GOVERNMENT OF MEGHALAYA

Public Works Department (PWD) (Roads), Meghalaya, Shillong

Bidding Document

for

Construction of 6 KM Smart Roads in Shillong under Smart Cities Mission, Shillong

Tender No.: PW/TB/RD/SSCL/4/2020/MEG-SHI-001/63

Office of the Chief Engineer (NH), PWD (Roads)

Lower Lachumiere, Shillong-793001, Meghalaya

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SECTION 1

List of Important Dates:

1	Name of Work:	Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong
2	Tender Fee (Non-Refundable)	Rs. 30,000/- (Rupees Thirty Thousand only)
3	Tender Security Amount (EMD)	Nil
4	Completion Period for construction	24 Months from the date of issue of Notice to Proceed
5	Date of Issue of Notice Inviting Tender (NIT)	10.06.21
6	Period and Site for downloading Bid Documents	From 11th June, 2021 upto 15:00 hrs of 26th July, 2021. Bid documents can be downloaded from the following websites: http://megurban.gov.in/smart-city.html; http://meghalaya.gov.in/megportal/tender
7	Last date of seeking clarifications	23rd June, 2021 (up to 18:00 Hrs.)
8	Pre-bid Conference	Date: 25th June, 2021 Time: 11:00 Hrs Conference Hall, Office of the PWD(Roads), Lower Lachumiere, Shillong-793001, Meghalaya
9	Uploading response to pre-bid queries	30th June 2021
10	Deadline for Receiving Bids	Date: 26th July 2021 Time: 15:00 hrs
11	Time and Date for opening Technical Bid/Bids	Date: 26th July 2021 Time: 15:30 hrs
12	Date of opening of Financial Bid (of technically qualified bidders only)	To be notified
13	Place of opening of Technical bids	Conference Hall, Office of the PWD(Roads), Lower Lachumiere, Shillong-793001, Meghalaya

14	Last Date of Bid Validity	180 days from the last date of submission of bid
15	Officer Inviting Bids	The Chief Engineer (NH), PWD(Roads), Lower Lachumiere, Shillong-793001, Meghalaya

Note: *If the date of submission of tenders happens to be a public holiday for the Employer, Tenders will be received and opened on the next working day at the same venue and time. Bidders are requested to check the websites/web portals for regular updates.*

NOTICE INVITING TENDER

OFFICE OF THE CHIEF ENGINEER (NH),
PWD(ROADS), GOVERNMENT OF MEGHALAYA
(Two-Envelope Bidding Process)

No.: PW/TB/RD/SSCL/4/2020/MEG-SHI-001/63 Dated: 10.06.2021

1. The Chief Engineer (NH), PWD(Roads), Government of Meghalaya invites Bids for the following works:

Tender No.	Name of the Work	Approx. Estimated project Cost (Rs. in Cr.)	Tender Fee (non-refundable) (Rs.)	Earnest Money Deposit (Rs. in Lakhs)	Period of Completion	Defect Liability Period
PW/TB/RD/ SSCL/4/ 2020/MEG-SHI-001/63	Construction of 6 KM Smart Roads in Shillong under Smart Cities Mission, Shillong	78.50 (Indian Rupees Seventy-Eight Crore and Fifty Lakhs only)*	30,000	Nil**	Twenty-Four (24) Calendar Months (including monsoon period) from the date of issue of Notice to Proceed	365 Days

2. Bidding Documents can be downloaded from 11.06.2021 from the following websites: http://megurban.gov.in and http://meghalaya.gov.in/megportal/tender
3. Bidders are requested to submit the Tender Fee in the form of DD in favour of **Chief Engineer (NH), PWD(Roads), Shillong, Meghalaya.**
4. The deadline of Bid submission (hard copy submission only) is up to **15:00 Hrs. on 26th July 2021**.
5. For more details contact The Chief Engineer (NH), PWD(Roads), Lower Lachumiere, Shillong-793001, Meghalaya, Email ID: *acepwdstroads@gmail.com.*

(G. K. Marak)
Chief Engineer (NH), PWD(Roads),
Shillong, Meghalaya

* at January 2021 level.

** The Bidders will be required to submit a Bid Security Declaration in prescribed format in the Bidding Document.

DOCUMENT CHECKLIST

SN	DOCUMENTS
1	Tender Fee in the form of Demand Draft (DD)
3	Power of Attorney (PoA), MoU between the members of Joint Venture or Consortium or Association
4	All pages of following documents signed, sealed and enclosed with Technical Bid: i. Notice Inviting Tender ii. Complete Bidding Document including Bill of Quantities, Drawings and Scope of Work & Technical Specifications iii. Latest Corrigendum iv. Pre-bid Minutes v. Addendum and Corrigendum (if any)
5	i. Tech Form 1: Letter of Technical Bid ii. Tech Form 2: Bidders Information Sheet iii. Tech Form 2A: Joint Venture or Consortium or Association Agreement iv. Tech Form 2B(1): Power of Attorney authorising the Lead Member of a JV (or Consortium/ Association, as applicable) v. Tech Form 2B(2): Power of Attorney authorising the signatory of Bid vi. Tech Form 3: Financial Capacity vii. Tech Form 4: Average Annual Construction Turnover viii. Tech Form 4A: Availability of Financial Resources ix. Tech Form 4B: Evidence of access to or availability of credit facilities x. Tech Form 5: Current Contract Commitments / Works in Hand xi. Tech Form 6: Bidding Capacity Information & Declaration xii. Tech Form 7: General Work Experience xiii. Tech Form 7A: Specific Experience for “Civil Works” xiv. Tech Form 7B: Specific Experience for “Electrical Works” xv. Tech Form 8A: Site Organization xvi. Tech Form 8B: Method Statement xvii. Tech Form 8C: Mobilization Schedule xviii. Tech Form 8D: Work Plan and Construction Schedule xix. Tech Form 8E: Equipment

	xx.	Tech Form 8F: Personnel
	xxi.	Tech Form 8F(i): Resume of Proposed Personnel
	xxii.	Tech Form 9: Pending Litigations
	xxiii.	Tech Form 10: Format for Declaration by the bidder for not being Blacklisted / Debarred
	xxiv.	Tech Form 11: Declaration and Format for Integrity Pact
	xxv.	Tech Form 12: Declaration regarding customs/ excise duty exemption for materials/construction equipment bought for the work
	xxvi.	Tech Form 13: Bid Security Declaration
	xxvii.	Tech Form 14: Format for Certification in accordance with Clause 3 of the ITB (applicable in case of Bidders from a country which shares a land border with India)
	xxviii.	Fin Form 1: Letter of Financial Bid (to be submitted in Financial Bid Envelope)
	xxix.	Format for sending Pre-Bid Queries
6	All pages of the Technical & Financial bids are to be signed and sealed	

1 SECTION 2: INSTRUCTIONS TO BIDDERS (ITB)

INSTRUCTIONS TO BIDDERS (ITB)

A. GENERAL

1.1 Scope of Bid

1.1.1 The Employer as defined in the Appendix to ITB invites bids for the Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong, Meghalaya as described in these documents and referred to as “the works”. The name and identification number of the works is provided in the Appendix to ITB. The bidders are required to submit bids for all of the works detailed in the table given in the Notice Inviting Tender.

1.1.2 The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Notice Inviting Tender and other parts of the Bidding Document.

1.1.3 Throughout these documents, the terms “bid” and “tender” and their derivatives (bidder/tenderer, bid/tender, bidding/tendering, etc.); “Engineer” and “Engineer-in-Charge” are synonymous.

1.2 Source of Funds

1.2.1 PWD(Roads), Meghalaya as defined in the Appendix to ITB has decided to undertake the works of Construction of 6 KM Smart Roads in Shillong under the Smart Cities Mission, Shillong, Meghalaya.

1.2.2 The funding will be as per the Smart Cities Mission Guidelines.

1.3 Eligible Bidders

1.3.1 A Bidder may be a private Entity, government-owned Entity or, where permitted in the Bidding Document, any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture [JV], Consortium or Association.

1.3.2 This Invitation for Bids is open to all bidders as defined in the Appendix to ITB.

1.3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any Public Sector Undertaking, Autonomous Body, Authority, Agency by whatever name called under the Central Government, any State Government, Union Territory or Urban Local Body.

1.3.4 Any bidder who has been convicted by a court of law for criminal activities including but not limited to organized crime or gangster activities or Mafia or Goonda or Anti-social activity in the last 5 years (till the date of NIT) is not eligible to bid. If it is established that any bidder has been convicted by a court of law, his bid shall be automatically cancelled.

1.3.5 The bidder has to produce Solvency Certificate issued by his banker (Nationalized Bank or Scheduled Commercial Bank).

1.3.6 Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the following conditions are met.

1.3.6.1 Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as defined in Order (Public Procurement No. 1) bearing reference No. 6/18/2019-PPD dated 23rd July 2020 of the Public Procurement Division, Department of Expenditure, Ministry of Finance, Govt. of India. The said Order as amended from time to time or any other Order by Govt. of India in this regard till the last day of month previous to the one in which proposals/applications are invited will have to be complied with by the Bidder.

1.3.6.2 "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

1.3.6.3 "Bidder from a country which shares a land border with India" for the purpose of this Order means:

a) An entity incorporated, established, or registered in such a country; or

b) A subsidiary of an entity incorporated, established, or registered in such a country; or

c) An entity substantially controlled through entities incorporated, established, or registered in such a country; or

d) An entity whose beneficial owner is situated in such a country; or

e) An Indian (or other) agent of such an entity; or

f) A natural person who is a citizen of such a country; or

g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

1.3.6.4 The beneficial owner for the purpose of (iii) above will be as under:

a) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company.

- “Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements,

b) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership,

c) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals.

d) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official,

e) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

1.3.6.5 An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

1.3.6.6 The bidder shall be required to submit a Certificate as per TECH FORM - 14.

1.4 Qualification of the Bidder

1.4.1 All bidders shall provide information as per 'Section 3: Qualification Information' and as per other Forms not specified in Section 3, including a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

1.4.2 All bidders shall include the following information and documents with their bids in 'Section 3: Qualification Information' unless otherwise stated in the Appendix to ITB:

1.4.2.1 Copies of original documents defining the constitution (MoA and AoA for companies registered under the Companies Act, 1956 or Companies Act, 2013; Partnership Deed for firms registered under Indian Partnership Act, 1932 or Limited Liability Partnership Act, 2008) or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bid;

1.4.2.2 Total monetary value of "civil works" and "electrical works" performed for each of the last seven years;

1.4.2.3 Details of completed works of similar nature (as defined below) alongwith size for each of the works in last seven years, and details of works in progress including the ones that are 90% completed (with supporting proof as specified in the Bidding Document) or contractually committed with certificates from the concerned officer of the rank of Executive Engineer or equivalent and above;

Definition of "similar works": "Similar works" will mean combined works under "civil works" and "electrical works".

"Civil works" will mean new or retrofitting/improvement of the following:

(i) Urban Road/ Street works (with or without footpath, street furniture, landscaping etc.);

OR

Junction works;

OR

Corridor Improvement works;

AND

(ii) Any one of the following works:

Strom Water Drainage including Culvert works;

OR

Cast-in-situ or precast utility ducting works;

OR

Laying of any underground or overhead utility (water supply/ sewerage/ electrical/ telecommunication etc.)

"Electrical works" will mean supply, installation, testing and commissioning of any of the following:

Compact Sub-Stations (CSS);

OR

Pole-mounted Transformers;

OR

Ring Main Units (RMU);

OR

Compact Feeder Pillars;

OR

Switchgear works;

OR

underground/overhead cabling works (HT or LT).

To qualify for "electrical works", the Bidder must have experience of supplying, installing, testing and commissioning of at least 1 (one) CSS or 1 (one) RMU.

1.4.2.4 Evidence of ownership of major items of equipment for “civil works” and “electrical works” specified in Clause 1.4.4.3a) of ITB or evidence of arrangement of possessing them on hire/lease/buying as defined therein.

1.4.2.5 Details of the technical personnel proposed to be employed for the Contract having the qualifications defined in 1.4.4.3b) of ITB for the construction.

1.4.2.6 Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past three financial years ending on 31st March of the previous financial year;

1.4.2.7 An undertaking that the bidder will be able to invest a minimum amount of up to the percentage (defined in the Appendix to ITB) of the contract price of works, during the implementation of the works;

1.4.2.8 Evidence of access to line(s) of credit and availability of other financial resources/ facilities (10 percent of the contract value) certified by banker (the certificate being not more than 3 months old).

1.4.2.9 Authority for the Employer to seek references from the Bidder's bankers;

1.4.2.10 Information regarding any litigation or arbitration during the last seven years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter;

1.4.3 Bids from Single Bidder or Joint Venture (JV) or Consortium or Association

1.4.3.1 In case of Bids from Single Bidder, the bidder shall have to qualify both for "civil works" and "electrical works"[1]. To be eligible for "electrical works", Bidder or any member of the JV or Consortium or Association shall be an Electrical Contractor or Original Equipment Manufacturer (OEM) or OEM authorized design partner[2].

