

**REQUEST FOR QUOTATIONS**  
**Procurement of Works under RFQ/Shopping Procedures**  
**Procurement Notice**  
*(One-Envelope with Physical Submission)*

**Project:** National Hydrology Project  
**Contract title:** Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl  
**PIP UID:** 6330  
**AWPID:** 13019 of 2020-21  
**RFQ No:** NHP-2020-2021-MZ-500146\_1  
**Date:** 22.12.2020  
**Applicable Procurement Guidelines:**  
World Bank's "Guidelines - Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank's Borrowers" January 2011, Revised July 2014

1. The Government of India has received financing from the World Bank towards the cost of the **National Hydrology Project** and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this request for quotations is issued. The implementing agency, **State Project Management Unit - Mizoram, National Hydrology Project** represented by the **Chief Engineer, Irrigation & Water Resources Department, Government of Mizoram, India** invites quotations from eligible bidders for construction of the following works.

| <b>Brief Description of the Works</b>   | <b>Approximate value of Works (INR)</b> | <b>Period of Completion</b> |
|---|---|-----------------------------|
| Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl | 6,00,000.00                             | 2 Months                    |

2. This Procurement notice includes the following documents to facilitate preparation and submission of quotations, criteria for qualification, evaluation, and for award of contract; and relevant forms to be filled by the bidders.
  - i. Instructions to Bidders
  - ii. Format of Quotation Submission
  - iii. Detailed Bill of Quantities;
  - iv. Technical Specifications;
  - iv. Layout Drawings of the works;
  - vi. Draft Contract Agreement format which will be used for finalizing the agreement for this Contract.

3. Quotations shall be submitted on or before 14:00 hours on 05.01.2021. Any quotation received by the implementing agency after the deadline for submission of quotations will be rejected and returned unopened to the bidder. The Quotations will be opened on 05.01.2021 at 14:00 hours, in presence of the bidders or their representatives who choose to attend.
4. If the implementing agency's office happens to be closed on the date of submission and opening of the Quotations as specified, the Quotations will be submitted and opened on the next working day at the same time.
5. Other details can be seen in the RFQ document. A Bidder requiring any clarification of the RFQ document may notify the Implementing agency in writing or may visit the office of the implementing agency at the address given below.

(LALROTLUANGA)  
Chief Engineer  
Irrigation & Water Resources Department  
Government of Mizoram  
Mizoram New Capital Complex, Khatla  
Aizawl, Mizoram, Pin 796001, India  
Phone: 0389-2335280  
email: mizoramwrd@gmail.com

## Instructions to Bidders

### SECTION - A

#### 1. Scope of Works

**The State Project Management Unit - Mizoram, National Hydrology Project** represented by the Chief Engineer, Irrigation & Water Resources Department, Government of Mizoram, India invites quotations for the construction of works as detailed in the table given below

| Brief Description of the Works  | Approximate value of Works (INR) | Period of Completion |
|---|----------------------------------|----------------------|
| Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl | 6,00,000.00                      | 2 Months             |

The successful bidder will be expected to complete the works by the intended completion date specified above.

#### 2. Qualification of the bidder

**2.1. Qualification Information to be provided by the Bidder:** The bidder shall provide information on his qualification which shall include:

- (a) Registration Certificate as a Contractor with Mizoram Public Works Department or any other Central/ State Government Department of India for the last 3 years.
- (b) If the bidder is not registered with Mizoram Public Works Department or any other Central/ State Government Department of India, the following information shall be provided by the bidder:
  - (i) Total monetary value of works executed by him for each year of the last 3 years;
  - (ii) List of works (similar to the works described in Para 1) completed satisfactorily as a prime contractor during the last 3 years, enclosing certificates from the respective Employers in support of experience claimed along with the Employers' contact numbers;
  - (iii) Report on his financial standing, along with last 3 years' financial statements/Profit and Loss Statements; and
- (c) Details of any litigation, during the last 3 years in which the bidder is involved, the parties concerned, and disputed amount or award in each case (Give details of both completed and pending cases).

**2.2. Qualification Criteria:** To qualify for award of the contract:

- (a) the bidder should be registered with Mizoram Public Work Department or any other Central/ State Department of India .
- (b) If the bidder is not registered with Mizoram Public Work Department or any other Central/ State Department of India:
  - (i) The Bidder should have satisfactorily completed as a prime contractor at least one similar work of value not less than **INR 4.80 lakh** in the last 3 years;
  - (ii) The bidder's submitted audited financial statements/Profit and Loss Statements must demonstrate the current soundness of the Bidder's financial position;
- (c) No consistent history of court/arbitral award decisions against the bidder since 1 January 2017.

**3. Corrupt and Fraudulent Practices:** The World Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Para 1.16 of "Guidelines - Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank's Borrowers, January 2011, Revised July 2014". In further pursuance of this policy, Bidders shall permit and shall cause its agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers and any personnel thereof, to permit the Bank to inspect all accounts, records and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

**4. Eligibility – Conflict of Interest:** A Bidder (a) shall not participate in more than one Quotation; (b) shall not have conflict of interest as defined in the Bank's Procurement Guidelines; and (c) should not have been (i) temporarily suspended or debarred by the World Bank Group in compliance with the Bank's Anti-Corruption Guidelines and its sanctions procedures; or (ii) blacklisted or suspended by Central or any State Government Departments in India.

**5. Clarifications & Amendments:** If the Employer receives any request for clarification of this RFQ document, it will issue its response together with any amendment to this document which shall be part of the RFQ document.

**6. Quotation Prices**

- (a) The quotation shall be for construction of the whole works as described in the Bill of quantities, drawings and technical specifications.
- (b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.
- (c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

- (d) The rates should be quoted in Indian Rupees only.

## 7. Preparation of Quotations

7.1 The bidder is advised to visit the site of works at his own expense and obtain all information that may be necessary for preparing the quotation.

7.2 Each bidder shall submit only one quotation. Bidders shall not contact other Bidders on matters relating to this quotation.

7.3 The quotation shall comprise one Part.

### 7.4 The Quotation shall comprise the following:

- (a) **Letter of Quotation** as per Format given in Section B;
- (b) **Authorization:** The written confirmation of authorization to sign on behalf of the Bidder shall consist of an organizational document, board resolution or its equivalent, or power of attorney specifying the representative's authority to sign the Quotation on behalf of the Bidder.
- (c) **Annual Turnover:** *(If the bidder is not registered with Mizoram Public Work Department or any other Central/ State Department of India)* Confirmation showing Annual Turnover in civil engineering construction works of similar nature in the last 3 financial years. [ITB Clause 2.1 (b)(i)].
- (d) **Qualifications:**

(i) Copy of Registration Certificate as a Contractor with Mizoram Public Works Department or any other Central/ State Department of India having equivalent or better Class.

If the bidder is not registered with Mizoram Public Work Department or any other Central/ State Department of India, the following documents shall be submitted:

- (ii) Qualification information and supporting documents relating to similar nature of works executed and payments received. [ITB Clause 2.1 (b)(ii) and paragraph 1.3 of Qualification Information];
- (iii) Report on his financial standing, along with last 3 years' financial statements/Profit and Loss Statements [ITB Clause 2.1 (b)(iii)]; and
- (iv) Other details listed in Paragraphs 1.6 and 1.7 of the Qualification Information Form;
- (e) Copy of all pages of Request for Quotations signed by the authorized representative;
- (f) Photocopy of the GST Registration Certificate;
- (g) Photocopy of the PAN Card,

- (h) **Complete address** and contact details of the Bidder having the following information:

Name of Firm/Contractor

Address for communication

Telephone No(s): Office

Mobile No.

Facsimile (FAX) No.

Electronic Mail Identification (E-mail ID)

- (i) **Priced Bill of Quantities:** As per format included in Section – B of this RFQ

**7.5 Signing of Quotations:** The name and position held by each person signing the quotation and related documents must be typed or printed below the signature.

