

#### **Government of Mizoram**



# SOCIETY FOR CLIMATE RESILIENT AGRICULTURE IN MIZORAM (SCRAM)

No.G.28012/18/2022-SCRAM-FOCUS (PO)

Dated: 13<sup>th</sup> January, 2023

### **Request for Bids (RFB)**

#### Ref. No: MZ/PMU/PP 2022-23/W/4

Society for Climate Resilient Agriculture in Mizoram (SCRAM) invites eligible bidders/contractor for "Construction of Low-Cost Bridge" through suspension and concrete at various project districts under FOCUS-Mizoram. The work is divided in to several lots per district.

The eligibility criteria, bid security and other necessary information can be found inside the RFB which can be obtained through the website: <a href="https://focus.mizoram.gov.in">https://focus.mizoram.gov.in</a>

The willing and interested bidders/contractors are requested to submit their sealed bids using the prescribe format in the RFB by 10<sup>th</sup> February, 2023 through a hard copy in a sealed envelope to the address indicated in instructions to bidders. The bidders/contractors must clearly mention their name & address including contact information and email to the bid submitted.

Sd/- R. LALNUNZIRA
Chief Executive Officer, SCRAM
&
State Project Director, FOCUS
Aizawl, Mizoram





## Request for Bids

Society for Climate Resilient Agriculture in Mizoram (SCRAM) on behalf of the Government of Mizoram (GoM)

Funded/Administered by the International Fund for Agricultural Development (IFAD)

for Procurement of Works

Construction of Low Cost Bridge

using

**National Competitive Bidding** 

Ref: MZ/PMU/PP 2022-23/W/4

Issue date: 13th January, 2023

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#### Section I. Invitation for Bids

[Aizawl, India]

[January, 13th 2023]

Re: Construction of Low Cost Bridge

Ref: MZ/PMU/PP 2022-23/W/4

- 1. The Government of Mizoram (GoM) has received financing from the International Fund for Agricultural Development (IFAD) and intends to apply a part of the proceeds to the financing of this procurement. The use of any IFAD financing shall be subject to IFAD's approval, pursuant to the terms and conditions of the financing agreement, as well as IFAD's rules, policies and procedures. IFAD and its officials, agents and employees shall be held harmless from and against all suits, proceedings, claims, demands, losses and liability of any kind or nature brought by any party in connection with Fostering Climate Resilient Upland Farming System in the Northeast (FOCUS), Mizoram.
- 2. The Fostering Climate Resilient Upland Farming System in the Northeast (FOCUS), Mizoram includes an overall objective to increase agricultural income of 55,000 households and to enhance their resilience to climate change. This would be achieved through the development objective of increasing the environmental sustainability and profitability of farming systems practiced by highland farmers, FOCUS-Mizoram covers 300 villages in 24 circles/blocks of 6 districts in the state. The districts covered under the project are Champhai, Kolasib, Serchhip, Mamit, Khawzawl and Saitual. The project is expected to be completed by 2024.
- 3. The employer now invites sealed bids from eligible entities ("bidders") for the execution and completion of *Construction of Low Cost Bridge*, which shall be constructed as suspension bridge or concrete as per mentioned in each of the lots and shall be bid as a unit price contract based on the Bill of Quantities (BoQ). Brief description can be seen in para 5.
- 4. This IFB is open to all eligible bidders who wish to participate. Subject to the restrictions stipulated in the bidding document, eligible bidders may associate with other bidders to enhance their capacity to successfully carry out the works.
- 5. The works, and the contract/s expected to be awarded, are divided into the following lots:

Lot No	Description of Bridge	Location	Bid Security Amount
Lot 1	2 Suspension bridge & 2 RCC bridge	Champhai distrcit	Rs. 1,35,000.00
Lot 2	1 Suspension bridge & 2 RCC bridge	Kolasib district	Rs. 1,35,000.00
Lot 3	2 Suspension bridge & 2 RCC bridge	Serchhip district	Rs. 80,000.00
Lot 4	2 Suspension bridge	Mamit district	Rs. 90,000.00
Lot 5	2 Suspension bridge	Saitual district	Rs. 90,000.00
Lot 6	2 Suspension bridge & 1 RCC bridge	Khawzawl distrcit	Rs. 1,35,000.00

Note: Bids will be evaluated per lot separately and contract will be awarded per lot.

- 6. A contractor will be selected using the national competitive bidding (NCB) method in accordance with the IFAD Procurement Handbook accessible at <a href="www.ifad.org/project-procurement">www.ifad.org/project-procurement</a>. The NCB process will include a review and verification of qualifications and past performance, including a reference check, prior to the contract award.
- 7. Please note that a pre-bid conference **will** be held as described in the Bid Data Sheet ("BDS"), Section III of the bidding document.
- 8. Bidders interested in submitting a bid shall obtain/download the bidding document from the official website of FOCUS-Mizoram (Tender) free of cost and by sending an e-mail or letter, giving full contact details of the bidder, to the following point of contact. This will ensure that the bidders receive updates regarding this bidding document.

The Chief Executive Officer, SCRAM &

State Project Director, FOCUS-Mizoram

Basement-I, ZIDCO Building, MINECO, Khatla,

Aizawl, Mizoram- 796001

Email: po.focusmz@gmail.com

- Bids must be delivered to the address and in the manner specified in the BDS ITB 22.1, no later 10<sup>th</sup> February, 2023; 2:00 PM IST in a sealed envelope. Bids received after this deadline will be rejected.
- 10. Bidders should be aware that late bids will not be accepted under any circumstance and will be returned unopened at the written request and cost of the bidder. All bids must be accompanied by a bid security or a bid securing declaration (as required) in the manner and amount specified in the Bid Data Sheet.
- 11. Please note that electronic bids **shall not** be accepted.

Issued by,

#### Sd/- R. LALNUNZIRA

Chief Executive Officer, SCRAM

&

State Project Director FOCUS-Mizoram

### **Section II. Instructions to Bidders**

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#### Instructions to Bidders

- **1. Scope of bid and** 1.1 The employer, as defined in the Bidding Data Sheet (BDS), invites **funding** bids for the construction of works, as described in the BDS. The name and identification number of the contract is provided in the BDS.
  - 1.2 The successful bidder shall be expected to complete the works by the required completion date specified in the SCC.
- 2. Source of funds
- 2.1 The "Government of Mizoram (GoM)" has received (or in appropriate cases "has applied for") a financing from the International Fund for Agricultural Development ("the Fund" or "IFAD") in various currencies equivalent to 35 million USD towards the cost of Fostering Climate Resilient Upland Farming System in the Northeast (FOCUS), Mizoram, and intends to apply a portion of the proceeds of this loan/grant to eligible payments under this contract.
- 3. Prohibited practices
- 3.1 The Fund requires that all beneficiaries of IFAD funding, including the employer and any bidders, implementing partners, service providers, suppliers, sub-suppliers, contractors, sub-contractors, consultants, sub-consultants, and any of their agents (whether declared or not) and personnel observe the highest standards of ethics during the procurement and execution of such contracts, and comply with IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations, revised on 12 December 2018 and attached as Section XI (G) (EB 2018/125/R.6, hereinafter "IFAD's Anti-Corruption Policy").
- 3.2 For the purposes of these provisions, and consistent with IFAD's Anticorruption Policy, the terms set forth below are defined as follows, and sometimes referred to collectively as "prohibited practices":
  - (a) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value in order to improperly influence the actions of another party;
  - (b) "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party in order to obtain a financial or other benefit or to avoid an obligation;
  - (c) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including improperly influencing the actions of another party;
  - (d) "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the

- property of any party, to improperly influence the actions of that or another party;
- (e) "obstructive practice" is (i) deliberately destroying, falsifying, altering or concealing evidence that may be material to an investigation by the Fund or making false statements to investigators in order to materially impede an investigation by the Fund; (ii) threatening, harassing or intimidating any party in order to prevent that party from disclosing its knowledge of matters relevant to an investigation by the Fund or from pursuing such an investigation; and/or (iii) the commission of any act intended to materially impede the exercise of the Fund's contractual rights of audit, inspection and access to information.
- 3.3 The Fund will deny approval of a proposed contract award if it determines that the firm or individual recommended for award, or any of its personnel or agents, or its sub-consultants, sub-contractors, service providers, suppliers, sub-suppliers and/or any of their personnel or agents, has, directly or indirectly, engaged in any of the prohibited practices in connection with an IFAD-financed and/or IFAD-managed activity or operation, including in competing for the contract.
- 3.4 In accordance with IFAD's Anticorruption Policy, the Fund has the right to sanction firms and individuals, including by declaring them ineligible, either indefinitely or for a stated period of time, to participate in any IFAD-financed and/or IFAD-managed activity or operation. This may include ineligibility to: (i) be awarded or otherwise benefit from any IFAD-financed contract, financially or in any other manner; (ii) be a nominated sub-contractor, consultant, manufacturer, supplier, sub-supplier, agent or service provider of an otherwise eligible firm being awarded an IFAD-financed contract; and (iii) receive the proceeds of any loan or grant provided by the Fund.¹ The Fund also has the right to unilaterally recognize debarments by any of the International Financial Institutions that are members to the Agreement for Mutual Enforcement of Debarment Decisions if such debarments meet the requirements for mutual recognition under the Agreement for Mutual Enforcement of Debarment Decisions.
- 3.5 In addition, the Fund has the right to, at any time, declare a misprocurement and/or the ineligibility of any expenditures associated

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

with a procurement process or contract if it determines that prohibited practices occurred in connection with this procurement process or contract and that the borrower/recipient has not taken timely and appropriate action, satisfactory to the Fund, to address such practices when they occur.

- 3.6 Bidders, suppliers, consultants, contractors, and their sub-contractors, sub-consultants, service providers, suppliers, agents and personnel, are required to fully cooperate with any investigation conducted by the Fund into possible prohibited practices, including by making personnel available for interviews and by providing full access to any and all accounts, premises, documents and records (including electronic records) relating to the relevant IFAD-financed and/or IFAD-managed operation or activity and to have such accounts, premises, records and documents audited and/or inspected<sup>2</sup> by auditors and/or investigators appointed by the Fund.
- 3.7 The bidder is obliged to disclose relevant prior sanctions and criminal convictions and any commissions or fees paid or are to be paid to any agents or other party in connection with this procurement process or the execution of the contract.
- 3.8 The bidder shall keep all records and documents, including electronic records, relating to this procurement process available for a minimum of three (3) years after notification of completion of the process or, in case the bidder is awarded the contract, execution of the contract.
- 4. Sexual
  Harassment,
  Sexual
  exploitation and
  Abuse

4.1 The Fund requires that all beneficiaries of IFAD Funding, including the employer and any bidders, implementing partners, service providers, suppliers, sub-suppliers, contractors, sub-contractors, consultants, sub-consultants, and any of their agents (whether declared or not) and personnel comply with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse. For the purpose of this provision, and consistent with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse as it may be amended from time to time, the terms set forth below are defined as follows:

<sup>&</sup>lt;sup>2</sup> Inspections include all fact-finding activities deemed relevant by the Fund to address allegations or other indications of possible Prohibited Practices. Such fact-finding activities may include, but are not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data or information (whether in hard copy or electronic format) deemed relevant for the investigation or audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verifications of information. It is the responsibility of the firm or individual under inspection to ensure effective compliance with their duty to cooperate vis-à-vis any potential local laws or regulations or other potentially conflicting obligations.

- (a) Sexual harassment means "any unwelcome sexual advance, request for sexual favour or other verbal, non-verbal or physical conduct of a sexual nature that unreasonably interferes with work, alters or is made a condition of employment, or creates an intimidating, hostile or offensive work environment.
- (b) Sexual exploitation and abuse means "any actual or attempted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of others (sexual exploitation); the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions (sexual abuse)".
- 4.2 Employers, suppliers and bidders shall take all appropriate measures to prevent and prohibit sexual harassment and sexual exploitation and abuse on the part of their personnel and subcontractors or anyone else directly or indirectly employed by them or any of subcontractors in the performance of the contract. Contractors, suppliers and bidders shall immediately report to the employer or IFAD any incidents of sexual harassment and sexual exploitation and abuse arising out of or in connection with the performance of the contract or prior to its execution, including convictions, disciplinary measures, sanctions or investigations. The employer may take appropriate measures, including the termination of the contract, on the basis of proven acts of sexual harassment, sexual exploitation and abuse arising out of or in connection with the performance of the contract.
- 4.3 The bidder or subcontractor or supplier is required to disclose any relevant prior sanctions, convictions, disciplinary measures or criminal records.
- 5. Money laundering and terrorist financing
- 5.1 The Fund requires that all beneficiaries of IFAD funding or funds administered by IFAD, including the employer, any bidders, implementing partners, service providers and suppliers, observe the highest standards of integrity during the procurement and execution of such contracts, and commit to combat money laundering and terrorism financing consistent with IFAD's Anti-Money Laundering and Countering the Financing of Terrorism Policy.
- 6. SECAP performance standards
- 6.1 The resulting contract will be implemented in a manner consistent with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), available on <a href="https://www.ifad.org/en/secap">https://www.ifad.org/en/secap</a>.

# 7. Eligible bidders and conflict of interest

- 7.1 This invitation to bid is open to all national bidders with the required classification as given in the BDS.
- 7.2 Any eligible entity may bid independently or in a joint venture. In the case where a bidder is or proposes to be a JV (a) all members will be jointly and severally liable for the execution of the contract; and (b) the JV will nominate a representative who will have the authority to conduct all business for and on behalf of any and all the members of the JV.
- A bidder shall not have any actual, potential or reasonably perceived conflict of interest. A bidder shall declare in the bid submission form any actual, potential or reasonably perceived interest, regardless of its nature, that affects, may affect, or might reasonably be perceived by others to affect, impartiality in any matter relevant to the procurement process, including the selection process and the execution of the contract. A bidder with an actual, potential or reasonably perceived conflict of interest shall be disqualified, unless otherwise explicitly approved by the Fund. The employer requires that the bidder and the supplier hold the project's interests as paramount at all times, strictly avoiding any actual, potential or reasonably perceived conflicts of interest, including actual, potential or reasonably perceived conflicts with other assignments or their own personal and/or corporate interests, and act without any consideration for any other ongoing or future work. Without limitation on the generality of the foregoing, a bidder or supplier, including all parties constituting the bidder or supplier and their respective personnel and affiliates, as well as any subcontractors for any part of the contract, including related services, and their respective personnel and affiliates, may be considered to have an actual, potential or reasonably perceived conflict of interest and disqualified or terminated if they:
  - a) have, may have or might reasonably appear to have at least one controlling partner in common with one or more other parties in the process contemplated by this bidding document or the execution of the contract; or
  - b) have, may have or might reasonably appear to have the same legal representative as another bidder for purposes of this bid or execution of the contract; or
  - c) have, may have or might reasonably appear to have a relationship, directly or through common third parties, that puts them in a position to have access to undue or undisclosed information about or influence over the bid process and the execution of the contract, or influence the

- decisions of the employer regarding the selection process for this procurement or during the execution of the contract; or
- d) participate, may participate or might reasonably appear to participate in more than one bid in this process; participation by a bidder in more than one bid shall result in the disqualification of all bids in which the party is involved; however, this provision does not limit the inclusion of the same subcontractor in more than one bid; or
- e) are themselves, may be or might reasonably appear to be, or have, may have or might reasonably appear to have a business or family relationship with, a member of the employer's board of directors or its personnel, the Fund or its personnel, or any other individual was, has been or might reasonably be directly or indirectly involved in any part of (i) the preparation of this bidding document, (ii) the selection process for this procurement, or (iii) execution of the contract, unless the actual, potential or reasonably-perceived conflict stemming from this relationship has been explicitly authorized by the Fund.
- 7.4 A bidder and the supplier shall have an obligation to disclose any situation of actual, potential or perceived conflict of interest that impacts, may impact, or might reasonably appear to be perceived by others to impact, their capacity to serve the best interest of the employer. Failure to properly disclose any of said situations may lead to appropriate actions, including the disqualification of the bidder, the termination of the Contract and any other as appropriate under the IFAD Policy on Preventing Fraud and Corruption in its Projects and Operations.
- 7.5 A bidder or supplier, all parties constituting the bidder or supplier, and any subcontractors for any part of the contract, including related services, and their respective personnel and affiliates, will not be any person or entity under a declaration of ineligibility by the Fund for having engaged in prohibited practices as contemplated by ITB clause 3 above. The Fund also has the right to unilaterally recognize debarments by any of the International Financial Institutions that are members to the Agreement for Mutual Enforcement of Debarment Decisions if such debarments meet the requirements for mutual recognition under the Agreement for Mutual Enforcement of Debarment Decisions.
- 7.6 A bidder or contractor, all parties constituting the bidder or contractor, and any subcontractors for any part of the contract, including related services, and their respective personnel and affiliates not otherwise made ineligible for a reason described in this ITB clause 7 will nonetheless be excluded if:

- a) as a matter of law or official regulation, the government prohibits commercial relations with the country of the bidder or supplier (including any associates, subcontractors and any respective affiliates) provided that the Fund is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or
- b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the government prohibits the issuance of a payment.

## 8. Qualification of the bidder

- 8.1 All bidders shall provide in accordance with Section IV of the bidding document, qualification information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 8.2 To qualify for award of the contract, bidders shall meet the following minimum
  - a) Annual volume of construction work during past two years of at least the amount specified in the BDS;
  - b) experience as prime contractor in the construction of at least one works of a nature and complexity equivalent to the works over the last 2 years (to comply with this requirement, works cited should be at least 80 percent complete);
  - c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment listed in the BDS; and
  - d) key personnel required for the performance of the contract with the qualifications and experience detailed in the BDS and Section IV.

### 9. One bid per bidder

9.1 Each bidder shall submit only one bid, either individually or as a partner in a joint venture. Any bidder who submits or participates in more than one bid will be disqualified. Partners in a joint venture shall be jointly and severally liable for the execution of the contract.

#### 10. Cost of bidding

10.1 The bidder shall bear all costs associated with the preparation and submission of his bid, and the employer will in no case be responsible or liable for such costs.

### 11. Pre-bid meeting and site visit

meeting11.1 If so provided for in the BDS, the employer invites the bidder's authorized representative to attend a pre-bid meeting at the place, time and date indicated. The purpose of the pre-bid meeting will be to clarify the issues and to answer questions on any matter that may be raised at that stage.

11.2 The bidder, at the bidder's own responsibility and risk, is encouraged to visit and examine the site of works and its surroundings and obtain 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.

# 12. Contents of bidding documents

- 12.1 The set of bidding documents comprises the documents listed in the table below and addenda in accordance with ITB 13:
  - I. Invitation to Bid
  - II. Instruction to Bidders
  - III. Bid Data Sheet
  - IV. Qualification and Evaluation Criteria
  - V. Bidding Forms
  - VI. General Conditions of Contract
  - VII. Special Conditions of Contract
  - VIII. Specifications
    - IX. Drawings
    - X. Bill of Quantities
    - XI. Contract Forms

### amendments bidding documents

13. Clarification and 13.1 A prospective bidder may request clarification of the bidding of documents from the employer in writing. The employer shall respond to such requests if received within 14 calendar days prior to the deadline for the submission of bids. The employer shall also send copies of its response to all bidders who have purchased the bidding documents without identifying the originator of the request. Similarly, prior to the bid submission deadline, the employer may modify the bidding documents by issuing addenda.

**14. Language of bid** 14.1 All documents relating to the bid and contract shall be in English.

#### 15. Documents comprising the bid

- 15.1 The bid submitted by the bidder shall comprise the following:
  - a) The Letter of Bid (in the format indicated in Section V):
  - b) Bid Security or Bid-Securing Declaration;
  - c) Priced Bill of Quantities or priced Activity Schedule;
  - d) list of key personnel and their qualifications as specified in the BDS:
  - e) qualification Information Form and supporting Documents; and:
  - f) The Bidder's Technical Proposal and any other documents required to be completed and submitted by bidders, as specified in the BDS.

#### 16. Bid prices

- 16.1 The contract shall be for whole works, as described in ITB 1.1, based on the priced bill of quantities or priced activity schedule for lump sum contracts submitted by the bidder. The type of contract (unit price based on bill of quantities or lump sum based on activity schedule) is specified in the BDS.
- 16.2 The bidder shall fill in rates and prices for all items of the works described in the bill of quantities (for lump sum contracts, an amount against each activity schedule as described in the drawings and specifications). Items for which no rate or price is entered by the bidder will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the bill of quantities or activity schedule. The bidder shall also fill in any applicable discounts in its letter of bid.
- 16.3 All duties, taxes, and other levies payable by the contractor under the contract, or for any other cause, as of the date 14 calendar days

prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the bidder (for lump sum contracts, "the rates and prices" are not applicable).

16.4 The rates and prices (or the lump sum price) quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to any adjustment of any kind.

## 17. Currency of bid and payment

17.1 The currency in which payments shall be made to the contractor under this contract shall be those in which the bid price was expressed. Bid prices shall be expressed in the currency/ies specified in the BDS.

#### 18. Bid validity

18.1 Bids shall remain valid for the period specified in the BDS. The employer may request that the bidders extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing. A bidder agreeing to the request will not be required or permitted to otherwise modify the bid, but will be required to extend the validity of bid security or bid-securing declaration for the period of the extension requested by the employer.

#### 19. Bid security

- 19.1 The bidder shall furnish, as part of its bid, either a bid security or a bid-securing declaration, as specified in the BDS.
- 19.2 If a bid security is required, it shall be in the amount and currency specified in the BDS, and shall be in one of the following forms:
  - a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the employer's country or abroad, in the form provided in the bidding documents or another form acceptable to the employer and valid for thirty (30) days beyond the validity of the bid; or
  - b) a cashier's or certified cheque.
- 19.3 Any bid not secured in accordance with this ITB 19 will be rejected by the employer as non-responsive, pursuant to ITB clause 28.
- 19.4 Unsuccessful bidders' bid securities will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the employer pursuant to ITB clause 18.
- 19.5 The successful bidder's bid security (if applicable) will be discharged upon the bidder signing the contract, pursuant to ITB clause 35, and furnishing the performance security, pursuant to ITB clause 37.

#### 19.6 The bid security may be forfeited:

- a) If a Bidder:
  - i. Withdraws its bid during the period of bid validity specified by the bidder on the letter of bid, or
  - ii. Does not accept the correction of errors pursuant to ITB clause 29.1(c); or
- b) In the case of a successful bidder, if the bidder fails:
  - i. to sign the contract in accordance with ITB clause 35; or
  - ii. to furnish performance security in accordance with ITB clause 37.

## 20. Format and signing of bid

- 20.1 The bidder shall prepare one original of the documents comprising the bid as described in ITB Clause 15 clearly marked "original". In addition, the bidder shall submit copies of the bid, in the number specified in the BDS, and clearly marked as "copies". In the event of discrepancy between them, the original shall prevail.
- 20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the bidder. All pages of the bid where entries or amendments have been made shall be by the person or persons signing the bid.
- 20.3 The bid shall contain no alterations or additions, except those to comply with instructions issued by the employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

# 21. Sealing and marking of bids

- 21.1 The bidder shall seal the original and all copies of the bid in two inner envelopes and one outer envelope, duly marking the inner envelopes as "original" and "copies".
- 21.2 The inner and outer envelopes shall
  - a) be addressed to the employer at the address provided in the BDS;
  - b) bear the name and identification number of the contract as defined in the BDS ITB 1.1; and

- c) provide a warning stating that a "bid inside" and that the envelope is not to be opened before the specified time and date for bid opening as defined in the BDS.
- 21.3 In addition to the identification required in ITB sub-clause 21.2. the inner envelopes shall indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared late, pursuant to ITB sub-clause 23.1.
- 21.4 If the outer envelope is not sealed and marked as above, the employer will assume no responsibility for the misplacement or premature opening of the bid.

#### 22. Deadline for submission of **Bids**

- 22.1 Bids shall be delivered to the employer at the address specified above no later than the time and date specified in the BDS.
- 22.2 The employer may extend the deadline for submission of bids by issuing an amendment in accordance with ITB sub-clause 13.1, in which case all rights and obligations of the employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

#### 23. Late bids

23.1 Any bid received by the employer after the deadline prescribed in the ITB BDS 22 will be returned unopened to the bidder.

### withdrawal of bids

- 24. Modification and 24.1 Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in the ITB BDS 22.
  - 24.2 Each bidder's modification or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with ITB clause 21, with the outer and inner envelopes additionally marked "modification" or "withdrawal", as appropriate.
  - 24.3 No bid may be modified after the deadline for submission of bids
  - 24.4 Withdrawal of a bid between the deadline for submission of bids and the expiration of the period of bid validity as extended all pursuant to the ITB sub-clause 18.1 may result in the forfeiture of the bid security pursuant to ITB sub-clause 19.6.
  - 24.5 Bidders may offer discounts, or otherwise modify the prices of their bids by submitting bid modifications in accordance with this clause, or included in the original bid submission.

#### 25. Bid opening

25.1 The employer will open the bids, including modifications in the presence of the bidders' representatives who choose to attend at the time and in the place specified in the BDS. The bidders' names, the bid prices, the total amount of each bid, any discounts, any bid modifications and withdrawals, the presence or absence of bid security or bid-securing declaration will be announced by the employer at the opening.

#### 26. Process to be confidential

26.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed until the notice of Intent to award to the successful bidder has been dispatched to all bidders.

#### 27. Clarification of bids

27.1 To assist in the examination, evaluation, and comparison of bids, the employer may, at the employer's discretion, ask any bidder for clarification of the bidder's bid. The request for clarification and the response shall be in writing or by email, or facsimile, but no change in the price or substance of the bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the employer in the evaluation of the bids in accordance with ITB clause 29.

# 28. Examination of Bids and

28.1 Prior to the detailed evaluation of bids, the employer will determine whether each bid is substantially responsive to the **Determination of** requirements of the bidding documents and that the original of a valid Responsiveness bid security or bid-securing declaration is enclosed within the bid. A substantially responsive bid is one which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the works; (b) which limits in any substantial way, inconsistent with the bidding documents, the employer's rights or the bidder's obligations under the contract; or (c) whose rectification would affect unfairly affect the competitive position of other bidders presenting substantially responsive bids.

- 28.2 If a bid is not substantially responsive, it will be rejected by the employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.
- 28.3 If so indicated in the BDS, the employer will assign a technical score to each responsive bid based on the quality of the technical proposal submitted by the bidder in its bid.

## 29. Correction of errors

- 29.1 Bids determined to be substantially responsive will be checked by the employer for any arithmetic errors. Errors will be corrected by the employer as follows:
  - a) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
  - b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern;
  - c) If a bidder refuses to accept the correction, its bid will be rejected and the corresponding bid security shall be forfeited in accordance with sub-clause 19.6.

# 30. Evaluation and comparison of bids

- 30.1 The employer will evaluate and compare only the bids determined to be substantially responsive in accordance with ITB Clause 28.
- 30.2 In evaluating the bids, the employer will determine the bid which offers the best value for money; namely either the bid with the lowest evaluated bid price or the bid with the highest combined score of quality and price whichever method is indicated in the BDS. In order to arrive at the evaluated bid price the employer shall proceed as follows:
  - a) Making any correction for errors pursuant to ITB clause 29;
  - b) Excluding provisional sums and the provision, if any, for contingencies in the bill of quantities (or activity schedule for lump sum contracts), but including daywork, where priced competitively;
  - c) Making appropriate adjustments to reflect discounts or other price modifications offered in accordance with ITB sub-clause 16.2.
- 30.3 The employer may waive any minor informality or non-conformity which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative standing of any bidder. Alternative offers with respect to time for completion or payment terms or any other evaluation factors, if so stipulated in Section IV-Qualification and Evaluation Criteria, will be taken into account in bid evaluation.

#### 31. Award criteria

- 31.1 Subject to ITB clause 28 and ITB clause 30, the employer will award the contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the best value for money, provided that such bidder is qualified and eligible in accordance with the provisions of ITB clause 7 and ITB clause 8.
- or all bids
- **32. Employer's right** 32.1 Notwithstanding ITB clause 31, the employer reserves the right to to accept any bid accept or reject any bid, and to cancel the bidding process and reject all and to reject any bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the employer's action.
- award
- **33. Notice of intent to 33.1** Prior to the expiration of the period of bid validity, the employer shall send the notice of intent to award to the successful bidder with a copy to all other bidders. The notice of intent to award shall include a statement that the employer shall issue a formal notification of award and the draft contract agreement after expiration of the period for filing bid protests and the resolution of any bid protests that are submitted. Delivery of the notice of intent to award shall not constitute the formation of a contract between the employer and the successful bidder and no legal or equitable rights will be created through the delivery of the notice of intent to award.

#### 34. Bid protest

- 34.1 Bidders may protest the results of a procurement only according to the rules established in module M of the IFAD Procurement Handbook.
- 35. Notification of award and signing of agreement
- 35.1 The bidder whose bid has been successful will be notified of the award by the employer prior to expiration of the bid validity period by registered letter. This letter (hereinafter and in the condition of contract called the "Letter of Acceptance") will state the sum that the employer will pay the contractor in consideration of the execution, completion, and maintenance of the works by the contractor as prescribed by the contract (hereinafter and in the contract called the "contract price").
- 35.2 The notification of award will constitute the formation of the contract.
- 35.3 The employer will send the successful bidder the agreement form provided in the bidding documents incorporating all agreements between the employer and the successful bidder. It will be sent to the successful bidder within 14 calendar days following the notification of award. Within 14 calendar days of receipt, the successful bidder shall sign the agreement and deliver it to the employer.

35.4 Upon receipt of the signed agreement from the bidder, the employer will promptly notify the other bidders that their bids have been unsuccessful.

# 36. Advance payment

36.1 The employer will provide an advance payment as stipulated in the conditions of contract, subject to a maximum amount, as stated in the BDS. For receiving the advance payment, the bidder shall make an estimate of and include the requirement in its bid, the expenses that will be incurred in order to commence work. These expenses will relate to the purchase of equipment, machinery materials, and for the engagement of staff/labour during the first month beginning with the date of the employer's "notice to proceed" as specified in the SCC.

## 37. Performance security

- 37.1 Within twenty-eight (28) days after receipt of the letter of acceptance, the successful bidder shall deliver to the employer a performance security in accordance with the terms of GCC clause 37, and for the amount specified in the BDS, using for that purpose the form of performance security included in Section XI, Contract Forms, or another form acceptable to the employer. A foreign institution providing the performance security shall have a correspondent financial institution located in the employer's country.
- 37.2 Failure of the successful bidder to submit the above-mentioned performance security or to sign the contract within twenty-eight (28) days of the receipt of the letter of acceptance shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In the event, the employer may award the contract to the next ranking bid that is substantially responsive and which is submitted by a bidder who is determined by the employer to be qualified to perform the contract satisfactorily.