1.4.3.2 In case of Bids from Joint Venture (JV) or Consortium or Association:

a) All members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. However, the prime responsibility and accountability will rest on the lead partner.

b) The JV or Consortium or Association shall authorize (through Power of Attorney) the lead partner to conduct all business for and on behalf of any and all the members of the JV or Consortium or Association during the bidding process and, in the event the JV or Consortium or Association is awarded the Contract, during contract execution. The maximum number of members in a JV or Consortium or Association shall be 2 (Two), (i.e. the lead partner plus one member) and the share of the lead member in the JV or Consortium or Association shall not be less than 50%.

i. The lead partner shall meet the qualification criteria of either "civil works" or "electrical works". The other partner shall accordingly meet the qualification criteria for the remaining works.

ii. In case the lead partner meets the qualification criteria for both "civil works" and "electrical works", even then the other partner shall meet not less than 50% of either "civil works" or "electrical works".

iii. No other combination apart from the above is allowed.

c) All payments will be made to the lead partner only.

1.4.4 Qualifications:

[1] For ascertaining eligibility, quantum of "civil works" will be considered as 75% of the estimated cost as specified in this Bidding Document and "electrical works" will be considered as 25% of estimated cost as specified in this Bidding Document.

[2] The authorized design partner of OEM shall be able to manufacture, assemble, test, market and sell the product, as per OEM type tested design and transfer of technology. The authorized design partner should submit a necessary agreement copy or technology licensee certificate to substantiate the same.

1.4.4.1 To qualify for award of the Contract, each bidder should have:

a) Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:

Three similar completed works[3] costing not less than the amount equal to 40% of the estimated cost.

Or

Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

Or

One similar completed works costing not less than the amount equal to 80% of the estimated cost.

Example (considering the estimated cost as Rs. 78.50 Cr.): In case of the second criterion above (i.e. two similar completed works costing not less than the amount equal to 50% of the estimated cost) and assuming combination of partners as specified in para 4.3.2(b)(i), the partner for "civil works" (which is to be taken as 75% of total cost) will qualify if he has completed 2 similar projects of Rs. 29.44 Cr. (78.50 * 75% * 50%). Similarly, the partner for "electrical works" shall qualify if he has completed 2 similar projects of Rs. 9.81 Cr. (78.50 * 25% * 50%).

[3] Only those works will be considered as "completed", for which either Completion Certificate has been issued by the concerned Competent Authority clearly indicating completion of similar works till last day of month previous to the one in which applications are invited or 90% of the works are completed provided proof of receipt of payment and a certificate from the concerned employer to this effect is produced.

Note: In case the similar completed works of the bidders happen to be completed in a JV or Consortium or Association, then the extent of works in proportion to the participation of the bidder in that JV or Consortium or Association will be considered.

b) Average annual financial turnover[4] from construction works and supply, installation, testing & commissioning works ("civil" and "electrical" put together) should be at least 50% of the estimated cost during last 3 financial years ending on 31st March of the previous financial year to be supported by certificate by Chartered Accountant and Audited Annual Accounts for the said period.

c) The Net Worth[5] of the Bidder should be positive ending on 31st March of the previous financial year. Certificate to this effect issued by registered statutory Chartered Accountant should be submitted along with the bid.

1.4.4.2 Each bidder must produce:

a) Certificate of incorporation /registration, PAN Card, GST registration certificate of the firm;

b) An affidavit that the information furnished with the bid documents is correct in all respects; and

c) Such other certificates as specified in the Appendix to ITB. Failure to produce the certificates shall make the bid non-responsive.

1.4.4.3 Each bidder must demonstrate:

a) Availability of key equipment/machinery (owned/leased/hired) for "civil" and "electrical" works and laboratory equipment required to perform mandatory tests as specified in the Appendix to ITB.

b) Availability of technical personnel as stated in the Appendix to ITB.

c) Credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of not less than the amount specified in the Appendix to ITB;

1.4.4.4 The bidder must not have in his employment:

a) The near relation (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons listed in Appendix to ITB.

b) Without Government permission, any person who retired as gazetted officer within the last two years of the rank and from the departments listed in the Appendix to ITB.

1.4.4.5 Bids submitted by a JV or Consortium or Association shall include a copy of the Joint Venture Agreement (or Consortium/Association Agreement as applicable) entered into by all members. Alternatively, a letter of intent to execute a JV Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement.

1.4.4.6 The bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria.

1.4.4.7 Experience of works undertaken as Sub-contractor shall be taken into account in determining the bidder's compliance with the qualifying criteria, only if the works undertaken are in Government projects.

1.4.5 Bidders (JV put together) who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value. The available bid capacity will be calculated as under:

Assessed Available Bid capacity = (A*N*M - B)

Where,

A = Maximum value of "civil" and "electrical" works executed in any one year during the last seven years (updated to the price level of the last year at the rate of 5 percent a year) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and more than 6 months as one year).

M = 2.5

B = Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited.

Note:

i. The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

ii. In the case of a JV or Consortium or Association, the above formula will be applied to each member to the extent of the proposed participation in the JV or Consortium or Association. If the proposed % participation is not mentioned in the JV/Consortium/Association Agreement or Letter of Intent to enter into the same in the event the work is awarded to the JV/Consortium/Association, then equal participation will be assumed.

Example for calculation of bid capacity in case of JV or Consortium or Association

Suppose there are 'P' and 'Q' members of the JV or Consortium or Association with their participation as 70% and 30% respectively and available bid capacity of these members as per above formula individually works out 'X' and 'Y' respectively, then Bid Capacity of the JV or Consortium or Association shall be as under:

Bid Capacity of the JV or Consortium or Association = 0.7X + 0.3Y

[4] At 2020-21 price level. Financial turnover of previous years shall be given weightage @5% per year to bring them to the price level of the financial year in which bids are received. This will be applicable in ascertaining current value of projects executed in past 7 years, as per requirements specified in the Bidding Document.

[5] Net worth is the difference between total assets and liabilities.

1.4.6 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

1.4.6.1 made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or

1.4.6.2 record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion or financial failures etc.; and/or

1.4.6.3 participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to the Employer.

1.5 One Bid per Bidder

1.5.1 Each bidder, either as a single applicant or as partner of any JV or Consortium or Association, shall submit only one bid for the work. A Bidder who submits more than one Bid will cause the bids with the Bidder's participation to be disqualified.

1.6 Cost of Bidding

1.6.1 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 those costs.

1.7 Site Visits

1.7.1 The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarize himself with the Site of Works and its surroundings including source of construction materials 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. He may contact the person as given in the Appendix to ITB.

B. Bidding Documents

1.8 Content of Bidding Documents

1.8.1 The set of bidding documents comprises the documents listed below, and corrigenda/addenda issued in accordance with Clause 1.10 of ITB.

- Notice Inviting Tender
- Instructions to Bidders
- Qualification Information
- Conditions of Contract (Part I General Conditions of Contract, Appendices to GCC and Contract Data; Part II Special Conditions of Contract)
- Scope of Work and Technical Specifications
- Drawings
- Bill of Quantities

- Form of Bid
- Form of Acceptance
- Form of Agreement
- Issue of Notice to Proceed with the Work
- Form of Unconditional Bank Guarantee.

1.8.2 Bid document can be downloaded from the website(s)/web portal(s) mentioned under NIT or "List of Important Dates".

1.8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, bill of quantities and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to Clause 1.26 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be liable for rejection.

1.9 Clarification of Bidding Documents

1.9.1 The bidder or his authorized representative is invited to attend a pre-bid meeting which will take place on the date and time mentioned in the section titled "Important Dates".

1.9.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

1.9.3 The bidder is required to submit any questions in writing through email specified in the NIT not later than two days before the date of the pre-bid meeting.

1.9.4 The clarifications/queries raised by the bidders after the pre-bid meeting date and time shall not be entertained and the Employer is not liable to reply for those queries.

1.9.5 Minutes of the pre-bid meeting, including the text of the questions/queries raised (without identifying the source of enquiry) and the responses given will be uploaded on the websites/web portals specified in the Bidding Document only. In addition to this, any addendum or corrigendum shall be uploaded on the said websites/web portals only. It is the responsibility of the bidder to update themselves and regular check of the websites/web portals. The Employer shall not be held responsible for any delay in viewing the websites/web portals by the bidders.

1.9.6 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

1.10 Amendment of Bidding Documents

1.10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing corrigenda/addenda.

1.10.2 Any corrigendum or addendum thus issued shall be part of the bidding documents. The same shall be uploaded on the websites/web portals specified in the Bidding Document and no other communication will be made by the Employer to any bidder.

1.10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with Clause 1.20 of ITB.

C. Preparation of Bids

1.11 Language of Bid

1.11.1 All documents relating to the Bid shall be in the language specified in the Appendix to ITB.

1.12 Documents Comprising the Bid

1.12.1 The Bid submitted by the Bidder shall be in two separate parts:

Part I - This shall be named Technical Bid to be placed in a sealed envelope as per procedure specified in Clause 1.19 of ITB and shall comprise of:

i. The Demand Draft for the Tender Fee placed in a separate cover, marked "Tender Fee";

ii. DD/BG/FDR for the Earnest Money: Not required in this tender. Instead, a Bid Security Declaration is required to be submitted in prescribed format.

iii. Authorized Address and contact details of the bidder having the following information: Address of communication: Telephone No.(s): Office telephone no.: Mobile No.: Facsimile (Fax) No.: Electronic Mail Identification (E-mail ID).

iv. Qualification information, supporting documents, affidavit and undertaking as specified in Clause 1.4 of ITB.

v. Undertaking that the bid shall remain valid for the period specified in Clause 1.15 of ITB.

vi. Any other information/documents required to be completed and submitted by bidders, as specified in the Appendix to ITB.

vii. An affidavit affirming that information that has been furnished by the bidder in the bidding document is correct to the best of his knowledge and belief.

viii. Power of Attorney by the firm in favour of the authorised signatory for submitting the bid; In case of JV or Consortium or Association, Power of Attorney by the JV firm in favour of the lead partner authorising the lead partner for submitting the bid.

ix. MoU for JV or Consortium or Agreement, if applicable, as per the prescribed format.

x. Any other information required as per Technical Forms as specified in SECTION 7.

xi. The Technical Bid shall not include any financial information.

Part II - It shall be named Financial Bid to be placed in a sealed envelope as per procedure specified in Clause 1.19 of ITB and shall comprise of:

i. Financial Form(s) as specified in SECTION 7

ii. Priced Bill of Quantities for items specified in SECTION 8

1.12.2 Each part shall be separately sealed and marked in accordance with Sealing and Marking instructions in Clause 1.19 of ITB.

1.12.3 The following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Sl. No.	Particulars
1.	Notice inviting Tender
2.	Instruction to the Bidders
3.	Conditions of Contract
4.	Contract Data
5.	Scope of Work and Technical Specifications
6.	Drawings
7.	Bill of Quantities

1.13 Bid Prices

1.13.1 The Contract shall be for the whole Works, as described in Clause 1.1.1 of ITB, based on the priced Bill of Quantities submitted by the Bidder.

1.13.2 The bidder shall fill in rates and prices and line item total (both in figures and words) for all items of the Works described in the Bill of Quantities along with total tender price (both in figures and words). 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. Corrections, if any, shall be made by crossing out, initialling, dating and rewriting.

1.13.3 All duties, applicable taxes (including GST), and other levies payable, third-party inspections (TPI) fees or charges etc. by the contractor under the contract, or for any other charges as cause, shall be included in the rates, prices and total Tender Price submitted by the bidder.

1.13.4 The rates and prices quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account.

1.14 Currency of Bid

1.14.1 The prices shall be quoted by the bidder entirely in Indian Rupees.

1.15 Bid Validity

1.15.1 Bids shall remain valid for a period of 180 days (one hundred and eighty days) after the deadline date for bid submission specified in Clause 1.20 of ITB. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.

1.15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request the bidders to extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing. A bidder may refuse the request without forfeiting his Earnest Money. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to

extend the validity of his bid and earnest money for a period of the extension, and in compliance with Clause 1.16 of ITB in all respects.

1.16 Earnest Money

1.16.1 Amount of Bid Security / Earnest Money Deposit: Nil

1.16.2 The Bidder shall furnish a Bid Security Declaration as per format prescribed at TECH FORM - 13.

1.16.3 Any bid not accompanied by the Bid Security Declaration, shall be rejected by the Employer as non-responsive.

1.16.4 If the Bidder withdraws or modifies his/her Bid during period of bid validity, the Bidder will be suspended or debarred from participating in future bids under the Shillong Smart City project for one year.

1.17 Alternative Proposals by Bidders

1.17.1 Bidders shall submit offers that comply with the requirements of the bidding documents, including the Bill of Quantities and the basic technical design as indicated in the drawings and specifications. Alternative proposals will be rejected as non-responsive.