**7.6 Deadline for Submission of Quotations:** Quotations must be submitted no later than the deadline for submission of quotations viz. time **14:00** Hours and 05.01.2021

**7.7 Validity of Quotation:** Quotation shall remain valid for a period not less than 60 days after the deadline date specified for submission.

## **8. Quotation Submission:**

The bidder shall seal the quotation in an envelope addressed to The Chief Engineer, Irrigation & Water Resources Department, Government of Mizoram, Mizoram New Capital Complex, Khatla, Aizawl, Mizoram, Pin – 796001, India. The envelope will also bear the following identification:-

Quotation for

***“Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl”***

Do not open before 14:00 Hours of 05.01.2021

**9. Opening and Evaluation of Quotations:** The Quotations will be opened in the presence of bidders or their representatives who choose to attend on the specified date and time in the office of the Chief Engineer, Irrigation & Water Resources Department, Government of Mizoram, Mizoram New Capital Complex, Khatla, Aizawl, Mizoram , Pin 796001, India, during which the quoted price will be read out.

- (a) The Employer shall examine the quotation to determine whether the quotation (a) has been properly signed (Clause 7.6); (b) meets the eligibility criteria (Clause 4); (c) is substantially responsive to the requirements of the RFQ document; (d) meets the qualification criteria specified in ITB Clause 2; and (e) and Priced Bill of Quantities are in accordance with the requirements specified in the RFQ document.

- (b) Only Quotations that are both substantially responsive to the RFQ document, and meet all Qualification Criteria shall qualify for financial evaluation.
- (c) Employer shall notify in writing those Bidders who have failed to meet the Qualification Criteria or whose Quotations were considered non-responsive to the requirements in the RFQ document, advising them that their Quotation failed to meet the requirements of the RFQ document.

**10. Award of contract**

The Employer will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price and who meets the specified qualification criteria.

- 10.1** Notwithstanding the above, the Employer reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- 10.2** The bidder whose quotation is accepted will be notified of the award of contract by the Employer prior to expiration of the quotation validity period.

**11. Performance Security**

Within 15 days of receiving letter of acceptance, the successful bidder shall deliver to the Chief Engineer, Irrigation & Water Resources Department, Government of Mizoram, Aizawl the performance security (either a bank guarantee or a bank draft in favour of Irrigation & Water Resources Department, Aizawl, Mizoram) for an amount equivalent of 5% of the contract price. The Performance Security shall be valid till the expiry of the period of maintenance of the work, specified in Clause 21. Failure of the successful Bidder to furnish performance security and to sign the agreement within the period stipulated shall constitute sufficient grounds for annulment of award and debarring the bidder from participation in bidding for works by the Employer for a period of one year, in which case the Employer may make the award to the next lowest evaluated bidder or seek quotations afresh.

**12. Period of Maintenance:**

The “Period of Maintenance” for the work is six months from the date of taking over possession. During the period of maintenance, the contractor will be responsible for rectifying any defects in construction free of cost to the Employer.

- 13.** Supply of all construction materials including cement and steel as per the specifications (ISI certification marked goods wherever available) shall be the responsibility of the contractor. Employer will not issue any material/equipment.

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## **SECTION - B**

- 1. Format for Qualification Information.**
- 2. Format for Letter of Quotation.**
- 3. Format for Priced Bill of Quantities**
- 4. Format for Letter of Acceptance.**
- 5. Format for Performance Bank Guarantee**



## QUALIFICATION INFORMATION

### 1 For Individual Bidders

1.1 Principal place of business: \_\_\_\_\_

Authorisation of signatory of Quotation.

*[Attach copy]*

*If the bidder is not registered with any department of the State of Mizoram as Contractor, the information in paragraphs from 1.2 to 1.6 below are to be provided:*

1.2 Total value of \_\_\_\_\_ 2016-17

\_\_\_\_\_ construction work performed in the last 2017-18

\_\_\_\_\_ three years (in INR Lakh) 2018-19

1.3 Work performed as prime contractor (in the same name) on works of a similar nature over the last three years.

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| <u>Project Name</u> | <u>Name of Employer</u> | <u>Description of work</u> | <u>Contract No.</u> | <u>Value of contract (INRLakh)</u> | <u>Date of issue of work order</u> | <u>Stipulated period of completion</u> | <u>Actual date of completion*</u> | <u>Remarks explaining reasons for delay and work completed</u> |
|---------------------|-------------------------|----------------------------|---------------------|------------------------------------|------------------------------------|--|-----------------------------------|--|
|---------------------|-------------------------|----------------------------|---------------------|------------------------------------|------------------------------------|--|-----------------------------------|--|

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Existing commitments and on-going works:

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| Description of Work | Place & State | Contract No. & Date | Value of Contract (INR Lakh) | Stipulated period of completion | Value of works* remaining to be completed (INR Lakh) | Anticipated date of completion |
|---------------------|---------------|---------------------|------------------------------|---------------------------------|--|--------------------------------|
| (1)                 | (2)           | (3)                 | (4)                          | (5)                             | (6)  | (7)                            |

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\* *Enclose a certificate from the Engineer concerned for completion as well as value of pending works.*

**1.4** Proposed subcontracts and firms involved.:

| Sections of the works | Value of Sub-contract | Sub-contractor (name & address) | Experience in similar work |
|-----------------------|-----------------------|---------------------------------|----------------------------|
|                       | *                     | *                               | *                          |
|                       | *                     | *                               | *                          |
|                       | *                     | *                               | *                          |
|                       | *                     | *                               | *                          |
|                       | *                     | *                               | *                          |

\* Sub-contracting shall not be allowed

**1.5** Evidence of access to financial resources to meet the requirements of working capital: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

**1.6** Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

**1.7** Information on litigation history in which the Bidder is involved.

| Name of the work | Agreement number/date | Name & address of Employer | Contract Value in INR | Cause of dispute | Amount Disputed | Remarks showing present status |
|------------------|-----------------------|----------------------------|-----------------------|------------------|-----------------|--------------------------------|
|                  |                       |                            |                       |                  |                 |                                |
|                  |                       |                            |                       |                  |                 |                                |
|                  |                       |                            |                       |                  |                 |                                |

# Letter of Quotation

*The Bidder must prepare the Letter of Quotation on stationery with its letterhead clearly showing the Bidder's complete name and address. The italicized text is for Bidder's guidance in preparing these forms and shall be deleted from the final products.*

Description of the Works: Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl

RFQ No.: NHP-2020-2021-MZ-500146\_1

Our Reference: No..... Dated.....

To:

The Chief Engineer  
Irrigation & Water Resources Department  
Government of Mizoram  
Mizoram New Capital Complex, Khatla  
Aizawl, Mizoram, Pin 796001, India

Phone: 0389-2335280  
email: mizoramwrd@gmail.com

Subject : Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl.....

Reference : Letter No.....dated.....from.....

Sir,

1. We, the undersigned, hereby submit our Quotation.
2. In submitting our Quotation, we make the following declarations:
  - (a) **No reservations:** We have examined and have no reservations to the RFQ document;
  - (b) **Conformity:** We offer to execute the subject work in conformity with the RFQ document and in accordance with the Period of Completion specified in Section A.;
  - (c) **Quotation Validity Period:** Our Quotation shall be valid for the period of 60 days, from the deadline fixed for the Quotation submission;
  - (d) **Eligibility:** We meet the eligibility requirements and have no conflict of interest, we are not participating in more than one quotation in this bidding process, and we have not been temporarily suspended or debarred by the World Bank or blacklisted or suspended the Central or any State Government;
  - (e) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of

corrupt, fraudulent, collusive, coercive, or obstructive practices; and we will strictly observe the laws against fraud and corruption in force in India namely, "Prevention of Corruption Act 1988."