### **Section III. Bid Data Sheet (BDS)**

	Section III. Bid Data Sneet (BDS)
Instructions to Bid (ITB) Reference	Data relevant to the ITB
1.1	The Employer is- the Government of Mizoram
	The Client is- Society For Climate Resilient Agriculture in Mizoram (SCRAM)
	The works consist of: Construction of Low Cost Bridge
	Lot 1: Champhai District
	Suspension Bridge at Laphui Zau, Ngur
	RCC Bridge at Thingmaldin Zau, Zote
	RCC Bridge at Farlui Zau, Ruantlang
	Suspension Bridge at Farlui Zau, Ruantlang
	Lot 2: Kolasib District
	RCC Bridge at Dumkhel Zau, Phaisen
	RCC Bridge at Chitephai Zau
	Suspension Bridge at Zero Point
	Lot 3: Serchhip District
	Suspension Bridge at Zawlpui, Tuichar
	Suspension Bridge at Zote Kai
	RCC Bridge at Lumtui, Keitum
	RCC Bridge at Darnam
	Lot 4: Mamit District
	Suspension Bridge at Thingkhuang Zau
	Suspension Bridge at Teirei Zau
	Lot 5: Saitual District
	Suspension Bridge at Tuithilhnar, Ngopa
	Suspension Bridge at Tuivawl
	Lot 6: Khawzawl District
	Suspension Bridge at Chhawrtui
	Suspension Bridge at Biate, Khawhai
	RCC Bridge & Slab Culvert at Chawngtlai
	The name and identification number of the contract is: Construction of Low Cost Bridge, Ref: MZ/PMU/PP 2022-23/W/4
2.1	The Donor is- International Fund for Agriculture Development (IFAD)

7.1	Eligible bidders are:-
1	IInd class contractor specified in the enlistment rules of Mizoram     Public Works Department (MPWD), valid between 2021 & 2022
	2. Grade A or B of Mizoram Finance empaneled firms, valid between 2021 & 2022.
	(Note: the eligibility condition is adopted as per the rules of enlistment, having the capacity and capability as per the rules laid down)
8.1	The qualification criteria shall also consist of additional information such as:  I. Audited Balance Sheet of: - FY 2019-20 - FY 2020-21 - FY 2021-22 *Having a minimum turnover of 30 lakh each.  II. Works Completion certificate- at least 3 during FY 2017-2022 (civil works & construction of bridge).
	III. Compliance with the essential equipment listed in BDS 8.2(c)  IV. Compliance with key personnel requirements listed in BDS 8.3 (d)
8.2(a)	The minimum required annual volume of construction work for the successful bidder in any of the last five years (for each lot) shall be:
	At least completion of three works worth INR 30.00 Lakh (minimum) each specific to civil construction and bridges.
8.2(c)	The minimum essential equipment to be made available for the contract by the successful bidder (for each lot) shall be:-
	i) Excavator with backload holder (2 nos min)
	ii) Tipper or 407 truck or Pick-up (2 nos min)
	iii) Mixure (2 nos min)
	iv) Vibrator (2 nos min)
	v) Generator (2 nos min)
	vi) Tirfor pulling & lifting machine (2 nos min)
8.2(d)	The key contractor staff (for each lot) are:
	Detailed requirements about years of experience and professional profile of each key staff member are presented in Section IV- Qualification and Evaluation:
	<ol> <li>Project Manager- 1 person (Master Degree or B.E (Civil) or higher, min 5 years experience in civil construction)</li> </ol>
	2. Project Engineer- 1 person (B.E (Civil) or higher, min 3 years experience in construction works)
	3. Site Engineer- 4 persons (Diploma in Civil Engineering or higher with min 3 years experience in construction works)

11.1	Pre-bid meeting <b>shall be</b> held.
	The pre-bid meeting shall be held at the following address:  Office of the Chief executive Officer, SCRAM &
	State Project Director, FOCUS-Mizoram Basement-I, ZIDCO Building MINECO, Khatla Aizawl, Mizoram
	The date and time of the pre-bid meeting is 25 <sup>th</sup> January, 2023; 1:00 PM IST at the address mentioned above.
	*A site visit shall not be organized by the Employer.
15.1(f)	Bidders shall submit: technical proposal including method statement, site organization, manning levels and categories, detailed construction program, schedule of material installation, bill of quantities and other documents to support their eligibility.
	Bidders shall submit with their bid: All the qualification requirement (all pages signed) and Circulum Vitate (CVs) of all key personnel
16.1	This shall be a "Unit Price Contract based on Priced Bill of Quantities"
17.1	The currency(ies) of the bid shall be as follows: INR (Indian rupees)
	The currency that shall be used for bid evaluation and comparison is: <i>INR</i> ( <i>Indian rupees</i> )
	The basis for conversion shall be: NA
18.1	The period of bid validity shall be 90 days after the deadline for bid submission specified in the BDS.
19.1 & 19.2	A bid security <i>is</i> required to be submitted with the bid in a Bank Demand Draft or a Bid Security issued by a bank and must be valid 30 days post bid validity.
	The amount of bid security shall be:
	Lot 1- INR 1,35,000.00
	Lot 2- INR 1,35,000.00
	Lot 3- INR 80,000.00
	Lot 4- INR 90,000.00
	Lot 5- INR 90,000.00
	Lot 6- INR 1,35,000.00
	The bid security shall be in favor on the Chief Executive Officer, SCRAM, Aizawl, Mizoram.

	T
20.1	The number of copies (in addition to the original) of the bid shall be <b>one:</b> i.e., One original and one duplicate copy.
	In a separate envelope and mark "Original" & "Duplicate" on the envelope.
21.2(a) & 21.2(c) &	The employer's address for the purpose of bid submission is
22.1	Office of the Chief Executive Officer, SCRAM &
	State Project Director, FOCUS Mizoram,
	Basement-I, ZIDCO Building,
	MINECO, Khatla, Aizawl Mizoram- 796001
22.1 & 25.1	The deadline for submission of bids shall be 10 <sup>th</sup> February, 2023,14:00 hours (2:00 PM), and bids shall be opened immediately thereafter at 14:00 hours (2:00 PM IST) on the same date and at the following address:p
	Office of the Chief Executive Officer, SCRAM &
	State Project Director, FOCUS-Mizoram
	Basement-I, ZIDCO Building, MINECO,
	Khatla, Aizawl, Mizoram
	Bidders participation is encouraged by not mandatory.
28.2	The weight assigned by the employer for the quality of the Technical Proposal including observance of environmental and social requirements is:
	Technical proposal of the bidder is evaluated on pass/fail (responsive/non-responsive basis). The bidder with the lowest evaluated cost based on mentioned price criteria in section IV shall be the one offering the best value for money and is to be recommended for award, subject to post-qualification.
30.2	The best value for money bid evaluation methodology to be used by the employer in evaluating the bids is:
	Combined technical and financial weights: <i>Technical proposal of the bidder is evaluated on pass/fail (responsive/non-responsive basis).</i> The bidder with the lowest evaluated cost based on mentioned price criteria in section IV shall be the one offering the best value for money and is to be recommended for award, subject to post-qualification.
36.1	The advance payment shall be limited to a maximum of <b>10</b> % percent of the contract price.
37.1	The form, amount and currency of the performance security shall be a bank guarantee representing <b>10%</b> of the respective contract price issued by a scheduled commercial bank.

#### Section IV. Qualification and Evaluation Criteria

#### 1. . Process

This section contains all the criteria that the employer shall use to examine and evaluate bids, qualify bidders and select the winning bid. The bidder shall provide all the information requested in the forms included in Section V, Bidding Forms.

The employer shall evaluate the bids as follows:

#### A. Bid Examination.

A1. Administrative Examination. This review is conducted to determine that the bid is complete, all required documents are included, all forms are included and are completed and the bid duly signed by the bidder's authorized representative. The bidder may be requested to submit additional information or documentation within a reasonable period of time and/or to correct nonmaterial nonconformities in the bid related to documentation requirements. Determinations made during this review include:

- Determine if the bid is sealed, signed and marked as per the requirements of ITB 20 and ITB 21;
- Determine if the bid security in the correct format is enclosed;
- Determine eligibility of bidder and if it meets required classification;
- Determine if all required forms are included and completed.

A2. Responsiveness Determination. This review will be conducted to determine if the bid is substantially responsive as explained in ITB 28. A substantially responsive bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. If a bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the employer and may not be subsequently made responsive by correction of the material deviation, reservation, or omission. However, the employer may request any bidder to clarify its bid according to the procedures set out in ITB 27. Responsiveness determination is based upon a detailed technical review according to the details given below.

#### Technical Review for Responsiveness Determination:

<u>Documents Comprising the Technical Proposal of Bid</u>. The bidder shall furnish a technical offer including a statement of work methods, equipment, personnel, schedule, and other information as stipulated in Section V Bidding Forms, in sufficient detail to demonstrate the adequacy of the bidder's bid to meet the work requirements and the completion time including environmental and social and safety requirements.

Assessment of adequacy / quality of the technical proposal of the bid. Review of the bidder's technical offer will include an assessment of the bidder's proposed technical method and approach and its consistency with the environmental and social requirement of the employer as documented in the specifications/works requirements Section VIII. The employer will also

evaluate the adequacy of the bidder's program (construction schedule) and its ability to mobilize key equipment and personnel for the contract.

The required key contractor personnel profile and years of experience are listed in the table below:

SI. No	Title	Qualification	Years of experience
1	Project Manager	(Master Degree or B.E (Civil) or higher, min 5 years experience in civil construction)	5 years
2	Project Engineer	(B.E (Civil) or higher, experience in construction works)	3 years
3	Site Engineer	(Diploma in Civil Engineering or higher, experience in construction works)	3 years
4	Site Assistant (6 persons)	10 <sup>th</sup> Standard	2 years

The required main/ key contractor equipment, production capacity and year of manufacture are listed in the table below:

SI. No.	Name of equipment and production capacity	Year of manufacture
1	Excavator with backload holder (2 nos min)	Not before 2015
2	Tipper or 407 truck or Pick-up (2 nos min)	Not before 2015
3	Mixure (2 nos min)	Not before 2015
4	Vibrator (2 nos min)	Not before 2015
5	Generator (2 nos min)	Not before 2015
6	Tirfor pulling & lifting machine (2 nos min)	Not before 2015

[The bidder shall fill the required forms for key personnel and equipment included in Section V-Bidding Forms].

#### B. Financial Evaluation Criteria.

<u>B1. Price-Related Criteria.</u> This evaluation is conducted to determine the evaluated bid price of each technically responsive bid in accordance with the process and criteria detailed below. Only price and price-related criteria shall are considered at this stage of the evaluation. The "evaluated bid price" shall be the bid price adjusted as follows:

- The evaluated bid price excludes provisional sums, but includes daywork items, where priced competitively;
- The evaluated bid price does not include the estimated effect of the price adjustment provisions of the GCC, applied over the period of execution of the contract;
- The evaluated bid price does not include the estimated effect of the price adjustment to rates due to extensions of the bid validity period in accordance with ITB 18;
- The evaluated bid price includes adjustment for correction of arithmetical errors, omissions, clarifications, etc., in accordance with ITB 29; and
- The evaluated bid price includes adjustment due to discounts offered in accordance with ITB 24.5.
- The evaluation is then conducted to determine the evaluated bid price of each bid using the additional criteria specified below:
- The "evaluated bid price" shall be the bid price adjusted as above and then the Employer will apply the following price evaluation criteria: [Select appropriate options from the below]
- Alternative Completion Times, if permitted under ITB 16.2, will be evaluated as follows:

[Not Applicable]

 Payment Deviations (against faster processing of payments by the employer to the contractor or against a higher advance payment, if acceptable to the employer) will be evaluated as follows:

[Not Applicable]

 After all above, the employer will convert the evaluated bid price to a single currency in accordance with ITB 17.

In case the technical proposal of the bidder is evaluated on pass/fail (responsive/non-responsive basis) then the bidder with the lowest evaluated cost based on above-mentioned price criteria shall be the one offering the best value for money and is to be recommended for award, subject to post-qualification.

In the case of Multiple Contracts/Lots, bids will be evaluated as follows:

Award criteria for multiple contracts:

Bidders have the option to bid for any one or more lots. Bids will be evaluated lot-wise, taking into account discounts offered, if any, for combined lots. The contract(s) will be awarded to the bidder or bidders offering the overall lowest evaluated cost to the employer for combined lots, subject to the selected bidder(s) meeting the required qualification criteria for the lot or combination of lots as the case may be for which they were prequalified.

#### C. Bidder's Qualification (Postqualification)

<u>C1 Qualification Review.</u> This process will be conducted to determine if the bidder who submitted the bid with the best value for money satisfies the qualification requirements as listed in ITB 15.1(e). The determination shall be based upon an examination of the documentary evidence of the bidder's qualifications submitted by the bidder as requested in Section V, Bidding Forms, plus the bidder's record of past performance and a review of references and any other source at the employer's discretion. All qualification requirements shall be considered on a pass/fail basis. An affirmative determination of qualification shall be a prerequisite for award of the contract to a bidder.

<u>C2. References and Past Performance Review.</u> The bidder's performance on earlier contracts will be considered in determining if the bidder is qualified for award of the contract. The employer reserves the right to check the performance references provided by the bidder or to use any other source at the employer's discretion.

### **Section V. Bidding Forms**

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### Section V (A). Contractor's Letter of Bid

The bidder shall fill in and submit this bid form with the bid with its letterhead.

#### [Bidders letterhead paper]

To : The Chief Executive Officer, SCRAM

Address: Basement-I, ZIDCO Building, MINECO, Khatla, Aizawl, Mizoram

We, the undersigned, declare that:

- 1. We have examined and have no reservations to the bidding document, including addenda issued thereto in accordance with the Instructions to Bidders.
- 2. We offer to execute the [Construction of Low Bridge] in accordance with Section VIII Specifications, Section IX Drawings, Section X Bill of Quantities and the general and specific conditions of contract.
- 3. The total price of our bid, excluding any discounts offered in item 5 below is: [insert the total bid price in words and figures, including the various amounts and respective currencies].
- 4. The advance payment required is: [insert advance payment amount required not to exceed the provision in ITB sub-clause 36.1].
- 5. The discounts offered and the methodology for their application are:
  - a. Discounts: If our bid is accepted, the following discounts shall apply. [Specify in detail each discount offered.]
  - b. Methodology of application of the discounts: The discounts shall be applied using the following: [Specify in detail the method that shall be used to apply the discount.]
- 6. Our bid shall be valid from the date fixed for the bid submission deadline in accordance with ITB sub-clause 22.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- 7. If our bid is accepted, we commit to obtain a performance security in accordance with GCC clause 37 and as described in ITB clause 35 for the due performance of the contract.

- 8. We, including any subcontractors or sub-suppliers for any part of the contract, have nationalities from eligible countries [Insert the nationality of the bidder, including that of all parties that comprise the bidder, if the bidder is a joint venture, and the nationality of each subcontractor and supplier].
- 9. We have no conflict of interest in accordance with ITB clause 7 [Insert, if needed: ", other than listed below."] [If listing one or more conflicts of interest, insert: "We propose the following mitigations for our conflicts of interest: [Insert description of conflict of interest, and proposed mitigations.]"]
- 10. Our firm, its associates, including any subcontractors or suppliers for any part of the contract, has not been declared ineligible by the Fund or by the employer, or under the laws or official regulations of the employer's country, in accordance with ITB clause 7 and has not been subject to administrative sanctions, criminal convictions or temporary suspensions beyond those declared in paragraph 11 of this letter of bid.
- 11. The following criminal convictions, administrative sanctions (including debarments) and/or temporary suspensions have been imposed on our firm and/or any of its directors, partners, proprietors, key personnel, agents, sub-consultants, sub-contractors, consortium and joint venture partners:

Nature of the measure (i.e., criminal conviction, administrative sanction or temporary suspension)	Imposed by	Name of party convicted, sanctioned or suspended (and relationship to consultant)	Grounds for the measure (i.e., fraud in procurement or corruption in contract execution)	Date and time (duration) of measure

If no criminal convictions, administrative sanctions or temporary suspensions have been imposed, indicate "none".

- 12. We acknowledge notice of the IFAD Revised Policy on Preventing Fraud and Corruption in its Activities and Operations. We have taken steps to ensure that no person acting for us or on our behalf has engaged in any prohibited practices described in ITB clause 3. As part of this, we certify that:
  - a. The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to:
    - i. Those prices;
    - ii. The intention to submit an offer; or
    - iii. The methods or factors used to calculate the prices offered.

- b. The prices in this offer have not been and will not be knowingly disclosed by us, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and
- c. No attempt has been made or will be made by us to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.
- 13. We acknowledge notice of the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse. We certify that no person acting for us or on our behalf has engaged in any harassment, exploitation or abuse described in ITB clause 4.
- 14. The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bid process or execution of the contract: [Insert complete name of each recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity.]

Name of Recipient	Address	Reason	Amount

#### [if non has been paid or is it to be paid, indicate "none"]

- 14. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- 15. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Authorised signatory: Names and title of signatory: Name of bidder: Address: Contact details (tel & email):

# Section V (B). Qualification Information (to be filled by the Bidder)

Notes on form of Qualification Information

The information to be filled in by bidders in the following pages will be used for purposes of post-qualification as provided for in the Instruction to Bidders. This information will not be incorporated in the contract.

1.	Individual bidders or individual members of joint venture			
	1.1. Constitution or legal status of bidder	[attach copy]		
	Place of registration:			
	Principal place of business:			

1.2. Work performed as prime contractor on works of a similar nature and volume of the last two years. Also list details of work under way or committed, including expected completion date.

Project name and country	Name of client and contact person	Type of work performed and year of completion	Value of contract

1.3. Major items of contractor's equipment proposed for carrying out the works. The bidder must list the equipment below and must also fill the relevant forms of the technical proposal.

Item of Equipment	Description, make, and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
[etc.]			

1.4. Qualifications and experience of key personnel proposed for administration and execution of the contract. The bidder must list the key staff below and must also fill the relevant forms of the technical proposal-CV forms.

Position	Name	Years of experience (general)	Years of experience in proposed position

1.5. Proposed subcontracts and firms involved. The bidder must list the names and details as in the table below about its proposed subcontractors.

Sections of the works	Value of subcontract	Subcontractor (name and address)	Experience in similar workl
[etc.]			

1.6. Information on current litigation in which the bidder is involved. The bidder must list the names of contracts and details as in the table below.

Other party	Cause of dispute	Amount involved

1.7. Proposed program (work method and schedule) descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding documents must be attached to the bidder's technical proposal.

### Section V (C). Bid Security Format

Whereas, [name of bidder] (hereinafter called "the bidder") has submitted his bid dated [date] for the Rehabilitation of Agriculture Link Roads, Ref: MZ/PMU/PP 2021-22/W/2 (hereinafter called "the bid").

Know all people by these presents that We [name of bank] of [name of country] having our registered office at [address] (hereinafter called "the bank") are bound unto [name of employer] (hereinafter called "the employer") in the sum of [amount] for which payment well and truly to be made to the said employer, the bank binds itself, its successors, and assigns by these presents.

Sealed with the common seal of the said bank this [day] day of [month], [year]. The conditions of this obligation are:

- 1. If, after bid opening, the bidder withdraws his bid during the period of bid validity specified in the form of bid; or
- 2. If the bidder having been notified of the acceptance of his bid by the employer during the period of bid validity:
  - a. Fails or refuses to execute the form of agreement in accordance with the Instructions to bidders, if required; or
  - b. Fails or refuses to furnish the performance security, in accordance with the instruction to bidders; or
  - c. Does not accept the correction of the bid price pursuant to clause 24,

We undertake to pay to the employer up to the above amount upon receipt of his first written demand, without the employer's having to substantiate his demand, provided that in his demand the employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including *[date]* the date 28 days after the deadline for submission of bids as stated in the Instructions to bidders or as it may be extended by the employer, notice of which extension(s) to the bank is hereby waived. Any demand in respect of this guarantee should reach the bank not later than the above date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, 2010 Revision, ICC Publication No. 758, except that the supporting statement requirement of Article 15(a) is hereby excluded and as may otherwise be stated above.

Date	Signature of the Bank	
Witness	Seal	
[Signature, name, an	d address]	

Section V. Bidding Forms
Construction of Low Cost Bridge- Ref. No: MZ/PMU/PP 2022-23/W/4

<sup>&</sup>lt;sup>3</sup>The bidder should insert the amount of the guarantee in words and figures This figure should be the same as shown in clause 14.1 of the Instructions to Bidders.

### Section V (D). Bid Securing Declaration Form

[The bidder shall fill in this form in accordance with the instructions indicated.]

Date: [date (as day, month and year)] Bid No.: [number of RFB process]

Alternative No.: [insert identification No if this alternatives are permitted and this bid for an

alternative1

To: The Chief Executive Officer, SCRAM State Project Director, FOCUS-Mizoram

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a bid-securing declaration.

We accept that we will automatically be suspended from being eligible for bidding or submitting proposals in any contract with the employer for the period of time of [number of months or years] starting on [date], if we are in breach of our obligation(s) under the bid conditions, because we:

- a. Have withdrawn our bid during the period of bid validity specified in the letter of bid; or
- b. Having been notified of the acceptance of our bid by the employer during the period of bid validity, (i) fail or refuse to sign the contract; or (ii) fail or refuse to furnish the performance security, if required, in accordance with the ITB.

We understand this bid securing declaration shall expire if we are not the successful bidder. upon the earlier of (i) our receipt of your notification to us of the name of the successful bidder; or (ii) twenty-eight days after the expiration of our bid.

Name of the bidder*	
Name of the person duly authorized to	sign the bid on behalf of the bidder**
Title of the person signing the bid	
Signature of the person named above	
Date signed	, day of,,

- \*: In the case of the bid submitted by joint venture specify the name of the joint venture as
- \*\*: Person signing the bid shall have the power of attorney given by the bidder attached to the bid

[Note: In case of a joint venture, the bid-securing declaration must be in the name of all members to the joint venture that submits the bid.]

# Section V (E). Technical Proposal Documents to be Submitted by the Bidder

- Key Personnel Schedule (Resume and Declaration Key Personnel) as required by the Employer in Section IV-Qualification and Evaluation Criteria.
- Contractor's Equipment as required by the Employer in Section IV-Qualification and Evaluation Criteria.
- Site Organization
- Method Statement including ES Management Strategies and Implementation Plans
- Mobilization Schedule
- Construction Schedule
- Code of Conduct of Contractor's Personnel

### **Key Personnel Schedule**

Bidders should provide the names and details of the suitably qualified key personnel to perform the contract. The data on their experience should be supplied using the form PER-2 below for each candidate.

#### **Key Personnel**

1.	Title of position: Project Site Manager			
	Name of candidate:			
	Duration of appointment:	[insert the whole period (start and end dates) for which this position will be engaged]		
	Time commitment for this position:	[insert the number of days/week/months/ that has been scheduled for this position]		
	Expected time schedule for this position:	[insert the expected time schedule for this position (e.g. attach high level Gantt chart]		
2.	Title of position: Pro	ject Engineer		
	Name of candidate:			
	Duration of appointment:	[insert the whole period (start and end dates) for which this position will be engaged]		
	Time commitment for this position:	[insert the number of days/week/months/ that has been scheduled for this position]		
	Expected time schedule for this position:	[insert the expected time schedule for this position (e.g. attach high level Gantt chart]		
3.	Title of position: Env	vironmental & Social Specialist		
	Name of candidate:			
	Duration of appointment:	[insert the whole period (start and end dates) for which this position will be engaged]		
	Time commitment for this position:	[insert the number of days/week/months/ that has been scheduled for this position]		
	Expected time schedule for this position:	[insert the expected time schedule for this position (e.g. attach high level Gantt chart]		
4.	Title of position: Site	e Engineer		
	Name of candidate:			

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

### Resume and Declaration Key Personnel

Name of bidder			

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

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

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

#### **Declaration**

I, the undersigned key personnel, certify that to the best of my knowledge and belief, the information contained in this form PER-2 correctly describes myself, my qualifications and my experience.

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

Commitment	Details	
Commitment to duration of contract:	[insert period (start and end dates) for which this Key Personnel is available to work on this contract]	
Time commitment:	[insert the number of days/week/months/ that this Key Personnel will be engaged]	

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

- a. Be taken into consideration during bid evaluation;
- b. My disqualification from participating in the bid;
- c. My dismissal from the contract.

Name of key personnel: [insert name]	
Signature:	
Date: (day month year):	
Countersignature of authorized representative of the bidder:	
Signature:	
Date: (day month year):	

### **Contractor's Equipment**

The bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III Evaluation and Qualification Criteria. A separate form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the bidder. The bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (\*) shall be used for evaluation.

Type of Equipment*			
Equipment Information	Name of manufacturer,	Model and power rating	
	Capacity*	Year of manufacture*	
Current Status	Current location		
	Details of current commitments		
Source	Indicate source of the equipment  ☐ Owned ☐ Rented ☐	Leased ☐ Specially manufactured	

The following information shall be provided only for equipment not owned by the bidder.

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

## **Site Organization**

[insert Site Organization information]

#### **Method Statement**

[insert Method Statement]

In developing its Method Statement, the bidder shall have regard to the environmental and social (ES) provisions of the contract including those as may be more fully described in the specifications (works requirements) in Section X.

The technical proposal must all present the bidder's health and safety plans during execution of the works.

### **Mobilization Schedule**

[insert Mobilization Schedule]

### **Construction Schedule**

[insert Construction Schedule]

#### Code of Conduct for Contractor's Personnel Form

Note to the bidder:

The minimum content of the code of conduct form as set out by the employer shall not be substantially modified. However, the bidder may add requirements as appropriate, including to take into account contract-specific issues/risks.

The bidder shall initial and submit the code of conduct form as part of its bid.

#### Code of Conduct for Contractor's Personnel

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

This code of conduct is part of our measures to deal with environmental and social risks related to the works. It applies to all our staff, laborers and other employees at the works site or other places where the works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the works. All such persons are referred to as "contractor's personnel" and are subject to this code of conduct.

This code of conduct identifies the behavior that we require from all contractor's personnel.

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

#### **Required Conduct**

Contractor's Personnel shall:

- 1. Carry out his/her duties competently and diligently;
- 2. Comply with this code of conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other contractor's personnel and any other person;
- 3. Maintain a safe working environment including by:
  - a. Ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
  - b. Wearing required personal protective equipment;
  - c. Using appropriate measures relating to chemical, physical and biological substances and agents; and
  - d. Following applicable emergency operating procedures.
- 4. Report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;

- 5. Treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
- 6. Not engage in sexual harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other contractor's or employer's personnel;
- 7. Not engage in sexual exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
- 8. Not engage in sexual abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
- Not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
- 10. Complete relevant training courses that will be provided related to the environmental and social aspects of the contract, including on health and safety matters, and Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH);
- 11. Report violations of this code of conduct; and
- 12. Not retaliate against any person who reports violations of this code of conduct, whether to us or the employer, or who makes use of the grievance mechanism for contractor's personnel or the project's Grievance Redress Mechanism.

#### **Raising Concerns**

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

- 1. Contact [enter name of the contractor's social expert with relevant experience in handling gender-based violence, or if such person is not required under the contract, another individual designated by the contractor to handle these matters] in writing at this address [ ] or by telephone at [ ] or in person at [ ]; or
- 2. Call [ ] to reach the contractor's hotline (if any) and leave a message.

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

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

#### Consequences of violating the code of conduct

Any violation of this code of conduct by contractor's personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

#### For contractor's personnel:

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

Name of contractor's personnel: [insert name]
Signature:
Date: (day month year):
Countersignature of authorized representative of the contractor:
Signature:
Date: (day month year):

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

#### **Attachment 1 to the Code of Conduct**

## Behaviors Constituting Sexual Exploitation and Abuse (SEA) and behaviors Constituting Sexual Harassment (SH)

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

- 1. Examples of sexual exploitation and abuse include, but are not limited to:
  - A contractor's personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
  - A contractor's personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
  - A contractor's personnel rapes, or otherwise sexually assaults a member of the community.
  - A contractor's personnel denies a person access to the site unless he/she performs a sexual favor.
  - A contractor's personnel tells a person applying for employment under the contract that he/she will only hire him/her if he/she has sex with him/her.
- 2. Examples of sexual harassment in a work context
  - Contractor's personnel comment on the appearance of another contractor's personnel (either positive or negative) and sexual desirability.
  - When a contractor's personnel complains about comments made by another contractor's personnel on his/her appearance, the other contractor's personnel comment that he/she is "asking for it" because of how he/she dresses.
  - Unwelcome touching of a contractor's or employer's personnel by another contractor's personnel.
  - A contractor's personnel tells another contractor's personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

### **Section VI. General Conditions of Contract**

### **Section VI. General Conditions of Contract**

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#### **General Conditions of Contract**

#### 1. Definitions

1.1 Boldface type is used to identify defined terms.

**Activity schedule** means the priced and completed activity schedule forming part of the bid for a lump sum contract.

**Bill of quantities** means the priced and completed bill of quantities forming part of the bid for a unit rate contract.

**Compensation events** are those defined in clause 24 hereunder.

**The completion date** is the date of completion of the works as certified by the project manager, in accordance with sub-clause 31.

**The contract** is the contract between the employer and the contractor to execute, complete, and maintain the works. The name and identification number of the contract is given in the SCC.

**The contractor** is the person or corporate body whose bid to carry out the works has been accepted by the employer.

The **contractor's bid** is the letter of bid and priced bill of quantities or priced activity schedule submitted by the contractor to the employer.

The **contract price** is the price stated in the letter of acceptance and thereafter as adjusted in accordance with the provisions of the contract.

**Dayworks** are additional, varied work inputs subject to payment on a time basis for the contractor's employees and equipment, in addition to payments for associated materials and plant.

Days are calendar days; months are calendar months.

A **defect** is any part of the works not completed in accordance with the contract.

The **defects liability period** is the period named in the SCC and calculated from the completion date.

**Drawings** include calculations and other information provided or approved by the employer for the execution of the contract.

The **employer**, as specified in the SCC, is the party who employs the contractor to carry out the works. The name of the employer's representative authorized to deal with the contractor is also given in the SCC.

The **employer's country** is the country in which the employer entity legally resides and operates from, as named in the SCC.

**Equipment** is the contractor's machinery and vehicles brought temporarily to the site to construct the works.

**The Fund** or **IFAD** means the International Fund for Agricultural Development.

**GCC** means the general conditions of contract contained in this section.

The **initial contract price** is the contract price listed in the employer's letter of acceptance.

**Materials** are all supplies, plant (electro-mechanical machinery) and materials including consumables, used by the contractor for incorporation in the works.

The **project manager** is the person named in the SCC (or any other competent person appointed by the employer and notified to the contractor, to act on behalf of the employer) who is responsible for supervising the execution of the works and administering the contract

The **required completion date** is the date on which it is required that the contractor shall complete the works. The required completion date is specified in the SCC. The completion date may be revised only by the employer by issuing an extension of time or an acceleration order.

**SCC** means the special conditions of contract.

The **site** is the area defined as such in the SCC.

**Specification** means the specification of the works included in the contract and any modification or addition made or approved by the employer.

The **start date** is given in the SCC. It is the latest date when the contractor shall commence execution of the works. It does not necessarily coincide with any of the site possession dates.

A **subcontractor** is a person or corporate body who has a contract with the contractor to carry out a part of the work in the contract, which includes work on the site.

**Temporary works** are works designed, constructed, installed and removed by the contractor that are needed for construction or installation of the works.

A **variation** is an instruction given by the project manager with the approval of the employer which varies the original work requirement or specifications.

The **works** are what the contract requires the contractor to construct, install, and turn over to the employer, as defined in the SCC.

