Injury to Persons and Damage to Property	18.3	Limit per occurrence shall not be less than MUR 5,000,000 with the number of occurrences unlimited.
Appointment of the Dispute Adjudication Board	20.2	Not Applicable

TENDER SCHEDULES

REQUIREMENTS FOR TENDER SCHEDULES

GENERAL

- (a) The Term *Contractor* shall mean *Bidder* in these schedules and shall have the same definition as in the Conditions of Contract
- (b) The *Contractor* is required to submit with his Tender by way of the Tender Schedules in full details as listed below. Should the space available on any of the Tender Schedules be inadequate, the *Contractor* shall append such supplementary sheets as he deems necessary to comply with the Tender requirements. Such supplementary sheets shall display “**INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH AT COTE D’OR, REF. NO: LM/CD/OC23/35**” and shall be properly cross-referenced and firmly appended to the relevant Schedule or otherwise included such that they will not inadvertently be detached from the Tender. References given are for guidance only and not necessarily exclusive of other pertinent information in the Documents. It is required that each page of each Tender Schedule, including any supplementary sheets be dated and signed by the *Contractor*

Where in the Tender Schedules information is required by periods, the start of the first of such periods shall be taken as the Starting Date in accordance with Contract Data.

- (c) The information provided in the Tender Schedules is material to the Tender evaluation and to the assessment of the *Contractor*'s understanding of and ability to undertake the *Works*.

1. TENDER SCHEDULE A – SCHEDULE OF QUANTITIES (BILL OF QUANTITIES & LIST OF PRICES)

The *Contractor* shall complete Tender Schedule A which consists of the Bill of Quantities and carry the summary total to the Form of Bid.

2. TENDER SCHEDULE B – ESTIMATED MONTHLY CASH FLOW

The *Contractor* shall complete Tender Schedule B for the monthly cash flow calculation based on the Tender Sum as detailed on the Schedule.

3. TENDER SCHEDULE C – CONTRACT PRICE

The *Contractor* shall complete Tender Schedule C with a breakdown of the overall contract price.

4. TENDER SCHEDULE D – CONTRACTOR'S EQUIPMENT

Contractors shall provide information regarding the number and type of the various elements of plant that they intend using for the Contract.

Contractors must clearly indicate the source of the items of plant into categories namely:

- Equipment owned by the Contractor which he intends using on the Contract.
- Equipment the Contractor intends purchasing for use on the Contract.
- Equipment the Contractor intends hiring for use on the Contract.
- Equipment obtained from other sources.

5. TENDER SCHEDULE E - KEY PERSONNEL

The *Contractor* shall provide details of availability of the key personnel as set out in Tender Schedule E, Part 1. He shall provide the required details of the nominee and an alternate and the first nominee (or his alternate) shall not be changed without the prior approval of the *Employer*. Curriculum vitae of all the key personnel listed shall be provided in the format and to the detail as shown in Tender Schedule E, Part 2.

6. TENDER SCHEDULE F - SUBCONTRACTORS

The *Contractor* shall, as provided for in Tender Schedule F, submit full details of all Subcontractors proposed to be used on the *Works*, their respective specialities, areas of responsibility, etc.

7. TENDER SCHEDULE G - SUPERVISION AND LABOUR

The *Contractor* shall provide, for the various categories of on-site supervision and labour in Tender Schedule G, the number of staff in each category respectively which will be mobilised for this Contract, with an indication of the total number of local employees. Tender Schedule G (i) provides for supervisory and support staff and Tender Schedule G (ii) provides for labour categories.

8. TENDER SCHEDULE H - JOINT VENTURE DETAILS

Where the *Contractor* comprises two or more firms forming a Joint Venture their respective areas of responsibility as between or among themselves shall be detailed in Tender Schedule H.

9. TENDER SCHEDULE I - METHOD STATEMENTS

The *Contractor* shall submit detailed statements on methods of construction for particular aspects related to the *Works*. Nothing in the Contractor's Method Statements shall be construed to supersede any Specification or requirement of the Contract. At least the following Method Statements shall be submitted:

a) Haul Roads

The *Contractor* shall indicate in Tender Schedule I amongst other things his intended systems of haul roads for moving borrow material and excavated etc indicating widths of haul roads and whether a one-way or two-way system would be employed. The *Contractor* shall indicate the points of Access of the haul roads from the public road system and traffic control measures that will be put in place. The *Contractor* shall also indicate how he will manage traffic on the existing roads within the site and adjacent to the site respectively and safety of road users will be maintained.

The *Contractor* shall also indicate how access will be managed taking into consideration the heavy traffic on the Terre Rouge - Verdun - Trianon Link Road (M3), Saint Pierre Bypass and Reduit Roads during peak hours.

b) Excavations

The *Contractor* shall indicate in Tender Schedule I amongst other things his intended method of excavation for the main items of the *Works* and the method of support of the excavation for temporary and permanent *Works*. This should include excavations in rock, soft materials and normal materials.

c) Material Handling

The *Contractor* shall indicate in Tender Schedule I how he intends to crush, screen, wash the borrowed aggregates and the proposed sequence and operation of removal/stockpiling of overburden, borrowing and quarrying of materials for incorporation in the *Works*. The operation of his concrete batching facilities and concrete conveying systems shall also be detailed.

d) Utilities

The *Contractor* shall indicate in Tender Schedule J how he intends to manage existing utilities and protection of these utilities during construction.

e) Accommodation of Traffic during Construction

The *Contractor* shall indicate in Tender Schedule I how he intends to manage and accommodate public traffic at the points where the *Works* intersect existing roads (Terre Rouge – Verdun – Trianon M3, and access to the Côte d'Or National Sports Complex) and affect existing traffic. This shall include details of hauling times on Public Roads and how impact to Public Traffic will be managed and mitigated.

The capacity of the M3 motorway shall not be affected at all during the construction of any part of the Works.

The Contractor shall keep all existing roads, including access to the Côte d'Or National Sports Complex and the existing parking, and accesses affected by the Works open at all times or create temporary access ways to re-route traffic without adversely affecting traffic and road users from accessing locations that were available if such Works had not been performed.

f) Bridge Construction

The Contractor shall indicate in Tender Schedule I how he intends to carry out the construction of the Bridges, phasing of the construction, offsite fabrications if applicable, procurement of concrete and reinforcement, design of formwork and safety measures to be put in place, without affecting the flow of traffic on M3 motorway and in a safe manner to prevent any hazard at any time of the day.

NOTE: *The Bidder shall ensure that the proposed method statement and tendered rates and prices cater for the non-closure of the M3 motorway to allow free and safe traffic flow of the road users during the execution of the whole works. The tendered rates and price shall include all labour, materials, taxes, charges, watchmanship, scaffolding, security measures, health and safety measures, constructional plant, temporary access, temporary works, liaising with relevant authorities such as NLTA, CWA, CEB, Wastewater Management Authority, Mauritius Telecom, Mauritius Fire & Rescue Services, Mauritius Police Force etc. for supply, transport and placing of concrete beam girders at night and all other requirements to carry out the works in accordance to the specifications, drawings, local health and safety regulations and satisfaction of the relevant authorities including traffic diversion, police assistance, provision of a registered health and safety officer full time during the works, fitness certificates of equipment, excavation, transport, carting away of debris, etc. for successful completion of the Works.*

The Contractor shall ensure that the Method Statement provided is sufficiently detailed and specific to the Works prescribed in Part 3 – Employer’s Requirements. In addition, the Contractor shall ensure that his Method Statement strictly considers that the capacity of the M3 motorway shall not be affected at all during the construction of any part of the Works.

10. TENDER SCHEDULE J – CONTRACT PROGRAMME

The Contractor shall submit a programme (computer printout and electronic version on CD) with his Tender in accordance with Tender Schedule J, Part 1 to define the duration of the construction activities in connection with the various Portions of the works which shall take into account any non-working days. Such programme shall be designated the “Tendered Contract Programme”.

The Tendered Contract Programme shall be based on the Contractor’s own comprehensive plan, programme and resource usage with appropriate development of method statements for construction of the Works. The Tendered Contract Programme shall be based on network logic diagrams showing all construction activities and logic relationships between activities. The programme shall be computerized using Primavera Planner/Scheduler module of the Primavera Engineering and Construction software or other equivalent, for use on a compatible personal computer.

The entire programme shall be suitable for future expansion by the addition of more detailed programme activities for construction of the Works, for monitoring progress and changes therein, planning of critical activities and generation of progress and planning reports during the execution of the Works.

The Tendered Contract Programme submission shall further include as a minimum:

- activity code definitions representing the work breakdown (Portions of the Works and sub-sections).
- activity listing.
- logic linked bar chart (Gantt chart).

In relation to each activity the following minimum information shall be presented:

- identification number (ID).
- description.
- duration in working days derived from inter alia Tender Schedule L as appropriate.
- early start and early finish dates.
- Calendar.
- bar indicating early start date, early finish date and duration.
- total float.

Activities shall include:

- as separate activities, procurement, fabrication, delivery, installation, testing and Tests on Completion of Plant and Contractor's Equipment
- submittal and approval of Contractor's designs, proposals and such like for Temporary and relevant Permanent *Works*
- work carried out by Subcontractors divided into separate activities.

The programme shall include the following significant dates:

- interfaces with preceding, concurrent and follow-on Subcontractors, if any
- earthworks
- pavement works
- pipelaying works
- other relevant dates as Tender Schedule J, Part 2.

The calendars defined shall include information on shutdown periods, vacation days and other non-working time periods.

In support of the programme the following shall be submitted:

- computer printout presenting calendar information.
- computer printout presenting cash flow projection. In the electronic version of the programme each relevant activity shall have costs assigned to it based on the quantities and tendered rates contained in the priced Bill of Quantities, to allow the *Engineer* to generate various cost flow projections based on "what if" analyses of the programme. In this regard "cost" is defined as the earned value of work carried out in the relevant period.
- schedule indicating which Bill of Quantities items corresponds with which activity. Each relevant activity shall have Bill of Quantity item(s) assigned to it in the schedule and in the electronic version of the programme.

A list of relevant dates which the *Contractor* shall take into account in the programme is given in Tender Schedule J, Part 2.

11. TENDER SCHEDULE K – DURATIONS OF PORTIONS OF THE WORK

Under Tender Schedule L the *Contractor* must submit his overall durations (including periods of inactivity) for the Portions of the *Works*.

12. TENDER SCHEDULE L – MATERIALS

The *Contractor* shall detail the sources of material he intends using for the Contract.

13. TENDER SCHEDULE M - MISCELLANEOUS STATEMENTS

The *Contractor* shall submit with his Tender as Tender Schedule M statements covering the following aspects which are considered to be of significance in both the evaluation of Tenders and execution of the *Works*:

Part 1 - Health and Safety Policy.

Part 2 - Environmental Protection Policy.

Part 3 - Quality Assurance Policy.

The level of detail required to be submitted is set out in the relevant part of the schedule.

14. TENDER SCHEDULE N – LABORATORY EQUIPMENT

The *Contractor* is to submit a list of items of equipment he proposes to use in the Site Laboratory necessary for the Quality Control in terms of the Contract.

15. TENDER SCHEDULE O – BREAKDOWN OF MAJOR RATES

The *Contractor* shall provide a detailed breakdown of the charges included in those major rates given or as indicated in Tender Schedule O by subdividing the rate into at least the following elements:

Labour - Unskilled
- Semi-skilled
- Skilled¹

Supervision²

Materials³

Equipment⁴

Mark-ups⁵

- Notes:
1. The actual job description and charge element of each labour or artisan category shall be given e.g. Carpenter, Welder, etc.
 2. The type of supervisory staff shall also be given separately e.g. Foreman, General Foreman, etc.
 3. The charge element for each of the various materials comprising the rate shall be given separately.
 4. The charge element for each major item of construction equipment comprising the rate shall be given.
 5. The charge element of mark-up for overheads, risk, profit, etc shall each be detailed separately.

16. TENDER SCHEDULE P – CERTIFICATE OF SITE INSPECTION

The *Contractor* shall provide a statement to the effect that he has satisfied himself with the prevailing site conditions.

17. TENDER SCHEDULE Q – SCHEDULE OF ADVANCE FOR PLANT AND MATERIALS

The *Contractor* shall provide in this Schedule an estimate of the cost of advance for materials which are brought to site.

TENDER SCHEDULE A – SCHEDULE OF QUANTITIES (BILL OF QUANTITIES)

The Contractor is to fill in the Bill of Quantities contained in Tender Schedule A.

BILL OF QUANTITIES

PREAMBLE

1. The Bill of Quantities shall be read in conjunction with the Instructions to Tenderer, the Forms of Agreement, the Performance Security Agreement, the General and particular Conditions of Contract, the Technical Specifications and the Drawings. Such other documents as may be available for inspection before tendering do not form part of the Contract.
2. The rates and prices inserted by the Tenderer shall include and shall be deemed to include (inter alia) the following works, duties, liabilities and expenses of the Contract whether they are separately itemised or specifically referred to in the Bill of Quantities or not.
 - (i) All the liabilities, obligations, contingencies and risks imposed by each and every one of the Contract Documents referred to in Clause 1 hereof.
 - (ii) Strict compliance with each and every provision of the Bill Descriptions and the Specifications. General directions and descriptions of work and materials are not necessarily repeated in the Bill of Quantities.
 - (iii) The cost and expenses of all works and services and everything necessary for the due execution, completion and maintenance of the Works.
3. Without affecting the generality of the foregoing provisions & notwithstanding any limits that may be implied by the wording of the individual items and /or explanation provided in this preamble, it is to be clearly understood by the contractor that the rates and sums that are entered in the Bills of Quantities shall include the cost and expenses shall be for the work finished complete in every respect. The bidder shall be deemed to have taken full account of all requirements and obligations whether expressed or implied, covered by all parts of this Contract and to have priced the items herein accordingly. The rates and sum shall therefore be included for all incidental and contingent expenses and risks of every kind necessary to construct, complete and maintain the whole of works in accordance with the Contract. Full allowance shall be made in the rates and/or sums inter-alias that are referred to and/or specified herein.
 - (i) The provision, storage, transport, use and maintenance of all materials, plant, equipment, machinery and tools;
 - (ii) The provision and maintenance of all staff and labour and their accommodation, transport, etc., and the supply of all immigration permits and other requirements;
 - (iii) Setting out, measuring, inspection and supervision;
 - (iv) The provision, transport, use and maintenance of all consumable stores, fuel, water, drainage, electricity and telephones, including those required under the Contract by the Engineer and his staff;
 - (v) Sampling, testing and trials, including trial lengths of pavement and checking information given by the Engineer;

- (vi) Damage caused to the works under construction, plant materials and consumable stores by weather conditions;
- (vii) The provision, erection and removal of all Contractor's offices, plant yards, stores and temporary works, including fencing and all site restrictions;
- (viii) Repairs to the Works during the Period of Defects Liability.
- (ix) Site investigations that may be necessary for proper and complete execution
- (x) Provision of project insurance certificates
- (xi) Provision of contractual bank guarantees
- (xii) Provision of temporary services such as water supply, electricity, fencing, watching, lighting; etc.
- (xiii) Paying fees including supply of any Bank Guarantee and giving notice to authorities, public etc.
- (xiv) Payment of all patent rights and royalties
- (xv) Reinstatement of the site on completion of works to the satisfaction of the Engineer
- (xvi) Safety precautions and all measures to prevent and suppress fire and other hazards during implementation
- (xvii) Material testing and quality control test reports
- (xviii) Interference to the works by persons, vehicles, vessels and the like using the existing land and water facilities
- (xix) Maintenance of traffic flows and access to the existing roads in a motorable status during the period of construction as per relevant wayleave agreements
- (xx) Works in connection with the protection and safety of adjacent structures
- (xxi) Supplying, maintaining and removing on completion contractor's own temporary installations such as accommodation, offices, stores, workshops, transport, welfare services and all charge in connection therewith unless otherwise directed by the Engineer
- (xxii) Working in dry conditions including dewatering if required except where otherwise permitted by the specification
- (xxiii) Maintaining public roads and footpaths, and maintaining access upon existing roads or recognized routes
- (xxiv) Supply, inspection, sampling and testing of materials and of the Works under construction including the provision and use of equipment.
- (xxv) Except where separate items are provided for bringing plant to the site and removing on completion, for providing transporting to site, setting to work operating (including all fuel and consumable stores), maintaining and removing from the site upon completion all construction plant and equipment necessary for the execution of the work including the cost of all tests and other requirements in respect to such plant and equipment
- (xxvi) Recruitment, bringing to and repatriate from the site, accommodating and feeding and all other incidental costs and expenses involved in the provision of all necessary skilled and unskilled labour and supervision
- (xxvii) Supporting faces of excavation temporary or permanent shoring, shuttering and scaffolding etc.
- (xxviii) Cost of design based on tender drawings, preparation of working drawings and related data for materials, pipe work and equipment

- (xxix) All ancillary parts, minor fittings, bolts, nuts, gaskets, washers, fixing, etc., joining materials, protective coatings and sleeveings and other relevant items not specifically listed but necessary for proper installation of the materials, pipe works and equipment (applicable to materials supplied by the contractor)
 - (xxx) Costs of packing, protection, storage, insurance and related documentation for shipment to the site for materials, pipes, fittings, equipment, etc.
 - (xxxix) Cost of unloading at port, road transport to site, offloading, stacking and storage in suitable sheds, double handling as needed at site for materials, pipes, fittings, equipment, etc.
 - (xxxixii) Cost of rectification and making good to the works for any defects noted including for damage and wear and tear due to weather conditions.
 - (xxxixiii) Costs for submission and demonstration of Works progress including but not limited to Progress Reports and Progress Videos carried out by drones
4. A price or rate is to be inserted, in ink, against each item in the Bill of Quantities and its Schedules whether quantities are stated or not, and if the Tenderer includes the cost of a particular item elsewhere in his rates of prices he shall insert the word “nil” against both the rate and extensions of that particular item. Should the Tenderer omit to price an Item then it will be assumed that he has included the cost of the item elsewhere in his rates or prices. No alterations shall be made to the Bill of Quantities or its Schedules and no extra item shall be inserted.
 5. The quantities stated in the Bills are estimated only. They are given so that Tender can be both made out and compared on an equal basis and are no guarantee that such quantities will in fact be required, reduced or exceeded.
 6. The quantity of each and every item of work in the Bills of Quantities executed in accordance with the Contract shall be measured out in the units of Bills relating to such quantity.
 7. Unless otherwise stated, all measurements shall be net taken on the finished work carried out in accordance with the details shown on the drawings, with no allowance for cutting, waste or other matters. All thickness stated are minimum finished and compacted thickness, and the prices shall include for any extra thickness necessary to obtain these minimum.

Any work performed in excess of the requirements of the plans and specifications, such as overdepth excavation, extra thickness of subbase, base or surfacing, etc., will not be paid for, unless ordered in writing by the Engineer.

8. Abbreviations used herein shall have the following meanings:

<u>Abbreviations</u>	<u>Meaning</u>
mm	Millimetre
cm	centimetre
m	metre
km	Kilometre
ha	hectare
m ²	square metre
m ³	cubic metre
kg	kilogram
ton	tonne (1000 kilograms)
L	litre
No.	number
L.S.	Lump Sum
P.S.	Provisional Sum
Hr	hour
MUR	Mauritian Rupees

9. All provisional sums are to be expended in whole or in part at the direction and discretion of the Engineer in accordance with the General and Particular Conditions of Contract. The Contractor shall not be entitled to any time extensions for works carried out under the provisional sums items.
10. The Contractor must satisfy himself that the Contract figure, arrived at, represents the full and final cost of the works. No claim for misguidance or misinterpretation shall be considered under any circumstances.
11. Rates and Prices for Preliminaries and General Items and Contractor's Mobilisation (Bill No. 1).

The items in Bill No.1 have been categorized to allow for the following different types of charge:

- (a) **Fixed Charge (FC)**
A charge for a scheduled item which is deemed to remain unaltered throughout and which is deemed to be expended and due upon the fulfilment of the requirements under the item, irrespective of any time duration or any quantity measured (i.e. the sum is unalterable but may be progressively certified).

(b) Time-Related Charge (TRC)

A charge for a scheduled item which is deemed to be expended and due in linear proportion to the time expended in the execution of the work or service or obligation in relation to the total length of time duration tendered for that item.

(c) Quantity-Proportional Charge

A charge that is deemed to be expended and due in linear proportion to the volume of work executed, the quantity of material, number of articles supplied, or services rendered, etc., as defined by the unit scheduled for the item.

Where there is no statement to the contrary an item shall be assumed to be a quantity-proportional charge.

(d) Provisional Sums

As Defined in the Conditions of Contract.

Item Categories

The above charges have been grouped in Bill No. 1 under three separate categories comprising General Items, Equipment Items and Other Items as indicated below:

(a) General Items

These are items related to the Contractor's general obligations under the Contract in respect of contractual, overhead, Supervisory, organisational, office and accommodation facilities and establishment requirements for the execution of the works. General items may be provided for the duration of the Contract or a part thereof and may also be provided for the works in general or a particular portion of the works.

General Items are divided into three groups:

- i) Primary General Obligations: Items which are deemed to be required for the full duration of the Time for Completion until the issue of the Taking-over Certificate for the whole of the Works and as applicable, the Defects Notification Period.
- ii) Secondary General Obligations: Items which are associated with a Portion of the works or specific operations, being executed in tendered durations shorter than the Contract period.
- iii) Facilities: Items which relate to facilities, such as office and accommodation facilities, services, assistance, equipment, etc., provided for the use of the Employer, the Engineer, the Engineer or the Contractor as appropriate.

(b) Equipment Items

These are items of Contractor's Equipment, Temporary Works or both which may be required either for the execution of the works in general or for specific areas of work or operations as part of the works. The durations for which these items are required shall be stated by the Contractor in the Bidding Forms. Equipment Items are divided into two groups:

- i) General Equipment: Items which are associated with the works in general and required for the full duration of construction until issue of the Taking-Over Certificate for the whole of the works or for tendered durations that may be shorter; and
- ii) Specific Equipment: Items which are associated with specific areas of work or operations for tendered durations shorter than the full duration of construction.

(c) Other Items.

These are items which do not fall into either of the above categories but are specified or called for under the Specifications

Sections of the Works

Where the term "Parts of the Works" is used in Bill No.1 of the Bill of Quantities it shall mean a portion or combination of portions of the works as defined below and which conform to the limits of measurement of other quantity proportional sections or subsections of the Bill of Quantities.

Combinations of these Portions may be used in Bill No.1 for areas requiring common resources. The relevant Portions of the works are given in the following definitions which are specific to the measurement and payment of items in Bill No.1 and also conform with the limits of measurement of other sections of the Bill of Quantities as noted in brackets behind the definitions and as detailed in the layout Drawings included in the Bill of Quantities.

LOT 1 – OFFSITE WORKS

Bill No.	Description
1	Preliminaries and General Items
2	Preparatory Works
3	Earthworks
4	Sub-Base and Road-Base
5	Bituminous Courses
6	Drainage, Sidewalks and Accesses
7	Road Marking & Equipment and Road Lighting
8	Potable Water Supply Network
9	Telecommunication Network
10	Electricity Supply Network
11	Sewer Pipelines
12	Sewerage Lifting Station and Rising Main
13	Service Reservoir and Pump Station
14	Bridge Construction

LOT 2 – ONSITE WORKS

Bill No.	Description
2	Preparatory Works
3	Earthworks
4	Sub-Base and Road-Base
5	Bituminous Courses
6	Drainage, Sidewalks and Accesses
7	Road Marking & Equipment and Road Lighting
8	Potable Water Supply Network
9	Telecommunication Network
10	Electricity Supply Network
11	Sewer Pipelines

NOTE:

The attention of the Contractor is drawn to the following items in Lot 1 – Bill No. 1:

1. Performance Security
2. Insurances & Deductibles
3. Access Control & Security
4. Project Signboard
5. Facilities provided by the Contractor for the Engineer
6. Laboratory
7. Traffic Diversion

The Contractor shall price the above items in Lot 1 – Bill No. 1 to cover for the WHOLE of the Works, i.e. for both Lots 1 & 2.

Contractor to Price all Items

The Contractor shall tender a rate or sum against each item in Bill No. 1 and shall not group items or Sections of Work together even if common resources are shared. The rates and prices entered against such items in Part 1 shall take into account the sharing of resources that have been determined by the Contractor.

The tender rates, prices or sums shall be payment in full for the items in Section 1 as described or implied in the Contract.

Items Not Priced

In the event that an item is not priced or priced as "nil" or "0-00" or that the Contractor has omitted to specify items or enter rates or sums as provided for in Bill No. 1, no additional payment will be considered.

Fixed and Time-Related Charges

The combined value of a fixed charge item (FC) and an associated time-related charge item (TRC) shall be the total payment due for the provision, operation and maintenance of the specified facility to execute the function, implied or otherwise by its provision, for the tendered duration on Site of the item. This combined value shall also include the total payment due for final demobilisation and removal of the facility from Site and any associated reinstating or making good of the Site as specified.

The tendered price for a FC item which has no TRC item which can be directly associated with it by description in Bill No. 1 will be deemed to be the total payment due as described above, and vice versa.

Tendered Duration

The "Tendered Duration" applicable to a TRC item shall be completed in the appropriate place in the relevant Tender Schedule of the Bidding Forms and shall be the length of time or duration over which the item is deemed to be actively required for the purposes of the works. Such durations shall cover the time required for the execution of the stated or implied function for which the item is provided or established and tested. Such durations shall also correspond with the Tendered Contract Programme and the overall tendered durations for each Section of the works given in the Tender Schedules.

Where the programme of the works results in time-related items that are discontinuous i.e. broken into a series of durations separated by a period or periods of inactivity in a particular item, the individual durations of activity shall be summed and entered against the appropriate TRC item.

Fixed Charge Items

The sum tendered for each FC item will be authorised for payment in terms of the first certificate issued after the Contractor's obligations have, in the opinion of the Engineer, been discharged as far as that item is concerned.

Before any payment is certified under these items the Contractor shall satisfy the Engineer that he has provided on Site, facilities and equipment of quality and size appropriate to their intended purpose and duration for the works.

Provided that, where an item in Bill No.1 refers to a certain facility or item which is to be ultimately removed in terms of the Contract, payment will be made at the sum tendered less 15 %, which 15 % will become due when the facility or item has been removed and the Site restored as specified to the satisfaction of the *Engineer*.

Where a General, Equipment or other Item in Bill no. 1 comprises a number of individual items as described which are complete in themselves payment may be certified pro-rata to the value of any such individual item which in the opinion of the *Engineer* is functional for its intended purpose and which is actually provided and established, less the 15 % allowance for removal.

Should the *Engineer* not be satisfied with the facilities and/or equipment provided, or should the items provided not be as tendered or specified, or prove to be of inadequate capacity, he may reduce the amount of the fixed charges for such items to reasonably reflect the actual provision in relation to the specified or tendered item until such time as the *Contractor* has provided satisfactory facilities and equipment, whereupon the full amount applicable will be reinstated. Such reduction will not prejudice the application of any other remedy under the Contract.

Time-Related Charge Items

Payment for TRC items will be certified (after payment for the relevant FC item has been certified), by way of incremental amounts (calculated by the division of the tendered sum by the tendered duration) in each of the subsequent progress certificates until the sums tendered have been fully certified.

Whilst payment of FC sums or relevant portion thereof for the early provision, establishment and Tests on Completion of General or Equipment Items will be certified in accordance with the provision of Fixed Charge Items, payment of the TRC sums associated with these items will only commence once the complete item or facility is, in the opinion of the *Engineer*, in beneficial operation for the execution of that stated or implied function for which it was provided, or established and the Tests on Completion completed.

The sum tendered will not be varied for shorter or longer time durations for which the item or facility is actually employed, operated and maintained provided that:

- (a) In the case of early completion, any remaining amount of the tendered sum will be certified by the *Engineer* on completion of the relevant item;
- (b) In the case of late provision, establishment or Tests on Completion, only the incremental amount (calculated by dividing the tendered sum by the tendered duration) will be certified per measurement period for the remainder of the duration

of the item, after certification of the FC item, and not an increased incremental amount calculated by dividing the tendered sum by any shorter time period;

- (c) In the case of the *Engineer* anticipating late completion of the function for which an item is provided (i.e. beyond the tendered duration) the balance of the TRC sum remaining to be certified will be spread over the longer period to the anticipated completion of the item; and
- (d) In the case of the *Engineer* anticipating early completion of the function for which an item is provided (i.e. within a period shorter than the tendered duration) based on consistent achievement of enhanced monthly progress rates, the balance of the TRC sum remaining to be certified will be spread over the shorter period to the anticipated completion of the item.

Where the unit of measurement against an item in Bill No. 1 is a time value (days, weeks, months, etc.) and not a "sum", certification will be made as a Quantity-Proportional Charge for the actual time period of the provision of that item as determined by the *Engineer*. No payment will be certified for additional periods for which the *Contractor* is held to be liable.

The only deviation, within the principles outlined above, will be in the event of the *Contractor* having submitted with his Tender histograms of the initial build-up and/or later run-down of the level of facilities or equipment to be provided under any item. In this case the TRC payments would be certified, (after certification of the relevant portion of the FC item), pro-rata in proportion to the levels as tendered, or at the discretion of the *Engineer*, as actually provided. Such distribution of the TRC will be taken into account in determining payment in respect of that item under any of the relevant clauses following.

Withholding of Payment

Should the *Contractor* fail to continue to provide or fulfil all or part of the services, obligations and liabilities required of him in a particular period in respect of any FC and/or TRC item, certification of payment for all or part of the relevant fixed and/or incremental amount for the respective items may be withheld until the required service, obligation or liability has been discharged.

Should the *Contractor* fail entirely to provide or fulfil for a period of time all or part of the continuing services, obligations and liabilities required of him in respect of a FC and/or TRC item the amount, or part of the amount for the item, which in the opinion of the *Engineer* fairly reflects such failure, will be omitted and the Contract Price reduced accordingly.

Quantity-Proportional Items

Certification of Quantity-Proportional items will be made by way of progressively measured quantities of the relevant items or work as discharged in accordance with the Contract and to the *Engineer's* satisfaction, applied to the rate tendered for that item in each subsequent progress certificate until the full quantity finally required has been discharged.

Extension of Time

The *Contractor* shall include with the fully detailed notification of a Compensation Event, an assessment of the time implications on the programmed activities resulting from the

respective cause. Such assessment shall also include a copy of the latest programme approved by the *Engineer* on which the time implications of the varied work shall be clearly shown. The *Contractor* shall ensure that all relevant documentation relating to the time implications is submitted with the programme.

Should the *Engineer* grant an extension of time to any Portion of the *works* under the terms of the *conditions of contract* adjustments will be made only to the tendered durations for such elements of the TRC's which in the opinion of the *Engineer* are affected by the extension of time so granted.

The adjusted duration for an item will be applied to the incremental amount or applicable element thereof and a revised total TRC value calculated. Any extra payment thus derived shall be the sole compensation for any increased General charges for the extension of time for that item.

Reductions of Work

If a variation ordered by the *Engineer* under the *conditions of contract* results in a reduction of the amount of work to be executed, or the amount of time required to execute the *works* or Portion(s) of the *works*, the tendered duration for the applicable TRC items will be proportionally adjusted.

Where such variation applies to TRC items for equipment or facilities which have been provided, operated and maintained for the reduced time period, the sum tendered will be reduced in proportion to the reduction in duration.

BILL DESCRIPTIONS

BILL NO.1 PRELIMINARIES AND GENERAL

101 FIXED CHARGE ITEMS - PRIMARY AND SECONDARY OBLIGATIONS

The sums tendered shall be full compensation in respect of the Contractor's Fixed Costs for initiating the various aspects of the Contract for both lots, including financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective initial obligations including for:

- In accordance in full with the conditions of contract as relevant to each item as well as items not specifically mentioned;
- In accordance in full with any details required in terms of the Specification, as relevant to each item;
- Payment of all salaries, wages and any duties and dues not specifically tendered against the various work items; and
- Submission to the Engineer for approval and/or information such documents as are required or necessary to demonstrate that the obligation in respect of each item has been discharged by the Contractor.

101A PERFORMANCE SECURITY

This price includes the following:

- Cost of arranging and provision of a Performance Security as per the conditions of contract.
- Payment will be certified after the Security has been accepted by the Employer

Unit: Lump Sum

101B INSURANCES AND DEDUCTIBLES

This price includes the following:

- Cost of arranging and provision of Insurance as per the requirements of the Contract
- Payment will be certified after the Policy Document have been approved by The Engineer and proof of payment of the relevant premiums have been submitted

Unit: Lump Sum

101C HEAD OFFICE CONTRACT MANAGEMENT AND OVERHEADS

This price includes the following:

- All Head Office, Contract Management and Overheads charges required in connection with fulfilment of the obligation of The Contractor under the terms and conditions of Contract
- Payment will be certified after the signing of the Agreement by the Contractor and Employer and the approval of the performance security by the Employer;

Unit: Lump Sum

101D GENERAL SITE SUPERVISION AND OVERHEADS

This price includes the following:

- All General Site Supervision and Overheads required for the due superintendence of the Works as per the Conditions of Contract and as per the relevant Tender Schedule.
- Payment shall be certified after 90% of the Contractor's key personnel (as per Tender Schedule) of general overhead site management and supervision including back up and overhead staff and assistants have been fully mobilised on Site and ready to commence work;

Unit: Lump Sum

101E ACCESS CONTROL AND SECURITY

This price includes the following:

- All charges relevant to management, restriction and maintenance of access to the Site as per the requirements of the Conditions of Contract

Unit: Lump Sum

101F PROGRAMMING REQUIREMENTS

This price includes the following:

- All charges and compensation for the setting up and updating the Contract Programme.
- Payment will be certified after the acceptance by the Engineer of the Contractor's detailed programmes in terms of Clause 8.3 of the conditions of contract, as amplified in the Specification and the establishment on Site of the programming team and equipment

Unit: Lump Sum

101G QUALITY MANAGEMENT

This price includes the following:

- All charges and compensation for setting up of a detailed system as detailed in the Technical Specifications. Payment shall be certified after the system has been approved by the Engineer and the Contractor has implemented the system for 28 days including having the required personnel on the Site;

Unit: Lump Sum

101H CONTRACTORS RETURNS

This price includes the following:

- All charges and compensation for setting up of a detailed recording system including preparation and submission of daily diaries, working drawings, progress photographs, plant and labour returns and other documents described in the Contract to be submitted by the Contractor.

Unit: Lump Sum

101I HEALTH AND SAFETY

This price includes the setting of out the Health and Safety Policy, the recruitment and deployment of the Health and Safety Officer.

Payment will be certified after the Health and Safety Officer(s) have been fully mobilised on Site and ready to commence work, the Health and Safety Policy has been approved by the Engineer and the Health and Safety officer has been in operation for 3 months

Unit: Lump Sum

101J ENVIRONMENTAL CONSIDERATIONS INCLUDING COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT/MONITORING PLAN

This price includes the following:

- All charges, costs and compensation for the setting up and operation of an Environmental Policy, the cost of setting up and implementation of an Environmental Monitoring Plan as per the Technical Specifications and the costs of compliance to such Policy and Monitoring plan including all costs associated with mitigation measures.
- Payment will be certified after the Environmental Officer has been appointed and been fully mobilised on Site, the requirements of the Environmental Policy have been approved by the Engineer and the environmental monitoring plan including mitigation plan has been put in place.

Unit: Lump Sum

101K SURVEYS AND CONSISTENCY CHECKS

This price includes the following:

- Cost of surveys including checks, setting out of the works, maintenance of survey beacons, benchmarks and the like, cost of provision of survey equipment for checks by The Engineer, provision of chainmen for The Engineer and all costs and charges related to the survey and setting out of the Works.
- Payment will be certified after mobilisation of the Contractor's Surveyor and provision of chainmen

Unit: Lump Sum

101L ANY OTHER PRIMARY GENERAL OBLIGATIONS NOT INCLUDED ELSEWHERE

This price includes the obligation of the Contractor to comply with all conditions of contract, technical specifications and drawings not covered in any specific item of the Bill of Quantities.

Unit: Lump Sum

101M SECONDARY OBLIGATIONS RELATING TO BILL NO. 2 - PREPARATORY WORKS

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101N SECONDARY OBLIGATIONS RELATING TO BILL NO. 3 – EARTHWORKS

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101O SECONDARY OBLIGATIONS RELATING TO BILL NO. 4 - SUB BASE AND ROAD BASE

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101P SECONDARY OBLIGATIONS RELATING TO BILL NO. 5 - BITUMINOUS COURSES

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101Q SECONDARY OBLIGATIONS RELATING TO BILL NO. 6 – DRAINAGE

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101R SECONDARY OBLIGATIONS RELATING TO BILL NO. 7 - ROAD MARKING AND EQUIPMENT

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101S SECONDARY OBLIGATIONS RELATING TO BILL NO. 8 – BRIDGE WORKS

This price includes full compensation in respect of the Contractor's FC's not already included under primary obligations for financing, recruitment/mobilisation, establishment, setting up of systems and facilities, etc., as applicable for the timeous and due fulfilment of the Contractor's respective early obligations to each Portion of the works.

Each relevant item will be certified for payment after 75% of the Contractor's supervision (foreman level and above) specific to each Portion of the works respectively have been fully mobilised on the Site and ready to commence work.

Unit: Lump Sum

101T ANY OTHER SECONDARY GENERAL OBLIGATIONS NOT INCLUDED ELSEWHERE

This price includes full compensation in respect of the Contractor's Secondary Obligations not covered under any item of the Bill of Quantities.

Unit: Lump Sum

102 FIXED CHARGE ITEMS - PROVISION AND REMOVAL OF FACILITIES AND EQUIPMENT

The sums tendered shall be full compensation in respect of the Contractor's charges not already included elsewhere for the timeous provision, erection, establishment, construction and Tests on Completion (as applicable) on the Site and the specified facilities, equipment, plant, services, etc., adequately equipped to allow work to commence and proceed to completion in due fulfilment of the Contract, including for:

- a) Initial financing, mobilisation and transport to the Site.

- b) Installation including any ancillary works such as cabling, earthworks, foundations, access provisions, structures, security and other fencing, gates, etc., not already covered in rates and prices tendered elsewhere.
- c) Demolition or dismantling when the facility is no longer required as authorised by the Engineer.
- d) Provision of all necessary interior fixtures/fixed furniture, equipment, services, access, etc., as applicable to render the facility fit for the specified or implied purpose for which it is provided except where otherwise specified.
- e) Removal from the Site as applicable.
- f) Reinstatement and rehabilitation of the Site.
- g) Particular provisions not already covered above in respect of each group of equipment to render it continuously fit for the specified or implied purpose for which it is provided:
 - i. Maintenance of facilities provided by the Employer primarily the access road to the site and accommodation;
 - ii. Facilities to be provided and maintained by the Contractor primarily for the use of the Engineer which includes the Engineer's Site Office, any offices in working areas on the Site and vehicles facilities;
 - iii. Facilities to be provided and maintained by the Contractor to his working areas primarily for his own purposes, including fencing of the Engineer's Site Office and provision of services to the Engineer's Site Office.
- h) Assistance to the Engineer: Payment shall for this item will be certified after the assistants have been appointed and been fully mobilised on Site ready to commence work.
- i) Installation including ancillary works such as cabling, earthworks, foundations, access provisions, structures, etc. not already covered in the rates and prices tendered
- j) Particular requirements not already covered above in respect of each group of equipment to render it fit for the specified or implied purpose for which it is provide.

The above works shall apply to Items 102A to 102W.

103 TIME RELATED CHARGE ITEMS - PRIMARY AND SECONDARY OBLIGATIONS

The sums tendered shall be full compensation in respect of the Contractor's Time Related Charges (TRCs) not already included under item 101 for continuing the respective obligations for the duration of the Contract for Primary Obligations under the Contract and for the respective durations as tendered in the relevant tender schedules for secondary obligations. Each TRC item for financing, continued provision, replacements, operation, maintenance and running of systems and facilities, etc, as applicable, for the due fulfilment of the Contractor's respective on-going obligations, including for:

- a. Compliance in full with the conditions of contract as relevant to each item;
- b. Compliance in full with any details required in terms of the Specification, as relevant to each item;
- c. Payment of all salaries, wages and any duties and dues not specifically tendered against the various work items; and
- d. Submission to the Engineer from time to time for approval and/or information such documents as are required or necessary for the Contractor to fulfill the on-going obligation in respect of each item.

Payment for TRC items will be certified (after payment for the relevant FC item has been certified), by way of incremental amounts (calculated by the division of the tendered sum by the tendered duration) in each of the subsequent progress certificates until the sums tendered have been fully certified. Tendered duration means the time for completion for items under primary obligations and the tendered durations in the applicable tender schedule for secondary obligations.

The above works apply to Items 103A to 103W

104 TIME RELATED CHARGE ITEMS - PROVISION AND REMOVAL OF FACILITIES AND EQUIPMENT

The sums tendered shall be full compensation in respect of the Contractor's TRCs not already included under item 102 for the continued provision, operation and maintenance of the specified facilities & Equipment for the respective durations as tendered for each TRC item for the due fulfilment of the Contract, including for:

- a) Continued financing of the facilities such as rentals, salaries and wages directly associated with the facility, interest and depreciation charges on buildings, furnishings, equipment, vehicle facilities, services, access provisions, etc.;
- b) Timeous repairs, replacements, renewals and other maintenance necessary to keep the facility and associated furnishings etc., and as described above in a fit state of operation at all times for the specified or implied purpose for which it is provided on the Site;
- c) Operation as required including for all staffing, fuels, power consumption, consumables, etc; and
- d) (Particular provisions as specified in the Specification, in respect of the various categories of facility and Equipment

Payment for TRC items will be certified (after payment for the relevant FC item has been certified), by way of incremental amounts (calculated by the division of the tendered sum by the tendered duration) in each of the subsequent progress certificates until the sums tendered have been fully certified. Tendered duration means the time for completion for items under primary obligations and the tendered durations in the applicable tender schedule for secondary obligations.

The above works apply to Items 104A to 104W

105 LABORATORY

This price includes the following:

Construction and/or or provision of laboratory complete of:

- all equipment necessary to carry out tests for the selection of materials,
- design of mixes, control of materials and workmanship in compliance with the Specifications,
- employment of qualified laboratory technicians under the direct supervision of the Engineer,
- maintenance of and replacement of the Equipment,
- maintenance, cleaning and watching of the laboratory and premises,
- any other costs arising from the above for operating the laboratory
- excluding costs for testing which are deemed included in the prices in the Bill of Quantities, wherever testing is required to comply with the Specifications.

Tests which cannot be carried out in the Contractor's Laboratory must be done at the Laboratories mentioned below:

- a) Ministry of National Infrastructure and Community Development, Materials and Testing Laboratory;
- b) Road Development Authority;
- c) University of Mauritius;
- d) Any other laboratory to be approved by Engineer

Price 105 is a LUMP SUM to be paid as follows:

Fifty per cent (50%) when the site laboratory is provided to the satisfaction of the Engineer
Fifty per cent (50%) to be paid in equal monthly instalments for the duration of the Contract, but subject to tests having been carried out to the satisfaction of the Engineer.

Unit: Lump Sum

106 PREPARATION AND IMPLEMENTATION OF THE ENVIRONMENTAL PROTECTION PLAN (EMP)

This price includes the following:

- Enlisting the services of an experienced Environmental Engineer for the preparation of an EMP,
- cost of compliance with conditions of EIA and EMP,
- cost of deployment of Environment Officer for supervising and monitoring,
- cost of coordination with Authorities,
- cost of production and submission of Environmental reports required by the Ministry of Environment including EMP Audit and follow up reports.

Unit: Month

107 ADDITIONAL AND CONTINGENT WORKS

This price includes various additional and contingent works to be performed under the contract. Price 107 is a PROVISIONAL SUM to be applied, based on billed prices, as agreed with the Engineer.

Unit: Provisional Sum

108 LANDSCAPING

This provisional sum includes the following:

- the cost of works to be executed in connection with employment of a landscape architect, provision, plantation and maintenance for landscaping along the Motorway
- the cost for any bridge embellishment to be effected as agreed with Employer

The prices will have to be agreed with the Engineer and shall include any miscellaneous cost arising.

Unit: Provisional Sum

109 TRAFFIC DIVERSION

This price includes the following:

- all deviation works as per Technical Specifications,
- Liaison with all relevant authorities i.e. TMRSU, NTA, MNICD, Police, etc.
- preparation and submission of drawings showing traffic diversion and

- accommodation and indicating position and type of signalisation,
- supply and maintenance of temporary traffic signs, barriers, flash beacons, portable traffic signals as agreed by the Engineer,
- temporary traffic marking,
- provision of electrical generator for power supply,
- all security and warning lights for work that may be required at night,
- additional costs and salaries for work at night,
- construction and maintenance of temporary deviation roads including earthworks, crusher run, bituminous concrete materials as per Engineer's Instructions,
- temporary accesses,
- clearing and reinstating all routes used as deviations to their initial conditions,
- any miscellaneous costs arising

Unit: Lump Sum

PREPARATORY WORKS**a) CLEAR SITE**

This price includes the following:

- Careful dismantling and storage of bollards, milestones as directed by the Engineer to any distance
- Removal of litter bins and storing in an accessible place for possible reuse
- Stripping brushwood and felling of trees with girth not exceeding one metre
- Liaison with the Forestry Department for clearance for felling of trees
- Removal of roots and stumps
- Clearing away brush roots and vegetation to spoil tips or disposed of by burning on areas approved by the Engineer
- Filling in holes left by the roots with compacted materials approved by the Engineer to the existing ground level or to sub-grade level whichever is the lesser
- Cost of transport to any distance to stockpiles spoils tips or store materials which are recoverable at the Clients storage yard within a range of 30km from the site of works.
- Any miscellaneous costs arising

b) EXCAVATE TOP SOIL

This price includes the following:

- Stripping of top soil within the limits of all cuttings and embankments
- Loading and transport to any distance to stockpile within the site as directed by the Engineer for storage in view to be reused for top soiling and grassing.
- Transport of non-usable materials to spoil tips as located by contractor and approved by Engineer.
- Any miscellaneous costs arising

c) FELL TREES WITH GIRTH EXCEEDING ONE METER AND REMOVE STUMPS

This price includes the following:

- Liaison with the Forestry Department for clearance for felling of trees
- Grubbing up roots, removal of roots and stumps
- Clearing away felled trees, stumps and roots to stockpile or spoil tips as directed by the Engineer or disposed of by burning in areas approved by Engineer
- Backfilling of holes left by the roots and stumps with compacted materials approved by the Engineer to existing ground level or sub-grade level whichever is the lesser

d) DEMOLITION OF MASONRY OR CONCRETE STRUCTURES

This price includes the following:

- Demolition of existing masonry or concrete structures including, blockwall, masonry walls, concrete drains, hydraulic structures (lined drains, headworks of pipe box culverts, irrigation channels, siphon chamber and, other manholes, among others)
- Removal and transport of material to any distance to spoil tips as located by contractor and approved by Engineer
- Possible recuperation and reuse of demolished materials according to Engineer's instructions.
- Any structure to be demolished shall be measured and agreed jointly before demolition.
- Any miscellaneous costs arising.

e) REMOVAL OF EXISTING MISCELLANEOUS ROAD FURNITURES

This price includes the following:

- Careful dismantling, removal and storage of existing road furnitures and fittings such as guardrails, handrails, fencing, street lighting, road signs, pedestrian traffic signals, kerbs etc. including unscrewing, unbolting of guard rails and handrails in to smaller elements.
- Liaison with the CEB or the District Council / the Municipality for disconnection of electric supply, dismantling of lamps.
- Breaking up of foundations, including excavation if required
- Cleaning, stacking, protecting and labelling of all items to be stored on site or at a location to be designated by the Engineer within a radius of 30km from the site of works
- Loading, carting away of all surplus materials to spoil tips as located by the Contractor and approved by the Engineer.
- Any miscellaneous costs arising.

f) BLANKING OUT OF EXISTING ROAD MARKINGS

This price includes the following:

- Blanking out of existing road markings by heavy-duty machine.
- Traffic deviations as required.
- Cleaning of road surface and carting away of any material.
- Any miscellaneous costs arising

g) SCARIFY ROAD SURFACES

This price includes the following:

- Scarifying, planning / milling top 50 mm of existing road surfaces
- Loading, carting away and disposal of all materials to spoil tips as located by contractor and approved by the Engineer.
- Any miscellaneous costs arising

h) CUTTING OF ASPHALTIC CONCRETE

This item is to be used only when this work is not included under other items

This price includes the following:

- Cutting of existing asphaltic concrete neatly in straight lines with diamond tipped circular power saw or other method acceptable to the Engineer.
- Loading, carting away and disposal of all materials to spoil tip as located by Contractor and approved by the Engineer.
- Any miscellaneous costs arising

EARTHWORKS**a) ROAD EXCAVATION TO ANY WIDTH**

This price includes the following:

- Temporary signs and road markings and temporary barriers
- Loosening and digging of asphaltic materials from carriageway and other paved areas
- Loading, carting away and disposal of all materials in spoil tips as located by contractor and approved by the Engineer, temporary stockpiles or in sub-grade of new pavement as directed by the Engineer.
- Any miscellaneous costs arising.

b) EXCAVATE SOFT SPOTS TO ANY WIDTH

This price includes the following:

- Excavation of unsound or unsuitable material from carriageway, paved areas and natural ground at locations and its replacement with crushed stone materials or selected material according to instructions of the Engineer
- Loading and transport to any distance to spoil tips as located by contractor and approved by the Engineer.
- Width of excavation shall be at least 1.8 metres to allow for sub-grade, supply of base and sub-base material and compaction.
- Any miscellaneous costs arising.

c) EXCAVATION IN NORMAL MATERIAL TO ANY WIDTH

This price includes the following:

- Temporary barriers and signs
- Loosening, excavating, loading, hauling to any distance and disposal of any material except rock as shown on the drawings or as directed by the Engineer
- Excavation in unsound, soft or unsuitable material
- Trimming, shaping and levelling of side slopes of cuts to the lines and levels shown on the drawings or as directed by the Engineer.
- Loading, carting away and disposal of all excess materials to stockpiles as instructed by the Engineer or to spoil tips located by contractor and approved by the Engineer
- Compaction of the bottom of the excavation to 95% b. S. Heavy compaction or as directed by the Engineer.
- Any miscellaneous costs arising due to the presence of existing services, drains, etc.

d) EXCAVATION IN ROCKS TO ANY WIDTH

This price includes the following:

- Ditto as excavation in normal materials but for excavation in rock as defined in the specifications
- Loading clearing away of excess materials to stockpiles as instructed by the Engineer or to spoil tips as located by Contractor and approved by the Engineer
- Cost of transport to any distance
- Trimming, shaping and levelling of side slopes of cuts to the lines and levels shown on the drawings or as directed by the Engineer.
- Compaction of the bottom of the excavation to 95% B. S. Heavy compaction or as directed by the Engineer
- Any miscellaneous costs arising.

e) SHAPING THE SUB-GRADE IN CUTS OTHER THAN ROCK CUT

This price includes the following:

- Shaping, levelling to the lines and levels shown on the Drawings or as directed by the Engineer, watering and compaction of the bottom of the excavation or above fill as required in the Technical Specifications.
- Any miscellaneous costs arising.

f) SHAPING THE SUB-GRADE IN ROCK CUT

This price includes the following:

- Over excavating and removal to any distance of rock cut
- Supply, hauling to any distance, spread, levelling and shaping and compaction of basaltic crushed stones to the required depth
- Drainage of rain-water and maintenance prior to laying the sub-base or road-base
- The depth to be considered for measurement shall not exceed 150mm
- Any miscellaneous costs arising.

g) COMPACTION BELOW FILL AREAS

This price includes the following:

- Shaping, levelling, watering and compaction of the natural ground level below fill areas as required in the Technical Specifications and as directed by the Engineer
- Any miscellaneous costs arising.

h) LEVEL AND COMPACT SUBGRADE IN FILL

This price includes the following:

- Shaping, levelling, watering and compaction of the fill material as required in the Technical Specifications and as directed by the Engineer.
- Any miscellaneous costs arising.

i) FILL WITH MATERIAL FROM EXCAVATION, ROAD EXCAVATION OR EXCAVATION IN ROCKS

This price includes the following:

- Levelling and evenly spreading.
- Hauling any distance of any suitable excavated materials, watering, smoothing and compacting as required in the Technical Specifications to the lines and levels shown on the drawing all in accordance with Engineer's instructions.
- Breaking down of rocks and boulders to a maximum size of 300 mm.
- Drainage of rain-water and maintenance prior to laying of sub-base or road-base.
- Trimming, shaping compaction and levelling of side slopes of fill to the lines and levels shown on the drawings or as directed by the Engineer, including any overwidth required to obtain the required compaction at the edges of shoulders and verge.
- For high embankment (> 4m or such other height directed by the Engineer), allowance for additional investigations of underlying strata, carrying out of relevant geotechnical tests, design and execution of surcharging for accelerated consolidation, allowance for work in marshy areas, allowance for time required for consolidation prior to forming of final embankment level and level monitoring for consolidation and reporting to the Engineer.
- Any miscellaneous costs arising

j) FILL WITH MATERIAL FROM BORROW PITS, QUARRIES, PILES OF BOULDERS OTHER THAN FROM THE WORKS

This price includes the following:

- Stripping vegetation and uncovering the borrow pits approved by the Engineer, constructing access roads
- Extraction, loading and transport to site, any distance
- Provision of fill as approved by the Engineer and as per Specifications
- Clearing and making good the site of the borrow pit
- Installing the fill, in whatever conditions this is to be done, the cutting of benches
- Maintenance of borrow pits and access roads
- Spreading out and any watering or aeration
- Compaction and levelling the fill, as shown on drawings and conforming to the requirements of the Technical Specifications
- Trimming, shaping and levelling of side slopes of fill to the lines and levels shown on the drawings or as directed by the Engineer.
- Shoulders and central verge.
- Any miscellaneous costs arising.

k) TOPSOIL AND GRASSING

This price includes the following:

- Picking up top soil from spoil tips or from natural ground in proximity of works and transport to any distance to area required
- Removal of debris, stones
- Spreading, levelling and light compaction of top soil
- Trimming and shaping to levels and contours
- Harrowing
- Reducing soil to a tilth immediately prior to grassing
- Transport and planting of grass, sprigs or the like
- Moving and clearance of grass cuttings during maintenance period
- Raking, watering and herbicide treatment and fertilising
- Cutting grass five times during maintenance period.
- Any miscellaneous costs arising.