- (f) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity. If none has been paid or is to be paid, indicate "none."]*
- (g) **We are not participating as a Joint Venture in this bidding process.**
- (h) **Quotation Price:** The total price of our Quotation including any unconditional discounts, offered in accordance with the Conditions of Contract is–

INR\*\* \_\_\_\_\_ [in figures]  
Indian Rupees \_\_\_\_\_ [in words];

Yours faithfully,

Authorized Signature : \_\_\_\_\_ Date: \_\_\_\_\_

Name & Title of Signatory : \_\_\_\_\_

In the capacity of *[insert legal capacity of person signing the Letter of Quotation]*

Name of Bidder : \_\_\_\_\_

Address : \_\_\_\_\_

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

**\*\* To be filled in by the Bidder, together with his particulars and date of submission at the bottom of this Form.**

## PRICED BILL OF QUANTITIES

### Schedule of Quantity for Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl

| Sl.No | Description of Items   | Quantity | Unit | Rate | Amount |
|-------|--|----------|------|------|--------|
| 1     | Providing and fixing dressed 1st class local wood shelves supported on wooden brackets 50mmx70mm fixed at suitable distance but not exceeding 75cm apart etc. complete. a) 25mm thick  | 52.75    | sqm  |      |        |
| 2     | Providing and fixing 25mm thick panelled or panelled and glazed shutters for cupboards etc. including butt hinges, handles, and locking arrangements complete. 4mm thick glass. a) Using 1st Class Local Wood  | 39.4     | sqm  |      |        |
| 3     | Applying priming coat with ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) & Plywood.  | 184.30   | sqm  |      |        |
| 4     | Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats). b). High gloss   | 184.30   | sqm  |      |        |
| 5     | Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS: 733 and IS : 1285, anodised transparent or dyed to required shade according to IS : 1868. (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and paneling to be paid for separately ). For fixed portion.a) Natural colour | 39.60    | sqm  |      |        |
| 6     | Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . d) Frosted glass of 4.00 mm thickness.  | 18.00    | sqm  |      |        |
| 7     | Providing and fixing 12mm thick prelaminated three layer medium density (exterior grade) particle board Grade I, Type II conforming to IS : 12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in paneling fixed in aluminium doors, windows shutters and partition frames with C.P. brass/ stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. a) Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.  | 21.60    | sqm  |      |        |

|    |   |       |     |  |  |
|----|---|-------|-----|--|--|
| 8  | Providing and fixing PVC pipes complete with fittings and clamps, including cutting and making good the walls etc. (internal work).<br>b) 20mm dia nominal bore   | 8.00  | rm  |  |  |
| 9  | Extra for concealed in brick and RCC works by making chases upto 7.5x7.5cm in walls and making good the same after housing pipes, etc.  | 8.00  | rm  |  |  |
| 10 | Providing and fixing brass bib cock of approved quality.<br>b) 20mm nominal bore  | 1.00  | no  |  |  |
| 11 | Providing and fixing on wall face SWRPVC soil, waste and vent pipes including jointing with rubber lubricant/cement solvent complete. b) 75mm dia.  | 15    | rm  |  |  |
| 12 | Providing and fixing SWRPVC bend with access door of required degree including jointing with rubber lubricant/cement solvent complete.<br>b) 75mm dia SWRPVC bend with access door.   | 3     | no  |  |  |
| 13 | Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.<br>a) Nominal concrete 1:3:6 or richer mix   | 1.25  | sqm |  |  |
| 14 | Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required : (Hindware or equivalent)<br>b) Single Sink 610x460 mm bowl depth 200mm  | 1.00  | no  |  |  |
| 15 | Providing and fixing of flexible aluminium exhaust pipe of 150 mm diameter  | 13.50 | rm  |  |  |
| 17 | Providing and fixing 10 mm thick acid and / or alkali resistant tiles of approved make and colour using acid and/ or alkali resisting 20mm thick mortar 1:4 (1 Cement : 4 Coarse sand) bedding and joint filled with acid and/ or alkali resisting cement as per IS: 4457 complete as per the direction of Engineer-in-Charge. (a) In flooring on a bed of 10mm thick mortar 1:4 ( 1 acid proof : 4 Coarse sand)  | 9.54  | sqm |  |  |
| 18 | Supply and fitting of fire extinguisher type CO2 2 kg complete with all accessories   | 2.00  | no  |  |  |
| 19 | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Flame retardant low smoke & Halogen (FR-LSH)1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) of different sizes fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from control switch to the light point etc as required: A. TO A LIGHT POINT:- (H) Three point controlled by one switch | 1.00  | no  |  |  |

|    |  |       |    |  |  |
|----|--|-------|----|--|--|
| 20 | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Flame retardant low smoke & Halogen (FR-LSH)1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) of different sizes fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from control switch to the light point etc as required: C. TO A EXHAUST FAN POINT; (B) Medium point                               | 1.00  | no |  |  |
| 21 | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Flame retardant low smoke & Halogen (FR-LSH)1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) of different sizes fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from control switch to the light point etc as required: (E) Very Long point   | 1     | no |  |  |
| 22 | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Flame retardant low smoke & Halogen (FR-LSH)1100 voltage graded copper flexible wire stranded copper running inside PVC casing & capping (Gr-II) 30x12mm fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from DB to the power plug/socket 15/16A point etc. as required :- (E) Very Long point  | 1.00  | no |  |  |
| 23 | Wiring in parallel system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Flame retardant low smoke & Halogen (FR-LSH)1100 voltage graded copper flexible wire stranded copper running inside PVC Casing & capping (Gr-II) 20x12/25x12/32x12/38 40X15/20mm dia' fixed,surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from Main to Sub-Main/DB/Sub-Main/DB to SDB/SDB/Switch boards/SDB to switch boards as required:- (A) 2x2.5 sqmm | 10.00 | rm |  |  |
| 24 | Supplying of all types of FL/CFL/LED Ceiling mounted mirror optics/fibre cover/industrial type surface type with electronic ballast/ballast, condenser /electronic filter etc.in complete as follows:- f) 20W LED Havells Batten Surface type*   | 1.00  | no |  |  |
| 25 | Installation,testing and commissioning of pre-wired fluorescent light fitting/CFL/LED of all types with all accessories and tube etc. directly on the wall/ceiling including connection with 1.5sqmm PVC insulated copper conductor single core cable etc. in complete   | 1.00  | no |  |  |

|                       |  |              |    |  |           |
|-----------------------|--|--------------|----|--|-----------|
| 26                    | Supplying of pre-wired ceiling fan as per IS:374 (1979) in a set including standard down rod, canopy, AC ceilingWall fan machines,regulator etc. in completed as follows:- b) Exhaust fan 230mm sweeps ISI marked ( Usha/Havells/equivalent) | 1            | no |  |           |
| 27                    | Installation of Exhaust fan up to 450mm sweep in the existing opening, including making holes to suit the size of the above Exhaust fan, and making good the damage, connection, testing and commissioning etc, as required                  | 1            | no |  |           |
| 28                    | Extra for fixing of the gravity louvers/shutters complete with frame for Exhaust fan of all sizes in completed   | 3.00         | no |  |           |
| 29                    | Supplying of Cable lugs(copper) of different sizes (a) 4Sqmm   | 30.00        | no |  |           |
| 30                    | Supplying of Cable lugs(copper) of different sizes (b) 6 Sqmm  | 20.00        | no |  |           |
|                       |  | <b>TOTAL</b> |    |  | <b>Rs</b> |
|                       |  | SAY          |    |  | Rs        |
| Rupees ( ..... ) only |  |              |    |  |           |

The above price is inclusive of Goods and Services Tax

We agree to execute the works in accordance with the approved drawings and technical specifications for total Contract Price of INR. ....(amount in figures) (Indian Rupees ..... amount in words).