**SECAP** means IFAD's Environmental, Social and Climate Assessment Procedures.

- 1.2 This shall be a "unit price contract based on priced bill of quantities" or a "lump sum contract" based on priced activity schedule", as specified in the SCC.
- 2. Language and Law
- 2.1 The language of the contract and the law governing the contract are as provided in the SCC.
- 3. Communication
- 3.1 Communications between parties that are referred to in these Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
- 4. Prohibited Practices
- 4.1 The Fund requires that all beneficiaries of IFAD funding, including the employer and any bidders, implementing partners, service providers, suppliers, sub-suppliers, contractors, sub-contractors, consultants, sub-consultants, and any of their agents (whether declared or not) and personnel observe the highest standards of ethics during the procurement and execution of such contracts, and comply with IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations, revised on 12 December 2018 (EB 2018/125/R.6, hereinafter "IFAD's Anti-Corruption Policy").
- 4.2 For the purposes of these provisions, and consistent with IFAD's Anticorruption Policy, the terms set forth below are defined as follows, and sometimes referred to collectively as "prohibited practices":

- (a) "Corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value in order to improperly influence the actions of another party;
- (b) "Fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party in order to obtain a financial or other benefit or to avoid an obligation;
- (c) "Collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including improperly influencing the actions of another party;
- (d) "Coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of any party, to improperly influence the actions of that or another party;
- (e) "Obstructive practice" is (i) deliberately destroying, falsifying, altering or concealing evidence that may be material to an investigation by the Fund or making false statements to investigators in order to materially impede an investigation by the Fund; (ii) threatening, harassing or intimidating any party in order to prevent that party from disclosing its knowledge of matters relevant to an investigation by the Fund or from pursuing such an investigation; and/or (iii) the commission of any act intended to materially impede the exercise of the Fund's contractual rights of audit, inspection and access to information.
- 4.3 The Fund will deny approval of a proposed contract award if it determines that the firm or individual recommended for award, or any of its personnel or agents, or its sub-consultants, sub-contractors, service providers, suppliers, sub-suppliers and/or any of their personnel or agents, has, directly or indirectly, engaged in any of the prohibited practices in connection with an IFAD-financed and/or IFAD-managed activity or operation, including in competing for the contract.
- 4.4 In accordance with IFAD's Anticorruption Policy, the Fund has the right to sanction firms and individuals, including by declaring them ineligible, either indefinitely or for a stated period of time, to participate in any IFAD-financed and/or IFAD-managed activity or operation. This may include ineligibility to: (i) be awarded or otherwise benefit from any IFAD-financed contract,

financially or in any other manner; (ii) be a nominated subcontractor, consultant, manufacturer, supplier, sub-supplier, agent or service provider of an otherwise eligible firm being awarded an IFAD-financed contract; and (iii) receive the proceeds of any loan or grant provided by the Fund.<sup>4</sup> The Fund also has the right to unilaterally recognize debarments by any of the International Financial Institutions that are members to the Agreement for Mutual Enforcement of Debarment Decisions if such debarments meet the requirements for mutual recognition under the Agreement for Mutual Enforcement of Debarment Decisions.

- 4.5 In addition, the Fund has the right to, at any time, declare a misprocurement and/or the ineligibility of any expenditures associated with a procurement process or contract if it determines that prohibited practices occurred in connection with this procurement process or contract and that the borrower/recipient has not taken timely and appropriate action, satisfactory to the Fund, to address such practices when they occur.
- 4.6 Bidders, suppliers, consultants, contractors, and their sub-contractors, sub-consultants, service providers, suppliers, agents and personnel, are required to fully cooperate with any investigation conducted by the Fund into possible prohibited practices, including by making personnel available for interviews and by providing full access to any and all accounts, premises, documents and records (including electronic records) relating to the relevant IFAD-financed and/or IFAD-managed operation or activity and to have such accounts, premises, records and documents audited and/or inspected by auditors and/or investigators appointed by the Fund.
- 4.7 The bidder is obliged to disclose relevant prior sanctions and criminal convictions and any commissions or fees paid or are to be paid to any agents or other party in connection with this procurement process or the execution of the contract.
- 4.8 The bidder shall keep all records and documents, including electronic records, relating to this procurement process available for a minimum of three (3) years after notification of completion of the process or, in case the bidder is awarded the contract, execution of the contract.

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<sup>&</sup>lt;sup>4</sup> For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

- Prohibition of Sexual Harassment, Sexual Exploitation and Abuse
- 5.1 The Fund requires that all beneficiaries of IFAD Funding, including the employer and any bidders, implementing partners, service providers, suppliers, sub-suppliers, contractors, sub-contractors, consultants, sub-consultants, and any of their agents (whether declared or not) and personnel comply with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse. For the purpose of this provision, and consistent with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse as it may be amended from time to time, the terms set forth below are defined as follows:
  - (a) Sexual harassment means "any unwelcome sexual advance, request for sexual favour or other verbal, nonverbal or physical conduct of a sexual nature that unreasonably interferes with work, alters or is made a condition of employment, or creates an intimidating, hostile or offensive work environment.
  - (b) Sexual exploitation and abuse means "any actual or attempted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of others (sexual exploitation); the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions (sexual abuse)".
- 5.2 Employers, suppliers and bidders shall take all appropriate measures to prevent and prohibit sexual harassment and sexual exploitation and abuse on the part of their personnel and subcontractors or anyone else directly or indirectly employed by them or any of subcontractors in the performance of the contract. Contractors, suppliers and bidders shall immediately report to the employer or IFAD any incidents of sexual harassment and sexual exploitation and abuse arising out of or in connection with the performance of the contract or prior to its execution, including convictions, disciplinary measures, sanctions or investigations. The employer may take appropriate measures, including the termination of the contract, on the basis of proven acts of sexual harassment, sexual exploitation and abuse arising out of or in connection with the performance of the contract.
- 5.3 The bidder or subcontractor or supplier is required to disclose any relevant prior sanctions, convictions, disciplinary measures or criminal records.

#### 6. SECAP

- 6.1 This contract shall be implemented in a manner consistent with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), available on <a href="https://www.ifad.org/en/secap">https://www.ifad.org/en/secap</a>.
- 7. Sub-contracting and other contractors
- 7.1 The contractor may subcontract with the approval of the project manager, but may not assign the contract without approval of the employer in writing. Subcontracting shall not alter the contractor's obligations. Not more than the percentage of the works value indicated in the SCC may be sub-contracted to registered contractors. The contractor shall cooperate and share the site with other contractors, public authorities, utilities, and the employer.
- 8. Personnel and Labour Requirements
- 8.1 The contractor shall employ the key personnel named in the schedule of key personnel, referred to in the SCC, to carry out the functions stated in the schedule. Replacement of such personnel must be approved by the project manager. The project manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the schedule.
- 8.2 If the project manager asks the contractor to remove a person who is a member of the contractor's staff or work force, stating valid reasons including breach of the code of conduct, the contractor shall ensure that the person leaves the site within 72 hours and has no further connection with the work in the contract.
- 8.3 The contractor shall provide and employ on the site for the execution of the works such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the contract. The contractor shall provide the contractor's personnel information and documentation that are clear and understandable regarding their terms and conditions of employment. The information and documentation shall set out their rights under relevant labor laws applicable to the contractor's personnel (which will include all ILO core labour standards: prohibition of child labour and worst forms of child labour, forced labour, nondiscrimination, freedom of association and collective bargaining). including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from any requirements in the specifications. The contractor's personnel shall be informed when any material changes to their terms or conditions of employment occur.
- 9. Contractor's and Employer's Risks
- 9.1 From the starting date until the defects liability certificate has been issued, the risks of personal injury, death, and loss of

or damage to property (including, without limitation, the works, materials, and equipment) which are not employer's risks are contractor's risks.

- 9.2 From the start date until the defects liability certificate has been issued, the following are employer's risks:
  - (a) The risk of personal injury, death, or loss of or damage to property (excluding the works, plant, materials, and equipment), which are due to
    - (i) Use or occupation of the site by the works or for the purpose of the works, which is the unavoidable result of the works or
    - (ii) Negligence, breach of statutory duty, or interference with any legal right by the employer or by any person employed by or contracted to him except the contractor.
  - (b) The risk of damage to the works, plant, materials, and equipment to the extent that it is due to a fault of the employer or in the employer's design, or due to war or radioactive contamination directly affecting the country where the works are to be executed.
- 9.3 From the completion date until the defects liability certificate has been issued, the risk of loss of or damage to the works, plant, and materials is an employer's risk except loss or damage due to
  - (a) A defect which existed on the completion date,
  - (b) An event occurring before the completion date, which was not itself an employer's risk, or
  - (c) The activities of the contractor on the site after the completion date.

#### 10. Insurance

- 10.1 The contractor shall provide, in the joint names of the employer and the contractor, insurance cover from the start date to the end of the defects liability period, in the amounts stated in the SCC, for the following events which are due to the contractor's risks:
  - (a) Loss of or damage to the works, equipment and materials;
  - (b) Loss of or damage to property (except the works, materials and equipment) in connection with the contract; and

- (c) Personal injury or death and third-party liability.
- 10.2 Policies and certificates for insurance shall be delivered by the contractor to the project manager for approval within 15 days of receipt by the contractor of the employer's letter of acceptance. All such insurance shall provide for compensation required to rectify the loss or damage incurred. If the contractor fails to provide the required certificates, the contract shall be considered as annulled. However, the employer at its discretion may decide to extend the period for submission of insurance certificates or take out the insurance and deduct the cost of premiums from the contractor's earnings.
- 10.3 Alterations to the terms of an insurance shall not be made without the approval of the employer.
- 11.Contractor to construct the works
- 11.1 The contractor shall construct and install the works in accordance with the specifications and drawings.
- 12. The works to be completed by the completion date
- 12.1 The contractor shall be given access to the site by the site possession date indicated in the SCC. The contractor shall commence execution of the works by the start date indicated in the SCC and shall carry out the works in accordance with the program submitted by the contractor, as updated with the approval of the project manager, and complete them by the required completion date.

#### 13.Safety

- 13.1 The contractor shall be responsible for the safety of all activities on the site and shall appoint a health and safety officer if so prescribed in the schedule of the contractor's key personnel.
- 13.2 The contractor shall report immediately to the project manager any health and safety incidents, accidents, injuries that require treatment and all fatalities.

#### 14.Program

14.1 Within the time stated in the SCC, the contractor shall submit to the project manager for its no-objection a program showing the general methods, arrangements, order, and timing for all the activities for construction of the works. The contractor shall update the program at intervals no longer than the period stated in the SCC. The project manager's non-objection to the program shall not alter the contractor's obligations. The contractor may revise the program and submit it to the project manager again at any time. A revised program shall show the effect of variations and compensation events.

## 15.Extension of the completion date

15.1 The project manager shall extend the completion date if a compensation event occurs or a variation is issued which makes it impossible for completion to be achieved by the required date without the contractor taking steps to accelerate the remaining work, which would cause the contractor to incur additional cost.

#### 16.Delays ordered by the project manager

16.1 The project manager may instruct the contractor to delay the start or progress of any activity within the works. Delays or suspension of work by the project manager which increase the contractor's costs shall be subject to equitable adjustments by the employer.

#### 17. Early warning

- 17.1 The contractor shall inform the project manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the contract price or delay the execution of the works. The project manager may require the contractor to provide an estimate of the expected effect of the future event or circumstance on the contract price and completion date. The estimate shall be provided by the contractor as soon as reasonably possible.
- 17.2 The contractor shall cooperate with the project manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the works and in carrying out any resulting instruction of the project manager.

## 18.Correction of defects

- 18.1 The project manager shall give notice to the contractor of any defects before the end of the defects liability period, which begins at completion, and is defined in the SCC. The defects liability period shall be extended for as long as defects remain to be corrected.
- 18.2 Every time notice of a defect is given, the contractor shall correct the notified defect within the length of time specified by the project manager in the aforementioned notice.

## 19.Uncorrected defects

19.1 If the contractor has not corrected a defect within the time specified in the project manager's notice, the project manager will assess the cost of having the defect corrected, and the contractor shall pay this amount, or the employer shall recuperate these amounts by deduction from the amounts due to the contractor.

#### 20.Bill of quantities

20.1 The bill of quantities (in the case of a lump-sum contract this entire clause 20 shall be replaced with a new clause as indicated in the SCC) shall contain items for the construction, installation,

testing, and commissioning of the works to be done by the contractor.

20.2 The bill of quantities is used to calculate the contract price. The contractor is paid for the quantity of the work actually done at the rate of the bill of quantities for each item.

## 21. Changes in the quantities

21.1 If the final quantity of the work done differs from the quantity in the bill of quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the initial contract price, the project manager shall adjust the unit rate upwards or downwards for this item commensurate with the impact of the change on the contractor's cost. (For lump- sum contracts, this clause shall be substituted by a new clause as indicated in SCC).

## 22.Payment certificates

- 22.1 The contractor shall submit to the project manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 22.2 The project manager shall check the contractor's executed work and certify the amount to be paid to the contractor.
- 22.3 The value of work executed shall be determined by the project manager.
- 22.4 The value of work executed shall comprise the value of the quantities of the items in the bill of quantities completed. (For lump sum contracts, this clause shall be substituted by a new clause as indicated in the SCC).
- 22.5 The value of work executed shall include the valuation of variations and compensation events.

#### 23. Payments

- 23.1 Payments shall be adjusted for deductions of the advance payments and retention. The employer shall pay the contractor the amounts certified by the project manager within 45 days of the date of each certificate submitted by the contractor. If the employer makes a late payment, the contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made, up to the date when the late payment is made, at the rate of interest prevailing at the local banks for construction loans.
- 23.2 Items of the works for which no rate or price has been entered in the bill of quantities shall not be paid for by the employer and shall be deemed covered by other rates and prices in the contract.

## 24.Compensation events

- 24.1 The following shall be compensation events:
  - (a) The employer does not give access to a part of the site by the site possession date stated in the SCC.
  - (b) The project manager orders a delay or does not issue drawings, specifications, or instructions required for execution of works on time.
  - (c) The project manager instructs the contractor to uncover or to carry out tests upon completed work, which is then found to have no defects.
  - (d) Other contractors, public authorities, utilities, or the employer cause delay or extra cost to the contractor.
  - (e) The advance payment is delayed.
  - (f) The project manager unreasonably delays issuing a certificate of completion.
  - (g) Any other events as stipulated in the SCC.

If such an event occurs, then the contract price shall be equitably adjusted.

#### 25.Tax

25.1 The contractor is liable for all taxes in accordance with the laws of the employer's country. However, the project manager shall adjust the contract price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the contract and the date of the last completion certificate. The adjustment shall be the change in the amount of tax payable by the contractor, provided such charges are already not reflected in the contract price.

## 26.Liquidated damages

26.1 The contractor shall pay liquidated damages to the employer at the rate per day stated in the SCC for each day that the completion date is later than the required completion date. The total amount of liquidated damages shall not exceed the ceiling amount defined in the SCC. The employer may deduct liquidated damages from any payments due to the contractor. Payment of liquidated damages shall not affect the contractor's liabilities.

#### 27. Advance payments

27.1 The employer shall make advance payment to the Contractor in the amounts stated in the SCC after the contractor has:

- (i) Delivered to the site construction equipment and/or materials for initiating the works, and
- (ii) Submitted the advance payment guarantee.
- 27.2 The contractor is to use the advance payment only to pay for equipment, materials and other expenses required specifically for carrying out the works. The contractor shall demonstrate that the advance payment has been used in this way by supply of copies of invoices or other documents to the project manager.
- 27.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the contractor. Full recovery of the advance payment shall be made by the time 75% of the value of the works have been certified for payment by the project manager.

#### 28. Retention money

28.1 An amount, specified in the SCC, will be retained from each payment to the contractor as a safeguard for ensuring satisfactory performance of the work. This money will be paid out to the contractor upon fulfilment of the contractor's contractual obligations i.e. within 15 days of the issue by the project manager of the defects liability certificate. Subject to the approval by the employer, the retention money can be released to the contractor at the time of issue of the certificate of completion of the works against submission by the contractor of an unconditional bank guarantee covering the full amount of the retention money.

#### 29. Dayworks

- 29.1 If applicable, the dayworks rates in the contractor's bid shall be used for small additional amounts of work only when the project manager has given written instructions in advance for additional work to be paid for in that way.
- 29.2 All work to be paid for as dayworks shall be recorded by the contractor on forms approved by the project manager. Each completed form shall be verified and signed by the project manager within two days of the work being done.
- 29.3 The contractor shall be paid for dayworks as work is performed subject to obtaining signed dayworks forms.

#### 30.Cost of repairs

30.1 Loss or damage to the works or materials to be incorporated in the works between the start date and the end of the defects liability periods shall be remedied by the contractor at the contractor's cost if the loss or damage arises from the contractor's risks, acts or omissions.

## 31.Completion and taking over

31.1 The contractor shall request the project manager to issue a certificate of completion of the works, and the project manager will issue such a certificate when it determines that the works are satisfactorily completed. The employer shall take over the site and the works within seven days of the project manager's issuing of a certificate of completion.

#### 32.Final account

32.1 The contractor shall supply the project manager with a detailed account of the total amount that the contractor considers payable under the contract before the end of the defects liability period. The project manager shall issue a defects liability certificate and certify any final payment that is due to the contractor within 45 days of receiving the contractor's account if it is correct and complete. If it is not, the project manager shall issue within 30 days a schedule that states the scope of the corrections or additions that are necessary. If the final account is still unsatisfactory after is has been resubmitted, the project manager shall decide on the amount payable to the contractor and issue a payment certificate.

#### 33. Termination action

- 33.1 The employer or the contractor may terminate the contract if the other party causes a fundamental breach of the contract.
- 33.2 Fundamental breaches of contract shall include, but shall not be limited to, the following:
  - (a) The contractor stops work for 21 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the project manager;
  - (b) The project manager instructs the contractor to delay the progress of the works, and the instruction is not withdrawn within 30 days and no agreement is reached on payments due contractor for cost of delay;
  - (c) The employer or the contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
  - (d) A payment certified by the project manager is not paid by the employer to the contractor within 60 days of the date of the project manager's certificate;
  - (e) The project manager gives notice that failure to correct a particular defect is a fundamental breach of contract and the contractor fails to correct it within 30 days from the date of such notice issued by the project manager;

- (f) The contractor has delayed the completion of the works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the SCC.
- (g) The employer determines that the contractor, or any of its sub-contractors, sub-consultants, suppliers, personnel or any agent or affiliate of any of them has, directly or indirectly, engaged in prohibited practices pursuant to GCC 4.
- 33.3 When either party to the contract gives notice of a breach of contract to the project manager for a cause other those listed under sub-clause 33.2 above, the project manager shall decide whether the breach is fundamental or not.
- 33.4 Notwithstanding the above, the employer may terminate the contract for convenience by giving the contractor a thirty-day notice in writing.
- 33.5 If the contract is terminated, the contractor shall stop work immediately, make the site safe and secure, and leave the site within 15 days of the completion of the notice period.

# 34.Payment upon termination

- 34.1 If the contract is terminated because of a fundamental breach of contract by the contractor, the project manager shall issue a certificate for the value of the work done and materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional liquidated damages shall not apply. If the total amount due to the employer exceeds any payment due to the contractor, the difference shall be a debt payable to the employer.
- 34.2 If the contract is terminated for the employer's convenience or because of a fundamental breach of contract by the employer, the project manager shall issue a certificate for the value of the work done, materials ordered, the reasonable cost of removal of equipment, repatriation of the contractor's personnel employed solely on the works, and the contractor's costs of protecting and securing the works, and less advance payments received up to the date of the certificate.

#### 35.Property

35.1 All materials and construction equipment on the site, plant, temporary works, and works shall be deemed to be the property of the employer if the contract is terminated because of the contractor's default.

# 36.Release from performance

36.1 If the contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the employer or the contractor, the project manager shall certify that the contract has been frustrated. The contractor shall make the site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards for which an agreement has been reached.

# 37.Resolution of disputes

37.1 The employer and the contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the contract. If after thirty (30) days from the commencement of such informal negotiations, the employer and the contractor have been unable to resolve amicably a contract dispute, either party may require that the dispute be referred to arbitration in accordance with the law governing the contract. The place where arbitration will take place will be stated in the SCC.

# 38.Performance security

38.1 The performance security shall be provided to the employer no later than the date specified in the letter of acceptance and shall be issued in the amount specified in the SCC, in a form and by a bank acceptable to the employer, and denominated in the types and proportions of the currencies in which the contract price is payable. The performance security shall be valid until a date 28 days from the date of issue of the defects liability certificate.

## **Section VII. Specific Conditions of Contract (SCC)**

## **Special Conditions of Contract**

GCC Clause										
GCC Clause Number	SCC									
1.1	Insert in the SCC the following definitions:									
	"Contract: The name and procurement number of the contract are: "Constrution of Low Cost Bridge- Ref. No: MZ/PMU/PP 2022-23/W/4"									
	"Defects liability period: the defects liability period is: 365 days after completion of works.									
	"Employer: the employer is: "Society for Climate Resilient Agriculture in Mizoram (SCRAM)"									
	The employer's country is: India									
	"Required completion date: The intended completion date shall be: 100 days from award of contract.									
	"Project manager: The project manager Deputy Director, LR,S&WC, FOCUS-Mizoram									
	"Site: the site is located at:									
	1. Lot 1 1 Suspension bridge & 2 RCC bridge Champhai distrcit Rs. 1,35,000.00									
	2. Lot 2 1 Suspension bridge & 2 RCC bridge Kolasib district Rs. 1,35,000.00									
	3. Lot 3 2 Suspension bridge & 2 RCC bridge Serchhip district Rs. 80,000.00									
	4. Lot 4 2 Suspension bridge Mamit district Rs. 90,000.00									
	5. Lot 5 2 Suspension bridge Saitual district Rs. 90,000.00									
	6. Lot 6 2 Suspension bridge & 1 RCC bridge & Slab Culvert Khawzawl distrcit Rs. 1,35,000.00									
	and is defined in drawing Nos. 1 to 18 attached."									
	"Start date: the start date shall be <i>[insert date]</i> "									
	"Works: the works consist of: "Suspension Bridge, RCC Bridge and culvert construction."									

1.2	This contract shall be a unit priced contract based on priced bills of quantities.
2.1	The language of the contract is <i>English</i> . The governing law is the law of the employer's country.
7.1	Maximum allowable percentage for sub-contracting is 15% of the value of the contract price/works. The contractor must obtain prior approval from the CEO, SCRAM.
8.1	The schedule of key personnel are:
	Project Site Manager
	2. Project Engineer
	3. Site Engineer
10.1	The minimum insurance covers shall be (for each lot):
	(a) The minimum insurance cover for the loss of or damage to the works, equipment and materials shall be 110% of the value of the works, equipment and materials, with a maximum deductible for each insurance claim of INR 50000.00
	(b) The minimum insurance cover for loss of or damage to property (except the works, plant, materials and equipment) is 110% of the property value with a maximum deductible of INR 50000.00
	(c) The minimum insurance cover for personal injury or death and third-party liability is as per the state government rules with no deductible.
12.1	The site possession date shall be
14.1	The period for submission of the program is 15 days from the date of signature of agreement.  The period between the program updates is 50 days.
20	In the case of lump sum contracts, clause 20 shall be replaced by the following new clause as follows:  Not Applicable
21.1	In the case of lump sum contracts, clause 21.1 shall be replaced by the following new clause 22.1 as follows:  Not Applicable

22.4	In case of lump sum contracts, clause 22.4 is replaced as follows:
	(a) Not Applicable
24.1	The following are additional compensation events:
	<ul><li>(a) Unforseen events such as landslide, lockdown, natura disaster, etc. where works cannot be continued.</li><li>(b) Rainy days where heavy rainfall occurs.</li></ul>
26.1	The liquidated damages for each section of the works is 0.2% of the
	final contract price per day.
	The maximum amount of liquidated damages for the whole of the works is 5% of the final contract price.
27.1	The advance payment will be 10 percent of the Initial contract price.
00.4	
28.1	The amount of retention money will be 10% of each payment due to the contractor up to the maximum of 10% of the total contract amount.
34.1	The percentage to apply to the value of the works not completed,
	representing the employer's additional cost for completing the works is 10%.
36.1	The place where arbitration shall take place is: Aizawl.
37.1	The performance security amount is 10% of the contract value in the
	form of "Unconditional Bank Guarantee" or "Irrevocable Letter of Credit"
	or "Bond"or "Demand Draft" in favor of te Chief Executive Officer, SCRAM.
Adjustments for Changes in Cost (if any)	Adjustment Formulate: "The adjustment to the Interim Payment Certificates in respect of changes in cost and legislation shall be determined from separate formulae for each of the types of construction work to be performed and Plant to be supplied. The formulae will be of the following general type:
	Pn=A+ b Ln/Lo+c En/Eo+d Mn +d Mn/Mo+
	Where: "Pn" is the adjustment multiplier to be applied to the estimated contract value in the relevant currency, for the work carried out during the period "n";
	this
	period is one month unless the Contract Data provide otherwise; "a" is a fixed coefficient, mentioned in the table of adjustment data, representing the non-adjustable portion in contractual payments; "b", "c", "d", etc. are coefficients representing the estimated portion of each

cost element related to the Works; these cost elements presented in a table

can reflect resources such as labour, equipment and materials; "Ln", "En", "Mn", etc. are actual price indices or reference prices for the period "n", expressed in the relevant payment currency, each of which is applicable to the cost element 49 days before the last day of the period (which the relevant Payment Certificate refers to); and "Lo", "Eo", "Mo", etc. are basic price indices or reference prices,

expressed in the relevant payment currency, each of which is applicable to the

price element, presented in table format, on the Reference Date (date 28 days

before the expiration of the Offer submission deadline).

relevant

# **Works Requirements**

The works requirements include:

- (a) Contractor's staff
- (b) Contractor's equipment
- (c) the Specifications (Section VIII)
- (d) the Drawings (Section IX)
- (e) the Bill of Quantities and Daywork Schedules.

## **Section VIII. Specifications**

#### SPECIFICATIONS OF LOW COST BRIDGE- SUSPENSION & RCC

## <u>Technical Specifications and Performance Requirements</u>

- **FOUNDATION**: R.C.C Isolated footing/foundation(1.65mx1.5m) using specified concrete grade(M20) with design mix of 1:1.5:3 (1cement:1.5sand:3aggregrates) and Fe500 Steel is adopted.
- **COLUMN**: R.C.C Columns (0.4m x 0.4m) using specified concrete grade(M20) with designed mix of 1:1.5:3 (1cement:1.5sand:3aggregrates) and Fe500 Steel is adopted.
- **BEAM**: R.C.C Beams (0.3m x 0.4m) using specified concrete grade(M20) with designed mix of 1:1.5:3 (1cement:1.5sand:3aggregrates) and Fe500 Steel is adopted.
- **ANCHOR**: P.C.C Anchor(3.5mx2.3m) using specified concrete grade(M15) with designed mix of 1:2:4 (1cement:2sand:4aggregrates).
- **PLASTERING**: Anchor, Column and Beam plastering should be 12mm thickness plastering with 1Cement:3 Fine sand.
- **CABLE**: Suspension cable material should be high Tosil wire and its diameter should be 20mm.
- **U-CLAMP**: The size of U-Clamps should be 20mm dia.
- **WOOD**: The wood material for Crossing beams, Long beams and Wheel track should be 1<sup>st</sup> class local wood.
- Crossing Beam size should be (1.8mx0.1mx0.08m).
- Long Beam size should be (0.1mx0.05m).
- Wheel track (0.35m c/c) size should be (0.3mx0.03m).

#### **Construction Equipment**

The following conditions regarding use of equipment in work shall be satisfied:

- 1) The Contractor shall have the required machines/equipment for all the construction works.
- 2) The contractor shall be required to give a trial run of the equipment for establishing their capability to achieve the laid down specifications and the tolerances to the satisfaction of the Engineer before commencement of the work.
- 3) All equipment provided shall be of proven efficiency and shall be operated and maintained at all times in a manner acceptable to the Engineer.
- 4) Plants, equipment and instruments provided shall have adequate sensitivity, facility for calibration to desired level and shall be robust.
- 5) Plants, equipment and instruments provided shall have adequate safety features and pollution control devices.
- 6) Plants, equipment and instruments provided shall be operated by skilled and qualified operators.

- 7) The Contractor shall make available stand by equipment and spare parts.
- 8) The Contractor shall also make available equipment for site quality control work as directed by Engineer.

#### **Retaining Wall**

The purpose is to retain the earth pressure and to prevent the earth from sliding. A retaining wall must have a weep hole provided on different places of the wall. The weep hole shall be have a slope of 1 in 10 and it shall be provided staring 15cm - 30 cm from the ground and shall be placed at 1m intervals. Stone masonry shall be used for the retaining wall. The face of the retaining wall shall have a slope of 1:4 and the inside is vertically straight. But if the soil foundation is unsteady a slope of 1:3 shall be used. The contractor must inform the Engineer before starting the work of the retaining wall structure and measurement shall be carried out. Boulder filling shall be provided without disturbing the weep hole.

#### **RCC Slab Culvert**

The foundation or the base shall be compacted quite enough and using of M20 PCC shall be maintained. The abutment wall shall be stone masonry and the slab shall be of RCC and curing of all the works shall be maintained properly. No vehicle should run before the completion of curing (28 days).

#### **Excavation of Soil**

Excavation of soil for the proposed retaining wall and culvert shall be done during dry season for the prevention of erosion and scouring of soil as well as to prevent landslide.

Careful excavation shall be maintained under the supervision of expert operator or Engineer.

Manual or mechanical excavation shall be utilize.

#### **Foundation Soil**

The foundation soil shall be native undisturbed on-site soils. The foundation soil shall be examined and approved by the Design Engineer, prior to placement of the levelling base, to ensure that it meets or exceeds the assumed design conditions. Where the foundation soil does not meet the design conditions, the unacceptable material will be removed and replaced with acceptable material. Compaction of the foundation shall be perform until the soil base is firm and steady.

#### Concrete

For Plain Cement Concrete a minimum of M10 shall be used for the foundation of retaining wall. All the available materials to be used for the construction work must be of good quality. Curing of all the concrete works must be taken care of to achieve high strength of concrete.

#### **Cement Mortar**

A mortar of 1:3 shall be used for the bonding of stone masonry in retaining wall and culvert abutment. Culvert abutment shall be plastered by 15mm thick, a minimum of 1:3 mortar with a mixture of waterproof materials.

Materials (As per IRC 15:2011)

#### Cement

Any of the following types of cement capable of achieving the design strength may be used with prior approval of the Engineer, but the preference should be the used of 43 grade:

- a) Ordinary Portland Cement, 33 Grade, IS:269
- b) Ordinary Portland Cement, 43 Grade, IS:8112
- c) Portland-Pozzolana Cement IS 1489 (Part 1 ) (with fly ash content not more than 20 percent by weight of PPC)\*
- d) Portland Slag Cement, IS 455 (with Granulated Blast Furnace Slag content not more than 50 percent by weight of Portland Slag Cement)\*
- e) If the soil around has soluble salts, like, sulphates in excess of 0.5 per cent, the cement used shall be sulphate resistant and shall conform to IS: 12330.
- f) Cement to be used may preferably be obtained in bulk form. If cement in paper bags is proposed to be used, there shall be bag-splitters with the facility to separate pieces of paper bags and dispose them off suitably. No paper pieces shall enter the concrete mix. Bulk cement shall be stored in vertical or horizontal silos. The cement shall be subjected to acceptance tests prior to its use.

#### **Aggregates**

Aggregates for pavement concrete shall be natural material complying with IS 383 but with a Los Angeles Abrasion Value not more than 35 percent. The limits of deleterious materials shall not exceed the requirements set out in IS 383.

The aggregates shall be free from chert, flint, chalcedony or silica in a form that can react with the alkalies in the cement. In addition, the total chlorides content expressed as chloride ion content shall not exceed 0.06 percent by weight and the total sulphate content expressed as sulphuric anhydride (S0<sub>3</sub>) shall not exceed 0.25 percent by weight.

#### Coarse aggregate

Coarse aggregate shall consist of clean, hard, strong, dense, non-porous and durable pieces of crushed stone or crushed gravel and shall be devoid of pieces of disintegrated stone, soft, flaky, elongated, very angular or splintery pieces. The combined flakiness and elongation index shall not be more than 35 percent. Limestone aggregate may be used conforming to IS 383. The maximum size of coarse aggregate shall not exceed 31 .5 mm in PQC and 26.5 mm in case of DLC.

Continuously graded aggregates to be used, depending on the combined grading of the coarse and fine aggregate. No aggregate which has water absorption more than3 percent shall be used in concrete mix. All aggregates shall be tested for soundness in accordance with IS 2386 (Part V). After 5 cycles of testing, the loss shall not be more than1 2 percent if sodium sulphate solution is used or 1 8 percent if magnesium sulphate solution is used, irrespective of their water absorption. Aggregates with water absorption more than 3 percent shall, however, be rejected irrespective of soundness test results.