SUB-BASE AND ROAD BASE**a) SUPPLY, MIX, SPREAD AND COMPACT CRUSHER RUN 0/20 (GRADED CRUSHED STONE) TO ANY WIDTH**

This price includes the following:

- Supply and transport to any distance of the graded crushed stone to the required areas
- Spreading out, watering, levelling and compacting as required in the technical specifications and levelling to the lines and levels shown on the drawings or as directed by the Engineer.
- Any miscellaneous costs arising.

b) SUPPLY, MIX, SPREAD AND COMPACT CRUSHER RUN 0/31.5 (GRADED CRUSHED STONE) TO ANY WIDTH

This price includes the following

- Supply and transport to any distance of the graded crushed stone 0/31.50 the required areas.
- Spreading out, watering, levelling and compacting as required in the technical specifications and levelling to the lines and levels shown on the drawings or as directed by the Engineer.
- Any miscellaneous costs arising.

c) SUPPLY, MIX, SPREAD AND COMPACT CRUSHER RUN 0/100 (GRADED CRUSHED STONE) TO ANY WIDTH

This price includes the following:

- Supply and transport to any distance of the graded crushed stone / hardcore filling of maximum size 100mm to the required areas.
- Spreading out, watering, levelling and compacting as required in the technical specifications and levelling to the lines and levels shown on the drawings or as directed by the Engineer.
- Any miscellaneous costs arising.

BITUMINOUS COURSES**a) SANDED PRIME ROAD BASE (AT THE RATE OF 1.2 KG/METRE SQUARE OF CUT-BACK)**

This price includes the following:

- Supply, transport and stocking the prime
- Supply and transport of chippings to the surface to be treated
- Sweeping, spraying surface layer with water and any other preparatory works
- Transporting the prime to the surface to be treated
- Any heating and spraying of prime
- Spreading chippings to protect the primed surface as directed by the Engineer.
- Any miscellaneous costs arising.

b) SPRAY TACK COAT TO BITUMINOUS SURFACES (AT THE RATE OF 0.6 KG/METRE SQUARE OF CUT-BACK)

This price includes the following:

- Supply, transport and stocking of binder
- Sweeping the surface and other preparatory works
- Transport of binder to surface to be treated
- Any heating and spraying of binder.
- Any miscellaneous costs arising.

c) SPRAY TACK COAT TO BITUMINOUS SURFACES (AT THE RATE OF 0.6 KG/METRE SQUARE OF CUT-BACK) TO EXISTING PAVED ROADS

This price includes the following:

- Supply, transport and stocking of binder
- Sweeping the surface and other preparatory works
- Transport of binder to surface to be treated
- Any heating and spraying of binder.
- Any miscellaneous costs arising.

d) PROVIDE, LAY AND ROLL BITUMINOUS CONCRETE (0/20) FOR BASE COURSE WITH NOMINAL 5.5 % BITUMEN CONTENT (MINIMUM THICKNESS 80mm)

This price includes the following:

- Supply and transport of Bitumen 35/50 to Asphalt plant
- Stocking
- Supply of cleaned washed chippings and their transport to the plant
- Washing of chipping as directed by the Engineer
- Heating and removing dust from chippings
- Any supply of filler, picking up from stock and using of same
- Picking up from stock and using the binder
- Heating the binder
- Making the asphaltic concrete in the unit
- Surface preparation
- Transport to any distance, spraying, compaction and smoothing materials including areas where this is done by hand or over a narrow surface

- Any trimming of edges
 - Joint preparations at all directions, inclusive cutting asphaltic concrete.
 - Any miscellaneous costs arising.
- e) **PROVIDE, LAY AND ROLL BITUMINOUS CONCRETE (0/14) FOR WEARING COURSE WITH NOMINAL 6.0 % BITUMEN CONTENT (MINIMUM THICKNESS 50mm)**

This price includes the following:

- Supply and transport of Bitumen 35/50 to Asphalt plant
 - Stocking
 - Supply of cleaned washed chippings and their transport to the plant
 - Washing of chipping as directed by the Engineer
 - Heating and removing dust from chippings
 - Any supply of filler, picking up from stock and using of same
 - Picking up from stock and using the binder
 - Heating the binder
 - Making the asphaltic concrete in the unit
 - Surface preparation
 - Transport to any distance, spraying, compaction and smoothing materials including areas where this is done by hand or over a narrow surface
 - Any trimming of edges
 - Joint preparations at all directions, inclusive cutting asphaltic concrete.
 - Any miscellaneous costs arising.
- f) **PROVIDE, LAY AND ROLL BITUMINOUS CONCRETE (0/14) FOR RESHAPING OF EXISTING ROAD WITH NOMINAL 4.8 % BITUMEN CONTENT**

This price includes the following:

- Supply and transport of Bitumen 35/50 to Asphalt plant.
- Supply of washed chippings and their transport to the Asphalt plant.
- Washing of chipping as directed by the Engineer.
- Heating and removing dust from chippings.
- Any supply of filler, picking up from stock and using the binder.
- Heating the binder.
- Making the asphaltic concrete in the unit.
- Surface preparation.
- Transport to any distance, spraying, compaction and smoothing materials including areas where this is done by hand or over a narrow surface.
- Any trimming of edges.
- Joint preparations at all directions, inclusive cutting asphaltic concrete.
- Any miscellaneous costs arising.

DRAINAGE, SIDE WALKS AND ACCESSES**a) CONSTRUCT AND COMPLETE DRAINS, CULVERTS, HEADWORKS AND WING WALLS**

This price includes the following:

- Excavation in any type of material including rocks and any extra excavation due to natural ground level and removal of water part return, fill, trimming of unlined drains
- Supply on site of all necessary plant and materials
- Making and erecting formwork, supply, cutting and placing of concrete, reinforcement bars, prefabricated concrete elements, and of sound masonry stones to lines and levels, concrete curing and supplying and applying material for impregnation of concrete surfaces.
- Supply and placing of concrete drains in precast concrete elements or in reinforced cast in-situ concrete (concrete class 20/25, bars grade 460) including expansion joints, blinding layer in lean concrete 5 cm thick etc.
- Supply and placing of concrete bed, mortar jointing, etc.
- Supply and placing of expansion joint and water stops, all details shall be supplied by Contractor and approved by Engineer.
- Striking off formwork
- Cleaning of drains during maintenance period, frequency as directed by the Engineer.
- Backfill and making good the sides of the constructed drains
- Disposal of any surplus excavated material as directed by the Engineer
- Connection to soakways or manholes, details to be supplied by Contractor and approved by the Engineer.
- Allowing for and complying with connection details of raised kerbs with Gullies
- For culvert bridges, rate to include all excavation, layerworks, concreting, lean mix (5% cement content) for transition, formwork, reinforcement, waterproofing to deck & surface impregnation of concrete buried surface.
- For trapezoidal masonry drain, rate to include supply and placing of shaped masonry stones with cement mortar, 75mm dia. uPVC weep holes as per drawing, final cleaning of drains
- For RC Formers on drains, the Contractor shall cater in the rates and prices the RC formers to be placed on the drain and the insitu concrete topping including reinforcement as per drawing.
- For swales, rate to include preparation of surfaces, topsoil and grassing (including picking up top soil, transport to any distances, removal of debris and stones, spreading, levelling, light compaction, trimming and shaping to levels, harrowing, reducing soil to a tilth prior to grassing, moving and clearance of grass cuttings during maintenance period, raking, watering, herbicide treatment, fertilizing, and cutting grass five times during maintenance period.) Lining of swales shall be with approved vegetation.
- Any miscellaneous costs arising.

b) SUPPLY AND FIXING OF COVERS AND OPENINGS FOR DRAINS AS SHOWN ON TYPICAL DRAWINGS

This price includes the following:

- Supply on site of all necessary plant and materials.
- Making and erecting formwork, supply, cutting and placing of concrete, reinforcement bars, prefabricated concrete elements, concrete curing fixing of opening device, striking off formwork etc.
- Supplying, and fixing of precast concrete formers to receive in-situ concrete slab in accordance with specifications and drawings
- The price for casting of in-situ concrete topping and reinforcement as per drawing, compaction, finishing, testing and curing over RC former shall be included in the rate,
- Anti-rocking/noise prevention device/precaution as required
- Jointing and mortar bedding
- Manufacture, supply, and transport metal covers and frames of specified class
- Fixing of metal covers in accordance with specifications and drawings
- Any miscellaneous costs arising.

c) KERBS

This price includes the following:

- Supply and transport to any distance of the precast kerbs to the required areas.
- Excavation in any material, including rock.
- Mixing mortar and concrete.
- Supply on site of all necessary plant and materials.
- Erecting formwork, cutting and bending into place of any reinforcement.
- Placing and curing the concrete for in situ kerbs and for bedding/backfilling of precast kerbs.
- Striking the formwork, any necessary backfilling, smoothing and jointing.
- Spoiling excess cut.
- Concrete for bedding and backfilling shall be class C12/15.
- Allowing for all necessary alignment as instructed by the Engineer.
- Connection to drain including supply and fixing of PVC pipes of diameter 150mm to diameter 200mm.
- Connection to downspouts
- Any miscellaneous costs arising.

d) CATCHPITS

This price includes the following:

- Excavation in any material including rock removal of water for dry work, and locating existing drains
- Supply of material and plant for construction of bases, walls and drain connections.
- Cutting and bending into place of reinforcement
- Erecting the formwork, striking the formwork
- Galvanised openable grill cover complete with frames.
- Backfilling with approved materials and compacting the trenches
- Take measures to ensure that the finish levels of catchpits is at least 100mm above FGL
- Any costs arising from outlet or inlet of drains.
- Any miscellaneous costs arising

e) MISCELLANEOUS HYDRAULIC STRUCTURES

This price includes the following:

- Excavation in any material including rock and removal of water for dry work
- Supply of material and plant
- Mixing and placing of concrete, mortar
- Cutting and bending into place of reinforcement
- Erecting the formwork, striking the formwork
- Bituminous emulsion painting of buried faces
- Supply and placing of sound stones for rip rap /masonry works and gabion units
- Supply and assemble gabion units
- Supply and assemble precast elements for open channel chutes
- Backfilling with approved materials, compaction.
- Curing of concrete
- Any miscellaneous costs arising.

f) HEAVY DUTY GALVANISED GRATING

This price includes the following:

- Manufacture, supply and transport galvanised metal grating covers and frames as per typical drawing.
- Fixing of metal grating covers in accordance with specifications and drawings.

g) RIP RAP

This price includes the following:

- 150 mm nominal size rip rap stone at culvert outlets, aprons of channel chutes and as scour protection.
- Price includes 100mm thick blinding concrete (class 12/15).
- Total thickness: 250mm

h) BLINDING CONCRETE (CLASS 12/15)

This price includes the following:

- Supply of all materials and plants
- Mix design
- Trial mixes
- Mixing, placing in or against any surface, including soil faces, compaction, finishing and unformed surface finishes
- Curing and protection
- Placing concrete by any means including pumping
- Any miscellaneous costs arising.

i) CONCRETE CLASS 25/30

This price includes the following:

- Supply of all materials and plants
- Mix design
- Trial mixes
- Mixing, placing in or against any surface, including soil faces, compaction, finishing and unformed surface finishes
- Curing and protection

- Construction joints, (whether or not shown on the drawings) water bars and stops including formwork
- Weep pipes, pipe sleeves and the like
- Holes, ducts, pockets, sockets, mortices and the like not exceeding 0.50 cubic metres each in volume including formwork
- Measures to control alkali-silica reaction
- Measures to allow for camber requirements
- Air entrainment
- Admixtures and additives.
- Placing concrete by any means including pumping
- Provision for supplying a cover meter instrument and carrying out surveys to the completed structures and reporting results to the engineer and in a format to be agreed with the engineer .
- Any miscellaneous costs arising.

j) FORMWORK (ROUGH)

This price includes the following:

- Supply of all materials and plants
- Formwork for kickers
- Forming cambers and falls
- Linings and taking measures to produce the required finish to the surfaces of the concrete
- Cutting and fitting around projecting members, pipes, reinforcement and the like
- Individual fillets, chamfers, splays, drips, rebates, recesses, grooves
- Maintaining in place until striking and allowing for any variation from the minimum period for striking arising from prevailing weather conditions striking, taking down and removing.
- Any miscellaneous costs arising.

k) REINFORCEMENT (HIGH YIELD DEFORMED BARS GRADE 460) TYPE AS SHOWN ON DRAWINGS

This price includes the following:

- Supply of all materials and plants
- Cleaning, cutting and bending
- Binding with mild steel wire at all intersections
- Supports, cover blocks and spacers (except for steel bar supports to reinforcement where shown on the drawings)
- Extra fabric reinforcement at laps, and starter bars
- Welding
- Mechanical connections.
- No measurement shall be allowed for reinforcement laps.
- Provision for grout wash of projected reinforcement at any location and as instructed by the engineer.
- Any miscellaneous costs arising.

l) STONE MASONRY WORKS MINIMUM (20cm TO 30 cm THICK)

This price includes the following:

- Excavation in any material
- Supply, cutting of sound dressed stone facing
- Setting, bedding, jointing, raking out, grouting, pointing, wetting and fair faced work including rough and fair cutting of existing embankment or drains to a warped plain to be detailed by contractor.
- Masonry and concrete as per typical drawing.
- Masonry to be a random joint, fair faced with clear joint finish.
- Ties, dowels, mortices.
- Cavity filling with concrete Class 16/20 between stone work.
- Building in pipes and weepholes and forming small openings.
- Backfilling to walls with excavated or imported material.
- Any special scaffolding required.
- Any miscellaneous costs arising

m) CONCRETE FOR FOOTPATH AND CYCLE TRACK AS PER DRAWINGS

This price includes the following:

- Supply of all materials and plants
- Cleaning, shaping and trimming
- Supply and transport to any distance of the graded crushed Stone of size 0-20mm (125mm thick) to the required areas including spreading out, watering, levelling and compacting as required in the technical specifications and levelling to the lines and levels shown on the drawings or as directed by the Engineer.
- Supply of class 20/25 concrete (125mm thick) and A252 mesh.
- Supports, formwork and fabric reinforcement at laps, and starter bars
- Expansion joint every 3m.
- Any miscellaneous costs arising.

But excludes the cost for the placing of cover slabs OR RC Formers and In-situ concrete on concrete drains

n) PAVING BLOCKS AS PER DRAWINGS

This price includes the following:

- Supply of all materials and plants.
- Excavation to the required level.
- Cleaning shaping and trimming of subgrade.
- Supply of precast paving blocks as per Engineer's Drawings.
- Supply, level and compact 60mm of rocksand including vibration for filling of joints with rocksand or mortar.
- Lightly rough finish to surface.
- Filling of joint with rocksand including vibration.
- Any miscellaneous costs arising.

o) KERBS

This price includes the following:

- Supply and transport to any distance of the precast kerbs to the required areas.
- Excavation in any material, including rock.
- Mixing mortar and concrete.
- Supply on site of all necessary plant and materials.
- Erecting formwork, cutting and bending into place of any reinforcement.
- Placing and curing the concrete for in situ kerbs and for bedding/backfilling of precast kerbs.
- Striking the formwork, any necessary backfilling, smoothing and jointing.
- Spoiling excess cut.
- Concrete for bedding and backfilling shall be class C12/15.
- Allowing for all necessary alignment as instructed by the Engineer.
- Connection to drain including supply and fixing of PVC pipes of diameter 150mm to diameter 200mm.
- Any miscellaneous costs arising.

ROAD EQUIPMENT AND MISCELLANEOUS

a) SUPPLY AND APPLY REFLECTORISED THERMOPLASTIC ROAD MARKING AND CHLORINATED RUBBER PAINT TO BITUMINOUS CARRIAGEWAY FOR MARKINGS AND SYMBOLS

This price includes the following:

- Preliminary cleaning and premarking out the pavement
- Supply of the necessary plant applicator machine, dispenser
- Supply of thinners, thermoplastic materials, glass beads (minimum 20% of mixture by weight)
- Temporary road signs
- Application of thermoplastic marking, 1.5 mm minimum thickness

Hot applied thermoplastic marking shall be to BS3262 with luminance factor of not less than 7%, skid resistance not less than 45, heat stability not less than 65%. Road marking shall be for longitudinal, broken or continuous lines, arrows, chevrons, etc. Chlorinated Rubber Paints shall be as per Technical Specifications.

- Any miscellaneous costs arising.

b) SUPPLY AND FIX CATS' EYES

This price includes the following:

- Supply and transport of cats' eye, unidirectional or bi-directional of white colour
- Supply on site of the necessary plant and materials
- Drilling of holes, core removal, cleaning dust and debris from areas of road surrounding hole
- Cleaning of the hole with compressed air hose
- Fixing the cats' eyes into the pavement
- Smoothing the pavement around the cats' eyes
- Temporary road signs.

Cat's eyes shall be PRISMO II or Similar approved, aluminium with mirror backed glass lens protected from damage by the aluminium body and self cleaning.

Fixing of stud to the road shall be by anti twist metallic stem.

- Any miscellaneous costs arising.

c) PROVIDE AND ERECT REFLECTIVE PROHIBITIVE OR MANDATORY SIGNS, PRIORITY SIGNS, WARNING SIGNS, INFORMATORY SIGNS WITH ADDITIONAL PANELS POST AND FITTINGS

This price includes the following:

- Supply of signs, posts and fittings.
- Digging out the foundations.
- Supply and laying concrete C20/25 for foundations including anchor bars to be welded to pipe post.
- Mounting and fixing the sign, including bolting and securing of sign panels to posts with stud bolts fastened by cleats.
- Paint for metallic supports.
- Signs and symbols in accordance with government notice 154 of 1990 on road signs and signals and as per drawings of the department of transport (UK).

Design and lettering of inforamatory and directory signs shall be worked out and marked by Contractor as directed by the Engineer.

Note: Posts shall be galvanised steels pipes, diameter 80 mm minimum, 3.25 mm thick, with spacing between two posts not exceeding 600 mm.

- Sign panels shall be at least 3mm thick aluminum sheet, stiffened with aluminium angles as and when required.
- Foundations shall be 0.9m x 0.6m deep x 0.5m for single post, 1.8m x 0.6m deep x 0.5m for double post, and 2.7m x 0.6m deep x 0.5m for triple posts.
- Size of foundations for sign panels less than 900mm (prohibitory, warning, mandatory and priority signs) shall be at least 0.5m x 0.5m x 0.5m.
- Where possible, the lower edge of the sign shall be 2m above the highest point of the carriageway. The distance between the outer post and the edge of the sign panel shall not exceed 375mm.
- Bracing at 45° for double and triple posts cast in individual foundations 0.5 x 0.5 x 0.5m.
- Any miscellaneous costs arising.

d) SUPPLY, ERECT GALVANISED STEEL SAFETY FENCE (GUARDRAIL)

This price includes the following:

- Supply and transport of the lengths of barrier ends (beginning and end of sections, pier heads), beams, supports, spacers, blocking out pieces, all necessary fixing accessories reflecting studs.
- Special posts for mounting / fixing on structures
- Digging out the foundations, disposal of material
- Backfill and compaction with Class 12/15 concrete as shown on drawings
- Erecting forming, striking formwork and curing
- Supply and laying concrete for foundations
- Erection in straight or curved (any radius) lengths to a flowing profile
- Fixing and adjusting in any material including structures (drilling or forming
- Holes and pockets and casting in bolts, base plates and anchorage assemblies)
- Connection to bridge parapet
- Making good to existing protective system at structures
- Terminal ends all as shown on drawing
- Any miscellaneous costs arising.

e) SUPPLY, ERECT GALVANISED LIGHT DUTY HANDRAIL

This price includes the following:

- Supply of materials and equipment for assembly and fixation of galvanised steel (grade 300W) pedestrian handrail, as shown on the drawings and as per specifications
- Design of handrail.
- Provision of data drawings (2 sets original)
- Obtaining aesthetic approval
- Fabrication
- Protective system
- Connection pieces for attachment of safety fences
- Drilling or forming holes and pockets and casting in bolts, sockets, base plates and anchorage assemblies
- Adhesives and epoxy or polyester mortar, bedding mortar or grout

- Making good protective system
- Adjustments to flowing alignment
- Fixing to structures and foundations including attachment systems
- Expansion joints
- Sealing of voids
- Reinforcement and welding & painting with aluminium paint of all elements
- Any miscellaneous costs arising.

f) CONSTRUCTION OF DRAWPITS

This price includes the following:

- Excavation in any materials including rock to the required dimensions
- Supply and place concrete Class 20/25 in situ to drawpits foundations as per drawing
- Blinding concrete, formwork, reinforcement bars, PVC pipes, including suitable bends for drawing cables, base plates and anchorage assemblies
- Backfilling drawpits with rock sand and compaction in layers as per the specification.
- Backfilling around drawpits and compaction in layers as per the specification.
- Any miscellaneous costs arising.

g) CONSTRUCTION OF BUS LAYBY AND SHELTER

This price includes the construction of bus bays and shelter as detailed in the drawings.

It includes the following:

- Any excavation works and disposal of surplus material
- Supply of all necessary materials and plants on site.
- Making and erecting formwork, supply, cutting and placing of polystyrene, waterproof membrane, concrete, reinforcement to lines and levels,
- Concrete curing and finishing of concrete with brush.
- Supply and installation of dowel bars $\phi 20\text{mm}$, 900mm long at 300mm c/c
- Spacing including polystyrene cap, cages for fixing and securing dowels,
- Debonding compound for dowels.
- Flexcell or equivalent expansion joints, including sealing with sealant
- Materials resistant to fuel, oil and hydraulic spillages.
- Production of workshop drawings
- Construction of bus shelter as per typical drawing
- Connection to drains (if any)
- Any miscellaneous costs arising.

POTABLE WATER SUPPLY NETWORK

a) GENERAL

The items provided in the Bill of Quantities for earth works, pipe laying and installation shall cover all necessary works including digging and reinstatement of trial pits required or as directed by the Engineer together with obtaining permission from the relevant Road Authorities for the making of the trial holes, excavation of trench, rock excavation, importation of materials and to install or lay and test the completed pipeline without limitation including storing, transporting, handling, site clearance, dewatering, bedding, laying, cutting, jointing, incorporation of all required pipe specials and fittings, connections to existing mains, painting where specified, backfilling, compacting and testing thereof, protection, security, removal and proper disposal of unsuitable and surplus excavated material all as specified, temporary, permanent and all other things necessary for pipeline installation not measured separately under other items in the Bill of Quantities.

No separate payment will be made for pressure and leakage test and disinfection and cleaning of pipelines. The rates and prices quoted for pipe laying shall cover costs of all materials including water, labour, tools and equipment, and incidentals necessary to complete the required work, hydraulic testing, leakage tests, disinfection and cleaning, disconnecting and reconnecting any pipes and specials together with any excavation and backfilling involved.

b) EXCAVATION

The rates and prices quoted for excavation for pipe laying works shall include:

- Excavation in any material, including cutting & excavation in road pavement & loose boulders, trimming last 100mm by hand prior to laying of pipes provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer. The obligations of the contractor include laying and compacting of 300 mm above the crown of pipe with suitable and approved fine material at its optimum moisture content in 150 mm layers and the backfill of remaining depth with selected excavated materials, or imported material as specified, to the required level. This price shall also include the disposal of any surplus excavated material from site to appropriate dumps through duly licensed and registered carriers.
- Replacement of unsuitable materials with imported fill at bottom of excavation and the disposal/carting of any surplus excavated material from site to appropriate dumps.
- For work in difficult site conditions, confined area, reduction in productivity due to presence of water, existing services, hand transportation of material, double handling of materials.
- Allowance for extra excavation for anchor blocks, thrust blocks etc. including working space
- Allowance for extra excavation for valves, hydrants, washouts chambers
- Allowance for working space including extra space required for battering or excavations and formwork and including any extra over excavation due to contractor method of work or difficult geotechnical conditions encountered (presence of water, boulders, collapse of trench walls etc.)
- Supply and place of warning tapes

- Testing of backfill to the satisfaction of Engineer and any Local Authority
- Any miscellaneous costs arising.

Measurement for the depth of excavation will be taken as the vertical depth from the ground level to the invert level of the pipe.

c) PIPE PROTECTION

Supply, place and compact Granular bedding (150 mm thick granular moist 5mm bedding) in trench bottom, up to half bore of different pipe sizes as per drawing

The rates and prices of the bedding materials shall include:

- Supply, place and compact of granular bedding in trench bottom and up to 150mm above crown of pipe as stated for pipe of various diameter meters.
- Supply of bedding material to site, properly stacked and not to cause any hindrance or disturbance to public/traffic spreading and carefully compacting with a wooden tamper to the underside of the pipe barrel and the surface trued to the required gradient bringing and compacting the granular material up to top of the pipe barrel after pipe has been laid, jointed and aligned to the satisfaction of the Engineer
- For work in difficult site conditions, confined area, reduction in productivity due to presence of water, existing services, hand transportation of material, double handling of materials.
- Supply of selected fill
- Any miscellaneous costs arising

d) PIPE LAYING

The Quantities for laying of pipes shall be measured by effective length of pipeline along its centerline with deduction for the length of valves, specials and fittings. The measurement shall be carried out separately according to type, diameter and given depth ranges. The laying length of each depth range shall be paid separately as provided in the BOQ (depth means ground level to invert level of pipes). Where in Bill of Quantities, items described as plain-ended pipe piece, the pipe piece end shall be spigot type for joining with socket end pipes or specials.

The rates and prices shall include for:

- Supply on site of all necessary plants, labour, tools & equipment necessary to carry out the works
- Transport to the worksite of pipes, joints, couplers, accessories etc.
- Provision of storage, stacking, including for supports, double handling etc.
- Cutting, fixing, jointing and laying of pipes complete on bed in bottom of trenches,
- Cutting away and removal of bed at socket or sleeve of pipe swabbing, testing, sterilisation as per technical specifications
- Any necessary adjustment to lines and levels to cater for crossing of other services
- Provision of necessary certificates from independent certification bodies and laboratories approved by the Engineer certifying compliance with specifications
- All necessary swabbing, cleaning, disinfection, hydrostatic testing, leakage testing and other tests as specified in the technical specifications
- Any miscellaneous costs arising

All Bill of Quantities item for supplying of pipes and fittings will cover all costs associated to bring the pipes and fittings near to the trench in which they will be laid.

e) PIPE FITTINGS

Laying of Pipe Specials and Fittings shall be measured as the number of each item installed in accordance with the Drawings and the Engineer's instructions but separately according to type and diameter. The installation rates for fittings and specials shall be extra over to the laying of pipes and shall include all connected works but in any way not limited to installation alone. Separate item has been provided in the Bill of Quantity for concrete thrust block and anchor blocks as depicted on drawings and for pressure testing.

f) VALVES

This price includes the following:

- Transport on site of all necessary plants and materials
- Provision of storage, stacking, including for supports, double handling etc.
- Bolts, nuts and gaskets.
- Extension spindle and wheel.
- Any additional fittings not listed in the bill of quantities but which are required to connect the valves, hydrants, washouts to the pipe are to be included air valve complete with isolating cock extension piece as required.
- Installation on site including for provision of supports swabbing, testing, sterilisation as per technical specification
- Any necessary adjustment to lines and levels to cater for crossing of others services
- Any miscellaneous costs arising

g) SLUICE VALVES

Rates and prices for the installation of section valves shall be measured as the number of each item installed in accordance with the drawing and shall include for extended spindles, key heads. Surface box assembly with the protection pipe as depicted in drawings shall be paid separately.

h) WASHOUT VALVES

Rates and prices for installation of washouts shall include for extended spindles, key heads, etc. as required, and discharge pipes (average length not exceeding 6.0m) within the limit of installation as shown on the drawing including the overflow chamber, head wall, drain as relevant. If the average length of pipes within the limit of installation measured along the centerline of pipe exceeds 6.0 m, the extra length of pipe shall be measured separately. The installation of suitable invert level Tee on the main pipeline shall be paid separately.

i) AIR VALVES

Rates and prices for installation of air relief valve beyond Tee on the main pipeline shall include installation of isolation valves (sluice valve, GI flange spigot pipe, flange adapter and GI support with concrete base. The rate shall include supply of GI flange spigot pipe, GI support, and GR20 concrete for the base. A separate item has been provided in the BOQ for the installation of Tee or clamping saddle on the main pipeline as appropriate in the Bill of Quantity

j) BULK WATER METERS

Flow meters shall be of the Kent Helix inferential type or similar approved by the Engineer.

All meters shall be double flanged, the flanges being drilled to BS 4504 Table 16/11 and shall be provided with 7 days' chart recorders actuated by mechanical drive. Rates and prices for installation shall include for all associated fittings and support blocks as shown in drawings. The cost of supply of GI double flange pipes shall also be included to the rate.

k) FIRE HYDRANTS

Rates and prices for installation shall include for all the fittings, beyond the Tee of the main pipeline, valves, surface boxes, chambers within the limit of installation and pipes (length not exceeding 5.0m measured along the centerline). If the length of pipes within the limit of installation measured along the centerline exceeds 5.0 m, the extra length of pipe shall be measured separately.

l) CONSTRUCTION OF CONCRETE THRUST BLOCKS, ANCHOR BLOCKS, PIPE SUPPORTS

This price includes the following:

- Supply and placing of blinding concrete class C12/15, 50 mm thick
- Provision of adequate formwork, supply and placing concrete C25 in thrust block necessary curing, striking of formwork and backfilling.
- Any extra concrete supplied and placed due to allowance for working space including extra space required for battering or excavations and formwork and
- Including any extra over excavation due to contractor method of work or difficult geotechnical conditions encountered (presence of water, boulders, collapse of trench walls etc.)
- Any miscellaneous costs arising.
- Grade 20 concrete encasements to pipes shall be measured in effective length or in cubic metre as provided in the bill of quantity.

m) VALVE CHAMBERS

This price includes the following:

- Construct valve chamber complete as per drawing
- Supply and place bedding surround as per drawings
- Excavation to required depth with provision for adequate shoring and strutting
- Supply and fixing of heavy duty manhole covers D400 to BS 124 (600x600 & 300 x 300), step irons to BS1247, provision of certificates of compliance from independent testing laboratories (bureau Veritas, SGS etc..) To the effect that the materials comply with the specifications
- Supply and placing of blinding concrete class C12/15, 50 mm thick
- Supply and fixing of any reinforcement as specified in drawings.
- Supply and fixing of any reinforcement as specified in drawings.
- Provision of adequate formwork, supply and placing concrete C20/25 to bases, walls and covers
- Work in difficult site conditions, confined area, reduction in productivity due to presence of water and existing services, hand transportation of material, double handling of materials.

- Provision of certificates of compliance from independent testing laboratories (bureau Veritas, SGS etc..) To the effect that the proposed pipes and fittings comply with the specifications
- Necessary curing, striking of formwork and backfilling.
- Any miscellaneous costs arising.

n) MARKER POSTS

Rates and prices for marker posts shall include but not by way of limitation for:

- Excavation and provision of concrete base.
- Supply and fixing of concrete marker posts near air valves, wash-outs, sluice valves, etc. as directed by the Engineer
- Fixing of cast aluminum indicator plates with raised letter as specified on to the post

o) PLOT CONNECTIONS

The Rates and prices for Plot connections shall include but not by way of limitation for:

Supply and Deliver communication pipes HDPE 90mm including transition coupling to connect to DI pipe with tapping DN100,

Supply all necessary labour, plant and equipment etc. to lay and install the communication pipe from the new service main to valve chamber as per drawings.

The rate shall include: -

- Excavation in all types of material including rock, paving blocks, private lawns, etc. with all necessary approved temporary supports, bedding, backfilling, compaction and disposal of surplus materials.
- Breaking of concrete kerbs, drains, if any and reinstatement to original state.
- 200mm diameter PVC sleeves for road, drain and services crossings including for excavation in any material (including rock), bedding, backfilling and compaction
- Reinstatement of excavated trench and make good of the surface.
- Supply and Fixing of transition coupling to suit the size of service main (main from which tapping made)
- Underpressure drilling of mains where required.
- Undercrossing any drain or culvert if required.
- Cutting and joining of pipes.
- Supply of any other fittings including adaptors and stopcocks required to make complete connection to valve chamber as per drawings.

TELECOMMUNICATION NETWORK

a) EXCAVATION FOR TELECOM TRENCH

This price includes the following:

- Excavation in any material including rock, cutting of asphalt, provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer.
- The supply of selected sieved non-plastic material in layers of 200mm thick source of material to be approved by the Engineer. The first layer shall be moistened at its optimum moisture content and rammed with a flat wooden tamper.
- The second & successive layers to be compacted after moistening by a flat bed mechanical tamper.
- Backfill of trench, as specified, to the surface as shown on drawings.
- Measurement for depth of excavation will be from existing ground level to trench formation as shown on typical drawings.
- Supply and place appropriate warning tape.
- Any miscellaneous costs arising.

b) DUCT/CABLE PROTECTION

This price includes the following:

- Supply and place Rockland in trenches as bedding material as specified; depth below pipe and to sides and crown of ducts as shown in drawings.
- supply of Rockland to site, properly stacked and not to cause any hindrance or disturbance to public/traffic spreading and carefully compacting in trenches and to the underside, the sides and on top of the crown of the ducts and cables bringing and compacting the material up to the thickness shown on drawings above the crown of ducts.
- Any miscellaneous costs arising.

c) SUPPLY, TRANSPORT, LAY AND JOINT PVC DUCTS

This price includes the following:

- Supply, transport, unloading on site & storage of ducts. Telecom stores.
- Insurance against all perils of goods to be supplied.
- Clean and lay ducts, joint with an approved PVC jointing compound (Jointing compound to be supplied by contractor) on suitable wooden bench.
- Allowance for all cutting and wasting shall be made. No heating of pipes is permitted. Pipes shall be properly stacked as shown in drawings starting with bigger DIAMETERS at the bottom and smallest at the top. The whole dust nest is to be kept in place with appropriate wooden or steel forms.
- Placing of fittings (bends, reducers etc) where required complete with temporary supports.
- Supply of labour, draw wire (nylon), air compressors, guns and furets for testing of ducts. and warning tapes (green colour) over whole width of trench.
- Testing of system to the satisfaction of the local Authority / Contracting Authority.
- Any miscellaneous costs arising.

d) SUPPLY, TRANSPORT, LAY AND JOINT PVC BEND

This price includes the following:

- Supply, transport, unloading on site & storage of ducts.
- Telecom stores.
- Insurance against all perils of goods to be supplied.
- Clean and lay ducts, joint with an approved PVC jointing compound (Jointing compound to be supplied by contractor) on suitable wooden bench.
- Allowance for all cutting and wasting shall be made. No heating of fittings is permitted. Fittings shall be properly stacked as shown in drawings starting with bigger diameters at the bottom and smallest at the top. The whole dust nest is to be kept in place with appropriate wooden or steel forms.
- Placing of fittings (bends, reducers etc) where required complete with temporary supports supply of labour, draw wire (nylon), air compressors, guns and furrets for testing of ducts.
- Testing of system to the satisfaction of the local Authority / Contracting Authority.
- Any miscellaneous costs arising.

e) CONSTRUCTION OF TELECOM CHAMBERS

This price includes the following: (Precast or cast -in- situ)

- Excavation in any material including rock.
- Removal of water for dry work, and locating existing drains.
- Supply of material and plant for construction of bases, walls, cover shafts, benchings, building in steps, ducts, and channels.
- Blinding concrete (lean) 10cm thick-mixing and placing of concrete, mortar.
- Placing of precast concrete elements/brickworks.
- Cutting and bending into place of reinforcement (90kg per m³ of concrete)
- Erecting the formwork, striking the formwork
- Bituminous painting of buried faces (surface impregnation of concrete, 2 coats)
- Supply and fixing in position manhole cover to EN 124 (D400) heavy duty
- All complete, lifting rings, openable devices and step irons to EN 13101 (all details to be confirmed by contractor for Engineer's approval)
- Backfilling with approved materials and compacting the trenches
- Supply and fixing of galvanised steel ladder, cable bearers & sump
- Any costs arising from outlet or inlet of ducts and channels, into the chamber
- Drainage of cable chamber bottom and connection of drainage to existing channel
- Repairs of connections
- Testing of system to the satisfaction of the local authority / contracting authority
- Any miscellaneous costs arising

f) MT CABINET

This price includes the following:

- Take delivery of cabinet from Mauritius Telecom offices and fix on site as per instruction from Engineer.
- Connection of cables and ducts to the cabinet
- Any miscellaneous costs arising.

g) MT CUBICLE

This price includes the following:

- Construct telephone cubicle complete as per drawing.
- Supply and fix weatherproof and corrosion treated metallic door, hot dip galvanised, lockable door with non-corrosive hinges.
- Excavation in any material including rock removal of water for dry work, and
- Locating existing drains
- Erecting the formwork, striking
- Supply of material and plant for construction of bases, walls, cover shafts,
- Benchings, building in ducts, steps
- Cutting and bending into place of reinforcement
- Erecting the formwork, striking the formwork.
- Supply and installation of ducts, any costs arising from outlet or inlet of ducts into the cubicle, blinding concrete 5cm thick - mixing and placing of concrete.
- Supply and fixing in position of door
- Any miscellaneous costs arising.

ELECTRICAL SUPPLY NETWORK**a) SUPPLY, INSURE AGAINST ALL PERILS, TRANSPORT, LAY AND JOINT PVC DUCTS FOR ELECTRICITY SUPPLY**

This price includes the following:

- Excavation in any material including rock, provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer.
- This price includes the supply of selected sieved non-plastic material in layers of 200mm thick source of material to be approved by the Engineer. The first layer shall be moistened at its optimum moisture content and rammed with a flat wooden tamper. the second & successive layer to be compacted after moistening by a flatbed mechanical tamper backfill of trench, as specified, to the surface as shown on drawings
- Supply and place rocksand in trenches as bedding material as specified; depth below pipe and to sides and crown of ducts as shown in drawings.
- Supply of rocksand to site, properly stacked and not to cause any hindrance or disturbance to public/traffic spreading and carefully compacting in trenches and to the underside, the sides and on top of the crown of the ducts and cables bringing and compacting the material up to the thickness shown on drawings above the crown of ducts.
- Supply and lay appropriate warning tape
- Supply and place concrete of Grade 20/25 with max aggregate size not exceeding 10mm to bed, sides and top of ducts as shown in drawings.
- Supply and pouring of concrete with appropriate shuttering to the sides of the ducts
- Backfilling of void between concrete and sides of trench with approved granular non-plastic material saturated with water, well compacted before backfilling above the concrete surround is commenced
- The supply of precast concrete slabs (concrete grade 20/25) in panels of size 500x200x40mm thick with the warning "DANGER ELECTRICITY" grooved in the concrete on both sides
- Placing of slabs
- Supply, transport, unloading on site of ducts 63mm and 160mm diameter as per technical specifications and drawings
- Clean and lay ducts, joint with an approved PVC jointing compound (Jointing compound to be supplied by contractor) on suitable wooden bench.
- Allowance for all cutting and wasting shall be made.
- No heating of pipes is permitted.
- Pipes shall be properly stacked starting with bigger diameters at the bottom and smallest at the top.
- The whole dust nest is to be kept in place with appropriate wooden or steel forms. Placing of fittings (bends, large radius bends, reducers etc) where required complete with temporary supports
- Supply of labour, draw wire, air compressors, guns and furets for testing of ducts. And warning tapes (Red colour) over whole width of trench.
- Supply and placing of warning tapes as per typical drawings
- Supply and placing of cable draw wires as per specifications

- Supply and placing of concrete warning slabs as per drawings
- To be paid separately
- Testing of system to the satisfaction of the local Authority / utility Authority
- Any miscellaneous cost arising

b) CONSTRUCTION OF ELECTRICITY DRAW PITS

This price includes the following:

- Excavation in any material including rock removal of water for dry work, and
- Locating existing drains
- Supply of material and plant for construction of bases, walls, cover shafts,
- Benchings, building in steps, ducts, and channels
- Blinding concrete (lean) 10cm thick-mixing and placing of concrete, mortar
- Placing of precast concrete elements/brickworks
- Cutting and bending into place of reinforcement
- Erecting the formwork, striking the formwork
- Bituminous painting of buried faces (surface impregnation of concrete, 2 coats)
- Backfilling with approved materials and compacting the trenches
- Any costs arising from outlet or inlet of ducts and channels, into the chamber
- Drainage of cable chamber bottom and connection of drainage to existing channel
- Repairs of connections
- Testing of system to the satisfaction of the local authority / statutory authority
- Compacted soil backfilling on draw pit where applicable
- Concrete jacket at entry and exit of pit around pipes, thickness 100mm, 300mm length,
- Warning slabs and warning tapes as shown on drawings
- Any miscellaneous costs arising

c) CONSTRUCTION OF JOINTING PITS

This price includes the following:

- Excavation in any material including rock removal of water for dry work, and
- Locating existing drains
- Supply of material and plant for construction of bases, walls, cover shafts,
- Benchings, building in steps, ducts, and channels
- Blinding concrete (lean) 10cm thick-mixing and placing of concrete, mortar
- Placing of precast concrete elements/brickworks
- Cutting and bending into place of reinforcement
- Erecting the formwork, striking the formwork
- Bituminous painting of buried faces (surface impregnation of concrete, 2 coats)
- Backfilling with approved materials and compacting the trenches
- Any costs arising from outlet or inlet of ducts and channels, into the chamber
- Drainage of cable chamber bottom and connection of drainage to existing channel
- Repairs of connections
- Testing of system to the satisfaction of the local authority / statutory authority
- Compacted soil backfilling on draw pit where applicable
- Concrete jacket at entry and exit of pit around pipes, thickness 100mm, 300mm length,
- Warning slabs and warning tapes as shown on drawings
- Any miscellaneous costs arising

d) CONSTRUCTION OF RING MAIN UNIT(RMU)

This price includes the following:

- Excavation in any material including rock removal of water for dry work, and
- Locating existing drains
- Supply of material and plant for construction of bases, walls, cover shafts,
- Benchings, building in steps, ducts, and channels
- Blinding concrete (lean) 10cm thick-mixing and placing of concrete, mortar
- Placing of precast concrete elements/brickworks
- Cutting and bending into place of reinforcement
- Erecting the formwork, striking the formwork
- Bituminous painting of buried faces (surface impregnation of concrete, 2 coats)
- Backfilling with approved materials and compacting the trenches
- Any costs arising from outlet or inlet of ducts and channels, into the chamber
- Drainage of cable chamber bottom and connection of drainage to existing channel
- Repairs of connections
- Testing of system to the satisfaction of the local authority / statutory authority
- Compacted soil backfilling on draw pit where applicable
- Concrete jacket at entry and exit of pit around pipes, thickness 100mm, 300mm length,
- Warning slabs and warning tapes as shown on drawings
- Any miscellaneous costs arising.

e) CONSTRUCTION OF TRANSFORMER ROOMS

This price includes the following:

- Construct technical / transformer room complete as per drawing.
- All necessary openings as per drawings and approval of the Engineer
- Roof water proofing
- Downpipes and catchpits
- Anti termite treatment
- Supply and fix louvered and paint, weatherproof and corrosion treated doors,
- Hot dip galvanised, lockable door with non-corrosive hinges.
- Supply and construct claustras with anti bird netting or galvanized louvres as per drawing including GMS bars for placing of metallic platform and checked plates.
- Excavation in any material including rock removal of water for dry work, and locating existing drains
- Supply of material and plant for construction of bases, walls, cover slabs,
- Benchings, building in ducts
- Cutting and bending into place of reinforcement for trenches, foundations, roof slabs, floor slabs, beams and wall ties.
- Erecting the formwork, striking the formwork
- Any costs arising from outlet or inlet of ducts, into the trenches.
- Blinding concrete 5cm thick - mixing and placing of concrete, for foundations, roof slabs, floor slabs, beams and wall ties.
- Supply and fix of fencing as per drawings
- Rendering of blockwall and two coats of paints and one coat sealer as per technical specifications and to the approval of the Engineer.
- Iron sheet roofing and fixations as per architectural drawings and to the approval of the Engineer
- Any miscellaneous costs arising

Reinforcement Ratio:

1. Slab 100kg/m³ Concrete
2. Column 100kg/m³ Concrete
3. Base 110kg/m³ Concrete

Conduit and Wiring

The Contractor shall include rigid pvc pipes, conduits and accessories for surface installations, all wires to connect terminal points to their respective panels, the supplying and fixing of switches and sockets, all necessary labour to trace, lay conduits/pipes and wires, test and commission.

Light Points

(Allow for a length of 10m from DB- Street Lighting to Light point)

Switch point 1g 1w (similar to make hager)

(Allow for a length of 3m from light point to switch point)

Water Proof Socket Point (similar to make hager)

(Allow for a length of 10m from DB- Street Lighting to Socket point)

Luminaires

The Contractor shall supply, install, test and commission the following luminaires. Alternatives, if proposed, shall be at least equivalent. Wall mounted 1x54W with T5 Fluorescent Lamp IP 65 with emergency pack Similar to Ivela Chiara

f) SUPPLY, LAYING AND INSTALLATION OF POWER CABLES/RMUS

This price includes the supply, transport, laying and installation of electrical cables between CEB ring main units and the technical specifications. The prices shall include for all necessary end caps as may be required for the supply and installation of the cables as per the technical specifications and the requirements of the CEB. The materials shall be procured from usual CEB suppliers. The contractor shall allow for all costs associated for the whole duration of a Factory visit at supplier for 2 Engineers to witness testing on power cables prior to shipment. Test certificates to be signed and submitted to CEB.

All equipment required for the cable pulling shall be under the responsibility of the contractor like cable rollers and motorised winch. Cable Glands, terminals, etc shall be supplied by CEB. Terminations & Connections shall be carried out by CEB.

After laying of cables, the contractor shall protect the cables by inserting end caps until CEB terminates the cables. All spare sleeves are to be sealed with foam for future use.

The Ring Main Units shall be procured as per the technical specifications in the bidding documents. The RMUs should be procured with its corresponding connectors for the main cables and spur cables as explained in the technical specifications.

All the sets of connectors for the RMUs should be handed over to CEB so that their jointers can do the necessary terminations on the MV cables for connection on the RMUs.

g) ALLOW FOR LIAISON WITH CEB AND NECESSARY ATTENDANCE FOR JOINTING OF HV CABLES AND INSTALLATION OF PULLING EYES FROM CEB FOR LAYING OF HV CABLES, COMMISSIONING OF RMUS

This price includes the following:

Provisional sum for liaison with CEB and necessary attendance for jointing of HV cables and installation of pulling eyes from CEB for laying of HV cables.