1.18 Format and Signing of Bid

1.18.1 All pages of the Technical and Financial Bid shall be duly signed and sealed by the Bidder or authorized signatory on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bidding Document and shall be attached to the Bid.

1.18.2 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 initialled by the person signing the Tender.

1.19 Sealing and Marking of Bids

1.19.1 The bidder shall sign and seal every page of the Bid.

1.19.2 If every page is not signed and sealed, the Bids may be liable for rejection.

1.19.3 The original Bids (Technical Bid and Financial Bid) shall be prepared in indelible ink. Any corrections must be initiated by the person or persons who have been duly authorized.

1.19.4 Technical Bid, including original and one copy shall be placed in a sealed envelope clearly marked “Technical Bid,” and the original Financial Bid in a sealed envelope clearly marked “Financial Bid” and warning: “**Do not open with the Technical Proposal.”** Technical (Original & One Copy) and Financial (Original) envelopes shall be placed into an outer envelope and sealed. This outer envelope shall bear the title **“Technical and Financial Proposal”,** sealed and clearly showing the name of the assignment and the submission address.

1.19.5 In the event of any discrepancy between the original and the copy of Technical Proposal, the original shall prevail.

1.19.6 Any financial bid received in any other form apart from the above shall make the Bid liable for rejection.

D. Submission of Bids

1.20 Deadline for Submission of Bids

1.20.1 Bids consisting of one (1) original plus one (1) copy of Technical Bid and one (1) Original Financial Bid must be submitted in sealed envelope in the Tender Box maintained at the address and on or before the date and time as specified in the Notice Inviting Tender and Contract Data.

1.20.2 The Envelope must indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared as received after the due date and time or otherwise unacceptable.

1.20.3 Complete Bids (including Technical and Financial) must be received by the Employer not later than the date and time indicated in the Appendix to ITB. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the Bids will be received up to the specified time on the next working day.

1.20.4 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 1.10 of ITB, 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.

1.21 Late Bids

1.21.1 The Bidders shall not be allowed to submit the Bids after the date & time of deadline for submission of Bids.

1.22 Withdrawal, Substitution and Modification of Tender

1.22.1 A Bidder may withdraw, substitute or modify its Tender only before the last date of submission.

1.22.2 A written Withdrawal/Substitutions/Modifications etc. Notice, duly signed by the Bidder or his authorized representative, shall be submitted in case of withdrawal/substitution/modification and shall include a copy of the authorization. The corresponding Withdrawal, Substitution or Modification of the Tender must accompany the respective written Notice.

1.22.3 All Notices must be received by the Employer prior to the deadline specified for submission of Tender in accordance with Clause 1.20 of the ITB.

1.22.4 No Withdrawal and/or Substitution and/or Modification are permitted after last date of submission.

1.22.5 Withdrawal, Substitution or modification of a Tender between the deadline for submission of Tender and the expiration of the original period of Tender validity specified in Clause 1.15 of ITB above or as extended pursuant to Clause 1.15.2 of

ITB may result in suspension of the Bidder for a period of time specified in this Bidding Document or as deemed appropriate to the Employer.

E. Bid Opening and Evaluation

1.23 Bid Opening

1.23.1 The Employer will open the Technical Bids of all the Tenders received (except those received late or withdrawn), including modifications made pursuant to Clause 1.22, in the presence of the bidders or their representatives who choose to attend at the date, time and the place specified in respective Clause(s). In the event of the specified date of Tender opening being declared a holiday for the Employer, the Tenders will be opened at the appointed time and location on the next working day.

1.23.2 Bids which have been "WITHDRAWN" through notice of withdrawal (pursuant to Clause 1.22 above) shall be read out first.

1.23.3 The bidder's names, the presence or absence of Tender Fee, Bid Security Declaration, the submission of qualification information and such other information as the Employer may consider appropriate will be announced by the Employer at the opening. Late and withdrawn Tenders will not be opened.

1.23.4 The Employer shall prepare minutes of the Tender opening, including the information disclosed to those present in accordance with Clause 1.23.

1.23.5 The Employer will evaluate and determine whether each tender (a) meets the eligibility criteria defined in ITB Clause 1.3; (b) is accompanied by the required Tender Fee and Bid Security Declaration as per stipulations in ITB Clause 1.16 and (c) meets the minimum qualification criteria stipulated in ITB Clause 1.4. The Employer will draw out a list of qualified Tenderers.

1.23.6 Financial Bids shall be kept unopened until the procedure specified above is complete. The date, time, and location of opening of the Financial Bids shall be intimated to the bidders who are found qualified. In the event of the specified date being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day in presence of the bidders or their representative, who may choose to attend the opening of financial bids.

1.23.7 At the time of the opening of the "Financial Bid", firstly the Technical Scores will be announced. Thereafter Financial Bids of only those bidders whose bids are found responsive and technically qualified will be opened. The remaining Financial Bids will not be opened. The responsive bidders' names, the Bid prices, the total amount of each bid, and such other details as the Employer may consider appropriate will be announced by the Employer at the time of bid opening. Any Bid price, which is not read out and recorded, will not be taken into account in Bid Evaluation.

1.23.8 The Employer shall prepare the minutes of the opening of the Financial Bids.

1.24 Process to be Confidential

1.24.1 Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to

influence the Employer's processing of Tenders or award decisions may result in the rejection of his Tender.

1.25 Clarification of Bids and Contacting the Employer

1.25.1 To assist in the examination and evaluation of Tenders, the Employer may, at his discretion, ask any bidder for clarification of his Technical Bid. The request for clarification and the response shall be in writing (letter/email). If a bidder does not provide clarifications of its Tender by the date and time set in the Employer's request for clarification, its Bid may be rejected by the Employer.

1.25.2 No Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded.

1.25.3 Any attempt by the bidder to influence the Employer's bid evaluation, bid comparison or contract award decision may result in the rejection of his bid.

1.26 Examination of Bids and Determination of Responsiveness

1.26.1 During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid

a) meets the eligibility and qualification criteria defined in Clauses 1.3 and 1.4 of ITB;

b) has been properly signed and sealed;

c) is accompanied by the required Tender Fee and Bid Security Declaration; and

d) is responsive to the requirements of the bidding documents.

1.26.2 During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications and drawings.

1.26.3 A responsive "Financial Bid" is one that 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; and/or

b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the Bidder's obligations under the Contract; and/or

c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

1.26.4 If a "Financial 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 nonconforming deviation or reservation.

1.27 Correction of Errors

1.27.1 Tenders determined to be responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

a) If a discrepancy is found in the rates written in figures and words, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct.

b) If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct.

c) Where the rates quoted by the contractor in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount.

d) In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly as directed by the Engineer.

1.27.2 The amount stated in the Tender will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount the Tender will be rejected and appropriate action as per Clause 1.16 of ITB will be taken.

1.28 Evaluation and Comparison of Bids

1.28.1 The Employer will evaluate and compare only the bids determined to be responsive in accordance with Clause 1.26 of ITB. Evaluation will be carried out in accordance with the criteria as specified in the Appendix to ITB.

1.28.2 In evaluating the bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price by making correction, if any, for errors pursuant to Clause 1.27 of ITB.

1.28.3 In case the Bid of the successful Bidder is “Abnormally Low Bid”, i.e. a Bid in which the bid price, in combination with other elements of the Bid, appears so low that raises material concerns as to the capability of the bidder to perform the contract at the offered price, the Employer may in such cases seek written clarifications from the bidder, including detailed price analyses of its bid price in relation to scope, schedule, allocation of risks and responsibilities, and any other requirements of the bids document. If, after evaluating the price analyses, the Employer determines that the bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Employer may reject the bid.

1.29 Price Preference

1.29.1 There will be no price preference to any bidder.

F. Award of Contract

1.30 Award Criteria

1.30.1 Subject to Clause 1.32 of ITB, the Employer will award the Contract to the Bidder on following basis:

a) Method of selection shall be Quality cum Cost Based Selection (QCBS) with 70% weightage to be accorded for technical and 30% for financial.

The total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions mentioned below:

Technical bid shall be given scoring as below:

The bidder will be initially evaluated for Minimum Eligibility Criteria, which are mandatory to qualify. Bidders who do not qualify will be summarily rejected and will not be further evaluated. The bidder who qualifies Minimum Eligibility Criteria will be further evaluated for technical scores (TS). The bidders who qualify the minimum technical score of 70 as per criteria specified in Appendix to ITB will be finally qualified. The financial bids of technically qualified bidders will only be opened.

Financial bid shall be given scoring as below:

The bidder who has quoted the lowest price will be assigned a score of 100 in the financial bid. The other bidders will be allotted score relative to the score of bidders with the lowest quote as below:

Fs = 100 * (Fm /F)

Where:

Fs = The financial score of the Financial Proposal being evaluated

Fm = The price of lowest priced Financial Proposal

F = The quoted price of Financial Proposal under consideration

Combined Evaluation:

The weighted combined score of the Technical bid (Ts), and Financial proposals (Fs) shall be used to rank the bidders on the basis of formula given as below:

T- Technical Weightage (70%), P – Financial Weightage (30%)

Combined Score (S) = (Ts) x (T %) + (Fs) x (P%)

The first ranked i.e. the highest scoring bidder will be considered for further processing. The bidder achieving the highest combined technical and financial score will be invited for negotiations.

1.31 Employer's Right to Accept any Bid and to Reject any or all Bids

1.31.1 Notwithstanding Clause 1.30 of ITB above, the Employer reserves the right to accept or reject any or all the Bids, and to cancel the bidding process and reject all 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.

1.32 Notification of Award and Signing of Agreement

1.32.1 The bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by letter/email. This letter (hereinafter and in the Part-I General Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay to the Contractor in consideration of the execution, completion by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

1.32.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 1.33 of ITB.

1.32.3 The Agreement will incorporate all agreements between/among the Employer, the successful Bidder, Shillong Smart City Limited (SSCL) and any other Department/Agency of Govt. of Meghalaya associated with the Project. It will be signed after the performance security is furnished by the successful Bidder.

1.32.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

1.33 Performance Security

1.33.1 Within 10 (ten) days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security of three (3) percent of the Contract Price, for the period as specified in Clause 4.45 of General Conditions of Contract sign the contract.

1.33.2 The performance security shall be either in the form of a Bank Guarantee or Fixed Deposit Receipts, in favour of the Chief Engineer, PWD(Roads), Meghalaya, Shillong from a Nationalized Bank or Scheduled Commercial Bank.

1.33.3 Failure of the successful Bidder to comply with the requirements of Clause 1.33 of ITB above shall constitute sufficient grounds for cancellation of the award and taking of necessary action as specified in Clause 1.16 of the ITB.

1.34 Advances

1.34.1 The employer will provide mobilization advance and secured material advance against security as provided in Clause 4.47 of Part-I General Conditions of Contract.

1.35 Corrupt or Fraudulent Practices

1.35.1 The Employer requires the Bidders/Contractors to strictly observe the laws against fraud and corruption in force in India, namely, Prevention of Corruption Act, 1988.

1.35.2 The Bidder shall furnish an Integrity Pact as per TECH FORM – 11.

2 Appendix to Instructions to Bidders (ITB)

<table>
<tr><th>Clause Reference</th><th>Description</th></tr>
<tr><td>1.1.1</td><td>The Employer is The Chief Engineer (NH), PWD (Roads), Lower Lachumiere, Shillong-793001, Meghalaya</td></tr>
<tr><td>1.2.1</td><td>The State is Meghalaya</td></tr>
<tr><td>1.3.2</td><td>The eligible bidders are: All bidders registered with Central/State Government Ministries/Departments/Organizations and meeting the eligibility criteria</td></tr>
<tr><td>1.4.2.7</td><td>The percentage is Ten</td></tr>
<tr><td>1.4.4.3 a)</td><td>A) The key equipment/machinery for Civil Works:
<table>
<tr><th>SN</th><th>Name of the Equipment</th><th>Capacity</th><th>Unit</th><th>Min. Required (Owned*/ Lease/Hired)</th><th>Total</th></tr>
<tr><td>1</td><td>Hot Mix Plant- Batch Type Electronic 1 Controls and Vibratory Screens</td><td>120 TPH</td><td>Nos.</td><td>1</td><td>1</td></tr>
<tr><td>2</td><td>Wet Mix Macadam (WMM) Plant</td><td>100 TPH</td><td>Nos</td><td>1</td><td>1</td></tr>
<tr><td>3</td><td>Excavators and Dozers</td><td>1.25 cum with excavator bucket should be replaceable with 450mm to 900mm width bucket as per site condition</td><td>Nos</td><td>5</td><td>5</td></tr>
<tr><td>4</td><td>Motor Grader</td><td>200 cum/Hr.</td><td>Nos</td><td>2</td><td>2</td></tr>
<tr><td>5</td><td>Paver Finisher With Electronic Sensors</td><td>200 TPH with adjustable 4 to 6M width</td><td>Nos</td><td>2</td><td>2</td></tr>
<tr><td>6</td><td>Pneumatic Tyre Rollers</td><td>Min. 4 Tyres</td><td>Nos</td><td>1</td><td>1</td></tr>
<tr><td>7</td><td>Vibratory Roller</td><td>Min. 5 T</td><td>Nos</td><td>2</td><td>2</td></tr>
<tr><td>8</td><td>Mini Vibratory Roller</td><td>4T – 6T</td><td>Nos</td><td>1</td><td>1</td></tr>
<tr><td>9</td><td>Trucks</td><td>8 T</td><td>Nos</td><td>5</td><td>5</td></tr>
</table></td></tr>
</table>