Coarse aggregate shall consist of clean, hard, strong, dense, non-porous and durable pieces of crushed stone or crushed gravel and shall be devoid of pieces of disintegrated stone, soft, flaky, elongated, very angular or splintery pieces. The maximum size of coarse aggregate shall not exceed 25 mm for pavement concrete.

No aggregate which has water absorption more than 2 per cent shall be used in the concrete mix.

#### Fine aggregate

The fine aggregate shall consist of clean natural sand or crushed stone sand or a combination of the two and shall conform to IS 383. Fine aggregate shall be free from soft particles, clav, shale, loam, cemented particles, mica and organic and other foreign matter. Aggregates which have water absorption of more than 3 percent shall not be used. All aggregates shall be tested for soundness in accordance with IS 2386 (Part V). After 5 cycles of testing, the loss shall not be more than 12 percent if sodium sulphates solution is used or 18 percent if magnesium sulphate solution is used, irrespective of their water absorption. Aggregates with water absorption more than 3 percent shall, however, be rejected irrespective of soundness test results. The fine aggregates shall not contain substances more than the following:

Clay lumps : 1.0 percent
Coal and lignite : 1.0 percent
Material passing IS sieve 75 micron

i) Natural sandii) Natural sandii) Crushed Stone sand \*ii) 5 percent by weight of crushed stone

Blend of natural sand and crushed stone sand or crushed stone sand alone: shall not exceed 8 percent by total weight of fine aggregates.

The fine aggregate shall consist of clean natural sand or crushed stone sand or a combination of the two and shall conform to IS: 383. Fine aggregate shall be free from soft particles, clay, shale, loam, cemented particles, mica and organic and other foreign matter. Although IS 383 permits in the case of stone crushed sand, the fines passing 75 microns upto 15 percent. However, this provision should be used with caution when crushed stone sand is used as fine aggregate and when the mix produced in the Laboratory and the field is satisfactory in all respects and complies with the requirement of Specification. The grading zone of fine aggregates as per IS 383 shall be within the limits as given in Table 1.

Table 1 Fine Aggregates Requirements of different Grading Zone

IS Sieve Designation	Percentage Passing for							
	Grading	Grading	Grading	Grading				
	Zone I	Zone II	Zone III	Zone IV				
10 mm	100	100	100	100				
4.75 mm	90-100	90-100	90-100	90-100				
2.36 mm	60-95	75-100	85-100	95-100				
1.18 mm	30-70	55-90	75-100	90-100				
600 micron	15-34	35-59	60-79	80-100				
300 micron	5-20	8-30	12-40	15-50				
150 micron	0-10	0-10	0-10	0-15				

Combined grading Table 2 and 3 is recommended for combined gradation of fine and coarse aggregate) in case of DLC (Dry Lean Concrete) and PQC (Paving Quality Concrete) respectively.

Table 2 Aggregate Gradation for Dry Lean Concrete

		Sieve
1	26.50 mm	100
2	19.0 mm	80-100
3	9.50 mm	55-75
4	4.75 mm	35-60
5	600 micron	10-35
6	75 micron	0-5

Note: The above grading is applicable both for natural river sand and crushed stone sand. Table 3 Aggregate Gradation for Pavement Quality Concrete

SI. No.	Sieve Designation	Percentage by weight passing the
		Sieve
1	31.50 mm	100
2	26.50 mm	85-95
3	19.0 mm	68-88
4	9.50 mm	45-65
5	4.75 mm	30-55
6	600 micron	8-30
7	150 micron	5-15
8	75 micron	0-5

Note: The above grading is applicable both for Natural River sand and crushed stone aggregate.

Fine aggregates shall consist of crushed or naturally occurring material, or a combination of the two, passing 2.36 mm sieve and retained on the 75 micron sieve. They shall be clean, hard durable, dry and free from dust, and soft or friable matter, organic or other deleterious matter.

#### Water

Water used for mixing and curing of concrete shall be clean and free from injurious amount of oil, salt, acid, vegetable matter or other substances harmful to the finished concrete. It shall meet the requirements stipulated in IS 456. Portable water is generally considered satisfactory for mixing and curing.

#### Steel

These shall conform to the requirements of IS 432, and IS 1786 as relevant. The dowel bars shall conform to Grade S 240 (with yield strength 240 MPa) and tie bars (deformed/ plain) to Grade Fe 500 deformed steel bars as per IS 1 786/IS 432. Tie bars may be plain or deformed. If steel mesh is used, it shall conform to IS 1566. The steel shall be coated with epoxy paint for protection against corrosion, wherever required.

#### PROPORTIONING OF CONCRETE

Proportioning on the Basis of Strength

In case of dry lean concrete, mix design shall be done as per IRC:SP:49 and in case of PQC, guidance for mix design, may be taken from IRC:44 for ascertaining the flexural/compressive Section X. Bill of Quantities

strength of cement concrete required to match with the prescribed design strength of concrete. As the stresses induced in concrete pavements are mainly flexural, it is required that their design is based on the flexural strength of concrete in all major projects. The mix shall be so designed in the laboratory as to ensure the minimum flexural strength in the field with the desired tolerance level as per IS 516. To achieve the desired minimum strength in the field, the mix in the laboratory shall be designed for somewhat higher strength, making due allowance for the type and extent of quality control likely to obtained in the field as to ensure the minimum strength is achieved in the field for this purpose.

For design of cement concrete mixes, guidance may be taken from IRC:44 "Guidelines for Cement Concrete Mix Design for Road Pavements", or IS 1 0262.

The proportioning of the concrete for Rigid pavement shall be M30 grade.

#### **Cement Content**

When Ordinary Portland Cement (OPC) is used, the quantity of OPC shall not be less than 360 kg/cu.m. In case fly ash (as per IS 3812-Part 1) is blended at site, the quantity of fly ash shall be restricted to 20 percent by weight of cementitious material and the quantity of OPC in such a blend shall not be less than 340 kg/cu.m. If this minimum OPC content is not sufficient to produce concrete of the specified strength, it shall be increased as necessary by the Contractor at his own cost. The OPC content, however, shall not exceed 425 kg/cu.m of concrete.

In the case of factory produced PPC, fly ash content shall also be restricted to 20 percent of PPC (OPC+ fly ash). PPC quantity shall not be less than 425 kg/cu.m. However, in case, the target strength is not achieved, OPC shall be added in adequate quantity to achieve the target strength by the Contractor at his own cost. It is recommended not to increase the quantity of PPC prescribed as above, to avoid too much of fines, so that early strength and durability of concrete are ensured and not adversely impacted. Similarly, for Portland Slag Cement maximum quantity of Portland slag cement shall be 510 kg/cu.m. of concrete. In case of PPC/Slag cement, strength should be checked for 3/7/28 days respectively to ensure adequate specified target strength at different period of time to ensure timely saw cutting of joints and other associated activities thereafter. In case target strength of slag cement is not achieved, it is recommended to add OPC only instead of slag cement (as recommended in PPC) over and above the quantities specified above to achieve the target strength.

#### Field Mix

After the award of the contract, the proportions, i.e., the field mix or job mix determined by the laboratory for the particular aggregates approved by the Engineer shall govern. These proportions will be corrected and adjusted by the Engineer to compensate for moisture content in the aggregates or fluctuations in the grading of coarse and fine aggregates at the time of use. Any change in the source of materials or mix proportions found necessary during the work shall be assessed by making laboratory trial mixes. Contractor must make efforts to get the mix proportion approved at least one and a half month in advance of commencing paving operation in trial length.

#### Mixing

The mixing of concrete shall be done in a plant which will ensure a uniform distribution of materials throughout the mass so that the mix is uniform in colour and homogeneous. All concrete shall be mixed in quantities for immediate use.

The mixer shall be equipped with an approved water measuring device capable of accurate measurement of water required per batch. The mixer shall preferably be equipped with a mechanically operated pump for filling the mixer tank.

The mixer shall normally be equipped with an approved timing device which will automatically lock the discharge lever during the full time of mixing and release it at the end of the mixing period; the device shall also be equipped with a bell, adjusted to ring each time the lock is released. If the timing device gets broken or out of order, the mixer will be permitted to be used while the same is being repaired, provided an approved time-piece equipped with minute and second hands is provided. Each batch shall be mixed for at least one and a half minutes or as recommended by the plant manufacturer.

Spilling of the materials at either end of the mixer shall be corrected by reducing the size of the batch and in no case shall the volume of the mixed material per batch exceed the manufacturer's guaranteed capacity of the mixer. The type, size and number of mixers shall be so chosen as to provide the required output without overloading.

The mixing speed of the drum shall not be less than 1 5 revolutions per minute nor the peripheral speed of the drum greater than 60 m per minute. The sequence of loading shall be coarse aggregates, fine aggregates, cement, fly-ash if used. After dry mixing, water will be released from venturi-meter. The plasticizer mixed with the recommended percentage of water shall be added in the last. The quantities are programmed in the computer accordingly.

The skip shall be so maintained and operated that each batch will be completely discharged into the mixing drum at the loading of the mixer. The mixer shall be cleaned at suitable intervals while in use.

#### Time of Mixina

The mixing of each batch will continue generally not less than one and half minutes, after all the materials are discharged into the mixer or as recommended by the manufacturer of the plant and to the satisfaction of the Engineer.

#### Placing of concrete

Concrete mixed in central mixing plant shall be transported to the site without delay and the concrete which has been mixed too long before laying will be rejected and shall be removed from the site. The total time taken from the addition of the water to the mix, until the completion of the surface finishing and texturing shall not exceed 120 minutes when concrete temperature is less than 25°C and 1 00 minutes when the concrete temperature is between 25°C to 30°C. Trucks/Tippers delivering concrete shall not run directly on plastic sheet nor shall they run on completed slabs until after 28 days of placing of concrete.

#### Compaction

Where semi-mechanized and labour-oriented technique is adopted, compaction of the pavement shall be accomplished by a vibrating screed supplemented by plate/internal vibrators. For slabs of thickness more than 125 mm, vibrating screeds may be supplemented by portable needle vibrators. The vibrating screed shall rest on side forms. It shall be lowered vertically on to the concrete surface, evenly spread to the appropriate level above the base to provide the required surcharge for compaction; allowed to remain in position for a few seconds until compaction is complete, then lifted vertically and lowered to the adjacent strip of uncompacted concrete. The amplitude of vibration of the screed shall not be less than 1.5 mm and the speed of travel not more than 0.6 m per minute. The screed shall again be taken slowly over the surface, sliding with its axis slightly tilted away from the direction of sliding and the operation repeated until the required dense, close knit textured surface is obtained. Compaction of concrete slabs upto 125 mm thickness may be done by means of vibrating screed alone, while for thickness greater than 125 mm both internal vibrators, like, needle and vibrating screeds shall be used. Even in the case of slabs of lower thickness, internal vibrators may be used with advantage of compacting the slab corners and edges. The working of the vibrators shall be regularly checked and stand by shall always be maintained for emergency use. Segregated particles of coarse aggregate which collect in front of the screed shall be discarded. Under no circumstances shall such segregated particles be carried forward and pushed on to the base in front of the mass. Compaction by screeding shall be carried on till the mortar in the mix just works upto the surface. Care shall be exercised and the operation of tamping so controlled as to prevent an excess of mortar and water from being worked on the top. Repeated operation other than to secure the necessary compaction and to eliminate voids shall be avoided. Immediately after the screeding has been completed and before the concrete has hardened, i.e. while the concrete is still in the plastic stage, the surface shall be inspected for irregularities with a profile checking template and any needed correction made by adding or removing concrete followed by further compaction and finishing.

#### **Curing of Concrete**

Immediately after the finishing operations have been completed, the entire surface of the newly laid concrete shall be covered against rapid drying, and cured. Curing can be done by one of the following two methods:

- i) By application of curing compound followed by spreading of wet hessian and moistening it regularly In case of arid areas where water is extremely scarce, two applications of curing compound with moist curing by wet hessian may be allowed at the discretion of the Engineer. Curing compound shall be resin based aluminized reflective type.
- ii) For small works, curing can be done by manual methods using wet hessian which is kept moist during curing period. Curing shall be done for a minimum period of 14 days. In case of blended cement curing shall be done for 16 days. The water used for curing shall also be free from all injurious chemicals, like, chlorides and sulphates and shall meet the requirements of IS 456.

#### **Protection of Concrete**

Suitable barricades and sign boards shall be erected and maintained and watchmen Section X. Bill of Quantities

employed to exclude traffic from the newly constructed pavement for the period wherein prescribed, and these barriers shall be so arranged as not in any way to interfere with or impede traffic on any lane intended to be kept open and necessary signs and lights shall be maintained clearly indicating any lanes open to the traffic. Where, as shown on the plans or indicated in the special provision, it is necessary to provide for traffic across the pavement suitable and substantial crossings to bridge over the concrete shall have to be provided. Such crossings, as constructed, shall be adequate for the traffic and approved by the Engineer.

Any part of the pavement damaged by traffic or other causes occurring prior to its final acceptance shall be repaired or replaced in a manner satisfactory to the Engineer. The pavement shall be protected against all traffic usage including that of construction vehicles. Construction traffic may be allowed only after 14 days of paving with written permission of the Engineer. However, it is preferable to open after 28 days of curing.

#### Masonry

Coursed and un-coursed rubble stone masonry shall be used for the construction of the retaining wall. All the materials shall be of good quality and shall be in good condition. Water absorption of the masonry shall be 5-10%; water absorption more than 10% shall be rejected. The stone to be used in stone masonry retaining wall shall be heavy, strong and durable. All stone masonry shall be dip into water before placing to enhance the bonding between the stone with mortar.

## **Section IX. Drawings**

Drawings can be obtained from the attachment.

List of drawings include:

#### **Lot 1: Champhai District**

- Suspension Bridge at Laphui Zau, Ngur
- RCC Bridge at Thingmaldin Zau, Zote
- RCC Bridge at Farlui Zau, Ruantlang
- Suspension Bridge at Farlui Zau, Ruantlang

#### Lot 2: Kolasib District

- RCC Bridge at Dumkhel Zau, Phaisen
- RCC Bridge at Chitephai Zau
- Suspension Bridge at Zero Point

#### **Lot 3: Serchhip District**

- Suspension Bridge at Zawlpui, Tuichar
- Suspension Bridge at Zote Kai
- RCC Bridge at Lumtui, Keitum
- RCC Bridge at Darnam

#### **Lot 4: Mamit District**

- Suspension Bridge at Thingkhuang Zau
- Suspension Bridge at Teirei Zau

#### Lot 5: Saitual District

- Suspension Bridge at Tuithilhnar, Ngopa
- Suspension Bridge at Tuivawl

#### **Lot 6: Khawzawl District**

- Suspension Bridge at Chhawrtui
- Suspension Bridge at Biate, Khawhai
- RCC Bridge & Slab Culvert at Chawngtlai

### Section X. Bill of Quantities

#### A. Preamble

- The Bill of Quantities (BOQ) shall be read in conjunction with the Instructions to Bidders, General Conditions of Contract, Particular Conditions of Contract, Technical Specifications and Drawings.
- 2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Consultant's Engineer and Project Manager and valued at the rates and prices quoted in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer or Project Manager may fix within the terms of the Contract.
- 3. Mode of measurement, if not specified elsewhere, will be as per available Codes of Practice published by PWD, Mizoram/India.
- 4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether the quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
- 5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
- 6. The rates and prices quoted in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the contract, include all temporary facilities, access, notices to maintain traffic, prevailing, in an accessible manner, as far as possible for similar flow existing and also including all construction of plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties together with all general risk, liabilities and obligation set out or implied in the contract.
- General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. Bidder must refer to the relevant sections of the bidding documents before quoting rates or prices against each item in the Bill of Quantities.
- 8. The Contractor shall be deemed to have read and examined the Bidding Documents as well as inspected the project site thoroughly to conceive the work in totality to fill up the BOQ.
- 9. The Contractor shall be deemed to be fully conversant with the site conditions and the nature and complexity of the work to be undertaken.
- 10. It is to be expressly understood that the measured work is to be taken net (not withstanding any system or practice to the contrary) according to the actual quantities finished and drawings or as may be ordered from time to time by the Engineer or Project Manager and the cost

calculated for the respective prices.

- 11. Cost of temporary power meters, telephones, construction water shall also be taken into Contractor's quoted rates. Alternative power arrangement will be made by contractor without any extra charge.
- 12. The alignment of roads, power transmission lines, water supply line shown in drawings, if any, may change and sometimes may be routed through a different alignment. Such change in alignment or route will have to be done by Contractor as per direction of the Engineer or Project Manager.
- 13. Traffic diversion will have to be done by Contractor as per approved programmed between the Project Manager and Contractor. The traffic diversion programme shall be prepared by Contractor and submitted to the Engineer for approval. Any cost on account of traffic diversion will have to be incorporated in the quoted price. No extra payment will be made on this account.
- 14. Contractor will be required to fix his own bench marks by connecting them with the bench marks given in the drawings. No extra payment will be made for this.
- 15. During progress of work, convenient access to adjacent premises shall be made by Contractor.
- 16. For speedy progress of work Contractor may have to work round the clock at the instruction of the Engineer and Project Manager. Arrangement for lighting and other safety requirements will have to be done for night working. No extra payment shall be made to the Contractor except the items provided in the BOQ.
- 17. If during the progress of work any extra items crop up, which in the opinion of the Engineer and Project Manager is essential to be executed then the extra item shall be analyzed and paid for as follows:
  - (i) The rate for the item of work shall be as per prevailing SoR at the time of submission of the bid;
  - (ii) It shall be derived from items contained in the BOQ.
- 18. The abbreviated units quoted in the Bill of Quantities are as per the Technical Specifications.

#### **B.** Work Items

1. The Bill of Quantities contains the following parts, which have been grouped according to the nature or timing of the work:

Bill Number 1: General Items

Bill Number 2: Site Clearance

Bill Number 3: Road works - Formation cutting etc.
Bill Number 4: Pavement works (GSB and PCC)

Bill Number 5: Walls (Retaining walls/Protection walls)

Bill Number 6: RCC/Pipe culvert

Bill Number 7: Cross Drains and side drains

Bill Number 8: Traffic signs, road marker stones and delineators

Bill Number 9: Day works

#### C. Daywork Schedule

#### General

 Work shall not be executed on a Daywork basis except by written order of the Project Manager. Bidders shall enter basic rates for Daywork items in the Schedules, which rates shall apply to any quantity of Daywork ordered by the Project Manager. Nominal quantities have been indicated against each item of Daywork, and the bidders must provide competitive rates for each item.

#### **Daywork Labour**

- In calculating payments due to the Contractor for the execution of Daywork, the hours for labour will be reckoned from the time of arrival of the labour at the job site to execute the particular item of Daywork to the time of return to the original place of departure, but excluding meal breaks and rest periods. Working hours is expected to be 8 hrs per day. Only the time of classes of labour directly doing work ordered by the Project Manager and for which they are competent to perform will be measured.
- 3. The Contractor shall be entitled to payment in respect of the total time that labor is employed on Daywork, calculated at the rates quoted in the Daywork of BOQ. The rates for labor shall be deemed to cover all costs to the Contractor including (but not limited to) the amount of wages paid to such labor, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labor for social benefits in accordance with law of the country, as well as Contractor's profit, overheads, superintendence, liabilities and insurance and allowance to labor, timekeeping and clerical and office work, the use of consumable stores, water, lighting and power; the use and repair of staging, scaffoldings, workshops and stores, portable power tools; supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing.

#### **Daywork Materials**

- 4. The Contractor shall be entitled to payment in respect of materials used for Daywork (except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore), at the rates entered by him in the Materials section of Daywork, and shall be deemed to include overhead charges and profit as follows;
  - (a). the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site. The rates shall be stated in local currency.
  - (b). the cost of hauling materials for use on work ordered to be carried out as Daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for labor and Constructional Plant in this Schedule.

#### **Daywork Construction Equipment**

- 5. The Contractor shall be entitled to payments in respect of Construction Equipment already on Site and employed on Daywork at the rental rates entered by him in the Construction Equipment section of Daywork. The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity, and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, cost of drivers, operation and assistants and all overhead, profit, and administrative costs related to the use of such equipment.
- 6. In calculating the payment due to the Contractor for Construction Equipment employed on Daywork, only the
  - actual number of working hours will be eligible for payment.

### **TECHNICAL SPECIFICATIONS**

#### INTRODUCTION

These specifications cover the construction of the Works, as shown on the Drawings, in the Bill of Quantities and in the General Conditions of Contract, and shall be read in conjunction with all other contract and tender documents including the Environmental Codes of Practice. In the event of any discrepancy or assumed discrepancy being found between them, the Contractor shall immediately inform the Project Manager of the matter in writing and the Project Manager will issue his instructions in the matter in accordance with the Conditions of Contract including the Environmental Codes of Practice for Highways and Roads of Department of Roads.

#### **SCOPE OF WORKS**

The work to be carried out under the Contract shall consist of the various items as generally described in the Tender Documents as well as in the Bill of Quantities furnished in the Tender Documents which includes but not limited to the following:

Earthwork: Any works including excavation of roads, culvert, side drain, side slope etc.

**Structures including bridges:** This includes construction of RCC culvert or bridges wherever necessary.

**Permanent works:** Laying, compaction and curing of plain cement concrete.

Base course: This refers to the laying and compaction of granular sub-base (GSB) in rigid pavement.

**Slope Protection & stabilization works:** This works include the construction of retaining wall or gabion wall for the protection or retaining soil at the side slope side. Care should be taken during the excavation and construction.

All works shall be undertaken on the basis of an item rate contract.

#### **EQUIVALENCY OF STANDARDS AND CODES**

• Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the

Project Manager prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Project Manager at least 28 days prior to the date when the Contractor desires the Project Manager consent. In the event of the Project Manager determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

- All materials shall be of approved manufacture and origin, equal to sample and delivered to the
  site a sufficient period before they are required to be used in the works to enable the Contractor
  to take such samples as the Project Manager may require for testing or approval, and the
  Contractor shall provide any information required by the Project Manager as to the quality,
  weight, strength, constituents, description, etc. of the materials.
- No materials of any description shall be used without prior approval by the Project Manager and any condemned as unfit for use in the works, shall be removed immediately from the site by, and without recommendation to, the Contractor.
- Where specification for a particular item of work is not available, the relevant specification for that item from the current Specification published by the PWD shall be followed. If the PWD specification do not cover these items then the relevant IS codes and latest edition of IRC specifications shall be applicable. Where no reference is found in the above specifications for an item of work then sound engineering practice as decided by the Project Manager shall be applicable and the decision of the Project Manager in respect to all such matters relating to specifications shall be final and binding on the contractor.

#### CONTRACT DRAWINGS

The Contract Drawings provided for tendering purposes shall be as contained in the Tender Documents and shall be used as a reference only. The Contractor should visualize the nature and type of work contemplated and to ensure that the rates and prices quoted by him in the Bill of Quantities have due consideration of the qualitative and quantitative variations, as may be found at the site and complexities of work involved during actual execution/construction.

Examination and/or approval by the Project Manager of any drawings or other documents submitted by the Contractor shall not relieve the Contractor of his responsibilities or liabilities under the Contract.

#### **TEMPORAY ROADS AND TRAFFIC**

The Contractor shall provide, maintain, remove and bring back in original condition on completion all temporary roads, bridges and other work required for the construction of the works including access to quarries, borrow-pits, accommodation, etc. All temporary access facilities need to be kept trafficable (for 4WD car) during the construction and liability period in order to enable the Employer to monitor the construction activities and to assess maintenance requirements during the Defects Liability Period.

The Contractor shall provide and in his rates allow for all necessary temporary traffic control signs, barricades, beacons, flagmen, lighting and watching required for the normal control of traffic.

#### **SIGNBOARDS**

The Contractor shall erect signboards in prominent positions adjacent to the works to the satisfaction of the Project Manager and the necessity of the road condition in collaboration with the local community or road users. Early disturbance of the road can affect the quality of the road.

#### OFFICE OF THE CONTRACTOR

The Contractor shall erect an office near the works at the site to be approved by the Project Manager. The office shall be kept open all hours during which the work is in progress.

Any notice to be given to or served upon the Contractor shall be deemed and taken to be effectually given or served upon by the delivery thereof at such office.

#### **QUALITY OF MARERIALS AND WORKMANSHIP**

The materials and workmanship shall be of the best of their respective kinds and shall be to the approval of the Project Manager or his representative on Site, the Project Manager. In reading these Specifications, the words to the approval of the Project Manager shall be deemed to be included in the description of all materials incorporated in the works, whether manufactured or natural, and in the description of all operations for the due execution of the works. The quality check of the road shall be maintain throughout the entire working period.

All works or parts thereof shall be in accordance with the latest edition of the Indian Standards (IS), or International Standards Organisation (ISO) Specification and the SoR and PWD Specification Mizoram for Highways and Roads.

## Lot 1: Champhai District

### a. Name of Project: Construction of Suspension Bridge.

Location : Laphui Zau, Ngur, Champhai District.

### **Bill of Quantities**

S/No	Description	No	L	В	Н	Qtty	Unit	Rate (Rs)	Amount (Rs)
ub Hea	d 1 : Earthwork						l: 0		
	Earthwork in excavate dressing of bottom at as in column foundate lead of 30 metres.	nd side	s of tren	ches a	nd subs	equent filli	ng and o	compaction i	in 15cm laye
1.1	(b) Hard Soil (pick work)								
	Foundation	2	3.3	1.5	2.00	19.80			
	Anchor	2	3.3	2.2	2.20	31.944			
	Site Development	2		2.5					
			2.5	2	1.50	18.90			
				2.5	Tota	70.04	cu		
				2.5	I	70.64	m		
1.2	layer by ramming and	d water	ing, lead	1.5	50 m ar	d lift upto		solidating ea	cri deposited
1.2	layer by ramming and			d up to		14.06	1.5 m.	olidating ea	ch deposited
1.2	layer by ramming and	d water	ing, lead	1.5	50 m an	14.06 20.79	1.5 m.		ch deposited
1.2	layer by ramming and	d water	ing, lead	1.5	50 m an	14.06	1.5 m.		ch deposited
		d water	ing, lead	1.5	50 m an	14.06 20.79	1.5 m.		ch deposited
	d 2 : PCC	d water	3.30	1.5 0	1.42 Tota	14.06 20.79 <b>Sub Hea</b>	cu m	al =	
		d water	3.30	1.5 0	1.42 Tota	14.06 20.79 <b>Sub Hea</b>	cu m	al =	
	d 2 : PCC  Providing and laying and shuttering - All w  (a)1:3:6(1 cement :3 nominal size)	in posi	3.30	1.5 0 ent cor level:	1.42 Tota I	14.06 20.79 Sub Hea	cu m	al =	
ub Hea	d 2 : PCC Providing and laying and shuttering - All w  (a)1:3:6(1 cement :3 nominal size) Foundations	in posi	3.30	ent corlevel: stone	1.42 Tota I	14.06 20.79 Sub Hea	cu m	al =	
	d 2 : PCC  Providing and laying and shuttering - All w  (a)1:3:6(1 cement :3 nominal size)  Foundations  Anchor	in posityork upt	3.30 tion cemto plinth sand :6 3.30 3.30	ent cor level: stone	1.42 Tota I  aggrega 0.20 2.20	14.06 20.79 Sub Hea f specified tte 20mm 1.98 31.94	cu m d 1 Tota grade e	al =	est of centerin
ub Hea	d 2 : PCC Providing and laying and shuttering - All w  (a)1:3:6(1 cement :3 nominal size) Foundations	in posityork upt	3.30 tion cemto plinth sand :6 3.30 3.30	ent cor level: stone	1.42 Tota I  aggrega 0.20 2.20	14.06 20.79 Sub Hea f specified tte 20mm 1.98 31.94	cu m d 1 Tota grade e	al =	est of centering
ub Hea	d 2 : PCC  Providing and laying and shuttering - All w  (a)1:3:6(1 cement :3 nominal size)  Foundations  Anchor	in posityork upt	3.30 tion cemto plinth sand :6 3.30 3.30	ent cor level: stone	1.42 Tota I  aggrega 0.20 2.20	14.06 20.79 Sub Hea f specified tte 20mm 1.98 31.94	cu m d 1 Tota grade e	al =	est of centerin
ub Hea	d 2 : PCC  Providing and laying and shuttering - All w  (a)1:3:6(1 cement :3 nominal size)  Foundations  Anchor	in posityork uptocourse	tion cemto plinth sand :6	ent cor level: stone 1.5 0 2.2 0 ouring/	1.42 Tota I  aggrega 0.20 2.20 soil eros	14.06 20.79 Sub Hea  f specified  1.98 31.94 sion near for	cu m d 1 Tota grade e	al =	st of centerio

ıb Hea	d 3 : RCC										
	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering, finishing and reinforcement in -										
3.1	a) 1:1.5:3 (1 cemer 20mm nominal size										
	Footing	2	3.10	1.3 0	0.40	3.22	cum				
					Tota I	1.98	cu m				
	Reinforced cement concrete work in walls including attached pillasters, columns, pillers, popiers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, etc. upto floor five level excluding cost of centering shuttering etc complete.										
3.2	a) 1:1.5:3 (1 cemer 20mm nominal size										
	Column	4	9.65	0.4	0.4	6.18					
	Beam	8	1.80	5	0.45	1.62					
					Tota I	7.80	cu m				
	a) Foundation,footing concrete						remov	ai of form f	or all neights :		
	A=n*(2L+2B)*t	n	L	В	t	Area					
		2	3.10	1.3 0	0.40	7.04	sq m				
	c) Columns, pillars, piers, abutments, posts and struts.										
3.3	Square column										
	A=n*L*(2b+2d)	n	L	В	d	Area					
		4	9.65	0.4	0.4	61.76	sq m				
	d) Lintels,beams, p cantilevers, etc.	linth bea	ms, gird	ers, bre	essumer	s and	<u> </u>				
	A=n*L*(b+2d)	n	L	b	d	Area					
		8	1.80	0.2 5	0.45	16.56	sq m				
					Tota I		sq m				
	Steel reinforcemen					thening, c	 utting, b	ending,			
3.4	placing in position	and bind	ding all c	omplet	e. 						
	a) Mild steel and M	edium T	ensile st	eel bar	 S.						

	Fasting.	400		1 /		400.00			
	Footing	100		kg/cum		198.00 1915.8			
	Column	310		kg/cum	1	0			
	Beam	270		kg/cum		437.40			
	Dodin	2.0	'	l groun	Tota	2551.2			
					I	0	kg		
	6mm Dia (1.2m c/c)	106	5.50			583.00			
	Add 20% for Bending					116.60			
	6mm Dia @0.22 kg/Rm					699.60			
					Tota I	153.91	kg		
						Sub Head	d 3 Tot	al =	
Sub Hoss	I 4 : Plastering								
Jub Head	20mm cement plaste	r 1 : 3 (	(1 cemei	nt : 3 fii	ne sand	)			
	Qtty vide Column Shuttering Areas	4.0 0	8.20	0.4 0	0.40	52.48			
4.1	Qtty vide Beam Shuttering Areas	8.0 0	1.40	0.2 5	0.45	15.68			
					Tota	68.16	sq m		
					I	00.10	111		
						Sub Head		al =	
					•	L		al =	
Sub Head	l 5 : Wood work				I I	L		al =	
Sub Head	I 5 : Wood work  Providing 1st class lo as structural member					Sub Head	d 4 Tot		st, beams, etc.
	Providing 1st class lo as structural member					Sub Head	d 4 Tot		st, beams, etc.
Sub Head	Providing 1st class lo as structural member Cross Beam ( 1.2m c/c	s fixed	in positi	on con	nplete.	Sub Head	d 4 Tot		st, beams, etc.
	Providing 1st class lo as structural member Cross Beam ( 1.2m c/c spacing)	s fixed	in positi	0.0 8	nplete.	Sub Head	d 4 Tot		st, beams, etc.
	Providing 1st class lo as structural member Cross Beam ( 1.2m c/c spacing)	s fixed	2.00 60.5	0.0 8	0.05	nes of sill,	d 4 Tot		st, beams, etc.
	Providing 1st class lo as structural member  Cross Beam ( 1.2m c/c spacing)  Long Beams Wheel track (0.35m	s fixed	2.00 60.5 8	0.0 8 0.0 8	0.05 0.05	nes of sill,  0.33	d 4 Tot		st, beams, etc.
	Providing 1st class lo as structural member  Cross Beam ( 1.2m c/c spacing)  Long Beams Wheel track (0.35m	s fixed	2.00 60.5 8	0.0 8 0.0 8	0.05 0.05 0.03	0.33 0.73 1.96	upright	, batten, po	st, beams, etc.
5.1	Providing 1st class lo as structural member  Cross Beam ( 1.2m c/c spacing)  Long Beams Wheel track (0.35m	s fixed	2.00 60.5 8	0.0 8 0.0 8	0.05 0.05 0.03	0.33 0.73 1.96 3.02	upright	, batten, po	st, beams, etc.
	Providing 1st class lo as structural member  Cross Beam ( 1.2m c/c spacing)  Long Beams Wheel track (0.35m	s fixed	2.00 60.5 8	0.0 8 0.0 8	0.05 0.05 0.03	0.33 0.73 1.96 3.02	upright	, batten, po	st, beams, etc.