SEWER PIPELINES**a) SITE CLEARANCE ALONG PIPE ROUTES PRIOR TO SETTING OUT OF THE WORKS AND CARTING AWAY OF SURPLUS EXCAVATED MATERIALS IN ACCORDANCE WITH THE SPECIFICATION. RATE SHALL INCLUDE FOR ENTIRE PIPE ROUTE ALONG RISING MAIN AND SEWER MAIN LINE**

This price includes the following:

- Careful dismantling and storage of bollards, milestones as directed by the Engineer to any distance
- Stripping brushwood and felling of trees with girth not exceeding one metre
- Liaison with the Forestry Department for clearance for felling of trees
- Removal of roots and stumps for sugar cane
- Clearing away brush roots and vegetation to spoil tips or disposed of by burning on areas approved by the Engineer
- Backfilling in holes left by the roots with compacted materials approved by the Engineer to the existing ground level or to sub-grade level whichever is the lesser
- Cost of transport to any distance to stockpiles spoils tips or store materials which are recoverable at the Clients storage yard.
- Carting away of unused materials away to approved dumping site.
- Any miscellaneous costs arising

b) EXCAVATION

This price includes the following:

- Excavation in any material, including cutting & excavation in road pavement & loose boulders, trimming last 100mm by hand prior to laying of pipes provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer. The rate includes laying and compacting of 300mm above the crown of pipe with suitable and approved fine material at its optimum moisture content in 150mm layers, the backfill of remaining depth with selected excavated or imported materials, or imported material as specified, to the required level and provide 200mm top layer with selected topsoil where applicable.
- The rate shall also include replacement of unsuitable materials with imported fill at bottom of excavation and the disposal of any surplus excavated material from site to appropriate dumps. Excavation for pipelines shall be measured NET by taking the length between outside faces of manhole and the depth of excavation will be taken as the vertical depth from the ground level to the invert level of the pipe.
- Any additional excavation for working space, ramps, platforms terraces, work in difficult conditions, reduction of productivity due to presence of water, hand transportation of materials, handling of sewerage, double handling of materials etc shall be included in the tendered rate but shall not be measured separately.
- Supply and place appropriate warning tape.
- Any miscellaneous costs arising.

c) **EXTRA OVER ITEMS FOR EXCAVATION IN ROCK**

Excavation for pipelines in rock shall be measured NET by taking the length between outside faces of manholes multiplied by the trench width as shown on drawings and the depth of excavation for rock will be taken as the vertical depth from the top surface level of rock to the invert level of the pipe.

d) **PIPE PROTECTION**

This price includes:

- Supply and place granular bedding to pipe as specified; depth below pipe to be as stated for pipe of various diameters.
- Supply of bedding material to site, properly stacked and not to cause any hindrance or disturbance to public/traffic.
- Spreading and carefully compacting with a wooden tamper to the underside of the pipe barrel and the surface trued to the required gradient.
- Bringing and compacting the granular material up to top of the pipe barrel after pipe has been laid, jointed and aligned to the satisfaction of the Engineer.
- Any miscellaneous costs arising

e) **CONCRETE SURROUND**

This price includes:

- Supply and place concrete bed and surround to pipe - Concrete to be class C12/15 and 150mm thick around pipes.
- Supply and pouring of concrete, after placing appropriate spacer block under pipes.
- And shuttering to the sides of the concrete surround.
- Backfilling of void between concrete and side of trench with approved granular non-plastic material saturated with water, well compacted before backfilling above the concrete surround is commenced.
- Provide concrete cradle below pipe as instructed by the Engineer.
- Any miscellaneous costs arising.

f) **SUPPLY, INSTALL, JOINT AND TEST uPVC SEWER PIPELINES (SN8) AND FITTINGS INCLUDING END CAPS & COUPLING**

The price includes the following:

- Supply of uPVC pipelines complete with jointing materials and lubricants complying with the technical specifications.
- Provision of Certificates of compliance from independent testing laboratories (Bureau Veritas, SGS etc.) To the effect that the proposed pipes and fittings comply with the specifications.
- Provision of fittings required as per drawings (Bends, tees, couplings, flanges etc)
- No separate payment shall be made for fittings which shall be included in this unit rate
- Provision of dry storage, stacking, including for supports, double handling etc.
- Provide insurance against all perils for all pipes and fitting.
- Cutting, fixing, jointing and laying of pipes and fittings on bed in bottom of trenches, cutting away and removal of bed at socket or sleeve of pipe swabbing & testing as per technical specification.
- Any necessary adjustment to lines and levels to cater for crossing of other services.

- Measurement of pipeline will be made net from the horizontal distances between outside faces of manholes.
- Wastage and cut pieces.
- Any miscellaneous costs arising

g) EXCAVATE, CONSTRUCT AND TEST MANHOLE CHAMBERS AS PER DRAWINGS AND SPECIFICATIONS

This price includes the following:

- Excavation in any material including rock and removal of water for dry work.
- Supply of all material and plant.
- Supply and placing of step irons or ladder to EN 13101 as per specifications and/or drawings.
- Mixing and placing of concrete, mortar as per drawings and specifications.
- Cutting and bending into place of reinforcement as per drawings.
- Erecting the formwork, striking the formwork.
- Bituminous emulsion painting of buried faces.
- Backfilling with approved materials, compaction.
- Curing of concrete.
- Supply and place of heavy duty manhole covers to EN 124 (D400) as per specifications and drawings.
- Supply and placing of any joint and joint filler.
- Testing of manhole.
- Any miscellaneous costs arising.

h) INSPECTION CHAMBERS

This price includes the following:

- Excavation in any material including rock and removal of water for dry work.
- Supply of all material and plant.
- Erecting the formwork, striking the formwork.
- Mixing and placing of concrete as per drawings and specifications.
- Concrete surround inclusive to formwork as per drawings.
- Bedding surround as per drawings including bedding due to over excavation.
- Supply and fix inspection chamber as per drawing.
- Supply and fix medium duty inspection chamber to EN 124 (C250) as per specifications and drawing.
- Any miscellaneous cost arising.

i) CONSTRUCT COMPLETE DISCHARGE CHAMBER AS PER DRAWING

This price includes the following:

- Construct discharge chamber complete as per drawing
- Supply and place bedding surround as per drawings
- Excavation to required depth with provision for adequate shoring and strutting
- Supply and fixing of heavy duty man-hole covers D400 to BS 124, step irons to BS1247, provision of certificates of compliance from independent testing laboratories (bureau Veritas, SGS etc.) To the effect that the materials comply with the specifications
- Supply and placing of blinding concrete class C12/15, 50 mm thick
- Supply and fixing of any reinforcement as specified in drawings.

- Provision of adequate formwork, supply and placing concrete C20/25 to bases, walls and covers
- This price includes for work in difficult site conditions, confined area, reduction in productivity due to presence of water and existing services, hand transportation of material, double handling of materials.
- Provision of certificates of compliance from independent testing laboratories (bureau Veritas, SGS etc.) To the effect that the proposed pipes and fittings comply with the specifications
- Necessary curing, striking of formwork and backfilling.
- Any miscellaneous costs arising.

j) ALLOW FOR CONNECTION OF SEWER LINE TO DISCHARGE CHAMBER

This price includes the following:

- Excavation in any material including rock, removal of water for dry work, backfilling as per specification and compaction.
- Supply of all material and plant. Supply on site of all necessary plants and materials to execute the work, working space, ramps, platforms terraces, scaffolding, work in difficult conditions, hand transportation of materials, handling of pipes, double handling of materials etc.
- Backfilling with approved materials, compaction.
- Any miscellaneous costs arising.

k) ALLOW FOR CONNECTION OF SEWER LINE FROM DISCHARGE CHAMBER TO MANHOLE

This price includes the following:

- Excavation in any material including rock, removal of water for dry work, backfilling as per specification and compaction.
- Supply of all material and plant. Supply on site of all necessary plants and materials to execute the work, working space, ramps, platforms terraces, scaffolding, work in difficult conditions, hand transportation of materials, handling of pipes, double handling of materials etc.
- Backfilling with approved materials, compaction.
- Any miscellaneous costs arising.

l) EXTRA OVER FOR BACKDROP ARRANGEMENT AS PER DRAWING

This price includes the following:

- Excavation in any material including rock and removal of water for dry work.
- Supply of all material and plant.
- Erecting the formwork, striking the formwork.
- Mixing and placing of concrete, mortar as per drawings and specifications.
- Pipes and fittings as per specifications and drawings
- Concrete surround inclusive to formwork as per drawings.
- Any miscellaneous cost arising.

SEWERAGE LIFTING STATIONS AND RISING MAINS**a) EXCAVATION**

The rates include:

- Site Clearance and uprooting of plants.
- Excavation in any material, including cutting & excavation in road pavement & loose boulders, trimming last 100mm by hand.
- Provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer.
- The rate includes laying and compacting with suitable, selected excavated or imported materials at its optimum moisture content in 300 mm layers around the structures.
- The rate includes for work in difficult site conditions, confined area, reduction in productivity due to presence of water, hand transportation of material, double handling of materials.
- The rate should include the protection, support, repair, reinstatement of the existing services and should make due allowance to allow for excavation work below these existing services.
- The rate shall also include replacement of unsuitable materials with imported fill at bottom of excavation and the disposal/carting of any surplus excavated material from site to appropriate dumps. Excavation for the pumping station shall be measured NET as shown on drawings or as instructed by the Engineer and the depth of excavation to formation level.

Any additional excavation for working space, ramps, platforms terraces etc shall be included in the tendered rate but shall not be measured separately

- Any miscellaneous costs arising.

b) CONCRETE TO INLET WORKS, PUMP STATION AND BUILDING (RATE TO BE INCLUSIVE OF ALLOWANCE FOR RECESSES AND CASTING OF PUDDLE FLANGES WHERE REQUIRED)

The rates include:

- trimming and compaction of the surface to the required level before it could receive concrete.
- Supply, mixing, placing, pouring and testing of concrete as per specification of the contract or as directed by the Engineer
- spreading of concrete to the required level
- mechanical vibration for consolidating all concrete
- Where construction joints are shown on the Drawings, the Contractor shall form such joints in those positions
- curing of concrete as per specifications of the contract or as directed by the Engineer
- finish of the surfaces as per specifications of the contract
- all labour, plant, equipment, transport necessary for concreting, testing, curing, etc.
- Any miscellaneous costs arising

c) FORMWORK

The rates include:

- all labour, plant, equipment, transport necessary for supply, fixing and removal of formwork
- bracing, support necessary to the formwork
- Any miscellaneous costs arising.

d) BUILDINGS WORKS - EXCAVATION IN ANY MATERIAL INCLUDING ROCK N.E 2.5M FOR FOUNDATION

The rates include:

- Site Clearance and uprooting of plants.
- provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer.
- The rate includes laying and compacting with suitable selected excavated or imported materials.
- The rate includes for work in difficult site conditions, confined area, reduction in productivity due to presence of water, hand transportation of material, double handling of materials.
- The rate should include the protection, support, repair, reinstatement of the existing services and should make due allowance to allow for excavation work below these existing services.
- The rate shall also include replacement of unsuitable materials with imported fill at bottom of excavation and the disposal/carting of any surplus excavated material from site to appropriate dumps. Excavation for the pumping station shall be measured NET as shown on drawings or as instructed by the Engineer and the depth of excavation to formation level.
- Any additional excavation for working space, ramps, platforms terraces etc shall be included in the tendered rate but shall not be measured separately
- Any miscellaneous costs arising.

e) BUILDING WORKS - HARDCORE FILLING

The rate includes:

all materials as per specifications/drawings

- All plant, labour, equipment, transport necessary for the hardcore filling
- compaction in layers
- Any miscellaneous costs arising.

f) BUILDING WORKS - 50 MMTHICK ROCKSAND BLINDING ON HARDCORE FILLING

The rate includes:

- all materials as per specifications/drawings
- All plant, labour, equipment, transport necessary for the rocksand blinding
- Any miscellaneous costs arising.

g) BUILDING WOKRS - POLYTHENE SHEETING GAUGE 500

The rate includes:

- all materials as per specifications/drawings
- All plant, labour, equipment, transport necessary for the rocksand blinding
- Any miscellaneous costs arising.

h) BUILDING WORKS - REINFORCEMENT

The rates include:

- all labour, plant, tools, transport, for the supply, cut, bend, fix the reinforcement to shape as per drawings.

- reinforcement should be fix as per drawings and payment would be made accordingly with no payment for laps
- Any miscellaneous costs arising.

i) BUILDING WORKS - BLOCKWORK

The rates include:

- all labour, plant, tools, transport, for the supply, laying of the blocks
- for cement sand mortar (1:4)
- stacking of the blocks
- payment would be made as per the net area
- Any miscellaneous costs arising.

j) BUILDING WORKS - RENDERING

Rendering Consists of one-part cement to four parts sand (1:4) with an approved plasticizer, Sponge/Trowel. Rate to Include for Arises, Corners and Junctions

The rate includes:

- all transport, labour, materials, tools, equipment, plant.
- one part cement to four parts sand (1:4) with an approved plasticizer
- finish with sponge/trowel as directed by the Engineer
- at rises, corners and junctions
- scaffolding, support as necessary
- Any miscellaneous costs arising.

k) BUILDING WORKS - PAINTING

The rate includes:

- supply, prepare and apply one coat undercoat and two coats of approved anti fungus paint on rendered surface
- supply, prepare and apply bituminous paint on external surface of wall of pump sump paint on rendered surface
- all transport, labour, materials, tools, equipment, plant.
- prepare, cleaning of surface before applying paint as approved by the Engineer
- at rises, corners and junctions
- scaffolding, support as necessary
- Any miscellaneous costs arising.

l) BUILDING WORKS - TILING

The rate includes:

- supply and lay tiles to the approval of the Engineer/client.
- allow for ceramic tiles adhesive, cutting, wastage all complete.
- prepare, cleaning of surface before fixation as approved by the Engineer
- PVC trim to all exposed edges to the approval of the Engineer's.
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

m) FIXTURES

The rate includes:

- supply, prepare and fix as per drawings
- all transport, labour, materials, tools, equipment, plant as necessary

- prepare, cleaning of surface before fixation as approved by the Engineer
- scaffolding, support as necessary
- all fixation, fittings as required
- Any miscellaneous costs arising.

n) EXTERNAL PLUMBING WORK

The rate includes the following:

- supply and fix as approved by the Engineer
- all transport, labour, materials, tools, equipment, plant as necessary
- all fittings, pipes necessary and approved by the Engineer
- concrete works as necessary
- drilling, excavation for laying of pipe and connection to main water pipe
- drilling, excavation for laying of pipe and connection to drain
- Any miscellaneous costs arising.

o) SANITARY FITTINGS PIPES AND FITTINGS

**i. SUPPLY, INSTALL, CONNECT AND TEST THE FOLLOWING
SANITARY FITTINGS**

The rate includes:

- Supply, install, connect sanitary appliances as listed below.
- allow for all fittings required for the fixation of the sanitary appliances
- allow for all pipes, fittings as required to the approval of the Engineer.
- all transport, labour, materials, tools, equipment, plant as necessary
- allow for excavation in any materials for water pipe to connect to the main water pipeline.
- supply, lay, joint and test all fittings to connect to the main water pipeline
- supply and fix water meter reader.
- Any miscellaneous costs arising.

ii. PENSTOCK/SLUICE VALVE

The rate includes:

- supply and fix of penstock/sluiice valve in R.C channel complete as per specifications
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

iii. BAR SCREEN & ACCESSORIES

- Supply and fix medium screen type fabricated with 304 L S/S bars 40x5 c/w 304 L S/S anchoring bars, bars bended to 450 at 150mm from one end, bars to have threaded holes at each end (M6). Distance between bars = 50mm. width of barscreen = 900mm, c/w M6 S/S 304L bolts.
- Supply of hand rack
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

iv. BAR SCREEN & ACCESSORIES

- Supply and fix fine screen type fabricated with 304 L S/S bars 40x5 c/w 304 L S/S anchoring bars, bars bended to 450 at 150mm from one end, bars to have threaded holes

at each end (M6). Distance between bars = 25mm. width of barscreen = 900mm, c/w M6 S/S 304L bolts.

- Supply of hand rack
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

v. MEDIUM DUTY COVER TO SUMP CLEAR OPENING 600 mm

The rate includes:

- supply and fix of medium duty covers and frames complete as per specifications
- Provision of Certificates of compliance from independent testing laboratories (bureau Veritas, SGS etc..) to the effect that the comply medium duty covers and frames with the specifications
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

vi. SUPPLY AND FIX STEP IRONS

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- supply and fix of step irons complete as per specifications
- Provision of Certificates of compliance from independent testing laboratories (bureau Veritas, SGS etc..) to the effect that the comply medium duty covers and frames with the specifications
- drilling of wall to fix step irons
- use of appropriate materials (grout) to fix step irons as approved by the Engineer
- Any miscellaneous costs arising.

p) SUPPLY AND FIX GATE IN TWO LEAVES INCLUSIVE OF FIXATION AS PER DRAWING

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- supply and fix screen basket with hook and supports complete as per drawing
- all associated concreting work
- galvanised chain and support for lifting of the basket screen as approved by the Engineer
- Any miscellaneous costs arising.

q) WATER JET CLEANING EQUIPMENT OF CAPACITY 400 l/h AND WORKING PRESSURE 90 BAR HAVING A CLEANING AGENT INTAKE OF ABOUT 300l/hr LIKE KARCHER 400 OR EQUIVALENT. THE EQUIPMENT SHOULD BE ADEQUATELY REPRESENTED IN MAURITIUS FOR SERVICING AND SPARE PARTS

The rate includes:

- all transport, labour, as necessary
- supply of water jet cleaning equipment
- Any miscellaneous costs arising.

r) **WATER HOSE ¾" DIAMETER LENGTH 15m INCLUDING TAP ADAPTOR, 2 NO. WORM SCREW FASTENING RINGS AND WALL BRACKET FOR STORAGE**

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- supply and fix the water hose
- tap adaptor, 2 no worm screw fastening rings and wall bracket for storage
- all associated concreting work

s) **GALVANISED STEEL HOSE HOLDER COMPLETE WITH WINDING HANDLE AND FIXING TO WALL OF PUMPING STATION AND PAINTING**

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- complete with winding handle and fix to wall of pumping station and paint
- Any miscellaneous costs arising.

t) **ELECTRICAL WIRING AND FITTINGS TO PUMP ROOM INCLUDING TWO 13A SWITCHED POWER POINTS, TWO 36W FLUORESCENT LAMP AND ONE 8W EMERGENCY LAMP WITH RECHARGEABLE BATTERY PROVIDING ONE HOUR OPERATION AFTER POWER FAILURE COMPLETE WITH TRUNKING, SWITCHES AND CONNECTION.**

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- complete with two 13A switched power points, two 36W fluorescent lamp and one 8W emergency lamp with rechargeable battery providing one-hour operation after power failure complete with trunking, switches and connection
- supply and fix 1 No power point inside the pump room and 1No inside the guard room.
- ny miscellaneous costs arising.

u) **ALLOW FOR WORKS TO BE UNDERTAKEN BY CEB FOR PROVIDING THE APPROPRIATE POWER SUPPLY INCLUSIVE OF CONNECTION FEES**

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- for providing the appropriate power supply inclusive of connection fees
- Any miscellaneous costs arising.

v) **SUPPLY AND INSTALL COMPLETE 500WATT TUNGSTEN HALOGEN FLOODLIGHTS SUITABLE FOR MOUNTING BRACKET AS SPECIFIED**

The rate includes:

- supply and install complete halogen 500Watt tungsten halogen floodlights suitable for mounting on support bracket
- all fixation and fittings as required.
- all cabling, electrical wiring, trunking, ducting complete.
- transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

w) **PROVIDE FOR USE OF EMPLOYER'S STAFF WHEEL BARROW IN 20 GAUGE GMS STEEL INCLUSIVE OF PRIMER COATING AND PAINTING**

The rate includes:

- all transport, labour, materials, tools, equipment, plant as necessary
- primer coating and painting
- Any miscellaneous costs arising.

x) **SUPPLY AND INSTALL HANDRAIL AS PER DRAWINGS**

The rate includes:

- Excavation in all materials including rock to provide 600mm deep embedment of posts
- manufacture, hot dip galvanized, transport and fix steel hand railing as detailed and per specifications.
- supply and cast mass concrete bases to hand railing posts.
- allow for making good in asphaltic concrete at edges if necessary
- Any miscellaneous costs arising.

y) **PUMPS AND CONTROL SYSTEM**

i. **PUMPSET FOR RAW INDUSTRIAL SEWERAGE (2 DUTY AND 1 STANDY AND ALTERNATE MODE) WITH ANCILLARIES INCLUDING FLOAT LEVEL SWITCHES COMPLETE**

This price includes the following:

- supply and placing of three identical raw industrial sewerage pump vertically mounted motor and shaft to deliver 4000 m³/hr when operating in parallel and one standby and alternate mode (Estimated total head 25m) (N-type impeller)
- testing and commissioning of the pumps
- supply and fix support to the pumps
- supply and fix temperature & leakage monitoring devices to protect each pump
- supply of pump characteristics curves for one pump working and when both pumps are working complete with all calculations to be approved by the Engineer
- supply all catalogues and specifications of the pumps
- supply and fix float switch, free mercury type for waste and sewerage application. Length of equal to greater than 13m.
- supply and fix of float switch support made of stainless steel.
- all transport, labour, materials, tools, equipment, plant as necessary for supply, fix, test and commission the pumps
- Any miscellaneous costs arising.

ii. **MOTOR CONTROL CENTRE (MCC) TO FEED LIGHTING, SWITCH SOCKET, CONTROL PANEL FOR PUMP, INSTRUMENTATIONS**

This price includes the following:

- supply and test of the Motor Control Centre
- testing and commissioning of the Motor Control Centre
- supply of 1 control panel for working of the mentioned pumps. The panel shall include soft starter for each pump, mode of operation: 2 duty & 1 stand by, alternate mode, cascade mode, ammeter, voltmeter, hour meter, phase control relay.
- supply of all fittings for fixing the Motor Control Centre as necessary
- all transport, labour, materials, tools, equipment, plant as necessary
- supply and fix alarm system including signal to a telephone line no. as per specification

iii. **CABLES BETWEEN MCC AND PUMPS INCLUDING CABLE TRAY AND FIXINGS**

This price includes the following:

- supply of all the cables between the Motor Control Centre and the Pumps
- all transport, labour, materials, tools, equipment, plant as necessary
- supply of cable tray and all fittings for fixing the cables as necessary
- Any miscellaneous costs arising.

iv. **MANUAL HOIST FOR LIFTING OF PUMP AND STEEL BEAM COMPLETE**

This price includes the following:

- design, supply and fixing a manual hoist for lifting of pump.
- frame and fixing hook and control chain
- design of all fixation to be made in the roof slab to be able to use the manual hoist
- shall be capacity to lift the pump plus a safety of 20 %
- supply and fix the steel beam, support and fixation complete.
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

v. **APF CLEANER TO MAINTAIN CLEANING CYCLES OF THE SUMP c/w CURRENT TRANSFORMER**

The price includes:

- APF cleaner to maintain cleaning cycles of the sump c/w current transformer.
- allow for all fixation as may be required
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

vi. **SUMP PUMP, PIPEWORK AND VALVES COMPLETE INCLUDING CABLES, MOTOR STARTER, DISCHARGE HOSE AND DISCHARGE PIPEWORK, LEVEL SWITCHES.**

This price includes the following:

- supply and placing sump pump complete made of stainless steel 304 flowrate 10m³/h @ 12 m head.
- supply and fix all piping required for discharge to the wet well.
- testing and commissioning of the pumps
- supply and fix support to the pumps
- Any miscellaneous costs arising.

z) **PIPES, VALVES AND FITTINGS**

This price includes the following:

- supply, lay, joint and test all Ductile iron pipes and fittings required to connect the pumping station to the rising main in accordance to the specifications and as approved by the Engineer.
- supply, lay, joint and test enlargers/reducers in ductile iron to connect the outlet pipe to the pumps in accordance to the specifications and as approved by the Engineer.
- supply, lay, joint and test ductile iron Tee fittings 200/300 mm diameter, PN 10 in accordance to the specifications and as approved by the Engineer

- supply, lay, joint and test ductile iron bend 900 300mm diameter as required in accordance to the specifications and as approved by the Engineer
- supply, lay, joint and test gate valves, PN 10 (non-rising type), (6 No.) epoxy coated in accordance to the specifications and as approved by the Engineer.
- supply, lay, joint and test non-return valves, PN10 (ball type), (3 No.) in accordance to the specifications and as approved by the Engineer.
- supply, lay, fix guide rails for the pumps as approved by the Engineer
- all pipes, fittings, valves shall be of flanged type and in accordance to the specifications and as approved by the Engineer.
- supply, lay, joint flange adaptor as approved by the Engineer
- bellow anti vibration mount (Fixed on the three suction pipes and the outlet pipe, 4 No.)
- supply, lay, joint and test gate valves (3 No), PN 10 DN 300 to be fixed for the bypass of the electromagnetic flowmeter complete with all flange adaptors and fittings.
- all transport, labour, materials, tools, equipment, plant as necessary
- all fixation and support required for the pumps, valves, guide rails.
- any other fittings not listed above that may be required
- Any miscellaneous costs arising.

aa) SUPPLY AND PLACE ULTRASONIC SENSOR C/W TRANSMITTER FOR THE CONTINUOUS READING OF RAW SEWAGE LEVEL

This price includes the following:

- supply and place of ultrasonic sensor c/w transmitter, signal 4-20Ma, 2 relay output 230V
- all fittings required for connection of the ultrasonic sensor (remote type)
- supply all catalogues and specifications of ultrasonic sensor
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

bb) SUPPLY AND PLACE ELECTROMAGNETIC FLOW METER DIAMETER 200 mm TO THE RISING MAIN COMPLETE WITH FLOW INDICATOR/TRANSMITTER, CABLING FITTINGS INCLUSIVE OF SPOOLS, TAPERS, DISMANTLING JOINT AND CHAMBER COMPLETE.

This price includes the following:

- supply and place of electromagnetic flow meter (IP68) on the rising main of DN 300
- converter, indicator, transmitter with LCD display mounted over the body, remote data logging of flow records including of total, average, min/max and time of event
- construct complete reinforced chamber as per drawings, including excavation, step irons, medium duty cover, concrete, reinforcement, formwork, etc
- all fittings required for connection of the electromagnetic flow meter to the rising main.
- supply all catalogues and specifications of the electromagnetic flow meter.
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

cc) SURGE PROTECTION TO THE RISING MAIN.

This price includes the following:

- allow for surge protection to protect the electronic cards in the Programmable Logic Controller and the Generator.
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

dd) GENERATOR

This price includes the following:

- design, supply, place and test generator of capacity to operate all sewerage pumps, alarm, electrical lights, etc
- generator to be sound proof enclosed to obtain 85 dBA at 1m.
- supply all catalogues and specifications of the generator to be approved by the Engineer
- all fixation, fittings, support as necessary.
- exhaust pipe and fittings that may be required.
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

ee) AUTOMATIC CHANGE OVER SWITCH PANEL FOR GENERATOR

This price includes the following:

- supply, place and test automatic change switch for generator including by-pass switch.
- supply and fix of a Permanent Magnet Generator
- all cabling and support required for connection of the control panel
- supply and fix Permanent Magnet Generator
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

ff) FUEL STORAGE TANK AND SUPPORT, TRANSFER PUMPS AND PIPEWORK

This price includes the following:

- design, supply, place and test fuel storage tank complete for the required generator (sized for 72 hours operation).
- all fixation and support required for fuel tank
- design, supply and fix transfer pump complete as required
- all pipeworks and fittings as required.
- all associated works for the construction of the concrete support including formwork, reinforcement, concrete, etc
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

gg) LV CABLING, INCLUDING CABLE TRAY AND FIXINGS STANDBY DIESEL GENERATORS TO MAIN LV SWITCHBOARD AND FROM THIS SWITCHBOARD TO MCC'S

This price includes the following:

- supply, place LV cabling complete, including cable tray and fixings standby generator to main LV switch board and from the switchboard to MCC's
- all cabling and support required for connection of the control panel
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

hh) BATTERIES, BATTERYCHARGER, DC DISTRIBUTION BOARD CABLING BETWEEN INDIVIDUAL EQUIPMENT.

This price includes the following:

- supply, and test control panel for generator
- all cabling and support required for connect

- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

ii) VENTILATION EQUIPMENT COMPLETE

The rates include:

- cabling, connection to power supply and control
- allow for all piping and fittings as required.
- all associated works with the fixation of the ventilation system
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

jj) PORTABLE FIRE EXTINGUISHER 2kg CO2

The rates include:

- supply of portable fire extinguisher 2kg CO2
- all fixation as required
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

kk) PORTABLE FIRE EXTINGUISHER 5 KG DRY POWDER ABC.

The rates include:

- supply of 5 kg dry powder ABC
- storage as required
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

II) ALLOW FOR THE SUPPLY OF EQUIPMENT AND INSTALLATION FOR LIGHTNING PROTECTION

The rates include:

- design, supply of equipment and installation for lightning protection complete as approved by the Engineer
- all fixation and fittings required
- all cabling, guides, excavation as required
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

mm) ALLOW FOR THE SUPPLY OF SPARE PARTS FOR MAINTENANCE FOR THE PUMPS, STANDBY GENERATOR AND OTHER MECHANICAL AND ELECTRICAL COMPONENTS OF THE PUMPING STATION

The rates include:

- all for spare parts for maintenance for the pumps, standby generator and other mechanical and electrical components of the pumping station.
- storage as required
- all transport, labour as necessary
- Any miscellaneous costs arising.

SERVICE RESERVOIR AND PUMP STATION**a) PUMPING STATION****a. EXCAVATION FOR PUMP STATION**

This price includes the following:

- Site Clearance and uprooting of plants.
- Excavation in any material, including cutting & excavation in road pavement & loose boulders, trimming last 100mm by hand.
- Provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer.
- Laying and compacting with suitable, selected excavated or imported materials at its optimum moisture content in 300 mm layers around the structures.
- Work in difficult site conditions, confined area, reduction in productivity due to presence of water, hand transportation of material, double handling of materials.
- Protection, support, repair, reinstatement of the existing services and should make due allowance to allow for excavation work below these existing services.
- Replacement of unsuitable materials with imported fill at bottom of excavation and the disposal/carting of any surplus excavated material from site to appropriate dumps. Excavation for the pumping station shall be measured NET as shown on drawings or as instructed by the Engineer and the depth of excavation to formation level.
- Any additional excavation for working space, ramps, platforms terraces etc shall be included in the tendered rate but shall not be measured separately
- Any miscellaneous costs arising.

b. EXCAVATION IN ANY MATERIAL NOT EXCEEDING 2.5m FOR FOUNDATION OF BUILDINGS

This price includes the following:

- Provision of all necessary labour, tools, equipment, shoring, strutting, planking or alternative form of support, the handling of water to allow dry excavation in the manner prescribed in the Specifications and with the materials specified therein, disposal of any surplus excavated material as directed by the Engineer.
- Laying and compacting with suitable, selected excavated or imported materials
- Work in difficult site conditions, confined area, reduction in productivity due to presence of water, hand transportation of material, double handling of materials.
- Protection, support, repair, reinstatement of the existing services and should make due allowance to allow for excavation work below these existing services.
- Replacement of unsuitable materials with imported fill at bottom of excavation and the disposal/carting of any surplus excavated material from site to appropriate dumps. Excavation for the pumping station shall be measured NET as shown on drawings or as instructed by the Engineer and the depth of excavation to formation level.
- Any additional excavation for working space, ramps, platforms terraces etc shall be included in the tendered rate but shall not be measured separately
- Any miscellaneous costs arising.

c. CONCRETE TO PUMP STATION AND BUILDINGS (RATE TO BE INCLUSIVE OF ALLOWANCE FOR RECESSES AND CASTING OF PUDDLE FLANGES WHERE REQUIRED)

This price includes the following:

- Trimming and compaction of the surface to the required level before it could receive concrete.
- Supply, mixing, placing, pouring and testing of concrete as per specification of the contract or as directed by the engineer
- Spreading of concrete to the required level
- Mechanical vibration for consolidating all concrete
- Where construction joints are shown on the drawings, the contractor shall form such joints in those positions
- Curing of concrete as per specifications of the contract or as directed by the engineer
- Finish of the surfaces as per specifications of the contract
- All labour, plant, equipment, transport necessary for concreting, testing, curing, etc.
- Any miscellaneous costs arising

d. REINFORCEMENT FOR PUMP STATION & BUILDINGS

This price includes the following:

- All labour, plant, tools, transport, for the supply, cut, bends, fix the reinforcement to shape as per drawings.
- Reinforcement should be fix as per drawings and payment would be made accordingly with no payment for laps
- Any miscellaneous costs arising.

e. BLOCKWORK

This price includes the following:

- All labour, plant, tools, transport, for the supply, laying of the blocks for cement sand mortar (1:4)
- Stacking of the blocks
- Payment would be made as per the net area
- Any miscellaneous costs arising.

f. RENDERING

This price includes the following:

- All transport, labour, materials, tools, equipment, plant.
- One part cement to four parts sand (1:4) with an approved plasticizer
- Finish with sponge/trowel as directed by the engineer at rises, corners and junctions
- Scaffolding, support as necessary
- Any miscellaneous costs arising.

g. PAINTING

This price includes the following:

- Supply, prepare and apply one coat undercoat and two coats of approved anti fungus
- Paint on rendered surface
- Supply, prepare and apply bituminous paint on external surface of wall of pump sump
- Paint on rendered surface
- All transport, labour, materials, tools, equipment, plant.
- Prepare, cleaning of surface before applying paint as approved by the engineer at rises, corners and junctions
- Scaffolding, support as necessary
- Proposed bituminous paint specifications to be submitted for approval.

- Any miscellaneous costs arising.

h. FIXTURES

This price includes the following:

- Supply, prepare and fix as per drawings
- All transport, labour, materials, tools, equipment, plant as necessary
- Prepare, cleaning of surface before fixation as approved by the engineer
- Scaffolding, support as necessary

Any miscellaneous costs arising

i. EXTERNAL PLUMBING WORK

This price includes the following:

- Supply and fix as approved by the engineer all transport, labour, materials, tools, equipment, plant as necessary
- All fittings, pipes necessary and approved by the engineer
- Concrete works as necessary
- Drilling, excavation for laying of pipe and connection to main water pipe

j. ELECTRICAL WIRING AND FITTINGS TO PUMP ROOM INCLUDING

Two 13a switched power points, two 36w fluorescent lamp and one 8w emergency lamp with rechargeable battery providing one-hour operation after power failure complete with trunking, switches and connection

This price includes the following:

- All transport, labour, materials, tools, equipment, plant as necessary complete with two 13A switched power points, two 36W fluorescent lamp and one 8W emergency lamp with rechargeable battery providing one hour operation after power failure complete with trunking, switches and connection.
- Contractor can provide alternative LED type lamp equivalent as appropriate with full details to the Engineer for consideration and approval.
- Any miscellaneous costs arising.

k. PUMPSET FOR WATER WITH ANCILLARIES INCLUDING PRESSURE TRANSMITTER COMPLETE. DISCHARGE RATE AS PER SPECIFICATIONS

This price includes the following:

- Supply and placing of each pump vertically mounted motor and shaft to deliver as per specifications when operating in duty point (Estimated pressure 5 bars)
- Installation, Testing and commissioning of the pumps
- All transport, labour, materials, tools, equipment, plant as necessary for supply, fix,
- Supply and fix galvanised guide rails for the pumps as approved by the engineer
- Supply and fix support to pumps
- Supply of pump characteristics curve for one pump working and to be approved by the engineer
- Supply all catalogues and specifications of the pumps
- Pump motor: Shall be according to IEC or NEMA standard, IP 55, Insulation class F, Low noise level, Tropicalized version.
- Pumps: Horizontal multistage, centrifugal type of 2850 RPM speed
- Controls shall be equipped with anti- legionella control in case of stagnant water.
- Supply and fix pressure transmitter all complete.
- Any miscellaneous costs arising.

l. MOTOR CONTROL CENTRE (MCC) TO FEED LIGHTING, SWITCH SOCKET, CONTROL PANEL FOR PUMP, INSTRUMENTATIONS

This price includes the following :

- Supply and test of the Motor Control Centre
- Testing and commissioning of the Motor Control Centre
- All transport, labour, materials, tools, equipment, plant as necessary
- Supply of all fittings for fixing the Motor Control Centre as necessary
- Any miscellaneous costs arising.

m. CABLES BETWEEN MCC AND PUMPS INCLUDING CABLE TRAY AND FIXINGS

This price includes the following :

- Supply of all the cables between the Motor Control Centre and the Pumps
- All transport, labour, materials, tools, equipment, plant as necessary
- Supply of cable tray and all fittings for fixing the cables as necessary
- Any miscellaneous costs arising.

n. PIPES, VALVES AND FITTINGS

This price includes the following

- Supply, lay, joint and test all Ductile iron pipes and fittings required to connect the pumping station to the rising main in accordance to the specifications and as approved by the engineer.

- Supply, lay, joint and test enlargers/reducers in ductile iron to connect the outlet pipe to the pumps in accordance to the specifications and as approved by the engineer.
- Supply, lay, joint and test ductile iron Tee fittings 200/100 mm diameter in accordance to the specifications and as approved by the engineer
- Supply, lay, joint and test ductile iron bends as required in accordance to the specifications and as approved by the engineer
- Supply, lay, joint and test gate valves in accordance to the specifications and as approved by the engineer.
- Supply, lay, joint and test non-return valves (ball type) in accordance to the specifications and as approved by the engineer.
- Supply, lay, fix guide rails for the pumps as approved by the engineer
- All pipes, fittings, valves shall be of flanged type and in accordance to the specifications and as approved by the engineer.
- Supply, lay, joint flange adaptor as approved by the engineer
- All transport, labour, materials, tools, equipment, plant as necessary
- Supply and fix foot valve, strainer to the engineers approval
- Any other fittings not listed above required
- Any miscellaneous costs arising.

All fixation and support required for the pumps, valves, guide rails

o. SUPPLY AND PLACE ELECTROMAGNETIC FLOWMETER DN 200 TO THE RISING MAIN COMPLETE WITH FLOW INDICATOR/TRANSMITTER, CABLING FITTINGS INCLUSIVE OF SPOOLS, TAPERS, DISMANTLING JOINT AND CHAMBER COMPLETE

This price includes the following :

- Supply and place of electromagnetic flow meter (IP67) on the rising main of diameter 200mm converter, indicator, transmitter with LCD display mounted over the body, remote data logging of flow records including of total, average, min/max and time of event
- Construct complete reinforced chamber as per drawings, including excavation, step irons, medium duty cover, concrete, reinforcement, formwork, etc all fittings required for connection of the electromagnetic flow meter to the rising main.
- Supply all catalogues and specifications of the electromagnetic flow meter.
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

p. SURGE PROTECTION TO THE RISING MAIN TO THE APPROVAL OF THE ENGINEER

This price includes the following :

- Supply and place surge vessel as per design.
- Submit design for Engineer approval.
- Supply and fix all fittings as required.
- Construct chambers as required all complete.

- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

q. GENERATOR

This price includes the following :

- Supply, place and test generator of capacity to operate the pumping station , alarm, electrical lights,
- Supply all catalogues and specifications of the generator to be approved by the engineer
- Supply of generator as per specifications
- All fixation, fittings, support as necessary.
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

r. CONTROL PANELS FOR GENERATOR, INCLUDING SYNCHRONISING EQUIPMENT

This price includes the following :

- supply, place and test control panel for generator
- all cabling and support required for connection of the control panel
- all transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

s. FUEL STORAGE TANK AND SUPPORT, TRANSFER PUMPS AND PIPEWORK

This price includes the following:

- Design, supply, place and test fuel storage tank complete for the required generator
- All fixation and support required for fuel tank
- Design transfer pump as required
- All pipeworks necessary
- All associated works for the construction of the concrete support including formwork, reinforcement, concrete, etc.
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

t. LV CABLING, INCLUDING CABLE TRAY AND FIXINGS STANDBY DIESEL GENERATOR TO MAIN LV SWITCHBOARD AND FROM THIS SWITCHBOARD TO MCC'S

This price includes the following:

- Supply, place LV cabling complete, including cable tray and fixings standby generator to main LV switch board and from the switchboard to MCC's
- All cabling and support required for connection of the control panel
- All transport, labour, materials, tools, equipment, plant as necessary

u. BATTERIES, BATTERYCHARGER, DC DISTRIBUTION BOARD CABLING BETWEEN INDIVIDUAL EQUIPMENT.

This price includes the following:

- Supply, and test control panel for generator
- All cabling and support required for connect
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

v. VENTILATION EQUIPMENT COMPLETE, INCLUSIVE OF CABLING, CONNECTION TO POWER SUPPLY AND CONTROL

This price includes the following:

- Cabling, connection to power supply and control
- All transport, labour, materials, tools, equipment, plant as necessary
- All associated works with the fixation of the ventilation system
- Any miscellaneous costs arising.

w. ALLOW FOR THE SUPPLY OF EQUIPMENT AND INSTALLATION FOR LIGHTNING PROTECTION TO THE APPROVAL OF THE ENGINEER

This price includes the following:

- Design, supply of equipment and installation for lightning protection complete
- As approved by the engineer
- All fixation and fittings required
- All cabling, guides, excavation as required
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

x. ALLOW FOR THE SUPPLY OF SPARE PARTS FOR THREE YEARS OF MAINTENANCE FOR THE PUMPS, STANDBY GENERATOR AND OTHER MECHANICAL AND ELECTRICAL COMPONENTS OF THE PUMP STATION

This price includes the following:

- All for spare parts for three years of maintenance for the pumps, standby generator and other mechanical and electrical components of the pumping station.
- Storage as required
- All transport, labour as necessary

Any miscellaneous costs arising

b) SERVICE RESERVOIR**a. CONCRETE TO SERVICE RESERVOIR**

This price includes the following:

- Trimming and compaction of the surface to the required level before it could receive concrete.
- Supply, mixing, placing, pouring and testing of concrete as per specification of the contract or as directed by the engineer
- Spreading of concrete to the required level
- Mechanical vibration for consolidating all concrete
- Where construction joints are shown on the drawings, the contractor shall form such joints in those positions
- Curing of concrete as per specifications of the contract or as directed by the engineer
- Provision of waterproofing admixtures (penetron or similar) or fibre lining compatible to potable water to the interior as approved by the Engineer
- Finish of the surfaces as per specifications of the contract
- All labour, plant, equipment, transport necessary for concreting, testing, curing, etc.
- Any miscellaneous costs arising

b. FORMWORK TO RESERVOIRS

This price includes the following:

- All labour, plant, equipment, transport necessary for supply, fixing and removal of formwork bracing, support necessary to the formwork
- All scaffolding as required to carry out
- Any miscellaneous costs arising.

c. SURFACE FINISHES

This price includes the following:

- All labour, plant, equipment, transport necessary for supply, fixing and removal of support necessary to carry out the works
- To comply with the specifications.
- Any miscellaneous costs arising.

d. REINFORCEMENT

This price includes the following:

- All labour, plant, tools, transport, for the supply, cut, bends, fix the reinforcement to shape as per drawings.
- Reinforcement should be fix as per drawings and payment would be made accordingly with no payment for laps
- Any miscellaneous costs arising.

e. JOINTS

This price includes the following:

- All labour, plant, tools, transport, for the supply, fix the waterbar as per drawings and manufacturers specifications.
- Waterbar should be fix as per manufacturers specifications and payment would be made accordingly.
- To submit full catalogues, technical specifications and compliance of the proposed waterbar for approval.

Any miscellaneous costs arising

f. DRAINAGE

This price includes the following:

- Supply on site of all necessary plants, labour, tools, equipment and materials necessary to carry out the works
- Supply, transport to the worksite of pipes, joints, couplers, accessories etc.
- Provision of storage, stacking, including for supports, double handling etc.
- Cutting, fixing, jointing and laying of pipes complete on bed in bottom of trenches,
- Cutting away and removal of bed at socket or sleeve of pipe swabbing, testing, sterilisation as per technical specification
- Any necessary adjustment to lines and levels to cater for crossing of other services
- Provision of necessary certificates from independent bodies, laboratories
- Approved by the engineer certifying compliance with specifications
- Notwithstanding any requirement of the technical specifications, the pipes shall be subject to the approval of the engineer.
- The contractor shall immediately replace at his own expense any pipe not approved by the engineer.
- uPVC pipe to be of stiffness SN 8
- Any miscellaneous costs arising

g. PIPEWORKS FOR REESRVOIRS AND PUMPS

This price includes the following:

- Supply on site of all necessary plants, labour, tools, equipment and materials necessary to carry out the works
- Supply, transport to the worksite of pipes, joints, couplers, accessories etc.
- Provision of storage, stacking, including for supports, double handling etc.
- Cutting, fixing, jointing and laying of pipes complete on bed in bottom of trenches,
- Cutting away and removal of bed at socket or sleeve of pipe swabbin , testing, sterilisation as per technical specification
- Any necessary adjustment to lines and levels to cater for crossing of other services
- Provision of necessary certificates from independent bodies, laboratories
- Approved by the engineer certifying compliance with specifications

- Notwithstanding any requirement of the technical specifications, the pipes shall be subject to the approval of the engineer.
- The contractor shall immediately replace at his own expense any pipe not approved by the engineer.
- Pipes and fittings to comply with BS EN 545

Any miscellaneous costs arising

h. SUPPLY, INSTALL, JOINT, TEST AND DISINFECT COMPLETE GATE VALVE DN200 ASSEMBLY TO FIT DN 200 PIPELINE ALL COMPLETE

This price includes the following:

- Supply and place of gate valve on the rising main of diameter 200mm
- Supply all catalogues and specifications of the electromagnetic flow meter.
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

i. SUPPLY, INSTALL, JOINT, TEST AND DISINFECT COMPLETE ALTITUDE CONTROL VALVE DN200 ASSEMBLY TO FIT DN200 DI PIPELINE ALL COMPLETE

This price includes the following:

- Supply and place of altitude valve on the rising main of diameter 200mm all complete
- Supply all catalogues and specifications of the electromagnetic flow meter.
- All ducts including materials excavation in any materials
- All transport, labour, materials, tools, equipment, plant as necessary

j. SUPPLY, INSTALL, JOINT, TEST AND DISINFECT COMPLETE DIFFERENTIAL FLOAT CONTROL VALVE DN200 ASSEMBLY TO FIT DN200 PIPELINE ALL COMPLETE

This price includes the following:

- Supply and place of altitude valve on the rising main of diameter 200mm all complete
- Supply all catalogues and specifications of the electromagnetic flow meter.
- All ducts including materials excavation in any materials
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

k. SUPPLY, INSTALL, JOINT, TEST AND DISINFECT DOUBLE FLANGED DN 125 ELECTROMAGNETIC FLOWMETER COMPLETE WITH SIGNAL CONVERTER & DISPLAY. RATE SHOULD INCLUDE ALL FIXING, ACCESSORIES, CABLING TO DISPLAY UNIT & PLC AND POWER SUPPLY

This price includes the following:

- Supply and place of electromagnetic flow meter (IP67) on the rising main of diameter 280mm converter, indicator, transmitter with LCD display mounted over the body, remote data logging of flow records including of total, average, min/max and time of event
- Construct complete reinforced chamber as per drawings, including excavation, step irons, medium duty cover, concrete, reinforcement, formwork, etc all fittings required for connection of the electromagnetic flow meter to the rising main.
- Supply all catalogues and specifications of the electromagnetic flow meter.
- All transport, labour, materials, tools, equipment, plant as necessary
- Any miscellaneous costs arising.

l. LIGHT DUTY MANHOLE COVER (B125) 600X600mm COMPLETE WITH FRAMES

This price includes the following:

- Supply, lay and fix medium duty cover (B125) to BS EN 124 complete with frames.
- All transport, labour, materials, tools, equipment, plant as necessary

Any miscellaneous costs arising

m. G.S INTERNAL LADDER

This price includes the following:

- Supply, lay and fix G.S internal ladder complete as per drawings to the engineer's approval.
- All transport, labour, materials, tools, equipment, plant as necessary

Any miscellaneous costs arising

n. G.S EXTERNAL LADDER COMPLETE WITH HANDRAILS AND HAND GRIP

This price includes the following:

- Supply, lay and fix G.S internal ladder complete with hand rail and grip as per drawings to the engineer's approval.
- All transport, labour, materials, tools, equipment, plant as necessary

Any miscellaneous costs arising

o. 150W SECURITY FLOOD LIGHT COMPLETE WITH CABLING, WATERPROOF CONNECTION BOXES, ELCB, CIRCUIT BREAKERS, WATER PROOF DB AND OTHER ACCESSORIES FOR A COMPLETE INSTALLATION

This price includes the following:

- All transport, labour, materials, tools, equipment, plant as necessary
- Supply and fix security flood light complete as per Engineers' approval.
- Supply and fix of all cables, ducts, trunking, ELCB, circuit breakers and any other accessories as may be deemed necessary.
- Supply all materials for fixing testing and commissioning of same
- Reinforcement as per drawings and instruction of the engineer.
- Any miscellaneous costs arising.

p. SUPPLY AND CONSTRUCT SHARON TYPE FENCING AS PER DRAWINGS COMPLETE WITH ALL EXCAVATION, CONCRETE WORKS ETC.

This price includes the following:

- All transport, labour, materials, tools, equipment, plant as necessary
- Supply and fix chain links complete as per drawing including pad lock and keys
- All associated excavation in any materials including rock and concreting work.
- Supply and fix Formwork
- Reinforcement as per drawings and instruction of the engineer.
- Any miscellaneous costs arising.

q. SUPPLY AND FIX DOUBLE LEAF GATE AS PER DRAWING

This price includes the following:

- All transport, labour, materials, tools, equipment, plant as necessary
- Supply and fix gate and supports complete as per drawing including pad lock and keys
- All associated excavation in any materials including rock and concreting work.
- Supply and fix Formwork
- Reinforcement as per drawings and instruction of the engineer.
- Any miscellaneous costs arising.

r. ALLOW FOR CLEANING OF RESERVOIR DISINFECTION WITH CHLORINE RESIDUAL NOT LESS THAN 20MG/L

This price includes the following:

- Supply, and use chlorine residual for disinfection of reservoir as per Engineer's approval.
- Liaison with CWA to obtain approval and clearance
- All transport, labour, materials, tools, equipment, plant as necessary
- Prepare, cleaning of reservoir as approved by the engineer
- Any miscellaneous costs arising.

s. ALLOW FOR TESTING RESERVOIR FOR WATERTIGHTNESS AS PER SPECIFICATIONS. RATE TO ALLOW ATTENDANCE AND WITNESSING BY THE CWA

This price includes the following:

- Supply, water of water to test reservoir as per Engineer's approval.
- All transport, labour, as necessary
- Liaison with CWA to obtain approval and clearance
- All transport, labour, materials, tools, equipment, plant as necessary
- Prepare, cleaning of reservoir as approved by the engineer
- Any miscellaneous costs arising.