10	Hydra Crane	9-15T	Nos	2	2
11	Truck Mounted Transit Mixer	4-6 cum	Nos	5	5
12	(10/7) Concrete Mixer with Mechanical Hopper	Min. 450 Lts.	Nos	1	1
13	Reinforcement Cutting and Bending Machine	Minimum 5 HP capacity	Nos	1	1
14	Plate compactor (reversible)	Minimum 6.5 HP capacity	Nos	4	4
15	Water Tanker	2,000 Litre	Nos	2	2
16	Total Station	-	Nos	2	2

* Evidence of Ownership to be furnished

B) Key equipment/machinery for Electrical Works:

SN	List of Equipment	Unit	Min. Required (Owned*/ Lease/Hired)	Total
1	Multi meter	Nos	2	2
2	Insulation tester (Megger)	Nos	2	2
3	Cable cutter - upto 400 sqmm cable	Nos	2	2
4	Hydraulic HT / LT cable crimp machine - upto 400 Sqmm cable	Nos	1	1
5	Torque wrench	Set	1	1
6	HT Cable jointing kit.	Nos	1	1
7	Welding machine for welding / jointing earthing strips	Nos	2	2
8	25 KVA DG set - 2 Nos.	Nos	2	2
9	Flood light set (4 nos Lights.)	Set	2	2
10	Tool Box with all tools	Set	4	4
11	Drill Machine	Nos	2	2

12	Cutter / Grinder	Nos	2	2

* Evidence of Ownership to be furnished

C) List of equipment for field testing laboratory for road works (the list provided below is indicative and the actual requirements can be increased or decreased as per Clause 31 of Part I of GCC).

The following equipment for conducting all necessary tests, including others as may be required or as directed by the Engineer, shall be provided by the contactor at his own cost at the site laboratory:

SN	Name of the Laboratory Equipment
1	Balances 7 kg to 10 kg capacity, semi-self indicating type, Accuracy- 10 gm. 500 gm capacity, semi-self indicating type, accuracy-1 gm Chemical Balance, 100 gm capacity, Accuracy- 0.1 gm. Pan Balance - 5 kg. capacity, with 10 gm accuracy. Platform scale- 300 kg capacity.
2	OVENS— Electrically operated, thermostatically controlled. Upto 200°C for Determination of loss on heating of bitumen.
3	SIEVES AS PER IS 460-1962. I.S. Sieves- 450 mm of internal dia of sizes 100 mm, 80mm, 63mm, 50mm, 40mm, 25mm, 20mm, 12.5mm, 10mm, 6.3mm, 1.75mm, complete with lid and pan. I.S. Sieves- 200 mm internal dia (brass frame) consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns and 75 microns with lid and pan.
4	Sives Shaker capable for Shaking 200mm and 300mm dia sieves, electrically operated with timer.
5	Dial gauge 25mm travel — 0.01mm/division. miscellaneous items like moisture tins etc.
6	Load frame-5 tonnes capacity electrically operated with speed control.
7	Aggregate impact test, apparatus as per IS 2386-part IV-1963.
8	Compaction apparatus (Proctor) as per IS 2720-part VII-1974.
9	Modified ASHO compaction apparatus as per IS 2720-part-III-1974.
10	Sand pouring Cylinder with control funnel and tube complete as per IS 2720-part XXVIII-1974.
11	Sampling tins with rods 100mm dia × 50mm ht. 1/2kg capacity and miscellaneous items like moisture tins etc.

	12	Constant temperature bath for accommodating bitumen test. Specimen electrically operated and thermostatically controlled.
	13	Penetrometer with automatic time controller and with adjustable weight accessories and needles as per IS 1203-1958.
	14	Oxhlet extraction apparatus complete with extraction thimbles etc.
	15	Laboratory mixer about 0.02 cu-meter capacity electrically operated with heating jacket.
	16	Hubbard Field stability test apparatus complete.
	17	Marshall compaction apparatus as per ASTM 1559-62T and complete with electrically operated leading unit compaction pedestal bearing head assembly dial micrometre and bracket for flow measurement load transfer bar, specimen mould (4 inch. dia) with base plate, Columns, mould (4 inch, dia) with base plate, collars, specimen extracted. Compaction hammer 4.53 kg (10lb)/457 mm (18inch) fall.
	18	Distant reading thermometers.
	19	Graduated cylinder 1000 ml. capacity.
	20	Enamel tray.

For “electrical” works (and applicable materials for “civil” works as directed by the Engineer) the Contractor shall submit Technical Data Sheet and after approval from the Employer, there will be FAT (Factory Acceptance Test) for all materials before procuring and bringing to site.

All relevant IS codes, CPWD manual, specifications, schedule of rates, etc in hard as well as soft copy shall be made available at site by the Contractor at his own cost.

1.4.4.3 b)

SN	Position	Minimum Number of Staff	Minimum Qualification	Minimum Work Experience (years)
A. Common for “civil” and “electrical” works				
1	Project Manager	1	B.E./B.Tech in Civil Engineering with 15 years of experience OR B.E./B.Tech in Civil Engineering and M.E./M.Tech in Transportation Planning/Transportation Engineering/Highway Engineering with 12 years of experience after post-graduation.	15 or 12 as specified

				Experience in urban road projects (with all utilities) desirable	
	2	Quality Control/ Material Engineer	2	B.E./B.Tech in Civil Engineering with Experience in Quality Control or Quality Management	5
	3	Planning Engineer	1	B.E./B.Tech in Civil Engineering with project planning experience using MS Project or Primavera	5
	4	Plant Engineer	1	B.E./B.Tech in Civil Engineering	5
	5	Health, Safety and Environment (HSE) Engineer	1	B.E./B. Tech in Civil Engineering or Safety with 3 years of experience in safety/work safety/Environmental Management OR Diploma in Civil Engineering with 7 years of experience. Knowledge in OHSAS 18001 and ISO 14001 will be preferable.	3
	6	Surveyor	2	Diploma in Civil Engineering with 5 years of experience OR Course in "Survey" from Industrial Training Institute (ITI) with 7 years of experience	5 or 7 as specified
	B. For "civil" works				
	7	Highway / Road Engineer	1	B.E./B.Tech in Civil Engineering with 7 years of experience OR B.E./B.Tech in Civil Engineering and	7 or 5 as specified

				M.E./M.Tech in Transportation Engineering/Highway Engineering with 5 years of experience after post-graduation. Experience in urban road projects (with all utilities) desirable	
	8	Civil cum Utility Engineer	4	B.E./B.Tech in Civil Engineering with 5 years of experience OR Diploma in Civil Engineering with 7 years of experience Experience in utilities (water supply, storm water drainage etc.) desirable.	5 or 7
	9	Quantity Surveyor-Civil	1	B.E./B.Tech in Civil Engineering with 3 years of experience OR Diploma in Civil Engineering with 5 years of experience	5 or 3
	C. For “electrical works”				
	10	Deputy Project Manager/ In-charge, Electrical Works	1	B.E./B.Tech in Electrical Engineering with 10 years of experience OR B.E./B.Tech in Electrical Engineering with M.Tech in Electrical Engineering with 7 years of experience after post-graduation	10 or 7 as specified
	11	Electrical Engineer	2	B.E./B.Tech in Electrical Engineering with 7 years of experience OR B.E./B.Tech in Electrical Engineering with M.Tech in Electrical Engineering with	7 or 5 as specified

				5 years of experience after post-graduation	
	12	Electrical HT / LT certified cable jointer	1	Diploma in Electrical Engineering with professional experience in HT/LT cable jointing	6
	13	Electrical Supervisor	4	Diploma in Electrical Engineering with professional experience in supervising various electrical works (distribution)	6
	14	Electrician	4	Completed course from ITI with 5 years of professional experience	5
	15	Quantity Surveyor-Electrical	1	B.E./B.Tech in Electrical Engineering with 3 years of experience OR Diploma in Electrical Engineering with 3 years of experience	5 or 3

As proof of employment of Technical Personnel, the Bidders would require to furnish an Affidavit on non-judicial Stamp Paper certifying employment of the above-mentioned personnel with the organization for the preceding one year ending on the last day of the month previous to the one in which bids are invited.

The Bidders may add additional manpower as per requirement.

CVs for the above positions will be evaluated as per criteria given in this Appendix to ITB.

1.4.4.3 c)	The minimum amount of credit facilities net of other contractual commitments of the successful Bidder shall be 10% of the contract value.
1.4.4.4 a)	The bidder must produce an affidavit stating that the near relations of officers of the following Departments/Agencies are not in his employment: Any officers/staffs under Shillong Smart City Limited (SSCL), Department of Urban Affairs (DUA), Govt. of Meghalaya and all Authorities/Agencies under its jurisdiction or control, Public Works Department (PWD), Meghalaya Power Distribution Corporation Limited (MePDCL), Shillong Municipal Board (SMB) and the Project Management Consultant (PMC) for Shillong Smart City Limited
1.4.4.4 b)	The bidder must produce an affidavit stating that no retired gazetted officer is in employment who retired within the last two years (starting from the date of submission of Bids) from the Departments/Agencies listed below: Shillong Smart City Limited (SSCL), Department of Urban Affairs (DUA), Govt. of Meghalaya and all Authorities/Agencies under its jurisdiction or control, Public

<table>
<tr><td></td><td>Works Department (PWD), Meghalaya Power Distribution Corporation Limited (MePDCL), Shillong Municipal Board (SMB) and the Project Management Consultant (PMC) for Shillong Smart City Limited.

In case there is no such person in his employment, his affidavit should clearly state this fact.</td></tr>
<tr><td>1.7.1</td><td>The contact person is:
The Chief Engineer (NH), PWD (Roads)
Lower Lachumiere, Shillong-793001, Meghalaya</td></tr>
<tr><td>1.11.1</td><td>Language of the bid is: English</td></tr>
<tr><td>1.12.1</td><td>The other documents required are: NONE</td></tr>
<tr><td>1.20.3</td><td>Deadlines for submission of bids shall be:
Date: 26th July 2021
Time: 15:00 Hrs.

Tender Box will be kept in Room No. 210, Office of the PWD(Roads), Lower Lachumiere, Shillong-793001, Meghalaya</td></tr>
<tr><td>1.28.1</td><td>
<table>
<tr><th>SN</th><th>Criteria</th><th>Marks</th></tr>
<tr><td>1</td><td>Similar work experience of the Bidder, quantified in terms of number of completed projects during last 7 years (till last day of month previous to the one in which applications are invited)

(a) Completed similar works with value of 100% of estimated cost or more: 7.5 marks each capped at a maximum of 2 such projects
Or
(b) Completed similar works with value of 80% to 99% of estimated cost: 5 marks each capped at a maximum of 3 such projects
Or
(c) Completed similar works with value of 60% to 79% of estimated cost: 3.75 marks each capped at a maximum of 4 such projects
Or
(d) Completed similar works with value of 40% to 59% of estimated cost: 2.5 marks each capped at maximum of 6 such projects.</td><td>15</td></tr>
<tr><td>2</td><td>Prior work experience of the bidders in similar works in Meghalaya during last 7 years (till last day of month previous to the one in which applications are invited)</td><td>10</td></tr>
</table>
</td></tr>
</table>

		(a) Completed similar works with value of 80% of estimated cost or more: 10 marks each capped at maximum of 1 such project. (b) Completed similar works with value of 40% of estimated cost or more: 5 marks each capped at maximum of 2 such projects.	
	3	Prior work experience of the Bidder in similar works in similar geographies {limited to other parts of North East India (excluding Meghalaya), J&K, Ladakh, Uttarakhand and Himachal Pradesh} during last 7 years (till last day of month previous to the one in which applications are invited) (a) Completed similar works with value of 80% of estimated cost or more: 10 marks each capped at maximum of 1 such project. (b) Completed similar works with value of 40% of estimated cost or more: 5 marks each capped at maximum of 2 such projects.	10
	4	Prior experience of the Bidder in execution of similar works with value of 40% of estimated cost or more carried out or being carried out under any Smart City projects in India during last 5 years (till last day of month previous to the one in which applications are invited) (a) Completed similar works: 10 marks each capped at maximum of 1 such project. (b) On-going similar works: 5 marks each capped at maximum of 2 such projects.	10
	5	Valid Class-I registration with PWD, Meghalaya	5
	6	Project Management & Detailed Work Plan Bar chart/Construction Schedule and work plan: 2.5 marks; and Resource mobilization plan: 2.5 marks.	05
	7	Manpower (details of manpower on payroll of the bidder for the past 1 year till the last day of month previous to the one in which applications are invited. Minimum qualification will be as specified in the Appendix to ITB. The bidder will provide an undertaking supporting the same)	15