**Signature of Contractor**

*(Where there is a discrepancy between the amount in figures and words, the amount in words will prevail)*



# Specification and Drawings

## GENERAL SPECIFICATION

### **General Requirement:**

1. The period of completion of work under this package is 2 months.
2. The bidder should inspect the site and quarries and satisfy himself about the availability of the quality and quantity of materials required for the work and leads for the materials.
3. The contractor shall make his own arrangement to procure all materials required for the work.
4. The contractor should make his own arrangement for water supply, for works and drinking purpose, at his own cost.
5. The contractor shall make his own arrangements to obtain electricity for his consumption on the works, at his own cost.
6. All costs and charges on temporary works will be borne by the contractor.
7. Due care shall be taken by contractor to ensure conservation of nearby water bodies and environmental and social safe guards.
8. Suggestions of WUA/stake holders and social/environmental safeguard shall be incorporated in the construction activities to the extent possible.

### **I. PAINTS.**

**PRIMER PAINT:** The primer shall be of superior quality and as per I.S. specification and it should be of standard company available in market. The painting practice will be as per IS 1477(Part 2) 1971 and also conform to 2395 (Part 2) : 1994 or its latest version. Primer shall be factory prepared ready-made mixed in single pack and shall be approved by Engineer-in-charge. It shall be at brushing consistency and suitable for application after thinning with relevant thinner. It is strongly recommended that a primer is employed for which long term experience under the specific climatic conditions is available and to insist that it shall conform to the relevant Indian Standard specifications. The primer coat shall be applied soon after completion of pre-cleaning Primer required for primer coat shall be obtained directly from manufacturer of authorized dealers and brought to the site in packed drum with seal. The primer not in use shall be kept properly protected. Lids of containers shall be kept closed and surface of paint in open or partially open containers shall be covered with thin layers of turpentine to prevent formation of skin. The primer shall be stirred thoroughly in its container before pressing in the small container. While applying also, the primer shall be continuously stirred in small container. No left over primer shall be put back in to stock tins. When not in use, the container shall be kept properly closed. Due to any

reason, thinning is found necessary the brand of thinner recommended by manufacturer primer paint shall be applied at coverage rate of 7 to 9 sq.mt. per liter.

**EMULSION PAINT:** Uni-gloss multipurpose paint will be procured from the manufacturer .The same shall be factory prepared, ready mixed in single pack conforming to IS 15489:2004 and shall be approved by Engineer-in-charge. Painting practices will conform to IS 2396( Part 2) : 1994code of practice or its latest version . The paint procured shall brush easily, shall have good leveling properties and show running or sagging tendencies. The paint shall not skin within 48 (IST) Hours in a three quarters filled closed containers. The paint when dry shall from a good uniform surface. The paint shall be applied to cover 8 to 10 sq.mt. average per litre. If due to any reason thinning is necessary, the brand of thinner recommended by the manufacturer shall only be used.

**ALUMINUM PAINT:** Aluminum paint shall conform to I.S. 2339-1963. The aluminum paint shall be purchased directly from manufacturer or authorized dealer in pack tins and shall be got approved by 128 Engineer-in-charge. This paint shall be applied over primer at coverage rate of 8 to 10 sq.mt. per liter. The paint shall brush easily, shall have good leveling properties and show no running or sagging tendencies. The paint shall be applied by brushing or by spraying to prepare good smooth surface. The paint shall dry to smooth uniform finish, free from roughness, unevenness and other imperfections. If due to any reason thinning is necessary the brand of thinner recommended by the manufacturer shall only be used.

**PREPARATION OF SURFACE FOR PAINTING:** The surface of all the parts shall be cleaned by way of sand blasting (I.S. 1477Part 1-1971) by setting the clear sand with high pressure with use of air compressor. The accessories for sand blasting like clean sand, sand container, air compressor shall be of good condition. The primer coat shall be applied only after cleaning the surface of steel part by sand blasting and after prior approval of cleaned surface by the Engineer-in charge. All the oil, grease and dirt shall be removed from the surface by using white gasoline where necessary. Sand blasting machine should be kept on site up till the completion of the work.

**GENERAL INSPECTION BEFORE AND DURING PAINTING-** When Inspecting general painting works while in progress, it should be ensured. (a).That painting follows immediately after-pre-cleaning or pretreatments. (b).That any contamination which may occur in the interim period is removed, that special precautions are taken when painting after galvanizing. (c).That no painting is carried out when there is danger of dew. (d).That tools used are clean and not excessively worn. (e).That the paint in the drums is thoroughly mixed prior to application. (f).That drums are inspected to make sure that no sediment is left in them. (g).That if paint has thickened because of long storage or because of the evaporation of the solvents, its viscosity is adjusted as recommended by the paint manufacturer. (h).That each coat is allowed to dry sufficiently but not excessively before applying the following coat. (i).That manufacturer's instructions for drying time are adhered to properly and that every individual coat is properly applied, reasonably level and smooth, and free from runs and "holiday" (minute uncovered areas).

## II. WOOD:-

All woodwork shall be neatly and truly finished to the exact dimensions required, wood work which will be exposed to view when the work is complete, shall be accurately planed to the required dimensions. A tolerance of (1.6mm) shall be allowed for nominal dimensions of structural timber. Where dimensions are specifically mentioned as net dimensions, no such tolerance shall be permissible. Timber suitable for manufacture of door shutters shall be in accordance with IS 12896. Each class of species stand in the same footing functionally (irrespective of cost). Timber used for rails and stiles shall be of the same species. All the panels where they are of solid wood shall be of one species which may or may not be the same species as that of rails and stiles

**Moisture Content:** The maximum permissible moisture content in timber shall be as specified in IS 287: 1993.

**Seasoning and Treatment:** Timber shall be well seasoned by a suitable process conforming to IS 1141: 1993. before being planned and shaped to the required dimensions. Sap wood of durable species and hardwood and sapwood of non-durable species shall be treated with suitable preservatives (except the water soluble leachable type) as specified in IS 401: 1982.

**Defects Prohibited:** The timber shall be graded as First Grade and Second Grade on the basis of the permissible defects in the timber as given in Table 1. For both the grades, knot should be avoided where it is over or touching a place of joint. Surface checks not exceeding 2 mm in depth may be permitted.

**7.1.5 Defects Permitted:** The timber shall be graded as First Grade or Second Grade on the basis of the permissible defects in timber as given in Table 16. For both the grades, knots shall not occur at joint or at locations where bolts and hinges are to be fixed. (IS 1003- part 1 2003) Table 16 Defects First Grade Second Grade

| Defect                       | First Grade   | Second Grade   |
|------------------------------|---|--|
| 1 Cross grain                | Not steeper than 1 in 15  | Not steeper than 1 in 10   |
| 2 Sound knots and live knots | a) Size, Max b) Number per metre  | 1) Stiles and rails a) Short exposed face - Not more than 20 mm Size and not more than 1 knot/m b) Long exposed face - Not more than 20 mm size and not more than 2 knots/m <sup>2</sup> No knot shall occur within 20 mm of the edges   |
| 2) Panels                    | - Not more than 20 mm Size and not more than 2 knots/m <sup>2</sup> No knot shall occur on edge of any component of a panel   | 1) Stiles and rails a) Short exposed face - Not more than 20 mm Size and not more than 3 knots per stile and 1 knot per rail b) Long exposed face - Not more than 25 mm size and not more than 3 knots per stile and 1 knot per rail   |
| 2) Panels                    | - Not more than 20 mm Size and not more than 4 knots/m <sup>2</sup> . No knot shall occur on edge of any component of a panel | 3 Dead and loose knots (Plugged) 1) Stiles and Ralls - Not more than 10 mm size centrally located and not more than 1 knot/m <sup>2</sup> 2) Panels - Not more than 15 mm size and not more than 2 knots/m <sup>2</sup> .No knot shall occur on edge of any component of a panel |
| 1) Stiles and Ralls          | - Not more than 10 mm Size, centrally located and not more than 3 knots per stile and 1 knot per rail                         | 2) Panels - Not more than 15 mm size and not more than 4 knots/m <sup>2</sup> No knot shall occur on edge of any component of a panel  |
| 4 Pitch pockets or streaks   | None Permissible except on exposed edges, provided that they are clean and filled up With suitable putty or filler            | When pitch pockets or streaks are located  |