BRIDGE CONSTRUCTION**a) EXCAVATION TO ANY DEPTH IN NORMAL AND ROCK MATERIALS (FOUNDATIONS OF ABUTMENTS AND WING-WALLS)**

This price shall include:

- construction of protection berms, protection ditches and the like;
- access roads to bridge sites and maintenance of access roads as per specifications;
- compliance with environment protection plan and environmental protection measures to avoid contamination, pollution, spillage and the like;
- selection and separation of materials and loading into transport for temporary stockpiling or carting away;
- multiple handling of material including working in confined spaces;
- keeping excavations free of water;
- haulage and deposition in temporary stockpiles including the provision of sites for stockpiles;
- taking precautions to avoid damage to property, structures, drains, services, instrumentation and the like;
- grading beds and trimming side slopes of watercourses and the like;
- replacing acceptable material rendered unacceptable.
- making good in case of over break;
- working around foundations, piles and the like;
- Any required temporary diversion of river to keep area dry and safe, excavation in any material to any depth;
- Any miscellaneous costs arising.

b) BACKFILLING USING ENGINEERED FILL

This price includes the following:

- stripping vegetation and uncovering the borrow pits approved by the Engineer
- construction of any access roads
- extraction, loading and transport to site, any distance
- provision of fill as approved by the Engineer and as per the specification
- clearing and making good of site of borrow pit
- installing the fill in any condition, the cutting of benches...etc
- maintenance of borrow pits and access roads
- compaction (in layers not exceeding 300mm to 95% BS HEAVY) and levelling the fill up to a distance of 4 m behind any wall or abutment, as shown on drawings and conforming to the requirement of the technical specifications
- trimming, shaping and levelling of sides slopes of fill to the lines and levels shown on the drawings or as directed by the Engineer
- allow for working in waterlogged conditions
- working in confined spaces
- Any miscellaneous cost arising.

c) BACKFILLING USING EXCAVATED MATERIALS

This price includes the following:

- stripping vegetation and other organic materials from excavated materials
- testing of materials at approved laboratories as may be requested by Engineer
- extraction, loading and transport to site, any distance
- installing the excavated materials in any condition, the cutting of benches...etc
- compaction (in layers not exceeding 300mm to 95% BS HEAVY) and levelling same up to a distance of 4 m behind any wall or abutment, as shown on drawings and conforming to the requirement of the technical specifications
- trimming, shaping and levelling of sides slopes of fill to the lines and levels shown on the drawings or as directed by the Engineer
- allow for working in waterlogged conditions
- working in confined spaces
- Any miscellaneous cost arising.

d) SUPPLY, LAY AND COMPACT HARDCORE FILL OF SIZE 150 mm TO BASE

This price includes the following:

- supply, transport to any distance and placing of hardcore fill material (sound broken stones, maximum size 150mm) to the designated areas for bridge base.
- protection of foundation base;
- multiple handling of material and placement in confined areas or areas inaccessible by equipment;
- keeping area free of water;
- complying with requirements and constraints on the sequence, timing and rate of deposition and filling, and equalisation of earth pressures;
- taking precautions to avoid damage to property, structures, drains, services, instrumentation and the like;
- supply and place crusher run 0/20 including vibration, watering, levelling, compaction for filling in voids between the stones;
- compaction to refusal;

e) SUPPLY & LAY 0.25 mm PLASTIC SHEET

This price includes the following:

- supply on site of all necessary plant, labour, tools, equipment and materials
- Supply and laying of polyethene sheeting 0.25mm thickness to comply with technical specifications and to Engineer's approval
- Supply of technical documentation including samples;
- cleaning, trimming, regulating and preparing surfaces;
- measures to protect material;
- cutting, jointing, sealing and fixing;
- securing material in place;
- lapping on all sides.
- Any miscellaneous cost arising

f) CONCRETE WORKS

This price includes the following:

- supply of all materials and plant;
- mix design;

- trial mixes;
- mixing, placing in or against any surface, including soil faces, compaction, finishing and unformed surface finishes;
- concreting in waterlogged conditions including keeping working areas free of water
- curing and protection;
- construction joints, (whether or not shown on the drawings) water bars and stops including formwork;
- holes, ducts, pockets, sockets, mortices and the like including formwork;
- measures to control alkali-silica reaction;
- measures to allow for camber requirements;
- air entrainment;
- admixtures and additives;
- placing concrete by any means including pumping;
- placing of concrete at specified temperatures;
- provision for supplying a cover meter instrument and carrying out surveys to the completed structures and reporting results to the engineer and in a format to be agreed with the engineer
- Any miscellaneous costs arising.

g) FORMWORKS

This price includes the following:

- supply of all materials and plants
- trial panels for smooth and profiled finished
- formwork for kickers
- falsework, centering, fabricating, assembling, cutting, fitting and fixing in position and taking measures to produce the required shapes of concrete.
- all design calculation & warranty for special shapes and forms as and where directed by engineer.
- forming cambers and falls
- linings and taking measures to produce the required finish to the surfaces of the concrete
- cutting and fitting around projecting members, pipes, reinforcement and the like
- individual fillets, chamfers, splays, drips, rebates, recesses, grooves
- maintaining in place until striking and allowing for any variation from the minimum period for striking arising from prevailing weather conditions
- striking, taking down and removing
- concrete provided in lieu of formwork to fill over break and working space
- working in confined areas or areas with limited working spaces
- submit a certificate or certificates in connection with the erection and details of false and temporary works for sub and superstructures
-

The Contractor shall, in connection with erection and details of False and temporary works for Sub and Superstructure, submit to the Engineer prior to the commencement of the relevant parts of the Works a certificate or certificates in the form prescribed hereafter:

Each certificate shall be signed by a Structural Engineer with appropriate qualifications and experience who has not been concerned with the original design of the element of the Contractor's erection proposals and details of the False and temporary Works to which the certificate relates.

The Certificate required shall be in the following form: -

“I certify, but without undertaking any responsibility other than towards.....(insert name of Contractor)..... that in my opinion the Contractor’s erection proposals and proposed False and Temporary Works details specified in the schedule attached hereto relating to the part of the Works for the Construction of(insert title of Contract)..... are satisfactory for the proper discharge of his responsibilities under the Contract for the safety of the said part of the Works and for their safe execution in accordance with the Drawings and Specification and without detriment to the related Permanent Works.”

The costs of submitting a certificate or certificates shall be deemed to be included in the Prices and the Contractor shall not be entitled to any extra monies connected with these requirements directly or indirectly.

Any miscellaneous costs arising.

h) REINFORCEMENT

This price includes the following:

- cleaning, cutting and bending;
- binding with wire or other material;
- supports, cover blocks and spacers (except for steel bar supports to reinforcement where shown on the Drawings);
- extra fabric reinforcement at laps;
- welding;
- mechanical connections.
- supply of all materials and plants
- no measurement shall be allowed for reinforcement laps.
- provision for grout wash of projected reinforcement at any location and as instructed by the Engineer.
- Any miscellaneous costs arising.

i) WATERPROOFING TO DECK

This price includes the following:

- supply of all materials and plant
- preparing, cleaning and drying
- priming and bonding agents
- laying to cambers, falls and crowns
- protective layers
- additional protection
- levelling courses
- additional base course or wearing course required as a result of the contractor's choice of waterproofing
- bonded sheet membranes hot applied (5 mm)
- 25mm sand asphalt protection + warning layer in coloured asphalt slurry seal.
- nibs, angle fillets, external angles, mitres, stops and the like
- sealing and making good at edges and chases, around interruptions and projections and up to abutting surfaces including cleaning and priming
- cutting out and rectifying imperfections
- joints and laps
- outgassing to avoid pinholes, blowholes

- preparation and supply of data sheets
- masking and other measures to protect adjacent untreated areas
- complying with any special requirements in respect of ambient conditions and for intervals between successive operations and applications at any location shown on the drawings
- supplying all completed data sheets (2 sets original)
- Any miscellaneous costs arising.

j) CAST IRON GULLY

This price includes the following:

- supply of workshop drawings and method statements according to en 104, adjustable size in concrete recess in the deck slab, incl. making of the opening into the existing slab with the reinforcement bars maintained in place.
- sealing to be connected according to technical requirements of specialist suppliers.
- measures to avoid water penetration into the construction of the deck slab.
- provide all necessary plant, labour & equipment for placing of gullies to areas as per drawings or as indicated on site
- no extra payment for wastage etc.
- Any miscellaneous costs arising.

k) LAMINATED ELASOMERIC BRIDGE BEARINGS

This price includes the following:

- design of fixed or sliding bearings as indicated on the engineer's drawings.
- submission of design certificates for compliance from independent test laboratories and supply of working drawings
- supply of all materials and adhesives/fixing as per technical specifications
- forming plinths
- formwork, concrete and reinforcement for bearing plinths as per data sheets or suppliers' requirements
- nuts, bolts, washers, dowels, protective caps, dust covers, sockets, sleeves, wrapping, adhesives and lubricants;
- any alteration to other structural elements (recesses, holes etc...) to suit bearings.
- any amendments or alteration to the works and any miscellaneous cost arising

l) EXPANSION JOINT TO DECK-THORMA JOINT AS PER ENGINEERS DRAWINGS

This price includes the following:

- design;
- certificates and provision of data and drawings;
- resubmissions and modifications;
- amendments to the Works;
- preparing and cleaning surfaces;
- installing or constructing the joint, sub-surface drainage, below joint
- drainage, in situ nosing, and waterproofing complete with fittings at kerbs, footways, service ducts and the like including the use of templates, guides and the like to retain the joint system in position;
- setting the joint having regard to temperature and other constraints;
- priming surfaces to be sealed, joint filler material, sealing strips,

- inserting, protecting and sealing;
- adhesives and the like;
- forming, cutting and sealing grooves and edges in surfacing and bridge deck waterproofing;
- protective system and greasing;
- Priming surfaces to be sealed, compressible layers, compressible polystyrene joint filler, casting in of water bars to engineer's approval at rear side of walls, protecting and sealing of front side of joint with polysulfide sealing
- Any miscellaneous cost arising

m) CONSTRUCTION JOINT AS PER ENGINEERS DRAWINGS

This price includes the following:

- Supply of all materials and plan for implementation of the construction joints as per the technical specification & drawings.
- Preparation and cleaning of surfaces
- Measures to protect joint against damage
- Priming surfaces to be sealed, compressible layers, compressible polystyrene joint filler, casting in of water bars to Engineer's approval at rear side of walls, protecting and sealing of front side of joint with polysulfide sealing
- Any miscellaneous cost arising

n) SAW-CUT JOINTS

This price includes the following:

- Forming of saw-cut joints 8mm wide x 40 mm deep in transition slabs within 24 hours after concreting;
- Allowance for wooden wedge to be placed in slab to induce cracks;
- Reaming and sealing with approved polysulfide mastic sealant;
- Any other miscellaneous costs arising

o) SUPPLY AND FIX METAL BRIDGE PARAPET TYPE BN4 ALL AS PER BS 6779-1 AND BS 6779-3 AND TO ENGINEER'S APPROVAL

This price includes the following:

- design and fabrication to comply with bs 6779 and the technical specifications for a heavy containment parapet
- supply of materials and plants for assembly and fixation of grade 50c galvanised steel tubular pedestrian guardrail of wall thickness of 5 mm or other thickness to suit design
- provision of data and drawings (2 sets, original)
- obtaining aesthetic approval
- connection pieces for attachment of safety fences
- drilling or forming holes and pockets and casting in bolts, sockets, base plates and anchorage assemblies
- adhesive anchors and epoxy or polyester mortar, bedding mortar or grout
- making good protective system
- adjustment to kerbside and bridge structure alignment
- fixing to structures and foundations including attachment systems
- expansion joint and sealing of voids.
- reinforcement and welding of attachments
- painting with aluminium paint

- Any miscellaneous costs arising.

p) **CONSTRUCTION OF JERSEY BARRIERS, INCLUDING ASSOCIATED JOINTING WORKS**

This price includes the following:

- Preparatory works including excavations in any materials (including rocks)
- All necessary supplies for in-situ/precast concrete work for Jersey barriers
- Supply and fixing of formworks of good quality
- Cleaning surface of all debris,
- Supply, placing, vibrating and curing, Class 40 concrete
- Provide 110 mm diameter UPV/PE drainage pipe/ rectangular weep holes as directed by Engineer
- Jersey barriers to be true to line and level throughout their length
- Provide joints as directed by the Engineer and
- Any miscellaneous costs arising

q) **BRIDGE AESTHETICS**

This price includes various bridge aesthetics works to be performed under the Contract as directed by the Engineer.

- supply of materials, plant and equipment for the proper definition and implementation of the concrete finishes.
- supply of sheeting profiles of various shapes & geometry
- modification, fabrication and assembly to the formwork to provide the concrete the required finish as per the technical specification and engineer's drawings
- provision for samples for approval to the engineer
- obtaining aesthetic approval
- protective system
- connection pieces for attachment of safety fences
- drilling or forming holes and pockets and casting in bolts, sockets, base plates and anchorage assemblies

Any miscellaneous cost arising

r) **200 mm THICK BASALT STONE**

This price includes the following:

- all obligations described in bridge aesthetics
- supply and delivery to site of construction of blue basalt stones
- cutting, shaping and cladding the stones to the bridge structure where instructed by the engineer
- stone to be random or regular, fair faced with clear joint finish
- dowelled lugs in joints at every 1 m²
- provision for samples for engineer's approval.

s) **SURFACE IMPREGNATION OF CONCRETE BURIED SURFACE**

This price includes the following:

- supply of all materials and plants for waterproofing of buried faces of concrete
- application of primer and two coats of cut back bitumen (hot applied) at a rate of spread per coat of 0.6 litre / m²
- placing of a geotextile fabric membrane, quality 200 gm/m²
- preparing, cleaning and drying

- protection from precipitation and spray
- masking and other measures to protect adjacent untreated areas
- complying with any material requirements in respect of ambient conditions and for intervals between successive operations and applications
- preparing and supply of data sheets. (2 sets, original)
- fixing in positions against the impregnated surfaces, after allowing for curing time, 5 mm layer of prefabricated hard boards prior to placing back fill material
- abutment and wing wall bases. if mastic asphalt system is used instead of this
- a requirement shall be implemented without any extra costs

t) FOOTPATH REQUIREMENTS

This price includes the following:

- supply of all materials and plant
- cleaning, trimming
- Class 35/45 concrete and A252 mesh.
- supports, formwork and fabric reinforcement at laps, and starter bars
- Expansion joints allowance at bridge joints
- allowances for recesses and utilities sleeves and boxing out
- allowance for stage construction to suit bridge superstructure construction
- tinted concrete finish to Engineer's approval
- filling of voids with rocksand.
- Side Kerb K1 as indicated on drawings
- 6 No. 110 mm PVC pipe at each kerb inlet
- 1 No. 250 mm sleeve
- 2 No.63 mm Sleeves for telecommunication network
- Filling of voids with rocksand

u) SUPPLY AND LAY KERB K1

This price includes the following:

- Supply and transport to any distance of the precast kerbs to the required areas.
- Excavation in any material, including rock.
- Mixing mortar and concrete.
- Supply on site of all necessary plant and materials.
- Erecting formwork, cutting and bending into place of any reinforcement.
- Placing and curing the concrete for in situ kerbs and for bedding/backfilling of precast kerbs.
- Striking the formwork, any necessary backfilling, smoothing and jointing.
- Spoiling excess cut.
- Concrete for bedding and backfilling shall be class C12/15.
- Allowing for all necessary alignment as instructed by the Engineer.
- Any miscellaneous costs arising

v) DRAINAGE ON BRIDGE - SUPPLY, LAY AND JOIN PERFORATED 110MM DIAMETER UPVC DRAINAGE PIPES CONNECTING FROM GULLY TO CATCHPIT

This price includes the following:

- Supply on site all necessary plants, labour, tools, equipment and materials which are necessary to carry out the Works.
- Supply, transport to the worksite of pipes, joints, couplers, accessories etc.
- Provision of storage, stacking, including for support, double handling etc.

- Cutting, fixing, jointing and laying of u-PVC pipes 110 mm diameter and grade PN10 along bridge and bridge elements
- Any ancillary fittings to connect cast iron gully to u-PVC pipe.
- Any necessary adjustment to lines and levels to cater for crossing of other services and safe discharge to rivers, drains or Canals.
- Provision of necessary certificates from independent certification bodies and laboratories approved by Engineer certifying compliance with specifications.
- Any miscellaneous costs arising

w) PILING WORKS TO BRIDGE (INCLUDING PILE AND PILE CAP (DESIGN CALCULATIONS TO BE SUBMITTED, PILE LOAD TESTS, ROUTINE PILE LOAD TESTS AND BRIDGE LOAD TEST)

This price includes the following:

- Selection & design of an appropriate islanding method or dry platform at abutments and pier locations to Engineer's approval
- Submission of detailed design calculations and construction/working drawings of islanding for Engineer's Approval
- Supply of necessary materials, plant, equipment & labour to construct necessary is landing or dry platform as the case may be
- Working in water and river diversion works.
- Construction of cofferdam or islands as per approved Construction/working drawing
- Maintenance of cofferdam including any repairs or complete replacement after any damage due to flood, rain or any other reason.
- Dismantling, cleaning, reinstatement, carting away & disposing of all cofferdam components & materials after completion of piling works
- Construction of islands, platforms or cofferdam to comply with all statutory and/or environmental laws and regulations including the Environment Impact Assessment of the Project.
- Any boreholes and soil investigation required for pile design but at least ONE Borehole to be carried out at each pile group. (Maximum of 6 Nos)
- Factual and interpretative Report submission to the engineer for approval
- Design of piling system using bored piles, driven piles or other proprietary piling system as applicable to suit ground conditions and bridge superstructure loadings.
- Deployment for whole duration of works on site of all necessary drilling/boring plant/rig
- Boring /chiselling in all types of soil including sand, boulders & hard rock TO ANY DEPTH.
- Loading, carting away and disposal of all excess materials to stockpiles as instructed by the Engineer or to spoil tips located by Contractor and approved by the Engineer
- Lateral support to prevent side collapse using temporary/permanent liners or bentonite slurry as applicable all to Engineer's approval and directions.
- Keeping site tidy and clean during drilling operations.
- Boring depth shall be instructed to the Contractor AFTER confirmatory borings have been completed as per specifications.
- Supply, transportation, fabrication, fixing & driving of mild steel liners (8mm thk) in position complying with technical specifications and to Contractor's design as required

- Provide all necessary plant, labour & equipment for fixing into position, bending to shape, welding, lifts etc. permanently left in place to suit piles of any diameter or dimension required as per design.
- Epoxy coated painting for all faces of liner.
- supply of all materials and plants, cleaning, cutting and bending of any reinforcement to piles of whatsoever type;
- Anti-corrosive treatment with fusion bonded epoxy coating to Engineer's approval
- binding with mild steel wire at all intersections
- supports, cover blocks and spacers, extra fabric reinforcement at laps, and starter bars
- Provision for grout wash of projected reinforcement at any location and as instructed by the Engineer.
- Mix design
- trial mixes, mix design, mixing, placing in or against any surface, including soil faces, compaction, finishing and unformed surface finishes of concrete to piles
- Compaction with tremie pipe or otherwise all to Engineer's approval and directions & curing and protection
- measures to control alkali-silica reaction
- All piles completed and/or under construction on water shall be protected floating debris. Damaged piles shall be repaired, replaced or supplemented by the method approved by the Engineer at the Contractor's expenses.
- Payment for all types of concrete works shall be considered to be the full compensation for the cost of furnishing, installing and removal of all temporary works like staging, formwork, working platforms, barges and cranes for
- concreting in the waterway portion, transporting, placing, compaction,
- finishing, curing, and rendering of the concrete as specified till the concrete work is self-supporting and can perform its intended functions.
- Trimming of any excess concrete, cleaning, etc to receive the pile cap
- sleeve in EACH pile for drilling in rock strata for grouting if required to the approval of the Engineer
- design of pile caps to suit and submission of detailed design calculations and drawings
- provision of all necessary material, labour and plant for construction of pile-caps
- Cement grouting at pile base using an approved grout injection technique
- Any miscellaneous cost arising
- Allowance for a grouting pipe inside the pile for piles of significantly larger diameter.
- vertical and lateral pile load test for ultimate (150% load) and routine (100% load) of selected pile but at least one in each pile group

Initial Pile Load Test

- Supply of all materials and plant and equipment for the conduction of pile load test as per code of practice.
- Casting of at least one extra pile (1 No.) for bridge of length less than 30 m and at least two extra piles (2 No.) for bridge of length greater than 30 m to conduct destructive pile load test.
- Location shall be indicated by Engineer
- vertical and lateral pile load test for ultimate (250% load) of pile

- provision of data and drawings (2 sets, original)
- temporary piles for support of testing platform
- recording and submission of testing report for engineer's approval

Routine Pile Load Test

- supply of all materials and plant and equipment for the conduction of pile load test as per code of practice.
- vertical and lateral pile load test for routine (100% load) of selected pile (At least 1 No per pile group)
- provision of data and drawings (2 sets, original)
- piles test as per technical specifications to two time working load
- temporary piles for support of testing platform
- recording and submission of testing report for engineer's approval

Bridge load tests

- Static and dynamic load tests (Non-Destructive Load Testing) as per standards to determine the structural response of bridge under various loading conditions;
- recording and submission of testing report for Engineer's approval.

x) MECHANICALLY STABILISED EARTH (MSE) WALLS (FASCIA PANEL)

This price includes the following:

- Measurement of fascia panel and it shall be in sq.m including reinforcement, transportation, labour, machinery, material and all other necessary requirements to fix fascia panel at site complete as per drawings and technical specifications.
- Detailed engineering including designs, drawings, all specified quality control tests, approval from Engineer, furnishing, fabricating and providing all materials for the walls including fascia panels, reinforcing elements and all its accessories, excavation and foundation construction
- Setting out and erection of wall materials including fascia panels with all joint fillers/ materials, reinforcement etc., supplying and placing of drainage works, filter medium and filter fabric, foundation pad including any supplementary arrangement to receive the first panel and capping beam, any foundation treatment/ ground improvement as deemed necessary and approved by the Engineer etc
- Cost involved for any field investigation and sub-soil exploration as directed by the Engineer to determine the extent of ground improvement shall be borne by the Contractor.
- the cost of labour, plant/ machinery, material storage and handling expenses, as required for all the above activities for completing the Works
- the cost of all materials, castings, curing, and quality control tests, stacking, transporting and placing of fascia. Cost of joints, all necessary temporary formwork, scaffolding and all lifts and leads complete as per approved design/ drawing of the specialised firm shall also be included.
- material cost, all transportation costs and storage of the same as per special provisions for reinforcement element.
- cost of quality control tests, laying of the reinforcing elements including all overlaps, jointing or stitching, heat bonding or extension and jointing them with reinforcing elements of concrete discrete panels along with all accessories.
- include all items of excavation, concrete, reinforcing steel, formwork, curing etc for foundation and capping beam.

- providing, placing and compacting drainage aggregate, filter medium including drainage collection pipe, filter fabric and conducting quality control tests etc for drainage.
- patentee charges (if any) and supervision by the specialised supplier (manufacturer / agency).
- The payment for excavation, foundation concrete, reinforcing element, fasteners, filter media, drainage layer, drainpipe, coping beam and other accessories shall not be measured separately. It is deemed to have been included in the fascia material rates for the project.

y) SELECTED EARTH FILL BEHIND FASCIA PANNEL SUBJECTED TO ENGINEER'S APPROVAL

This price includes the following:

- Measurement of backfill placement and compacting for the reinforced soil/ earth wall shall be in cubic meters for compacted soil. This shall be measured separately by taking cross sections at intervals in the original position before the work starts and after its completion
- include selection, supply, placing, compaction, and quality control tests etc. for approved earth fill.
- the cost of labour, plant/ machinery, transportation for all leads and lifts etc. as required for the completion of the works, dressing and levelling of slopes, including special measures for edge reinforcement in accordance with the drawings.

z) JERSEY BARRIER WITH FRICTION SLAB

This price includes the following:

- Design of all associated features with Jersey Barriers and friction slab.
- Preparatory Works including excavations in any materials (including rocks)
- All necessary supplies for in-situ/precast concrete work for Jersey barriers
- Supply and fixing of formworks of good quality
- Cleaning surface of all debris,
- Supply, placing, vibrating and curing, Class 40 concrete
- Provide 110 mm diameter UPV/PE drainage pipe/ rectangular weep holes as directed by Engineer
- Jersey barriers to be true to line and level throughout their length
- The cost of all materials, labour, plant/machinery, transportation for all leads and lift etc. As required for completing the work.
- Provide joints as directed by the Engineer

aa) DESIGN, SUPPLY AND PLACING OF MSE WALL INCLUSIVE OF BASE/TENDONS, SUB SURFACE DRAINAGE, ETC.

This price includes the following:

- Design and execution of whole of works involved in mechanically stabilized earth wall for a minimum service life of 100 years, similar to the bridgeworks, including submission of specifications, type and pattern of prefabricated panels.
- Backfill behind the MSE walls using high quality backfill for du, adequate drainage from well graded and granular materials.
- Check of existing subsurface conditions to evaluate the site stability conditions, settlement analysis and need for drainage and submit detailed design calculations and geotechnical investigation report for the settlement analysis.

bb) THIRD PARTY REVIEW

This price includes the following:

- An independent third party comprehensive review for the design and construction of any alternative technical solution proposed by the Contractor for the bridge works. The review shall be carried out and duly signed by a Professional Civil/Structural Engineer registered with the Council of Registered Professional Engineers of Mauritius or a Chartered Civil/Structural Engineer registered with the Engineering Council of UK.
- The third party review shall include **ALL components of the bridge works** including the foundations, columns, beams, pier walls (if any), abutment walls, wing walls, precast beams, deck slab, metal parapet amongst others.
- The third party reviewer shall vet **ALL** design calculations, analytical models, assumptions, design data, detailed drawings, construction methodology and ensuring construction is carried out accordingly & maintenance strategy and certify, at each stage, that all are being carried out according to the relevant Codes of Practice and good construction practice.
- The third party reviewer shall submit his duly signed Review Certificates at every stage of the alternative bridge design & construction timeline. These Review Certificates shall be made available to the Engineer & Employer as and when required.
- Any miscellaneous costs arising.

BOREHOLE AND PUMPING STATION

The Employer intends to find a productive borehole within the area of development and accordingly provide the necessary infrastructure for the pumping station and associated components to supply at least part of the water requirements to the proposed onsite service reservoirs.

The exact location of the proposed borehole within the vicinity of the site and pumping station including details with regards to the pump(s) and panel shall be supplied by the Employer to the Contractor.

The Contractor shall include in its rates and prices all costs associated to meeting the requirements set out in the bill of quantities and technical specifications.

All the components of the works shall be approved by competent authority and/or Engineer prior to incorporation into the permanent works. The Contractor shall include in its prices and rates the costs associated with submission of all relevant documentations required for the successful supply, installation and commissioning of the system to the satisfaction of the authority.

The Employer reserves the right to not proceed with the aforementioned works.

BILL OF QUANTITIES

INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH HUB AT COTE D'OR				
MAIN SUMMARY				
Bill No.	Description	LOT 1 - OFFSITE WORKS - Amount (MUR)	LOT 2 - ONSITE WORKS - Amount (MUR)	TOTAL - Amount (MUR)
1	Preliminaries & General			
2	Preparatory Works			
3	Earthworks			
4	Sub-base and Road Base			
5	Bituminous Courses			
6	Drainage, Sidewalks & Accesses			
7	Road Marking & Equipment and Road Lighting			
8	Potable Water Supply Network			
9	Telecommunications Network			
10	Electrical Supply Network			
11	Gravity Sewer Pipelines			
12	Sewerage Lifting Station & Rising Main			
13	Service Reservoir & Pumping Station			
14	Bridge Construction			
15	Dayworks			
Sub-Total				
VAT @ 15%				
Total				

INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH HUB AT COTE D'OR		
LOT 1 - OFFSITE WORKS - SUMMARY		
Bill No.	Description	Amount (MUR)
1	Preliminaries & General	
2	Preparatory Works	
3	Earthworks	
4	Sub-base and Road Base	
5	Bituminous Courses	
6	Drainage, Sidewalks & Accesses	
7	Road Marking & Equipment and Road Lighting	
8	Potable Water Supply Network	
9	Telecommunications Network	
10	Electrical Supply Network	
11	Sewer Pipelines	
12	Sewerage Lifting Station & Rising Main	
13	Service Reservoir, Pumping Station, & Borehole	
14	Bridge Construction	
15	Dayworks	
Sub-Total for LOT 1		
VAT @ 15%		
Total for LOT 1		

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 1</u>				
	<u>PRELIMINARIES AND GENERAL</u>				
101	Fixed Charge Items - Primary and Secondary Obligations	XXX			
101A	Performance Security	Lump Sum			
101B	All Insurances and deductibles (incl. Property Damage Insurance and Professional Indemnity Insurance, if applicable)	Lump Sum			
101C	Head office contract management and overheads	Lump Sum			
101D	General site supervision and overheads	Lump Sum			
101E	Access Control and Security	Lump Sum			
101F	Programming requirements	Lump Sum			
101G	Quality management	Lump Sum			
101H	Contractors returns	Lump Sum			
101I	Health and safety	Lump Sum			
101J	Environmental considerations including compliance with Environmental Management/Monitoring Plan	Lump Sum			
101K	Surveys and Consistency Checks	Lump Sum			
101L	Any other primary general obligations not included elsewhere	Lump Sum			
101M	Secondary Obligations relating to Lot 1 - Bill 2 - Preparatory Works	Lump Sum			
101N	Secondary Obligations relating to Lot 1 - Bill 3 - Earthworks	Lump Sum			
101O	Secondary Obligations relating to Lot 1 - Bill 4 - Sub Base and Road Base	Lump Sum			
101P	Secondary Obligations relating to Lot 1 - Bill 5 - Bituminous Courses	Lump Sum			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO 1					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
			B.F		
101Q	Secondary Obligations relating to Lot 1 - Bill 6 - Drainage, Sidewalks and Accesses	Lump Sum			
101R	Secondary Obligations relating to Lot 1 - Bill 7 - Marking & Equipment and Road Lighting	Lump Sum			
101S	Secondary Obligations relating to Lot 1 - Bill 9 - Telecommunication Network	Lump Sum			
101T	Secondary Obligations relating to Lot 1 - Bill 12 - Sewerage Lifting Stations and Rising Mains	Lump Sum			
101U	Secondary Obligations relating to Lot 1 - Bill 13 - Service Reservoir, Pump Station, & Borehole	Lump Sum			
101V	Secondary Obligations relating to Lot 1 - Bill 14 - Bridge Construction	Lump Sum			
101W	Any other secondary general obligations not included elsewhere	Lump Sum			
102	Fixed Charge Items - Provision and Removal of Facilities and Equipment	XXX			
102A	Facilities provided by the Contractor for the Engineer	Lump Sum			
102B	Facilities provided by the Contractor for the construction of the Works	Lump Sum			
102C	Project Signboard	Lump Sum			
102D	Any other facilities by the contractor not covered elsewhere	Lump Sum			
102E	Supervisory staff transport	Lump Sum			
102F	Labour staff transport	Lump Sum			
102G	General access and transport in and around the Works	Lump Sum			
102H	General Plant for the execution of the works	Lump Sum			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL No.1					

Item	Description	Unit	Qty	Rate (MUR)	
			B.F		
102I	Equipment for construction and maintenance of the Contractor's work areas	Lump Sum			
102J	Minor equipment and small tools for the whole site	Lump Sum			
102K	General civil engineering equipment for the site not provided for elsewhere (earthworks, drainage, concrete transport and placement, asphalt transport and placement, crushing plant, formwork, rebar, equipment)	Lump Sum			
102L	Equipment and associated equipment for storing & managing concrete aggregates, cementitious and bituminous materials	Lump Sum			
102M	Equipment and associated equipment for protective clothing and equipment	Lump Sum			
102N	Equipment and associated equipment for dust and vehicle emission control	Lump Sum			
102O	Equipment and associated equipment for noise control	Lump Sum			
102P	Specific Equipment relating to Lot 1 - Bill 2 - Preparatory Works	Lump Sum			
102Q	Specific Equipment relating to Lot 1 - Bill 3 - Earthworks	Lump Sum			
102R	Specific Equipment relating to Lot 1 - Bill 4 - Sub Base and Road Base	Lump Sum			
102S	Specific Equipment relating to Lot 1 - Bill 5 - Bituminous Courses	Lump Sum			
102T	Specific Equipment relating to Lot 1 - Bill 6 - Drainage, Sidewalks and Accesses	Lump Sum			
102U	Specific Equipment relating to Lot 1 - Bill 7 - Road Marking & Equipment and Road Lighting	Lump Sum			
102V	Specific Equipment relating to Lot 1 - Bill 9 - Telecommunication Network	Lump Sum			
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL No.1				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
			B.F		
102W	Specific Equipment relating to Lot 1 - Bill 12 - Sewerage Lifting Stations and Rising Mains	Lump Sum			
102X	Specific Equipment relating to Lot 1 - Bill 13 - Service Reservoir, Pump Station, & Borehole	Lump Sum			
102Y	Specific Equipment relating to Lot 1 - Bill 14 - Bridge Construction	Lump Sum			
102Z	Any other General or Specific Equipment not included elsewhere	Lump Sum			
103	Time Related Charge Items - Primary and Secondary Obligations	XXX			
103A	Performance Security	Lump Sum			
103B	All Insurances and deductibles (incl. Property Damage Insurance and Professional Indemnity Insurance, if applicable)	Lump Sum			
103C	Head office contract management and overheads	Lump Sum			
103D	General site supervision and overheads	Lump Sum			
103E	Access Control and Security	Lump Sum			
103F	Programming requirements	Lump Sum			
103G	Quality management	Lump Sum			
103H	Contractors returns	Lump Sum			
103I	Health and safety	Lump Sum			
103J	Environmental considerations including compliance with environmental management/monitoring plan	Lump Sum			
103K	Surveys and Consistency Checks	Lump Sum			
103L	Any other primary general obligations not included elsewhere	Lump Sum			
103M	Secondary Obligations relating to Lot 1 - Bill 2 - Preparatory Works	Lump Sum			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL No.1					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
			BF.		
103N	Secondary Obligations relating to Lot 1 - Bill 3 - Earthworks	Lump Sum			
103O	Secondary Obligations relating to Lot 1 - Bill 4 - Sub Base and Road Base	Lump Sum			
103P	Secondary Obligations relating to Lot 1 - Bill 5 - Bituminous Courses	Lump Sum			
103Q	Secondary Obligations relating to Lot 1 - Bill 6 - Drainage, Sidewalks and Accesses	Lump Sum			
103R	Secondary Obligations relating to Lot 1 - Bill 7 - Road Marking & Equipment and Road Lighting	Lump Sum			
103S	Secondary Obligations relating to Lot 1 - Bill 9 - Telecommunication Network	Lump Sum			
103T	Secondary Obligations relating to Lot 1 - Bill 12 - Sewerage Lifting Stations and Rising Mains	Lump Sum			
103U	Secondary Obligations relating to Lot 1 - Bill 13 - Service Reservoir, Pump Station, and Borehole	Lump Sum			
103V	Secondary Obligations relating to Lot 1 - Bill 14 - Bridge Construction	Lump Sum			
103W	Any other secondary general obligations not included elsewhere	Lump Sum			
104	Time Related Charge Items - Provision and Removal of Facilities and Equipment	XXX			
104A	Facilities provided by the Contractor for the Engineer	Lump Sum			
104B	Facilities provided by the Contractor for the construction of the Works	Lump Sum			
104C	Project Signboard	Lump Sum			
104D	Any other facilities by the contractor not covered elsewhere	Lump Sum			
104E	Supervisory staff transport	Lump Sum			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL No.1					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
			BF.		
104F	Labour staff transport	Lump Sum			
104G	General access and transport in and around the Works	Lump Sum			
104H	General Plant for the execution of the works	Lump Sum			
104I	Equipment for construction and maintenance of the Contractor's work areas	Lump Sum			
104J	Minor equipment and small tools for the whole site	Lump Sum			
104K	General civil engineering equipment for the site not provided for elsewhere (earthworks, drainage, concrete transport and placement, asphalt transport and placement, crushing plant, formwork, rebar, equipment)	Lump Sum			
104L	Equipment and associated equipment for storing & managing concrete aggregates, cementitious and bituminous materials	Lump Sum			
104M	Equipment and associated equipment for protective clothing and equipment	Lump Sum			
104N	Equipment and associated equipment for dust and vehicle emission control	Lump Sum			
104O	Equipment and associated equipment for noise control	Lump Sum			
104P	Specific Equipment relating to Lot 1 - Bill 2 - Preparatory Works	Lump Sum			
104Q	Specific Equipment relating to Lot 1 - Bill 3 - Earthworks	Lump Sum			
104R	Specific Equipment relating to Lot 1 - Bill 4 - Sub Base and Road Base	Lump Sum			
104S	Specific Equipment relating to Lot 1 - Bill 5 - Bituminous Courses	Lump Sum			
104T	Specific Equipment relating to Lot 1 - Bill 6 - Drainage, Sidewalks and Accesses	Lump Sum			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL No.1					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
			BF.		
104U	Specific Equipment relating to Lot 1 - Bill 7 - Road Marking & Equipment and Road Lighting	Lump Sum			
104W	Specific Equipment relating to Lot 1 - Bill 9 - Telecommunications Network	Lump Sum			
104Z	Specific Equipment relating to Lot 1 - Bill 12 - Sewerage Lifting Stations and Rising Mains	Lump Sum			
104AA	Specific Equipment relating to Lot 1 - Bill 13 - Service Reservoir, Pump Station, and Borehole	Lump Sum			
104AB	Specific Equipment relating to Lot 1 - Bill 14 - Bridge Construction	Lump Sum			
104AC	Any other General or Specific Equipment not included elsewhere	Lump Sum			
105	Laboratory	Lump Sum	1		
106	Traffic Diversion	Lump Sum	1		
107	Rerouting of existing services	Prov. Sum	1	3,000,000.00	3,000,000.00
107A	Contractor's Overheads and Profit on Item 107	%			
108	Additional & Contingent Works	Prov. Sum	1	20,000,000.00	20,000,000.00
108A	Contractor's Overheads and Profit on Item 109	%			
109	Provisional Sum for Landscaping Works	Prov. Sum	1	20,000,000.00	20,000,000.00
109A	Contractor's Overheads and Profit on Item 109	%			
110	Provisional Sum	XXX			
110A	Provisional Sum for additional work required for upgrading of existing roundabout	Prov. Sum	1	3,000,000.00	3,000,000.00
TOTAL FOR LOT 1 - BILL No. 1 CARRIED TO LOT 1 SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 2</u>				
	<u>PREPARATORY WORKS</u>	XXX			
201	Clear site	m ²	44,400		
202	Excavate top soil	m ³	13,320		
203	Fell Trees with girth exceeding one metre and remove stumps	No.	2		
204	DEMOLITION OF MASONRY OR CONCRETE STRUCTURES	XXX			
204A	Masonry or Concrete Structures	m ³	30		
205	REMOVAL OF EXISTING MISCELLANEOUS ROAD FURNITURES	XXX			
205A	Road Signs Less than one square metre	No.	5		
205B	Road Signs More than one square metre	No.	5		
205C	Kerbs edge and upstand	m	200		
205D	Cat's Eyes	No.	50		
206	Blanking out of existing road Markings	m ²	20		
207	Scarify road surfaces	m ²	3,500		
208	Cutting Of Asphaltic Concrete	m	200		
	TOTAL FOR LOT 1 - BILL No. 2 CARRIED TO LOT 1 - SUMMARY				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 3</u>				
	<u>EARTHWORKS</u>	XXX			
301	Road excavation to any width	m ³	30		
302	Excavate soft spots to any width	m ³	400		
303	Excavation in normal material to any width (rippable, soft and loose material excluding boulders)	m ³	29,500		
304	Excavation in rocks to any width	m ³	9,800		
305	Shaping the sub-grade in cuts other than rock cut	m ²	8,200		
306	Shaping the sub-grade in rock cut	m ²	2,600		
307	Compaction below fill areas	m ²	31,575		
308	Level and compact subgrade in fill	m ²	11,000		
309	Fill with material from excavation, road excavation or excavation in rocks	m ³	15,000		
310	Fill with material from borrow pits, quarries, piles of boulders other than from the works	m ³	21,675		
311	TOPSOIL AND GRASSING	XXX			
311A	Verges, central reserve and islands (150mm thick)	m ²	13,100		
311B	Slopes in cut and fill (150mm thick)	m ²	8,000		
	TOTAL FOR LOT 1 - BILL No 3 CARRIED TO LOT 1 - SUMMARY				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
<u>LOT 1 - BILL No 4</u>					
<u>SUB-BASE AND ROAD BASE</u>					
401	Supply, mix, spread and compact crusher run 0/20 (graded crushed stone) to any width	m ³	5,000		
402	Supply, mix, spread and compact crusher run 0/31.5 (graded crushed stone) to any width	m ³	1,000		
403	Supply, mix, spread and compact crusher run 0/100 (graded crushed stone) to any width	m ³	5,300		
TOTAL FOR LOT 1 - BILL No 4 CARRIED TO LOT 1 - SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
<u>LOT 1 - BILL No 5</u>					
<u>BITUMINOUS COURSES</u>					
501	Sanded prime road base (at the rate of 1.2 kg/metre square of cut-back)	m ²	20,000		
502	Spray tack coat to bituminous surfaces (at the rate of 0.6 kg/metre square of cut-back)	m ²	40,000		
503	Spray tack coat to bituminous surfaces (at the rate of 0.6 kg/metre square of cut-back) to existing paved roads	m ²	1,000		
504	Provide, lay and roll bituminous concrete (0/20) for base course with nominal 5.5 % bitumen content (Minimum Thickness 80mm)	m ²	20,000		
505	Provide, lay and roll bituminous concrete (0/14) for wearing course with nominal 6.0 % bitumen content (Minimum Thickness 50mm)	m ²	20,000		
506	Provide, lay and roll bituminous concrete (0/14) for reshaping of existing road with nominal 4.8 % bitumen content	Ton	150		
TOTAL FOR LOT 1 - BILL No 5 CARRIED TO LOT 1 - SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 6</u>				
	<u>DRAINAGE, SIDEWALKS AND ACCESSES</u>				
601	CONSTRUCT AND COMPLETE SIDE DRAINS AS SHOWN ON TYPICAL DRAWINGS	XXX			
601A	Concrete Open Drain D500 under footpath	m	650		
601B	Concrete Open Drain D700 under footpath	m	80		
601C	Concrete Open Drain D700 under road traffic	m	75		
601D	Concrete Open Drain D1000 under footpath	m	80		
601E	Trapezoidal Open Masonry Drain 700mm top width x 500mm bottom width x 500mm deep	m	315		
601F	Trapezoidal Open Masonry Drain 1000mm top width x 700mm bottom width x 700mm deep	m	580		
601G	Trapezoidal Open Masonry Drain 1260mm top width x 900mm bottom width x 900mm deep	m	175		
601H	Concrete Drain on MSE wall	m	695		
602	SUPPLY AND FIXING OF COVERS AND OPENINGS FOR DRAINS AS SHOWN ON TYPICAL DRAWINGS	XXX			
602A	RC Former Covers for drains 500mm wide under footpath	m	490		
602C	RC Former Covers for drains 700mm wide under footpath	m	60		
	RC Former Covers for drains 1000mm wide under footpath	m	60		
602E	RC Openable Covers for drains 500mm wide under footpath	No.	165		
	TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 6				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF	
602F	RC Openable Covers for drains 700mm wide under footpath	No.	25		
602H	RC Openable Covers for drains 1000mm wide under footpath	No.	25		
603	CONSTRUCT CULVERT/HEADWORKS	XXX			
603A	Single Box Culvert 1.5 m x 1.5 m	m	55		
603B	Headworks & Wing Wall for Single Box Culvert 2.0 m x 1.5 m incl. Handrails	No.	2		
603C	Extension of Existing Culvert 1.0 m x 1.5 m deep	m	40		
603D	Headworks & Wing Wall for Single Box Culvert 1.0 m x 1.5 m incl. Handrails	No.	2		
604	CATCHPITS	XXX			
604A	Catchpit Type 1 for Drain (for depths less than 1.2m) as per typical drawings	No.	13		
604B	Catchpit Type 2 for Drain (for depths between 1.2m and 1.5m) as per typical drawings	No.	7		
605	CONSTRUCT AND COMPLETE KERBS AND FOOTPATH	XXX			
605A	Kerbs K1 - 150mm wide by 220mm high	m	1,400		
605B	Low Kerbs - K3 as per Typical Drawings	m	1,400		
605C	Kerb gully inlets including all kerbs and connection works to drains as shown on typical drawings for k3 and k1	m	300		
605D	Flush Kerbs - as per Typical Drawings	m	980		
605E	Concrete Footpath and Cycle track as per drawings	m ²	4,725		
606	DESILTING BASIN	XXX			
606A	Desilting Basin as per drawing	No.	1		
606B	Topsoil and grassing	m ²	200		
TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 6					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)		
606C	Trapezoidal Open Step Masonry Drain as per typical drawing	m	50	BF			
607	MISCELLANEOUS HYDRAULIC STRUCTURES	XXX					
607A	Rip Rap	m ²	30				
607B	Blinding concrete (class 12/15)	m ³	20				
607C	Class 25/30 concrete	m ³	20				
607D	Formwork (rough)	m ²	250				
607E	Reinforcement (high yield deformed bars, Grade 460 Type as shown on drawings)	kg	1,000				
607F	Stone masonry works minimum (20 to 30cm thick)	m ³	75				
607G	Downspouts (open channel chutes)	m	60				
607H	Supply and place geotextile membrane	m ²	300				
607I	Surface Impregnation of concrete buried faces	m ²	200				
607J	160 mm diameter PVC sleeves	m	300				
607K	Heavy Duty Galvanised Grating	m ²	50				
TOTAL FOR LOT 1 - BILL No 6 CARRIED TO LOT 1 - SUMMARY							

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 7</u>				
	<u>ROAD MARKING & EQUIPMENT AND ROAD LIGHTING</u>				
701	SUPPLY AND APPLY RELECTORISED THERMPLASTIC ROAD MARKING AND CHLORINATED RUBBER PAINT TO BITUMINOUS CARRIAGEWAY FOR MARKINGS AND SYMBOLS	XXX			
701A	Supply and apply reflectorised thermoplastic road marking paint to bituminous carriageway	m ²	1,550		
701B	Supply and apply reflectorised chlorinated rubber paint to bituminous carriageway	m ²	60		
702	Supply and Fix Cat's eyes	No.	1,310		
703	PROVIDE AND ERECT REFLECTIVE PROHIBITIVE OR MANDATORY SIGNS, PRIORITY SIGNS, WARNING SIGNS, INFORMATORY SIGNS WITH ADDITIONAL PANELS POST AND FITTINGS	XXX			
703A	Panel diameter 600 mm	No.	22		
703B	Panel triangular 600 mm (height)	No.	22		
703C	Panel octagonal 600 mm (height)	No.	17		
703D	Panel square 600 mm (height)	No.	17		
703E	Panel rectangular 1600 mm x 2440 mm	No.	12		
703F	Arrow panel 2500mm x 600mm	No.	12		
703G	Directional panels 1250mm height x 1200mm long	No.	8		
703H	Increase or decrease to Items 703A to 703G for varying the panel size	m ²	10		
704	Supply, erect galvanised steel safety fence (guard rail)	m	800		
705	Supply, erect galvanised light duty handrail	m	400		
	TOTAL FOR LOT 1 - BILL No 7 CARRIED TO LOT 1 - SUMMARY				

Item	Description	Unit	Qty	Rate (MUR)	
706	<u>ROAD LIGHTING</u>			BF.	
706A	Provisional Sum for the supply and placing of solar Street Lighting poles and Luminaires	Prov.Sum	1	4,000,000.00	4,000,000.00
706B	Contractor's Overheads and Profit on Item 706A	%			
707	COLUMN FOUNDATIONS	XXX			
707A	Construction of Column Foundations for 9.0m high pole as per drawing	No.	70		
708	MAINTENANCE AFTER WARRANTY PERIOD	XXX			
708A	Allow for all costs in connection with Comprehensive Maintenance of the solar lighting installation after the one year warranty period for a duration of two years.	Prov. Sum	1	3,000,000.00	3,000,000.00
708B	Contractor's Overheads and Profit on Item 708A	%			
709	CONSTRUCTION OF BUS LAYBY AND SHELTER	XXX			
709A	Construction of bus layby	No.	2		
709B	Construction of bus shelter	No.	4		
TOTAL FOR LOT 1 - BILL No 7 CARRIED TO LOT 1 - SUMMARY					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	LOT 2 - BILL No. 9 <u>TELECOMMUNICATIONS NETWORK</u> <u>(MAURITIUS TELECOM)</u>				
901	EXCAVATION	XXX			
901A	Excavate trench for depths less or equal to 2.0m for 3 dia. 60mm + 3 dia. 45mm ducts	m	1,400		
901B	ditto but for depths greater than 2.0m for 3 dia. 60mm + 3 dia. 45mm ducts	m	350		
902	DUCT / CABLE PROTECTION	XXX			
902A	Supply and place sand protection to ducts and cables below and above ducts for 3 dia.60mm + 3 dia 45ducts	m	1,400		
902B	Bed and surround in concrete for ducts as per dra	m ³	20		
903	SUPPLY, TRANSPORT, LAY AND JOINT PVC DUCTS	XXX			
903A	Supply, transport, lay and joint PVC ducts for 3 dia. 60 mm + 3 dia. 45mm ducts	m	1,750		
904	SUPPLY, TRANSPORT, LAY AND JOINT PVC BEND	XXX			
904A	PVC bend 45mm	No.	50		
904B	PVC bend 60mm	No.	50		
905	CONSTRUCTION OF CHAMBERS	XXX			
905A	Chamber type M1C	No.	2		
905B	Chamber type K2C	No.	23		
906	Provision for crossings of existing culverts and bridge	P.Sum	1	3,000,000.00	3,000,000.00
	TOTAL FOR LOT 2 - BILL No 9 CARRIED TO LOT 2 - SUMMARY				3,000,000.00