SN	Position	Marking criteria
	Project Manager	Total marks: 4 Educational qualification: 2 Post-graduation: 2 Graduation: 1

				Professional experience: 2 >15 years: 2 >=12 years to 15 years: 1		
			Deputy Project Manager/ In-charge, Electrical Works	Total marks: 3 Educational qualification: 1.5 Post-graduation: 1.5 Graduation: 1 Professional experience: 1.5 >10 years: 1.5 >=7 years to 10 years: 1		
			Quality Control/ Material Engineer	Total marks: 2 Educational qualification: 1 Post-graduation: 1 Graduation: 0.5 Professional experience: 1 >7 years: 1 >=5 years to 7 years: 0.5		
			Health, Safety and Environment (HSE) Engineer	Total marks: 2 Educational qualification: 1 Graduation: 1 Diploma: 0.5 Professional experience: 1 >7 years: 1 >=3 years to 7 years: 0.5		
			Highway / Road Engineer	Total marks: 2 Educational qualification: 1 Post-graduation: 1 Graduation: 0.5 Professional experience: 1 >7 years: 1 >=5 years to 7 years: 0.5		

			Civil cum Utility Engineer	Total marks: 2 Educational qualification: 1 Graduation: 1 Diploma: 0.5 Professional experience: 1 >7 years: 1 >=5 years to 7 years: 0.5	
	8	Average Annual Turnover of the Bidder (JV put together) from construction works for Last 3 financial years ending on 31st March of the previous year 100% of estimated cost and above: 15 marks 75% to 99% of estimated cost: 10 marks 50% to 74% of estimated cost: 7.5 marks 30% to 49% of estimated cost: 5 marks			15
	7	Machinery List (with specifications/capacity as specified in Appendix to ITB) in possession of the Bidder (only equipment owned by the Bidder to be given marks) to be provided with the copy of the Bill or undertaking of the bidder (capped at 1 mark per category) For "civil" works: • Hot Mix Plant - Batch Type Electronic 1 Controls and Vibratory Screens • Wet Mix Macadam (WMM) Plant • Excavators and Dozers • Motor Grader • Paver Finisher With Electronic Sensors • Pneumatic Tyre Rollers • Vibratory Roller • Trucks • Hydra Crane For "electrical" works: • Multi meter • Insulation tester (Megger) • Cable cutter - upto 400 sqmm cable • Hydraulic HT / LT cable crimp machine - upto 400 Sqmm cable • Torque wrench • HT Cable jointing kit.			15

			Detailed marking criteria for each category: • 4 and above: 1 mark • 2 to 3 of the above equipment: 0.75 mark • 1 of the above equipment: 0.5 mark	
			Total Marks	100
1.30.1	Method of selection shall be Quality cum Cost Based Selection (QCBS) with 70% weightage to be accorded for technical and 30% for financial).			

Signature of Employer / Authorized Signatory

Date:

3 SECTION 3: QUALIFICATION INFORMATION

The information to be filled in by bidders in the following pages will be used for evaluation as provided for in Clause 1.4 of the Instructions to Bidders. This information will not be incorporated in the Contract. Attach additional pages as necessary.

- Constitution or legal status of Tenderer, Place of Registration, Principal place of business and other details in the format provided at TECH FORM-2.
- Total value of civil and electrical works executed and payments received in the Last seven years (in Rs. Lakhs) in the format provided at TECH FORM - 7.
- Work performed as Lead Contractor (in the same name) on works of similar nature[6] over during the seven years in the format provided at TECH FORM – 7A and TECH FORM – 7B.
- Information on on-going works that are yet to be completed as on the date of this Tender in the format provided at TECH FORM - 5.
- The equipment specified in Clause 1.4.4.3a) of the ITB are considered essential for successfully carrying out the works. The Tenderer should furnish the information in the format provided at TECH FORM – 8E.
- Financial reports for the last three financial years ending on 31st March of the previous financial year: balance sheets, profit and loss statements, auditors' reports, etc. duly certified by registered statutory Chartered Accountant shall be submitted. In addition, the summarized financial information in the format provided at TECH FORM-3 and TECH FORM - 4.
- Evidence of access to lines of credit, etc. will be provided in the format provided at TECH FORM-4A.
- Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.
- Information on current litigation in which the bidder is involved in the format provided at TECH FORM – 9.
- The proposed methodology and program of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones in the format provided at TECH FORM – 8A, TECH FORM – 8B, TECH FORM – 8C and TECH FORM – 8D.

[6] For works of similar nature definition refer Clause 1.4.2.3 of ITB

SECTION 4

4 PART-I: GENERAL CONDITIONS OF CONTRACT (GCC)

A. General

4.1 Definitions

4.1.1 In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:

4.1.1.1 Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

4.1.1.2 Compensation Events are those defined in Clause 4.41 hereunder.

4.1.1.3 Completion Date is the date of completion of the Works as certified by the Engineer, in accordance with Clause 4.50 of GCC.

4.1.1.4 Contract is the Contract between/among the Employer, the successful Bidder, Shillong Smart City Limited (SSCL) and any other Department/Agency of Govt. of Meghalaya associated with the Project to execute and complete the Works. It consists of the documents listed in Clause 4.2.3.

4.1.1.5 Contract Data defines the documents and other information, which comprise the Contract.

4.1.1.6 Contractor is a person or corporate body or a Joint Venture or Consortium or Association who's bid to carry out the Works, including routine maintenance, has been accepted by the Employer.

4.1.1.7 Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.

4.1.1.8 Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

4.1.1.9 Days are calendar days; months are calendar months.

4.1.1.10 A Defect is any part of the Works not completed in accordance with the Contract.

4.1.1.11 Defects Liability Certificate is the certificate issued by Engineer, after the Defect Liability Period has ended and upon correction of Defects by the Contractor.

4.1.1.12 Defects Liability Period is one year calculated from the date of issue of Completion Certificate.

4.1.1.13 Drawings include calculations and other information provided or approved by the Engineer for the execution of the Contract.

4.1.1.14 Employer is the party as defined in the Contract Data, who employs the Contractor to carry out the Works. The Employer may delegate any or all functions to a person or body nominated by him for specified functions.

4.1.1.15 Engineer is the Employer or his authorized representative.

4.1.1.16 Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

4.1.1.17 Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.

4.1.1.18 Intended Completion Date is as specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.

4.1.1.19 Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.

4.1.1.20 Site is the area defined as such in the Contract Data.

4.1.1.21 Site Investigation Reports are those that were included in the bidding documents and are reports about the surface and subsurface conditions at the Site.

4.1.1.22 Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

4.1.1.23 Start Date is given in the Contract Data. It is the date when Notice to Proceed is issued by the Employer. It does not necessarily coincide with any of the Site Possession Dates.

4.1.1.24 A Sub-contractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the construction work in the Contract, which includes work on the Site.

4.1.1.25 Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

4.1.1.26 A Variation is an instruction given by the Engineer, which varies the Works.

4.1.1.27 Works, as defined in the Contract Data, are what the Contract requires the Contractor to construct, upgrade/improve, supply, erect, test, commission and hand over to the Employer. Routine maintenance is defined separately.

4.1.1.28 Plant is any integral part of the Works that shall have a mechanical, electrical, electronic, chemical, or biological function.

4.2 Interpretation

4.2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.

4.2.2 If sectional completion is specified in the Contract Data, the Conditions of Contract, or anywhere else in the Bidding Document, the same shall apply to the specified section of the Works.

4.2.3 The documents forming the Contract shall be interpreted in the following order of priority:

a. Agreement,

b. Notice to Proceed with the Work,

c. Letter of Acceptance,

d. Contractor’s Bid,

e. Contract Data,

f. Part II Special Conditions of Contract,

g. Part I General Conditions of Contract,

h. Scope of Work and Technical Specifications,

i. Drawings,

j. Bill of Quantities, and

k. Any other document listed in the Contract Data.

4.3 Language and Law

4.3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.

4.4 Engineer's Decisions

4.4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer. However, if the Engineer is required under the rules and regulations and orders of the Employer to obtain approval of some other authorities for specific actions, he will so obtain the approval.

4.4.2 Except as expressly stated in the Contract, the Engineer shall not have any authority to relieve the Contractor of any of his obligations under the contract.

4.5 Delegation

4.5.1 The Engineer, with the approval of the Employer, may delegate any of his duties and responsibilities to other people, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

4.6 Communications

4.6.1 All Certificates, notices or instructions to be given to the contractor by Employer / Engineer shall be sent on the address or contact details given by the contractor in Section 7 - Form of Bid. The address and contact details for communication with the Employer/ Engineer shall be as per the details given Contract Data to GCC. Communications between parties that are referred to in the conditions shall be in writing. The Notice sent by Facsimile (fax) or other electronic means shall be effective on confirmation of the transmission. The Notice sent by Registered post or Speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service.

4.7 Subcontracting

4.7.1 No sub-contracting is allowed.

4.8 Other Contractors

4.8.1 The contractor shall co-operate and share the site with other contractors, as may be engaged by Public authorities and the employer between the dates given in the schedule of other contractors, as referred to in the Contract Data. The contractor shall also provide facilities and services for them as described in the schedule. The

employer may modify the schedule of other contractor and shall notify the contractor of any such modification.

4.8.2 The contractor should take up the work in convenient reaches as decided by the Engineer to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other contractors till the completion of the works.

4.9 Personnel

4.9.1 The Contractor shall employ the technical personnel specified in Clause 1.4.4.3b) of the Instructions to Bidders (ITB) or other technical persons approved by the Engineer. The Engineer will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel stated in the Contract Data.

4.9.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Works in the Contract.

4.9.3 The Contractor shall not employ any retired Gazetted officer who has worked in the Departments/Agencies specified in the Appendix to ITB and has either not completed two years after the date of retirement or has not obtained State Government’s permission to employment with the Contractor.

4.10 Employer's and Contractor's Risks

4.10.1 The Employer carries those risks that this Contract states are Employer's risks, and the Contractor carries those risks that this Contract states are Contractor's risks.

4.11 Employer's Risks

4.11.1 The Employer is responsible for the excepted risks which are (a) to provide Good for Construction drawings; b) provide hindrance/encumbrance free site; and (c) financing the project.

4.12 Contractor's Risks

4.12.1 All other risks not covered under Clause 4.11 are the Contractor’s risks.

4.13 Insurance

4.13.1 The Contractor at his cost 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 and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

a) loss of or damage to the Works, Plant and Materials;

b) loss of or damage to Equipment;

c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and

d) Personal injury or death.

4.13.2 Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in Indian Rupees to rectify the loss or damage incurred.

4.13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

4.13.4 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

4.13.5 Both parties shall comply with any conditions of the insurance policies.

4.14 Site Investigation Reports

4.14.1 The Contractor, in preparing the Bid, may rely on any Site Investigation Reports referred to in the Contract Data, supplemented by any other information available to him, before submitting the bid.

4.15 Queries about the Contract Data

4.15.1 The Engineer will clarify queries on the Contract Data.

4.16 Contractor to Construct the Works

4.16.1 The Contractor shall construct the Works (which will also include supply, installation, testing and commissioning in case of electrical works) in accordance with the Specifications and Drawings.

4.16.2 The Contractor shall construct the works by using the equipment as specified (but not limited to) at Clause 1.4.4.3a) of the Instructions to Bidders (ITB) to ensure the quality of works as per specifications.

4.16.3 The Contractor shall deploy manpower as specified at Clause 1.4.4.3b) of the Instructions to Bidders (ITB).

4.17 The Works to be completed by the Intended Completion Date

4.17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

4.18 Approval by the Engineer

4.18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer for approval.

4.18.2 The Contractor shall be responsible for design of Temporary Works.

4.18.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

4.18.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

4.18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

4.18.6 All materials to be used in the project shall be after approval of the Engineer.

4.19 Safety

4.19.1 The Contractor shall be fully responsible for the safety of all activities on the Site.

4.20 Discoveries

4.20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

4.21 Possession of the Site

4.21.1 The Employer shall handover complete or part possession of the site to the Contractor 7 days in advance of construction program. At the start of the work, the employer shall handover the possession of at-least 50% of the site.

4.22 Access to the Site

4.22.1 The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:

a) The Engineer

b) The Employer

c) The Ministry of Housing and Urban Affairs, Government of India.

d) Departments/Agencies of Govt. of Meghalaya: Department of Urban Affairs; Public Works Department (Roads); Public Health and Engineering Department; Meghalaya Power Distribution Corporation Limited (MePDCL)

e) BSNL

f) Shillong Municipal Board (SMB)

g) Project Management Consultant for Shillong Smart City project

h) Any other person/agency authorised by the Employer.

4.23 Instructions

4.23.1 The Contractor shall carry out all instructions of the Engineer, which comply with the applicable laws where the Site is located.