	1.2m high steel wire								
	2.0m apart embedde size 25 x 25 x 60 cm								ie aggegate) or
6.1	a) Expanded wire mesh 3"	2	50.0 0			100.00			
	-				Tota I	100.00	Rm		
	-					Sub Head	d 6 Tot	al =	
	_								
Sub Head	l 7 : Painting								
	Painting with oil type manufacture. New Yo					ed brand ar	nd		
7.1	Cross Beam	41	2.00	0.0 8	0.05	8.53			
	Long Beams	3	60.5 8	0.0 8	0.05	18.20			
	Wheel track (0.35m c/c)	132	1.65	0.3 0	0.03	15.44			
					Tota I	42.17	sq m		
	Applying priming coa and manufacture on				mer of a	pproved bi	rand		
7.2	a) Ready mix white primer.								
1.2	Column		Area sar			52.48			
	Beam	/	Area sar	ne as 4		15.68			
					Tota I	68.16	sq m		
	Finishing walls with work (three or more of					l shade on n	ew		
	a) Regular exterior e					sta etc.			
7.3	Column	,	Area sar	ne as 4	<del>1</del> .1	52.48			
	Beam	,	Area sar	ne as 4	<b>1</b> . 1	15.68			
					Tota I	68.16	sq m		
	-					Sub Head	d 7 Tot	al =	
Sub Head 8 : Analysi s								-	
	Supplying and Fixing in position and ancho				ain susp	ending cat	ole og r	equired dian	neter, placing
8.1	20mm dia	2	90.0			180.00			
J. 1		3	55.0			165.00			
		2	50.0 0			100.00			

					Tota I	445.00	Rm		
	Providing and fixing	requird	size of l	J-Clam	ps.				
8.2	20mm dia	12	4.00			48.00			
					Tota				
					I	48.00	No.		
						Sub Hea	d 8Tota	al =	
	-	ı	1		1	TOTA	L (a)	Rs	

### b. Name of Project : Construction of R.C.C Bridge.

Location: Thingmaldin Zau, Zote, Champhai District.

## **Bill of Quantities**

S/No	Description	No	L	В	Н	Qtty	Uni t	Rat e (Rs)	Amou nt (Rs)	
Sub Head 1 Earthwork										
	Earthwork in excavati exceeding 1.5m in wid ramming of bottoms, I disposal of surplus ex	l and								
1.1	work)									
	Foundations		4.00	4.00	0.00	40.50				
	Type-1	4	1.30	1.30	2.00	13.52	cum			
	RW	2	3.00	0.60	0.40	1.44	cum			
	_				Total	14.96	m			
	Filling available excav of foundations etc. in each deposited layer upto 1.5 m.	layers n	ot excee	ding 20cr	n in depth, co	nsolidatir	ng			
	Foundations									
1.2	Type-1	4	1.3	1.3	1.9	12.84	cum			
· · <u>-</u>					S.Total=	12.84	cu m			
	Deduct (Col. Upto G.I.	Deduct (Col. Upto G.L.)								
	Sqr. Columns									
	Type-1									

1	Í	Ī	İ	İ	1		1 1	ı	l
	n					4			
	<u>b</u>					0.35	m		
	d					0.35	m		
	h					1.25	m		
	b*d*h*n					0.61	cu m		
					S.Total=	0.61	cu m		
					Total	12.23	cu m		
						Sub H	ead 1 T	otal=	
Sub Head 2 : PCC									
	Providing and laying in excluding cost of cen								
	(a)1:3:6(1 cement :3 c size)	ourse s	and :6 st	one aggr	egate 20mm i	nominal			
2.1	Foundations								
2.1	Type-1	4	1.30	1.30	0.10	0.68	cum		
	RW	2	3.00	0.60	0.10	0.36	cum		
					Total	1.04	cu m		
						Sub H	ead 2 1	otal=	
Sub Head 3 : RCC									
<u>. KCC</u>									
	Providing and laying in	n nositio	n machir	ne batche	ed machine m	nixed and	1		
	machine vibrated desi excluding cost of cen	4							
	a) All work upto	tering a	lia silatto		Territorecinen				
	plinth level.								
	Foundations								
	Rectangular portions								
	Type-1	4	1.3	1.30	0.20	1.35	cum		
	Columns upto plinth level								
3.1	Sqr. Columns								
	Type-1								
	n					4			
	b					0.35	m		
	d					0.35	m		
	h					1.65	m		
	b*d*h*n					0.81	cum		
					S.Total=	0.81	cu m		
	Level 1 Beam (TB)								
			1	1	1	i	1		

	TB (3.35m)	2	3.35	0.30	0.40	0.80	cum	
					Total	2.96	cu m	
	h) All work above plin	th lovel	unto floor	V lovel				
	b)All work above plin Columns above plinth level	li level	upto noor	v ievei.				
	Sqr. Columns							
	Type-1							
	n					4		
	b					0.35	m	
	d					0.35	m	
	h					1.80	m	
	b*d*h*n					0.88	cu m	_
					Total	0.88	cu m	
	Level 2 Beam							
	B1( 3.35m)	2	3.35	0.30	0.40	0.80	cum	_
	B2 (6m)	2	6.00	0.30	0.40	1.44	cum	_
	Cantilever Beam	1 -	0.00	0.00	0.10		Odin	_
	B3 (2m)	4	2.00	0.30	0.40	0.96	cum	-
	B4 (1.15m)	6	1.15	0.30	0.40	0.83	cum	_
					Total	4.03	cu m	_
	Slab							_
	Gias	1	10.00	5.65	0.12	6.78	cum	_
		•		0.00	Total	6.78	cu m	_
					S.Total	10.81	cu m	
	Steel reinforcement f bending, placing in p	or RCC osition a	work inclund bindin	uding stra g all com	nighthening, c plete.	utting,		
	c) Cold Twisted bars							
	Foundations	@	100.0	kg/cu m	1.35	135.0 0	kg	_
3.2	Columns	@	310.0 0	kg/cu m	1.69	523.9 0	kg	
	Beams	@	270.0 0	kg/cu m	4.83	1304. 10	kg	
	Slabs	@	100.0 0	kg/cu m	6.78	678.0 0	kg	
					Total Rebar=	2641. 0	kg	_
3.3	Centering and shutte	aring in	luding et	rutting pr	nning etc. A	nd remo	val of	_

<u>orks</u>								
ub Head 4 Stone								
						Sub He	ead 3 Total=	
					i Oldi	20.30	m	
		•		. 5.55	Total	56.50	sq	
	chajjaj,etc.	1		10.00		5.65		
	balconies and							
	and their support,							
	landings, shelves							
	(e)Suspended floors, roofs,							
	(1)0				Total	44.33	sq m	
	B4 (1.15m)	6	1.15	0.30	0.40	7.59	sqm	
	B3 (2m)	4	2.00	0.30	0.40	8.80	sqm	
	Cantilever Beam	0	0.00	0.00	0.00	0.00	sqm	
	B2 (6m)	2	6.00	0.30	0.40	13.20	sqm	
	B1( 3.35m)	2	3.35	0.30	0.40	7.37	sqm	
	Level 2 Beam							
	TB (3.35m)	2	3.35	0.30	0.4	7.37	sqm	
	Level 1 beam							
	A=n*L*(b+2d)	n	L	b	d	Area		
	Beams							
	d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.							
							m	
					Total	8.35	sq	_
	Type-1	2	0.40	0.40	2.61	8.35	sqm	
	A=n*L*(2b+2d)	n	b	d	L			
	Rec. Column							
	c) Columns, pillars, piers, abutments, posts and struts.  Columns							
					Total	4.10	m	
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>			Total	4.16	sq	
	Type-1	4	1.3	1.3	0.20	4.16	sqm	
	A=n*(2L+2B)*t	n	L	В	t	Area		
	mass concrete. Foundations							
	columns etc. for							

1	1	Ī	ı	ı	ı	Ī	ı	1	İ		
	a) in cement mortar										
	1:3 (1cement:3										
	fine sand) R/W	2	3.30	0.60	2.00	7.92	cum				
	R/VV		3.30	0.60		7.92	cuiii				
					Total	7.92	m				
						Sub H	ead 4	Lotal=			
						Oub II		lotai=			
Sub Head 5											
: Plastering											
	6mm cement plaster t	o ceiling	1:3(1	cement :	3 fine sand)						
	Qtty vide Slab		<u> </u>								
	shuttering Areas					56.50	sqm				
	Qtty vide Column					4.05					
5.1	Shuttering Areas					1.65	sqm				
					Total	58.15	sq				
					Total	30.13	m				
						Sub H	ead 5	Total=			
Sub Head 6											
: Painting											
	Applying one coat of cement distemper primer of approved brand and manufacture on wall surface.										
		surface.	I	I	1						
6.1	Qtty vide 6mm plaster area					56.50	sqm				
0.1	plaster area						sq				
					Total	56.50	m				
						Sub H	ead 6	Total=			
Sub Head 7											
: Steel											
Works											
	Steel work welded in										
	hoisting, fixing in posi				g coat of app	roved ste	el				
	primer using structura	ıı steel e	ic. as rec	<sub>t</sub> uirea.	1	Γ					
	b) In a grating,										
	frames, guard bar,										
	ladders, railings, brackets, gates &										
7.1	similar works.										
/	Railing										
	Rec. Tube	_						1			
	40x30x2.5	4	10.56			42.24	m				
					Total	42.24	m				
		2.6	kg/m			109.8	ka				
			_			2	kg				
	Sqr. Tube 30x30x3	30	1.0			30.00	m				

			Total	30.00	m		
	2.51	kg/m		75.30	kg		
			G Total	185.1 2	kg		
				Sub H			
				Total (b):			

## c. Name of Project : Construction of R.C.C Bridge.

Location: Farlui Zau, Ruangtlang, Champhai District.

**Bill of Quantities** 

DETAILED EST	IMATE FOR CONS	TRU	CTION C	OF RCC I	BRIDGE A	T FARLU	I ZAU	, RUAN	TLANG	
S/No	Description	N o	L	В	н	Qty	Uni t	Rat e (Rs	Amount (Rs)	
Sub Head 1 : Earthwork										
	(not exceeding dressing of side including getti excavated soil	des au ng ou	nd ramm it excava	ing of bo ited soil a	ttoms, lift and dispos	upto 1.5m				
1.1	(b) Hard Soil (pick work ) Foundations									
	Type-1	4	2.00	2.00	2.10	33.60	cu m			
	RW	2	4.00	0.35	0.35	0.98	cu m cu			
					Total	34.58	m			
1.2	plinth, sides of in depth, cons	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.								
	Foundations									
	Type-1	4	2.0	2.0	2.0	32.00	cu m			

					S.Total		cu				
	Deduct (Col. l	Into	<u> </u>		=	32.00	m				
	Sgr.	<i>σριο</i> (	<i>G.L.)</i>								
	Columns										
	Type-1										
	n					4					
	b					0.45	m				
	d					0.45	m				
	h					1.20	m				
	b*d*h*n					0.97	cu m				
					S.Total =	0.97	cu m				
							cu				
					Total	31.03	m				
						Sub He	ead 1 7	Γotal			
Sub Head 2 : PCC											
			L								
	Providing and grade excluding upto plinth lev	ng co el: nent :	st of cer	itering ar	nd shutterir	ng - All wo					
	20mm nomina	ıl size	e) 	Ī	1						
2.1	Foundations										
	Type-1	4	2.00	2.00	0.10	1.60	cu m				
	RW	2	4.00	0.35	0.12	0.34	cu m				
					Total	1.94	cu m				
						Sub He	ad 2	Γotal			
Sub Head 3 : RCC											
3.1	mixed and ma reinforced cer shuttering and	Providing and laying in position machine batched, machine mixed and machine vibrated design mix M-20 grade reinforced cement concrete excluding cost of centering and shuttering and reinforcement in -									
	a) All work upto plinth level.										
	Foundations										

Rectangular portions									
Type-1	4	1.9	1.90	0.45	6.50	cu m			
Columns upto plinth level									
Sqr. Columns									
Type-1									
n					4				
b					0.45	m			
d					0.45	m			
h					1.55	m			
b*d*h*n					1.26	cu m			
5 4 11 11				S.Total	1.20	cu			
				=	1.26	m			
Level 1 Beam (TB)									
TB (3.5m)	2	3.50	0.20	0.30	0.42	cu m			
		0.00	0.20	0.00	0.12	cu			
				Total	8.18	m			
b)All work abo Columns above plinth level	ve pii	nth leve	upto no	or v ievei.					
Sqr. Columns									
Type-1									
n					4				
b					0.45	m			
d					0.45	m			
h					3.00	m			
						cu			
b*d*h*n					2.43	m			
Railling post								1	
Type-1							-	1	
n					8				
b					0.12	m	-	1	
d					0.12	m			
h					1.00	m cu		+	
b*d*h*n					0.12	m			
				Total	2.55	cu m			
				. Otal					
Level 2 Beam									

			I		I		cu	1 1	
	B1 (15m)	3	15.00	0.30	0.50	6.75	m		
	B2( 3.5m)	2	3.50	0.25	0.40	0.70	cu m		
	B3( 3.5m)	6	3.50	0.20	0.35	1.47	cu m		
					Total	8.92	cu m		
	Slab								
		1	15.00	3.95	0.15	8.89	cu m		
					Total	8.89	cu m		
					G.Tota	17.81	cu m		
					•				
	Steel reinforce cutting, bendir								
	c) Cold Twisted bars								
3.2	Foundations	@	100.0	kg/cu m	6.50	650.00	kg		
	Columns	@	310.0 0	kg/cu m	3.81	1181.1 0	kg		
	Beams	@	270.0 0	kg/cu m	9.34	2521.8 0	kg		
	Slabs	@	100.0 0	kg/cu m	8.89	889.00	kg		
			-		Total Rebar=	5241.9	kg		
					ivebai =	3241.3	ĸy		
	Centering and removal of for			cluding s	trutting,pro	pping etc	. And		
	a) Foundations , footings, bases of columns etc. for mass concrete.								
	Foundations								
3.3	A=n*(2L+2B )*t	n	L	В	t	Area			
	Type-1	4	1.9	1.9	0.45	13.68	sq m		
					Total	13.68	sq m		
	c) Columns, pillars, piers, abutments, posts and struts.								

Rec.   Column	
A=n*L*(2b+2 d)	
Type-1 2 0.45 0.45 4.55 16.38 m    Total   16.38 m	
Total   16.38 m	
beams, plinth beams, girders, bressumers and cantilevers, etc.  Beams A=n*L*(b+2d) ) Level 1 beam  TB (3.5m) 2 3.5 0.20 0.3 5.60 m  Level 2 Beam B1 (15m) 3 15.00 0.30 0.50 58.50 m	
beams, plinth beams, girders, bressumers and cantilevers, etc.  Beams A=n*L*(b+2d) ) Level 1 beam  TB (3.5m) 2 3.5 0.20 0.3 5.60 m  Level 2 Beam B1 (15m) 3 15.00 0.30 0.50 58.50 m	
A=n*L*(b+2d )	
) Level 1 beam Sq TB (3.5m) 2 3.5 0.20 0.3 5.60 m Level 2 Beam Sq T5.00 0.30 0.50 58.50 m Sq Sq Sq Sq Sq Sq Sq Sq Sq Sq Sq Sq Sq	
beam         Sq         Sq           TB (3.5m)         2         3.5         0.20         0.3         5.60         m           Level 2         Beam         Sq         Sq         Sq         Sq         Sq           B1 (15m)         3         15.00         0.30         0.50         58.50         m         Sq	
TB (3.5m) 2 3.5 0.20 0.3 5.60 m  Level 2 Beam  B1 (15m) 3 15.00 0.30 0.50 58.50 m  sq	
Beam         3         15.00         0.30         0.50         58.50         m           3         15.00         0.30         0.50         58.50         m	
B1 (15m)	
B3( 3.5m) 6 3.50 0.20 0.35 18.90 m	
Sub Head 3 Total	
Sub Head 4 : Stone Works	
Coursed masonry with rectangular sized hard stone in foundation upto one storey above and below ground level including curing etc. complete	
a) in cement mortar 1 : 3 ( 1 cement : 3 fine sand)	
R/W 2 4.00 0.35 3.00 8.40 m	
Total 8.40 m	
Sub Head 4 Total	

Sub Head 5 : Steel Works									
	Steel work w cutting, hoisti of approved s required.	ng, fix	ing in po	sition and	d applying	a priming			
5.1	b) In a grating, frames, guard bar, ladders, railings, brackets, gates & similar works.								
	Railing								
	Sqr. Tube 32x32x3.2	8	14.0			112.00	m		
					Total	112.00	m		
		2. 7	kg/m			301.28	kg		
					G Total	301.28	kg		
						Sub He	ead 7	Γotal	
					Total	(c)		Rs	
	G. To	tal (	a+b+c	;)				Rs	

Amount in words: Grand Total (a+b+c)	
Rupees	only.

#### Lot 2: Kolasib District

#### a. Name of Project: Construction of R.C.C T-Beam Bridge.

Location: Dumkhel, Phaisen, Kolasib District.

#### **Bill of Quantities** DETAILED ESTIMATE FOR CONSTRUCTION OF RCC T-BEAM BRIDGE SUPPORTED BY STONE MASONRY ABUTMENT AT DUMKHEL, PHAISEN (Rates based on Mizoram schedule of rates SOR 2016 for National Highways and State Road in Mizoram and SOR 2016 for Building for Sl.no 12, 14 & 15) Rat Sl.n Amou **Breadth** (Rs Length Height Quanti nt No Unit Description (m) (m) (m) (Rs) ty **FOUNDATION WORKS** Excavation for Structures (Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps 1 and other deleterious matter, dressing of sides and bottom and backfilling with approved material.) **Ordinary Soil** Manual Means upto 3 m depth 2 3.5 3.498 3 73.458 cum PCC 1:3:6 in Foundation (Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.) M10 PCC Leveling 2 3.5 3.498 0.1 2.449 cum Plain/Reinforced cement concrete in open foundation complete as per drawing and technical 3 specifications. RCC Grade M20 Case I: Using concrete mixer Foundation 3.5 3.498 0.25 6.122 Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per 4 drawing and technical specifications. tonn **Footings** 0.612 es Stone masonry work in cement mortar for substructure complete as per drawing and Technical 5 Specifications. Coursed rubble masonry (first sort ) in cement mortar 1:3 2 3.5 1.899 4.15 55.17 Plain/Reinforced cement concrete in sub-structure complete as per drawing and technical 6 specifications. RCC Grade M20 Height upto 5m Case-I: Using concrete Mixer Abutment cap (c/s area = 0.407sqm) 2 3.5 2.849 cum

7	Supplying, fitting and placing H	/SD b	ar reinforce	ement in sub	-structure	complete	as per c	Irawin	g and			
	technical specifications.						Ι.		1			
	Abutment cap					0.25	tonn es					
	Providing and laying of Filter me											
	requirements laid down in clause											
8	mm with smaller size towards the											
	surface behind abutment, wing				height con	npacted to	o a firm	condit	ion			
	complete as per drawing and ted	hnica	l specificati	on.		1	1	1	1			
	Granular material (c/s area =											
	3.804sqm)	2	3.5			26.628	cum					
9	Back filling behind abutment, wi specification.	ng wa	all and retur	n wall comp	lete as per	drawing a	and Tecl	hnical				
	Sandy material (c/s area =											
	1.357sqm)	2	3.5			9.499	cum					
	Providing weep holes in Brick ma	asonr	y/Plain/Rei	nforced con	crete abutr	ment, wir	ng wall/	return	wall			
10	with 100 mm dia AC pipe, extend	ding t	hrough the	full width o	f the struct	ure with	slope of	1V :2	0H			
	towards drawing foce. Complete	as pe	er drawing	and Technic	al specifica	tions						
	Weep holes	6	J			6	each					
	vvecp noies					U	Cacii					
	SUPER STRUCTURE											
11	Furnishing and Placing Reinforce	ed/Pre	estressed c	ement conci	rete in supe	er-structur	e as pe	r draw	ing and			
	Technical Specification.											
	RCC Grade M20	•			T							
	For T-beam & slab, 25-35% of											
	(a+b+c)											
	Height upto 5m											
	Longitudinal Girder	3	10.24	0.35	0.45	4.838	cum					
	Cross Girder	6	2.3	0.25	0.225	0.776	cum					
	Deck Slab	1	15	3.5	0.15	7.875	cum					
						13.490	cum					
	Reinforced cement concrete work in	n wall:	s including a	ttached pillas	ters, columi	ns, pillers,	posts, pi	ers,	1			
12	abutments, return walls, retaining v								r five			
	level excluding cost of centering shi				J	·	•					
	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)											
	Railing Post	14	0.125	0.125	1	0.219	cum					
	a) Supplying, fitting and placing I							or dro	wing			
13	and technical specifications.	TISL	bai reillioi	cement in s	uper-struct	ure compi	ete as p	ei uia	wing			
	and toormout specifications.						tonn					
	Longitudinal Girder					1.295	es					
						1.293						
	Cross Girder					0.366	tonn					
						0.266	es					
	Deck Slab						tonn					
						1.300	es					
	Railing Post						tonn					
						0.081	es					
							tonn					
						<u>2.941</u>	es					
14	Centering and shuttering including	strutti	ng, propping	g etc. and rem	noval of form	n for all he	ights :					
	Columns, pillars, piers, abutmen	ts, po	sts and stru	uts.								
		, 60										

	Railing Post	14	0.5		1	7	sqm					
	Lintels, beams, plinth beams, girder	s, bre	ssumers and	cantilevers,	etc.							
	intels, beams, plinth beams, girders, bressumers and cantilevers, etc.  ongitudinal Girder 3 10.24 1.25 38.4 sqm  Cross Girder 6 2.3 0.7 9.66 sqm  uspended floors, roofs, landings, shelves and their support, balconies and chajjaj,etc.  Oeck Slab 21.79 sqm  roviding and fixing G.I. pipe complete with G.I. fitting including trenching and refilling etc. (extervork).  CC M15 Grade leveling ourse below approach slab omplete as per drawing and rechnical specification. 1 15 3.5 0.025 1.313 cum  Mastic Asphalt (Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both											
	Cross Girder	6	2.3	0.7		9.66	sqm					
		1				48.06						
	Suspended floors, roofs, landings, s	helves	and their su	upport, balco	nies and cha	ijjaj,etc.						
	Deck Slab					21.79	sam					
15	Providing and fixing G.I. pipe cor work).	nplet	e with G.I. f	itting includ	ling trenchi			c. (ext	ernal			
						177.76						
	20mm dia nominal bore.	72	2.469			8	rm					
16	PCC M15 Grade leveling course below approach slab complete as per drawing and Technical specification.	1	15	3.5	0.025	1.313	cum					
17	Mastic Asphalt (Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 515.)											
-		1	15	3.5		52.500	sqm					
18	Filler joint											
	Providing and fixing in position 20 mm thick premoulded joint filler in expansion joint for fixed ends of simply supported spans not exceeding 10 m to cater for a horizontal movement upto 20 mm, covered with sealant complete as per drawing and technical specifications.	2	3.5			7	mete r					
19	Supplying, fitting in position true to the line and level elastomeric bearing conforming to IRC: 83 (part-II), Section IX and clause 2005 of MOSRT&H specifications complete including all accessories as per drawings and Technical Specifications.	6				6	each					
							То	tal =				
						Gran	d Total	(a)=				

# b. Name of Project : Construction of R.C.C T-Beam Bridge.

Location : Chitephai, Vairengte, Kolasib District.

	AILED ESTIMATE FOR CONSTRUCT		CHITEPH	AI, VAIRENG	TE						
(ка	tes based on Mizoram schedule o			for Nationa for Sl.no 12		and State	Road II	n Mizora	m and SOR		
Sl.n		No	Length	Breadth	Height	Quanti		Rate	Amount		
0	Description	S	(m)	(m)	(m)	ty	Unit	(Rs)	(Rs)		
	FOUNDATION WORKS										
1	Excavation for Structures (Ear technical specification, includi and other deleterious matter,	ng se	etting out,	construction	n of shorin	g and bra	ıcing, r	emoval	of stumps		
	Ordinary Soil										
	Manual Means										
	upto 3 m depth	2	3.5	3.498	3	73.458	cum				
2	PCC 1:3:6 in Foundation (Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.)										
	M10 PCC Leveling	2	3.5	3.498	0.1	2.449	cum				
3	Plain/Reinforced cement concrete in open foundation complete as per drawing and technical specifications.										
	RCC Grade M20										
	Case I: Using concrete mixer										
	Foundation	2	3.5	3.498	0.25	6.122	cum				
4	Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications.										
							tonn				
	Footings					0.612	es				
	SUB - STRUCTURE										
5	Stone masonry work in cemen Specifications.	t mor	tar for sub	structure co	mplete as	per draw	ving and	d Techni	cal		
	Coursed rubble masonry (first	sort)	in cemen	t mortar 1:3	3	1	1	ı	_		
		2	3.5	1.899	4.15	55.17	cum				
6	Plain/Reinforced cement conc specifications.	rete ii	n sub-struc	ture comple	ete as per	drawing a	and tec	hnical			
	RCC Grade M20		T		T	1	1	ı	_		
	Height upto 5m										
	Case-I : Using concrete Mixer										
	Abutment cap (c/s area = 0.407sqm)	2	3.5			2.849	cum				
7	Supplying, fitting and placing technical specifications.	HYSI	D bar reinfo	orcement in	sub-struct	ture comp	olete as	per dra	wing and		
	Abutment cap					0.25	tonn es				

	Providing and laying of Filter n	nedia	with granu	lar materia	s/stone cr	ushed ad	areaate	s satisfy	ing the		
	requirements laid down in clau										
8	mm with smaller size towards	the so	oil and bigg	er size tow	ards the w	all and p	rovided	over the	e entire		
_	surface behind abutment, win	a wal	l and return	n wall to the	full height	compac	ted to a	firm co	ndition		
	complete as per drawing and t										
	Granular material (c/s area =										
	3.804sqm)	2	3.5			26.628	cum				
9	Back filling behind abutment, specification.	wing	wall and re	turn wall co	mplete as	per draw	ing and	Techni	cal		
	Sandy material (c/s area =										
	1.357sqm)	2	3.5			9.499	cum				
10	Providing weep holes in Brick ma dia AC pipe, extending through the Complete as per drawing and Tec	ne full	width of th	e structure v		_					
		1	·			6	ooob				
	Weep holes	6				6	each				
	SUPER STRUCTURE										
11	Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and										
	Technical Specification.										
	RCC Grade M20										
	For T-beam & slab, 25-35%										
	of (a+b+c)										
	Height upto 5m										
	Longitudinal Girder	3	10.24	0.35	0.45	4.838	cum				
	Cross Girder	6	2.3	0.25	0.225	0.776	cum				
	Daal, Olah		15	3.5		7.875	cum				
	Deck Slab	1	15	ر. ح	0.15	7.075					
	Deck Slab	1	13	3.3	0.15	13.490	cum				
						13.490	cum	sts, piers	, abutment		
12	Reinforced cement concrete wor	k in w	alls includin	g attached p	oillasters, co	<u>13.490</u> olumns, pi	cum llers, po		-		
12		k in w ıts, bu	alls includin	g attached p	oillasters, co	<u>13.490</u> olumns, pi	cum llers, po		-		
12	Reinforced cement concrete wor return walls, retaining walls, stru cost of centering shuttering etc.	k in w uts, bu	alls includin ittresses, sti	g attached pring or lacing	oillasters, co courses, fil	13.490 olumns, pi lets etc. u	cum llers, po		-		
12	Reinforced cement concrete wor return walls, retaining walls, stru	k in w uts, bu comple 4 gra	alls includin ittresses, str ete. ded stone a	g attached pring or lacing	illasters, co courses, fil	13.490 Dlumns, pi lets etc. u al size)	cum llers, po pto floo		-		
12	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 Dlumns, pi lets etc. u al size) 0.219	cum llers, po pto floo cum	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placing	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 Dlumns, pi lets etc. u al size) 0.219	cum llers, po pto floo cum	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 Dlumns, pi lets etc. u al size) 0.219	cum llers, poi pto floo  cum omplete	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placing	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 plumns, pi lets etc. u al size) 0.219 cructure c	cum llers, po pto floo  cum omplete	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.  Longitudinal Girder	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 Dlumns, pi lets etc. u al size) 0.219	cum llers, po pto floo  cum omplete tonn es	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 slumns, pi lets etc. u al size) 0.219 ructure c 1.295	cum llers, po pto floo  cum omplete tonn es tonn	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.  Longitudinal Girder  Cross Girder	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 plumns, pi lets etc. u al size) 0.219 cructure c	cum llers, pos pto floo  cum omplete  tonn es tonn es	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.  Longitudinal Girder	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 slumns, pi lets etc. u al size) 0.219 ructure c 1.295	cum llers, po pto floo  cum omplete tonn es tonn	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.  Longitudinal Girder  Cross Girder	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 plumns, pi lets etc. u al size) 0.219 cructure c 1.295 0.266	cum llers, pos pto floo  cum complete  tonn es tonn es tonn	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placinand technical specifications.  Longitudinal Girder  Cross Girder  Deck Slab	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 plumns, pi lets etc. u al size) 0.219 cructure c 1.295 0.266	cum llers, por pto floor  cum omplete  tonn es tonn es tonn es	r five lev	el excluding		
	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placinand technical specifications.  Longitudinal Girder  Cross Girder  Deck Slab	k in w uts, bu comple 4 gra 14	alls includin ittresses, strete. ded stone a 0.125	g attached pring or lacing ggregate 20 0.125	oillasters, cc courses, fil Omm nomin	13.490 plumns, pi lets etc. u al size) 0.219 cructure c 1.295 0.266 1.300 0.081	cum llers, por pto floor  cum omplete  tonn es tonn es tonn es tonn es tonn	r five lev	el excluding		
113	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.  Longitudinal Girder  Cross Girder  Deck Slab  Railing Post	k in wats, but completed a grant 14 grant 14	alls includin ittresses, strete. ded stone a 0.125 SD bar reir	g attached pring or lacing ggregate 20 0.125 Iforcement	oillasters, co courses, fil Omm nomin 1 in super-st	13.490 plumns, pi lets etc. u al size) 0.219 cructure c 1.295 0.266 1.300 0.081 2.941	cum llers, por pto floo  cum complete  tonn es tonn es tonn es tonn es tonn es	e as per	el excluding		
113	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placing and technical specifications.  Longitudinal Girder  Cross Girder  Deck Slab  Railing Post  Centering and shuttering including  k in wats, but somple 4 grading 14 grading HYS	alls includin ittresses, strete. ded stone a 0.125 SD bar reir	g attached pring or lacing ggregate 20 0.125 Inforcement	oillasters, co courses, fil Omm nomin 1 in super-st	13.490 plumns, pi lets etc. u al size) 0.219 cructure c 1.295 0.266 1.300 0.081 2.941	cum llers, por pto floo  cum complete  tonn es tonn es tonn es tonn es tonn es	e as per	el excluding			
113	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placin and technical specifications.  Longitudinal Girder  Cross Girder  Deck Slab  Railing Post  Centering and shuttering including Columns, pillars, piers, abutment	k in wats, but completed a gradual structure of the struc	alls includin ittresses, strete.  ded stone a 0.125  SD bar reir  utting, propp	g attached pring or lacing ggregate 20 0.125 Inforcement	oillasters, co courses, fil filmm nomin 1 in super-st	13.490 plumns, pi lets etc. u al size) 0.219 ructure c 1.295 0.266 1.300 0.081 2.941 form for	cum llers, por pto floor cum omplete tonn es tonn es tonn es tonn es tonn es all heigh	e as per	el excluding		
113	Reinforced cement concrete wor return walls, retaining walls, strucost of centering shuttering etc. 1:2:4 (1 cement : 2 coarse sand : Railing Post  a) Supplying, fitting and placing and technical specifications.  Longitudinal Girder  Cross Girder  Deck Slab  Railing Post  Centering and shuttering including  k in wats, but somple 4 grad 14 g HYS	alls includin ittresses, strete.  ded stone a	g attached pring or lacing ggregate 20 0.125 inforcement only only only only only only only only	removal of	13.490 plumns, pi lets etc. u al size) 0.219 cructure c 1.295 0.266 1.300 0.081 2.941	cum llers, por pto floo  cum complete  tonn es tonn es tonn es tonn es tonn es	e as per	el excluding			