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	<p>LOT 1 - BILL NO. 12 SEWERAGE LIFTING STATIONS & RISING MAINS</p> <p><u>CONSTRUCTION OF LIFTING STATION</u></p> <p><i>Note: Quantities indicated are tentative, and provided to facilitate the bidder for estimate. The quantities of individual items can vary as per functionality & site requirements based on the Contractor's Detailed Design. A list of such items with quantities and any other elements not stated in the BOQ but required for the safe and efficient running of the plant is to be detailed, priced and appended separately to the BOQ and submitted together in the bid for approval by the Engineer.</i></p>				
1201	Excavation	XXX			
1201A	Bulk excavation depth n.e 3.0 m. Rate to include extra excavation for working space, excavation support, de watering, platforms and ramps for access and sieving, backfilling excess excavation and compaction	m ³	2500		
1201B	Ditto but for depth exceeding 3.0 m	m ³	250		
1201C	Extra Over for items 1201A & 1201B for excavation in rock	m ³	1000		
1202	Concrete to inlet works, pump station and building (Rate to be inclusive of allowance for recesses and casting of puddle flanges where required)	XXX			
1202A	Blinding concrete class C15/20/C 75mm thick under foundations to U2 finish.	m ²	85		
1202B	Concrete class C35/20/A to base	m ³	25		
1202C	Concrete class C40/20/A to walls	m ³	45		
1202D	Concrete class C35/20/A to roof and floor slab	m ³	35		
1202E	Concrete class C15/20/C to benching and mass concrete	m ³	15		
1202F	Blinding concrete grade C15/20/C 50mm thick under pad footings	m ²	15		
1202G	Ditto but under strip footing,	m ²	15		
1202H	Concrete grade C30/20/B in pad and strip footings	m ³	15		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1202I	Ditto but in columns	m ³	15		
1202J	Ditto but in beams	m ³	10		
1202K	Ditto but in staircase	m ³	10		
1202L	Penetron to Concrete	m ³			
1203	FORMWORK	XXX			
1203A	F2 Finish formwork	m ²	250		
1203B	F1 Finish formwork	m ²	350		
1204	Building Works	XXX			
1204A	Excavation in any material including rock n.e 2.5m for foundation	m ³	15		
1204B	Hardcore filling	m ³	45		
1204C	50mm thick rocksand blinding on hardcore filling	m ²	55		
1204D	Polythene sheeting gauge 500	m ²	55		
1205	Reinforcement	XXX			
1205A	Supply, cut, bend and fix high yield reinforcement to BS 4449 diameter not exceeding 16mm to inlet works, pump station	kg	5000		
1205B	Supply, cut, bend and fix mild and high yield reinforcement to BS 4449 diameter not exceeding 16mm to building	kg	2000		
1206	Blockwork	XXX			
1206A	Hollow concrete blockwalling 200mm in cement sand mortar (1:4)	m ²	200		
1207	Rendering consists of one part cement to four parts sand (1:4) with an approved plasticizer, sponge/trowel finish. Rate to include for arises, corners and junctions	XXX			
1207A	Wall and columns internally, minimum 12 mm thick	m ²	200		
1207B	Wall and columns externally; minimum 20mm thick	m ²	200		
1207C	Beams lintels and cills	m ²	60		
1207D	Roof slab	m ²	150		
1208	Painting	XXX			
1208A	Supply, prepare and apply one coat undercoat and two coats of approved anti fungus paint on rendered surfaces of building	m ²	500		
1208B	Supply, prepare and apply butiminous paint on external surface of inlet works and pump sump	m ²	150		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
1209	Tiling	XXX		BF	
1209A	Supply and lay homogeneous antiskid ceramic floor tiles 300 x 300 to EN 176.	m ²	30		
1209B	Supply and lay glazed ceramic wall tiles 200 x 200 x 6 mm, height 2.2m	m ²	50		
1210	Fixtures	XXX			
1210A	Ventilation louvres 600mm wide X 3000mm long	No.	1		
1210B	Louvred door 2000mm wide x 2400mm high	No.	1		
1210C	Powder coated aluminium high level window, size 600 X 2500	No.	2		
1210D	Powder coated aluminium window, size 1000 X 1500	No.	1		
1210E	Tropical door 900mm wide x 2000mm high	No.	3		
1210F	Tropical door 1400mm wide x 2000mm high	No.	1		
1211	External Plumbing Work	XXX			
1211A	1/2" BSP tap with threaded end to wall of pump station, complete with fittings to 25 mm OD LDPE pipe and fixing bracket.	No	2		
1211B	75 mm dia uPVC rainwater downpipes inclusive of fixing brackets , discharge bends and painting	No	2		
1212	Supply, install, connect and test the following sanitary fittings:	XXX			
1212A	W.C suite - White vitreos	No.	1		
1212B	Wash hand basin - White vitreos	No.	1		
1212C	Toilet paper holder	No.	2		
1212D	Mirror 600 x 600	No.	2		
1212E	Pipes, fittings and meter (water supply to WC cisterns, WHB, etc and waste/soil pipes). - (For two WC suite)	Sum	1		
1212F	Water supply polypipe 25mm dia. including fittings, trenching & miscellaneous fixing costs 300 x 300 from mains supply	m	100		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1213	Miscellaneous	XXX			
1213A	Penstock/sluice valve to fit in R.C channel 1400H x 900W. SS 304 L plate, grooved frame, bracket and pillar. Phospor bronze mating surfaces. S/S screwed spindle, gun metal nut, platform mounted pedestal with handwheel for manual operation. Max water head not to exceed 5 m.	No.	2		
1213B	Bar Screen & accessories Medium screen type fabricated with 304 L S/S bars 40x5 c/w 304 L S/S anchoring bars. Bars bended to 450 at 150mm from one end, bars to have threaded holes at each end (M6). (HAND RAKING TYPE) Distance between bars = 50mm Width of barscreen = 900mm c/w M6 S/S 304L bolts (As per drawing)	No.	2		
1213C	Fine screen type fabricated with 304 L S/S bars 40x5 c/w 304 L S/S anchoring bars. Bars bended to 450 at 150mm from one end, bars to have threaded holes at each end (M6). (HAND RAKING TYPE) Distance between bars = 25mm Width of barscreen = 900mm c/w M6 S/S 304L bolts (As per drawing)	No.	2		
1213D	Medium duty manhole cover to sump clear opening 600mm	No.	4		
1213E	Supply and fix step irons	No.	40		
1213F	Supply and fix one (1) gate in two leaves inclusive of fixation as per drawing	Sum	1		
1213G	Water jet cleaning equipment of capacity 400 l/h and working pressure 90 bar having a cleaning agent intake of about 300 l/hr like karcher 400 or equivalent. The equipment should be adequately represented in Mauritius for servicing and spare parts	No.	1		
1213H	Water hose 3/4" diameter length 15m including tap adaptor, 2 no. worm screw fastening rings and wall bracket for storage	No.	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1213I	Galvanised steel hose holder complete with winding handle and fixing to wall of pumping station and painting.	No.	1		
1213J	Electrical wiring and fittings to guard room and pump room including four 13 A switched power points, four 36 W fluorescent lamp and one 8 W emergency lamp with rechargeable battery providing one hour operation after power failure complete with trunking, switches, meter and connection.	Sum	1		
1213K	Allow for works to be undertaken by CEB for providing the appropriate power supply inclusive of connection fees	Prov. Sum	1	50,000.00	50,000.00
1213L	Attendance & Profit on ditto	%			
1213M	Supply and Install complete 500 Watt tungsten halogen floodlights suitable for mounting on support bracket as specified	No.	3		
1213N	Provide for use of Employer's staff wheel barrow in 20 gauge GMS steel inclusive of primer coating and painting	No.	2		
1213O	Supply and fix hand rail as per drawing	Sum	1		
1214	Enabling Works for Off-Site Power Supplies	XXX			
1214A	Allow for the provision of CEB LV Power Supplies to pumpstation site inclusive of all capital works and security deposits as required by CEB.	Lot	1		
1214B	Allow for the supply & installation by CEB of elevated pole mounted 3 phase transformers and all associated works including cabling & ducting etc. up to CEB meter cubicle and all other installations as required by CEB	Lot	1		
1214C	Allow for direct online CEB power connections from 3 phase 400V pole mounted supplies to CEB metering cubicle	Lot	1		
1214D	Allow for 3-phase CEB meter.	Lot	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1215	Enabling Works for Off-Site Water Supplies	XXX			
1215A	Allow for the provision of off-site potable water supplies. Rate to include for all civil works, connection charges, CWA deposits, & installation of meters by CWA.	Lot	1		
1216	Drainage	XXX			
1216A	Allow for drainage facilities during construction period, in line with statutory requirements.	Lot	1		
	INLET WORKS				
1217	Ductile Iron gravity pipework (to BS EN 545:2010) and fittings within the inlet works with flanges to PN16 (as per BS EN 1092-2:1997), including all bends, metallic gaskets, gate valves, puddle/thrust flanges, dismantling joints, flange adaptors (VJ), HDG nuts, bolts & washers, grease, tape protection & final painting etc., all as specified and as shown on drawings.	XXX			
	Different DN / sizes for items listed, for complete installation				
1217A	Flanged/spigot DI pipe	Lot	1		
1217B	DI tee	Lot	1		
1217C	DI pipe	Lot	1		
1217D	DI 90° bend	Lot	1		
1217E	DI dismantling joint	Lot	1		
1217F	DI puddle flanges	Lot	1		
1217G	DI sluice valves	Lot	1		
1217H	Grade 316 SS screen baskets 40x40mm aperture size c/w lifting eyes, SS guide rails, handles, lifting chains etc., all 316 SS as shown on drawings.	No.	1		
1217I	Grade 316 SS screen baskets 25x25mm aperture size c/w lifting eyes, SS guide rails, handles, lifting chains etc., all 316 SS as shown on drawings.	No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1218	OTHER BUILDERS' ITEMS	XXX			
1218A	SS ladders & SS safety cages grade AISI 304, platforms, stepirons, hand railing etc., to facilitate access to concrete wetwells & outlet valve chambers, etc. as per drawings. Rate to include all s/s nuts, anchor bolts & washers etc. where required. Contractor is required to check & measure ladder & safety cage lengths on site after construction before fabrication.	Lot	1		
1218B	Step irons 300mm wide approved plastic encapsulated stepirons to valve, all s/s nuts, anchor bolts & washers etc. where required. "Caswick" or similar equivalent	Lot	1		
1218C	AISI SS grade 304 support structures for pipe & valve supports and supports for chequer plating platforms in wet wells & valve chambers at pumpstations	Lot	1		
1218D	SS316 ladders c/w safety cages for access to inlet and wetwell chambers including s/s supports, s/s fixing accessories, s/s nuts, bolts & washers etc as shown on the drawings	Lot	1		
1218E	Allow for builders' works in relation to electrical power & control cables, sewerage inlet & outlets, odour control systems, vent pipes etc.	Set	1		
1218F	6mm thick aluminium chequer plating and support frames c/w bracing and lifting handles cut to suit to openings, sumps, wet wells etc. where shown on the drawings	Lot	1		
1218G	DI manhole covers with frame to BS EN 124, double sealed, C250, suitable for clear openings as per drawings - different dimensions	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1219	HOISTING EQUIPMENT	XXX			
1219A	Electric hoist with push trolley mounted on I-beam in indoor setup, c/w hook suspension, trailing cable and pendant controller. Paintwork to be suitable for a pumping station with chlorine usage / storage. Mounting height: 3-4m; Working load : up to 1000kg.	Set	1		
	PIPEWORKS & FITTINGS				
1220	Ductile Iron suction and delivery pipework and fittings (to BS EN 545:2010) within the pumpstation structure and pump room drywell up to the flowmeter with flanges to PN16 (as per BS EN 1092-2:1997), including all transition sections, tapers, bends, delivery pipe manifold, metallic gaskets, gate valves, check valves, pressure gauges, puddle/thrust flanges, dismantling joints, flange adaptors (VJ), HDG nuts, bolts & washers, grease, tape protection & final painting etc., all as specified and as shown on drawings.	XXX			
	Allow for flanged connections between SS304 pump discharge pipes and DI delivery pipework in dry-well up to rising mains.				
	Suction accessories to include DI puddle flanges, bellmouths, large radius bends, expansion bellows, as required. Dimensions:				
1220A	DN 150 (pump connections)	Lot	1		
1220B	DN 200 (suction flanges, suction manifold, pump outlet)	Lot	1		
1220C	DN 315 (from pump outlet connecting to delivery manifold)	Lot	1		
1220D	DN 400 (delivery manifold up to rising mains)	Lot	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1220E	Mechanical joints c/w fittings and accessories for transitions from DI to HDPE rising mains - various diameters for complete installation VALVES Valves and fittings inside and outside the lifting station with flanges to PN16 (as per BS EN 1092-2:1997) including steel gaskets, S/S pipes, fittings nuts bolts & washers (inside wet wells) and DI pipes & fittings incl HDG nuts, bolts & washers (outside wet wells), grease, tape protection & final painting etc., all as per specification and layouts. All pipework and jointing materials from the pump discharge outlet to gate valves to be manufactured in Grade S316 stainless steel. Delivery pipework and fitting diameters as appropriate to suit pump outlet diameter; equipment as required including but not limited to below:	Lot	1		
1221		XXX			
1221A	SS 90° flanged elbow	Lot	1		
1221B	SS flanged pipe - length to suit outlet level	Lot	1		
1221C	uPVC flap valve & coupling	Lot	1		
1221D	SS reducer/enlarger	Lot	1		
1221E	SS couplings to suit SS spigot pipe - Straubflex or similar equivalent	Lot	1		
1221F	SS flanged spigot pipe with central puddle flange	Lot	1		
1221G	DI gate valve	Lot	1		
1221H	DI flange adaptor	Lot	1		
1221I	DI dismantling joint at gate valves, non return valves, etc	Lot	1		
1221J	DI non return valve	Lot	1		
1221K	DI flanged equal tee	Lot	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1221L	DI flanged spigot pipe with central puddle flange	Lot	1		
1221M	DI flap valve including coupling	Lot	1		
1221N	Coupler DI/HDPE	Lot	1		
1221O	DI knife type gate valve at interface pump outlet / rising mains	Lot	1		
	RISING MAINS				
1222	Rising mains - HDPE pressure pipe, rated to PE 100 PN16, from Pump Station to Discharge Manhole, complete with all electrofusion accessories e.g. Fittings, Reducers, Elbow, Reducing Elbows, Tees, Reducing Tees, Transition Fittings, Flanged Couplings etc and scour valve and air valve complete with chamber and marker posts.	XXX			
1222A	Excavation to the depth as indicated on the drawings, pipe protection as per Typical trench details, backfilling as per drawings, concrete surround if required and anchor & thrust blocks wherever required for DN 400 pipe	m	5850		
1222B	Civil works for fixing of rising main pipe on culvert	P.Sum	1	5,000,000.00	5,000,000.00
1223	SURGE ATTENUATION	XXX			
1223A	Allow for carrying out surge analysis for pumpstations where instructed by the Engineer.	Lot	1		
1223B	Allow for provision, installation & testing of surge vessels if surge analysis results warrant surge attenuation. Costs to include all M&E works & design & construction of concrete base slab	Lot	1		
1224	PUMPING STATION				
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
1224A	<p>Sewage pump set comprising of 3 nos. submersible pumps with integrated cooling jacket in a dry well arrangement, pumps being suitable for sewer laden water with particles and fibres with self-cleaning capabilities, SS casing, sleeve, bolts, shaft. Single channel, open-type impeller, duck foot coupling, SS double-guide bar arrangement per pump, SS lift chain with anchored support, ball-type non return valves, isolating valves, purge valve, electrical panel, pre-wired ultrasonic level sensor and float switches for operation and alarm indications, 25m pre-wired power and control cables, SS304 integrated pump discharge connections with pump auto-coupling system (including reducer/enlarger to suit diameter of rising main / discharge manifold) 400V, 50Hz, 3ph, sequential and cascade operation.</p> <p>Allow for power and control cabling in sleeves/conduit/cable traps from pumps to electrical control panel. Pumps to be high efficiency with IE4 motors, variable speed drive and soft start capabilities.</p> <p><i>(Acceptable brands - Salmsen, Calpeda, Flygt, Grundfos or similar equivalent, with local</i></p> <p>Total capacity: 330 m³/h at 50m head (2 working, 1 standby)</p>	Set	1	BF	-
1224B	<p>Heavy duty mechanically activated pear-shaped float switches (stop/start) designed for sewage applications for controlling pumps, c/w 25m pre-wired cables and complementary accessories including fixing and supports for direct connection to pump controller.</p>	No	6		-
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1224C	Electromagnetic flow meter and reader, flanged type, with digital display, IP-68 flow sensor / tube and remote mounted flow transmitter and totaliser, 230V AC Power Supply meeting NSF/ANSI standard 61, complete with all required installation accessories and interconnecting cabling, fixed on DN 160 outlet manifold to rising mains, reader fixed in Pump Room	No	1		
1224D	Ultrasonic Level Transmitter - Non-contact, Time of flight principle, narrow-beam type, c/w all required installation accessories suitable for wet well application, mounted externally at wetwell, easily removable, reader panel at plant room, c/w all interconnecting cabling and accessories	No	1		
1224E	Pressure gauge - Flush Diaphragm Seal c/w valve along with all required installation accessories on outlet manifold	Lot	1		
1224F	Submersible pump with outlet to lifting station wetwell, suitable for water with medium slurry content, pipe in uPVC PN 16 DN 50/40 Capacity 2 m ³ /h@ 14m	Lot	1		
1225	CONTROL PANEL & ACCESSORIES	XXX			
1225A	Level based Pump Controller / safety sensor on pump suction - microprocessor based indoor mounted pump controller with processor, power supply module, discrete I/O modules/channels, communication ports, 230V AC power supply with DIN rail mounted controller unit and remote panel mounted LCD display with keypad, Lamp facility, prefab cables, alongwith all required hardware & configuration/programming software	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1225B	Pump control panel for controlling individual pumps, LED graphics display for pump status (ON/OFF/FAULT), fault and alarm indicators.	Lot	1		
1225C	Emergency push buttons for each pump, deodorising unit and electric hoist, mounted near door	Lot	1		
1225D	Pump control panel to include GSM relays/modules for mobile alerts to designated mobile numbers and incorporate BMS-ready capabilities.	Lot	1		
1226	ODOUR CONTROL SYSTEM	XXX			
1226A	Supply & install weatherproof packaged activated carbon filter tower equipped with 2 Nos. in-line centrifugal fans (duty+standby), minimum 2.5sec contact time, designed for continuous operation c/w SS 304 ducting Ø100mm min. or as required, supports, flanged flexible bellow connections and fixing accessories to form an effective ventilation system:- <i>Capacity as per specialist (or minimum 12 ACH) to suit setup</i>	Lot	1		
1227	FIRE SAFETY	XXX			
	FIRE EXTINGUISHERS				
	Portable fire extinguishers to EN3:				
1227A	ABC dry powder 5 kg	No.	1		
1227B	CO2 4 kg	No.	1		
1228	TOXIC GAS DETECTION	XXX			
1228A	Toxic multiple gas level detection meters/detectors (H2S, CO, CO2, CH4 etc.) c/w rechargeable battery packs, carrying cases, sensor heads and all necessary accessories, with full set of spare cartridges. Gas detector mounted at pump level and reader panel near plant room door	Set	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1229	BACKGROUND VENTILATION INSTALLATIONS	XXX			
1229A	Ventilation extract fan, metal type suitable for drywell sewer pump station atmosphere, epoxy painted, 230V/50Hz, IP 54, wall-mounted with protective guards internally and externally. Fan operates on timer (adjustable type). Cycle - 4h duty with 15 minutes rest.	Lot	1		
1229B	Mupro type Supports, saddles and hangers at ceiling for complete support of fan & duct installation.	Lot	1		
1230	STANDBY GENERATOR INSTALLATIONS	XXX			
1230A	New diesel canopied (soundproof & weatherproof) standby generator 200 KVA (160 kW) standby rating, 400/230V, 3 phase, 50Hz complete with: (a) set mounted isolated heavy duty ATS control panel (b) base frame with antivibration mountings (c) outgoing MCCB 4P 400A (d) integral 8 hrs capacity (at full load) baseframe fuel tank Other elements to include engine control panel, acoustic cover, associated pipework and equipment including lead acid batteries, battery trickle charger, meters, electrical and mechanical protection, water separator, gas exhaust, radiator, minimum diesel day tank capacity for 8hrs continuous operation at full load with fuel level indicator etc. Generator to be from renowned local suppliers providing satisfactory after sales services.	Lot	1		
1230B	All craneage costs for hoisting the genset and installing into place.	Lot	1		
1230C	Stainless steel exhaust pipework complete with insulation and aluminium cladding. Include for all accessories, residential silencer and rain cowl externally.	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1230D	Insulated galvanised metal duct c/w heavy duty flexible canvas to discharge the radiator exhaust through the wall-mounted grilles to the outside.	Lot	1		
1230E	Earthing station (No. 1) for the generator neutral using CPC copper cable 95mm ² . Include for an earth pit and test link. Earth resistance < 3.0 Ω .	Lot	1		
1230F	Earthing station (No. 2) for the generator frame, etc. Include for an earth pit and test link. Earth resistance < 3.0 Ω . Terminate at an earth bar near the genset using CPC copper cable 25mm ² .	Lot	1		
1230G	Allow for separate earthing of each component - frame, body, diesel tank, ACO panel etc., of the generator. Use CPC copper cable 25mm ² from the earth bar above.	Lot	1		
1230H	Allow for automatic changeover panel 4P 400A inside the pump room.	Lot	1		
1230I	Generator control panel to have capabilities to send out SMS alerts for conditions such as low fuel level, etc.	Lot	1		
1230J	Full protection of the equipment prior to final handing over to Client.	Lot	1		
1231	DIESEL BULK TANK	XXX			
1231A	Bulk diesel tank c/w diesel inlet, air vent, dipstick pipe, diesel level indicator, diesel outlet, drain socket, cover, etc. To be painted with bituminous black paint. Tank is installed externally to plant room. <i>(Tank capacity to be suitable for 36 hours continuous operation of generator at 50% load).</i>	Lot	1		
1231B	Earthing of the diesel tank from the earth bar pertaining to earth station No. 2	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1231C	Black gloss painted galvanised structural steel supports for holding the bulk tank with diesel outlet about 1000mm above floor level.	Lot	1		
1231D	Galvanised Iron (painted with bituminous paint) diesel supply/return piping 25/32mm complete with ball valves, strainer, solenoid valves and other accessories between the bulk tank and the set mounted base frame tank .	Lot	1		
1231E	Digital type fuel level indicator/s c/w level sensors, contacts, cabling etc. at the base frame tank for operating the solenoid valves + fuel level indication at the bulk tank. <i>Fuel level indicator to the bulk tank to be installed externally next to bulk tank - appropriate external housing to be allowed.</i>	Lot	1		
1231F	Allow for the first fill of diesel to both baseframe and bulk tank.	Lot	1		
1232	POWER & CONTROL CABLES <i>Include for all cable glands, lugs, terminals, cableways and other accessories as required:</i>	XXX			
1232A	Multicore armoured power cable 4C x 150mm ² PVC/SWA/PVC from genset circuit breaker to the automatic changeover panel.	m	25		
1232B	Multi-core armoured control cable from genset AMF control panel to the automatic changeover panel. <i>Note that the generator size shall depend on equipment installed on site and may be subject to change. Therefore depending on genset, the cable size and changeover rating shall as well be subject to change.</i>	m	25		
1233	ELECTRICAL INSTALLATIONS	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
1233A	<p>Supply, deliver to site, install, connect, configure, program, test and commission the following all in accordance with specifications, drawings, conditions of contract etc.</p> <p>ELECTRICAL DISTRIBUTION BOARD</p> <p>Main low voltage panel c/w weatherproof enclosure (IP54) including pump control panels, all power cables, control cables, relays, displays, LED Lamps, busbars, glands, protection, energy metering equipment, shunt surge protection (Make-Erico), surge arrestors at 10KA, MCCBs, contactors, pump starters, PLC, selector switches, hourmeter, integral distribution board, all switchgears, interlocks, CTs, controls, override switch, timers c/w contactors, earth bar and all items necessary for the operation of the system.</p> <p>(Main LV Panel to be from renowned suppliers such as ABB, Legrand, Schneider, Hager or equivalent)</p> <p>Fully automatic power factor corrector units of suitable capacity to maintain PF at 0.95 in 3 steps THD< 40% c/w interconnection cables, controls, display, etc.</p>	Lot	1	BF	
1233B	Fully automatic power factor corrector units of suitable capacity to maintain PF at 0.95 in 3 steps THD< 40% c/w interconnection cables, controls, display, etc.	Lot	1		
1234	EARTHING	XXX			
1234A	Supply, install, test and commission all earthing, equipotential bonding materials, earthing rods, tape, inspection pits and the like as necessary to achieve less than 3Ω earth resistance and complete the earthing requirements as specified and shown on the drawings.	Lot	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
	Earthing station for main electrical earth. Terminate at an earth bar at MLVP. Include for an earth pit and test link. (Earth resistance < 3 Ω .)	Lot	1		
1235	<p>POWER CABLES</p> <p>All power cables to be to BS Standards/colour coding with copper conductor. Allow for all cable glands, lugs, cable identification tags, etc. Allow for all cableways, underground PVC sleeves, builders works required for routing & laying of the cables, etc. N.B Lengths of all cables shall be subject to remeasurement</p>	XXX			
1235A	From MLVP through automatic change over to MDB 4C x 150mm ² PVC/SWA/PVC + CPC 95mm ²	m	25		
1235B	From MDB to Control Panel for Pumps 4C x 95mm ² PVC/SWA/PVC + CPC 50mm ²	m	25		
1235C	From Control Panel for Pumps to Pump Set No. 1 4C x 35mm ² PVC/SWA/PVC + CPC 16mm ²	m	20		
1235D	From Control Panel for Pumps to Pump Set No. 2 4C x 35mm ² PVC/SWA/PVC + CPC 16mm ²	m	20		
1235E	From Control Panel for Pumps to Pump Set No. 3 4C x 35mm ² PVC/SWA/PVC + CPC 16mm ²	m	20		
1236	<p>WIREWAYS & WIRING</p> <p><i>Allow for:</i></p> <p><i>(i) all wireways complete with proprietary accessories</i></p> <p><i>(ii) flexible Cu/PVC/PVC cable complete with proprietary</i></p> <p><i>(iii) terminations for the following points:</i></p>	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1236A	Light point	No.	3		
1236B	Emergency light point	No.	3		
1236C	One gang switch point	No.	3		
1236D	Socket point 1 gang, 3 pin, 13A, BS	No.	2		
1236E	Industrial socket point single phase, 16A	No.	1		
1237	SLEEVES	XXX			
	Supply and install 2 nos. pressure type PVC pipes (160 mm dia)				
1237A	buried underground with warning slab and tape laid above according to standard practice.	Lot	1		
1238	CABLE TRAYS	XXX			
	Allow for hot dipped galvanised perforated sheet steel cable trays 200mm wide c/w all proprietary accessories				
1238A		Lot	1		
1239	LUMINAIRES	XXX			
	Include for supply, installation and fixing of luminaires, etc. All luminaires to be complete with all light sources, drivers, fixation				
1239A	Emergency light 1X3W non maintained type for 3 hrs.	No.	3		
	HDG steel tapered 6m high pole c/w				
1239B	40W LED Street Floodlight c/w control gear, circuit breaker outreach and fixing accessories.	No.	2		
	Surface mounted LED tube lights				
1239C	36W, 4000K, IP 65 c/w emergency pack	No.	3		
1240	ELECTRICAL ACCESSORIES	XXX			
	Waterproof (IP66) switch 1 gang, 2 way, 10A c/w all proprietary back boxes, etc.				
1240A		No.	3		
	Waterproof (IP 66) switched socket outlet 3 pin, 13Amps, BS c/w all proprietary back boxes				
1240B		No.	2		
	Interlocked switched type industrial socket single phase, 16A c/w corresponding plugs				
1240C		No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1241	LIGHTNING PROTECTION Complete lightning protection system with guide and all installation accessories comprising:	XXX			
1241A	Lightning arrestors c/w terminal, supports etc.	Lot	1		
1241B	Copper tape down conductor 25 x 3 mm or equivalent	Lot	1		
1241C	Copper tape clips	Lot	1		
1241D	Copper earth rods 1200 x 16 mm complete with earth inspection pit.	Lot	1		
1242	UPS	XXX			
1242A	Online UPS, input single phase 230VAC ± 15%; output 230AC ± 1% with minimum 4 hours autonomy for the PLC, SCADA system and instrumentation as specified. Capacity : 5 kVA Allow for all interconnecting	Lot	1		
1243	DATA CABINET	XXX			
1243A	Allow for a wall-mounted data cabinet for all ELV installations, including patch panel, power distribution units, patch cords and cabling Capacity shall be as per installed equipment.	Lot	1		
1244	CCTV	XXX			
1244A	Supply, install, connect, test and commission a CCTV surveillance system comprising of 3 No. IP fixed lens cameras, 4-channel DVR, 1TB hard disk, cables, accessories etc. for remote viewing/surveillance	Lot	1		
1244B	CCTV cameras - Rate to include for all cabling, power connection at each station etc. and transmitter for remote surveillance Allow for internet connectivity for both PLC and CCTV	Lot	1		
1244C	communications by local service providers inclusive of all costs, connection fees, hardware	Lot	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1245	FIRE ALARM	XXX			
1245A	Fire alarm system comprising 2No. combined smoke detectors (ionisation + optical), fire alarm panel, fire-resistant cables, battery (for 1-hour autonomy) accessories etc. for sensing flaming as well as smouldering fires in the security post and generator room. Rate to include link to PLC for reporting via	Lot	1		
1245B	Fire Alarm panel to have possibility to send out SMS alerts	Lot	1		
1246	INTRUDER ALARM	XXX			
1246A	Complete intruder alarm system comprising of PIRs, vibration sensors, magnetic contacts, panic button, intruder alarm panel, cables, accessories etc. for security post and generator room. Rate to include link to PLC for reporting alarms to pre-defined mobile numbers.	Lot	1		
1246B	Alarm panel to have possibility to send out SMS alerts	Lot	1		
1247	PLUMBING INSTALLATIONS COLD WATER SUPPLY	XXX			
1247A	Water meter in CWA meter box	No.	1		
1247B	HDPE PE100 PN 16 pipe from CWA meter to water tank - Pipe to be laid underground on site.	m	25		
1247C	20/15mm Stop valve at meter DN 20 - brass type.	No.	1		
1247C	PE water tank capacity 2000 litres c/w with float valves, Ø25mm inlet and outlets, all pipework and connections, vents etc., ready for use	No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				BF	
1247D	Automatic booster pumpset c/w control panels, level probes for dry run protection, isolating valves, non-return valves, pressure gauges, adjustable differential pressure switches and inlet and delivery manifolds. (Modes: 1 duty and 1 standby) Capacity: 1.5 l/s at 45m head each uPVC PN 16 pressure pipe, c/w welded elbows, tees, PVC saddles, supports, Mupro supports, brackets etc for holding whole length of plumbing	Set	1		
1247E	25/20 mm - main distribution	m	20		
1247F	20/15 mm - terminal distribution	m	20		
1247G	Angle valve at WC Cisterns, below sink, below WHBs and jet nozzles.	No.	4		
1247H	Flexible pipes, ringed type 150 - 300mm long, 20mm dia. connection.	No.	4		
1247I	VALVES	XXX			
1248	Hose with jet nozzle as douchette complete with support for hose (20mm connector) - to connect to angle valve.	No.	1		
1248A	Cold water tap, rising pipe and shower head at shower unit	Lot	1		
1248B	Bib tap, 1/2" BSP, threaded end, c/w fittings fixed externally on wall for cleaning purposes	Lot	1		
1248C	WASTE, SEWER PIPINGS AND ACCESSORIES	XXX			
1249	uPVC pipe inclusive of solvent welded elbows, reducer section, tees, PVC saddles, supports, Mupro supports, brackets etc for holding whole length of plumbing.				
1249A	50/40mm PN6 for WHB/sink	m	2		
1249B	50mm PN6 (collects from	m	2		
1249C	75mm PN10 (running underground)	m	5		
1249D	110mm PN10	m	5		
1249E	110mm SN8	m	5		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
				B.F	
1249F	WC Pan Adaptor (PVC)	No.	1		
1249G	Floor/shower Drain	No.	2		
1249H	PE Gully Trap (300x300) c/w DI Manhole cover C250 (300x300)	No.	1		
1250	INSTALLATION OF SANITARY WARES	XXX			
	Take delivery from Main Contractor and install the following, c/w all accessories:				
1250A	Sink				
1250B	WC	No.	1		
1250C	Wash hand basin	No.	1		
1250D	Shower mixer assembly	No.	1		
	Shower mixer assembly	No.	1		
1251	PRESSURE JET WASHER				
	Supply and hand over to Client a pressure jet washer (120 bar) for cleaning purposes <i>(Make Karcher or similar equivalent, represented locally for servicing and after sales spares)</i>	No.	1		
1251A					
	Water hose 3/4" diameter, length 30m including tap adaptor/s and wall bracket for storage	No.	1		
1251B					
1252	PROVISIONAL SUMS	XXX			
1252A	Pipeline identification, flow direction, labelling to DBs, panels, etc	Sum	1	100,000.00	100,000.00
1252B	Surge vessel requirements	Sum	1	500,000.00	500,000.00
1252C	New statutory requirements	Sum	1	500,000.00	500,000.00
1253	TESTING & COMMISSIONING & TRAINING	XXX			
	Allow for all testing and commissioning of all services prior to handover, including training to personnel, for each installation package	Lot	1		
1253A					
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
1254	DRAWINGS AND MANUALS	XXX		BF	
1254A	Allow for preparation and submission of three sets of as built drawings, operation manuals, labelling etc for each installation package	Lot	1		
1255	COMPREHENSIVE MAINTENANCE DURING DNP	XXX			
1255A	Allow for all repairs and maintenance to be carried out on the complete installations during the Defects Notification Period (12 months after taking over certificate) for each installation package	Lot	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 12				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	LOT 1 - BILL NO. 13 SERVICE RESERVOIR, PUMPING STATION, AND BOREHOLE RESERVOIRS (2 each of CAPACITY 2000m³)				
1301	Site Clearance and Earthworks- Reservoirs	XXX			
1301A	Bulk excavation depth not exceeding 3.0m	m ³	2200		
1301B	Bulk excavation depth exceeding 3.0m	m ³	100		
1301C	Carry out Platforms and embankments for Reservoirs to the Engineer instructions	m ²	900		
1301D	Prepare surface in native soil material and rock to receive concrete	m ²	700		
1301E	Supply and place 150mm thick layer of 20mm coarse aggregate on reservoir roof	m ²	600		
1302	Concrete to reservoir	XXX			
1302A	Blinding concrete class C12/15 75mm thick under foundations	m ²	640		
1302B	Concrete class C30/37 to column and wall bases and floor slabs	m ³	306		
1302C	Concrete class C30/37 to sumps	m ³	19		
1302D	Concrete class C30/37 to walls	m ³	450		
1302E	Concrete class C30/37 to columns and column heads	m ³	24		
1302F	Concrete class C30/37 to roof slab	m ³	218		
1303	Formwork to reservoir	XXX			
1303A	F1 finish to curved vertical edge of reservoir wall base	m ²	60		
1303B	F1 finish to plane vertical edge of sumps	m ²	7		
1303C	F2 finish to curved vertical face of reservoirs walls	m ²	2000		
1303D	F2 finish to plane horizontal soffit of roof slabs	m ²	580		
1303E	F2 finish to plane vertical face of column heads	m ²	10		
1303F	ditto but for roof slabs	m ²	64		
1303G	F2 finish to vertical edges of column and column heads	m ²	142		
1303H	Ditto but to upstands on roofs	m ²	59		
1303I	Ditto but to inside faces of sumps	m ²	17		
1303J	Ditto but to form openings in roof slabs	m ²	10		
1304	Surface finishes	XXX			
1304A	U3 steel float finish to columns and wall bases	m ²	142		
1304B	Ditto but to upper surface of floor slabs	m ²	512		
1304C	Ditto but to upper surface of roof slabs	m ²	566		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13				

Item	Description	Unit	Qty	Rate (MUR) BF.	Total Amount (MUR)
1304D	Ditto but to upstands on roofs	m ²	89		
1305	Reinforcement	XXX			
1305A	Supply, cut, bend and place high yield reinforcing steel bars to BS 4449 diameter not exceeding 25mm	kg	138310		
1306	Joints	XXX			
1306A	Base seal Surface Type water bar	m	230		
1307	Drainage	XXX			
1307A	Supply and install 110mm uPVC rainwater pipe complete with all accessories, bends, adaptors, fixing brackets, paint protection, rooftop outlet etc. from reservoir top to soakaway as per drawings.	No.	4		
1308	Pipeworks for reservoirs Supply, install, joint and test & disinfect ductile iron pipes and fittings.	XXX			
1308A	DN 300 flanged bellmouth	No.	2		
1308B	DN 300 flanged 90° Bend	No.	4		
1308C	DN 300 double flanged pipe piece with central puddle flange	No.	4		
1308D	DN 300 Flanged spigot pipe piece 6m length	No.	2		
1308E	DN 300 double flanged duckfoot bend	No.	2		
1308F	DN 300 flange spigot pipe piece 1.5m length	No.	2		
1308G	DN 300 double spigot pipe piece 600mm length with central puddle flange.	No.	2		
1308H	Straight coupling for DN 300 pipe	No.	2		
1308I	DN 300 Flanged spigot pipe piece 1.0m length	No.	2		
1308J	DN 200 double flanged Bend 90°	No.	8		
1308K	DN 200 double flanged pipe piece 600mm length with central puddle flange	No.	12		
1308L	DN 200 Flanged spigot pipe piece 6m length	No.	4		
1308M	DN 200 double flanged duckfoot bend	No.	2		
1308N	DN 200 Flanged spigot pipe piece 1.5m length	No.	12		
1308O	Straight coupling for DN 200 pipe	No.	2		
1308P	DN 200 flanged bell mouth	No.	4		
1308Q	DN 200 Double flanged pipe piece 2000mm length	No.	6		
1308R	DN 200 Spigot pipe piece 3000mm length with central puddle flange	No.	2		
1308S	DN 150 Dismantling Joint	No.	2		
1308T	DN 200 Dismantling Joint	No.	8		
1308U	DN 250 Dismantling Joint	No.	8		
1308V	DN 150 Flanged Socket	No.	4		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1308W	DN 250 Flanged Socket	No.	4		
1308X	Double flanged Reducer DN 200 x DN150	No.	2		
1308Y	DI All Flanged Tee (Class K9) DN 250 x200	No.	2		
1308Z	DI All Flanged Tee (Class K9) DN 150 x150	No.	2		
1308AA	DN 200 Double flanged Bend 22.5°	No.	4		
1308AB	Supply and lay DN 300 spigot pipe including excavation in any material, backfilling all complete as per typical drawings for depth not exceeding 2m	m	100		
1308AC	Supply and lay DN 250mm dia. pipe including excavation in any material, backfilling all complete as per typical drawings for depth not exceeding 2m	m	40		
1308AD	HDPE Flexible Flange Adaptor DN350/HDPE 315	No.	2		
1308AE	Electrofusion Bend HDPE (PN10) 315mm Diameter x 45°	No.	2		
1309	Valves & Flowmeter	XXX			
1309A	Supply, install, joint, test and disinfect complete Gate Valve DN200 assembly to fit DN 200 pipeline all complete	No.	12		
1309B	Supply, install, joint, test and disinfect complete Altitude Control Valve DN200 assembly to fit DN 200mm DI pipeline all complete	No.	2		
1309C	Supply, install, joint, test and disinfect complete Differential Float Control Valve DN200 assembly to fit DN 200mm pipeline all complete	No.	2		
1309D	Supply, install, joint, test and disinfect double flanged DN 125 electromagnetic flowmeter complete with signal converter & display. Rate should include all fixing, accessories, cabling to display unit & PLC and power supply	No.	4		
1310	Miscellaneous items	XXX			
1310A	Light duty manhole cover (B125) 600x600mm complete with frames	No.	6		
1310B	G.S internal ladder including fixation all complete	No.	2		
1310C	G.S external ladder complete with handrails and hand grip including concrete footing and fixations	No.	2		
1310D	Construction of Chamber Type 1 as per drawings all complete. To include all builders work including excavation, concrete, formwork, reinforcement , cover etc...	No.	14		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR) BF.	Total Amount (MUR)
1310E	Construction of Chamber Type 2 as per drawings all complete. To include all builders work including excavation, concrete, formwork, reinforcement , cover etc...	No.	2		
1310F	Absorption Pit (Type I)as per typical drawing	No.	2		
1311	Disinfection & testing	XXX			
1311A	Allow for cleaning of reservoir disinfection with chlorine residual not less than 20mg/L	No.	2		
1311B	Allow for testing reservoir for watertightness as per specifications. Rate to allow attendance and witnessing by the CWA	No.	2		
1312	CONSTRUCTION OF PUMPING STATION	XXX			
1312A	Excavation in any material including rock or any hard material to the formation level, to any depth as per the Engineer's drawings.	m ³	1000		
1312B	Supply, lay, level & compact minimum 300 mm thick layer of hardcore fill consisting of sound selected hardstones of maximum size not exceeding 150 mm graded and compacted in layers to Engineer's approval.	m ³	125		
1312C	Supply, lay, level & compact min 200 mm thick layer of crusher run material graded and compacted in layers to 95% BS to Engineer's approval.	m ³	1000		
1312D	Supply, cut and lay one layer of 0.23mm thick polythene sheeting lapped 300mm wide on all sides and tapered at joints (measured net)	m ²	150		
1312	Concrete works Supply and place plain/reinforced cement concrete Grade C 15 to C 30 (using 20mm and down aggregate) including supply of all materials, curing, etc. all complete at all depth, heights and leads as per drawings specification and direction of Engineer and works conforms to British Standards.	XXX			
1312A	50mm thick blinding, class C15	m ³	10		
1313	Supply and place Concrete Class C30 to:	XXX			
1313A	Foundation	m ³	15		
1313B	Columns	m ³	10		
1313C	Beams	m ³	10		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1313D	Ground Slab	m ³	15		
1313E	Roof	m ³	40		
1314	Formworks Supply & Erect Class 2 shuttering/formwork to all structures as described below:	XXX			
1314A	Columns	m ²	95		
1314B	Beams	m ²	95		
1314C	RC Walls	m ²	30		
1314D	Roof	m ²	150		
1315	Blockwork Construct plain wall in concrete hollow blockwork, min average compressive strength 3.5 N/mm2 including provision of wall ties.	XXX			
1315A	200 mm thick blockwall	m ²	400		
1315B	200mm thick blockwall infill blockwall	m ²	30		
1315C	150 mm thick blockwall	m ²	1000		
1315D	Ditto, but 100mm thick to interior walls	m ²	30		
1316	Reinforcement	XXX			
1316A	Supply, cut, bend and fix high tensile steel reinforcement to BS 4499/MS01, bars 0-25 mm dia.	kg	10000		
1316B	Ditto, but mild steel reinforcement to BS 4449/MS, 6 mm dia	kg	650		
1316C	Mesh Reinforcement to pump room	m ²	150		
1317	Flooring and Rendering- Pump Room	XXX			
1317A	Supply and place 40 mm average thickness and cement floor screed smooth trowelled finish to receive floor tiles.	m ²	150		
1317B	Rendering with 20 mm thick plaster in two coats, to external faces in cement mortar mortar 1:4 (1 part cement : 4 parts coarse sand) on concrete / block masonry.	m ²	200		
1317C	Ditto, but 15 mm thick to internal walls, beams and columns	m ²	300		
1317D	Ditto, but 15 mm thick to ceilings / concrete soffits, overhangs	m ²	500		
1317E	Supply and place 40 mm average thickness floor hardener to pump room	m ²	100		
1318	Painting- Pump Room	XXX			
1318A	Painting with 3 coats anti-fungus emulsion paint to MS 3 standard to external walls, beams and columns as per schedule to Engineer's approval	m ²	195		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1318B	Ditto, but with 3 coats acrylic emulsion paint to MS 3 standard to internal walls, beams and columns	m ²	200		
1318C	Ditto, with acrylic emulsion paint to MS 3 standard to ceilings, overhangs	m ²	150		
1318D	Waterproofing of roofs	m ²	150		
1318E	Supply and fix Rainwater pipe as per the Engineer Drawings.	m	60		
1319	Doors and Windows	XXX			
1319A	Supply and fix in position aluminium window opening with all fixtures 700x600 mm	No.	1		
1319B	Supply and fix aluminium glazed door , size 1200x2000 mm complete with two sets of keys	No.	2		
1320	Supply, deliver to site, install, connect, configure, test and commission the following all in accordance with specifications, drawings, conditions of contract etc.	XXX			
	<u>ENABLING WORKS</u>				
	<i>Off-Site Power Supplies</i>				
1320A	Allow for the provision of CEB LV Power Supplies to pumpstation site inclusive of all capital works and security deposits as required by CEB.	Lot	1		
1320B	Allow for the supply & installation by CEB of elevated pole mounted 3 phase transformers and all associated works including cabling & ducting etc. up to CEB meter cubicle and all other installations as required by CEB	Lot	1		
1320C	Allow for direct online CEB power connections from 3 phase 400V pole mounted supplies to CEB metering cubicle	Lot	1		
1320D	Allow for 3-phase CEB meter.	Lot	1		
1321	Off-Site Water Supplies	XXX			
1321A	Allow for the provision of off-site potable water supplies. Rate to include for all civil works, connection charges, CWA deposits, & installation of meters by CWA.	Lot	1		
1322	Drainage	XXX			
1322A	Allow for drainage facilities during construction period, in line with statutory requirements.	Lot	1		
1323	OTHER BUILDERS' ITEMS	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1323A	SS ladders & SS safety cages grade AISI 304, platforms, stepirons, hand railing etc., to facilitate access to concrete wetwells & outlet valve chambers, washout chambers etc. as per drawings. Rate to include all s/s nuts, anchor bolts & washers etc. where required. Contractor is required to check & measure ladder & safety cage lengths on site after construction before fabrication.	Lot	1		
1323B	Step irons 300mm wide approved plastic encapsulated stepirons to valve &, washout chambers, all s/s nuts, anchor bolts & washers etc. where required. "Caswick" or similar equivalent	Lot	1		
1323C	AISI SS grade 304 support structures for pipe & valve supports and supports for chequer plating platforms in wet wells & valve chambers at pumpstations	Lot	1		
1323D	SS316 ladders c/w safety cages for access to inlet and water tanks including s/s supports, s/s fixing accessories, s/s nuts, bolts & washers etc as shown on the drawings	Lot	1		
1323E	Allow for builders' works in relation to electrical power & control cables, water inlet & outlets, vent pipes etc.	Set	1		
1323F	6mm thick aluminium chequer plating and support frames c/w bracing and lifting handles cut to suit to openings, sumps, valve chambers etc. where shown on the drawings	Lot	1		
1323G	DI manhole covers with frame to BS EN 124, double sealed, C250, suitable for clear openings as per drawings - different dimensions	Lot	1		
1324	HOISTING EQUIPMENT	XXX			
1324A	Electric hoist with push trolley mounted on I-beam in indoor setup, c/w hook suspension, trailing cable and pendant controller. Paintwork to be suitable for a pumping station with chlorine usage / storage. Mounting height: 3-4m; Working load : up to 1000kg.	Set	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<p>PIPEWORKS & FITTINGS FOR PUMP ROOM STRUCTURE</p> <p>Ductile Iron suction and delivery pipework and fittings (to BS EN 545:2010) within the water tank / pump room structure, in the pump room up to the flowmeter with flanges to PN16 (as per BS EN 1092-2:1997), including all tapers, bends, delivery pipe manifold, metallic gaskets, gate valves, check valves, pressure gauges, puddle/thrust flanges, dismantling joints, flange adaptors (VJ), HDG nuts, bolts & washers, grease, tape protection & final painting etc., all as specified and as shown on drawings.</p> <p>Allow for flanged connections between SS304 pump discharge pipes and DI delivery pipework in pump room up to distribution mains.</p> <p>Suction accessories to include DI puddle flanges, bellmouths, large radius bends, expansion bellows, as required.</p> <p>Dimensions:</p>	XXX		BF.	
1314A	DN 65 (standby inlets and outlets)	Lot	1		
1314B	DN 100	Lot	1		
1314C	DN 150	Lot	1		
1314D	DN 200 (overflow, washout)	Lot	1		
1314E	DN 250 (suction inlets, suction and delivery manifolds)	Lot	1		
1314F	DN 250 (pump outlet)	Lot	1		
1315	<p>VALVES</p> <p>Valves and fittings inside and outside the pump station with flanges to PN16 (as per BS EN 1092-2:1997) including steel gaskets, DI pipes, fittings, nuts bolts & washers and DI pipes & fittings incl HDG nuts, bolts & washers (outside wet wells), grease, tape protection & final painting etc., all as per specification and layouts.</p> <p>Delivery pipework and fitting diameters as appropriate to suit pump outlet diameter; equipment as required including but not limited to below:</p>	XXX			
1315A	DI 90° flanged elbow	Lot	1		
1315B	DI flanged pipe - length to suit outlet level	Lot	1		
1315C	uPVC flap valve & coupling	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1315D	DI reducer/enlarger	Lot	1		
1315E	DI couplings to suit SS spigot pipe - Straubflex or similar equivalent	Lot	1		
1315F	DI flanged spigot pipe with central puddle flange	Lot	1		
1315G	DI gate valve	Lot	1		
1315H	DI flange adaptor	Lot	1		
1315I	DI dismantling joint at gate valves, non return valves, etc	Lot	1		
1315J	DI non return valve	Lot	1		
1315K	DI flanged equal tee	Lot	1		
1315L	DI flanged spigot pipe with central puddle flange	Lot	1		
1315M	DI flap valve including coupling	Lot	1		
1315N	Coupler DI/HDPE	Lot	1		
1315O	Coupler DI/SS	Lot	1		
1315P	Heavy duty ball cock valve with altitude valve and sense line and bypass assembly, size DN ** at each reservoir, c/w DI gate valves, dismantling joints and all interconnecting DI piping and fittings	Set	2		
1315Q	Washout chambers consisting of DI gate valve c/w interconnecting DI pipework and fittings (allow 25m per reservoir)	No	2		
1315R	Bypass arrangement from inlet of reservoir to outlet of reservoirs consisting of gate valves and non-return valves DN **, c/w interconnecting DI pipework and fittings	Set	1		
1315S	Standby provisions at inlet of reservoir consisting of DI puddle flanges, breeching inlet at 1m AGL, c/w interconnecting DI pipework and fittings	Set	2		
1315T	Standby provisions at outlet of reservoir (from pump room manifold) consisting of DI puddle flanges, gate valve at each outlet, c/w interconnecting DI pipework and fittings	Set	2		
1316	SURGE ATTENUATION	XXX			
1316A	Allow for carrying out surge analysis for pumping station where instructed by the Engineer.	Lot	1		
1316B	Allow for provision, installation & testing of surge vessels if surge analysis results warrant surge attenuation. Costs to include all M&E works & design & construction of concrete base slab	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
1317	PUMP SET	XXX		BF.	
1317A	Booster pump set (factory assembled), comprising of 3 centrifugal pumps in parallel (2 working, 1 standby), pre-piped, complete with electrical control panel, pressure vessel, stop valves and non-return valves at each pump inlet and outlet, ready for connection, operating sequentially and in cascade (output pressure adjustable) 3 phase, 400V, 50Hz (VARIABLE SPEED TYPE) Allow for power and control cabling in sleeves/conduit/cable traps from pumps to electrical control panel. Pumps to be high efficiency with <u>minimum IE4 motors and soft start capabilities.</u> <i>(Acceptable brands - Salmson, Calpeda, Flygt, Grundfos or similar equivalent, with local representative)</i> Total capacity: 153 m3/h at 50m head (2W, 1S) Pressure vessel = 500 litres (inclusive of 1 No. Brass QT valve 1")	Set	1		
1317B	Antivibration isolators for pump set	Lot	1		
1317C	Heavy duty mechanically activated pear-shaped float switches (stop/start) for controlling pumps, c/w 25m pre-wired cables and complementary accessories including fixing and supports for direct connection to pump controller.	Lot	1		
1317D	Bulk water meter - Electromagnetic flow meter and reader, flanged type, with digital display, IP-68 flow sensor / tube and remote mounted flow transmitter and totaliser, 230V AC Power Supply meeting NSF/ANSI standard 61, complete with all required installation accessories and interconnecting cabling, fixation as per below, panel reader fixed in Pump Room. Assembly to have required DI couplers, gate valve, dismantling joint, strainer at inlet of meter and gate valve at outlet, c/w all interconnecting DI piping				
1317E	Inlet pipeline - DN	Lot	1		
1317F	Outlet pipeline - DN	Lot	1		
1317G	Digital electronic water level indicator per reservoir, c/w sensors and interconnecting cabling, remote reader panel in pump room	Set	2		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)		
1317H	Pressure gauge - c/w valve along with all required installation accessories on outlet manifold	Lot	1	BF.			
1318	CONTROL PANEL & ACCESSORIES	XXX					
1318A	Level based Pump Controller / safety sensor on pump suction - microprocessor based indoor mounted pump controller with processor, power supply module, discrete I/O modules/channels, communication ports, 230V AC power supply with DIN rail mounted controller unit and remote panel mounted LCD display with keypad, Lamp facility, prefab cables, alongwith all required hardware & configuration/programming software	Lot	1				
1318B	Pump control panel for controlling individual pumps, LED graphics display for pump status (ON/OFF/FAULT), fault and alarm indicators.	Lot	1				
1318C	Emergency push buttons for each pump, electric hoist, mounted near door	Lot	1				
1318D	Warning system consisting of siren and beacon flashing lamp to indicate about pump faults	Lot	1				
1318E	Pump control panel to include GSM relays/modules for mobile alerts to designated mobile numbers and incorporate BMS-ready capabilities.	Lot	1				
1319	FIRE SAFETY	XXX					
1319A	Portable fire extinguishers to EN3: ABC dry powder 5 kg	No.	1				
1319B	Portable fire extinguishers to EN3: CO2 4 kg	No.	1				
1320	CHLORINATION INSTALLATIONS	XXX					
	CHLORINE STORAGE TANK						
1320A	PVC tank suitable for chlorine solution, concentration assumed 3%, c/w mixer and bucket, tank capacity: 500L	No.	1				
1321	DOSING PUMP & INJECTORS	XXX					
1321A	Chlorine dosing pump, c/w dosing adjustment kit, pump mounted directly above tank	Lot	1				
1321B	Allow for 1 no. spare pump, similar capacity, to hand over to Client	Lot	1				
1321C	Injectors c/w plugs, saddles, accessories and PE discharge pipe (transparent) from dosing pump and feeding each reservoir	Lot	1				
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13							