on the exposed edges of the core, they shall be cut out and filled With piece of wood of Similar species With grain running 10 the same direction. The piece shall be well glued 5 Pin holes (other than due to live infestation) Permitted provided they are not in clusters Permitted 6 Worm holes None Permitted provided they are not more than 10mm in diameter and not more than one per metre and provided such wormholes are plugged with similar timber in such a manner that the plugging merge with the surrounding area both as to colour and grain Notes : 1. Dead and loose knots are permuted only If they are suitably plugged. 2 .Knot shall not occur where hinges or locks are to be fixed 7.2 Workmanship: 7.2.1 Timber panelled shutters shall be constructed in the form of timber framework of stiles and rails with panel inserts of timber, plywood, block board, medium density fibre board, veneered particle board, asbestos cement sheets, pre-laminated particle board ,wire gauze or glass. The panels shall be fixed by either providing grooves in the stiles and rails or beading or 130 both. The stiles, top rails and lock rails shall be joined to each other by mortice and tenon joints The bottom rails shall have haunched plain double tenon joints and other single tenon joints. The bottom, lock and top rails shall be inserted  $25 \pm 3$ mm short of the width of the stiles to form a stub mortice and tenon joint. All members of the door shutters shall be straight, smooth and well planed faces at right angles to each other. Any warp or bow shall not exceed 1.5 mm. The right angle for the shutters shall be checked by measuring the two diagonals from one extreme corner to the opposite one and the difference between the two diagonals shall be not more than 3 mm. The minimum depth of grooves of stiles and rails shall be 12mm for all types of panelling. The panels shall be framed into grooves to the full depth of groove leaving an air space of 1.5 mm and the faces shall be closely fitted to the sides of the groove. All door shutters shall be sanded and finished smooth. Panels of shutters shall be flat and well sanded to a smooth and level surface. Dimensions, Sizes And Tolerances will be provided as specified and it shall conform to IS 1003 (Part I) : 2003. 7.2.2 All woodwork shall be passed and inspected by the Engineer before being treated or finally fixed in position. Rejected timber shall at-once be removed from the work by the contractor.

### **III. ALUMINIUM WORK**

**GENERAL:-** The following particular specifications are applicable to Aluminum work as contained in the tender documents. For doors, windows and ventilators, the work practice adopted will conform to IS: 1081-1960 and the material used shall satisfy the specification as laid under 1038-1983 . Inspection of materials and works: All materials brought to the site by the contractor for use in the work, as well as fabricated components shall be subject to inspection and approval by Engineer-in-Charge. The contractor shall be required to get necessary tests carried out on materials components at his own cost from the laboratories / test houses, as directed by the Engineer-in-Charge

#### **MATERIAL**

**Putty** - Putty used for glazing metal door, window or ventilator shall conform to IS :420- 1953.

**Mastic** - The requirements of mastic used in fixing metal door window and ventilator shall be as agreed to between the purchaser and the supplier

**Manufacturer's Test Certificate:** The contractor shall, if required by the Engineer-in Charge, produce manufacturer's test certificates for any material or particular batch of materials supplied by him. The test carried out shall be as per relevant specifications/Indian standard codes.

**APPROVAL OF SAMPLES** The contractor shall submit to the Engineer-in-Charge, samples of all materials for approval and no work shall commence before such samples are approved. Samples of un-anodized as well as-anodized and electro coloured aluminum sections, neoprene gaskets, Thermal Barrier sections, glass, screws, hardware and any other material components requiring approval of samples, an opinion of Engineer-in-Charge shall be submitted for approval. The above samples will be retained as standards of materials and workmanship. The cost of the above samples shall be borne by the contractor.

#### **ALUMINIUM SECTIONS**

Aluminum sections to be used for doors, windows, ventilators and fixed glazing etc. as specified in the estimate shall be manufactured by reputed companies & shall be appropriate to meet architectural designs of relevant components .It shall be subject to approval of the Engineer-in-Charge, who is required to be satisfied about their being appropriate on technical, structural, functional and aesthetic considerations.

### **III. Electrification**

#### **A. SYSTEM AND STANDARD OF WIRING:-**

- a. Surface type of wiring with PVC casing & capping (heavy duty) Gr-I with standard copper wires/cables FIA & TAC approved as per IS:694. 1990. ISO-9001 certified company make and the insulation strength of standard 650/1100 volts.

#### **B. POWER AND LIGHT CIRCUIT.**

##### **a. LIGHT CIRCUIT:-**

- i. One circuit carries not more than 800 Watts
- ii. Light and Power circuit to be completely separated.

##### **b. POWER CIRCUIT:-**

- i. Normal single circuit carries not more than 1000Watts. For single phase.
- ii. Other than Normal Power circuits , all other Power circuits the switches and requirement will decided the standard wires sizes and Power sockets/ any other switches.

##### **c. PANEL BOARDS AND MAIN SWITCHES:-**

- i. All the Main switches should be installed only when there is a safety factor of 100% for normal supply.
- ii. Other Main switches should be installed only when there is a safety factor of 400% for Motor and other Electrical machines.
- iii. Above the load of 20 KW. proper Panel board will be installed with a protective system like ELCB etc.

d. DISTRIBUTION BOARDS:-

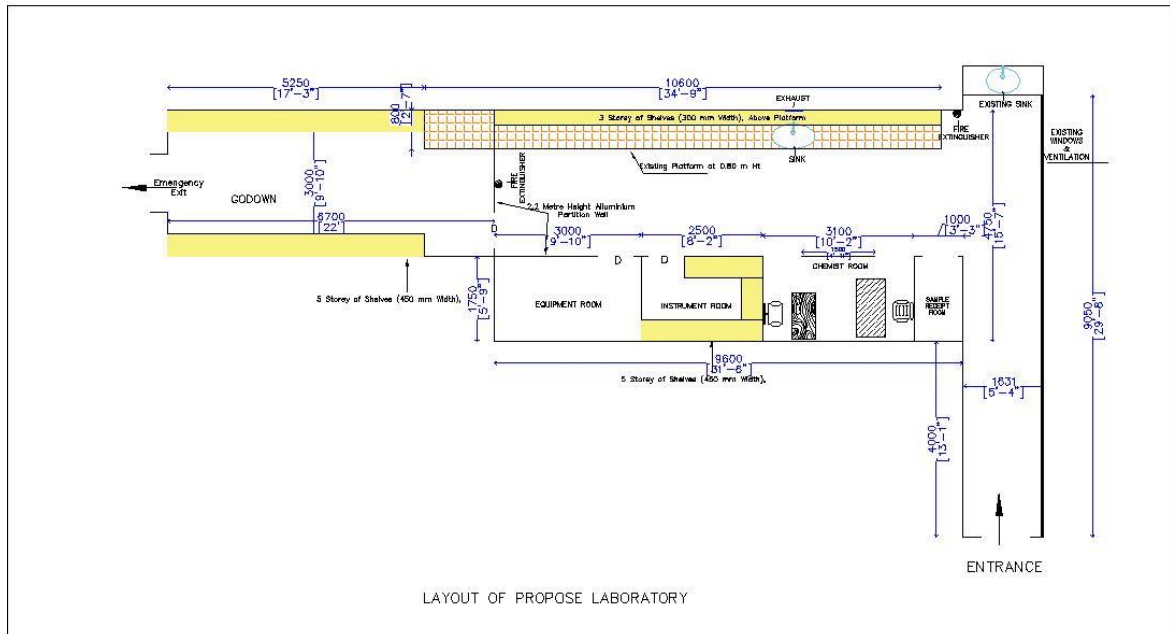
- i. All The Distribution Board have to be MCB typed DB with proper rating of incoming Isolator/MCCB/RCCB etc.
- ii. All the light circuit will be controlled by 5/6 A MCB SP and all the normal Power line will be controlled by 10/16 A MCB SP. Higher load will be controlled as per rated MCBs.
- iii. All the normal light/power will be controlled by MCB of L-series only and all Motor/ electrical machines load will be controlled by MCB of G-series.

e. SWITCHES AND SOCKETS:-

- i. Only modular typed of switches and socket will be used/installed due to their durability and long life.

f. LIGHTING ANG FIXTURES:- All the lighting fixtures will be best quality as far as possible.