	Cross Girder	6	2.3	0.7		9.66	sqm		
						<u>48.06</u>	sqm		
	Suspended floors, roofs, landings	s, shel	ves and the	ir support, b	alconies an	d chajjaj,e	tc.		
	Deck Slab					21.79	sqm		
15	Providing and fixing G.I. pipe con	nplete	with G.I. fit	ting includin	g trenching	and refill	ing etc.	(external v	work).
	20mm dia nominal bore.	72	2.469			177.76 8	rm		
16	PCC M15 Grade leveling course below approach slab complete as per drawing and Technical specification.	1	15	3.5	0.025	1.313	cum		
17	Mastic Asphalt (Providing and excluding prime coat with pavi prepared by using mastic cool including providing antiskid su nominal size at the rate of 0.00 center in both directions, pres C, protruding 1 mm to 4 mm of	ng gr ker ar rface 05cur sed ii	ade bitumend laid to rewith bitumen per 10 sonto surface	en meeting equired leve en precoate am and at a when the t	the require of and slope of fine grain n approxin nemperatur	ements gi e after cle ined hard nate spac e of surfa	ven in teaning to stone of the	able 500- the surfact chipping of 10 cm cer	29, ee, of 9.5 mm nter to
		1	15	3.5		52.500	sqm		
18	Filler joint								
	Providing and fixing in position simply supported spans not exwith sealant complete as per complete.	ceed	ing 10 m to	cater for a	horizonta				
		2	3.5			7	mete r		
19	Supplying, fitting in position true Section IX and clause 2005 of MC Technical Specifications.				_		_		
		6				6	each		
								Total =	
						Gra	ınd Tot	tal (b) =	

# c. Name of Project : Construction of Suspension Bridge.

**Location : Zero Point, Kolasib District.** 

	DETAILED ESTIMATE						ERO P	OINT, KO	LASIB				
		(Kates	based or	n Mizoram sc	nedule of ra	ites 2019)							
SI.	Description	Nos	Lengt h (m)	Breadth (m)	Height (m)	Quantit y	Uni t	Rate (Rs)	Amount (Rs)				
1	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil a directed within a lead of 50 metres.												
	Hard Soil ( pick work )												
	Foundation	2	3.275	2	2.85	37.34	cu m						
	Anchor	2	3.5	2	2	28.00	cu m						
	Total = 65.34 m												
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layer not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up 50 m and lift upto 1.5 m.												
		2	3.275	1.5	2.85	28.00	cu m						
3	Providing and laying in shuttering - All work up 1:3:6(1 cement :3 course sand :6 stone aggregate 20mm nominal size)	•		t concrete of	specified gra	ade exclud	ing cos	t of cente	ering and				
	Foundation	2	3.275	1.5	0.25	2.46	cu m						
	Anchor	2	3.5	2	2	28.00	cu m						
					Total =	30.46	cu m						
4	Providing and laving in position reinforced cement concrete excluding cost of centering and												
	1:1.5:3 (1 cement : 1.5	coarse	sand : 3 {	graded stone	aggregate 2	0mm nom	inal siz	e)					
	Footing			1	T	T		1					
	Rectangular portion	4	1.5	1.5	0.2	1.80	cu m						
	Frustrum of Pyramid portion, $V = (h/3)$ x[A1 + A2 + V(A1.A2)],						cu m						
	where A1 & A2	4			0.4	1.61							

	arearea of bases, h is height											
					Tatal	2.44	cu					
	Reinforced cement con	crete w	ork in w	alls including	Total =	3.41	ımns	nillers no	cts niars			
5	abutments, return wall buttresses, string or lac shuttering etc complet	s, retail cing cou e.	ning walls Irses, fille	s, struts, ets etc. upto f	loor five leve	el excludin	g cost	of centerir				
	1:1.5:3 (1 cement : 1.5	coarse	sand : 3 ខ្	graded stone	aggregate 2	0mm nom	inal siz	e)	T			
	Column	4	0.4	0.4	10.2	6.528	cu m					
	Beam	8	1.375	0.3	0.4	1.32	cu m					
					T.1.1	7.848	cu					
	Stool rainfarcament for	r DCC	ork incl.	ding ctraighth	Total =	na hondi-	m g plac	ing in noci	tion and			
6	Steel reinforcement for binding all complete.					ng, bendin	g, piac	ing in posi	tion and			
	Thermo-Mechanically	Γreated	bars of g	rade Fe-500	or more.		•					
	Footing (100 kg/cum)					340.53 33	kgs					
	Column (310 kg/cum)					2023.6 8	kgs					
	Beam (270 kg/cum)					356.4	kgs					
					Total =	2720.6 13	kgs					
7	Centering and shuttering including strutting, propping etc. and removal of form for all heights:											
	Columns, pillars, piers,	abutme	ents, post	ts and struts.								
	Columns	4	1.6		10.2	65.28	sqm					
	Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.											
	Beams	8	1.4		1.375	15.4	sqm					
8	12mm cement plaster	1:3(1	cement :	3 fine sand).				ı	·			
	Column (From Sl.no. 7)			,		65.28	sqm					
	Beam (From Sl.no. 7)					15.4	sqm					
	, , , , , , , , , , , , , , , , , , , ,	<u>l</u>		l	Total =	80.68	sqm					
9	Supplying and Fixing Hi position and anchoragi	_		main suspen				ter, placin	g in			
	20mm dia	_ <del>-</del>										
	Main Cable	4	41.30 1			165.20 4	rm					
	Supporting Cable	3	40.59			121.78	rm					

						286.98		1				
					Total =	6	rm					
10	Providing and fixing red	quired s	size of U-0	Clamps.					I			
	M20	58				58	nos					
	M6	48				48	nos					
11	Steel reinforcement for binding all complete.	RCC w	ork inclu	ding straighth	ening, cutti	ng, bendin	g, plac	ing in pos	ition and			
	Mild steel and Medium	Tensile	e steel ba	rs.								
	6mm Dia (1.2m c/c)	48	5.231			55.730	kgs					
	Add 20% for Bending					11.145 97	kgs					
					Total =	66.876	kgs					
12		Providing and floxing of 23mm to 20mm mesh 1.00mm dia. galvanised wire net walling in 1st. Class local wood, chamfered, moulded with 75mm x 25mm including fixing with nails, screws, etc. complete										
	Galvanised wire net (Area = 58.970sqm)	2				117.94	sqm					
13	_	Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete.										
	Long beams	3	33.86 6	0.08	0.05	0.406	cu m					
	Wheel track (0.35m c/c)	93	1.375	0.3	0.03	1.151	cu m					
					Total =	1.557	cu m					
14	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.											
	Cross Beam, Rectangular tube (100x50x6mm) i.e., 12.27 Kg/m	24	1.78			524.17 4	kgs					
	Round bar 100mm dia i.e., 61.65kg/m	2	3.38			416.75 4	kgs					
					Total =	940.92 84	kgs					
15	Painting with oil type w coats).	ood pr		e of approved	d brand and	manufactı	ıre. Ne	ew work (t	wo or more			
	Longhooms	2	33.86	0.30		26 445	sqm					
	Long beams	3	1 275	0.26		26.415						
	Wheel track	93	1.375	0.66		84.398	sqm					
					Total =	110.81	sqm					
L6	Applying priming coat vector manufacture on steel g				nc chromate		appro	ved brand	and			
	Cross Beam,		-									

Round bar 100mm dia	2	3.38	0.314		2.123	sqm		
				Total =	14.939	sqm		
					Т			
					Grand Total (c) =			

Amount in words: Grand Total (a+b+c)	
Rupees	only
Rupces	Only

# **Lot 3: Serchhip District**

a. Name of Project :	Construction of Zawlpui (Tuichar) Suspension Bridge at Serchhip
<b>Location:</b>	Tuichar, Mat river, Serchhip

Sl. No.	Description of Items	Qnty	Unit	Rate (Rs)	Amount (Rs)
1	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.				
	(b)Hard Soil ( pick work )				
	Foundation	18	1		
	Anchor	24			
	Total	42	cum		
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.				
		18	cum		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:				
3	(a)1:3:6(1 cement :3 course sand :6 stone aggregate 20mm nominal size)				
	Foundation	1.663			
	Anchor	24			
	Laying of P.C.C for prvention of scouring/soil erosion near foundation of foot bridge.	11.04	_		
	Total	36.7	cum		_
4	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering, finishing and reinforcement in -				

	(a)1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)			
	Footing	1.663	cum	
5	Reinforced cement concrete work in walls including attached pillasters, columns, pillers, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.			
	(a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)			
	Column	2.368		
	Beam	1.044		
	Total	3.412	cum	
6	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.			
	(b)Thermo-Mechanically Treated bars of grade Fe-500 or more			
	Footing			
	Footing 2			
	LapJoint			
	Column			_
	Stirrups			
	Beam			-
	Stirrups	1217.72	lr.c.	
	Total	1211.12	kg	
	Centering and shuttering including strutting, propping etc. and removal of form for all heights:			
7	(c) Columns, pillars, piers, abutments, posts and struts.			
'		45.6	sqm	
	(d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.			
		12.32	sqm	
8	12mm cement plaster 1 : 3 (1 cement : 3 fine sand).			

	Column	36.48		
	Beam	7.84	1	
	Total	44.32	sqm	
9	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.  (a)Ready mix white primer.			
	Qnty same as above	44.32	sqm	
10	Finishing walls with exterior emulsion of required shade on new work (three or more coats) to give an even shade			
	qnty same as avove	44.32	sqm	
11	Supplying and Fixing High Tosil wire for main suspending cable of required diameter, placing in position and anchoraging complete			
11	20 mm dia	110 88	-	
	Total	198	Rm	
	Providing and fixing required size of U-Clamps			
12	20 mm dia	30	No	
	Steel reinforcement for RCC work including straighthening, cutting, bending, placing in position and binding all complete.			
13	(a)Mild steel and Medium Tensile steel bars.			
	6mm Dia (1m c/c)	220		
	Add20% for Bending	44		
	Total	264	kg	
14	1.2m high steel wire fabric fencing with 1.8m angle iron posts 40 x 40 x 6mm size placed at 2.0m apart embedded in cement concrete block 1:3:6 (1 cement: 3 sand: 6 stone aggregate) of size 25 x 25 x 60 cm with necessary fittings including earthwork complete.	00		
	(b)Expanded wire mesh 4"	88	Rm	
15	Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete.			

	Cross Beams:- (1m C/C Spacing)	0.2376			
	Long Beams:-	0.44			
	Wheel track (0.35m c/c):-	1.35			
	Total	2.0276	cum		
	Painting with oil type wood preservative of approved brand and manufacture. New work (two or more coats)				
16	Cross Beams	20.592			
	Wheel track	99			
	Total	119.59	sqm		
		TOT	AL(a)	Rs	

b. Name of Project :	Construction of Zawlpui (Zote Kai) Suspension Bridge at Serchhip
<b>Location:</b>	Zote Kai, Mat river, Serchhip

Sl. No.	Description of Items	Qnty	Unit	Rate (Rs)	Amount (Rs)
	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.				
1	(b)Hard Soil ( pick work )				
	Foundation	18			
	Anchor	24			
	Total	42	cum		
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.				
	The second secon	18	cum		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:				
	(a)1:3:6(1 cement :3 course sand :6 stone aggregate 20mm nominal size)				
3	Foundation	2.25			
	Anchor	24			
	Laying of P.C.C for prvention of scouring/soil erosion near foundation of foot bridge.				
		9.6			
	Total	35.85	cum		
	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering , finishing and reinforcement in -				
4	(a)1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)				
	Footing	2.25	cum		

	Reinforced cement concrete work in walls including attached pillasters, columns, pillers, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.			
5	(a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)			
	Column	2.368		
	Beam	1.584		
	Total	3.952	cum	
6	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.			
	(b)Thermo-Mechanically Treated bars of grade Fe-500 or more			
	Footing			
	Footing 2			
	LapJoint			
	Column			
	Stirrups			
	Beam			
	Stirrups			
	Total	1101.79	kg	
	Centering and shuttering including strutting, propping etc. and removal of form for all heights:			
	(c)Columns, pillars, piers, abutments, posts and struts.			
7		36.48	sqm	
	(d)Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.			
		12.32	sqm	
	12mm cement plaster 1 : 3 (1 cement : 3 fine sand).			
8	Column	36.48		
0	Beam	7.84		
	Total	44.32	sqm	
9	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface. (a)Ready mix white primer.			

	Qnty same as above	44.32	sqm	
	Supplying and Fixing High Tosil wire for main suspending cable of required diameter, placing in position and anchoraging complete			
10	20 mm dia	80 76		
	Total	156	Rm	
11	Providing and fixing required size of U-Clamps			
	20 mm dia	30	No	
	Steel reinforcement for RCC work including straighthening, cutting, bending, placing in position and binding all complete.			
12	(a)Mild steel and Medium Tensile steel bars.	100		
	6mm Dia (1m c/c) Add20% for Bending	190 38		
	Total	228	kg	
13	1.2m high steel wire fabric fencing with 1.8m angle iron posts 40 x 40 x 6mm size placed at 2.0m apart embedded in cement concrete block 1:3:6 (1 cement: 3 sand: 6 stone aggregate) of size 25 x 25 x 60 cm with necessary fittings including earthwork complete.			
	(b)Expanded wire mesh 4"	60	Rm	
	Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete.  Cross Beams:- (1m C/C Spacing)			
14		0.1998		
	Long Beams:-	0.37		
	Wheel track (0.35m c/c):- Total	1.1475 1.7173	cum	
	1000	,	,	
15	Painting with oil type wood preservative of approved brand and manufacture. New work (two or more coats)			
	Cross Beams	17.316		
	Wheel track	84.15		

	Total	101.466	sqm		
		TO	TAL (b)	Rs	

c. Name of Project :	Construction of Lumtui RCC Bridge at Serchhip	
<b>Location:</b>	Keitum, Serchhip District	

Sl.No	Description	Unit	Qnty	Rate (Rs)	Amount (Rs)
1	Earthwork in excavation in foundation trench meters depth including dressing of bottom ar subsequent filling and compaction in 15cm la foundations, fence posts, etc. and disposal of within a lead of 30 metres.  (b)Hard Soil (pick work)				
	Providing and laying in position cement cone excluding cost of centering and shuttering -		•		
2	(a)1:2:4 (1 cement :2 course sand :4 stone aggregate 20mm nominal size)	cum	3.6		
2	Providing and laying in position reinforced cost of centering and shuttering, finishing a upto plinth level:  (a)1:1.5:3 (1 cement: 1.5 coarse sand: 3 granominal size)	nd reinfor	cement in ·	- All work	
3	Footing				
	Column	cum	14.758		
	Beam	_			
	Slab	-+:		_	
	Steel reinforcement for RCC work including a bending, placing in position and binding all c (b)Thermo-Mechanically Treated bars of gra	omplete.	_	ıg,	
4	footing				
	column	kg/cum	1713		
	beam	kg/cuiii	1/13		
	slab				
_	Centering and shuttering including strutting, propping etc. and removal of form for all heights:  (b) Walls including attached pillasters, buttresses, string courses, etc.				
5	column				
	Beam	sqm	144.60		
	slab				

6		Stone work ashlar punched (ordinary) in cement mortar 1:6 in superstructure including pointing with cement mortae 1:2 (1white cement : 2fine dressed).				
				6.72		
	a) Local stone masonry	cum –	4.8			
				G Total (c)	Rs	

d. Name of Project :	Construction of Darnam RCC Bridge at Serchhip
<b>Location:</b>	Bungtlang, Serchhip District

Sl.No.	Description	Unit	Qnty	Rate (Rs)	Amount (Rs)
1	Earthwork in excavation in foundation meters depth including dressing of bosubsequent filling and compaction in foundations, fence posts, etc. and disp within a lead of 30 metres.				
	(b)Hard Soil (pick work)	cum	43.2		
	Providing and laying in position ceme excluding cost of centering and shutte				
2	(a)1:2:4 (1 cement :2 course sand :4 stone aggregate 20mm nominal size)	cum	2.34		
	Providing and laying in position reinfo cost of centering and shuttering, finis upto plinth level: (a)1:1.5:3 (1 cement: 1.5 coarse sand nominal size)				
3	Footing				
	Column				
	Beam				
	Slab				
	Total	cum	20.066		
	Steel reinforcement for RCC work included bending, placing in position and bindi (b)Thermo-Mechanically Treated bars	ng all com	plete.	_	
4	footing				
	column				
	beam				
	slab				

	Total		2103.48		
	Centering and shuttering including str form for all heights: (b)Walls including attached pillasters,				
5	column				
	Beam				
	slab				
	Total	sqm	59.8		
			Total (d)	Rs	
		G.Tota	al (a+b+c+d)	Rs	

Amount in words Grand Total (a+b+c+d)	
Runees	only

#### **Lot 4: Mamit District**

a. Name of Project :	Construction of Suspension Foot Bridge at Mamit
<b>Location:</b>	Thingkhuang Zau, Mamit 3

Sl.No.	Particulars	Qty	Unit	Rate (Rs)	Amoun t (Rs)		
	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.						
1	(c) Very Hard Soil (jumper work) (Coefficien	t for ordir	nary soil in	creased	2 times.		
	Main foundation						
	Anchor	84.78	cum				
	Retainingm Wall						
2	Filling available excavated earth (excluding refoundation, etc, layers not exceeding 20cm in layer by ramming and watering, lead upto 50r	depth, co	nsolidating	each de			
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:						
	a)1:3:6 (1 cement :3 course sand :6 stone aggregate 20mm nominal size)						
	Foundation						
3	Main foundation						
	Anchor	17.52	Cum				
	Retainingm Wall	_					
	Foundation						
	Providing and laying in position reinforced ce cost of centering and shuttering, finishing and			ıding			
	All work upto plinth level.						
	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate						
4	20mm nominal size)						
	i) Footing						
	ii)Column upto Plinth level.	-	Cum				
	iii)Column above plinth level.	12.84					

	Steel reinforcement for RCC work included bending, placing in position and binding	0 0	ning, cutting,	
5	b) Thermo-Mechanically Treated	Kg	2731.8	
	Centering and shuttering including struall heights:  (c) Columns, pillars, piers, abutments, po		tc. and remova	al of form for
6	(c) Columns,pinars,piers, acarmens,pe	58.24	Sqm	
	(d)Lintels,beams,plinth beams,girders,l	, , , , , , , , , , , , , , , , , , ,	-	
	1	22.40	Sqm	
	12mm Cement Plaster 1 : 3 (1 cement :	3 fine sand).	<u> </u>	<b>,</b>
7	Columns		G	
7	Beams	67.20	Sqm	
0	Applying priming coat with ready mixemanufacture on plaster surface.	ed primer of appr	roved brand a	nd
8	(a)Ready mix white primer	67.20	Sqm	
	Finishing walls with exterior emulsion	of required shad	e on new wor	k (three or
9	more coats) to give an even shade.			
		67.20	Sqm	
10	Supplying and Fixing High Tensile win diameter, placing in position and ancho			f required
	20mm diameter	293	Rm	
11	Providing and Fixing required size of Clamp.	Galvanized wire	Rope-	
	20mm Diameter	26	No	
	Steel reinforcement for RCC work including in position and binding all comparisons are steel as a second se		ning, cutting,	bending,
	(a)Mild Steel and Medium Tensile stee	l bars		
12	6mm Dia(1m c/c)			
	Add 20% for Bending	67.32	Kg	
	6mm Dia@0.22kg/Rm			
13	Providing and fixing of 23mm to 20mr walling in 1st class local wood,chamfe fixing with nails, screws,etc.complete.			
		153	Sqm	
	+ +		I	

			Tot	al (a)		
		19.45	Cum			
16	c) in cement mortar 1 : 4 ( 1cement : 4 :	fine sand)	-			
1.5	Regular coursed rubble masonry with h above and below ground level includin			to one s	torey	
	Wheel track					
	Long Beams	8	Sqm			
15	(1m c/c spacing)	228.1				
	Cross Beams					
	Painting with oil type wood preservativ work (two or more).	e of approved b	rand and m	anufacti	ıre.New	
	Wheel track (1.5x0.1m)					
	Long Beams	4.20	Cum			
	Cross Beams(1m c/c)					
	beams, etc. as structural members fixed in position complete.					
	Providing 1st class local wood work dro	essed in frames	of sill, upri	ght, batt	en, post	

b. Name of Project:	Construction of Suspension Foot Bridge at Mamit
Location:	Teirei Zau, West Phaileng, Mamit

Sl.N o	Particulars	Qty	Unit	Rate (Rs)	Am oun t (Rs			
1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50m outside the periphery of the area cleared.							
	(a)By manual means (i)Light jungle	280	Sqm					
2	Earthwork in excavation in foundation trenches or drains etc.(not exceeding 1.5m in wide or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.							
	(c) Ordinary Soil		I					
	Foundation	34.89	cum					

3 1	Providing and laying in position cement concrete excluding cost of centering and shuttering - All val:3:6 (1 cement :3 course sand :6 stone aggregate Foundation  Anchor Block  Providing and laying in position reinforced cement and shuttering, finishing and reinforcement in - All work upto plinth level.  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded : 20mm nominal size)	vork upto plint te 20mm nom  2.67  23.92  nt concrete ex	cum cum cluding cost of	of centering						
3 1	excluding cost of centering and shuttering - All value a)1:3:6 (1 cement :3 course sand :6 stone aggregated Foundation  Anchor Block  Providing and laying in position reinforced cemerand shuttering, finishing and reinforcement in - All work upto plinth level.  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded : 20mm nominal size)	vork upto plint te 20mm nom  2.67  23.92  nt concrete ex	cum cum cluding cost of	of centering						
3 1	Anchor Block  Providing and laying in position reinforced cemerand shuttering, finishing and reinforcement in -  All work upto plinth level.  a) 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded: 20mm nominal size)	2.67 23.92  nt concrete ex	cum cum cum cluding cost of	of centering						
3 1	Foundation Anchor Block  Providing and laying in position reinforced cemerand shuttering, finishing and reinforcement in - All work upto plinth level.  a) 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded: 20mm nominal size)	2.67 23.92 nt concrete ex	cum cum cluding cost of	of centering						
1 3 4 2	Providing and laying in position reinforced cemerand shuttering, finishing and reinforcement in - All work upto plinth level.  a) 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded: 20mm nominal size)	nt concrete ex	cum cluding cost of	of centering						
1 2 2 2 A	All work upto plinth level.  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded : 20mm nominal size)	nt concrete ex	cluding cost of	of centering						
1 2 2 2 A	All work upto plinth level.  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded : 20mm nominal size)			of centering						
4	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded : 20mm nominal size)	stone aggregat	e							
1	20mm nominal size)	stone aggregat	e							
1	,									
4 <u>i</u>	·· _ ·									
	i) Footing	5.58	Cum							
i	ii) Column upto Plinth level	0.86	Cum							
i	iii)Column above plinth level	4.60	Cum							
i	iv)Beam	12.96	Cum							
	b) Thermo-Mechanically Treated	2769.00	Kg							
	b) Thermo-Mechanically Treated  Centering and shuttering including	2769.00	Kg							
S	strutting,propping etc.and removal of form for all heights:									
	(c)Columns, pillars, piers, abutments, posts and struts.	59.52	Sqm							
	(d)Lintels,beams,plinth beams, girders,bressumers,etc.	35.20	Sqm							
1	12mm cement plaster 1 : 3 (1 cement : 3 fine sand).									
7	Columns	64.00	Sqm							
	Beams	04.00	Sqiii							
	A 1:	C 11	1							
	Applying priming coat with ready mixed primer of	or approved br	ana							
X	and manufacture on plaster surface.									
	(a)Ready mix white primer	64.00	Sam							
	Onty same as above Finishing walls with exterior emulsion of required		Sqm							
	(three or more coats) to give an even shade.	i shaue on nev	WOIK							
<u> </u>	Quity same as above	64.00	Sqm							

10	Supplying and Fixing High Tensile wire for main suspending cable of required diameter, placing in position and anche	noraging in ac	— mplata		
10	16mm diameter	320	Rm		
			I		
11	Providing and Fixing required size of Galvanized	d wire Rope-C	Clamp.	_	
	20mm Diameter	36	No		
	Steel reinforcement for RCC work including strategies position and binding all complete.	ighthening,cu	tting,bend	ding,placing ir	1
	(a)Mild Steel and Medium Tensile steel bars	<u>,                                      </u>			<u></u>
12	6mm Dia(1m c/c)				
	Add 20% for Bending	67.32	Kg		1
	6mm Dia@0.22kg/Rm				
13	Providing and fixing of 23mm to 20mm mesh 1.0 walling 1st class local wood, chamfered, moulded with 75mm nails, screws etc, complete.	_			
			~		
	Supplying and Fixing 1st class straight jungle he	227.50 art wood roun	Sqm ad posts(b	an ril)	
14	Supplying and Fixing 1st class straight jungle he 15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding supplying necessary timber for post etc.)	art wood roun fittings and jog earthwork).	d posts(b		
14	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding supplying necessary)	art wood roun fittings and jog earthwork).	d posts(b		
	15cm average dia including supplying necessary timber	art wood roun fittings and jog earthwork).	d posts(b		
14	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding Providing 1st class local wood work dressed in fixell, upright, batten, post, beams, etc as structural members fixed in position	art wood roun fittings and jog earthwork).	d posts(b		
	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding Providing 1st class local wood work dressed in fixell, upright, batten, post, beams, etc as structural members fixed in position complete.	art wood roun fittings and journal gearthwork).  33.00 rames of	nd posts(boining with		
	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding Providing 1st class local wood work dressed in fixed sill, upright, batten, post, beams, etc as structural members fixed in position complete.  Cross Beams (1m c/c spacing)	art wood roun fittings and journal gearthwork).  33.00 rames of	Rm  Cum		
	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding 1st class local wood work dressed in fixed in position complete.  Providing 1st class local wood work dressed in fixed in position complete.  Cross Beams (1m c/c spacing)  Long Beams  Wheel track (1.5x0.1m)  Providing 2nd class local wood work dressed in beams, etc. as structural members fixed in position	art wood roun fittings and journal gearthwork).  33.00 rames of  1.17 1.08 3.03 frames of sill,	Rm  Cum Cum Cum	h sawn	
	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding Providing 1st class local wood work dressed in fixed in position complete.  Cross Beams (1m c/c spacing)  Long Beams  Wheel track (1.5x0.1m)  Providing 2nd class local wood work dressed in beams,etc.as structural members fixed in position Upper Long beams for railing	art wood roun fittings and journal gearthwork).  33.00 rames of  1.17 1.08 3.03 frames of sill, a complete.	Rm  Cum Cum Cum upright,ba	h sawn	
15	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding 1st class local wood work dressed in fixed in position complete.  Providing 1st class local wood work dressed in fixed in position complete.  Cross Beams (1m c/c spacing)  Long Beams  Wheel track (1.5x0.1m)  Providing 2nd class local wood work dressed in beams, etc. as structural members fixed in position Upper Long beams for railing  Posts for Railing	art wood roun fittings and journal gearthwork).  33.00 rames of  1.17 1.08 3.03 frames of sill,	Rm  Cum Cum Cum	h sawn	
15	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding Providing 1st class local wood work dressed in fixed in position complete.  Cross Beams (1m c/c spacing)  Long Beams  Wheel track (1.5x0.1m)  Providing 2nd class local wood work dressed in beams,etc.as structural members fixed in position Upper Long beams for railing	art wood roun fittings and journal gearthwork).  33.00 rames of  1.17 1.08 3.03 frames of sill, a complete.	Rm  Cum Cum Cum upright,ba	h sawn	
15	15cm average dia including supplying necessary timber for post etc. fixed in position complete (excluding 1st class local wood work dressed in fixed in position complete.  Providing 1st class local wood work dressed in fixed in position complete.  Cross Beams (1m c/c spacing)  Long Beams  Wheel track (1.5x0.1m)  Providing 2nd class local wood work dressed in beams, etc. as structural members fixed in position Upper Long beams for railing  Posts for Railing	art wood roun fittings and journal gearthwork).  33.00 rames of  1.17 1.08 3.03 frames of sill, in complete.  0.33	Rm  Cum Cum Cum upright,ba	h sawn	

	Wheel track			
	Painting with oil type wood preservative of appr work- (two or more).	oved brand ar	nd manufac	ture.New
1.0	Upper Long beams for railing		5 Sqm	
18	Posts for Railing	27.25	Sqm	
	Wooden Strut			
	Regular coursed rubble masonry with hard			
	stone in foundation upto			
19	one storey above and below ground level includ	ing curing,etc.	.complete.	
	(c)in cement mortar 1:4 (1cement:4 find sand	1)		
		8.40	Cum	
			Total (b	)
			G.Total	(a+b)

Amount	in words:	Grand :	Total	a±h\
AIIIOUIIL	III WUIUS.	Granu	ı Otal I	ати

Runees	only

# **Lot 5: Saitual District**

# a. Name of Project: Construction of Suspension Foot Bridge.

Location: Tuithil hnar, Ngopa, Saitual District.