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1321D	Allow for 1 no. spare injector set, similar arrangement, to hand over to Client	Lot	1		
1322	CHLORINE MONITORING DEVICE & CONTROLLER	XXX			
1322A	Chlorine monitoring device, measuring residual chlorine level at reservoir and adjusting dosing rate of pump to maintain a residual chlorine level of 0.5 mg/L at reservoirs. Residual chlorine setpoint to be adjustable. System to be complete with all sensors, probes, connecting elements, etc. Power point will be provided separately by others.	Lot	1		
1323	VENTILATION	XXX			
1323A	Ventilation extract fan, metal type suitable for corrosive atmosphere, epoxy painted, 230V/50Hz, IP 54, wall-mounted with protective guards internally and externally. Fan operates on timer (adjustable type). Cycle - 4h duty with 15 minutes rest. ATEX CERTIFIED Capacity: 500 m ³ /h at 50 Pa	No.	1		
1323B	End cowl at fan outlet, G/S material, horizontal section thereafter with 45d downward incline, with wire mesh, size to match fan outlet Ø300mm	m	1		
1323C	G/S supports, hangers, stud hangers with straps for supporting whole lengths of G/S ducts, fan and accessories	Lot	1		
1324	STANDBY GENERATOR INSTALLATIONS	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
1324A	<p>New diesel canopied (soundproof & weatherproof) standby generator 60 KVA (48 kW) standby rating, 400/230V, 3 phase, 50Hz complete with:</p> <p>(a) set mounted isolated heavy duty ATS control panel</p> <p>(b) base frame with antivibration mountings</p> <p>(c) outgoing MCCB 4P 100A</p> <p>(d) integral 8 hrs capacity (at full load) baseframe fuel tank</p> <p>Other elements to include engine control panel, acoustic cover, associated pipework and equipment including lead acid batteries, battery trickle charger, meters, electrical and mechanical protection, water separator, gas exhaust, radiator, minimum diesel day tank capacity for 8hrs continuous operation at full load with fuel level indicator etc.</p> <p>Generator to be from renowned local suppliers providing satisfactory after sales services.</p>	Lot	1	BF.	
1324B	All crange costs for hoisting the genset and installing into place.	Lot	1		
1324C	Stainless steel exhaust pipework complete with insulation and aluminium cladding. Include for all accessories, residential silencer and rain cowl externally.	Lot	1		
1324D	Insulated galvanised metal duct c/w heavy duty flexible canvas to discharge the radiator exhaust through the wall-mounted grilles to the outside.	Lot	1		
1324E	Earthing station (No. 1) for the generator neutral using CPC copper cable 16mm ² . Include for an earth pit and test link. Earth resistance < 3.0 Ω .	Lot	1		
1324F	Earthing station (No. 2) for the generator frame, etc. Include for an earth pit and test link. Earth resistance < 3.0 Ω . Terminate at an earth bar near the genset using CPC copper cable 16mm ² .	Lot	1		
1324G	Allow for separate earthing of each component - frame, body, diesel tank, ACO panel etc., of the generator. Use CPC copper cable 16mm ² from the earth bar above.	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
1324A	<p>New diesel canopied (soundproof & weatherproof) standby generator 60 KVA (48 kW) standby rating, 400/230V, 3 phase, 50Hz complete with:</p> <p>(a) set mounted isolated heavy duty ATS control panel</p> <p>(b) base frame with antivibration mountings</p> <p>(c) outgoing MCCB 4P 100A</p> <p>(d) integral 8 hrs capacity (at full load) baseframe fuel tank</p> <p>Other elements to include engine control panel, acoustic cover, associated pipework and equipment including lead acid batteries, battery trickle charger, meters, electrical and mechanical protection, water separator, gas exhaust, radiator, minimum diesel day tank capacity for 8hrs continuous operation at full load with fuel level indicator etc.</p> <p>Generator to be from renowned local suppliers providing satisfactory after sales services.</p>	Lot	1	BF.	
1324B	All crange costs for hoisting the genset and installing into place.	Lot	1		
1324C	Stainless steel exhaust pipework complete with insulation and aluminium cladding. Include for all accessories, residential silencer and rain cowl externally.	Lot	1		
1324D	Insulated galvanised metal duct c/w heavy duty flexible canvas to discharge the radiator exhaust through the wall-mounted grilles to the outside.	Lot	1		
1324E	Earthing station (No. 1) for the generator neutral using CPC copper cable 16mm ² . Include for an earth pit and test link. Earth resistance < 3.0 Ω .	Lot	1		
1324F	Earthing station (No. 2) for the generator frame, etc. Include for an earth pit and test link. Earth resistance < 3.0 Ω . Terminate at an earth bar near the genset using CPC copper cable 16mm ² .	Lot	1		
1324G	Allow for separate earthing of each component - frame, body, diesel tank, ACO panel etc., of the generator. Use CPC copper cable 16mm ² from the earth bar above.	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
1326B	Multi-core armoured control cable from genset AMF control panel to the automatic changeover panel. <i>Note that the generator size shall depend on equipment installed on site and may be subject to change. Therefore depending on genset, the cable size and changeover rating shall as well be subject to change.</i>	m	25	BF.	
1327	ELECTRICAL INSTALLATIONS	XXX			
1327A	Supply, deliver to site, install, connect, configure, program, test and commission the following all in accordance with specifications, drawings, conditions of contract etc.				
1328	ELECTRICAL DISTRIBUTION BOARD	XXX			
1328A	Main low voltage panel c/w weatherproof enclosure (IP54) including pump control panels, all power cables, control cables, relays, displays, LED Lamps, busbars, glands, protection, energy metering equipment, shunt surge protection (Make-Erico), surge arrestors at 10KA, MCCBs, contactors, pump starters, PLC, selector switches, hourmeter, integral distribution board, all switchgears, interlocks, CTs, controls, override switch, timers c/w contactors, earth bar and all items necessary for the operation of the system. (Main LV Panel to be from renowned suppliers such as ABB, Legrand, Schneider, Hager or equivalent)	Lot	1		
1328B	Fully automatic power factor corrector units of suitable capacity to maintain PF at 0.95 in 3 steps THD< 40% c/w interconnection cables, controls, display, etc.	Lot	1		
1329	EARTHING	XXX			
1329A	Supply, install, test and commission all earthing, equipotential bonding materials, earthing rods, tape, inspection pits and the like as necessary to achieve less than 3Ω earth resistance and complete the earthing requirements as specified and shown on the drawings.	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1329B	Earthing station for main electrical earth. Terminate at an earth bar at MLVP. Include for an earth pit and test link. (Earth resistance < 3 Ω .)	Lot	1		
1330	POWER CABLES	XXX			
1330A	All power cables to be to BS Standards/colour coding with copper conductor. Allow for all cable glands, lugs, cable identification tags, etc. Allow for all cableways, underground PVC sleeves, builders works required for routing & laying of the cables, etc.				
1330B	From MLVP through automatic change over to MDB 4C x 25mm ² PVC/SWA/PVC + CPC 16mm ²	m	20		
1330C	From MDB to Control Panel for Pumps 4C x 25mm ² PVC/SWA/PVC + CPC 16mm ²	m	20		
1330D	From Control Panel for Pumps to Pump Set No. 1 5C x 6mm ² PVC/SWA/PVC	m	15		
1330E	From Control Panel for Pumps to Pump Set No. 2 5C x 6mm ² PVC/SWA/PVC	m	15		
1330F	From Control Panel for Pumps to Pump Set No. 3 5C x 6mm ² PVC/SWA/PVC <i>N.B Lengths of all cables shall be subject to remeasurement</i>	m	15		
1331	WIREWAYS & WIRING <i>Allow for:</i> <i>(i) all wireways complete with proprietary accessories</i> <i>(ii) flexible Cu/PVC/PVC cable complete with proprietary</i> <i>(iii) terminations for the following points:</i>	XXX			
1331A	Light point	No.	3		
1331B	Emergency light point	No.	3		
1331C	One gang switch point	No.	3		
1331D	Socket point 1 gang, 3 pin, 13A, BS	No.	2		
1331E	Industrial socket point single phase, 16A	No.	1		
1332	SLEEVES	XXX			
1332A	Supply and install 2 nos. pressure type PVC pipes (110 mm dia) buried underground with warning slab and tape laid above according to standard practice.	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1333	CABLE TRAYS	XXX			
1333A	Allow for hot dipped galvanised perforated sheet steel cable trays 200mm wide c/w all proprietary accessories	Lot	1		
	LUMINAIRES				
1334	Include for supply, installation and fixing of luminaires, etc. All luminaires to be complete with all light sources, drivers, fixation accessories, etc.	XXX			
1334A	Emergency light 1X3W non maintained type for 3 hrs.	No.	3		
1334B	HDG steel tapered 6m high pole c/w 40W LED Street Floodlight c/w control gear, circuit breaker outreach and fixing accessories.	No.	2		
1334C	Surface mounted LED tube lights 36W, 4000K, IP 65 c/w emergency pack	No.	3		
1335	ELECTRICAL ACCESSORIES	XXX			
1335A	Waterproof (IP66) switch 1 gang, 2 way, 10A c/w all proprietary back boxes, etc.	No.	3		
1335B	Waterproof (IP 66) switched socket outlet 3 pin, 13Amps, BS c/w all proprietary back boxes	No.	2		
1335C	Interlocked switched type industrial socket single phase, 16A c/w corresponding plugs	No.	1		
1336	LIGHTNING PROTECTION	XXX			
	Complete lightning protection system with guide and all installation accessories comprising:				
1336A	Lightning arrestors c/w terminal, supports etc.	Lot	1		
1336B	Copper tape down conductor 25 x 3 mm or equivalent	Lot	1		
1336C	Copper tape clips	Lot	1		
1336D	Copper earth rods 1200 x 16 mm complete with earth inspection pit.	Lot	1		
1337	UPS	XXX			
1337A	Online UPS, input single phase 230VAC \pm 15%; output 230AC \pm 1% with minimum 4 hours autonomy for the PLC, SCADA system and instrumentation as specified. Capacity : 5 kVA Allow for all interconnecting cables.	Lot	1		
1338	DATA CABINET	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
1338A	Allow for a wall-mounted data cabinet for all ELV installations, including patch panel, power distribution units, patch cords and cabling Capacity shall be as per installed equipment.	Lot	1	BF.	
1339	CCTV	XXX			
1339A	Supply, install, connect, test and commission a CCTV surveillance system comprising of 3 No. IP fixed lens cameras, 4-channel DVR, 1TB hard disk, cables, accessories etc. for remote viewing/surveillance	Lot	1		
1339B	CCTV cameras - Rate to include for all cabling, power connection at each station etc. and transmitter for remote surveillance	Lot	1		
1339C	Allow for internet connectivity for both PLC and CCTV communications by local service providers inclusive of all costs, connection fees, hardwire connections etc.	Lot	1		
1340	FIRE ALARM	XXX			
1340A	Fire alarm system comprising 2No. combined smoke detectors (ionisation + optical), fire alarm panel, fire-resistant cables, battery (for 1-hour autonomy) accessories etc. for sensing flaming as well as smouldering fires in the security post and generator room. Rate to include link to PLC for reporting via GSM alerts	Lot	1		
1340B	Fire Alarm panel to have possibility to send out SMS alerts	Lot	1		
1341	INTRUDER ALARM	XXX			
1341A	Complete intruder alarm system comprising of PIRs, vibration sensors, magnetic contacts, panic button, intruder alarm panel, cables, accessories etc. for security post and generator room. Rate to include link to PLC for reporting alarms to pre-defined mobile numbers.	Lot	1		
1341B	Alarm panel to have possibility to send out SMS alerts	Lot	1		
1342	PLUMBING INSTALLATIONS COLD WATER SUPPLY	XXX			
1342A	Water meter in CWA meter box	No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1342B	HDPE PE100 PN 16 pipe from CWA meter to water tank - Pipe to be laid underground on site. Diameter: 20/15mm	m	25		
1342C	Stop valve at meter DN 20 - brass type.	No.	1		
1342D	PE water tank capacity 2000 litres c/w with float valves, Ø25mm inlet and outlets, all pipework and connections, vents etc., ready for use	No.	1		
1342E	Automatic booster pumpset c/w control panels, level probes for dry run protection, isolating valves, non-return valves, pressure gauges, adjustable differential pressure switches and inlet and delivery manifolds. (Modes: 1 duty and 1 standby) Capacity: 1.5 l/s at 45m head each	Set	1		
1342F	uPVC PN 16 pressure pipe, c/w welded elbows, tees, PVC saddles, supports, Mupro supports, brackets etc for holding whole length of plumbing 25/20 mm - main distribution	m	20		
1342G	uPVC PN 16 pressure pipe, c/w welded elbows, tees, PVC saddles, supports, Mupro supports, brackets etc for holding whole length of plumbing 20/15 mm - terminal distribution	m	20		
1342H	Angle valve at WC Cisterns, below sink, below WHBs and jet nozzles.	No.	4		
1342I	Flexible pipes, ringed type 150 - 300mm long, 20mm dia. connection.	No.	4		
1342J	Valves				
1342K	Hose with jet nozzle as douchette complete with support for hose (20mm connector) - to connect to angle valve.	No.	1		
1342L	Cold water tap, rising pipe and shower head at shower unit	Lot	1		
1342M	Bib tap, 1/2" BSP, threaded end, c/w fittings fixed externally on wall for cleaning purposes	Lot	1		
1343	WASTE, SEWER PIPINGS AND ACCESSORIES	XXX			
1343A	uPVC pipe inclusive of solvent welded elbows, reducer section, tees, PVC saddles, supports, Mupro supports, brackets etc for holding whole length of plumbing.				
1343B	50/40mm PN6 for WHB/sink	m	2		
1343C	50mm PN6 (collects from sink/WHB)	m	2		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1343D	75mm PN10 (running underground)	m	5		
1343E	110mm PN10	m	5		
1343F	110mm SN8	m	5		
1343G	WC Pan Adaptor (PVC)	No.	1		
1343H	Floor/shower Drain	No.	2		
1343I	PE Gully Trap (300x300) c/w DI Manhole cover C250 (300x300)	No.	1		
1344	INSTALLATION OF SANITARY WARES Take delivery from Main Contractor and install the following, c/w all accessories:	XXX			
1344A	Sink	No.	1		
1344B	WC	No.	1		
1344C	Wash hand basin	No.	1		
1344D	Shower mixer assembly	No.	1		
1345	PROVISIONAL SUMS	XXX			
1345A	Pipeline identification, flow direction, labelling to DBs, panels, etc	Sum	1	100,000.00	100,000.00
1345B	Surge vessel requirements	Sum	1	500,000.00	500,000.00
1345C	Toxic gas detector requirements	Sum	1	300,000.00	300,000.00
1345D	Other statutory requirements	Sum	1	500,000.00	500,000.00
1346	TESTING & COMMISSIONING & TRAINING	XXX			
1346A	Allow for all testing and commissioning of all services prior to handover, including training to personnel, for each installation package	Lot	1		
1347	DRAWINGS AND MANUALS	XXX			
1347A	Allow for preparation and submission of three sets of as built drawings, operation manuals, labelling etc for each installation package	Lot	1		
1348	COMPREHENSIVE MAINTENANCE DURING DNP	XXX			
1348A	Allow for all repairs and maintenance to be carried out on the complete installations during the Defects Notification Period (12 months after taking over certificate) for each installation package	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<p>NOTE:</p> <p>(a) All the contract conditions, clauses, schedules, instructions, specifications applicable to the main contractor shall likewise be applicable to any specialist sub-contractors</p> <p>(b) Prices shall allow for any items not shown on drawings, specifications and other parts of the bid document but required by the contractor in order to complete the installation work to good practice of the trade, to make the system fully operational to the relevant regulations/ norms/ specifications (as laid out in the bidding documents)/ design concept and to the satisfaction of the Engineer</p> <p>(c) Payment and Progress of Work Assessment methodology for Mechanical and Electrical Component shall be as follows:</p> <ul style="list-style-type: none"> - 40% after Supply and component/equipment present on site - 40% after installation - 20% after testing and commissioning <p>Power Cables The quoted rates shall be for the design, supply, installation & commissioning of power cables and shall be inclusive of all cost of all required accessories (Earth Continuity Conductor, conduits, cable trays, high pressure sleeves and cable ducts)</p>			BF.	
1349	Cable from CEB Cubicle to Mains Switch Panel	XXX			
1349A	Cable from Mains Switch Panel to Bypass Isolation Switch Panel in Control Room	Lot	1		
1349B	Cable from Bypass Isolation Panel to Changeover Panel and vice-versa	Lot	1		
1349C	Cable from Stand-by generator set to Changeover Panel	Lot	1		
1349D	Cable from Changeover Panel to MLVP in control room	Lot	1		
1349E					
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1349F	Cable form MLVP in Control Room to SDB in Watchman Shed	Lot	1		
1349G	Cable from MLVP in Control Room to SDB Generator Room	Lot	1		
1349H	Cable from MLVP in Control Room to SDB Chlorination Pump Room	Lot	1		
1349I	Cable form MLVP to Pump Starter Panel (VSD panel)	Lot	1		
1349J	Cable form Pump Starter Panel (VSD panel) to Pump	Lot	1		
1349K	Cable from SDB in Chlorination Pump Room to DOL Starter Panel	Lot	1		
1349L	Cable from SDB Watchman to CCTV system	Lot	1		
1349M	Cable for Lighting	Lot	4		
1349N	Cable for socket	Lot	6		
1349O	Cable for Air conditioning	Lot	1		
1350	Lighting and Power Points The quoted rates shall be for the supply, installation, testing & commissioning of lighting and electrical power points and shall be inclusive of the cost of all required accessories for the proper cable routing (Power cables, conduits, cable trays, sleeves and associated accessories)	XXX			
1350A	Interior light point complete with fittings & lamps (Pump Room, Chlorination Pump Room, Watchman Shed, Control Room, Generator Room)	No.	14		
1350B	Exterior flood light complete with fittings & lamps rated IP 66	No.	10		
1350C	Emergency Lighting (Internal) complete with fittings & lamps (Pump Room, Chlorination Pump Room, Chlorination Cylinder Room, Watchman Shed, Control Room, Generator Room)	No.	7		
1350D	Emergency Lighting (External) complete with fittings & lamps	No.	5		
1350E	Light Switch point 1 gang, 1 way complete with base	No.	3		
1350F	Light Switch point 2 gang, 1 way complete with base	No.	4		
1350G	Light Switch point 3 gang, 2 way complete with base	No.	2		
1350H	Bypass Switch for external lighting (working in conjunction with 24-hr timer)	No.	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1350I	Switched socket points 3 pin (L, N, PE) complete with base (Chlorination Pump Room, Watchman Shed, Control Room, Generator Room)	No.	8		
1350J	Waterproof switched socket points 3 pin (L, N, PE) complete with base (13A) (Outside Pump Room)	No.	1		
1350K	Single Phase Industrial socket points 3 pin IP55 L + N + E complete with base (in Generator Room)	No.	1		
1350L	Industrial socket points 5 pin, 3 phase + N + PE, 32 A, IP55 complete with base (in Generator Room)	No.	1		
1351	Enclosures, Distributon Boards & Electrical Components Design The quoted rates shall be for the supply, installation, testing and commissioning of all enclosures & associated equipment, distribution boards, low-voltage switchgears, indicator lamps, and associated components and accessories including Bus bars and Earth Bars. Protection rating IP 55, IK 10. Electrical components listed below shall be rated 230/400 V ac operating voltage and shall be DIN mount. The distribution boards shall be equipped with all the required panel accessories as laid in the bidding document.	XXX			
1351A	Wall-mounted Mains Switch Panel	No.	1		
1351B	Mains Isolator, 400 V, 50 Hz, breaking capacity min 16 kA	No.	1		
1351C	Surge Protector, 3P+N, 60kA	No.	1		
1351D	Miniature Circuit Breaker Type C, 4P for surge protector	No.	1		
1351E	Wall-mounted Bypass Isolation Panel	No.	1		
1351F	Bypass Isolation Switch, 4P	No.	1		
1351G	Changeover Panel The changeover panel shall be equipped with all the required equipment (power contactors, electromechanical control, indicator lamps, surge protective device 3P+N 40kA on generator side) and accessories required for the normal and reliable functioning of the system and as laid in the bidding document.	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1351H	Main Low Voltage Panel (MLVP) - Wall Mounted - with Multiway Copper Bus Bar 3P+N + Earth Bar	No.	1		
1351I	Main Moulded Case Circuit Breaker (MCCB) 4P complete with fixation and cable termination accessories as required	No.	1		
1351J	Energy Meter Complete with Fuses and Current Transformers	Lot.	1		
1351K	Thermal-magnetic Circuit Breaker, Type C, 4P (Supply to Pump VSD Starter Panel in Control Room)	Lot.	1		
1351L	Thermal-magnetic Circuit Breaker, Type C, 2P (Supply to Watchman Shed)	No.	1		
1351M	Thermal-magnetic Circuit Breaker, Type C, 2P (Supply to Generator Room)	No.	1		
1351N	Thermal-magnetic Circuit Breaker, Type C, 4P (Supply to Chlorination Pump Room)	No.	1		
1351O	Residual Current Circuit Breaker (RCCB) 2P, 30mA, Type AC (Lighting & Socket for Control Room)	No.	1		
1351P	Thermal-magnetic Circuit Breaker, 2P, Type C (Lighting & Socket for Control Room)	No.	1		
1351Q	Residual Current Circuit Breaker (RCCB) 2P, 25 A, 30mA, Type AC - Spare	No.	1		
1351R	Miniature Thermal-magnetic Circuit Breaker, 2P, 25A, Type C - Spare	No.	1		
1351S	Distribution Board in Watchman Shed - Wall Mounted - complete with Copper Bus Bar 1P+N + Earth Bar	No.	1		
1351T	Isolator 2P	No.	1		
1351U	RCCB 2P 30mA, Type AC (Internal Lighting & Small Power)	No.	1		
1351V	Thermal-magnetic Circuit Breaker 2P (Lighting & Small Power)	No.	1		
1351W	RCCB 2P 30mA, Type AC (External Lighting - Floodlights)	No.	1		
1351X	Thermal-magnetic Circuit Breaker 2P (External Lighting - Floodlights)	No.	1		
1351Y	Residual Current Circuit Breaker (RCCB) 2P, 30mA, Type AC (CCTV System)	No.	1		
1351Z	Thermal-magnetic Circuit Breaker, 2P, Type C (CCTV System)	No.	1		
1351AA	Residual Current Circuit Breaker (RCCB) 2P, 25 A, 30mA, Type AC - Spare	No.	1		
	TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1351AB	Thermal-magnetic Circuit Breaker, 2P, 16A, Type C - Spare	No.	1		
1352	Distribution Board in Chlorination Pump Room	xxx			
1352A	Distribution Board in Chlorination Pump Room - Wall Mounted - complete with Multiway Copper Bus Bar 3P+N + Earth Bar	No.	1		
1352B	Isolator 4P	No.	1		
1352C	Thermal-magnetic Circuit Breaker, Type C, 4P (Supply to DOL Starter Panel)	No.	1		
1352D	RCCB 2P 30mA, Type AC (Lighting - Chlorination Pump Room & chlorination cylinder room and Socket in Chlorination Pump Room)	No.	1		
1352E	Thermal-magnetic Circuit Breaker 2P (Lighting - Chlorination Pump Room & chlorination cylinder room and Socket in Chlorination Pump Room)	No.	1		
1352F	RCCB 4P 30mA, Type AC (Hoist)	No.	1		
1352G	Miniature Circuit Breaker 4P (Hoist)	No.	1		
1352H	RCCB 2P 30mA, Type AC (Extractor Fan & Leak Detector and other equipment)	No.	1		
1352I	Miniature Circuit Breaker 2P (Extractor Fan & Leak Detector and other equipment)	No.	1		
1352J	Residual Current Circuit Breaker (RCCB) 2P, 25 A, 30mA, Type AC - Spare	No.	1		
1352K	Miniature Thermal-magnetic Circuit Breaker, 2P, 16A, Type C - Spare	No.	1		
1353	Distribution Board for generator Room	xxx			
1353A	Distribution Board in Generator Room - Wall Mounted - complete with Copper Bus Bar 1P+N + Earth Bar	No.	1		
1353B	Isolator 2P	No.	1		
1354C	RCCB 2P 30mA, Type AC (Lighting & General Purpose Socket)	No.	1		
1354D	Thermal-magnetic Circuit Breaker 2P (Lighting & General Purpose Socket)	No.	1		
1354E	Residual Current Circuit Breaker (RCCB) 4P, 30mA, Type AC (Industrial Sockets in Generator Room)	No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1354F	Thermal-magnetic Circuit Breaker, Type C, 4P (Industrial Sockets in Generator Room)	No.	1		
1354G	Residual Current Circuit Breaker (RCCB) 2P, 25 A, 30mA, Type AC - Spare	No.	1		
1354H	Thermal-magnetic Circuit Breaker, 2P, 16A, Type C - Spare	No.	1		
1355	Starter Panels for Pump sets	XXX			
1355A	<p>VSD Panel for Submersible Pump The quoted Rates shall be for the design, supply, installation, testing & commissioning of VSD Starter & associated switchgear, protection equipment, control equipment (water level control, high/low pressure control, tele-control) and shall be inclusive of all cost of all required accessories (communication cables, software, etc).</p>	P.Sum	1	3000000.00	3,000,000.00
1355B	<p>Earthing System The quoted rate shall include all earthing equipment and accessories including earth bar, earth cable, earth rods, copper plate complete with insulation, earth plate, earth conductors, Ground Enhancement Material and concrete Inspection housing.</p>	Lot.	1		
1355C	<p>CCTV System The quoted Rates shall be for the design, supply, installation, testing & commissioning of the complete CCTV system and shall be inclusive of all cost of all required associated equipment (cables, conduits, sleeves), protective devices, and accessories.</p>	Lot.	1		
	SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF MECHANICAL EQUIPMENT-BOREHOLES				
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<p>NOTE: (a) All the contract conditions, clauses, schedules, instructions, specifications applicable to the main contractor shall likewise be applicable to any specialist sub-contractors (b) Prices shall allow for any items not shown on drawings, specifications and other parts of the bid document but required by the contractor in order to complete the installation work to good practice of the trade, to make the system fully operational to the relevant regulations/ norms/ specifications (as laid out in the bidding documents)/ design concept and to the satisfaction of the Engineer (c) Payment and Progress of Work Assessment methodology for Mechanical and Electrical Component shall be as follows: - 40% after Supply and component/equipment present on site - 40% after installation - 20% after testing and commissioning</p>			BF.	
1356	<p>Pumpsets Supply, Install, test and commission Borehole Submersible Pump of Hydraulic Capacity of 80 m³/h and 130 m head as per schedule of requirements</p>	XXX			
1356A		P.Sum	1	5000000.00	5,000,000.00
1357	<p>Riser Pipes and Fittings Supply, Install, test and commission of Stainless Steel Riser Pipes. Length - 3 m each, Nominal Diameter-150 mm. c/w ZSM " push- fit" coupling on both sides of pin and box end. Each supplied with 1 spline with 2 O-rings.</p>	XXX			
1357A		No.	23		
1357B	<p>Supply, Install, test and commission of Crossover Stainless Steel Riser Pipe Length to Borehole Pump - 1m each with one end (Box End) while the other end a male thread which shall be of BSP Parallel Threaded ends (11 threads per inch), Nominal Diameter - 150 mm. Each supplied with 1 spline and 2 O-rings</p>	No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1357C	Supply, Install, test and commission of Crossover Stainless Steel Riser Pipe to Top Plate. Length - 1m each with one end (Pin End) while the other end a welded female socket which shall be of BSP Parallel Threaded ends (11 threads per inch), Nominal Diameter - 150 mm.	No.	1		
1357D	Supply, Install, test and commission of Stainless Steel Reducer - with one end male thread which shall be of BSP Parallel Threaded end (11 threads per inch), Nominal Diameter - 125 mm while the other end Female Socket which shall of BSP Parallel Threaded ends (11 threads per inch), Nominal Diameter - 150 mm	No.	1		
1357E	Supply, Install, test and commission of Top Plate as per schedule of requirements	No.	1		
1357F	Supply, Install, test and commission of Bottom Plate as per schedule of requirements	No.	1		
1357G	Supply, Install, test and commission of Lubricant (Grease) for Stainless Steel Riser Pipes	Kg	10		
1357H	Supply, Install, test and commission of Piezo pipe 32mm PN16, 6m each	No.	12		
1357I	Spare spline and O-ring	No.	46		
1358	Instruments	XXX			
1358A	Supply, Install, test and commission of Pressure Transducer to be mounted on pipe bend as required in the schedule of requirements	No.	1		
1358B	Supply, Install, test and commission of Water Level Transducer (Pressure type) for measuring level of water in borehole complete with control cabling and conduit to PLC system	No.	1		
1358C	Supply, Install, test and commission of Water Level Electrode for measuring level of water (Reference, low & high level) in borehole complete with control cabling and conduit to PLC system	No.	3		
1358D	Supply, Install, test and commission of appropriate Contact Relays/ AC-DC transformer to read 230V AC fault signal (for pump status) from VSD panel and input to remote monitoring with control cabling	Lot	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1358E	Supply, installation, testing and commissioning of any other instruments not mentioned but which are deemed necessary for the proper functioning of the whole system as per requirements in the Schedule of Requirements	Lot	1		
1359	Air conditioning system	XXX			
1359A	Supply and install, test and commission of A/C Unit Wall mounted - inverter 12000BTU (Working on Duty Standby-mode)	Lot	2		
1360	Chlorination Equipment	XXX			
1360A	Supply, Install, test and commission of Two (2) Booster pumps of Hydraulic Capacity: 2 m ³ /h x 70 m, DOL Starter Panel, two (2) Chlorine vacuum gas regulators each of capacity (0-10 PPD) , an Ejector (Capacity: 10 kg/hr), automatic and manual flow rate adjustment (doser) and diffuser, Changeover module (50 PPD) and Corporation Cock complete with piping system, non-return valve, valves, strainer, fittings and all other necessary accessories for injection on network	P.Sum	1	1500000.00	1,500,000.00
1361	Emergency Shower and Eye Wash Station	XXX			
1361A	Supply, Install, test and commission of an integrated plumbed emergency eye wash and shower stations as per specifications.	Lot	1		
1362	Chlorine Gas Leak Detector	XXX			
1362A	Supply, Install, test and commission a Chlorine gas detector (wall mounted) complete with audible alarm and individual receiver module, power supply unit and battery back-up unit in the chlorine storage room. The quoted rates shall be inclusive of all required accessories (power cables, control cables, conduits and cable trays, sleeves) and all protective devices required.	Lot	1		
1363	Extractor Fan	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1364A	Supply, Install, Test and Commission dry powder Fire Extinguisher (9 kg) in the Control room, Chlorination & Pump room, Generator room and Watchman Shed	Lot	4		
1364B	Supply, Install, Test and Commission CO2 Fire Extinguisher (4.5 kg) in the Control room, Chlorination & Pump room, Generator room and Watchman Shed	Lot	4		
1365	Diesel Generator Set	XXX			
1365A	Supply, Install, test and commission of standby rated 125 kVA generator set open type, corrosion resistant painting and parts/operation tropicalised to meet local conditions. Rate to also include spare parts as defined in the technical specifications.	Lot	1		
1365B	Supply, Install, test and commission of diesel tank 750 L (gravity fed) complete with galvanised frame support inlet and outlet accessories to be installed in generator room	Lot	1		
1365C	Supply, Install, test and commission of gravity diesel piping from diesel tank to generator complete with return pipe and fire stop-valve as well as all required components as defined in the Schedule of Requirements but not limited to.	Lot	1		
1365D	Supply, Install, test and commission of a duly calibrated volumetric diesel level indicator for visual monitoring of Diesel	Lot	1		
1365E	Supply, Install, test and commission of hand pump solenoid as defined in the schedule of requirements	Lot	1		
1365F	Supply, Install, test and commission of diesel first fill	Lot	1		
1366	Builders Work for Borehole Pumping Station	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1366A	All civil/ building works for Borehole Pumping Station as per drawing including, but not limited to asphalt works, electrical and plumbing works for electrical control room, Generator room, chlorine storage tank, boundary wall, and other associated works.	Lumpsum	1		-
1367	Provision of I-beam and Hoist	XXX			-
1367A	Supply, Install, test and commission I-beam and Hoist structure in the Generator Room complete with all required components and accessories for a full working system as per the Schedule of Requirements	Lot	1		-
1368	Provisional Sum for Offsite Services work for Boreholes	XXX			-
1368A	CEB	P.Sum	1	2,000,000.00	2,000,000.00
1368B	CWA	P.Sum	1	2,000,000.00	2,000,000.00
	TOTAL M&E WORKS				
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 1 - BILL NO. 13					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 14</u>				
	BRIDGE WORKS				
1401	EXCAVATION AND BACKFILL				
1401A	Excavate in normal material to any depth	m3	18,000		
1401B	Excavation in rock	m3	2,000		
1401C	Supply, Lay and compact hardcore fill of size 150mm to base	m3	3,500		
1401D	Supply and lay 0.25mm plastic sheet	m2	700		
1402	CONCRETE				
1402A	75mm Thick blinding layer for bridge base, class C15	m3	40		
1402B	In-Situ concrete, Designed Mix Grade 35/45 N/M2 to Base	m3	70		
1402C	In-Situ concrete, Designed Mix Grade 35/45 N/M2 to Wing Wall, Abutment Wall..etc	m3	30		
1402D	In-Situ concrete, Designed Mix Grade 35/45 N/M2 to Pier Columns and Intermediate Pier	m3	285		
1402E	In-Situ concrete, Designed Mix Grade 35/45 N/M2 to Bridge Deck	m3	320		
1402F	In-Situ concrete, Designed Mix Grade 35/45 N/M2 to Transition slab	m3	50		
1402G	In-Situ concrete, Designed Mix Grade 35/45 N/M2 Precast Slab(Predalles)	m3	155		
1402H	In-Situ concrete, Designed Mix Grade 35/45 N/M2 Precast Beam	m3	1,900		
1402I	In-Situ concrete, Designed Mix Grade 35/45 N/M2 Trimmer Beam	m3	360		
1402J	In-Situ concrete, Designed Mix Grade 35/45 N/M2 Street Lighting	m3	20		
1402K	In-Situ concrete, Designed Mix Grade 35/45 N/M2 Precast Fascia	m3	55		
	TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 14				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1402L	In-Situ concrete, Designed Mix Grade 35/45 N/M2 Plinth to receive BN4	m3	30		
1402M	Supply, Lay and compact lean mix concrete with 5% cement content for Transition Slab	m3	55		
1402N	Supply, Lay and compact mass concrete to Transition Slab	m3	30		
1403	FORMWORK				
1403A	Formwork in Class1 finish to sides of base (bridge base)	m2	150		
1403B	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for wing wall, abutment wall etc	m2	250		
1403C	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Pier Columns and Intermediate Pier	m2	800		
1403D	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Bridge Deck	m2	70		
1403E	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Precast Slab (Predalles)	m2	1,700		
1403F	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Precast Beam	m2	5,800		
1403G	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Trimmer Beam	m2	440		
1403H	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Transition Slab	m2	15		
1403I	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Street Lighting	m2	20		
1403J	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Precast Fascia	m2	235		
TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 14					

Item	Description	Unit	Qty	BF.	
1403K	Formwork in Class 1 finish, Strutting at from any level and including rebates or groove formers and corbels for Plinth to receive BN4	m2	120		
	1404 REINFORCEMENT				
1404A	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for Bridge base	Tons	3		
1404B	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for wing wall, abutment wall etc	Tons	15		
1404C	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for Pier Columns and wall	Tons	70		
1404D	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for bridge deck	Tons	42		
1404E	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for precast slab(predalles)	Tons	15		
1404F	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for precast beam	Tons	62		
1404F	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for trimmer beam	Tons	106		
1404G	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm for Transition Slab	Tons	15		
1404H	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm to base for Street Lighting	Tons	2		
1404I	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm to Precast Fascia	Tons	12		
	TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 14				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
1404J	Reinforcement hot rolled deformed high yield steel tensile bars of various diameters ranging from 12mm to 32mm to Plinth to receive BN4 barrier	Tons	4		
1405	BRIDGE STRUCTURAL REQUIREMENTS				
1405A	Waterproofing to deck	m2	1,700		
1405B	Cast Iron gully	no	45		
1405C	Laminated Elasmometric Bridge bearings	m	60		
1405D	Expansion joint to deck - Thorma joint as per Engineer's drawing	m	80		
1405E	Construction Joints as per Engineers Drawings	m	80		
1406	BRIDGE USERS SAFETY				
1406A	Supply and Fix metal Bridge parapet type BN4 all as per BS 6779-1 and BS 6779-3 and to Engineer's Approval	m	185		
1406B	Construction of Jersey Barriers, including associated jointing works	m	185		
1407	BRIDGE AESTHETICS				
1407A	Rocksand Finish as and where instructed by Engineer	m2	150		
1407B	Bushammered concrete Finish	m2	75		
1407C	200mm Thick basalt stone	m2	100		
1407D	200mm thick stone masonry	m2	100		
1407E	Surface Impregnation of Concrete Buried Surface	m2	300		
1408	BITUMINOUS COURSES				
1408A	Spray tack coat to Bridge Deck (at the rate of 0.6 kg/metre square of cut-back)	m2	3,000		
1408B	Provide, lay and roll bituminous concrete (0/14) for wearing course with nominal 6.0 % bitumen content (Minimum Thickness 80mm)	m2	1,500		
1409	FOOTPATH				
TOTAL FOR LOT 1 - BILL No 14 CARRIED TO LOT 1 - SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
				BF.	
1409A	Mass concrete Grade 34/45 N/mm2	m3	125		
1409B	6No 110mm diameter PVC Sleeves	m	100		
1409C	1No 250 mm diameter Sewer Sleeve	m	100		
1409D	2No 63 mm diameter MT Sleeves	m	100		
1409E	Supply and Lay Kerb K1	m	175		
1410	FRENCH DRAIN				
1410A	Supply,Lay and join perforated 110mm diameter UPVC drainage pipes connecting from gully to catchpit	m	80		
1411	PILING WORKS				
1411A	Piling Works to Bridge (Including construction of pile and pile cap (Design calculations to be submitted), pile load tests, routine pile load tests and bridge load test)	Lump sum	1		
1412	MECHANICALLY STABILISED EARTH (MSE) WALLS				
1412A	Fascia Pannel	m ²	2000		
1412B	Selected Earth fill behind fascia pannel subjected to Engineer's approval	m ³	53000		
1412C	Jersey Barrier with friction slab	m	1100		
1412`D	Design, Supply and placing of MSE Wall inclusive of base/tendons, sub surface drainage, etc.	m2	6,000		
1413	THIRD PARTY REVIEW	XXX			
1413A	Contractor shall provide for a third party review for all components of Contractor's designed worked	P.Sum	1	5,000,000.00	5,000,000.00
1413B	Contractor's Overhead and Profit on Item 1413A	%			
TOTAL FOR LOT 1 - BILL No 14 CARRIED TO LOT 1 - SUMMARY					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	<u>LOT 1 - BILL No 15</u>				
	<u>DAYWORKS</u>				
	PLANT	XXX	XX		
1501	Tractor D 4 with Dozer	Hr	25		
1502	Tractor D 6 with Dozer	Hr	25		
1503	Tractor D 8 with Dozer and Ripper	Hr	25		
1504	Scraper 12-15 m ³	Hr	25		
1505	Traxcavator 3-4 m ³	Hr	25		
1506	Power grader min 120 hp	Hr	25		
1507	Tandem roller 6-8 ton	Hr	25		
1508	Tandem roller 10-12 ton	Hr	25		
1509	Pneumatic roller 10-15 ton	Hr	25		
1510	Self propelled Vibrating roller 3-5 ton	Hr	25		
1511	Hand propelled Vibrating roller	Hr	25		
1512	Concrete mixer with WGT batcher	Hr	25		
1513	Poker Vibrator	Hr	25		
1514	Bitumen sprayer 4500 litres	Hr	25		
1515	Asphalt paver	Hr	25		
1516	Compressor with tools	Hr	25		
1517	2 ton dumper	Hr	25		
1518	Lorry with service platform	Hr	25		
1519	Water distributor (Bowser)	Hr	25		
1520	Agricultural tractor and trailer	Hr	25		
1521	Cutting Equipment	Hr	30		
	TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 15				

Item	Description	Unit		BF.	
1522	5 HP pump and motor	Hr	30		
1523	1 ton pick up truck	Hr	50		
1524	7 ton tipper truck	Hr	50		
1525	11 ton tipper truck	Hr	50		
1526	8 ton mobile crane	Hr	30		
1527	20 ton mobile crane	Hr	30		
1528	Welding equipment	Hr	30		
1529	Generator	Hr	30		
	LABOUR	XXX	XX		
1530	Leading hand artisan	Hr	75		
1531	Mason, Carpenter, Plumbers (Grade I)	Hr	75		
1532	Mason, Carpenter, Plumbers (Grade II)	Hr	75		
1533	Barbender (Grade I)	Hr	75		
1534	Barbender superior grade	Hr	75		
1535	Unskilled worker	Hr	125		
	MATERIALS	XXX	XX		
1536	Portland cement	Ton	1		
1537	Cut-back MC 30	Ton	1		
1538	Cut-back RC 250	Ton	1		
1539	Mild steel reinforcement	kg	750		
1540	High tensile steel reinforcement	kg	750		
1541	Timber for shuttering	m ³	5		
1542	Crusher run 0/31.5	m ³	30		
1543	Coarse aggregate for concrete	m ³	30		
TOTAL FOR THIS BILL CARRIED FORWARD LOT 1 - BILL NO 15					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
1545	Aggregate for bituminous surface treatment	m ³	20		
1546	Bituminous concrete for wearing course pavement, shoulders and other works (0/14)	Ton	25		
1547	Bituminous concrete for base course (0/20)	Ton	10		
1548	Cold laid asphalt	Ton	5		
1549	Concrete class 12/15	m ³	10		
1550	Concrete class 25/30	m ³	10		
1551	Herbicide	m ²	1,000		
TOTAL FOR LOT 1 - BILL No 15 CARRIED TO LOT 1 - SUMMARY					

INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH HUB AT COTE D'OR		
LOT 2 - ONSITE WORKS		
SUMMARY		
Bill No.	Description	Amount (MUR)
1	Preliminaries & General	
2	Preparatory Works	
3	Earthworks	
4	Sub-base and Road Base	
5	Bituminous Courses	
6	Drainage, Sidewalks & Accesses	
7	Road Marking & Equipment and Road Lighting	
8	Potable Water Supply Network	
9	Telecommunications Network	
10	Electrical Supply Network	
11	Sewer Pipelines	
12	Sewerage Lifting Station & Rising Main	
13	Service Reservoir & Pumping Station	
14	Bridge Construction	
15	Dayworks	
Sub-Total for LOT 2		
VAT @ 15%		
Total for LOT 2		

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
<u>LOT 2 - BILL No 2</u>					
<u>PREPARATORY WORKS</u>					
201	Clear site	m ²	584,000		
202	Excavate top soil	m ³	39,500		
203	Fell Trees with girth exceeding one metre and remove stumps	No.	5		
204	DEMOLITION OF MASONRY OR CONCRETE STRUCTURES	XXX			
204A	Masonry or Concrete Structures	m ³	30		
TOTAL FOR LOT 2 - BILL No. 2 CARRIED TO LOT 2 - SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 2 - BILL No 3</u>				
	<u>EARTHWORKS</u>	XXX			
301	Road excavation to any width	m ³	10		
302	Excavate soft spots to any width	m ³	1,000		
303	Excavation in normal material to any width (rippable, soft and loose material excluding boulders)	m ³	47,000		
304	Excavation in rocks to any width	m ³	16,000		
305	Shaping the sub-grade in cuts other than rock cut	m ²	25,000		
306	Shaping the sub-grade in rock cut	m ²	8,200		
307	Compaction below fill areas	m ²	34,600		
308	Level and compact subgrade in fill	m ²	25,500		
309	Fill with material from excavation, road excavation or excavation in rocks	m ³	37,200		
310	Fill with material from borrow pits, quarries, piles of boulders other than from the works	m ³	24,800		
311	TOPSOIL AND GRASSING	XXX			
311A	Verges, central reserve and islands (150mm thick)	m ²	2,500		
311B	Slopes in cut and fill (150mm thick)	m ²	26,000		
312	ACCESS TO PLOTS	XXX			
312A	Excavation in any material for giving access to plots as directed by the Engineer	m ³	1,500		
312A	Fill with material for giving access to plots as directed by the Engineer	m ³	1,500		
	TOTAL FOR LOT 2 - BILL No 3 CARRIED TO LOT 2 - SUMMARY				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
<u>LOT 2 - BILL No 4</u>					
<u>SUB-BASE AND ROAD BASE</u>					
401	Supply, mix, spread and compact crusher run 0/20 (graded crushed stone) to any width	m ³	6,200		
402	Supply, mix, spread and compact crusher run 0/31.5 (graded crushed stone) to any width	m ³	500		
403	Supply, mix, spread and compact crusher run 0/100 (graded crushed stone) to any width	m ³	5,900		
TOTAL FOR LOT 2 - BILL No 4 CARRIED TO LOT 2 - SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
<u>LOT 2 - BILL No 5</u>					
<u>BITUMINOUS COURSES</u>					
501	Sanded prime road base (at the rate of 1.2 kg/metre square of cut-back)	m ²	21,600		
502	Spray tack coat to bituminous surfaces (at the rate of 0.6 kg/metre square of cut-back)	m ²	43,200		
503	Spray tack coat to bituminous surfaces (at the rate of 0.6 kg/metre square of cut-back) to existing paved roads	m ²	100		
504	Provide, lay and roll bituminous concrete (0/20) for base course with nominal 5.5 % bitumen content (Minimum Thickness 80mm)	m ²	21,600		
505	Provide, lay and roll bituminous concrete (0/14) for wearing course with nominal 6.0 % bitumen content (Minimum Thickness 50mm)	m ²	21,600		
506	Provide, lay and roll bituminous concrete (0/14) for reshaping of existing road with nominal 4.8 % bitumen content	Ton	10		
TOTAL FOR LOT 2 - BILL No 5 CARRIED TO LOT 2 - SUMMARY					

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 2 - BILL No 6</u>				
	<u>DRAINAGE, SIDEWALKS AND ACCESSES</u>				
601	CONSTRUCT AND COMPLETE SIDE DRAINS AS SHOWN ON TYPICAL DRAWINGS	XXX			
601A	Concrete Open Drain D500 under footpath	m	1,450		
601B	Concrete Open Drain D700 under footpath	m	250		
601C	Concrete Open Drain D700S under road traffic	m	75		
601D	Concrete Open Drain D1000 under footpath	m	360		
601E	Concrete Drain D1000S under road traffic	m	50		
601F	Trapezoidal Open Masonry Drain 1000mm top width x 700mm bottom width x 700mm deep as per drawing	m	280		
601G	Swale 1000mm wide by 300mm deep incl. grassing	m	2,200		
602	SUPPLY AND FIXING OF COVERS AND OPENINGS FOR DRAINS AS SHOWN ON TYPICAL DRAWINGS	XXX			
602A	RC Former Covers for drains 500mm wide under footpath	m	1,100		
602B	RC Former Covers for drains 700mm wide under footpath	m	190		
602C	RC Former Covers for drains 1000mm wide under footpath	m	280		
602D	RC Openable Covers for drains 500mm wide under footpath	No.	370		
602E	RC Openable Covers for drains 700mm wide under footpath	No.	70		
602F	RC Openable Covers for drains 1000mm wide under footpath	No.	100		
603	CONSTRUCT CULVERT/HEADWORKS	XXX			
603A	Single Box Culvert 1.0 m x 1.0 m	m	120		
603B	Headworks & Wing Wall for Single Box Culvert 1.0 m x 1.0 m incl. Handrails	No.	6		
603C	Single Box Culvert 1.0 m x 1.2 m	m	120		
603D	Headworks & Wing Wall for Single Box Culvert 1.0 m x 1.2 m incl. Handrails	No.	6		
603E	Single Box Culvert 1.0 m x 1.5 m	m	100		
603F	Headworks & Wing Wall for Single Box Culvert 1.0 m x 1.5 m incl. Handrails	No.	4		
604	CATCHPITS	XXX			
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 2 - BILL NO 6					

Item	Description	Unit	Qty		
				BF.	
604A	Catchpit Type 1 for Drain (for depths less than 1.2m) as per typical drawings	No.	15		
604B	Catchpit Type 2 for Drain (for depths between 1.2m and 1.5m) as per typical drawings	No.	7		
604C	Catchpit Type 3 for Swale	No.	15		
605	CONSTRUCT AND COMPLETE KERBS AND FOOTPATH	XXX			
605A	Kerbs K1 - 150mm wide x 220mm high	m	3,500		
605B	Low Kerbs - K3 as per Typical Drawings	m	6,200		
605C	Kerb gully inlets including all kerbs and connection works to drains as shown on typical drawings for k3 and k1	m	950		
605D	Concrete Footpath and Cycle track as per drawings	m ²	13,500		
606	FEEDER ACROSS SITE	XXX			
606A	Excavation in normal material to any width (rippable, soft and loose material excluding boulders)	m ³	3,500		
606B	Fill with material from excavation, road excavation or excavation in rocks	m ³	500		
606C	Shaping and consolidation of earth bed of water path	m ²	2,500		
606D	Topsoil and grassing	m ²			
607	DESILTING BASIN	XXX			
607A	Desilting basin as per drawing	No.	3		
607B	Trapezoidal Open Step Masonry Drain as per typical drawing	m	50		
608	MISCELLANEOUS HYDRAULIC STRUCTURES	XXX			
608A	Rip Rap	m ²			
608B	Blinding concrete (class 12/15)	m ³	30		
608C	Class 25/30 concrete	m ³	30		
608D	Formwork (rough)	m ²	250		
608E	Reinforcement (high yield deformed bars, Grade 460 Type as shown on drawings)	kg	1,500		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 2 - BILL NO 6					