# DRAWINGS



**LETTER OF ACCEPTANCE**  
**(LETTERHEAD OF THE EMPLOYER)**

Dated: \_\_\_\_\_

To: \_\_\_\_\_ [Name and address of the Contractor]  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sirs,

1. This is to notify you that your quotation dated \_\_\_\_\_ for execution of the Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl (Ref. No. **NHP-2020-2021-MZ-500146**) for the contract price of Indian Rupees \_\_\_\_\_ [amount in words and figures] including GST as corrected and modified [*delete corrected and or modified, as applicable*],, is hereby accepted by us.
2. You are hereby requested to furnish performance security for an amount of INR \_\_\_\_\_ (equivalent to 5% of the contract price) within 15 days of the receipt of the letter. The Performance Security in the form of Bank guarantee or a Fixed Deposit Receipt / Term Deposit Receipt in favour of Irrigation & Water Resources Department shall be valid till the expiry of the period of maintenance i.e. up to \_\_\_\_\_. Failure to furnish the Performance Security will entail cancellation of the award of contract.
3. You are also requested to sign the agreement form within 15 days of the receipt of the letter.

Yours

faithfully,

**Authorized Signature**  
**Name and title of Signatory of Employer**



**PERFORMANCE BANK GUARANTEE**  
*(To be given from a nationalized or scheduled bank in India)*

To: \_\_\_\_\_ [name of Employer]  
\_\_\_\_\_ [address of Employer]

WHEREAS \_\_\_\_\_ [name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ [name of Contract and brief 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 recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of \_\_\_\_\_ [amount of guarantee]<sup>1</sup> \_\_\_\_\_ [in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ [amount of guarantee]<sup>1</sup> as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defects Liability Period.

Signature and seal of the guarantor \_\_\_\_\_  
Name of Bank \_\_\_\_\_  
Address \_\_\_\_\_  
Date \_\_\_\_\_

# **Draft Contract Agreement form for Construction through National Shopping**

## **ARTICLES OF CONTRACT AGREEMENT**

1. This deed of agreement is made in the form of agreement on \_\_\_\_\_ day \_\_\_\_\_ month \_\_\_\_\_ 20 \_\_\_\_, between the \_\_\_\_\_ (Employer) or his authorized representative (hereinafter referred to as the first party) and \_\_\_\_\_ (Name of the Contractor), S/O \_\_\_\_\_ resident of \_\_\_\_\_ (hereinafter referred to as the second party), to execute the work of construction of \_\_\_\_\_ (hereinafter referred to as works) on the following terms and conditions.

### **2. Contract Price**

The total Contract Price for the works (hereinafter referred to as the “total price”) is INR \_\_\_\_\_ as reflected in **Annexure 1**.

### **3.1 Payments under its contract:**

Payments to the second party for the construction work will be released by the first party in the following manner:-

100% payment shall be made on execution of the works satisfactorily in accordance with the terms and conditions of the agreement and as per approved drawings and technical specifications

### **3.2 Payments at each stage will be made by the first party:**

- (a) on the second party submitting an invoice for an equivalent amount;
- (b) on certification of the invoice by the engineer nominated by the first party with respect to quality/quantity of works executed in the format in **Annexure 2**; and
- (c) 100% of the contract value will be paid to the second party on satisfactory completion of the works and no advance payment will be made..

### **4. Notice by Contractor to Engineer**

The second party, on the works reaching completion, issue a notice to the first party or the Engineer nominated by the first party (who is responsible for supervising the contractor, administering the contract, certifying the payments due to the contractor, issuing and valuing variations to the contract, awarding extensions of time etc.), to visit the site for certification of completion. Within 15 days of the receipt of such notice, the first party or the engineer nominated by it, will ensure issue of completion certificate after due verification.

### **5. Completion time**

The works should be completed in 2 (Two) months from the date stipulated in the Notice to Proceed. In exceptional circumstances, the time period stated in this clause may be extended in writing by mutual consent of both the parties.

6. If any of the compensation events mentioned below would prevent the work being completed by the intended completion date, the first party will decide on the intended completion date being extended by a suitable period:
  - (a) The first party does not give access to the site or a part thereof by the agreed period.
  - (b) The first party orders a delay or does not issue completed drawings, specifications or instructions for execution of the work on time.
  - (c) Ground conditions are substantially more adverse than could reasonably have been assumed before issue of letter of acceptance and from information provided to second party or from visual inspection of the site.
  - (d) Payments due to the second party are delayed without reason.
  - (e) Certification for stage completion of the work is delayed unreasonably.
7. Any willful delay on the part of the second party in completing the construction within the stipulated period will render him liable to pay liquidated damages. @ 0.05% of the Contract Price per day which will be deducted from payments due to him. The first party may cancel the contract and take recourse to such other action as deemed appropriate once the total amount of liquidated damages exceeds 3 % of the contract amount.

## **8. Duties and responsibilities of the first party**

- 8.1 The first party shall be responsible for providing regular and frequent supervision and guidance to the second party for carrying out the works as per specifications. This will include written guidelines and regular site visit of the authorized personnel of the first party, for checking quality of material and construction to ensure that it is as per the norms.
- 8.2 The first party shall supply 3 sets of drawings, specifications and guidelines to the second party for the proposed works.
- 8.3 Possession of the site will be handed over to the second party within 10 days of signing of the agreement.
- 8.4 The Engineer or such other person as may be authorized by the first party shall hold meeting once in a fortnight where the second party or his representative at site will submit the latest information including progress report and difficulties if any, in the execution of the work. The whole team may jointly inspect the site on a particular day to take stock of activities.
- 8.5 The Engineer shall record his observations/instructions at the time of his site visit in a site register maintained by the second party. The second party will carry out the instructions and promptly rectify any deviations pointed out by the engineer. If the deviations are not rectified, within the time specified in the Engineer's notice,

the first party as well as the engineer nominated by it, may instruct stoppage or suspension of the construction. It shall thereupon be open to the first party or the engineer to have the deviations rectified at the cost of the second party.

## **9. Duties and responsibilities of the second party**

### **9.1** The second party shall:

- (a) take up the works and arrange for its completion within the time period stipulated in Clause 5;
- (b) employ suitable skilled persons to carry out the works;
- (c) regularly supervise and monitor the progress of work;
- (d) abide by the technical suggestions/direction of supervisory personnel including engineers etc. regarding building construction;
- (e) be responsible for bringing any discrepancy to the notice of the representative of the first party and seek necessary clarification;
- (f) ensure that the work is carried out in accordance with specifications, drawings and within the total of the contract amount without any cost escalation;
- (g) keep the first party informed about the progress of work;
- (h) be responsible for all security and watch and ward arrangements at site till handing over of the building to the first party; and
- (i) maintain necessary insurance against loss of materials/cash, etc. or workman disability compensation claims of the personnel deployed on the works as well as third party claims.
- (j) pay all duties, taxes and other levies payable by construction agencies as per law under the contract (First party will effect deduction (TDS) from running bills in respect of such taxes as may be imposed under the law).
- (k) submit a certificate regarding satisfactory installation, testing and completion of the electrical works as per the relevant Indian standards by an authorised electrical contractor. The authorized electrical contractor may be the contractor himself.