[	DETAILED ESTIMATE FOR CONSTRUCT		F SUSP GOPA	ENSION	FOOT B	RIDGE A	T TUI	THIL H	NAR,
SI N o	Description of Items	No	Lengt h (in m)	Breadt h (in m)	Heig ht (in m)	Qnty	Uni t	Rat e (in INR )	Amou nt (in INR)
	Clearing jungle including uprooting of rank wood, trees and saplings of girth upto 300 above ground level and removal of rubbis outside the periphery of the area cleared.	t of 1m							
1	a)By manual means.								
	ii)Medium jungle.	1		240		240.00	sq m		
						240.00	sq m		
2	Earth work in excavation by mechanical nexcavator)/manual means over areas (exin width as well as 10 sqm on plan) include excavated earth lead upto 50 m and lift up Engineer-in-charge.  All kinds of soil (excluding ordinary & hard)								
	7 m miles of com (exchaning chamar) a marc	1		40	3	720.00	cu m		
	Earthwork in excavation in foundation trer exceeding 1.5m in width or 10sqm on pla and ramming of bottoms, lift upto 1.5m income soil and disposal of surplus excavated so 50 metres.								
3	b) hard soil (pick work)								
	Foundation	2	1.5	1.5	2.1	9.45			
	Anchor	2	2.3	3.3	2.1	31.88			
	Site Preparation	2	6	6	1.2	86.40			
						127.73			
4	Filling available excavated earth (excludir sides of foundations etc. in layers not exconsolidating each deposited layer by ran 50 m and lift upto 1.5 m.								
4							cu		
	Foundation	2	1.5	1.5	2.1	9.45	m		
						9.45	cu m		
5	Providing and laying in position cement context excluding cost of centering and shuttering								
	a)1:3:6(1 cement :3 course sand :6 stone aggregate 20mm nominal size)								

1	<u>                                     </u>	ĺ	1			1	cu	1				
	Foundation	2	1.5	1.5	0.15	0.68	m					
	Anchor	2	2.3	3.3	2.1	31.88	cu m					
	Laying of PCC in the surrounding area	2	5	2	0.1	2.00	cu m					
						34.55	cu m					
	Providing and laying in position machine batched and machine mixed design mix M-20 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.											
	a)All work upto plinth level :	1	1									
6	Footing	4		0.428	Т	1.71	cu m					
	Column	4	2.05	0.35	0.32	0.92	cu m					
	b) All work from plinth level upto floor V level.					2.63	cu m					
	Column	4	5.35	0.35	0.32	2.40	cu m					
	Beam	6	1.375	0.35	0.3	0.87	cu m					
						3.26	cu m					
	Steel reinforcement for RCC work including straighthening, cutting, bending, placing in position and binding all complete.											
	a)Mild steel and Medium Tensile steel bars.											
7	Footing	10 0		kg/cum		171.20						
,	Column	31 0		kg/cum		1027.7 1						
	Beam	27 0		kg/cum		233.89						
						1432.8 0	kg					
	Centering and shuttering including strutting	ng, pro	opping et	c. and ren	noval of	form for a	ll heigl	nts :				
	c)Columns, pillars, piers, abutments, posts and struts	8	5.35	0.35		14.98	sq m					
		8	5.35	0.32		13.70	sq m					
8						28.68	sq m					
	d)Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.	12	1.375	0.35		5.78	sq m					
		6	1.375	0.3		2.48	sq m					
						8.25	sq m					
9	12mm cement plaster 1 : 3 (1 cement : 3	fine sa	and).									

	Column	8	E 25	0.35		14.00	sq	
			5.35			14.98	m sq	
	Dane	8	5.35	0.32		13.70	m sq	
	Beam	12	1.375	0.35		5.78	m sq	
		12	1.375	0.3		4.95	m	
						39.40	sq m	
	Applying priming coat with ready mixed pmanufacture on plaster surface.							
	Column	8	5.35	0.35		14.98	sq m	
10		8	5.35	0.32		13.70	sq	
10	Beam						m sq	
	204	4	1.375	0.35		1.93	m sq	
		4	1.375	0.3		1.65	m sq	
						32.25	m	
	Finishing walls with exterior emulsion of (three or more coats) to give an even sha							
	a)Regular exterior emulsion like superco	te, wal	masta et	C.			sq	
	Column	8	5.35	0.35		14.98	m	
11		8	5.35	0.32		13.70	sq m	
	Beam	4	1.375	0.35		1.93	sq m	
		4	1.375	0.3		1.65	sq m	
		-	1.070	0.0			sq	
	Providing 1st class local wood work dres	sed in	l frames o	f sill, upri	l ght, batte	32.25 en, post,	m	
	beams, etc. as structural members fixed	in posi	tion com	plete.				
	Cross beams (1m c/c spacing)	53	1.8	0.1	0.08	0.76	cu m	
12	Long beams	3	50	0.1	0.05		cu	
	Wheel track	85	1.5	0.3	0.03	0.75	cu	
	WHEEL HACK	00	1.5	0.3	0.03	1.15	m cu	
						2.66	m	
	Painting with oil type wood preservative of manufacture. New work (two or more coa		oved bra	nd and	Т			
13	Cross beams (1m c/c spacing)	53	1.8	0.26		24.80	sq m	
	Long beams	3	50	0.3		45.00	sq m	
	Wheel track	85	1.5	0.36		45.90	sq m	

1	1	1	Ī		i			ı	
							sq		
						115.70	m		
	Supplying and fixing high Tosil wire for n								
		equired diameter, placing in position and anchorage in complete							
14	20 mm dia	2	2 60			120.00			
		3		70		210.00			
						330.00	rm		
15	Providing and fixing required size of U cl	amps							
15		12		4		48.00	no		
	Steel reinforcement for RCC work includ	ing stra	aightheni	ng, cuttin	g,				
	bending, placing in position and binding								
16	a) Mild Steel and Medium Tensile steel b								
10	6mm dia (1m c/c)	92	4			368.00			
	Add 20% for bending					73.60			
	6mm dia @ 0.22kg/rm					441.60	kg		
	Droviding and fixing of 22mm to 20mm n		00mm di	o golvon	iood			_	
	Providing and fixing of 23mm to 20mm n wire net walling in 1st. class local wood,								
17	75mm x 25mm including fixing with nails				•				
			2, 2.0. 00				sq		
		2	50	2.3		230.00	m		
							Tot	al (a)	

# b. Name of Project : Construction of Suspension Foot Bridge.

**Location : Tuivawl, Saitual District.** 

DET	DETAILED ESTIMATE FOR CONSTRUCTION OF SUSPENSION FOOT BRIDGE AT TUIVAWL, SAITUAL										
SI No /	Description of Items	No	Length (in m)	Breadt h (in m)	Height (in m)	Qnty	Unit	Rate (in INR)	Amount (in INR)		
1	Clearing jungle including uproot brush wood, trees and saplings height of 1m above ground leve distance of 50 metres outside the a)By manual means.										
	ii)Medium jungle.		185.00	sqm							
						185.00	sqm				
	Earthwork in excavation exclusi										
	a)Ordinary soil										
2	i)Kassi work undressed involvin upto 2 metres and an average v including breaking of clods.					246.3	cum				
3	Earth work in excavation by me excavator)/manual means over 1.5 m in width as well as 10 sqr and disposal of excavated earth m, as directed by Engineer-in-c All kinds of soil (excluding ordin	542.5	sqm								
	Earthwork in excavation in foun	l dation	trenches	or drains e	etc (not	J72.J	Sqiii				
4	exceeding 1.5m in width or 10se				,						

ſ	sides and ramming of bottoms,	lift unt	0 1 5m inc	cluding get	ting out	]			
	excavated soil and disposal of s								
	within a lead of 50 metres.	7 р . с. с			0 0 1 0 0				
	b) hard soil (pick work)								
	Foundation	2	3.2	1.5	2.7	25.92	cum		
	Anchor	2	2	2	1.2	9.6	cum		
						35.52	cum		
	Filling available excavated earth								
	plinth, sides of foundations etc.								
5	depth, consolidating each depo			mming and	d				
	watering, lead up to 50 m and li	04.0							
		2	3.2	1.5	2.25	21.6	cum		
	Dec 18 constitution of the			(	·	21.6	cum		
	Providing and laying in position grade excluding cost of centerion								
	plinth level:	d ic of	000 0000	anto 20mi	<u> </u>				
	a)1:3:6(1 cement :3 course sand nominal size)	ı		-	Т				
	Foundation	2	3.2	1.5	0.2	1.92	cum		
6	Anchor	2	2	2	1.2	9.6	cum		
	Steps	2	2	0.9	0.1	0.36	cum		
		2	2	1.5	0.1	0.6	cum		
	Floor	2	5	5	0.1	5	cum		
	Masonry	2	5	1.55	0.15	2.325	cum		
						19.805	cum		
	Extra for making chequers of ap								
	concrete floors, steps, landings,				T				
7	Steps	2	2	0.9		3.6	sqm		
		2	2	1.5		6	sqm		
	Floor	2	5	5		50	sqm		
	B		<u> </u>			59.6	sqm		
	Providing and laying in position excluding cost of centering and				te				
	reinforcement in -	Siluite	illig , illis	ming and					
	All work upto plinth level :								
8	a) 1:1.5:3 (1 cement : 1.5 coars	e sand	: 3 grade	ed stone					
	aggregate 20mm nominal size)								
	Footing	2	3.2	1.5	0.2	1.92	cum		
						1.92	cum		
	Providing and laying in position								
	mixed design mix M-20 grade c	ement	concrete	for reinfor	ced				
	cement concrete work, using ce								
	design mix, including pumping of				but				
	excluding the cost of centering, reinforcement, including admixt				oortions				
	as per IS: 9103 to accelerate, re								
9	workability without impairing str								
Э	direction of Engineer-in-charge.								
	a)All work upto plinth level :								
	Footing	2	5	1.5	0.2	3	cum		
	Column	4	2.3	0.4	0.4	1.472	cum		
						4.472	cum		
	b) All work from plinth level								
	upto floor V level.								

	Column	4	3.9	0.4	0.4	2.496	cum	]	
	Beam	6	1.2	0.3	0.4	0.864	cum		
						3.36	cum		
	Steel reinforcement for RCC wo								
	cutting, bending, placing in posi								
	b)Thermo-Mechanically Treated								
10	Footing	100		kg/cum		192			
	Column	310		kg/cum		456.32			
	Beam	270		kg/cum		233.28			
İ						881.6	kg		
	Coursed rubble masonry(First sort) with hard stone in foundation and plinth with:						<u> </u>		
11	cement mortar 1 : 3 ( 1cement : 3 coarse sand)								
		2		7.875		15.75	cum		
	Centering and shuttering includ removal of form for all heights:	ing str	utting, pro	pping etc.	and				
	c)Columns, pillars, piers, abutments, posts and struts	16	2.3	0.4		14.72	sqm		
12	d)Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.	18	1.2	0.3		6.48	sqm		
		6	1.2	0.4		2.88	sqm		
						9.36	sqm		
	15mm cement plaster 1 : 3 (1 cement : 3 fine sand).						-		
13	Column	16	3.9	0.4		24.96	sqm		
13	Beam	48	1.2	0.4		23.04	sqm		
						48	sqm		
	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.								
14	Column	16	3.9	0.4		24.96	sqm		
	Beam	48	1.2	0.4		23.04	sqm		
						48.00	sqm		
	Finishing walls with exterior emulsion of required shade on new work (three or more coats) to give an even shade.								
15	a)Regular exterior emulsion like				Τ	04.55			
. •	Column	16	3.9	0.4		24.96	sqm		
	Beam	48	1.2	0.4		23.04	sqm		
	0					48.00	sqm	-	
	Supplying and fixing high Tosil wire for main suspending cable of required diameter, placing in position and anchorage in complete								
16	20 mm dia	4		22.8		91.2	rm	-	
		3		19		57 148.2	rm	ļ	
	Duriting and Change in the Change						rm	ļ	
17	Providing and fixing required size		clamps						
	20mm dia 20 4					80	no	ļ	
	Steel reinforcement for RCC work including straighthening, cutting, bending, placing in position and binding all complete.								
18	b)Thermo-Mechanically Treated bars of grade Fe-500 or more					4.10.1		-	-
	6mm dia (1m c/c)	4		35.6		142.4			
	Add 20% for bending					28.48			
	6mm dia @ 0.22kg/rm					170.88	kg	<u> </u>	<u> </u>

19	Providing and fixing of 23mm to 20mm mesh 1.00mm dia. galvanised wire net walling in 1st. class local wood, chamfered, moulded with 75mm x 25mm including fixing with nails, screws, etc. complete.								
	, ,	2	21	1.5		42			
						42	sqm		
20	Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete.								
	Wheel track	46	1.2	0.3	0.03	0.4968	cum		
						0.4968	cum		
	Total (b)								
Grand Total (a+b)									

Amount in	words:	Grand	Total (	a+b

_	
Rupees	only.
Nupces	Offity,

## Lot 6: Khawzawl

# a. Name of Project: Construction of Suspension Foot Bridge at Khawzawl Location: Tuichang, Chhawrtui, Khawzawl

SI No.	SOR	Description	Quantity	Units	Rate/Unit (Rs.)	Amount (Rs.)				
Sub I	Sub Head 1 : Earthwork									
1.1		Earthwork in excavation in foundation trenches of 2 meters depth including dressing of bottom and and subsequent filling and compaction in 15cm locolumn foundations, fence posts, etc. and dispost soil as directed within a lead of 30 metres.								
		(b) Hard Soil (pick work)								
		Foundation	20.79	cum						
		Anchor	cum							
		Side Preparation	87.5	cum						
1.2		Filling available excavated earth (excluding rock) plinth, sides of foundations etc. in layers not exceeding consolidating each deposited layer by ramming a up to 50 m and lift upto 1.5 m.	pth,							
20.79 cum										
Sub Head 2 : PCC										
2.1		Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:								

	(a)1:3:6(1 cement :3 course sand :6 stone agg	regate		
	20mm nominal size) Foundations	2.48	cum	
	Anchor	37.03	cum	
I		000	1 00	
Sub Hea	d 3 : RCC			
	Providing and laying in position reinforced cem excluding cost of centering and shuttering, finite reinforcement in -			
3.1	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grad 20mm nominal size)	ed stone agg	gregate	
	Footing	1.98	cum	
2.0	Reinforced cement concrete work in walls inclupillasters, columns, pillers, posts, piers, abutmeretaining walls, struts, buttresses, string or lacetc. upto floor five level excluding cost of center complete.	ents, return v ing courses,	valls, fillets	
3.2	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grad 20mm nominal size)	gregate		
	Column	7.02	- Lauren	
	Beam	7.02	cum —	
		<b>'</b>	· · · · · · · · · · · · · · · · · · ·	1
	Centering and shuttering including strutting,pro removal of form for -:	opping etc. A	nd	
3.3	c) Columns, pillars, piers, abutments, posts and struts.	53.76	sqm	
	d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.	9.24	sqm	
	Steel reinforcement for RCC work including str bending, placing in position and binding all cor		cutting,	
	a) Mild steel and Medium Tensile steel bars.			
	Footing			
	Column			
3.4	Beam	2920.41	kg	
	Deduct hidden beam			
	Hidden beam			
	Cours Dia (Am a/a)			
	6mm Dia (1m c/c)	158.40	kg	
	6mm Dia @0.22Kg/Rm			

Sub Hea	ad 4 : Plastering					
	20mm cement plaster 1 : 3 (1 cement : 3 fine sa	and)				
4.1	Column					
7.1	Beam	70.00	sqm			
Sub Hea	ad 5 : Wood work	1				
<u>Jub Hea</u>						
	Providing 1st class local wood work dressed in upright, batten, post, beams, etc. as structural no position complete.					
5.1	Cross Beam (1m c/c spacing)					
	Long Beams	5.06	sqm			
	Wheel track (0.35m c/c)					
Sub Hea	1.2m high steel wire fabric fencing with 1.8m an size placed at					
Sub Hea	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.	: : 1:3:6 (1 cei	ment : 3	sand : 6		
	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne	: : 1:3:6 (1 cei	ment : 3	sand : 6		
	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.	x 1:3:6 (1 cerecessary fitting	ment : 3 ngs inclu	sand : 6		
6.1	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.  a) Expanded wire mesh 3"	300.00	ment : 3 ngs inclu Rm	sand : 6 ding		
6.1	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.  a) Expanded wire mesh 3"	300.00	ment : 3 ngs inclu Rm	sand : 6 ding		
6.1	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.  a) Expanded wire mesh 3"  ad 7: LS  Supplying and Fixing High Tosil wir for main susdiameter, placing in	300.00	ment : 3 ngs inclu Rm	sand : 6 ding		
6.1	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.  a) Expanded wire mesh 3"  ad 7: LS  Supplying and Fixing High Tosil wir for main sus diameter, placing in position and anchoraging complete.  16mm dia	300.00 spending cal	ment : 3 ngs inclu  Rm  ole og re	sand : 6 ding		
6.1	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.  a) Expanded wire mesh 3"  Supplying and Fixing High Tosil wir for main sus diameter, placing in position and anchoraging complete.  16mm dia  Providing and fixing requird size of U-Clamps.	300.00 spending cal	Rm  Rm	sand : 6 ding		
6.1 Sub Hea	1.2m high steel wire fabric fencing with 1.8m an size placed at 2.0m apart embedded in cement concrete block stone aggegate) of size 25 x 25 x 60 cm with ne earthwork complete.  a) Expanded wire mesh 3"  ad 7: LS  Supplying and Fixing High Tosil wir for main sus diameter, placing in position and anchoraging complete.  16mm dia	300.00 spending cal	ment : 3 ngs inclu  Rm  ole og re	sand : 6 ding quired	Rs	

## b. Name of Project : Construction of Suspension Foot Bridge at Khawzawl

Location: Biate, Khawhai, Khawzawl District

Bill Of Quantities						
SI No.	SOR No.	Description	Quantity	Units	Rate (Rs.)	Amount (Rs.)
Sub Head 1 : Earthwork	T	1 =			ı	
1.1		Earthwork in excavation in fortrenches etc. not exceeding including dressing of bottom trenches and subsequent fill compaction in 15cm layers a foundations, fence posts, etc all surplus soil as directed with metres.				
		(b) Hard Soil (pick work)				
		Foundation	60.12	cum		
		Anchor	-			
1.2		Filling available excavated erock) in trenches, plinth, sides of foundations etc. in lexceeding 20cm in depth, condeposited layer by ramming lead up to 50 m and lift upto				
		Foundation	19.80	cum		
Cut Head a POC						
2.1		Providing and laying in position concrete of specified grade centering and shuttering - A level:  (a)1:3:6(1 cement :3 course	excluding of the state of the s	ost of		
		stone aggregate 20mm nom	ninal size)			
		Foundations Anchor Laying of P.C.C for prevention of scouring/soil erosion near foundation of foot bridge.	54.80	cum		
Sub Head 3 : RCC		T =				
3.1		Providing and laying in positions coment concrete excluding and shuttering, finishing and	cost of cent	ering		
		a) 1:1.5:3 (1 cement : 1.5 cc graded stone aggregate 20mm nominal size)	1	T		
		Footing	1.98	cum		

l I	1	İ		1 1		
	Reinforced cement concrete	e work in wa	lle			
	including attached pillasters					
	posts, piers, abutments, ret					
3.2	walls, struts, buttresses, st					
5.2		9				
		courses, fillets etc. upto floor five level excluding cost of centering shuttering etc				
	complete.					
	a) 1:1.5:3 (1 cement : 1.5 ce	narsa sand :	3			
	graded stone aggregate 20					
	Column		1 3120)			
	Beam	7.79	cum			
	Deam	+				
	Contoring and aboutoring in	مان طأنه م				
2.2	Centering and shuttering in	ciuding				
3.3	strutting,propping etc. And	removal of it	וטו ווווכ			
		btop o o to				
	c) Columns, pillars, piers, a and struts.	butments, p	บรเร			
	and stiuts.	00100		<del>-</del>		
		204.00	sqm			
	d) Lintels,beams, plinth bea	me dirdere	1			
	bressumers and cantilevers					
	bressumers and carmevers	s, etc.	T			
		17.94	sqm			
			-			
	Steel reinforcement for RC0	C work inclu	dina			
3.4	straighthening, cutting, ben			ion		
	and binding all complete.	J, [	, , , , , , , ,			
	a) Mild steel and Medium T	ensile				
	steel bars.					
	Footing					
	Column	2612.90	kg			
	Beam	1	3			
	Boarn	1				
	6mm Dia (1m c/c)	1				
	, ,	100 40	l.e.			
	Add 20% for Bending	138.16	kg			
	6mm Dia @0.22 kg/Rm					
Sub Head 4 : Plastering			1			
4.1	20mm cement plaster 1 : 3	(1 cement				
т. 1	: 3 fine sand)	1				
	Column	51.04	eam			
	Beam	31.04	sqm			
	Doam					
	Boarn					
Sub Head 5 : Wood work	Boam					
Sub Head 5 : Wood work		ood work dre	ssed in			
Sub Head 5 : Wood work 4.1	Providing 1st class local wo			as		
		n, post, bear	ms, etc.	as		
	Providing 1st class local wo frames of sill, upright, batte structural members fixed in	n, post, bear	ms, etc.	as		
	Providing 1st class local wo frames of sill, upright, batte structural members fixed in Cross Beam ( 1m c/c	n, post, bear	ms, etc.	as		
	Providing 1st class local wo frames of sill, upright, batte structural members fixed in Cross Beam ( 1m c/c spacing)	n, post, bear	ms, etc.	as		
	Providing 1st class local wo frames of sill, upright, batte structural members fixed in  Cross Beam (1m c/c spacing)  Long Beams	n, post, bear position cor	ms, etc. nplete.	as		
	Providing 1st class local wo frames of sill, upright, batte structural members fixed in Cross Beam ( 1m c/c spacing)	n, post, bear position cor	ms, etc. nplete.	as		

Sub Head 6 : Fencing (wire)	_	-	-	-	-	_	
6.1		1.2m high steel wire fabric for iron posts 40 x 40 x 6mm size embedded in cement concrets a sand: 6 stone aggegate) with necessary fittings include	apart ement : cm				
		b) Expanded wire mesh 4"	180.00	Rm			
		_					
Sub Head 7 : Painting							
7.1		Painting with oil type wood prand and manufacture. Net coats)					
		Cross Beam					
		Long Beams	258.62	sqm			
		Wheel track (0.35m c/c)					
7.2		Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface.					
		a) Ready mix white primer.					
		Column	54.24	sqm			
		Beam					
7.3		Finishing walls with exterior shade on new work (three of even shade.  a) Regular exterior emulsion	or more coat	s) to give			
		walmasta etc. Column	Ī				
		Beam	54.24	sqm			
		Dealif					
Sub Head 8 : LS		-			1		
8.1	-	Supplying and Fixing High Tosil wir for main suspending cable og required diameter, placing in position and anchoraging complete.					
		16mm dia	300.00	Rm			
8.2		Providing and fixing requird	size of U-C	lamps.			
		20mm dia	48.00	No.			
			TO	ΓAL (b)	Rs		

## c. i) Name of Project : Construction of RCC Bridge at Khawzawl

## Location: Pialtlep Kawr, Chawngtlai, Khawzawl District

**Bill Of Quantities** 

SI No.	Description	Quantity	Units	Rate (Rs.)	Amount (Rs.)
Sub He	ead 1 : Earthwork				T
_	-		_	_	_
1.1	Clearing landslips including removal of spoils	s upto 30m.			
_	a) All kinds of soil	80.00	cum		
_					
1.2	Earthwork in excavation in foundation trench meters depth including dressing of bottom a subsequent filling and compaction in 15cm is foundations, fence posts, etc. and disposal of directed within a lead of 30 metres.	nd sides of trench ayers as in colum	nes and n		
	(b) Hard Soil (pick work )				
	Foundation	32.00	cum		
		02.00	Odin		
1.3	Filling available excavated earth (excluding sides of foundations etc. in layers not exceed consolidating each deposited layer by ramm to 50 m and lift upto 1.5 m.	ding 20cm in dep	th,		
	Foundation	32.00	cum		
Sub He	ead 2 : PCC		T		T
_			<u> </u>		_
2.1	Providing and laying in position cement condexcluding cost of centering and shuttering -				
	(a)1:2:4(1 cement :2 course sand :4 stone as size)	ggregate 20mm r	ominal		
	Foundations	6.60	cum		
	Abutment	0.00	cum		
Sub He	ead 3 : RCC				T
3.1	Reinforced cement concrete work in walls in columns, pillers, posts, piers, abutments, ret struts, buttresses, string or lacing courses, fi level excluding cost of centering shuttering e	urn walls, retainir llets etc. upto floc	ng walls,		
	a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 gr 20mm nominal size)	aded stone aggre	egate		
	Footing				
	Column (footing)	13.36	cum		
	Beam	_	53111		
	Slab				

		1			
3.2	Centering and shuttering including strutting of form for all heights:	, propping etc. and	l removal		
	a) Foundations, footings, bases of columns	etc. for mass cond	crete.		
	Foundations	25.60	sqm		
	(c) Columns, pillars, piers, abutments, post	s and struts.			
	Columns	89.600	sqm		
	d) Lintels, beams, plinth beams, girders, bro	essumers and can	tilevers etc		
	Beams	78.300		·•	
	beams	76.300	sqm		
3.3	Steel reinforcement for RCC work including bending, placing in position and binding all		ıtting,		
	a) Mild steel and Medium Tensile steel bars	S.			
	Footing				
	Column	2477.04	l.a.		
	Beam	2477.64	kg		
	Slab				
Sub He	ead 4 : Stone work	T			<b>I</b>
_	_	_	_	_	_
4.1	Stone work ashlar punched (ordinary) in consuperstructure including pointing with ceme cement: 2fine sand).  One Faced dressed				
	a) Local Stone Masonry				
	Abutment	12.00	cum		
Sub U	and E. Blactorina				
Sub Re	ead 5 : Plastering				
5.1	15mm cement plaster 1 : 3 (1 cement : 4 fir	ne sand).	_	_	_
-	Abutment	20.00	sqm		
			•		
			TOTAL	Rs	
		G T	otal (c.i)		
		G. 10	Jiai (G.I)	Rs	

# c.ii) Name of Project : Construction of Slab Culvert at Khawzawl Location : Sakhi Lui, Chawngtlai, Khawzawl District

## **Bill Of Quantities**

SI No.		Description of items	Quantity	Units	Rate (Rs.)	Amount (Rs.)
Sub	<u>Hea</u>	<u>ld 1 : Earthwork</u>				
_		_		_		-
1.1		Clearing landslips including removal of spoils upto	o 30m.		_	_

	b) Rock debris (Blasting not required)				
-		52.50	cum	_	<del>  -</del>
	· <del>-   -</del>	32.30	Cum		
1.2	Earthwork in excavation in foundation trench meters depth including dressing of bottom ar and subsequent filling and compaction in 150 foundations, fence posts, etc. and disposal or directed within a lead of 30 metres.  b) Hard Soil (pick work)	nd sides of trenc cm layers as in c	hes column	-	
	For Abutments	04.50			
	For Abutilients	94.50	cum		
1.3	Providing and filling approved river sand in transport layers not exceeding 20 cms in depth, consumming and watering and dressing completed.  For Abutments back	olidating each la			
	T of Albatinomic Basic	20.40	Cum		
Sub F	lead 2 : PCC		1		
,ub I	1000 2.1.00				
2.1	Providing and laying in position cement concexcluding cost of centering and shuttering level:			_	-
	(a)1:2:4(1 cement :2 course sand :4 stone aq nominal size)	ggregate 20mm			
	For Abutments				
	For Return walls	7.28			
	Bottom vent	1.20	cum		
	Parapets				
<u>Sub F</u>					
	lead 3 : RCC		1 1		
<u> </u>				_	
3.1	Providing and laying in position reinforced ce excluding cost of centering and shuttering , for reinforcement in -		_	_	-
3.1	Providing and laying in position reinforced ce excluding cost of centering and shuttering , f	inishing and	egate	-	-
3.1	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 gradults)	inishing and	egate	-	
3.1	Providing and laying in position reinforced context excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graze)	inishing and aded stone aggr		_	_
	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grazedomm nominal size)  Deck slab  Reinforced cement concrete work in walls in pillasters, columns, pillers, posts, piers, abut retaining walls, struts, buttresses, string or later. upto floor five level excluding cost of cercomplete.	2.70 cluding attached ments, return waacing courses, fintering shuttering	cum _ alls,	_	•
	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grazedomm nominal size)  Deck slab  Reinforced cement concrete work in walls in pillasters, columns, pillers, posts, piers, abut retaining walls, struts, buttresses, string or layer. upto floor five level excluding cost of cere	2.70 cluding attached ments, return waacing courses, file	cum _ alls,	-	_
3.2	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grazedomm nominal size)  Deck slab  Reinforced cement concrete work in walls in pillasters, columns, pillers, posts, piers, abut retaining walls, struts, buttresses, string or later. upto floor five level excluding cost of cercomplete.	2.70 cluding attached ments, return waacing courses, fintering shuttering	cumalls, llets g etc	<u>-</u>	-
3.2	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grazedomm nominal size)  Deck slab  Reinforced cement concrete work in walls in pillasters, columns, pillers, posts, piers, abut retaining walls, struts, buttresses, string or later. upto floor five level excluding cost of cercomplete.	2.70  cluding attached ments, return was acing courses, filtering shuttering 2.70  straighthening, courses, courses, courses, filtering shuttering um alls, llets g etc cum	_		
	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grazed 20mm nominal size)  Deck slab  Reinforced cement concrete work in walls in pillasters, columns, pillers, posts, piers, abut retaining walls, struts, buttresses, string or later. upto floor five level excluding cost of cercomplete.  Deck slab  Steel reinforcement for RCC work including streams.	2.70 cluding attached ments, return wa acing courses, fintering shuttering 2.70  straighthening, complete.	cum alls, llets g etc cum	-	_
3.2	Providing and laying in position reinforced ce excluding cost of centering and shuttering, for reinforcement in -  a) 1:1.5:3 (1 cement : 1.5 coarse sand : 3 grazedomm nominal size)  Deck slab  Reinforced cement concrete work in walls in pillasters, columns, pillers, posts, piers, abut retaining walls, struts, buttresses, string or later. upto floor five level excluding cost of cercomplete.  Deck slab  Steel reinforcement for RCC work including a bending, placing in position and binding all contents.	2.70 cluding attached ments, return wa acing courses, fintering shuttering 2.70  straighthening, complete.	cum alls, llets g etc cum	-	-

<u> </u>		_			_
4.1	Coursed rubble masonry(second sort) with hard s and plinth with:	tone in four	ndation		
	cement mortar 1 : 3 ( 1cement : 3 coarse sand)				
	Abutment side	24.00	cum		
	Return walls	24.00	Cum		
4.2	Random rubble masonry with hard stone in found including levelling up with cement concrete 1:5:10 size) upto plinth level with :				
	a) in cement mortar 1 : 3 ( 1cement : 3 coarse sar	nd)			
	Parapet wall	0.71	cum		
4.2	Stone pitching in cement mortar 1:3 (1 cement : 3 roads, in slopes of embankments etc. including supreparing surface, etc. complete.				
	Vent bottom	2.55	cum		
Sub He	ead 5 : Plastering				
<u> </u>	15mm cement plaster 1 : 4 (1 cement : 4 fine san	<u> </u>	_	_	_
5.1	Abutment inside vent	u).			
	Return walls				
	Parapets top	4= 00			
	back	45.82	sqm		
	sides				
	front				
			TOTAL	Rs	
		G. Tota	ıı (C.II)	Rs	

Amount in words: Grand Total (a+b+[c.i+c.ii])

Rupees	
RIDADE	ONIV
MUNECO	CATIV.

# **Dayworks**

**Schedule of Dayworks Rates: Materials** 

Item no.	Description	Unit	Nominal quantity	Rate	Extended amount		
1							
2							
3							
4							
5							
6							
				Subtotal			
	Allow percent <sup>a</sup> of subtotal for coprofit, etc.	Allow percent <sup>a</sup> of subtotal for contractor's overhead,					
	(carried forward		r dayworks: rks summar				

a. To be entered by the bidder.

# Schedule of Dayworks Rates: Labour

Item no.	Description	Unit	Nominal quantity	Rate	Extended amount
1					
2					
3					
				Subtotal	
	Allow _ percent <sup>a</sup> of subtotal for contractor's overhead, profit, etc.				
	Total for dayworks: Labour				
	(carried forward to dayworks summary, p)				

a. To be entered by the bidder.