Item	Description	Unit	Qty		
				BF.	
608F	Stone masonry works minimum (20 to 30cm thick)	m ³	75		
608G	Downspouts (open channel chutes)	m	60		
608H	Supply and place geotextile membrane	m ²	300		
608I	Surface Impregnation of concrete buried faces	m ²	200		
608J	160 mm diameter PVC sleeves	m	300		
608K	Heavy Duty Galvanised Grating	m ²	225		
609	PAVING BLOCKS	XXX			
609A	Coloured Paving Blocks (60mm thick) for sidewalks laid on rocksand	m ²	15,000		
	TOTAL FOR LOT 2 - BILL No 6 CARRIED TO LOT 2 - SUMMARY				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	LOT 2 - BILL No 7				
	<u>ROAD MARKING & EQUIPMENT AND ROAD LIGHTING</u>				
701	SUPPLY AND APPLY REFLECTORISED THERMOPLASTIC ROAD MARKING AND CHLORINATED RUBBER PAINT TO BITUMINOUS CARRIAGEWAY FOR MARKINGS AND SYMBOLS	XXX			
701A	Supply and apply reflectorised thermoplastic road marking paint to bituminous carriageway	m ²	1,350		
701B	Supply and apply reflectorised chlorinated rubber paint to bituminous carriageway	m ²	30		
702	Supply and Fix Cat's eyes	No.	360		
703	PROVIDE AND ERECT REFLECTIVE PROHIBITIVE OR MANDATORY SIGNS, PRIORITY SIGNS, WARNING SIGNS, INFORMATORY SIGNS WITH ADDITIONAL PANELS POST AND FITTINGS	XXX			
703A	Panel diameter 600 mm	No.	10		
703B	Panel triangular 600 mm (height)	No.	20		
703C	Panel octagonal 600 mm (height)	No.	15		
703D	Panel square 600 mm (height)	No.	15		
703E	Panel rectangular 1600 mm x 2440 mm	No.	2		
703F	Arrow panel 2500mm x 600mm	No.	8		
703G	Directional panels 1250mm height x 1200mm long	No.	10		
703H	Increase or decrease to Items 703A to 703G for varying the panel size	m ²	10		
704	Supply, erect galvanised steel safety fence (guard rail)	m	50		
705	Supply, erect galvanised light duty handrail	m	50		
706	<u>ROAD LIGHTING</u>				
706A	Provisional Sum for the supply and placing of solar Street Lighting poles and Luminaires	Prov.Sum	1	10,000,000.00	10,000,000.00
706B	Contractor's Overheads and Profit on Item 706A	%			
707	COLUMN FOUNDATIONS	XXX			
707A	Construction of Column Foundations for 9.0m high pole as per drawing	No.	75		
707B	Construction of Column Foundations for 3.5m high pole as per drawing	No.	100		
708	MAINTENANCE AFTER WARRANTY PERIOD	XXX			
708A	Allow for all costs in connection with Comprehensive Maintenance of the solar lighting installation after the one year warranty period for a duration of two years.	Prov.Sum		500,000.00	500,000.00
708B	Contractor's Overheads and Profit on Item 708A	%			
	TOTAL FOR LOT 2 - BILL No 7 CARRIED TO LOT 2 - SUMMARY				

Item	Description	Unit	Qty	Rate (MUR)	Total Amount (MUR)
	<u>LOT 2 - BILL NO. 8: POTABLE WATER SUPPLY NETWORK</u> <u>INTERNAL WATER RETICULATION</u>				
801	EXCAVATION				
801A	Excavation and backfilling in trenches for DN 200 Ductile Iron pipe, depth to invert level of pipe not exceeding 1.5 m	m	2000		
801B	ditto but for depth between 1.5m and less or equal to 2.0m	m	400		
801C	Excavation and backfilling in trenches for DN 250 Ductile Iron pipe, depth to invert level of pipe not exceeding 1.5 m	m	60		
801D	ditto but for depth between 1.5m and less or equal to 2.0m	m	30		
801E	Excavate trench for HDPE 90mm diameer pipe depth less or equal to 1.5m	m	450		
801F	ditto but for depth between 1.5m and less or equal to 2.0m	m	50		
802	PIPE PROTECTION				
802A	Supply,place and compact Class S Granular bedding(150mm thick granular moist 5mm bedding) in trench bottom, up to half bore of DN200 Ductile Iron Pipe	m	2000		
802B	ditto but for DN250 Ductile Iron Pipe	m	80		
802C	ditto but for HDPE 90mm diameter pipe	m	100		
802D	Concrete Bed and Surround to DI DN200 Pipe as per typical drawing	m	400		
802E	ditto but for DI DN 250 pipe	m	10		
802F	ditto but for HDPE 90mm diameter pipe	m	400		
803	SUPPLY, TRANSPORT, STORE, INSURE AGAINST ALL PERILS, LAY, JOINT, TEST AND DISINFECT C40 PIPES <i>Rates to include for handling, hoisting using mechanical equipment, making cuts, cleaning, jointing and testing as required.</i>				
803A	For DN200 Ductile Iron socket spigot Pipe Class K9 (in5.5 Or 6.0m length)	m	2400		
803B	For DN250 Ductile Iron socket spigot Pipe Class K9 (in5.5 Or 6.0m length)	m	90		
803C	Supply, transport, store, insure against all perils, lay, joint, test and disinfect HDPE pipes PE100 PN10- HDPE OD 90mm (rate to include for couplers) SUPPLY, TRANSPORT, STORE, INSURE AGAINST ALL PERILS, LAY, JOINT, TEST AND DISINFECT DUCTILE IRON FITTINGS <i>Rates to include for handling, hoisting using mechanical equipment, making cuts, cleaning, jointing and testing as required.</i> <i>Rates to include for chamfering and applicationof bituminous paint where applicable</i>	m	500		
804	DI TEE socketed				
804A	Ductile iron double socketed Tee (Class K9) DN200 x DN200	No.	2		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 2 - BILL No.8					

Item	Description	Unit	Qty		
				BF.	
	DI Socketed Invert Tee with Flanged Branch (For Wash-out connections)				
804B	DN 200 x DN 80	No.	2		
	DI Socketed Tee with Flanged Branch (Air Valves)				
804C	DN 200 x DN 80	No.	1		
804D	DN 250 x DN 80	No.	1		
	805 DI BEND/ELBOW				
805A	Ductile Iron Double Socketed Bends (Class K9) DN250 x 45°	No.	2		
805B	Ductile Iron Double Socketed Bends (Class K9) DN250 x 22.5°	No.	3		
805C	Ductile Iron Double Socketed Bends (Class K9) DN 200 x 90°	No.	1		
805D	Ductile Iron Double Socketed Bends (Class K9) DN200 x 45°	No.	22		
805E	Ductile Iron Double Socketed Bends (Class K9) DN200 x 22.5°	No.			
805F	Ductile Iron Double Socketed Bends (Class K9) DN200 x 11.25°	No.	7		
	806 DI Flanged spigot Adaptor				
806A	DN 200	No.	3		
	807 DI Flexible Flanged Adaptor				
807A	DN 200	No.	25		
	808 DI Dismantling joint				
808A	DN 200	No.	5		
	809 DI Double Flanged Reducer				
809A	DN 200 x DN 80	No.	2		
	810 DI Blank Flange				
810A	DN 200	No.	1		
	811 DI Double Flanged Reducer				
811A	DN 250 x DN 200	No.	1		
	812 All Flanged Tee				
812A	DN 200 x DN 80	No.	19		
	811 SUPPLY, TRANSPORT, STORE, INSURE AGAINST ALL PERILS, LAY AND JOINT, TEST AND DISINFECT VALVES AND COUPLING FOR D.I PIPES				
	Ductile Iron Double Flanged Sluice/Gate Valve				
811A	Sluice/Gate Valve DN 200 c/w all associated connection fittings to DI pipes including gaskets, O-rings, bolts and nuts	No.	3		
	Air Valves				
811D	DI Double Orifice Air Valve DN 80 complete with DN 80 butterfly valve for main size DN 200	No.	1		
811D	DI Double Orifice Air Valve DN 80 complete with DN 80 butterfly valve for main size DN 250.	No.	1		
TOTAL FOR THIS BILL CARRIED FORWARD TO LOT 2 - BILL No.8					

Item	Description	Unit	Qty	Rate	Total Amount
				BF.	
	Drain/Washout valves				
811F	Drain/washout valves on DI pipe DN 200 complete with all fittings as per arrangement shown in typical drawings	No.	2		
	Fire Hydrant Valves				
811H	Fire Hydrant DN 80 complete with all fittings as per arrangement shown in typical drawings	No.	7		
	812 CONCRETE WORKS				
812A	Construction of concrete thrust blocks, anchor blocks, pipe supports	No.	90		
812B	Construct complete air valve chamber as per Drawing	No.	2		
812C	Construct complete washout/Drain valve chamber as per Drawing	No.	2		
812D	Construct complete fire hydrant chamber as per Drawing	No.	7		
812E	Construct complete sluice/Gate valve chamber as per Drawing	No.	4		
	813 <u>MARKER POSTS</u>				
813A	Supply and fix marker posts with letter AV as per typical drawing	No.	2		
813B	Supply and fix marker posts with letter SV as per typical drawing	No.	4		
813C	Supply and fix marker posts with letter FH as per typical drawing	No.	7		
813D	Supply and fix marker post with letter WO as per typical drawing	No.	2		
	814 PLOT CONNECTION				
814A	Plot Connections for plots on same side of road of the Service main	No.	10		
814B	Plot Connections for plots on opposite side of road of the Service main	No.	5		
	815 MISCELLANEOUS				
815A	Allow for connection to service reservoir compound	No.	1		
815B	Allow for connection to lifting station compound	No.	1		
815C	Allow for connection to green spaces	No.	2		
TOTAL FOR LOT 2 - BILL NO. 8 CARRIED TO LOT 2 - SUMMARY					

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	LOT 2 - BILL No. 9				
	<u>TELECOMMUNICATIONS NETWORK (EMTEL AND MAURITIUS TELECOM)</u>				
901	EXCAVATION	XXX			
901A	Excavate trench for depths less or equal to 2.0m for 4 dia. 45mm ducts	m	400		
901B	ditto but for depths greater than 2.0m for 4 dia. 45mm ducts	m	50		
901C	Excavate trench for depths less or equal to 2.0m for 3 dia. 60mm + 3 dia. 45mm ducts	m	2,000		
901D	ditto but for depths greater than 2.0m for 3 dia. 60mm + 3 dia. 45mm ducts	m	400		
901E	Excavate trench for depths less or equal to 2.0m for 2 dia. 60mm ducts	m	400		
901F	ditto but for depths greater than 2.0m for 2 dia. 60mm ducts	m	50		
901G	Excavate trench for depths less or equal to 2.0m for 2 dia. 80mm ducts	m	2,100		
901H	ditto but for depths greater than 2.0m for 2 dia. 80mm ducts	m	400		
902	DUCT / CABLE PROTECTION	XXX			
902A	Supply and place sand protection to ducts and cables below and above ducts for 4 dia.45mm ducts	m	450		
902B	Ditto but for 3 dia. 60mm + 3 dia. 45mm ducts	m	2,400		
902C	Ditto but for 2 dia. 60mm ducts	m	450		
902D	Ditto but for 2 dia. 80mm ducts	m	2,500		
902E	Bed and surround in concrete for ducts as per drawings	m ³	15		
903	SUPPLY, TRANSPORT, LAY AND JOINT PVC DUCTS	XXX			
903A	Supply, transport, lay and joint PVC ducts for 4 dia. 45 mm ducts	m	450		
903B	Ditto but for 3 dia. 60mm + 3 dia. 45mm ducts	m	2,450		
903C	Take delivery, transport, lay and joint PVC ducts for 2 dia. 60 mm ducts (Price to exclude supply. Materials to be supplied by Emtel)	m	450		
903D	Ditto but for 2 dia. 80mm ducts	m	2,500		
904	SUPPLY, TRANSPORT, LAY AND JOINT PVC BEND	XXX			
904A	PVC bend 45mm	No.	20		
904B	PVC bend 60mm	No.	30		
901C	PVC bend 80mm	No.	30		
905	CONSTRUCTION OF CHAMBERS	XXX			
905A	Chamber type M1C	No.	1		
905B	Chamber type K2C	No.	17		
905C	Manhole Type L0T	No.	36		
905D	Manhole 0.8x0.8x1.2m for Emtel Network	No.	18		
906	MT CABINET	XXX			
906A	Installation of Cabinet	No.	1		
	TOTAL FOR LOT 2 - BILL No 9 CARRIED TO LOT 2 - SUMMARY				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	LOT 2 - BILL No. 10				
	<u>ELECTRICAL SUPPLY NETWORK</u>				
1001	SUPPLY, INSURE AGAINST ALL PERILS, TRANSPORT, EXCAVATE, LAY, JOINT INCLUDIFN BACKFILL AS PER TRENCH DETAILS PVC DUCTS FOR ELECTRICITY SUPPLY	XXX			
1001A	4 dia. 160mm PVC ducts and 2 dia 63mm PVC ducts as per drawing (Road Crossing)	m	350		
1001B	6 dia. 160mm PVC ducts and 2 dia 63mm PVC ducts as per drawing (Road Crossing)	m	400		
1001C	6 dia. 160mm PVC ducts and 2 dia 63mm PVC ducts as per drawing (Off road along Road reserve)	m	2500		
1002	CONSTRUCTION OF ELECTRICITY DRAW PITS	XXX			
1002A	Straight-through drawpit D1 as per drawing	No	48		
1002B	Angular drawpit D2 as per drawing	No	10		
1002C	T-Drawpit D4 as per drawing	No	15		
1002D	T-Drawpit D6 as per drawing	No	15		
1002E	Drawpit for looping pit of HV cables for future RMU (as per dwg)	No	2		
1002F	Drawbox for CEB (as per dwg)	No	18		
1003	CONSTRUCTION OF JOINTING PITS	XXX			
1003A	Construction of jointing pits for 22kV UG cable (as per dwg)	No	5		
1004	CONSTRUCTION OF RMU SHED	XXX			
1004A	Construction of Ring Main Units - RMU (as per dwg)	No	10		
1005	CONSTRUCTION OF TRANSFORMER ROOMS	XXX			
1005A	Construction of Transformer Room - TX (as per dwg). Contractor to allow for builder's work and associated switchgear, metering, busbar and external lighting cubicles	No	2		
1006	SUPPLY, LAYING AND INSTALLATION OF POWER CABLES	XXX			
1006A	HV cable 22kV grade 3C x 300mm ² XLPE Cu Armoured from Substation to RMUs and RMUs to RMUs	m	3,500		
1006B	HV cable 22kV grade 3C x 300mm ² XLPE Cu Armoured from interlinking the loops	m	100		
1006C	HV Cable 22kV grade 3C x 35mm ² XLPE Al Armoured From RMU to TX	m	100		
1006D	Allow for liaison with CEB and necessary attendance for jointing of HV cables and installation of pulling eyes from CEB for laying of HV cables.	Prov. Sum	1	500,000.00	500,000.00
1006E	Contractor's Overheads and Profit on Item 1006D	%			
1007	SUPPLY, INSTALLATION AND COMMISSIONING OF RING MAIN UNITS (RMU)	XXX			
	Supply and install 22KV SF6 non extensible Ring Main Units as described in the CEB Technical specifications forming part of the Tender documents. Please note that plug -in cable connectors for both network and transformer connections shall be included in the offer.				
1007A	RMU (3+1)	No.	8		
1007B	RMU (2+2)	No.	2		
1007C	Allow for liaison with CEB and necessary attendance for execution	Prov. Sum	1	250,000.00	250,000.00
1007D	Contractor's Overheads and Profit on Item 1007C	%			
	TOTAL FOR LOT 2 - BILL No 10 CARRIED TO LOT 2 - SUMMARY				

Item	Description	Unit	Qty	Unit Price	Total Amount
	<u>LOT 2 - BILL NO. 11 - SEWER PIPELINES</u>				
	<u>GRAVITY SEWER</u>				
1101	EXCAVATION				
1101A	Excavate trench 160mm dia. uPVC pipe depth to invert not exceeding 2.0m	m	700		
1101B	ditto but for depth between 2.0m and less or equal to 3.0m	m	75		
1101C	Extra over items for 1101A to 1101B for excavation in rock	m ³	200		
1101D	Excavate trench 200mm dia. uPVC pipe depth to invert not exceeding 2.0m	m	1,700		
1101E	ditto but for depth between 2.0m and less or equal to 3.0m	m	200		
1101F	ditto but for depth between 3.0m and less or equal to 4.0m	m	50		
1101G	Extra over items for 1101D to 1101F for excavation in rock	m ³	500		
1101H	Excavate trench 250mm dia. uPVC pipe depth to invert not exceeding 2.0m	m	425		
1101I	ditto but for depth between 2.0m and less or equal to 3.0m	m	50		
1101J	Extra over items for 1101H to 1101I for excavation in rock	m ³	125		
1102	PIPE PROTECTION				
1102A	Supply, place and compact Class B Granular bedding to 160mm uPVC diameter pipe as per drawing	m	750		
1102B	Ditto but for pipe 200 mm uPVC diameter pipe as per drawing	m	1,750		
1102C	Ditto but for pipe 250 mm uPVC diameter pipe as per drawing	m	425		
1103	CONCRETE SURROUND				
1103A	C12/15 concrete surround to 160mm uPVC diameter pipe as per drawing	m	25		
1103B	Ditto but for pipe 200 mm uPVC diameter pipe as per drawing	m	200		
1103C	Ditto but for pipe 250 mm uPVC diameter pipe as per drawing	m	50		
1104	SUPPLY, INSTALL, JOINT AND TEST uPVC SEWER PIPELINES (SN 8) AND FITTINGS INCLUDING END CAPS & COUPLING				
1104A	160mm uPVC diameter Pipes	m	775		
1104B	200mm uPVC diameter Pipes	m	1,950		
1104C	250mm uPVC diameter Pipes	m	475		
1104D	Y or T junction piece, 160mm off 200mm	No.	14		
1104E	Y or T junction piece, 160mm off 250mm	No.	3		
1104F	160 mm diameter 45° large radius bend	No.	17		
1105	EXCAVATE, CONSTRUCT AND TEST MANHOLE CHAMBERS AS PER DRAWINGS AND SPECIFICATIONS	XXXX			
1105A	Manhole Type I (<2m)	No.	50		
1105B	Manhole Type II (2-3m)	No.	7		
1105C	Manhole Type III (3-4m)	No.	2		
1105D	Extra over for backdrop arrangement as per drawing	No.	2		
1106	INSPECTION CHAMBERS				
1106A	Supply polypropelene inspection chambers, depth to invert n.e 2.0 m as per drawing	No.	15		
	TOTAL FOR LOT 2 - BILL NO 11 CARRIED TO LOT 2 - SUMMARY				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	<u>LOT 2 - BILL No 15</u>				
	<u>DAYWORKS</u>				
	PLANT	XXX	XX		
1501	Tractor D 4 with Dozer	Hr	25		
1502	Tractor D 6 with Dozer	Hr	25		
1503	Tractor D 8 with Dozer and Ripper	Hr	25		
1504	Scraper 12-15 m ³	Hr	25		
1505	Traxcavator 3-4 m ³	Hr	25		
1506	Power grader min 120 hp	Hr	15		
1507	Tandem roller 6-8 ton	Hr	15		
1508	Tandem roller 10-12 ton	Hr	15		
1509	Pneumatic roller 10-15 ton	Hr	15		
1510	Self propelled Vibrating roller 3-5 ton	Hr	15		
1511	Hand propelled Vibrating roller	Hr	15		
1512	Concrete mixer with WGT batcher	Hr	25		
1513	Poker Vibrator	Hr	25		
1514	Bitumen sprayer 4500 litres	Hr	15		
1515	Asphalt paver	Hr	15		
1516	Compressor with tools	Hr	15		
1517	2 ton dumper	Hr	25		
1518	Lorry with service platform	Hr	25		
1519	Water distributor (Bowser)	Hr	25		
1520	Agricultural tractor and trailer	Hr	15		
1521	Cutting equipment	Hr	30		
1522	5 HP pump and motor	Hr	30		
1523	1 ton pick up truck	Hr	50		
1524	7 ton tipper truck	Hr	50		
1525	11 ton tipper truck	Hr	50		
1526	8 ton mobile crane	Hr	15		
1527	20 ton mobile crane	Hr	15		
1528	Welding equipment	Hr	30		
1529	Generator	Hr	30		
	LABOUR	XXX	XX		
1530	Leading hand artisan	Hr	75		
1531	Mason, Carpenter, Plumbers (Grade I)	Hr	75		
1532	Mason, Carpenter, Plumbers (Grade II)	Hr	75		
1533	Barbender (Grade I)	Hr	75		
1534	Barbender superior grade	Hr	75		
1535	Unskilled worker	Hr	125		
	TOTAL FOR THIS BILL CARRIED FORWARD LOT 2 - BILL NO 15				

Item	Description	Unit	Qty	Unit Price (MUR)	Total Amount (MUR)
	MATERIALS	XXX			
1536	Portland cement	Ton	1		
1537	Cut-back MC 30	Ton	1		
1538	Cut-back RC 250	Ton	1		
1539	Mild steel reinforcement	kg	750		
1540	High tensile steel reinforcement	kg	750		
1541	Timber for shuttering	m ³	5		
1542	Crusher run 0/31.5	m ³	30		
1543	Coarse aggregate for concrete	m ³			
1544	Sand or fine aggregate	m ³	30		
1545	Aggregate for bituminous surface treatment	m ³	20		
1546	Bituminous concrete for wearing course pavement, shoulders and other works (0/14)	Ton	25		
1547	Bituminous concrete for base course (0/20)	Ton	10		
1548	Cold laid asphalt	Ton	5		
1549	Concrete class 12/15	m ³	10		
1550	Concrete class 25/30	m ³	10		
1551	Herbicide	m ²	1,000		
TOTAL FOR LOT 2 - BILL No 15 CARRIED TO LOT 2 - SUMMARY					

TENDER SCHEDULE B – ESTIMATED MONTHLY CASH FLOW

CASH FLOW	
Period (Months) (1)	Amount (2)
1	
2	
3	
4	
5	
6	
7	
8	
9	
...	
...	
...	
17	
18	
TOTAL	

NOTES :

The total of Column 2 shall amount to the Tender Sum.

Advance Payment, Retention and the respective repayments shall be excluded.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATE

SIGNATURE.....

TENDER SCHEDULE C – CONTRACT PRICE

The Contractor herewith confirms that his rates and prices remain firm and fixed for the whole duration of the contract and no adjustment whatsoever for any reason will be allowed.

The Contractor shall also provide a detailed breakdown of the overall contract price as per table below:

Item	Designation	Direct costs	Indirect costs	Total	% of 13	% of 29
1.	Labour - local					
2.	Materials - local - imported					
3.						
4.	Sub-contracted - local - foreign					
5.						
6.	Plant - rent - depreciation - consumable - small tools					
7.						
8.						
9.						
10.	Transport					
11.	Miscellaneous					
12.	Others (if any)					
13.	Total direct and indirect costs					
14.	Miscellaneous expenses					
15.	Additional depreciation					
16.	Risks					
17.	Financial costs					
18.	Others (if any)					
19.	Total Net Costs					
20.	Provision for Escalation		%			
21.	Charges		%			
22.	Local Agency		%			
23.	Head Office		%			
24.	Profit		%			
25.	Commercial expenses		%			
26.	Project costs		%			
27.	Taxes		%			
28.	Various		%			
29.	Contract Price		%			

DATE SIGNATURE.....

TENDER SCHEDULE D – CONTRACTOR’S EQUIPMENT

Items of Equipment to be used on the Works shall include but not be limited to the following:

Item of Equipment	Minimum Capacity	No	Make and Type	Owned by Contractor	To be purchased by Contractor	To be hired by Contractor	To be sourced by other means (state means)
Asphalt Plant	80T/Hr	1					
Concrete mixer with weight batcher	1 M3	1					
Asphalt Paver	155HP	1					
Grader	185HP	1					
Bulldozer	300HP	1					
Loader	1M3	1					
Pneumatic Roller	15T	1					
Vibrating Roller	12T-20T	2					
Excavator	175HP	2					
Bitumen Sprayer	6000 L	1					
Backhoe Loader	10T	2					
Lorry with service platform	15T	3					
Tipper lorry	10T	10					
Mobile Crane	30T	1					
Piling Rig		1					

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil)

DATE

SIGNATURE:

TENDER SCHEDULE E – KEY PERSONNEL
PART 1 : KEY PERSONNEL

Designation	Name of Nominee	Name of Alternate	Period of Involvement Start	Period of Involvement Finish
Contracts Manager/Contractor's Representative possessing at least a degree in Civil Engineering from a recognized institution and registered with the Council of Registered Professional Engineers Mauritius*				
Site Manager possessing at least a diploma in Civil Engineering from a recognized institution or an acceptable equivalent qualification*				
Topographical Surveyor				
Site Engineer (Roads)*				
Site Engineer (Bridge)*				
Site Engineer (Utilities)*				
M&E Engineer*				
Laboratory Technician				
Health and Safety Officer				
Environmental Manager				
Foreman (Earthworks)*				
Foreman (Asphalt)				
Foreman (Concrete Works)				
Foreman (Utilities)				

NOTES:

- The *Contractor* shall list in this Schedule the key personnel as listed above by position (including first nominee and the second choice alternate) which he will employ from Head Office and from Site Office to direct and execute the Work, together with, inter alia, their qualifications, experience, positions held, their nationalities and linguistic ability. Curriculum vitae of the above noted persons are to be attached and shall be in the form in Part 2.
- The first nominee or his alternate shall not be changed without the prior approval of the *Employer*.

The titles of the above designations may be altered to suit the organisation's structures.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATE

SIGNATURE

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TENDER SCHEDULE E – KEY PERSONNEL

PART 2 : CURRICULUM VITAE OF KEY PERSONNEL

Curriculum vitae of the 7 key personnel indicated with an asterisk in Part 1, shall be structured to follow the format below and in the order shown.

1. Name
2. Proposed Position
3. Nationality
4. Parent Firm
5. Years with Firm
6. Educational Qualification
7. Professional Registration
8. Language Ability (Note 1)
 - First language
 - Second language
 - Third language
9. Key Qualifications (a descriptive section on the relevant ability and experience for the position proposed)
10. Experience Record (Note 2)

NOTES:

1. Language ability shall be split into speaking, reading and writing and in the following categories; fluent, good, poor.
2. Experience record shall be in reverse chronological order and shall highlight road construction experience (particularly bridgeworks where required) as well as the actual position held at any time.

Number of sheets, appended by the *Contractor*, comprising this Schedule
(if nil, enter Nil).

DATE:..... SIGNATURE:

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TENDER SCHEDULE F – SUBCONTRACTORS

Element of Work	Approximate Value	Name and Address of Subcontractor	CIDB GRADE REGISTRATION & AREA OF SPECIALISATION	Specialities and Similar Works Recently Executed				
				Description	Location	Value	Year Complete	Employer/Engineer

The *Contractor* shall enter in this Schedule a list of the sections and approximate value of the work for which he proposes to use Subcontractors, together with the names and addresses of the Subcontractors, their respective specialities and similar works recently (last 10 years) executed including description, location and value of work, year completed, and name of the *Employer/Engineer*. Notwithstanding such information the *Contractor* shall remain entirely and solely responsible for the satisfactory completion of the Work.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATE

SIGNATURE

TENDER SCHEDULE G – SUPERVISION AND LABOUR
SCHEDULE G (i): SUPERVISORY AND SUPPORT STAFF

Period (Month)	Management	Administration	Engineers	Technicians	Foreman	Totals
1 to 3						
4 to 6						
7 to 9						
10 to 12						
13 to 15						
16 to 18						

NOTES:

1. The *Contractor* shall list in this Schedule the respective numbers of supervisory staff on Site. A site organisation chart including details of assignment to the categories listed above shall be attached.
2. Management to include senior office staff.
3. Technical staff to include staff for workshops, maintenance of accommodation areas and other services supervisors, laboratory, survey, etc.
4. Tender Schedules G (i) and G (ii) when added together shall represent the *Contractor's* proposed total work force.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATE SIGNATURE

TENDER SCHEDULE G – SUPERVISION AND LABOUR
SCHEDULE G (ii): LABOUR

Period Months	Skilled	Semi-Skilled	Unskilled	Totals
1 to 3				
4 to 6				
7 to 9				
10 to 12				
13 to 15				
16 to 18				

NOTES :

1. The *Contractor* shall list in this Schedule for each category the number of employees for the execution of the Works.
2. Tender Schedules G (i) and G (ii) when added together shall represent the *Contractors* proposed total work force.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATESIGNATURE

TENDER SCHEDULE H – JOINT VENTURE DETAILS

The *Contractor* shall submit with his Tender full details including:

1. the composition and structure (in writing and diagrammatically) of the organisation, and
2. in respect of each of the participating parties respectively:
 - (a) levels of financial commitment
 - (b) degree of participation in the organisation
 - (c) duties and responsibilities in respect of the Works

The *Contractor's* signature below shall be confirmation that the details of the Joint Venture have been submitted as required by the Instructions to Bidders and the Contract.

Number of sheets, appended by the *Contractor*, comprising this Schedule
(if nil, enter Nil).

DATE..... SIGNATURE

TENDER SCHEDULE I – METHOD STATEMENTS

The *Contractor* is required to submit full method statements of his proposed methods for construction of the *Works* (including haul roads, excavations, material handling, dealing with water, accommodation of traffic, public relations and quality control). Details shall, as a minimum, be as specified in Requirements for Tender Schedules.

Status of Method Statements – Nothing in the Method Statements shall be construed to supersede any Specification or requirement of the Contract.

Number of sheets, appended by *Contractor*, comprising this Schedule
(if nil, enter Nil).

DATE SIGNATURE

TENDER SCHEDULE J – CONTRACT PROGRAMME
PART 1 : TENDERED CONTRACT PROGRAMME

The *Contractor* shall submit with his Tender a programme, the ‘Tendered Contract Programme’, which shall, subject to amendment in discussions with the *Employer* prior to the date of the Letter of Acceptance be used as the Contract Programme until such time as the programme submitted under Conditions of Contract Clause 8.3 has been consented to by the *Engineer*.

The programme shall be submitted under the title “TENDER SCHEDULE J - TENDERED CONTRACT PROGRAMME” and shall be signed by the *Contractor* in a title block which shall show, as a minimum, the *Contractor*’s name, a unique drawing number, a revision number and the date of issue. From this Programme the *Contractor* shall on a separate schedule reflect below key dates for:

- i) the submission to the *Employer* of *Contractor*’s Drawings, designs, calculations, etc, and
- ii) the approval by the *Employer* of the said *Contractor*’s submissions all as required by Conditions of Contract

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATESIGNATURE

TENDER SCHEDULE J – TENDERED CONTRACT PROGRAMME

PART 2 : RELEVANT DATES

The following dates related to the Tendered Contract Programme required in Tender Schedule J,

Part 1 shall be adhered to by the *Contractor* in such Programme :

ASPECT	PERIOD ENDING
Latest Required Period from Commencement Date:	
Preparatory Works	Day
Earthworks	Day
Pavement Structure Works	Day
Drainage Works	Day
Asphalt	Day
Utilities	Day
Service Reservoir and Pump Station	Day
Sewer Lifting Station	Day
Sewer Rising Main	Day
Street Lighting	Day
Bridge Works	Day
Electrical and Mechanical Installation for Borehole and Pumping Station	Day

Assume Commencement Date as Day 0.

Number of sheets, appended by the *Contractor*, comprising this Schedule
 (if nil, enter Nil)

DATE..... SIGNATURE.....

TENDER SCHEDULE K – DURATIONS OF BOQ PORTIONS OF THE WORK

The *Contractor* shall state below the total durations envisaged for the portions of the works as below. These portions represent the sections of work into the Bill of Quantities is split for the apportionment of fixed and time related costs.

The total duration represents the time from start to finish of the portions of work

PORTIONS	DURATION (Days)
Preparatory Works	
Earthworks	
Sub Base & Road Base	
Bituminous Courses	
Drainage, Side Walks & Access	
Road Marking & Equipment and Road Lighting	
Potable Water Network	
Telecommunication Network	
Electrical Supply Network	
Sewer Pipelines	
Sewerage Lifting Station & Rising Mains	
Service Reservoir and Pumping Station	
Bridge Construction	
Electrical and Mechanical Installation for Borehole and Pumping Station	

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATE

SIGNATURE

TENDER SCHEDULE L – MATERIALS

The tenderer shall supply a list of materials for incorporation into the works, which shall include but not be limited to the following

Item of Material	Source	Technical Specifications
Cement Concrete Aggregates Reinforcement Street Lights Cats Eyes Guardrails Water Supply Pipeline Sewer Pipelines (uPVC and HDPE) Manhole Covers Ducts Elastomeric Bearings Bitumen Asphalt Cabling Works Mechanical and Electrical Installations at Pumping and Lifting Station		
Others		

Number of sheets, appended by the *Contractor*, comprising this Schedule(if nil, enter Nil).

DATE SIGNATURE

TENDER SCHEDULE M – MISCELLANEOUS POLICY STATEMENTS
PART 1 : INDUSTRIAL HYGIENE, OCCUPATIONAL HEALTH AND SAFETY
POLICY STATEMENT

The *Contractor* shall prepare and submit with his Tender as Schedule M: Part 1, a statement providing full and detailed particulars of his proposals for dealing with industrial hygiene, occupational health, safety and welfare (hereinafter referred to as “Health and Safety”) for the full duration of the Contract.

Contractors are advised to inform themselves as to the proximity, availability and capacity of emergency medical rescue and surgical facilities and services to the construction Site.

The statement shall address the following matters:

1. Work Plan

A work plan designed to meet the requirements of the Specification.

2. Organisation, Management, Key Personnel

The key persons who will be responsible for the implementation of the policy, such as:

- The Project Manager,
- Para - Medical Officer, responsible for first aid posts,
- Safety Officers,

Scopes of responsibilities to be assigned to the key personnel.

A diagram of management organisation showing how the responsible personnel will relate to one another and the rest of the site organisation. Curricula Vitae (CVs) for the key personnel, in the form detailed in Tender Schedule E, Part 2, for approval by the *Employer*, stating qualifications and experience relevant to the responsibilities proposed.

3. Safety Programme

Means of creating and maintaining safe working conditions. Description of operation of the Health and Safety Committee.

4. Industrial Hygiene and Occupational Health Programme

Means of recognising, preventing and avoiding potentially injurious conditions; early recognition of problems, employing a medical screening system; protection systems; and treatment of employees who develop problems.

5. Provision of Facilities and Services

Outline of provisions proposed for the following:

- first-aid posts
- organisation, equipment and procedures for the rescue and emergency evacuation of personnel from accident sites
- organisation, equipment and procedure for the treatment of hazardous spillages.

6. Training Programme

Proposals for training employees in:

- safety: attitudes and methods required to prevent unsafe practices and attain and maintain safe working conditions;
- industrial hygiene, hazardous materials and potentially injurious

conditions: awareness, recognition, prevention, avoidance, consequences of failure to avoid them.

7. Induction Programmes

Proposals for induction programmes for health and safety.

8. Contractor's Experience Record

Contractors shall provide details of their previous experience of implementing health, safety and welfare policies and practices similar to those required by the Specification. They shall also provide the names and addresses of the project owners / promoters and Engineers who shared that experience.

9. Audit Function

Procedures for regularly monitoring, appraising and, as necessary, rectifying shortcomings in the performance of the Health and Safety programme, such audits to be carried out by off-site specialists.

10. Programme

To ensure compliance with the above and with the Specification in respect of Health and Safety, the *Contractor* shall show in his Tendered Contract Programme (Tender Schedule J, Part 1) the establishment of personnel and facilities during mobilisation, execution of the Works and demobilisation, and shall show how and over what time period the *Contractor* will give full effect to the *Employer's* policy and objectives.

Evaluation of Tenders, Award of Contract

The information given in the statement shall be used as an integral part of the Tender adjudication process, and is to be regarded as contractually binding on the *Contractor* once the *Employer* has awarded the Contract. The *Contractor* should note that upon award of the Contract, the *Contractor* will be required to enlarge on the statement given in this Tender Schedule M, Part 1 giving information as required by the *Engineer* in sufficient detail to cover all aspects of health and safety for each operation of the Works. He will thereafter be required to carry out his plans in accordance with the policy expressed in this schedule and in such amplification.

The code of practice within the policy shall be in accordance with the requirements of the Contract Specification.

Number of Sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATE SIGNATURE

TENDER SCHEDULE M – MISCELLANEOUS POLICY STATEMENTS
PART 2 : ENVIRONMENTAL PROTECTION POLICY STATEMENT

The *Contractor* shall prepare and submit with his Tender as Schedule M: Part 2, a statement providing full and detailed particulars of the Environmental Protection Policy, which he would propose to operate for the full duration of the Contract to meet the requirements of the Environmental Management Plan

The statement to be provided shall include as a minimum the following information:

- (a) details of the proposed management structure and responsibilities of the persons responsible for environmental protection and monitoring.
- (b) details of the induction, training and awareness programmes, aimed at the total workforce, proposed to be implemented.
- (c) details of auditing procedures proposed to be implemented to ensure adherence to environmental policies.

The information given in the statement shall be used as an integral part of the Tender adjudication process, and is to be regarded as contractually binding on the *Contractor* once the *Employer* has awarded the Contract.

The *Contractor* should note that upon award of the Contract, the *Contractor* will be required to enlarge on the statement given in this Tender Schedule M, Part 2 giving information as required by the Project Manager in sufficient detail to cover all aspects of environmental protection for each stage of the Works. He will thereafter be required to carry out his plans in accordance with the policy expressed in this schedule and in such amplification.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATESIGNATURE

TENDER SCHEDULE M – MISCELLANEOUS POLICY STATEMENTS
PART 3 : QUALITY ASSURANCE POLICY STATEMENT

The *Contractor* shall prepare and submit with his Tender a statement providing full and detailed particulars of the Quality Assurance policy he would propose to operate for the full duration of the Contract.

The statement shall include a management structure diagram showing details of persons responsible for implementing the policy and shall include at the least detailed particulars relating to the items listed in the technical specifications. The draft plan shall be submitted as suitable for the work to be constructed.

The information given in the statement shall be used as an integral part of the Tender adjudication process, and is to be regarded as contractually binding on the *Contractor* once the *Employer* has awarded the Contract. The *Contractor* shall note that upon award of the Contract, the *Contractor* will be required to enlarge on the statement given in this Tender Schedule M, Part 3 giving information as required to cover all aspects of quality assurance for each stage of the Works. He will thereafter carry out his plans in accordance with the policy expressed in the schedule and in such amplification.

Number of sheets, appended by the *Contractor*, comprising this Schedule (if nil, enter Nil).

DATESIGNATURE

TENDER SCHEDULE N – LABORATORY EQUIPMENT

The *Contractor* is to submit a list of laboratory equipment he requires for use in the site laboratory necessary for the control of quality in accordance with the Specification.

The *Contractor* shall also submit a separate list indicating the testing and inspection of equipment, plant or materials off-site including the name of the organisation responsible.

Number of sheets, appended by the *Contractor*, comprising this Schedule
(if nil, enter Nil).

DATESIGNATURE

TENDER SCHEDULE O – BREAKDOWN OF MAJOR RATES

The *Contractor* shall indicate below the detailed breakdown of his tendered rates for the following (refer to Requirements for Tender Schedules).

Bill No	Description
1	Laboratory
1	Traffic Diversion
2	Clear Site
2	Excavate Top Soil
3	Excavate in normal material to any width (rippable, soft and loose material excluding boulders)
3	Excavation in rocks to any width
3	Fill with material from excavation, road excavation or excavation in rocks
3	Fill with material from borrow pits, quarries, piles of boulders other than from the works
4	Supply, mix, spread and compact crusher run 0/20 (graded crushed stone)
4	Supply, mix, spread and compact crusher run 0/100 (graded crushed stone)
5	Provide, lay & roll bituminous concrete (0/20) for base course with nominal 5.5% bitumen content (Minimum Thickness 80mm)
5	Provide, lay and roll bituminous concrete (0/14) for wearing course with nominal 6.0 % bitumen content (Minimum Thickness 50mm)
6	Concrete Open Drain D500 under footpath
	RC Former Covers for drains 500mm wide under footpath
6	Single Box Culvert 1m x 1m
6	Catchpit Type 1 for Drain (for depths less than 1.2m) as per typical drawings
6	Heavy Duty Galvanised Grating
6	Coloured Paving Blocks (60mm thick) for sidewalks laid on rocksand
8	Excavation and backfilling in trenches for DN 200 Ductile Iron pipe, depth to invert level of pipe not exceeding 1.5 m
8	Supply, Transport, Store, Insure Against All Perils, Lay, Joint, Test and Disinfect C40 Pipes DN 200
9	Excavate trench for depths less or equal to 2.0m for 3 dia. 60mm + 3 dia. 45mm ducts
9	Supply, transport, lay and joint PVC ducts for 3 dia 60mm + 3 dia. 45 mm ducts
9	Take delivery, transport, lay and joint PVC ducts for 2 dia. 60 mm ducts (Price to exclude supply. Materials to be supplied by Emtel)
9	Manhole K22
9	Manhole 0.8x0.8x1.2m for Emtel Network
10	6 dia. 160mm PVC ducts and 2 dia 63mm PVC ducts as per drawing (Road Crossing)
10	6 dia. 160mm PVC ducts and 2 dia 63mm PVC ducts as per drawing (Off road along Road reserve)

Bill No	Description
10	Construction of Transformer Room - TX (as per dwg). Contractor to allow for builder's work and associated switchgear, metering, busbar and external lighting cubicles
10	HV cable 22kV grade 3C x 300mm ² XLPE Cu Armoured from Substation to RMUs and RMUs to RMUs
10	Supply, Installation and Commissioning of Ring Main Units (Rmu)
11	Excavate trench 200mm dia. uPVC pipe depth to invert not exceeding 2.0m
11	Supply, Install, Joint and Test Upvc Sewer Pipelines (SN 8) And Fittings Including End Caps & Coupling For 200mm UPVC Pipe
11	Manhole Type I (<2m)
12	Item 1222A
12	Item 1224A
13	Item 1366A
14	Item 1402H
14	Item 1411A
14	Item 1412A
14	Item 1412B
14	Item 1412D

The *Contractor* shall provide a detailed breakdown of the charges included in those major rates given or as indicated in Tender Schedule Q by subdividing the rate into at least the following elements:

Labour - Unskilled

- Semi-skilled
- Skilled¹
- Supervision²

Materials³

Equipment⁴

Mark-ups⁵

1. The actual job description and charge element of each labour or artisan category shall be given e.g. Carpenter, Welder etc.
2. The type of supervisory staff shall also be given separately e.g. Foreman, General Foreman etc.
3. The charge element for each of the various materials comprising the rate shall be given separately.
4. The charge element for each major item of construction equipment comprising the rate shall be given.
5. The charge element of mark-up for overheads, risk, profit, etc shall each be detailed separately.

Number of sheets, appended by the *Contractor*, comprising this Schedule..... (if nil, enter Nil).

DATESIGNATURE.....

TENDER SCHEDULE P – CERTIFICATE OF SITE INSPECTION

The contractor confirms that:

- A. He has visited the site and acquired all necessary information to ascertain and obtain all the prevailing and historical conditions relating to the climatic, hydrological, traffic and other conditions which may have an impact on the works.
- B. He is satisfied that he has adequate historical and prevailing climatic information to make his own conclusions and decisions about the resources required to complete the works within the time for completion with due allowance for site conditions and climatic conditions.
- C. He has inspected the existing information available and provided by the Employer and collated such information with his site visit.
- D. He is satisfied that all such information provided by the Employer is not exhaustive and it is his responsibility to collect all necessary additional data required to ascertain himself on the extent of works involved, existing services likely to interfere with the works and the conditions of the site and its surroundings
- E. He agrees that his rates and prices is representative of the full extent of works involved including protection of existing services and the site surroundings and his tender rates and prices is sufficient in all respect to fulfill all his obligations.

DATE SIGNATURE.....

TENDER SCHEDULE Q – SCHEDULE OF ADVANCE FOR PLANT AND MATERIALS

The *Contractor* shall indicate below the rates to be applied for an advance for the following, but not limited to, materials to be brought on site for incorporation in the permanent Works, subject to Sub-Clause 14.5 of the Conditions of Contract

Sub-Clause 14.5 of the
Conditions of Contract (Part II)

Rate in MRU

1.	Bitumen	.....per ton.
2.	Precast drains	.....per Lin m.
3.	Crusher run and aggregates for bituminous mix or concrete	.....per ton.
4.	Cement (50 kg bags)	.....per ton.
5.	Reinforcing Steel	.....per ton.
6.	Guardrails	.....per Lin m.
7.	Handrails	.....per Lin m.
8.	Kerb (K1 type)	..... per Lin m
9.	Solar luminaries	.....per Num.
10.	Ductile Iron Pipe (400mm)	.....per Lin m.
11.	Air Valves	.....per Num
12.	Gate Valves	.....per Num.
13.	Sewer Rising Main 400 mm HDPE pipe.....	per Lin. M
14.	Sewer UPVC 200 and 250 mm pipes	Per Lin. M

The above rates are indicative only and are to be substantiated with appropriate invoices, receipts etc... to the approval of the Engineer at time of submission of monthly statements.

DATE

SIGNATURE.....

Form of Bid Security (Bank Guarantee)

.....*Bank's Name and Address of issuing Branch or Office*.....

**Beneficiary: LANDSCOPE (MAURITIUS) LTD
WING A, 7TH FLOOR,
SHRI ATAL BIHARI VAJPAYEE TOWER,
EBENE CYBER CITY, EBENE**

Date:

BID GUARANTEE No.:

We have been informed that*name of the Bidder*..... (hereinafter called "the Bidder") has submitted to you its bid dated..... (hereinafter called "the Bid") for the execution of **INFRASTRUCTURE WORKS FOR EDUCATION AND HEALTH HUB AT COTE D'OR** under Invitation for Bids Reference No. **LM/CD/OC23/35**

Furthermore, we understand that, according to your conditions, bids must be supported by a bid security.

At the request of the Bidder, we*name of Bank*..... hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of **MAURITIAN RUPEES FOUR MILLION ONLY (MUR 4,000,000.00)** upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has modified or withdrawn its Bid after the deadline for submission of its bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) has refused to accept a correction of an error appearing on the face of the Bid; or
- (c) having been notified of the acceptance of its Bid by the Public Body during the period of bid validity, (i) has failed or refused to sign the contract Form, if required, or (ii) has failed or refused to furnish the performance security, in accordance with the Instructions to Bidders.

This guarantee shall expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) thirty days after the expiration of the Bidder's Bid.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758. (Applicable to overseas bidders only).

.....Bank's seal and authorized signature(s).....

Bidders Qualification

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: Bidder’s Information Sheet

Bidder’s Information	
Bidder’s legal name	
In case of JV, legal name of each partner	
Bidder’s country of constitution	
Bidder’s year of constitution	
Bidder’s legal address in country of constitution	
Bidder’s authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following original documents. <ul style="list-style-type: none"> <input type="checkbox"/> 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 5.2 and 5.3. <input type="checkbox"/> 2. Authorization to represent the firm or JV named in above, in accordance with ITB 5.2. <input type="checkbox"/> 3. In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 5.2. <input type="checkbox"/> 4. In case of a government-owned entity, any additional documents not covered under 1 above required to comply with ITB 5.6. 	

Form ELI – 2: JV Information Sheet

Each member of a JV must fill in this form

JV / Specialist Subcontractor Information	
Bidder's legal name	
JV Partner's or Subcontractor's legal name	
JV Partner's or Subcontractor's country of constitution	
JV Partner's or Subcontractor's year of constitution	
JV Partner's or Subcontractor's legal address in country of constitution	
JV Partner's or Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following original documents. <ul style="list-style-type: none"> <input type="checkbox"/> 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 5.2 and 5.3. <input type="checkbox"/> 2. Authorization to represent the firm named above, in accordance with ITB 21.2. <input type="checkbox"/> 3. In the case of government-owned entity, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 5.6 	

Form CON – 2: Historical Contract Non-Performance

[The following table shall be filled in for the Bidder and for each partner of a Joint Venture]

Bidder’s Legal Name: _____

Date: _____

Joint Venture Party Legal Name: _____

ICB No. and title: _____

Page _____ of _____

pages

Non-Performing Contracts in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> Contract non-performance did not occur during the ____ years specified in Section III, Qualification Criteria and Requirements, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed during the ____ years specified in Section III, Qualification Criteria and Requirements, requirement 2.1			
Year	Non performed portion of contract	Contract Identification	Total Contract Amount (MUR)
		Contract Identification: Name of Employer: Address of Employer: Reason(s) for non performance:	
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.2			
<input type="checkbox"/> Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.2 as indicated below.			
Year	Outcome as Percentage of Total Assets	Contract Identification	Total Contract Amount (MUR)
		Contract Identification: Name of Employer:] Address of Employer: Matter in dispute:	

Form FIN – 1: Financial Situation

Each Bidder or member of a JV must fill in this form

Financial Data for Previous 3 Years [MUR]		
Year 1:	Year 2:	Year 3:

Information from Balance Sheet

Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

- Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three years, as indicated above, complying with the following conditions.
- All such documents reflect the financial situation of the Bidder or partner to a JV, and not sister or parent companies.
 - Historic financial statements must be audited by a certified accountant.
 - Historic financial statements must be complete, including all notes to the financial statements.
 - Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Form FIN – 3: Financial Resources

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

Financial Resources		
No.	Source of financing	Amount (MUR)
1		
2		
3		

Form FIN – 4: Current Contract Commitments / Works in Progress

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

Current Contract Commitments					
No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [MUR]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [MUR]
1					
2					
3					
4					
5					

Form EXP – 2(a): Specific Construction Experience

Fill up one (1) form per contract.

Contract of Similar Size and Nature			
Contract No.....of..... ..	Contract Identification		
Award Date	Completion Date		
Role in Contract	Contractor	Management Contractor	Subcontractor
Total Contract Amount	MUR		
If partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone/Fax Number E-mail			
Description of the similarity in accordance with Criteria 2.4.2(a) of Section III			

Form EXP – 2(b): Specific Construction Experience in Key Activities

Fill up one (1) form per contract

Contract with Similar Key Activities		
Contract No of	Contract Identification	
Award Date	Completion Date	
Role in Contract	<input type="checkbox"/> Contractor <input type="checkbox"/> Management Contractor <input type="checkbox"/> Subcontractor	
Total Contract Amount	MUR	
If partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's Name Address Telephone Number Fax Number E-mail		
Description of the key activities in accordance with Criteria 2.4.2(b) of Section III		

PART 2 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section V. General Conditions (GC)

The General Conditions shall be as per FIDIC Conditions of Contract for Construction for Buildings and Engineering works designed by the Employer - First Edition 1999. It shall also include the Appendix in respect of General Conditions of Dispute Adjudication Agreement.

Definitions:

- (a) The word “Tender” in the FIDIC document shall mean “Bid” and vice versa for consistency with the other parts of this bidding document.
- (b) “Appendix to Tender” in the FIDIC document shall refer to the Contract Data in Section IV and vice versa.