## **10. Variations / Extra Items**

The works shall be carried out by the second party in accordance with the approved drawings and specifications. However, if, on account of site conditions or any other factors, variations are considered necessary, the following procedure shall be followed:

- (a) The second party shall provide the Engineer with a quotation for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven days of the request before the Variation is ordered.

- (b) If the quotation given by the second party is unreasonable, the Engineer may order the Variation and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the Variation on the Contractor's costs.
- (c) The second party shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

## **11. Securities**

The Performance Security (Bank Guarantee from a Nationalized or Scheduled Bank in India in the format attached) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

## **12. Termination**

**12.1** The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

**12.2** Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the contractor stops work for 28 days and the stoppage has not been authorized by the Engineer;
- (b) the Contractor has become bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (d) the Contractor does not maintain a security which is required;
- (e) 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 Clause 7 of this agreement

**12.3** Notwithstanding the above, the Employer may terminate the Contract for convenience.

**12.4** If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

## **13. Payment upon Termination**

**13.1** If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law.

**13.2** If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, 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, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

**14. Dispute settlement**

If over the works, any dispute arises between the two parties, relating to any aspects of this Agreement, the parties shall first attempt to settle the dispute through mutual and amicable consultation.

In the event of agreement not being reached, the matter will be referred for arbitration by a Sole Arbitrator not below the level of retired Superintending Engineer, PWD to be appointed by the first party. The Arbitration will be conducted in accordance with the Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties. The Arbitrator shall give his award/decision within 60 days of start of proceedings.

The Priced Bill of Quantities (**Annexure 1**), Format of Certificate (**Annexure 2**) and Specification and Drawings (**Annexure 3**) are attached.

Signed and delivered by Sri. \_\_\_\_\_ for and on behalf of the Contractor

In the presence of the Witness:

- i)
- ii)

**SIGNATURE**

Signed and delivered by Sri \_\_\_\_\_ Chief Engineer/ Superintending Engineer/ Executive Engineer/ Superintending Engineer \_\_\_\_\_ of \_\_\_\_\_ for an on behalf of the Government.

In the presence of the Witness:

- i)
- ii)

**SIGNATURE**

**PRICED BILL OF QUANTITIES**

Name of Works: **Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl**

*(The Priced Bill of Quantities of successful bidder shall be pasted here)*

**Format of certificate**

Certified that the works up to ----- stage (as defined in Clause 3.1 of the Agreement) in respect of construction of -----  
-- at ----- have been executed satisfactorily in accordance with the terms and conditions of the agreement and as per approved drawings and technical specifications.

Signature  
Name & Designation  
(Official address)

Place:  
Date:

Office seal



**Specification and Drawings**

The Specification and Drawings shall be pasted here from the RFQ document.

**NOTICE TO PROCEED WITH THE WORK**

**(LETTERHEAD OF THE EMPLOYER)**

Dated: \_\_\_\_\_

To: \_\_\_\_\_ [Name and address of the Contractor]  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sirs:

Pursuant to your furnishing the requisite performance security as stated in Letter of Acceptance and signing of the contract agreement for the construction of **Furnishing of Water Quality Laboratory under NHP at Chief Engineer Office, Irrigation & Water Resources Department, Mizoram New Capital Complex, Aizawl (Ref. No. NHP-2020-2021-MZ-500146)** @ a Bid Price of INR\_\_\_\_\_ (including GST), you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents and as follows:

Date of Start of Work:

Date of Completion of Work:

Yours faithfully,

**Authorized Signature**  
**Name and title of Signatory of Employer**

# Appendix 1

## Salient Features of Labour & Environment Protection Laws<sup>1</sup>

### SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK (as amended up-to-date)

- (a) Employees Compensation Act 1923: The Act provides for compensation in case of injury, disease or death arising out of and during the course of employment.
- (b) Payment of Gratuity Act 1972: gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- (c) Employees P.F. and Miscellaneous Provision Act 1952 (since amended): The Act provides for monthly contribution by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:
  - (i) Pension or family pension on retirement or death, as the case may be.
  - (ii) Deposit linked insurance on the death in harness of the worker.
  - (iii) Payment of P.F. accumulation on retirement/death etc.
- (d) Maternity Benefit Act 1961: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- (e) Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013: This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee or a Local Complaints Committee
- (f) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
- (g) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
- (h) Payment of Wages Act 1936: It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.
- (i) Equal Remuneration Act 1976: The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- (j) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. Some of the State Governments have reduced this requirement from 20 to 10. The Act provides for payments of annual bonus subject to a minimum of 8.33% of the wages drawn in the relevant year. It applies to skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward to employees who

<sup>1</sup>This list is only illustrative and not exhaustive. Bidders and Contractors are responsible for checking the correctness and completeness of the list. The law as current on the date of bid opening will apply.

draw a salary of INR 10,000/- per month or less. To be eligible for bonus, the employee should have worked in the establishment for not less than 30 working days in the relevant year. The Act does not apply to certain establishments.

- (k) Industrial Disputes Act 1947: the Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- (m) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in the Building and Construction Industry.
- (n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and back, etc.
- (o) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCWW Cess Act): All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under these Acts. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be notified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as Canteens, First –Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- (p) Factories Act 1948: the Act lays down the procedure for approval of plans before setting up a factory engaged in manufacturing processes, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power.
- (q) Weekly Holidays Act -1942
- (r) Bonded Labour System (Abolition) Act, 1976: The Act provides for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of weaker sections of society. Bonded labour covers all forms of forced labour, including that arising out of a loan, debt or advance.
- (s) Employer's Liability Act, 1938: This Act protects workmen who bring suits for damages against employers in case of injuries endured in the course of employment. Such injuries could be on account of negligence on the part of the employer or persons employed by them in maintenance of all machinery, equipment etc. in healthy and sound condition.
- (t) Employees State Insurance Act 1948: The Act provides for certain benefits to insured employees and their families in case of sickness, maternity and disablement arising out of an employment injury. The Act applies to all employees in factories (as defined) or establishments which may be so notified by the appropriate Government. The Act provides for the setting up of an Employees' State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central Government. The Act also provides for benefits to dependents of insured persons in case of death as a result of an employment injury.

- (u) The Personal Injuries (Compensation Insurance) Act, 1963: This Act provides for the employer's liability and responsibility to pay compensation to employees where workmen sustain personal injuries in the course of employment.
- (v) Industrial Employment (Standing Order) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

## SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE APPLICABLE FOR PROTECTION OF ENVIRONMENT. (as amended up-to-date)

1. The Environment (Protection) Act, 1986 and as amended: This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.
2. The Forest Conservation Act, 1980, as amended, and Forest (Conservation) Rules, 1981 as amended: These provides for protection of forests by restricting conversion of forested areas into non- forested areas and prevention of deforestation, and stipulates the procedures for cutting any trees that might be required by the applicable rules. Permissions under the Act also stipulates the norms and compliance requirements of the employer and any contractor on behalf of the employer.
3. State Tree Preservation Acts as may be in force: These provide for protection of trees of important species. Contractors will be required to obtain prior permission for full or partial cutting, uprooting, or pruning of any such trees.
4. The Wildlife (Protection) Act, 1972, and as amended: This provides for protection of wildlife through notifying National Parks and Sanctuaries and buffer areas around these zones; and to protect individuals of nationally important species listed in the Annex of the Act.
5. The Biological Diversity Act, 2002: This provides for conservation of biological diversity, sustainable use of components of biological diversity, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
6. The Public Liability Insurance Act, 1991 as amended and The Public Liability Insurance Rules, 1991 as amended: These provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.
7. The Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, the Ancient Monuments and Archaeological Sites and Remains Rules, 1959 amended 2011, the National Monuments Authority Rules, 2011 and the similar State Acts: These provide for conservation of cultural and historical remains found in India. Accordingly, area within the radii of 100m and 300m from the "protected property" are designated as "protected area" and "controlled area" respectively. No development activity (including building, mining, excavating, blasting) is permitted in the "protected area" and development activities likely to damage the protected property is not permitted in the "controlled area" without prior permission of the Archaeological Survey of India (ASI) or the State Departments of Art and Culture or Archaeology as applicable.
8. The Environmental Impact Assessment Notification, 2006 and as amended: This provides for prior environmental clearance for new, modernization and expansion projects listed in Schedule 1 of the Notification. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any environmental management plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
9. The Water (Prevention and Control of Pollution) Act, 1974 as amended, and the Water (Prevention and Control of Pollution) Rules, 1975 as amended: These provide for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water(whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms. Contractors will need to obtain consent for establishment and consent for

operation of any item of work or installation of equipment that generates waste water, and observe the required standards of establishment and operation of these items of work or installations; as well as install and operate all required waste water treatment facilities.