# **Schedule of Dayworks Rates: Contractor's Equipment**

Item no.	Description	Nominal quantity (hours)	Basic hourly rental rate	Extended amount
1				
2				
3				
4				
5				
6				
7				
	Allow _ percent <sup>a</sup> of Subtotal for Contractor's overhead, profit, etc.			
	·			
	yworks: contractor's equipment		·	
	ward to Dayworks Summary, p)			

a. To be entered by the bidder

# **Dayworks Summary**

Particulars	Amount <sup>a</sup> ( )
Total for dayworks: Labour	
2. Total for dayworks: Materials	
3. Total for dayworks: Contractor's Equipment	
Total for dayworks (Provisional Sum) (carried forward to Bid Summary, p)	

a. All prices should be INR

## **Section XI. Contract Forms**

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## Section XI (A). Notice of Intent to Award

This is not a notification of award or letter of acceptance. The employer intends to contract to be formed with this notice.

[letterhead paper of the employer]

Insert project logo (if existing)

For the attention of the bidder's authorized representative

Name: [insert authorized representative's name]

Address: [insert authorized representative's address]

Telephone/Fax numbers: [insert authorized representative's telephone/fax numbers]

Email Address: [insert authorized representative's email address]

DATE OF TRANSMISSION: [insert date]

**Procuring entity:** Society for Climate Resilient Agriculture in Mizoram (SCRAM)

**Procurement title:** Constrution of Low Cost Bridge (RCC and Suspension)

Ref no: MZ/PMU/PP 2021-22/W/4

This notice of intent to award (NOITA) notifies you of our decision to award the above contract to [insert the successful bidder].

Please note that this notice does not constitute any contract between the procuring entity and the bidder and neither establishes any legal rights or obligations for the procuring entity or bidder.

# [IMPORTANT: provide the results of the evaluation and the prices of each bidder [if applicable] in this NOITA].

Name of bidder	Points scored	Bid price	Evaluated bid price (if applicable)
[insert name]	[insert points]	[insert bid price]	[insert evaluated price]
[insert name]	[insert points]	[insert bid price]	[insert evaluated price]
[insert name]	[insert points]	[insert bid price]	[insert evaluated price]
[insert name]	[insert points]	[insert bid price]	[insert evaluated price]
[insert name]	[insert points]	[insert bid price]	[insert evaluated price]

If your bid has not been successful, you may request a debriefing in relation to the results of the evaluation of your bid. If you decide to request a debriefing, your written request must be made within [insert number of stated in the bidding document and see the module M1 on debriefs in the IFAD Procurement Handbook for more information] business days of receipt of this NOITA.

If your request for a debriefing is received within the deadline above, we will provide the debriefing within [insert number stated in the bidding document and see the module M1 on debriefs in the IFAD Procurement Handbook for more information] business days of receipt of your request.

The debriefing may be in writing, by video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

The period within which you can protest the procurement proceedings lasts [insert number stated in the bidding document and see the module M2 on protests in the IFAD Procurement Handbook for more information] business days after the date of transmission of this NOITA.

Yours sincerely,

**Authorised Official** 

## Section XI (B). Letter of Acceptance

Notes on standard form of letter of acceptance

The letter of acceptance will be the basis for formation of the contract as described in clauses 35.1 of the Instructions to Bidders. This standard form of letter of acceptance is included for information at the bidding stage and shall be filled in and sent to the successful bidder only after evaluation of bids has been completed.

[letterhead paper of the employer]

[lottorrioud paper	or the employers
	[date]
To: [name of the contractor]	_
[name or and contractor]	
[address of the contractor]	_
This is to notify you that your bid dated	for the execution of the
[name of the contra	ct and identification number, as given in the
SCC] for the Contract Price of	(
numbers and words]	_, as corrected and modified in accordance
with the instruction to bidders, is hereby accept	ed by the employer.
You are hereby instructed to proceed with the the contract documents.	execution of the said works in accordance with
Authorized Signature:	
Name and Title of Signatory:	
Name of Agency:	
Attachment: Contract Agreement	

## Section XI (C). Contract Agreement

Notes on standard form of agreement

The agreement should incorporate any corrections or modifications to the bid resulting from price corrections and price adjustment during the evaluation process as provided for the in the Instructions to Bidders and any other agreement following award of the contract.

**Contract Agreement** 

	_	
This Agreement, made the	day of	202
, between_		
[name and address of employer] (here	einafter called "the emplo	yer") and
[name and address of contract	or] (hereinafter called "the	e contractor") of the other part.
Whereas the employer is desirous tha	at the contractor execute	

[name and identification number of contract] (hereinafter called "the works") and the employer has accepted the bid by the contractor for the execution and completion of such works and the remedying of any defects therein.

Now with this agreement witnesseth as follow:

- In this agreement, words and expressions shall have the same meanings as are
  respectively assigned to them in the conditions of contract hereinafter referred to, and
  they shall be deemed to form and be read and construed as part of this agreement.
- 2. The following documents shall be deemed to form and be read and construed as part of the agreement and shall have the order of precedence as listed below:
  - a. Agreement,
  - b. Letter of acceptance
  - c. Contractor's letter of bid
  - d. Special conditions of contract- SCC

- e. General conditions of contract-GCC
- f. Specifications
- g. Drawings
- h. Bills of quantities (or activity schedules), and
- i. Any other documents listed in the SCC as forming part of the contract.
- 3. In consideration of the payments to be made by the employer to the contractor as specified in the letter of acceptance, 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.
- 5. IN WITNESS whereof the parties hereto have caused this agreement to be executed in accordance with the laws of . . . . [Republic of India]. . . . on the day, month and year specified above.

Signed by:	Signed by:	
for and on behalf of the Employer	for and on behalf the Contractor	
in the	in the	
presence of:	presence of:	
Witness, Name, Signature, Address, Date	Witness, Name, Signature, Address, Date	

## Section XI (D). Bank Guarantee Form for Advance Payment

This sample of advance payment guarantee is for information only. Bidders should not complete the form at this time as only the successful bidder will be required to provide the advance payment guarantee.

To: [name and address of employer] [name and procurement number of contract]

#### Gentlemen:

In accordance with the provisions of the conditions of contract, clause 24 "Advance" of the above-mentioned contract, [name and address of contractor] (hereinafter called "the contractor") shall deposit with [name of employer] a bank guarantee to guarantee his proper and faithful performance under the said clause of the contract in an amount of [amount of guarantee] [amount in words].<sup>5</sup>

We, the *[bank or financial institution]*, as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to *[name of employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the contractor, in the amount not exceeding *[amount of guarantee] [amount in words]*.

We further agree that no change or addition to or other modification of the terms of the contract or of works to be performed thereunder or of any of the contract documents which may be made between *[name of employer]* and the contractor, shall in any way release us from any liability under this quarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the contract until *[name of employer]* receives full repayment of the same amount from the contractor.

This guarantee is subject to the Uniform Rules for Demand Guarantees, 2010 Revision, ICC Publication No. 758, except that the supporting statement requirement of Article 15(a) is hereby excluded and as may otherwise be stated above.

Yours truly,	
Signature and seal: _	
Name of Bank:	
Address:	
Date:	

Section XI. Contract Forms
Constrution of Low Cost Bridge- Ref. No: MZ/PMU/PP 2021-22/W/4

<sup>&</sup>lt;sup>5</sup> An amount is to be inserted by the Bank or Financial Institution 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.

## Section XI (E). Performance Security Form

To: [name of employer]

WHEREAS [name of contractor] (hereinafter called "the contractor") has undertaken, in pursuance of contract No. [reference number of the contract] dated [insert contract date] to supply [description of works] (hereinafter called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the contractor shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the contractor's performance obligations in accordance with the contract.

AND WHEREAS we have agreed to give the contractor a guarantee:

THEREFORE WE hereby affirm that we are guarantors and responsible to you, on behalf of the contractor, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the contractor to be in default under the contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the	day of	20 .	
This guarantee is subject to the Unif Publication No. 758, except that the hereby excluded and as may otherw	supporting state	ement requirement	•
Signatu	re and seal of t	ne guarantors	
[name o	of bank or finand	cial institution]	
	[address]	,	

## Section XI (F). Self-Certification Form

This self-certification form is to be completed by the contractor. The contractor shall submit the completed form together with the signed contract agreement to **Society for Climate Resilient Agriculture in Mizoram (SCRAM)**. Instructions for completing this form are provided below.

Full legal name of contractor:	
Full legal name of contractor's legal representative and position:	
Full name and number of contract:	
Project with which contract was signed:	
Country:	
Date:	

I hereby certify that I am the authorized representative of [name of the contractor], as well as that the information provided herein is true and accurate in all material respects and understand that any material misstatement, misrepresentation or failure to provide the information requested in this self-certification may result in sanctions and remedies, including the suspension or termination of the contract between the contractor and the procuring entity, as well as the permanent ineligibility to participate in IFAD-financed and/or IFAD-managed activities and operations, in accordance with the IFAD Procurement Guidelines, the IFAD Procurement Handbook and other applicable IFAD policies and procedures, including IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations (accessible at www.ifad.org/anticorruption policy) and its Policy on Preventing and Responding to Sexual Harassment, Sexual **Exploitation** Abuse (accessible and https://www.ifad.org/en/document-detail/asset/40738506).

Authorized Signature:	Date:
Printed Name of Signatory:	

The contractor certifies that itself, including its director(s), partner(s), proprietor(s), key personnel, agents, sub-consultants, sub-contractors, consortium and joint venture partners have <b>NOT</b> engaged in fraudulent, corrupt, collusive, coercive or obstructive practices, in connection with the present procurement process and this contract.						
The contractor declares that the following criminal convictions, administrative sanctions (including debarments under the Agreement for Mutual Enforcement of Debarment Decisions or the "Cross-Debarment Agreement") <sup>6</sup> and/or temporary suspensions have been imposed on the contractor and/or any of its directors, partners, proprietors, key personnel, agents, subconsultants, sub-contractors, consortium and joint venture partners:						
mea crim adm sand tem	ure of the asure (i.e., inal conviction, inistrative ction or corary pension)	Imposed by	Name of party convicted, sanctioned or suspended (and relationship to contractor)	Grounds for the measure (i.e., fraud in procurement or corruption in contract execution)	Date and time (duration) of measure	
If no criminal convictions, administrative sanctions or temporary suspensions have been imposed, indicate "none".						
The contractor certifies that its director(s), proprietor(s), and personnel, and the personnel of its agents, sub-consultants, sub-contractors, consortium and joint venture partners are <b>NOT</b> subject to a criminal conviction, administrative sanctions or investigations for incidents of sexual harassment and sexual exploitation and abuse.						
The contractor certifies that itself, its proprietor(s), agents, sub-consultants, sub-contractors consortium and joint venture partners have <b>NO</b> actual, potential or reasonably perceived conflicts of interest and specifically that they:						
Do not have any actual or potential, and do not reasonably appear to have, at least one controlling partner in common with one or more other parties in the bidding process or the execution of the contract;						
Do not have any actual or potential, and do not reasonably appear to have the same legal representative as another bidder for purposes of this bid or execution of the contract;						
Do not have any actual or potential, and do not reasonably appear to have a relationship, directly or through common third parties, that puts them in a position to have access to undue or undisclosed information about or influence over the bid process and the execution of the contract, or influence the decisions of the procuring entity regarding the selection process for this procurement or during the execution of the contract;					position to have oid process and entity regarding	

	Do not participate and do not potentially or reasonably appear to participate in more than one bid in this process; and				
	Do not have any actual or potential, and do not reasonably appear to have, a business or family relationship with, a member of the procuring entity's board of directors or its personnel, the Fund or its personnel, or any other individual that was, has been or might reasonably be directly or indirectly involved in any part of (i) the preparation of the bidding document, (ii) the selection process for this procurement, or (iii) execution of the contract, unless the actual, potential or reasonably conflict stemming from this relationship has been explicitly authorized by the Fund in writing.				
	[To be completed only if the previous boxes were not checked] The contractor declares the following actual, potential or reasonably perceived conflicts of interest, that may affect, or might reasonably be perceived by others to affect, impartiality in any matter relevant to the procurement process, including the selection process and the execution of the contract, with the understanding and acceptance that any action upon this disclosure shall be entirely under the Fund's discretion:				
	[provide detailed description of any actual, potential or reasonably perceived conflicts of interest including their nature and the personnel, proprietor(s), agents, sub-consultants, sub-contractors, consortium or joint venture partners affected.]				
than t	e contractor certifies that <b>NO</b> gratuities, fees, commissions, gifts or anything else of value, other in those shown in the bid, have been paid or exchanged or are to be paid or exchanged with spect to the present procurement process and this contract.				
OR					
The c	[To be completed only if the previous box was not checked] The contractor declares that the following gratuities, fees, commissions, gifts or anything else of value have been exchanged, paid or are to be exchanged or paid with respect to the present procurement process and this contract:				
	lame of Recipient/Address/Date/Reason/Amount] lame of Recipient/Address/Date/Reason/Amount]				
	ontractor acknowledges and accepts to notify the procuring entity in the event of any ial change in connection with this self-certification form throughout the duration of the act.				

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<sup>&</sup>lt;sup>6</sup> The Cross-Debarment Agreement was entered into by the World Bank Group, the Inter-American Development Bank, the African Development Bank, the Asian Development Bank and the European Bank for Reconstruction and Development, additional information may be located at: http://crossdebarment.org/.

## Instructions for completing the self-certification form

The World Bank listing of ineligible firms and individuals is a searchable database that returns a positive or negative search results page upon submission of a name to be searched, in order to document the eligibility.

The contractor should print out, date, and attach the results page(s) to the self-certification form, which should read, "no matching records found".

If (a) record(s) has/have been found – i.e. the results page(s) shows one or more individuals or entities, including the contractor itself are ineligible for contracts of the World Bank on the grounds of "cross-debarment", the contractor should provide a detailed account of these sanctions and their duration as applicable or notify the procuring entity and in case the contractor believes the finding is a "false positive".

The procuring entity will determine whether to proceed with the contract or allow the contractor to make a substitution. This determination will be made on a case by case basis and will require approval by IFAD regardless of the estimated value of the proposed contract.

All of these documents must be retained by the contractor as part of the overall record of the contract with the procuring entity for the duration of the contract and for a minimum period of three years following the completion of the contract.

# Section XI (G). Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations

## I. Introduction

- 1. The Fund recognizes that the prevention and mitigation of fraud and corruption in its activities and operations are core components of its development mandate and fiduciary duties. The Fund does not tolerate the diversion or waste of its resources through the practices defined in paragraph 6 below.
- 2. The objective of this policy is to establish the general principles, responsibilities and procedures to be applied by the Fund in preventing and addressing prohibited practices in its activities and operations.
- 3. This policy takes effect on the date of its issuance. It supersedes and replaces the IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations (EB 2005/85/R.5/Rev.1) dated 24 November 2005.

## **II. Policy**

## A. General principles

- 4. The Fund has no tolerance towards prohibited practices in its activities and operations. All individuals and entities listed in paragraph 7 below must take appropriate action to prevent, mitigate and combat prohibited practices when participating in an IFAD-financed and/or IFAD-managed operation or activity.
- 5. The Fund endeavours to ensure that individuals and entities that help to prevent or report, in good faith, allegations of prohibited practices are protected against retaliation and to protect individuals and entities that are the subject of unfair or malicious allegations.

#### **B. Prohibited practices**

- 6. The following practices are considered to be prohibited practices when engaged in connection with an IFAD-financed and/or IFAD-managed operation or activity:
  - (a) A "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value in order to improperly influence the actions of another party;
  - (b) A "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party in order to obtain a financial or other benefit or to avoid an obligation;
  - (c) A "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including improperly influencing the actions of another party;

- (d) A "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party in order to improperly influence the actions of that or another party;
- (e) An "obstructive practice" is: (i) deliberately destroying, falsifying, altering or concealing evidence that may be material to an investigation by the Fund or making false statements to investigators in order to materially impede an investigation by the Fund; (ii) threatening, harassing or intimidating any party in order to prevent that party from disclosing its knowledge of matters relevant to an investigation by the Fund or from pursuing such an investigation; and/or (iii) the commission of any act intended to materially impede the exercise of the Fund's contractual rights of audit, inspection and access to information.

## C. Scope

- 7. This policy applies to all IFAD-financed and/or IFAD-managed operations and activities and to the following individuals and entities:
  - (a) IFAD staff and other persons working for IFAD as non-staff personnel ("IFAD
  - (b) staff and non-staff personnel");
  - (c) Individuals and entities holding a commercial contract with the Fund and any of their agents or personnel ("vendors");
  - (d) Public entities receiving IFAD financing or financing managed by the Fund and any of their agents or personnel ("government recipients") and private entities receiving IFAD financing or financing managed by the Fund and any of their agents or personnel ("non-government recipients") (all collectively referred to as "recipients"); and
  - (e) Individuals and entities, other than those referred to above, that receive, apply to receive, are responsible for the deposit or transfer of, or take or influence decisions regarding the use of proceeds from IFAD financing or financing managed by the Fund, including, but not limited to, implementing partners, service providers, contractors, suppliers, subcontractors, sub- suppliers, bidders, consultants and any of their agents or personnel. (All such individuals and entities are collectively referred to as "third parties".)

## D. Responsibilities

#### (i) Responsibilities of the Fund

- 8. The Fund endeavours to prevent, mitigate and combat prohibited practices in its operations and activities. This may include adopting and maintaining:
  - (a) Communication channels and a legal framework designed to ensure that this policy is communicated to IFAD staff and non-staff personnel, vendors, recipients and third parties and that it is reflected in procurement documents and contracts relating to IFAD-financed and/or IFAD-managed activities and operations;

- (b) Fiduciary controls and supervisory processes designed to support adherence to this policy by IFAD staff and non-staff personnel, vendors, recipients and third parties;
- (c) Measures relating to the receipt of confidential complaints, whistle-blower protection, investigations, sanctions and disciplinary measures which are designed to ensure that prohibited practices can be properly reported and addressed; and
- (d) Measures designed to ensure that the Fund can report individuals and entities that have been found to have engaged in prohibited practices to other multilateral organizations which may be exposed to similar actions by the same individuals and entities and to local authorities in cases where local laws may have been violated.

#### (ii) Responsibilities of IFAD staff and non-staff personnel, vendors and third parties

- 9. When participating in an IFAD-financed and/or IFAD-managed operation or activity, IFAD staff and non-staff personnel, vendors and third parties will:
  - (a) Refrain from engaging in prohibited practices;
  - (b) Participate in due diligence checks and disclose, as required, information relating to themselves or any of their key personnel concerning relevant criminal convictions, administrative sanctions and/or temporary suspensions; information concerning agents engaged in connection with a procurement process or contract, including the commissions or fees paid or to be paid; and information concerning any actual or potential conflicts of interest in connection with a procurement process or the execution of a contract;
  - (c) Promptly report to the Fund any allegations or other indications of prohibited practices that come to their attention by virtue of their involvement in an IFAD-financed and/or IFAD-managed operation or activity;
  - (d) Fully cooperate with any investigation conducted by the Fund, including by making personnel available for interviews and providing full access to any and all accounts, premises, documents and records (including electronic records) relating to the relevant IFAD-financed and/or IFAD-managed operation or activity, and by having such accounts, premises, documents and records audited and/or inspected by auditors and/or investigators appointed by the Fund; and
  - (e) Maintain strict confidentiality regarding any and all information received as a consequence of their participation in an IFAD investigation or sanctioning process.
- 10. When participating in an IFAD-financed and/or IFAD-managed operation or activity, vendors and third parties will maintain all accounts, documents and records relating to that operation or activity for an adequate period of time, as specified in the relevant procurement documents or contract.

#### (iii) Responsibilities of recipients

11. When participating in an IFAD-financed and/or IFAD-managed operation or activity, recipients will take appropriate action to prevent, mitigate and combat prohibited practices. In particular, they will:

- (a) Adopt appropriate fiduciary and administrative practices and institutional arrangements in order to ensure that the proceeds of any IFAD financing or financing managed by the Fund are used only for the purposes for which they were provided;
- (b) During selection processes and/or prior to entering into a contractual relationship with a third party, conduct appropriate due diligence checks of the selected bidder or potential contractor, including by verifying whether the selected bidder or potential contractor is publicly debarred by any of the IFIs that are signatories to the Agreement for Mutual Enforcement of Debarment Decisions<sup>7</sup> and, if so, whether the debarment meets the requirements for mutual recognition under the Agreement for Mutual Enforcement of Debarment Decisions;
- (c) Take appropriate action to inform third parties and beneficiaries (defined as "persons whom the Fund intends to serve through its grants and loans") of the present policy as well as the Fund's confidential and secure e-mail address for the receipt of complaints concerning prohibited practices;
- (d) Include provisions in procurement documents and contracts with third parties which:
  - (i) Require third parties to disclose, in the course of a procurement process and any time thereafter, information relating to themselves or any of their key personnel concerning relevant criminal convictions, administrative sanctions and/or temporary suspensions; information concerning agents engaged in connection with a procurement process or the execution of a contract, including the commissions or fees paid or to be paid; and information concerning any actual or potential conflicts of interest in connection with a procurement process or the execution of a contract;
  - (ii) Require third parties to promptly report to the Fund any allegations or other indications of prohibited practices that come to their attention by virtue of their involvement in an IFAD-financed and/or IFAD-managed operation or activity;
  - (iii) Inform third parties of the Fund's jurisdiction to investigate allegations and other indications of prohibited practices and to impose sanctions on third parties for such practices in connection with an IFAD-financed and/or IFAD-managed operation or activity;
  - (iv) Require third parties to fully cooperate with any investigation conducted by the Fund, including by making personnel available for interviews and by providing full access to any and all accounts, premises, documents and records (including electronic records) relating to the relevant IFAD- financed and/or IFAD-managed operation or activity and to have such accounts, premises, records and documents audited and/or inspected

<sup>&</sup>lt;sup>7</sup> The Agreement for Mutual Enforcement of Debarment Decisions, dated 9 April 2010, was signed by five of the leading IFIs, namely, the African Development Bank Group, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank and the World Bank Group.

- (v) by auditors and/or investigators appointed by the Fund;
- (vi) Require third parties to maintain all accounts, documents and records relating to an IFAD-financed and/or IFAD-managed operation or activity for an adequate period of time as agreed with the Fund;
- (vii) Inform third parties of the Fund's policy of unilaterally recognizing debarments imposed by other IFIs if such debarments meet the requirements for mutual recognition under the Agreement for Mutual Enforcement of Debarment Decisions; and
- (viii) Provide for early contract termination or suspension by the recipient if such termination or suspension is required as a consequence of a temporary suspension or sanction imposed or recognized by the Fund;
- (e) Promptly inform the Fund of any allegations or other indications of Prohibited Practices that come to their attention;
- (f) Fully cooperate with any investigation conducted by the Fund, including by making personnel available for interviews and by providing full access to any and all accounts, premises, documents and records (including electronic records) relating to the relevant IFAD-financed and/or IFAD-managed operation or activity and to have such accounts, premises, documents and records audited and/or inspected by auditors and/or investigators appointed by the Fund;
- (g) Maintain all accounts, documents and records relating to an IFAD-financed and/or IFAD-managed operation or activity for an adequate period of time, as specified in the relevant financing agreement; and
- (h) Maintain strict confidentiality regarding any and all information received as a consequence of their participation in an IFAD investigation or sanctioning process.
- 12. Where the Fund finds that prohibited practices have occurred, recipients will: (a) Take appropriate corrective measures in coordination with the Fund; and (b) Give full effect to any temporary suspension or sanction imposed or recognized by the Fund, including by not selecting a bidder, not entering into a contract or suspending or terminating a contractual relationship.
- 13. Prior to the implementation of an IFAD-financed and/or IFAD-managed operation or activity, government recipients will inform the Fund of the arrangements that they have made for receiving and taking action in response to allegations of fraud and corruption relating to the IFAD-financed and/or IFAD-managed operation or activity, including by designating an independent and competent local authority to be responsible for receiving, reviewing and investigating such allegations.
- 14. When participating in an IFAD-financed and/or IFAD-managed operation or activity, government recipients will, in consultation with the Fund, take timely and appropriate action to launch a local investigation into allegations and/or other indications of fraud and corruption relating to the IFAD-financed and/or IFAD- managed operation or activity; inform the Fund of the actions taken in any such investigation at such intervals as may be agreed upon by the recipient and the Fund on a case-by-case basis; and, upon the completion of such investigation, promptly share the findings and results

- thereof, including the supporting evidence, with the Fund. Government recipients will work with the Fund to coordinate any actions other than investigations that they may wish to undertake in response to an alleged or otherwise indicated prohibited practice.
- 15. Government recipients are encouraged to have in place, in accordance with their laws and regulations, effective whistle-blower protection measures and confidential reporting channels in order to appropriately receive and address allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed operations and activities.

#### **E. Process**

## (i) Reporting

- 16. A designated confidential and secure e-mail address for the receipt of allegations of prohibited practices is available on the Fund's website.
- 17. In the event of uncertainty as to whether or not an act or omission constitutes a prohibited practice, the designated confidential and secure e-mail address may be used to seek guidance.
- 18. The Fund treats all reported allegations with strict confidentiality. This means that the Fund does not normally reveal the identity of a reporting party to anybody outside of the investigative, sanctioning or disciplinary process without the consent of the reporting party.
- 19. The Fund endeavours to provide protection from retaliation to any individuals or entities that have helped prevent or have reported to the Fund, in good faith, allegations or other indications of prohibited practices. IFAD staff and non-staff personnel are protected from retaliation under the Fund's Whistle-blower Protection Procedures.

#### (ii) Investigations

- 20. Where the Fund has reason to believe that prohibited practices may have occurred, the Fund may decide to review and investigate the matter, irrespective of any investigative actions launched or planned by the recipient.
- 21. The purpose of an investigation conducted by the Fund is to determine whether an individual or entity has engaged in one or more prohibited practices in connection with an IFAD-financed and/or IFAD-managed operation or activity.
- 22. Reviews and investigations conducted by the Fund are, inter alia:
  - (a) Strictly confidential, meaning that the Fund does not disclose to anyone outside of the investigative, sanctioning or disciplinary process any evidence or information relating to the review or investigation, including the outcome of a review or investigation, unless such disclosure is allowed under the Fund's legal framework;
  - (b) Independent, meaning that no authority is allowed to interfere with an ongoing review or investigation or to otherwise intervene in, influence or stop such a review or investigation; and
  - (c) Administrative, as opposed to criminal, in nature, meaning that reviews and investigations conducted by the Fund are governed by the Fund's rules and procedures, not by local laws.

23. The office within the Fund that is mandated to conduct reviews and investigations into alleged or otherwise indicated prohibited practices is the Office of Audit and Oversight (AUO). Without prejudice to paragraphs 9(d) and 11(f), AUO may agree not to disclose to anybody outside of AUO any evidence or information that it has obtained on the condition that such evidence or information may be used solely for the purpose of generating new evidence or information, unless the provider of the evidence or information consents.

#### F. Sanctions and related measures

### (i) Temporary suspensions

- 24. During the course of an IFAD review or investigation, or pending the conclusion of a sanctioning process, the Fund may decide, at any time, to temporarily suspend payments to IFAD non-staff personnel, non-government recipients, vendors or third parties or to temporarily suspend their eligibility to participate in IFAD- financed and/or IFAD-managed operations and activities for an initial period of six (6) months, subject to a possible extension of that suspension for an additional six (6) months.
- 25. IFAD staff may be temporarily suspended from their duties in accordance with the applicable human resources framework.

#### (ii) Sanctions

- 26. If the Fund determines that IFAD non-staff personnel, non-government recipients, vendors or third parties have engaged in prohibited practices, the Fund may impose administrative sanctions on such individuals or entities.
- 27. Sanctions are imposed on the basis of: (i) the findings and evidence presented by AUO, including mitigating and exculpatory evidence; and (ii) any evidence or arguments submitted by the subject of the investigation in response to the findings presented by AUO.
- 28. The Fund may apply any of the following sanctions or a combination thereof:
  - (a) Debarment, which is defined as declaring an individual or entity ineligible, either indefinitely or for a stated period of time, to: (i) be awarded any IFAD- financed contract; (ii) benefit, financially or otherwise, from any IFAD- financed contract, including by being engaged as a subcontractor; and (iii) otherwise participate in the preparation or implementation of any IFAD- financed and/or IFAD-managed operation or activity;
  - (b) Debarment with conditional release, which is defined as a debarment that is terminated upon compliance with conditions set forth in the sanction decision;
  - (c) Conditional non-debarment, which is defined as requiring an individual or entity to comply with certain remedial, preventive or other measures as a condition for nondebarment on the understanding that a failure to comply with such measures within a prescribed period of time will result in an automatic debarment under the terms provided for in the sanction decision;
  - (d) Restitution, which is defined as a payment to another party or the Fund (with respect to the Fund's resources) of an amount equivalent to the amount of the

- diverted funds or the economic benefit obtained as a result of having engaged in a prohibited practice; and
- (e) Letter of reprimand, which is defined as a formal letter of censure for the actions of an individual or entity which informs that individual or entity that any future violation will lead to more severe sanctions.
- 29. The Fund may extend the application of a sanction to any affiliate of a sanctioned party even if the affiliate has not been directly involved in the prohibited practice. An affiliate is defined as any individual or entity that is: (i) directly or indirectly controlled by the sanctioned party; (ii) under common ownership or control with the sanctioned party; or (iii) acting as an officer, employee or agent of the sanctioned party, including owners of the sanctioned party and/or those who exercise control over the sanctioned party.
- 30. For the purposes of IFAD-financed and/or IFAD-managed operations and activities, the Fund may consider as debarred individuals and entities that have been debarred by another IFI where: (i) that IFI is a signatory to the Agreement for Mutual Enforcement of Debarment Decisions; and (ii) such debarment meets the requirements for mutual recognition under the Agreement for Mutual Enforcement of Debarment Decisions.<sup>8</sup>

## (iii) Disciplinary measures

31. If the Fund finds that IFAD staff have engaged in prohibited practices, the Fund may apply disciplinary measures and may require restitution or other compensation in accordance with the applicable human resources framework.

#### G. Referrals and information-sharing

- 32. The Fund may, at any time, refer information or evidence relating to an ongoing or completed investigative, sanctioning or disciplinary process to the local authorities of a Member State. In determining whether such a referral is appropriate, the Fund takes into consideration the interests of the Fund, the affected Member States, the individuals or entities under investigation and any other persons, such as witnesses, who are involved in the case.
- 33. If the Fund obtains information or evidence indicating potential wrongdoing in connection with the operations and/or activities of another multilateral organization, the Fund may make such information or evidence available to the other organization for the purposes of its own investigative, sanctioning or disciplinary processes.
- 34. In order to facilitate and regulate the confidential exchange of information and evidence with local authorities and multilateral organizations, the Fund seeks to conclude agreements which establish the rules for such an exchange.

## H. Operational responses to Prohibited Practices

(i) Rejection of an award of contract

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<sup>&</sup>lt;sup>8</sup> The Fund may, in the future, decide to also recognize debarments imposed by entities that are not signatories to the Agreement for Mutual Enforcement of Debarment Decisions.

35. The Fund may refuse to give its no-objection to the award of a contract to a third party if it determines that the third party, or any of its personnel, agents, subconsultants, subcontractors, service providers, suppliers and/or their employees, engaged in a prohibited practice while competing for the contract in question.

## (ii) Declaration of misprocurement and/or ineligibility of expenditures

36. The Fund may, at any time, declare a misprocurement and/or the ineligibility of any expenditures associated with a procurement process or contract if it determines that a third party or a representative of the recipient has engaged in a prohibited practice in connection with the procurement process or contract at issue and that the recipient has not taken timely and appropriate action, satisfactory to the Fund, to address such practices when they occur.

#### (iii) Suspension or cancellation of loan or grant

37. If the Fund determines that a recipient has not taken timely and appropriate action, satisfactory to the Fund, to address prohibited practices when they occur, the Fund may suspend or cancel, in whole or in part, the loan or grant affected by such practices.

**Attachment: Drawings**