Copies of the FIDIC Conditions of Contract may be purchased at:

**FIDIC Secretariat
World Trade Centre II,
Geneva Airport,
29, Route de Pre – Bois,
CH – 1215 Geneva 15
SWITZERLAND**

Tel: +41-22-7994900

Fax: +41-22-799949

Section VI. Particular Conditions (PC)

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

1. General Provisions

Sub-Clause 1.1.1 At the end of the paragraph 1.1.1.1 [*Contract*], add the following:

The Contract

“The words ‘Agreement’ and ‘Contract’ are used interchangeably.”

At the paragraph 1.1.1.5 [*Specification*], Delete the Sub-Clause and substitute with the following:

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

Substitute the words of “Works” at the paragraph 1.1.1.6 [*Drawings*] with “works requirements”.

At the end of paragraph 1.1.1.8 [*Tender*], add the following:

““The word ‘tender’ is synonymous with ‘bid,’ and therefore the words of ‘Letter of Tender’ with ‘Letter of Bid’, ‘Appendix to Tender’ with ‘Appendix to Bid,’ and ‘tender documents’ with ‘bidding documents’.”

Sub-Clause Delete the Sub-Clause and substitute with the following:

1.1.1.10

““Bill of Quantities” and “Daywork Schedule” mean the documents so named (if any) which are comprised in the Schedules, and Bill of Quantities submitted by the Contractor may be used when the Engineer prepares Payment Certificates and Variation, but the Engineer shall not be bound by the Bill of Quantities.”

Sub-Clause Delete the Sub-Clause in its entirety.

1.1.2.9 DAB

Sub-Clause Substitute the words of “the provisions of the Particular Conditions”
1.1.3.6 with “the works requirements.”
Tests after
Completion

Sub-Clause Delete the Sub-Clause in its entirety and substitute with the
1.1.4.8 following:

Local Currency ““Local Currency” means the Mauritian Rupees or Rs., being the lawful currency of the Country.”

Sub-Clause 1.1.6.2 Country	Delete the Sub-Clause in its entirety and substitute with the following: ““Country” means the Republic of Mauritius in which the Site is located, where the Permanent Works are to be executed.”
Sub-Clause 1.1.6.5 Law	Delete the Sub-Clause in its entirety and substitute with the following: ““Law” means all national legislation, Codes, and all applicable statutes, regulations, ordinances, local government by-laws, rules (including rules of court) and other secondary legislation, directives, circulars, guidelines, practice notes, decisions, orders, demands, decrees, injunctions, resolutions or judgments of any court, administrative or Government Authority or any other body having force of law in the Country.”
Sub-Clause 1.1.6.10 Good Industry Practice	Add a new Sub-Clause as follows: ““Good Industry Practice” means the design, construction, commissioning and repair practices performed with the due skill, care and diligence which may reasonably be expected of a skilled professional suitably qualified in the performance of obligations similar to the Contractor’s obligations under this Contract so as to achieve a result consistent with Law, reliability, safety, protection of the environment and the Work’s Requirements. It includes everything reasonably necessary to ensure that: (a) the Works are designed and constructed in a manner safe to all people and the environment; (b) the Works are constructed as designed; (c) the Works are designed and constructed to ensure reliable long term and safe operation; (d) the Works are performed by trained and experienced personnel utilizing proper equipment, tools and procedures; (e) sufficient personnel are available and are adequately experienced and trained to carry out the Works; (f) adequate Materials, resources and supplies are available to ensure compliance with the Works Requirements under normal conditions and reasonably anticipated at normal conditions; and the principle of continuous improvement is adhered to, that is, a commitment to continually improving the standards and quality of the design and construction of the Works (other than the Temporary Works) and ensuring the design and construction of the project is carried out in a manner which at all times remains consistent with the overall road network standards.”

Sub-Clause	Add a new Sub-Clause as follows:
1.1.6.11	““Government Authority” means any Ministry, or any other
Government Authority	Governmental or regulatory department, commission, institution, public entity, board, agency, each having jurisdiction over the matter in question, but excluding of all purposes the Employer.”
Sub-Clause	Add a new Sub-Clause as follows:
1.1.6.12	““Key Personnel” means any of the Contractor’s Personnel specified in the Bidding Documents.”
Key Personnel	
Sub-Clause 1.2	At the end of the Sub-Clause, add the following:
Interpretation	“In these Conditions, provisions including the expression “Cost plus reasonable profit” require this profit to be one-twentieth (5%) of this Cost.”
Sub-Clause 1.5	Delete the Sub-Clause in its entirety and substitute with the following:
Priority of Documents	“The Documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence: <ul style="list-style-type: none"> (a) the Contract Agreement, (b) the Letter of Acceptance, (c) the Letter of Tender, (d) Tender Clarifications and Addenda (if any), (e) the Particular Conditions (f) these General Conditions (g) the works requirements (h) the Schedule, and (i) any other documents forming part of the Contract. <p>If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any clarification or instruction.”</p>
Sub-Clause 1.10	Insert the following sentence before the last paragraph of Sub-Clause 1.10 as follows:
Employer’s Use of Contractor’s Documents	“The Contractor shall obtain from each of its Subcontractors, a license for the Employer on the same terms as set out in this Sub-Clause.”
Sub-Clause 1.12	At the end of the paragraph, add the following:
Confidentiality	“The Contractor shall ensure that the requirements imposed on the Contractor by this Sub-Clause apply equally to each Subcontractor.”

**Sub-Clause 1.13
Compliance with
Laws**

At the end of the paragraph, add the following:

“(c) The Contractor shall acquaint himself and comply with all regulations in respect of import of plant and equipment, materials, fiscal taxes, custom duties, registration duties, transfer of capital etc., also all regulations regarding the employment of his labour force, staff and other personnel, as well as the provisions of applicable Laws and Regulations of Mauritius.

No claim by the Contractor for additional payment will be entertained by the Employer on the grounds of any misunderstanding or misinterpretation in respect of any such matter or otherwise.”

**Sub-Clause 1.15
Corrupt and
Fraudulent
Practices**

Add a new Sub-Clause as follows:

“Neither the Contractor nor any of the Contractor’s Personnel or Subcontractors shall, in connection with the Contract or the Project, engage, either directly or indirectly, in any of the following activities or practices:

(a) the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party, including the Employer or Government Authority or the Engineer;

(b) any act or omission, including a misrepresentation, that knowingly or recklessly misleads or attempts to mislead, a party (including the Employer or any Government Authority or the Engineer) to obtain a financial or other benefit or to avoid an obligation;

(c) entering into any arrangement designed to achieve an improper purpose, including to influence improperly the actions of another party (including the Employer or any Government Authority or the Engineer);

(d) impairing or harming, or threatening to impair or harm, directly or indirectly, any party (including the Employer or any Government Authority or the Engineer) or the property of such party to influence improperly the actions of the said party;

(e) engage in any obstructive practice, being:

- i. deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impose the Employer’s investigation into allegations of any of the prohibited practices referred to in sub-paragraph (a) to (d) above; and/or threatening, harassing or intimidating any party (including the Employer or any Government Authority or the Engineer) to prevent it from disclosing its

- knowledge of matters relevant to the investigation or from pursuing the investigation; or
- ii. acts intended to materially impede the exercise of the Employer's inspection and audit rights provided for under the Contract.

The Contractor shall indemnify and hold harmless the Employer and the Employer's Personnel, and the Engineer and the Engineer's Personnel against and from the consequences of any failure on the part of the Contractor to comply with this Sub-Clause."

2. The Employer

- Sub-Clause 2.1
Right to Access
to the Site** Delete the first sentence of the Sub-Clause and replace with the following:
- "The Employer shall give the Contractor right of access to, and possession of, such parts of the Site to enable the Contractor to perform the Works within the time stated.
- Sub-Clause 2.2** At the end of the Sub-Clause, add the following:
- "The Contractor shall be deemed to have satisfied himself as to the permits, licenses or approvals that may be required by the Laws of the Republic of Mauritius."
- Sub-Clause 2.4
Employer's
Financial
Agreements** Delete the Sub-Clause in its entirety and replace with "Not Used".

3. The Engineer

Sub-Clause 3.3	At the end of the Sub-Clause, add the following:
Instructions of the Engineer	<p>“The Engineer’s written instructions are to be dated, numbered and registered.</p> <p>Before the start of Works the Contractor shall check all the documents submitted and notify the Engineer of any errors, omissions, or contradictions therein.</p> <p>If in the opinion of the Contractor an instruction goes beyond his contractual obligations and which may give rise to claims, the Contractor shall give notice to the Engineer within a period of seven (7) days, following the date of issue of the instruction. Beyond that period of seven (7) days, no claim shall be accepted. Such claim shall not suspend the execution of the written instructions unless the Engineer instructs otherwise.”</p>

4. The Contractor

Sub-Clause 4.1	At the end of first paragraph of this Sub-Clause, add the following:
Contractor’s General Obligations	<p>“In the event of executing the above, the Contractor shall consider Good Industry Practice and all applicable Laws of Mauritius so that when completed, the Works shall be fit for the purpose for which the Works are intended as defined, or reasonably inferred from, the Contract.”</p>
Sub-Clause 4.2	Delete the 2nd paragraph and substitute it with the following:
Performance Security	<p>“The Contractor shall deliver the Performance Security to the Employer within twenty-eight (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 approved by the Employer, and shall be in the form annexed to the Particular Conditions, or in another form approved by the Employer.</p> <p>If the Contractor constitutes a joint venture or unincorporated grouping, the Performance Security shall be issued so as to commit fully all members of the joint venture or unincorporated grouping.”</p> <p>At sub-paragraph (b), substitute “(within 42 days)” with “(within 28 days)” and</p> <p>At sub-paragraph (c), substitute “(within 42 days)” with “(within 28 days)”.</p>

At the end of the Sub-Clause 4.2, add the following:

“Without limitation to the provisions of the rest of this Sub-Clause 4.2, whenever the Engineer determines an additional payment as a result of a Variation amounting to more than twenty-five (25) percent of the Accepted Contract Amount, the Contractor, at the Engineer’s written request, shall promptly increase the value of the Performance Security by an equal percentage.

The Performance Security of a joint venture (if any) shall be issued so as to commit fully all partners to the proposed joint venture. If the joint venture has not been legally constituted at the time the Performance Security is provided, the Performance Security shall be in the name of all future partners.”

Sub-Clause 4.3

At the end of the Sub-Clause, add the following:

**Contractor’s
Representative**

“If the Engineer determines that the Contractor’s representative is not fluent in the language for communication, the Contractor shall appoint a replacement. The Contractor’s representative shall be mobilized on a full time basis to the Site.”

Sub-Clause 4.4

At the end of the Sub-Clause, add the following:

Subcontractors

“Notwithstanding other provisions under Sub-Clause 4.4, the Contractor shall not subcontract more than thirty (30) percent of the Works.

The Contractor, when making application for subcontracting any parts of the Works, for which the Subcontractor is not already named in the Contract, or for replacing a named Subcontractor, shall submit a list of Subcontractors for approval by the Engineer, at least four weeks before the Subcontractors are due to start Works. Rejections of such application by the Engineer shall not entitle the Contractor to any claim whatsoever. The Engineer will have two (2) weeks to consent or disagree with the list.”

Sub-Clause 4.8

At the end of the Sub-Clause, add the following:

**Safety
Procedures**

“(f) Provide beacons, flashing lamps, diversion signs, warning signs, sound barriers, lamps of sufficient strength, etc on the Site to ensure the safety of all users.”

Notwithstanding other provisions under the Sub-Clause, add the following:

“The Contractor shall be absolutely and solely responsible for the safety and security of Temporary Works including (but not limited to) all work yard, pilings, staging, dams, coffer dams, trenches, fencing or other works and for the plant in connection therewith

which may be erected or provided for the carrying out of the Contract and for the execution of the Works.

This provision shall be applicable to all Temporary Works and Constructional Plant whenever provided and erected by the Contractor or his subcontractors for the purpose of or in connection with the Works.

Examination by the Engineer of the Contractors' or his subcontractors' Temporary Works or the drawings connected therewith shall not absolve the Contractor from any liability imposed upon him by the provisions of the Contract.

The entire cost of supplying, installing, operating all required safety measures on the Site is to be borne by the Contractor. During the execution of the Works the Contractor shall be responsible for any accident or damage done to a third party resulting from his equipment or mistakes or omissions of warning signs.

The Contractor shall notify the Engineer and Employer within 1 hour or as soon as reasonably practicable after the occurrence of any accident which has resulted in damage or loss of property, disability or loss of human life. The Contractor shall submit a report with accident details to the Engineer and Employer no later than seven (7) days after the occurrence of such an event.

The Contractor shall apply and implement the Environmental Management Plan (EMP) contained in the works requirements, directives and applicable laws in respect of safety and security."

Sub-Clause 4.10

Site Data

Delete the words of "To the extent which was practicable (taking account of cost and time)" from the first sentence of the second paragraph and start the subsequent words with "The".

At the end of the first paragraph, add the following:

"The Employer shall have no responsibility, and make no representation or warranty (expressed or implied), with respect to the accuracy, sufficiency or completeness of any data, information or documentation provided to the Contractor at any time, nor any conclusions or interpretations made in such data, information or documentation. All data, information or documentation supplied to the Contractor shall be treated by the Contractor as reference only and the Contractor shall perform its own investigations and due diligence to verify the accuracy, sufficiency or completeness of all such data, information or documentation."

Delete the words of "To the same extent" from the second sentence of the second paragraph and start the subsequent words with "The".

At the end of the Sub-Clause, add the following:

"The Contractor shall also be deemed to have satisfied himself of the following:

- (a) the location of the Site including ongoing projects in the vicinity;
- (b) local traffic conditions;
- (c) meteorological and climatic conditions, possibility of flooding by rivers, depth of the water, wind velocity, etc.;
- (d) conditions governing the import of Plant, Material and equipment;
- (e) local conditions especially those concerning supply of fuel and Materials such as aggregates, cement, etc.;
- (f) means of communications and transport;
- (g) availability of manpower;
- (h) all the constraints imposed by the social, environmental, monetary and customs legislation in force in Mauritius;
- (i) all circumstances in respect of the execution of the Works or on its costs.

The Contractor shall be fully responsible for obtaining the necessary information and its interpretation.

The Contractor shall not assume that exhaustive investigations have been done on the nature of the Site; the Contractor shall carry out his own investigation any time the Contractor considers it necessary for the proper execution of the Works at his own cost.”

Sub-Clause 4.12 Delete the Sub-Clause in its entirety.

Unforeseeable

Physical

Conditions

- Sub-Clause 4.14** At the end of the Sub-Clause, add the following:
- Avoidance of Interference** “The Contractor shall provide and maintain all detours, pedestrian roads, temporary roads including any temporary drainage measures, barriers, warning and guide signs, temporary traffic lights, and any other road equipment at all hours during day and night.
- The Contractor shall within twenty-eight (28) days following the order to proceed with the works, submit a detailed stage plan showing all arrangements to be taken to ensure a smooth and safe traffic flow. The Contractor shall liaise with the appropriate authorities in the application of this Clause. No claim for any damage caused by the traffic will be entertained by the Employer.
- The Contractor shall be responsible for ensuring the safety of all persons and property on the site. When existing fences and gates have to be removed or altered for the proper execution of the Works, the Contractor shall erect temporary fencing and gates and, if required, provide watchmen, provided always that the fences or gates referred to have not been the subject of a negotiated agreement for compensation whereby the owner or tenant has been made responsible for such removal or alteration.
- The Contractor shall ensure that no fence or gate, except where these are required to be removed or altered for the proper execution of the Works, is damaged and that no gates are left open which may constitute a potential hazard.”
- Sub-Clause 4.15** Delete the words “these conditions” and replace with “this Contract”
- Access Route**
- Sub-Clause 4.16** Delete the words “the Particular conditions” and replace with “this Contract”
- Transport of Goods**
- Sub-Clause 4.18** At the end of the Sub-Clause, add the following:
- Protection of the Environment** “The Contractor shall apply and implement the Environmental Management Plan (EMP) contained in the works requirements, directives and applicable laws in respect of protection of the environment.
- The Contractor shall be responsible for ensuring that the Contractor’s Personnel and its Subcontractor understand and operate in accordance with the environmental and social principles and requirements of the Contract and under any applicable Law and the EMP.

The Contractor's program shall demonstrate clearly the procedures and methods of working such that the Contractor and its Subcontractors shall adopt to comply with the environmental and social requirements of the Contract and under any applicable Law and the EMP.

The Contractor shall ensure the adequate and legal disposal of any and all waste, including construction and excavation wastes, in the performance of the Works.

The Contractor shall ensure any ground or other surfaces of the Site to be reinstated as set out in the works requirements after the completion of the Works.

If the Contractor fails to comply with any of its environmental and social obligations under the Contract or otherwise at Law, the Employer may take whatever action which is necessary to remedy such failure and deduct the cost of such action from any amounts due to the Contractor.

The entire cost for meeting the provision of this Sub-Clause is to be borne by the Contractor. During the execution of the Works the Contractor shall be responsible for any accident or damage done to a third party resulting from non-compliance of this Sub-Clause."

Sub-Clause 4.21
Progress Reports

Delete the first sentence of the first paragraph and replace with the following:

"Monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six (6) copies."

After sub-paragraph (h), insert a new paragraph (i) as follows:

"(i) such other matters as are required to be included, in accordance with the Works Requirements."

At the end of the Sub-Clause, add the following:

"Within seven (7) days of submission by the Contractor of each monthly progress report, the Engineer shall be entitled to meet with the Contractor to discuss the progress of the Works and the Contractor shall make itself available for such meetings.

Without limiting any other requirement in this Contract, the Contractor shall immediately notify the Engineer as soon as it becomes aware of any circumstance or event which could reasonably result in an increase in the Contract Price or a delay to the Time for Completion of the Works or any section (as the case may be). Upon receipt of any such notion from the Contractor, the

Engineer may request for the Contractor to attend a meeting, for the purpose of:

(i) considering way in which the risk of an increase in the Contract Price or delay to the Time for Completion can be mitigated; and

determining what actions (if any) can be adopted in order to reduce the risk of an increase in the Contract Price or delay to the Time for Completion,

and the Contractor shall comply with any reasonable direction which it receives from the Engineer either during or subsequent to such any meeting.”

Sub–Clause 4.22
Security of the
Site

Delete the words “Particular conditions” from the first sentence and replace with “Works Requirements”

At the end of the Sub-Clause, add the following:

“The entire cost for meeting the provision of this Sub-Clause is to be borne by the Contractor. During the execution of the Works the Contractor shall be responsible for any accident or damage done to a third party resulting from non-compliance of this Sub-Clause.”

Sub–Clause 4.23
Contractor’s
Operations on
Site

At the end of the Sub-Clause, add the following:

“The Contractor shall reinstate all properties whether public or private, which are damaged in consequence of the construction and maintenance of the Works to a condition as specified and at least equal to that existing before his first entry on them.

If in the opinion of the Engineer, the Contractor shall have failed to take reasonable and prompt action to discharge his obligations in the manner of reinstatement, the Engineer will inform the Contractor in writing of his opinion, in which circumstances the Employer reserves the right to employ others to do the necessary work of reinstatement and to deduct the cost thereof from any money due or which shall become due from the Employer to the Contractor.”

Sub–Clause 4.24
Fossils

At the end of the first sentence of the first paragraph, add the following:

“and shall be the absolute property of the Employer and/or the Government”

Sub-Clause 4.25

Add a new Sub-Clause as follows:

**Drawings,
Calculations
and As-built
Documents**

“The Contractor shall comply with conditions concerning drawings, calculation and as-built documents as follows:

The handing over of the drawings by the Employer does not relieve the Contractor from any of Contractor’s responsibilities. The Contractor shall not avail himself of any error and/or omission in the drawings to relieve himself from Contractor’s responsibilities.

The Contractor shall be fully responsible for and carry out any necessary design and detailing of the modified or adapted Materials, products or facilities at the Contractor’s costs if the modification and/or adaptation are caused by Contractor’s choice or request of specific Materials, products, and facilities. The Contractor shall submit to the Engineer the documents that ensure equal or higher quality of Materials, products or facilities than those in the detailed design for approval.

The Contractor shall prepare the working drawings, calculations and any supporting documents required for the execution of the Works and submit them for Engineer’s review within forty-two (42) days before the commencement date of the corresponding part of the Works in duplicate.

The Engineer shall review them within review period and each review period shall not exceed twenty-one (21) days, calculated from the date on which the Engineer receives those documents and the Contractor’s notice. This notice shall state that those documents are considered ready, both for review (and approval, if so specified) in accordance with this Sub-Clause and for use. The notice shall also state that the documents comply with the Contract, or the extent to which it does not comply.

The Engineer may, within the review period, give notice to the Contractor that the documents fail (to the extent stated) to comply with the Contract. If the documents so fail to comply, they shall be rectified, resubmitted and reviewed (and, if specified, approved) in accordance with this Sub-Clause, at the Contractor’s cost.

For each part of the Works, and except to the extent that the prior approval or consent of the Engineer shall have been obtained:

- (a) in the case of the documents which have (as specified) been submitted for the Engineer’s approval:
 - (i) the Engineer shall give notice to the Contractor that the documents are approved, with or without comments, or that they fail (to the extent stated) to comply with the Contract;

and

(ii) execution of such part of the Works shall not commence until the Engineer has approved the documents with the mention "GOOD FOR EXECUTION" Only Works executed by the Contractor on the basis of "GOOD FOR EXECUTION" shall be duly paid.

(b) execution of such part of the Works shall not commence prior to the expiry of the review periods for all the documents which are relevant to the execution;

(c) execution of such part of the Works shall be in accordance with these reviewed (and, if specified, approved) documents; and

(d) if the Contractor wishes to modify any document which has previously been submitted for review (and, if specified, approval), the Contractor shall immediately give notice to the Engineer. Thereafter, the Contractor shall submit revised documents to the Engineer in accordance with the above procedure.

If the Engineer instructs that further documents are required, the Contractor shall prepare them promptly.

Any such approval or consent, or any review (under this Sub-Clause or otherwise), shall not relieve the Contractor from any obligation or responsibility.

Prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and operation and maintenance manuals in accordance with the works requirements and in sufficient details for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works in six (6) copies, one (1) of which shall be in the form of CD ROMS at the Contractor's expenses.

The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [*Taking Over of the Works and Sections*] until the Engineer has received these documents."

6. Staff and Labour

Sub-Clause 6.4.1 Add a new Sub-Clause as follows:

Engagement of Staff and Labour “Notwithstanding the Sub-Clause 6.4 [*Labour Laws*], the Employer and the Contractor shall comply with the following:

- a) The rates of remuneration and other conditions of work of the employees of the Contractor shall not be less favorable than those established for work of the same character in the trade concerned-
 - (i) by collective agreement applying to a substantial proportion of the employees and employers in the trade concerned;
 - (ii) by arbitration awards; or
 - (iii) by Remuneration Regulations made under the Employment Relation Act 2008 as amended;
- b) Where remuneration and conditions of work are not regulated in a manner referred to at (a) above, the rates of the remuneration and other conditions of work which are not less favorable than the general level observed in the trade in which the Contractor is engaged by employers whose general circumstances are similar.
- c) The Contractor shall preferably employ only Mauritians (which include inhabitants of Rodrigues and Agalega) as unskilled labour. The Contractor is also encouraged, to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications and experience from sources within the Republic of Mauritius (which includes the island of Rodrigues and Agalega).

The Contractor shall not be entitled to any payment in respect of work performed in the execution of the Contract unless the Contractor has, together with the Contractor’s claim for payment, filed a certificate:

- a) stating the rates of remuneration and hours of work of the various categories of employees employed in the execution of the Contract;
- b) stating whether any remuneration payable in respect of work done is due; and
- c) containing such other information as the Employer may require to satisfy himself that provisions under this Sub-Clause have been complied with.

Where the Employer is satisfied that remuneration is still due to an employee employed for the purposes of the Works at the time the claim for payment is filed, the Employer may, unless the remuneration is sooner paid by the Contractor, arrange for the payment of the remuneration to the relevant employee from the money payable to the Contractor under this Contract.

**Sub – Clause 6.5
Working Hours**

Add the following paragraphs:

“The Engineer’s normal working hours shall be defined as 8.30 hours to 16.30 hours on weekdays with Saturday and Sunday set aside for rest.

If the Contractor wishes to execute Permanent Work outside these hours, he shall obtain the written permission of the Engineer at least one full working day in advance to enable the Engineer to make provision for supervision of such work. The Contractor shall not be permitted to work during the hours of darkness, except with the written permission of the Engineer.

Should the Contractor be allowed by the Engineer to work at night at the request of the Contractor, he shall not be entitled to any additional payment.

Should the Contractor be allowed or instructed by the Employer/Engineer to work at night, he shall do so in such a way so as not to cause disturbance to inhabitants or establishments adjoining the site.

Provided that any steps, taken by the Contractor in meeting his obligations under this Clause, involve the Employer in additional supervision costs, such costs shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.”

Sub-Clause 6.8

At the end of the Sub-Clause, add the following:

**Contractor’s
Superintendence**

“If the Engineer determines that the Contractor’s Personnel providing superintendence have inadequate knowledge of the language for communication, the Contractor shall make competent interpreters available during all working hours in a sufficient number to comply with the Contract.

- Sub-Clause 6.9 Contractor's Personnel** Delete the last paragraph of the Sub-Clause and replace with the following:
- “The Contractor shall, at its own expense and cost, replace any member of the Contractor's Personnel who is removed in accordance with this Sub-Clause with a competent substitute approved by the Engineer and shall under no circumstance reemploy any person removed pursuant to this Sub-Clause in connection with the Works or the Project without the prior written consent of the Engineer.
- Without prejudice to the provisions of this Sub-Clause, the Contractor shall appoint the named persons in the relevant positions set out in the Bidding Documents as key personnel for the purposes of carrying out and completing the Works. The Contractor warrants that each person named in has the specified qualifications, experience and commitment to perform the responsibilities and obligations to be performed by that person. The Contractor shall not change or replace any of the Key Personnel (or any approved replacement thereof) without the prior written consent of the Engineer. Any replacement of a person who is a Key Personnel shall be with persons with substantially equal or superior ability, experience and qualifications.
- If the Engineer determines that the Contractor's Personnel providing superintendence have inadequate knowledge of the language for communication, the Contractor shall make competent interpreters available during all working hours in a sufficient number to comply with the Contract.”
- Sub-Clause 6.10 Records of Contractor's Personnel and Equipment** Delete the Sub-Clause and substitute with the following:
- “The Contractor shall submit daily, weekly and monthly, to the Engineer, a report with details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on Site. Details shall be submitted 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.”
- Sub-Clause 6.12 Foreign Personnel** Add a new Sub-Clause as follows:
- “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 foreign personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use Employer's 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.

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

Sub-Clause 6.13

Add a new Sub-Clause as follows:

**Measures against
Insect and Pest
Nuisance**

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

Sub-Clause 6.14

Add a new Sub-Clause as follows:

**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 6.15

Add a new Sub-Clause as follows:

**Festival and
Religious
Customs**

"The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs."

Sub-Clause 6.16

Add a new Sub-Clause as follows:

**Funeral
Arrangements**

"The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of Contractor's local employees who may die while engaged upon the Works."

Sub-Clause 6.17

Add a new Sub-Clause as follows:

Forced Labour

"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."

- Sub-Clause 6.18** Add a new Sub-Clause as follows:
- Prohibition of Harmful Child Labor** “The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, 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.”
- Sub-Clause 6.19** Add a new Sub-Clause as follows:
- Employment Records of Workers** “The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer, 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 Sub-Clause 6.10 [*Records of Contractor’s Personnel and Equipment*].”
- Sub-Clause 6.20** Add a new Sub-Clause as follows:
- Copy of Clause to be Displayed** “The Contractor shall, at all times during the Contract Period, display for the information of his work people in any factory, workshop or place occupied or used by him for the execution of the Contract, a copy of these SubClauses 6.1 to 6.31.”
- Sub-Clause 6.21** Add a new Sub-Clause as follows:
- Observance by Subcontractor** “The Contractor shall be responsible for the observance of the provisions of this Clause by Subcontractors employed by him in the execution of the Contract.”
- Sub-Clause 6.22** Add a new Sub-Clause as follows:
- Epidemics** “In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.”
- Sub-Clause 6.23** Add a new Sub-Clause as follows:
- Alcoholic Liquors or Drugs** “The Contractor shall not, otherwise than in accordance with the applicable Laws for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by the Contractor’s Personnel or any of its Subcontractors or agents.”

7.

Plant, Materials and Workmanship

-
- Sub-Clause 7.1**
Manner of
Execution
- Delete Sub-Clause 7.1 (b) in its entirety and replace with the following:
- “(b) in a proper workmanlike and careful manner and in accordance with all applicable Laws and Good Industry Practice of Mauritius; and”
- At the end of the Sub-Clause, add the following:
“The Contractor warrants that all Materials used by the Contractor in carrying out the Works shall be new, free from defects, of the best quality available and fit for their intended purpose, taking into account the local climatic conditions at Site.”
- Sub-Clause 7.3**
Inspection
- Add the following paragraphs:
- Should the Contract documents, the Engineer’s instructions or the legal or statutory provisions stipulate that a part of the Works is to be specially checked or approved, the Contractor must notify the Engineer at the time when the Works are ready for inspection.
- Should the inspection fall within the jurisprudence of statutory provisions of an authority other than that of the Engineer, the Contractor must notify this authority, with copy to the Engineer, of the date when the inspection is to be done.
- Sub-Clause 7.4**
Testing
- Delete the phrase “, other than the Test after Completion (if any)” in the first sentence of the first paragraph.
- At the end of the Sub-Clause, add the following:
“The Engineer, the Engineer’s representatives and any of the Engineer’s Personnel or person nominated by the Engineer shall be entitled to be present at any of the tests referred to in this Sub-Clause, including the Test on Completion, and the Contractor shall fully cooperate with the Engineer, the Engineer’s representative and any of the Engineer’s Personnel or person nominated by the Engineer in this regard.”
- Sub-Clause 7.9**
Quality of
Materials, Plant,
Supplies and
Workmanship
- Additional Sub-Clause to be added after Sub-Clause 7.8
- The Contractor is to be solely responsible for the supply of the Materials required for the execution of the Works. He shall ascertain himself of the availability of such Materials.
- The Contractor shall guarantee the strength and quality of all Materials supplied by him and all workmanship and he shall not be relieved of any of his obligations with respect to the sufficiency of

the Materials and Works by reason of no objection having been taken by the Engineer although the same may have been inspected by him in regular course.

The Contractor shall furnish all information as to the quality, weight, constituent substances, dimension, levels, strength and description of the Materials and Works and give the Engineer such particulars as may be required.

All materials and things of any kind obtained from demolition, excavations or found on or under the Site or on or under any additional site which the Contractor may be allowed to occupy, shall remain the property of the Employer and shall not be used in the Works or sold or otherwise disposed of without the written authority of the Engineer.

No excavations are to be made upon the site or additional site beyond those shown in the drawings or described in the Technical Specifications without the previous written authority of the Engineer. A refusal by the Engineer to grant an authority under this Clause shall be absolutely final.

8. Commencement, Delays and Suspension

Sub-Clause 8.1 Commencement of Works

At the end of the Sub-Clause, insert a new paragraph as follows

“From time to time and by giving at least three (3) business days’ prior notice, the Engineer may require the Contractor to attend progress meetings, either at the offices of the Engineer or at the Site, as may be deemed to be necessary by the Engineer, taking into account the progress of the Works, and at least two (2) senior members of the Contractor’s Personnel with detailed knowledge of the Works shall be required to attend such meetings.”

- Sub-Clause 8.2** Delete the word “and” at the end of Sub-Clause 8.2 (a) and insert the word “and” at the end of Sub-Clause 8.2 (b).
- Time for Completion** At the end of the Sub-Clause, insert a new Sub-Clause 8.2 (c) as follows:
- “(c) submitting all documents and information (including those documents referred to in Sub-Clause 5.6 [*As-Built Documents*] and 5.7 [*Operation and Maintenance Manuals*], which are required to be provided to the Employer and which, in the Employer’s opinion, are essential for the use, operation and/or maintenance of the Works.”
- Sub-Clause 8.3** Delete the Sub-Clause and substitute with the following:
- Programme** “The Contractor shall submit a detailed time programme of Microsoft project format latest version to the Engineer within twenty-eight (28) days after the Commencement Date. 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 comply with the requirements contained in Works Requirements, including details of:
- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each major stage of Works;
 - (b) the periods for reviews under Sub-Clause 5.2 [*Contractor’s Documents*];
 - (c) the sequence and timing of inspections and tests specified in the Contract;
 - (d) a supporting report which includes:
 - (i) a general description of the methods which the Contractor intends to adopt for the execution of each major stage of the Works, and
 - (ii) the approximate number of each class of Contractor’s Personnel and of each type of Contractor’s Equipment for each major stage.
 - (e) status of the manufacturing process of any major component of the Works to be delivered under the Contract;
 - (f) details of the arrival of the Plant (including any major components of the Works, the Contractor’s Equipment and the Contractor’s Personnel at the Site);
 - (g) details of the delivery of the Materials and the arrival of the Materials at the Site;
 - (h) any other information required to be included in accordance with the Works Requirements.

Unless the Engineer, within twenty-one (21) days after receiving a programme of Works, 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 the Contractor's other obligations under the Contract. The Engineer's Personnel shall be entitled to rely upon the programme of Works.

The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect or delay the execution of the Works. In this event, or if the Engineer gives notice to the Contractor that any 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 Sub-Clause.

The Contractor shall not deviate from, or make any amendments to the programme without the prior written consent of the Engineer.

To avoid doubt, any review or comments provided by the Engineer in relation to any programme submitted in accordance with this Sub-Clause shall not relieve the Contractor from any of its liabilities or obligations under this Contract."

Sub-Clause 8.4
Extension of
Time for
Completion

Delete the phrase "or other substantial change in the quantity of an item of work included in the Contract" in the Sub-Clause 8.4 (a).

At the end of the Sub-Clause, add the following:

"For the application of Sub-Clause 8.4 [*Extension of Time for Completion*], the following will be considered as "exceptionally adverse climatic conditions."

CONDITIONS	INTENSITY LIMIT
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Rainfall	Continuous rainfall on site, causing an interruption of work exceeding 4 hours, or an intensity equal to or exceeding 50mm per 24 hours measured and agreed by the Engineer on a rain gauge (to be provided by the Contractor) located at the Site. The exact location of the rain gauge will be indicated by the Engineer
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Wind	Cyclone warning class 3 or 4 prevailing in Mauritius
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The Contractor shall not be entitled to any claim whatsoever for additional payment regarding any extension of the time for completion given for exceptionally adverse climatic conditions for whatever reason.

Unless otherwise stated in the Contract, no extension of the time for completion shall be granted on the grounds of shortages of labour or Materials.”

**Sub-Clause 8.7
Delay Damages**

Delete the text of Sub-Clause 8.7 and substitute:

“If the Contractor fails to comply with the Time for Completion in accordance with Sub-Clause 8.2 for the Whole of the Works or, if applicable, any section within the relevant time prescribed by Sub-Clause 8.2, then the Contractor shall be automatically “in mora” (en demeure) without it being necessary for the Employer to fulfill any legal formality either judicial or extra-judicial especially to serve a notice “mise en demeure”. The Contractor shall pay the Employer the sum stated in Appendix to Bid as delay damages for such default and not as a penalty fee every day or part of a day which shall elapse between the time prescribed by Sub-Clause 8.2 hereof or extended time as the case may be and the date of completion of the Works.

The Employer may, without prejudice to any method of recovery, deduct the amount of such damages from any monies due, or which may become due, to the Contractor. The payment or deduction of any such damages shall not relieve the Contractor from his obligations and liabilities under the Contract.”

Sub-Clause 8.13

Additional Sub-Clause to be added

**Engineer’s
approval of
Temporary Works**

“Notwithstanding any approval, advice or permission given by the Engineer with respect to Constructional Plant, Temporary Works or Materials for Temporary Works, whether required by the Contract or not, the Contractor shall remain responsible for the execution of the Works in fulfillment of the Contract as if no such approval, advice or permission had been given, and shall have no claim on the Employer or the Engineer for the additional cost which the Contractor may consider to have been incurred resulting from the giving of such approval, advice or permission, as aforesaid. “

10. Employer’s Taking Over

Sub- Clause 10.2 Amend Sub-Clause 10.2 by deleting the whole of the second paragraph.
Taking Over of Parts of the Works

Sub-Clause 10.5 Add new Sub-Clause 10.5 as follows:

Occupation of the Works Notwithstanding the stipulations of Sub-Clauses 10.1 and 10.2, due to the peculiar characteristics of the site and proposed development, the Employer shall have the right, even before the issue of the Taking-Over Certificate, to occupy and use such part or parts of the Works which are required, without incurring any liability towards The Contractor.

11. Defects Liability

- Sub-Clause 11.3** Delete the first sentence of the first paragraph and replace with the following:
- Extension of Defects Notification Period** “The Employer shall be entitled subject to Sub-Clause 2.5 [*Employer’s Claim*] to an extension of the Defects Notification Period for the Works or a Section if:
- (a) and to the extent that the Works, Section or a major item of the Plant (including any major component of the Works), as the case may be, cannot, after taking over, be used for the purposes for which they are intended by reason or a defect or damage; or
 - (b) any item of the Plant (including any major component of the Works) had been replaced, repaired or remedied in accordance with Sub-Clause 11.1 [*Completion of Outstanding Work and Remedying Defects*] during the Defects Notification Period and such extension shall commence from the date of completion of such replacement, repair or remedial action undertaken by the Contractor.”
- Sub-Clause 11.10** Delete the Sub-Clause in its entirety and substitute with the following:
- Unfulfilled Obligations** “After the Performance Certificate has been issued, each party shall remain liable for the fulfillment of any obligation which remains unperformed and any on-going obligation under applicable Laws. For the purposes of determining the nature and extent of any such unperformed or on-going obligations, the Contractor shall be deemed to be in force.”

14. Contract Price and Payment

- Sub-Clause 14.2** At the last sentence of the third paragraph, substitute it with the following:
- Advance Payment** “This guarantee shall be issued by a reputable bank or financial institution selected by the Contractor and approved by the Employer, and shall be in the form annexed to the Particular Conditions.
- Substitute the fifth paragraph starting with “The advance payment shall be repaid (a)..... (b)....., until such time as the advance payment has been repaid.” with the following:
- “The advance payment shall be repaid through percentage deductions from the interim payments certified by the Engineer in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*], as follows:

(a) deductions shall commence in the next Interim Payment Certificate following that in which the total of all interim payments (excluding the advance payment and deductions and repayments of retention) certified to the Contractor has reached the percentage of the Accepted Contract Amount stipulated in the Appendix to Tender; and

(b) deductions shall be made at the amortization rate stated in the Appendix to Tender of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) until such time as the advance payment has been repaid; always provided that the advance payment shall be completely repaid prior to the time when the percentage of the Accepted Contract Amount stipulated in the Appendix to Tender has been certified for payment.

(c) Payment of such advance amount shall be due under separate certification by the Engineer after (a) provision by the Contractor of the Performance Security; and (b) provision by the Contractor of an unconditional bank guarantee issued by a reputable bank or financial institution selected by the Contractor and approved by the Employer in an amount equal to the advance payment.

(d) Submission of VAT invoice.”

At the last sentence of the last paragraph, insert the following after “become due.”

“and in case of termination under Clause 15 [*Termination by Employer*], except for Sub-Clause 15.5 [*Employer’s Entitlement to Termination*],

Sub-Clause 14.6 At the first paragraph, substitute the word of “28 days” with “21 days”.

Issue of Interim Payment Certificates

Sub-Clause 14.7 At the sub-paragraph (b), substitute the word of “56 days” with “42 days subject to submission of VAT invoice”.

Payment

At the sub-paragraph (c), substitute the word of “56 days” with “70 days”.

Sub-Clause 14.8 At the second paragraph, substitute the word of “three percentage point” with “one (1) percentage point”.

Delayed Payment

- Sub-Clause 14.9** Delete the last paragraph of this Sub-Clause in its entirety.
- Payment of Retention Money** At the end of the Sub-Clause, add the following:
“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 the second half of the Retention Money with 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. 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. 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 the second paragraph of this Sub-Clause. The Employer shall return the guarantee to the Contractor within twenty one (21) days after receiving a copy of the Performance Certificate.
If the Performance Security required under Sub-Clause 4.2 [*Performance Security*] 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.”
- Sub-Clause 14.11** Insert the following in the first sentence of the second paragraph after
Application for “may reasonably require”:
Final Payment “within 28 days from receipt of the said draft”
Certificate Delete the last sentence of this Sub-Clause and replace with the following:
“Thereafter, if the dispute is finally resolved under Clause 20 [*Claims, Disputes and Arbitration*], the Contractor shall then prepare and submit to the Employer (copy to the Engineer) a Final Statement.”

Sub-Clause 14.15	Delete the second sentence in the first paragraph and replace with the following:
Currencies of Payment	“For the purposes of this Contract, payments of the Contract Price shall be made as follows:”

15. Termination by Employer

Sub-Clause 15.2 Termination by Employer	<p>Insert the following paragraphs as new Sub-Clause 15.2 (g), (h) and (i) as follows:</p> <p>“(g) fails to comply with Sub-Clause 1.16 [<i>Corrupt and Fraudulent Practices</i>]</p> <p>incurs an amount of delay damages which exceeds the Contractor’s maximum liability for such damages as set out in Sub-Clause 8.7 [<i>Delay Damages</i>]; and</p> <p>substantially fails to perform his obligations under the Contract.”</p> <p>Delete the second sentence in this paragraph which starts with “In any of these event or circumstances...” and replace with the following:</p> <p>“However, in the case of sub-paragraph (e) to (h), the Employer may by notice terminate the Contract immediately.”</p>
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16. Suspension and Termination by Contractor

Sub-Clause 16.1 Contractor's Entitlement to Suspended Work Delete "21 days" in line 4 of the first paragraph and replace with "56 days"

Sub-Clause 16.2 Termination by Contractor Delete Sub-Para. (a) of Sub-Clause 16.2
Amend Sub-Para (d) of Sub-Clause 16.2 by adding the following at the end:

"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,"

17. Risk and Responsibility

Sub-Clause 17.3 Employer's Risks Substitute the first line of the Sub-Clause with the following:
"The Employer's risks, insofar as those risks directly affect the execution of the Works in the Country where the Permanent Works are to be executed, are:"

Sub-Clause 17.6 Limitation of Liability Delete the first paragraph of this Sub-Clause and replace with the following:
"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 SubClause 8.7 [*Delay Damages*], Sub-Clause 11.2 [*Cost of Remedying Defects*], Sub-Clause 15.4 [*Payment after Termination*], in respect of any liability arising under indemnities given under the Contract, including under Sub-Clause 17.1 [*Indemnities*], Sub-Clause 17.4 (b) [*Consequences of Employer's Risks*], Sub-Clause 17.5 [*Intellectual and Industrial Property Rights*] and in respect of liabilities which are (or, but for a vitiating act or omission of the Contractor, should be) covered by proceeds received under the insurance policies required to be taken out and maintained under Clause 18 [*Insurance*]."

Delete the second paragraph of this Sub-Clause and replace with the following:

“The total liability of the Contractor to the Employer, under or in connection with the Contract shall not exceed one hundred percent (100%) of the Contract Price, other than in respect of any liability of the Contractor arising:

- i. under Sub-Clause 1.16 [*Corrupt and Fraudulent Practices*], Clause 8.7 [*Delay Damages*], Clause 11 [*Defects Liability*], Sub-Clause 17.1 [*Indemnities*] and Sub-Clause 17.5 [*Intellectual and Industrial Property Rights*];
- ii. as result of the Contractor’s abandonment of the Works; and
- iii. in respect of liabilities which are (or, but for a vitiating act or omission of the Contractor, should be) covered by proceeds received under the insurance policies required to be taken out and maintained under Clause 18 [*Insurance*].”

18. Insurance

Sub-Clause 18.1 Delete the third paragraph of this Sub-Clause in its entirety.

General Requirements for Insurances Delete Sub-Clause 18.1 (b) in its entirety and replace with the following:

“copies of the policies for the insurances described in the Clause 18 [*Insurances*].”

Delete the first and second sentences in the penultimate paragraph of this Sub-Clause and replace with the following:

“Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insures shall be borne by the Contractor in accordance with these obligations, liabilities or responsibilities.”

**Sub Clause 18.5
Property Damage
Insurance**

Add new Sub-Clause 18.5 as follows:

The Contractor shall subscribe, in relation to the Works, to a Property Damage Insurance in favour of the Employer, for a period of ten (10) years from the end of the Defects Notification Period under the applicable Law. The payment of compensation shall be applicable for any property damage caused to the constructed Works by faults or defects originating in or affecting the structural elements, including the foundations, supports, beams, framework, load-bearing walls or other structural elements, and which could directly jeopardise the structural soundness and stability of the Works.

19. Force Majeure

Sub-Clause 19.1	At Sub-Clause (v), delete the words of “hurricane, typhoon”
Definition of	At the end of the Sub-Clause, add the following:
Force Majeure	“Provided always that Cyclones as experienced in Mauritius shall not be considered as Force Majeure”
Sub-Clause 19.4	At the end of sub-paragraph (b) of the Sub-Clause, add the following: “,
Consequences of	including the costs of rectifying or replacing the Works and/or Goods
Force Majeure	damaged or destroyed by Force Majeure, to the extent those damaged or destroyed are not indemnified through the insurance policy referred to in Sub-Clause 18.2 [<i>Insurance for Works and Contractor’s Equipment</i>].”

20. Claims, Disputes and Arbitration

Sub-Clause 20.1	Insert the following new paragraph between the sixth and seventh paragraphs:
Contractor’s	
Claims	<p>“Within the above defined period of forty-two (42) days, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.”</p> <p>Delete the second last paragraph (starting with “The Engineer shall proceed with...”) and substitute it with the following:</p> <p>“If the Engineer does not respond within the timeframe defined in this Sub-Clause, either Party may consider that the claim is rejected by the Engineer and the claim rejected by the Engineer shall be considered as dispute that shall be settled in accordance with Sub-Clause 20 [Claim, Disputes and Arbitration].”</p>
Sub-Clause 20.2	Delete the Sub-Clause in its entirety.
Appointment of the	
Dispute	
Adjudication Board	

Sub-Clause 20.3 Delete the Sub-Clause in its entirety.

**Failure to Agree
Dispute
Adjudication Board**

Sub-Clause 20.4 Delete the Sub-Clause in its entirety.

**Obtaining Dispute
Adjudication
Board's Decision**

Sub-Clause 20.5 Delete the Sub-Clause in its entirety and substitute it with the following:
Amicable Settlement

“The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution and the success of the Contract. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract within twenty-eight (28) days of one Party’s request for amicable settlement to the other Party.”

Sub-Clause 20.7 Delete the Sub-Clause in its entirety.

**Failure to
Comply with
Dispute
Adjudication
Board's
Decision**

Sub-Clause 20.8 Delete the Sub-Clause in its entirety.

**Expiry of Dispute
Adjudication
Board's
Appointment**

Sub-Clause 20.9 Additional Sub-Clause to be added

**Continued
Performance of
Obligations** “Despite the existence of any dispute, the Parties must, except as expressly provided otherwise, continue to perform their respective obligations under the Contract.”

21. Taxes

- Sub-Clause 21.1
Foreign
Taxation** “The Accepted Contract Amount shall include all taxes, duties and other charges imposed outside the Country on the production, manufacture, sale and transport of the Contractor’s Equipment, Plant, Materials and supplies to be used on or furnished under the Contract, and on the services performed under the Contract.”
- Sub-Clause 21.2
Local Taxation** “The Accepted Contract Amount, with the exception of Value Added Tax, shall include all customs duties, import duties, business taxes and income and other taxes that may be levied in accordance with the laws and regulations in being as of the date twenty-eight (28) days prior to the latest date for submission of bids in the Republic of Mauritius on the Contractor's Equipment, Plant, Materials and supplies acquired for the purpose of the Contract and on the services performed under the Contract. Nothing in the Contract shall relieve the Contractor from Contractor’s responsibility to pay any tax that may be levied in the Republic of Mauritius on profits made by him in respect of the Contract.”
- Sub-Clause 21.3
Income Taxes on
Staff** “The Contractor's staff, personnel and labour shall be liable to pay personal income taxes in the Country in respect of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties to be deducted from the salaries and wages of Contractor’s staff, personnel and labour as may be imposed on him by such laws and regulations.”
- Sub-Clause 21.4
Value Added
Tax (VAT)** Legislation in Mauritius provides for a Value Added Tax on the supply of Goods and services at the current rate under the applicable laws. At the same time as payment for Goods and services which were the subject of a taxable supply provided by the Contractor as a taxable person to the Employer is made in accordance with the Contract, there shall also be paid by the Employer a sum equal to the amount of Value Added Tax payable by the Contractor on that supply.

Section VII. Contract Forms

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Notification of Award

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 of the equivalent of *[amount in numbers and words] [name of currency]*, exclusive of VAT, as corrected and modified in accordance with the Instructions to Bidders, is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose one of the Performance Security Forms included in Section VIII, Annex to the Particular Conditions - 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.
 - (i) the Letter of Acceptance
 - (ii) the Bid Submission Form
 - (iii) the addenda Nos _____(if any)
 - (iv) the Particular Conditions
 - (v) the General Conditions;
 - (vi) the Specification
 - (vii) the Drawings; and
 - (viii) the completed Schedules,
3. In consideration of the payments to be made by the Employer to the Contractor as indicated 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 indicated above.

Signed by _____ (for the Employer)

Signed by _____ (for the Contractor)

Performance Security

(Demand Guarantee)

.....*Bank/Insurance's Name and Address of Issuing Branch or Office*.....

Beneficiary:*Name and Address of Public Body*.....

Date...

PERFORMANCE GUARANTEE No.:.....

We have been informed that*name of the Contractor*.....
(hereinafter called "the Contractor") has entered into Contract No.....*reference number of the Contract*..... dated..... with you, for the execution of *name of Contract and brief description of Works*(hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance security is required.

At the request of the Contractor, we *name of Bank/ insurance company*hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *amount in figures (amount in words)*..... such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire not later than twenty-eight days from the date of issuance of the Certificate of Completion/Acceptance Certificate, calculated based on a copy of such Certificate which shall be provided to us, or on the.....day of , , whichever occurs first. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758. (Applicable to overseas contractor only).

.....***Seal of bank/ insurance company and***

Signature(s).....

Advance Payment Security

Demand Guarantee

_____ [Bank/Insurance's Name, and Address of Issuing Branch or Office]

Beneficiary: _____ [Name and Address of Employer]

Date: _____

ADVANCE PAYMENT GUARANTEE No.: _____

We have been informed that _____ [name of Contractor] (hereinafter called "the Contractor") has entered into Contract No. _____ [reference number of the contract] dated _____ with you, for the execution of _____ [name of contract and brief description of Works] (hereinafter called "the Contract").

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

At the request of the Contractor, we _____ [name of Bank/Insurance] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of _____ [amount in figures] (_____) [amount in words]¹ upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number _____ at _____ [name and address of Bank/Insurance].

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated 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 eighty (80) percent of the Contract Price has been certified for payment, or on the ___ day of

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____,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..

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

[signature(s)]

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

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 Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*