4.24 Dispute Redressal System

4.24.1 If any dispute or difference of any kind what-so-ever shall arise in connection with or arising out of this Contract or the execution of Works, whether before its commencement or during the progress of Works or after the termination, abandonment or breach of the Contract, it shall, in the first instance, be referred for settlement to the Competent Authority (As appointed by Urban Affairs Department, Government of Meghalaya). The Competent Authority shall, within a period of forty-five days after being requested in writing by the Contractor to do so, convey his decision to the Contractor. Such decision in respect of every matter so referred shall, subject to review as hereinafter provided, be final and binding upon the Contractor. In case the Works is already in progress, the Contractor shall proceed with the execution of the Works, including maintenance thereof if applicable, pending receipt of the decision of the competent authority as aforesaid, with all due diligence.

4.24.2 Either party will have the right of appeal, against the decision of the Competent Authority, to the Court of Law in Shillong, Meghalaya, India, if the amount appealed exceeds 2.5% (Two and Half percent only) of the contract price.

4.25 Procedure for Resolution of Disputes

4.25.1 The Competent Authority mentioned in Clause 4.24.1 of GCC above shall give a decision in writing within 45 days of receipt of a notification of a dispute.

4.25.2 Either party may refer a decision of the Competent Authority to a Court of Law in Shillong, Meghalaya, India within 28 days of the Competent Authority's written decision.

4.25.3 Performance under the contract shall continue even after reference to the Court of Law and payments due to the Contractor by the Employer shall not be withheld unless they are the subject matter of the Court proceedings.

4.26 B. Time Control

4.27 Programme

4.27.1 Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order and timing for all the activities in the Works, along with monthly cash flow forecasts for the construction of works.

4.27.2 The Contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/ equipment being placed in field laboratory and the location of field laboratory along with the Program. The Engineer shall cause these details to be verified at each appropriate stage of the program.

4.27.3 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.

4.27.4 The Contractor shall submit to the Engineer for approval an updated Program at intervals of 30 Days no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Program within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.

4.27.5 The Engineer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program shall show the effect of Variations and Compensation Events.

4.28 Extension of the Intended Completion Date

4.28.1 The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining Works, which would cause the Contractor to incur additional cost.

4.28.2 The Engineer shall decide whether and by how much time to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

4.29 Delays Ordered by the Engineer

4.29.1 The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totalling more than 30 days will require prior written approval of the Employer.

4.30 Management Meetings

4.30.1 The Engineer may require the Contractor to attend management meetings. The business of a management meeting shall be to review the plans for the Works.

4.30.2 The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

C. Quality Control

4.31 Identifying Defects

4.31.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

4.32 Tests

4.32.1 For Carrying out mandatory tests as prescribed in the specifications, the Contractor shall establish field laboratory at the location decided by Engineer. The field laboratory will have minimum equipment as specified in Appendix to ITB. The contractor shall be solely responsible for: (a) Carrying out the mandatory tests prescribed in the Specifications; and (b) For the correctness of the test results, whether preformed in his laboratory or elsewhere.

4.32.2 If the Engineer instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples.

4.33 Correction of Defects noticed during the Defect Liability Period for one year

4.33.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period as specified in the Contract Data, which begins at Completion of work. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

4.33.2 Every time notice of Defect/Defects is given; the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer’s notice.

4.33.3 The Request for Inspection (RFI) system will be followed for execution of work.

4.34 Uncorrected Defects

4.34.1 If the Contractor does not correct a Defect pertaining to the Defect Liability Period under Clause 4.33 of GCC to the satisfaction of the Engineer, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount, on correction of the Defect.

D. Cost Control

4.35 Bill of Quantities

4.35.1 The Bill of Quantities shall contain items for the construction, supply, installation, testing, and commissioning, to be done by the Contractor.

4.35.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item for the construction works.

4.36 Variations/Deviations and Extra Items

4.36.1 The Engineer shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

4.36.2 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:

a) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
b) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer.

4.36.3 Extra items

a) In the case of extra item(s) (items that are completely new, and are in addition to the items contained in the contract) that are available in the latest Meghalaya PWD or MePDCL or PHED or any Government of Meghalaya Department/Agency Schedule of Rates, the rate shall be governed by those specified in the latest SoR as mentioned after applying appropriate adjustment as per procedure specified in Clause 4.37 of GCC.
b) In the case of extra item(s) that are not available in the latest SoR as mentioned, the contractor may within fifteen days of receipt of order or occurrence of the item(s) submit market rate, claim rates, supported by proper analysis which shall include invoices, vouchers etc. and Manufacturer's specification for the work failing which the rate approved later by the Engineer shall be binding and the Engineer shall within prescribed time limit of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined, failing which it will be deemed to have been approved Deviation.

4.36.4 Substituted items

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para:

a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be

substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

4.36.5 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Clause 4.36.7, and the Engineer shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

4.36.6 Any operation incidental to or necessarily has to be in contemplation of tenderer while quoting tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

4.36.7 In reference to the preceding paragraphs under this Clause, the variation duly approved by the Engineer shall be as stipulated in the Contract Data.

4.37 Payments for Variations

4.37.1 In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in the Contract Data, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer shall within prescribed time limit of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates (as per invoice, vouchers from the manufacturers or suppliers submitted by the agency and duly verified by the Engineer or his representative) and the contractor shall be paid in accordance with the rates so determined.

4.37.2 The prescribed time limit for finalizing rates for Extra Item(s), Substitute Item(s) and Deviated Quantities of contract items is within 45 days after submission of proposal by the contractor without observation of the Engineer.

4.38 Cash Flow Forecasts

4.38.1 When the Program is updated, the Contractor shall provide the Engineer with an updated cash flow forecast.

4.39 Payment Certificates

4.39.1 The payment to the contractor will be as follows for construction work:

a) The Contractor shall submit to the Engineer fortnightly/ monthly statements of the value of the work executed less the cumulative amount certified previously supported with detailed measurement of the items of work executed in measurement books authorized by the Engineer.
b) The Engineer shall check the Contractor's fortnightly/monthly statement within 14 days and certify the amount to be paid to the Contractor.
c) The value of work executed shall be determined, based on measurements by the Engineer.
d) The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
e) The value of work executed shall also include the valuation of Variations and Compensation Events.
f) The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
g) The Payment of final bill shall be governed by the provisions of Clause 4.52 of GCC.

4.40 Payments

4.40.1 Payments shall be adjusted for deductions for advance payments security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Engineer shall pay the Contractor the amounts he had certified within 21 days of the date of each certificate.

4.40.2 The Employer may appoint another authority, as specified in the Contract Data (or any other competent person appointed by the Employer and notified to the contractor) to make payment certified by the Engineer.

4.40.3 Items of the Works for which no rate or price has been entered in the Bill of Quantities, will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

4.41 Compensation Events

4.41.1 The following shall be Compensation Events unless they are caused by the Contractor:

a) The Engineer orders a delay or delays exceeding a total of 30 days.
b) The effects on the Contractor of any of the Employer's Risks.

4.41.2 If a Compensation Event would prevent the Works being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Engineer shall decide whether and by how much the Intended Completion Date shall be extended.

4.42 Tax

4.42.1 The rates quoted by the Contractor shall be deemed to be inclusive of the sales and other levies, duties, royalties, cess, toll, taxes (including GST) of Central and State Governments, local bodies and authorities that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

4.43 Price Adjustment

4.43.1 Price adjustment will be applicable only after the scheduled period for completion and on the balance works. Bidders are required to quote accordingly. Price adjustment after the scheduled completion period[7] shall be governed by the subsequent clause.

4.43.2 Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants and other inputs to the works in accordance with the principles and procedures outlined below. A table of adjustment data is included in the Contract Data which indicates the coefficients of various inputs and the sources of indices for various schedules of BOQ. If the Contract Data does not include a table of adjustment data this sub clause shall not apply and there shall be no price adjustment.

a) The price adjustment according to sub para (d) below, shall apply for the work done from the scheduled completion date upto a date as approved by the Engineer. If there is delay in completion beyond such date for reasons attributable to the contractor, the Price Adjustment for the work carried out during such period, for reasons attributable to the Contractor, shall be regulated by sub-para (e) below.
b) The Contract Price shall be adjusted to take account of any increase or decrease in cost after the base date, which affect the Contractor in performance of obligations under the Contract.
c) The total value (R) of the work done during the specified period shall be as under:

$R = SUM (R_{S1} + R_{S2} + R_{S3} + \ldots\ldots R_{Sn})$,

Where,

'Rsn' is the value of work done during the specified period to which the price adjustment shall be applied for the relevant schedule of Bill of Quantities (BOQ) specified in the Contract Data during the specified period, and represented as under:

Rsn = (Vsn + Ssn) minus (amount of secured advance recovered in the same period + value of works executed under variations for which price adjustments will be worked separately based on terms mutually agreed between the Engineer and the Contractor)

Where,

Vsn is the total value of work done during the specified period for the respective schedule of BOQ, and

Ssn is the secured advance paid during the specified period for the respective schedule of BOQ.

The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate schedule of BOQ and certified in Payment Certificates, shall be determined from formulae which shall be of the following general type:

$P_n = a + b\, L_n/L_o + c\, E_n/E_o + d\, M_n/M_o + \ldots\ldots$

[7] subject to such extension are granted by the Employer and the delay is not attributable to the Contractor, in which case, Clause 4.41 of GCC shall be applicable

Where,

"P_n" is the adjustment multiplier to be applied to the value of the work done during the period "n", this period being a month unless otherwise stated in the Contract Data.

"a" is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

"b", "c", "d",… are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;

"L_n"[*Labour*], "E_n"[*Equipment*], "M_n"[*Material*], ….are the current cost indices or reference prices for period "n", each of which is applicable to the relevant tabulated cost element [*Labour, Equipment, Steel, Cement, Fuel/Lubricants, Bitumen, others*] on the date, specified in the Table-2 of Adjustment Data, prior to the last day of the period (to which the particular Payment Certificate relates);

and

"L_o", "E_o", "M_o" ….are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

d) The cost indices or reference prices stated in the tables of adjustment data given in Contract Data shall be used. The base date shall be the deadline for the submission of bids.
e) If the Contractor fails to complete the Works within the Intended Completion date, adjustment of prices thereafter shall be made using either:

   i. index or price applicable for each cost element tabulated in the tables of adjustment data on the specified date prior to the expiry of the Intended Completion Date, or

   ii. the current index or price applicable for the period in question whichever is more favourable to the Employer.

f) The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be varied by the Engineer if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.
g) Unless otherwise stated in the Contract Data, the Price adjustment shall be done in each monthly Interim Payment Certificate [IPC]. The coefficients and indices are given in the Tables of Adjustment Data in Contract Data.

4.44 Currency

4.44.1 All payments will be made in Indian Rupees.

4.45 Security Deposit/ Retention Money and Release of Performance Security and Security Deposit/ Retention Money

4.45.1 The Employer shall retain security deposit of 5% of the amount from each payment due to the Contractor until completion of the whole of the construction Work.

4.45.2 On the completion of the whole of the construction Work half the total amount retained as Security Deposit is repaid and half when the defect liability period has passed and the Engineer has certified that all defects notified by the Engineer to the contractor before the end of his period have been corrected.

4.45.3 The performance security as specified in Clause 1.33 of ITB will be repaid to the contractor when the period of one year fixed or defect liability period is over and the Engineer has certified that the contractor has satisfactorily carried out the Works.

4.46 Liquidated Damages

4.46.1 The Contractor shall pay liquidated damages to the Employer at the rate per week or part thereof stated in the Contract Data for the period that the Completion Date is later than the Intended Completion Date. Liquidated damages at the same rate shall be withheld if the Contractor fails to achieve the milestones prescribed in the Contract Data. However, in case the Contractor achieves the next milestone the amount of the liquidated damages already withheld shall be restored to the Contractor by adjustment in the next payment certificate. The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's other liabilities.

4.46.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

4.47 Advance Payment

4.47.1 **Secured Advance on materials:** The contractor, on signing an indenture in the form to be specified by the Engineer, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials or an amount not exceeding 75% of the material element cost in the tendered rate of the finished item of the work, whichever is lower, which are in the opinion of the Engineer non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer shall be final and binding on the contractor in this matter.

No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

The Contractor is to use the advance payment only to pay for materials required specifically for execution of works. The Contractor shall demonstrate that the advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

4.47.2 **Mobilization Advance:** Mobilization Advance not exceeding 5% of the contract price may be given, if requested by the contractor in writing within one month from the date of issue of notice to proceed. Such advance shall be in two or more instalments to be determined by the Engineer at his sole discretion. The first instalment of such advance shall be released by the Engineer to the contractor on a request made by the contractor to the Engineer. The second and subsequent instalments shall be released by the Engineer only after the contractor furnishes a proof of the satisfactory utilization of the earlier instalment to the entire satisfaction of the Engineer.