10. The Water (Prevention and Control of Pollution) Cess Act, 1977 and The Water (Prevention and Control of Pollution) Cess Rules, 1978: These provide for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution under the Water (Prevention and Control of Pollution) Act, 1974.
11. The Air (Prevention and Control of Pollution) Act, 1981 as amended, and the Air (Prevention and Control of Pollution) Rules, 1982: These provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates air pollution such as batching plants, hot mix plants, power generators, backup power generation, material handling processes, and observe the required standards of establishment and operation of these items of work or installations.
12. Noise Pollution (Control and Regulation) Rules, 2000, and as amended: This provides for standards for noise for day and night for various land uses and specifies special standards in and around sensitive receptors of noise such as schools and hospitals. Contractors will need to ensure compliance to the applicable standards, and install and operate all required noise control devices as may be required for all plants and work processes.
13. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996: This provides for Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas.
14. The Explosives Act 1884 and the Explosives Rules, 2008: These provide for safe manufacture, possession, sale, use, transportation and import of explosive materials such as diesel, Oil and lubricants etc.; and also for regulating the use of any explosives used in blasting and/or demolition. All applicable provisions will need compliance by the contractors.
15. The Petroleum Rules, 2002: This provides for safe use and storage of petroleum products, and will need to be complied by the contractors.
16. The Gas Cylinder Rules 2004 and amendments: This provides for regulations related to storage of gas, and possession of gas cylinder more than the exempted quantity. Contractors should comply with all the requirements of this Rule.
17. Manufacture, Storage and Import of Hazardous Chemical Rules of 1989 and as amended: These provide for use and storage of hazardous material such as highly inflammable liquids like HSD/LPG. Contractors will need to ensure compliance to the Rules; and in the event where the storage quantity exceeds the regulated threshold limit, the contractors will be responsible for regular safety audits and other reporting requirements as prescribed in the Rules.
18. Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016: These provide for protection of general public from improper handling storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal. Contractors will need to obtain permission from the State Pollution Control Boards and other designated authorities for storage and handling of any hazardous material; and will to ensure full compliance to these rules and any conditions imposed in the permit.
19. The Bio Medical Waste Management Rules, 2016: This provides for control, storage, transportation and disposal of bio-medical wastes. As and where the contractor has any first aid facility and dispensaries, established in either temporary or permanent manner, compliance to these Rules are mandatory.
20. Construction and Demolition Waste Management Rules, 2016: This provides for management of construction and demolition waste (such as building materials possible to be reused, rubble and debris or the like); and applies to all those waste resulting from construction, re-modelling, repair or demolition of any civil structure. Contractor will need to prepare a waste disposal plan and obtain required approval from local authorities, if

waste generation is more than 20 tons in any day or 300 tons in any month during the contract period; and ensure full compliance to these rules and any conditions imposed in the regulatory approval.

21. The E-Waste (Management) Rules, 2016: This provides for management of E-wastes (but not covering lead acid batteries and radio-active wastes) aiming to enable the recovery and/or reuse of useful material from e-waste, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment. This Rule applies to every manufacturer, producer, consumer, bulk consumer, collection centers, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.
22. Plastic waste Management Rules, 2016: This provides for control and management of the plastic waste generated from any activity. Contractors will ensure compliance to this Rule.
23. The Batteries (Management and Handling) Rules 2001: This provides for ensuring safe disposal and recycling of discarded lead acid batteries likely to be used in any equipment during construction and operation stage. Rules require proper control and record keeping on the sale or import of lead acid batteries and recollection of the used batteries by registered recyclers to ensure environmentally sound recycling of used batteries. Contractors will ensure compliance to this Rule.
24. The Ozone Depleting Substances (Regulation and Control) Rules, 2000 and as amended: This provides for regulation of production and consumption of ozone depleting substances in the country, and specifically prohibits export to or import from countries not specified in the Rules, and prohibits unless specifically permitted, any use of ozone depleting substance.
25. The Coastal Regulation Zone Notifications, 1991 and as amended: This provides for regulation of development activities within the 500m of high tide line in coastal zone and 100m of stretches of rivers and estuaries influenced by tides. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
26. The Motor Vehicle Act 1988 as amended (and State Motor Vehicle Acts as may be in force) and the Motor Vehicle Rules, 1989, and as amended (and State Motor Vehicle Rules as may be in force): To minimize the road accidents, penalizing the guilty, provision of compensation to victim and family and check vehicular air and noise pollution. Contractors will be required to ensure full compliance to these rules.
27. Easement Act, 1882: This provides for the rights of landowners on groundwater. Contractors will need to ensure that other landowners' rights under the Act is not affected by any groundwater abstraction by the contractors.
28. State Groundwater Acts and Rules as may be in force and the Guidelines for Groundwater Abstraction for drinking and domestic purposes in Notified Areas and Industry/Infrastructure project proposals in Non-Notified areas, 2012: These provide for regulating extraction of ground water for construction/industrial and drinking and domestic purposes. Contractors will need to obtain permission from Central/State Groundwater Boards prior to groundwater abstraction through digging any bore well or through any other means; and will to ensure full compliance to these rules and any conditions imposed in the permit.
29. The Mines Act, 1952 as amended; the Minor Mineral and concession Rules as amended; and the State Mineral (Rights and Taxation) Acts as may be in force: These provide for for safe and sound mining activity. The contractors will procure aggregates and other building materials from quarries and borrow areas approved under such Acts. In the event the contractors open any new quarry and/or borrow areas, appropriate prior permission from the State Departments of Minerals and Geology will need to be obtained. Contractors will also need to ensure full compliance to these rules and any conditions imposed in the permit.
30. The Insecticides Act, 1968 and Insecticides Rules, 1971 and as amended: These provide for regulates the manufacture, sale, transport, distribution, export, import and use of pesticides to prevent risk to human beings or animals, and for matters connected therewith. No one should import or manufacture; sell, stock or exhibit foe sale; distribute, transport, use: (i) any misbranded insecticides, (ii) any insecticide the sale, distribution or use of which is for the time being prohibited under the Act; and (iii) any insecticide except in accordance with



the condition on which it was registered under the Act.

31. **National Building Codes of India, 2005 and as amended:** This provides guidelines for regulating the building construction activities in India. The code mainly contains administrative regulations, development control rules and general building requirements; stipulations regarding materials, structural design and construction; and building and plumbing services. Contractors will be required to comply with all Bureau of Indian Standards Codes dealing with: (i) use and disposal of asbestos containing materials in construction; (ii) paints containing lead; (iii) permanent and temporary ventilations in workplace; (iv) safety, and hygiene at the workplace; (v) prevention of fire; (vi) prevention of accidents from faulty electrical gadgets, equipment and accessories; and all other such codes incidental to the Contract.