Before any instalment of advance is released, the contractor shall execute an Unconditional Bank Guarantee in the prescribed format specified in the Bidding Document by a Nationalized Bank/Scheduled Commercial Bank acceptable to the Employer in amounts equal to the advance payment and valid till the period of recovery. The said Bank Guarantee shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.

Recovery of such sums advanced shall be made by the deduction from the contractor's bills commencing after first ten percent (10%) of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty percent (80%) of the gross value of the contract is executed and paid.

No account shall be taken of the advance payment or the repayment in assessing valuation of work done, variations, price adjustments, Compensation events or liquidated damages

If the circumstances are considered reasonable by the Engineer, the period mentioned above may be extended at the discretion of the Engineer, upon request by the contractor in writing for grant of mobilization advance.

The Contractor is to use the mobilization advance payment only for mobilization purpose. The Contractor shall demonstrate that the advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

4.48 Securities

4.48.1 The Performance Security as specified in Clause 1.33 of ITB shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the form given in Section 7 and by a Nationalized Bank/Scheduled Commercial Bank. The Performance Security shall be valid until a date 45 days from the date of expiry of Defect Liability Period.

4.49 Cost of Repairs

4.49.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at his cost if the loss or damage arises from the Contractor's acts or omissions.

4.49.2 Any future interventions by any other agencies working in the subject area, the Employer will assist the contractor to recover the resurfacing/repairing costs incurred due to additional interventions from the respective department.

E. Finishing the Contract

4.50 Completion of Construction

4.50.1 The contractor shall request the Engineer to issue a certificate of completion of the construction of the works, and the Engineer will do so upon deciding that the works is completed.

4.51 Taking Over

4.51.1 The Employer shall take over the works within seven days of the Engineer issuing a certificate of completion of works.

4.52 Final Account

4.52.1 The contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the contract within 21 days of issue of certificate of completion of works. The Engineer shall certify any payment that is due to the Contractor if it is correct and complete. If the account is not correct or complete, the engineer shall issue within 42 days a schedule that states the scope of the corrections or additions that are necessary. If the account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the contractor and issue a payment certificate within 28 days of receiving the Contractor's revised account.

The payment of final bill for construction of works will be made within 21 days thereafter.

4.52.2 In case the account is not received within 21 days of issue of Certificate of Completion as provided in Clause 4.50 above, the engineer shall proceed to finalise the account and issue a payment certificate within 28 days. The payment of final bill for construction of works will be made within 21 days thereafter.

4.53 Operating and Maintenance Manuals

4.53.1 If "as built" Drawings and/or Operating and Maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

4.53.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

4.54 Termination

4.54.1 The Employer may terminate the Contract if the Contractor causes a fundamental breach of the Contract.

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

a) The Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Engineer;
b) The Contractor is declared as bankrupt or goes into liquidation other than for approved 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 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 Clause 4.46 of GCC;
e) The Contractor fails to provide insurance cover as required under Clause 4.13;
f) If the Contractor, in the judgement of the Employer, has engaged in the corrupt or fraudulent practice in competing for or in executing the Contract. For the purpose of this clause, “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution. “Fraudulent Practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid process at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition. The Contractor shall execute the Integrity Pact as per format given in TECH FORM – 11.
g) If the Contractor has not completed at least 1/3rd of the value of Work required to be completed after half of the completion period has elapsed;
h) If the Contractor fails to set up a field laboratory with the prescribed equipment, within the period specified in the Clause 4.32 of GCC; and
i) Any other fundamental breaches as specified in the Contract Data.
j) If the Contractor fails to deploy machinery and equipment or personnel as specified in the Contract Data at the appropriate time.

4.54.3 Notwithstanding the above, the Employer may terminate the Contract for convenience or for other reasons beyond its control.

4.54.4 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.

4.55 Payment upon Termination

4.55.1 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 and Materials ordered less liquidated damages, if any 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 Contract Data. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered from the security deposit, and performance security. If any amount is still left un-recovered it will be a debt payable to the Employer.

4.55.2 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.

4.56 Property

4.56.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer for use for completing balance construction work if the Contract is terminated because of the Contractor's default, till the Works is completed after which it will be transferred to the Contractor and credit, if any, given for its use.

4.57 Releases from Performance

4.57.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of the Employer or the Contractor, the Engineer 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 the certificate and for any work carried out afterwards to which a commitment was made.

F. Other Conditions of Contract

4.58 Labour

4.58.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

4.58.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

4.59 Compliance with Labour Regulations

4.59.1 During continuance of the Contract, the Contractor shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in Appendix-1 to Part I General Condition of Contract. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye

laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

4.59.2 The employees of the Contractor in no case shall be treated as the employees of the Employer at any point of time.

4.60 Drawings and Photographs of the Works

4.60.1 The contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work. No separate payment will be made to the contractor for this.

4.60.2 The Contractor shall not disclose details of Drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, expect those permitted under this Bidding Document, shall be taken by the Contractor without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

4.61 The Apprentices Act 1961

4.61.1 The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

4.62 Criminals are prohibited from bidding

4.62.1 Any bidder who has been convicted by a court of law for criminal activities including but not limited to organized crime or gangster activities or Mafia or Goonda or Anti-social activity in the last 5 years (till the date of NIT) is not eligible to bid. If it is established that any bidder has been convicted by a court of law, his bid shall be automatically cancelled.

4.62.2 The bidder has to produce Solvency certificate, self-declaration affidavit (on the prescribed proforma, which is attached with the bid document) etc., issued by the competent authority in original with bid document.

4.63 Force Majeure (FM) Clause

4.63.1 Conditions beyond control of either parties like war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics, strikes, lockouts or acts of God come under the legal concept of Force Majeure (FM). Delays in performance of contractual obligations under influence of FM conditions are condonable by the other party without any right to termination or damages, provided, notice of the happening of any such event is given by the

affected party to the other within 30 (thirty) days from the date of occurrence. Works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. However, if such event continues for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party.

5 CONTRACT DATA TO GENERAL CONDITIONS OF CONTRACT (GCC)

<table>
<tr><th>Clause Reference of GCC</th><th>Description</th></tr>
<tr><td>4.1.1.14</td><td>The Employer is
The Chief Engineer (NH), PWD (Roads)
Lower Lachumiere, Shillong-793001, Meghalaya
Email: acepwdstroads@gmail.com</td></tr>
<tr><td>4.1.1.18</td><td>The Intended Completion Date for the whole of the Works is Twenty Four (24) months from the date of issue of Notice to Proceed.</td></tr>
<tr><td>4.1.1.20</td><td>The Site is located: within the limit of “Area Based Development” of Shillong Smart City</td></tr>
<tr><td>4.1.1.23</td><td>The Start Date shall be as defined in the Notice to Proceed with the work</td></tr>
<tr><td>4.1.1.27</td><td>The Works consist of “civil works” and “electrical works” as part of Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong (Meghalaya)</td></tr>
<tr><td>4.3</td><td>The law which applies to the Contract is the law of Union of India.
The language of the Contract documents is English.</td></tr>
<tr><td>4.7</td><td>Sub-contracting not allowed</td></tr>
<tr><td>4.8.1</td><td>The Schedule of Other Contractors – NA</td></tr>
<tr><td>4.13.1</td><td>Amount and deductible for insurance are:
<table>
<tr><th>SN</th><th>Particulars</th><th>Minimum Cover for Insurance</th><th>Maximum Deductibles for Insurance</th></tr>
<tr><td>1.</td><td>Work & Plant & Materials</td><td>Equal to Contract Amount</td><td>0.4% of Contract Amount</td></tr>
<tr><td>2.</td><td>Loss or Damage to Equipment</td><td>10% of Contract Amount</td><td>0.4% of Contract Amount</td></tr>
<tr><td>3.</td><td>Other Property (unlimited occurrences)</td><td>5% of Contract Amount</td><td>0.4% of Contract Amount</td></tr>
<tr><td>4.</td><td>For other people (unlimited occurrences)</td><td>₹ 25 lacs</td><td>-</td></tr>
<tr><td>5.</td><td>For contractor’s employees</td><td>In accordance with the statutory requirements applicable in India</td><td></td></tr>
</table>
The Contractor shall promptly notify the Engineer of each claim made under the</td></tr>
</table>

	Third Party Liability coverage, and shall renew the Third Party Insurance after each such occurrence in order to maintain the number of covered occurrences as specified above.
4.14.1	Site Investigation Reports: As contained in the Detailed Project Report
4.27.1	The Contractor shall submit for approval a Program for the Works within Fifteen days (15) from the date of the Letter of Acceptance.
4.27.4	The period between Program updates is Thirty (30) days.
4.27.4	The amount to be withheld for late submission of an updated Program is ₹5,000/- per day
4.33	Defect Liability Period is 365 days or 1 year from the date of issue of Completion Certificate
4.36.7	The Employer to decide deviation up to 1.5 times of tendered amount.
4.37.1	The Employer to decide deviation up to 1.5 times of tendered amount.
4.40.1	The authorized person to make payments is The Chief Engineer(NH), PWD(Roads), Meghalaya
4.43	Price Adjustment The Price Adjustment shall be done in accordance with Tables 1&2 of Adjustment Data given in Appendix 2. The base and current price of the following items shall be based on the source indicated below: Diesel: Selling price of IOC depot at Guwahati. Bitumen: Selling Price of Bitumen from the IOC refinery at Guwahati. The price Adjustment will be done monthly.
4.45.1	Liquidated Damages: (a) Amount of liquidated damages for delay in completion works For whole of work 1 percent of the Initial Contract Price, rounded off to the nearest thousand, per week. (b) Maximum limit of liquidated damages for delay in completion work. 10 percent of the Initial Contract Price rounded off to the nearest thousand.
4.45.1	Milestones to be achieved during the contract period 1/8th of the value of entire contract work up to 1/4th of the period allowed for completion of construction 1/3rd of the value of entire contract work up to 1/2nd the period allowed for completion of construction 3/4th of the value of entire contract work up to 3/4th of the period allowed for completion of construction
4.53.1	“As-built” drawings and the Schedule of Operating and Maintenance Manuals shall be provided by the Contractor

	The date by which “as-built” drawings (in scale as directed) in electronic copy (AutoCAD and PDF format) and hard copy (2 sets) are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be.
4.53.2	The amount to be withheld for non-compliance to the Clause by the date required is Rs. One Lakh. Thereafter, one lakh per week subject to maximum of Rs. 50 lakh.
4.53.2(j)	As defined by Competent Authority
4.54.1	The percentage to apply to the value of the work not completed representing the Employer’s additional cost for completing the Works shall be 20%.

6 Appendix-1 to Part I General Condition of Contract

6.1 Salient features of some major labour laws applicable to construction works

6.1.1 Workmen Compensation Act 1923

The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

6.1.2 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 the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days"(say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.

6.1.3 Employees P.F. and Miscellaneous Provision Act 1952

The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:

a) Pension or family pension on retirement or death as the case may be.

b) Deposit linked insurance on the death in harness of the worker.

c) Payment of P.F. accumulation on retirement/death etc.

6.1.4 Maternity Benefit Act 1951

The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

6.1.5 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 prescribed minimum (say 20) or more contract labour.

6.1.6 Minimum Wages Act 1948

The Contractor is 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. Constructions of buildings, roads, runways are scheduled employment.

6.1.7 Payment of Wages Act 1936

It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

6.1.8 Equal Remuneration Act 1979

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.

6.1.9 Payment of Bonus Act 1965

The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.

6.1.10 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.

6.1.11 Industrial Employment (Standing Orders) Act 1946

It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get these certified by the designated Authority.

6.1.12 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.

6.1.13 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 regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.

6.1.14 Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979

The Act is applicable to an establishment which employs prescribed minimum (say, five) 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, Travelling expenses from home up to the establishment and back etc.

6.1.15 The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996

All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this

Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified 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 workplace etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

6.1.16 Factories Act 1948

The Act lays down the procedure for approval of plans before setting up a factory, 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 the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

6.2 Salient features of some of the major laws that are applicable for protection of environment and conservation of heritage

6.2.1 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.

6.2.2 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 stipulate the norms and compliance requirements of the employer and any contractor on behalf of the employer.

6.2.3 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.

6.2.4 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.

6.2.5 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.

6.2.6 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 mattes 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.

6.2.7 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.

6.2.8 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.

6.2.9 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.

6.2.10 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.

6.2.11 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, 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.

6.2.12 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.

6.2.13 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.

6.2.14 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.

6.2.15 The Petroleum Rules, 2002

This provides for safe use and storage of petroleum products, and will need to be complied by the contractors.

6.2.16 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.

6.2.17 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.

6.2.18 Hazardous & Other Wastes (Management and Trans boundary 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.

6.2.19 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.

6.2.20 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-modeling, 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.

6.2.21 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.

6.2.22 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.

6.2.23 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.

6.2.24 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.

6.2.25 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.

6.2.26 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.

6.2.27 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 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 thepermit.

6.2.28 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 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.

6.2.29 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.

6.2.30 National Building Code of India, 2016 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.

7 Appendix-2 to Part I General Condition of Contract

7.1 Tables of Adjustment Data

(Cl. 4.43 of GCC)

TO BE WORKED OUT PACKAGE TO PACKAGE, Employer may work out for 4 – 5 packages

Table 1: Coefficients governing the adjustment for changes in cost.

S. No.	Coefficients Name	Symbol									
			S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
1.	Fixed	a	15	15	15	15	15	15	15	15	15	15
2.	Labour [L]	b	20	35	20	10	10	10	25	15	20	25
3.	Steel [S]	c	-	-	-	-	-	5	-	2	3	-
4.	Cement [C]	d	-	-	-	2	-	10	-	5	7	-
5.	Plant & Equipment spares [E]	e	20	15	28	25	20	15	-	8	25	-
6.	Diesel and Petroleum products [D]	f	30	15	25	18	15	10	-	5	10	-
7.	Bitumen [B]	g	-	-	-	-	15	-	-	-	-	-
8.	Others[O]	0	15	20	12	30	25	35	60	50	20	60
	Total		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

[*Fixed element is normally 15%*]

BOQ SCHEDULES:

[The following Schedules are for example only. The schedules may be modified and specified as appropriate for each work]

Schedule 1: General Item

Schedule 2: Site Clearance, Dismantling,

Schedule 3: Earthwork

Schedule 4: Road Works – Non-Bituminous

Schedule 5: Road Works – Bituminous

Schedule 6: Drainage and protection works

Schedule 7: Road safety Measures

Schedule 8: Bus Bay and truck lay Bye.

Schedule 9: Non-Schedule/Special Provisions

Schedule 10: Environmental Works

7.2 Table 2: Cost Indices and Reference Prices (applicable for specific items) for adjustment in contract prices [as per GCC Cl. 4.43].

WPI with base 2004-2005 = 100 on the Base Date

Base Date = Quarter of the calendar year falling just after the Deadline for submission of bids

S. No.	Cost Element	Symbol	Indices or Cost on the Base Date	Index for adjustment	Sources of Index
[1]	[2]	[3]	[4]	[5]	[6]
1.	Fixed	a			
2.	Labour	b	Lo- all India average Consumer Price Index (CPI) Number for Industrial Workers for Guwahati Centre8 (Base 2001 = 100) on the base date.	Ln-CPI for the quarter end for which the IPC is related	Labour Bureau, Ministry of Labour and Employment, Government of India.
3.	Steel	c	So – Whole-sale Price Index (WPI) for Steel [*Steel Long]*	Sn-WPI for the quarter end which is two months prior to the month to which IPC is related	Economic Advisor, Ministry of Commerce and Industry, Government of India.
4.	Cement	d	Co-WPI for Grey Cement	Cn-WPI for the quarter end to which IPC is related,	Economic Advisor, Ministry of Commerce and Industry, Government of India
5.	Plant & Equipment spares	e	Eo-WPI for "Construction machinery "	En – WPI for the quarter end to which IPC is related	Economic Advisor, Ministry of Commerce and Industry, Government of India
6.	Diesel9	f	D_o-Unit Cost from the identified depot on the base date	D_n-Unit Cost for on the first day of the quarter to which the IPC relates	From the Guwahati Depot
7.	Bitumen10	g	B_o-Unit Cost from the identified refinery on the base date	B_n- Cost per unit quantity on the first day of the quarter in which the material is brought to site or two months prior to the date to which IPC is related	From Guwahati Refinery
8.	Others	h	O_o- All India Wholesale Price	O_n- All India WPI for all commodities for the quarter	Economic Advisor, Ministry of Commerce

8 The Centre to be specified should be the relevant one for which CPI is published by the Labour Bureau.

9 The Contract Data specifies the identified depot for the rate of diesel for the base date and the applicable date for price adjustment.

10 The Contract Data specifies the identified refinery for the rate of Bitumen for the base date and the applicable date for price adjustment.

			Index(WPI) for all commodities	end to which IPC is related	and Industry, Government of India

IPC – Interim Payment Certificate

Note: For electrical works, basis of price adjustment will be in accordance with MePDCL's prevailing practice or market rate analysis, as directed by the Engineer.

8 PART – II SPECIAL CONDITIONS OF CONTRACT

These Special Conditions of Contract (SCC) shall be read in conjunction with General Conditions of Contract including Contract Data and all Appendix, Instructions to Bidders (ITB) including Appendix to ITB, Notice Inviting Tenders (NIT), Bill of Quantities (BOQ), Tender Drawings, Scope of Work and Technical Specifications and other Documents as part of the Bidding Documents.

8.1 Protection of Environment:

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation. During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority. The contractor shall submit Environmental Management Plan (EMP) and its monthly compliances.

Monitoring Requirement & Specifications

SN	Monitoring Requirements	Specification	Responsible agency
1	Noise levels at the construction sites (only during construction period)	Monitoring at all location's hourly basis for 24-hour period. Once every season of the year during construction period.	Contractor
2	Disposal of construction debris	Periodic inspection at sites for construction debris for safe collection and disposal to identified land fill sites.	Contractor
3	Traffic and Transportation	Measures for diverting the traffic during construction across roads adjacent to the construction site (if required)	Contractor in consultation with PWD(Roads) and Shillong Traffic Police
4	Domestic sewage and refuse management at the labour camps and construction sites	Check for adequacy of sanitation arrangements at the labour camps	Contractor
5	Water Pollution	Check for: • Blockage of flowing water which may lead to stagnation of water • Soil erosion due to construction activities leading to contamination and siltation of water bodies.	Contractor

SN	Monitoring Requirements	Specification	Responsible agency
		• Water contamination due to use of fuel and lubricants at the construction sites.	
6	Procurement of construction material	Check that procurement of construction materials should be only from permitted sites and quarries.	Contractor

Location of Noise monitoring shall be wherever the contractor decides to locate the equipment yard. In case of noise levels causing disturbance to the sensitive receptors, management measures as suggested in the EMP shall be carried out.

The implementation of Mitigation Measures is the responsibilities of the Contractor /Employer. However, it may be noted that implementation of all the measures is full responsibility of Contractor. The Employer would be responsible only for monitoring/supervision/guidance, etc.

8.2 Safety

The Contractor shall be responsible for the safety of all activities on the Site. The activities shall include, but not limited to, excavation, trenching, demolition, working platforms, gangways, mixing asphaltic materials, electric arc/ gas welding, use of hoist and construction machinery etc. The Contractor shall be governed by relevant provisions of safety code and as directed by the Engineer. The contract rates shall be deemed to include all costs of compliance with safety requirements in the Specifications. The rates for all items given in BOQ shall be deemed to include all costs on account of traffic diversions (if required) and all such hidden assessment/ items, which are not listed to entire satisfaction of the Engineer.

Some of the common safety rules to be followed during working are as follows:

i. Nobody is allowed to enter at construction site without Safety Shoe.

ii. No entry at work area without Safety helmet & chin strap in place.

iii. Do not exceed the speed limit 15 Kmph within Premises or site.

iv. No debris obstacles allowed on the roads & passages.

v. Maintain good Housekeeping at work site.

vi. No photography/ Videography allowed without permission.

vii. All Site supervisors & engineers must be imparted structured training on construction safety before start of the job & record to be maintained.

viii. Availability of qualified & trained Site Engineer at site during all working hours.

ix. Site Safety training to be imparted to all workers & plan to be made to cover every worker.

x. Tools box talk (5-15 minutes) by supervisor prior to commencement of any job.

xi. All accidents / incidents (Near Miss) to be reported & investigated (formats & procedure should be submitted to the Engineer for approval).

xii. Daily Safety Checking by Each Site Engineer along with Safety engineer.

xiii. Weekly co-ordination meeting of all Safety engineers with the Employer's representative.

xiv. Monthly safety meeting with Site In-charges.

xv. All Safety equipment must be ISI marked & checked by Safety officer before use.

xvi. LPG cylinders not allowed for gas cutting.

xvii. Separate waste bins to be used for flammable & non-flammable material.

xviii. Safety awareness programs for workers by display of boards, posters, competitions, talks etc.

xix. Deployment of Safety Supervisors for every 250 workers and part thereof at work site.

xx. Display of List of First Aid trained persons.

xxi. Testing certificates for lifting tools & tackle.

xxii. Provision & maintenance of fire extinguishers at construction site & material stores.

xxiii. Display of emergency telephone numbers at various locations.

xxiv. For work in confined space use 24 V lamp fitting & use tools with air motors or electric tools with max. 24 V.

xxv. For confined space entry, Gas test must be done before & at regular intervals.

xxvi. Checking & tag of equipment like grinding machine, welding machine, gas cutting set etc. by supervisors before use.

Damages: The work is in the urban area and there are already laid underground utilities in the area of the project work. The contractor will ensure that no damages are caused during execution of work to any property, government or semi government or private. However, if during execution, any public utility services such as cables, pipes, or property (private` or government or semi government etc.) such as boundary wall, gate, fencing, walls of building etc. are damaged by the contractor or its representative, the same shall be repaired or replaced or reconstructed and shall be put into use by the contractor at his own cost for which no extra payment shall be made by the Employer. If the contractor does not repair or replace the damaged utility or property, the Employer may request to the line department or owner of the property to repair or replace at the risk and cost of the Contractor and the amount paid to the line department or the owner of the property by the Employer or the invoice submitted by line department or the owner of the property shall be recovered from the Contractor's RA or Final bill or from the performance security or in combination of all, as per the amount to be recovered, as the case may be.

8.3 Defect Liability Period

8.3.1 The Employer shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Employer shall afford all reasonable opportunity for the Contractor to inspect any such defect.

8.3.2 The Employer shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this clause.

8.3.3 The Contractor may, with the consent of the Employer, remove from the Site any part of the work/equipment/Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

8.3.4 If the repair, replacement, or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Employer may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests.

8.3.5 If such part fails the tests, the Contractor shall carry out further repair, replacement, or making good, as the case may be, until that part of the Facilities passes such tests. The tests shall be agreed upon by the Employer and the Contractor.

8.3.6 If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Employer may, following notice to the Contractor, proceed to do such work with or from the third party, and the reasonable costs incurred by the Employer in connection therewith shall be recovered from the Contractor or may be deducted from any amount due to the Contractor or claimed under the Performance Security.

8.3.7 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons.

8.3.8 In addition, any such component of the Facilities and during the period of time as may be specified in the SCC shall be subject to an extended Defect Liability Period. Such obligation of the Contractor shall be in addition to the Defect Liability Period specified under this SCC Sub-Clause.

8.4 Miscellaneous conditions to be followed by the Contractor

(i) The earth work item in BOQ for excavation of earth is for all leads, lifts and filling the same, and nothing extra will be paid on account of lead and lifts. Items given for additional lift in BOQ does not entitle the Contractor to claim the same while executing the work.

(ii) The Contractor to arrange for emergency vehicle/staff vehicle.

(iii) The Contractor shall make his own arrangement for obtaining electric connection required for execution of work and make necessary payments directly to the concerned departments and nothing extra shall be payable on this account.

(iv) The Contractor shall make his own arrangement for water suitable for construction work as well as drinking and other purpose for the labor engaged by him for the execution of the work.

(v) The water for construction work shall be got tested quarterly from the laboratory approved by the Engineer to ensure its suitability for construction. The charges for these tests and related arrangements shall be borne by the Contractor. In the event of water found unsuitable for construction, the Contractor shall make alternative arrangement for suitable water from any other source to the satisfaction of the Engineer.

(vi) The Contractor shall provide, at his own cost instruments for surveying, weighing and measuring purpose at the site of work as may be necessary for execution of the work.

(vii) The Contractor shall construct a sample unit (land to be arranged by the Contractor) complete in all respect as per the directions of the Engineer. This sample unit shall be got approved from the Engineer before commencing of works for which approval of samples is required. Nothing extra shall be payable on this account.

(viii) The Contractor shall submit to the Engineer samples of all materials for approval. Such samples of materials which affect aesthetics of the work shall also be got approved from the Engineer before procuring bulk supplies. These approved samples shall be preserved and retained in the custody of the Engineer as standards of materials till the completion of the work. The cost of such samples shall be borne by the Contractor and nothing shall be payable on this account over the Agreement rates.

(ix) On account of security consideration, some restrictions may be imposed by the security staff on the working and/or movement of men and materials etc. The Contractor shall be bound to follow all such restrictions/instructions and he shall organize his work accordingly. No claim on this account, whatsoever, shall be payable.

(x) The Contractor shall comply with orders and directions of the local or public authority or SMB and abide by their rules and regulations and pay all fees and charges which may be liable.

(xi) All the pre-construction approvals are to be obtained by the Employer. If any approvals are pending at the time of award of work, the Contractor will assist in getting clearance done from appropriate authorities. The fee for such clearances, if paid by the Contractor, (limited to statutory fee levied by the concerned public authority) shall be reimbursed by the Employer. Such administrative expenses shall not be included in this and shall be reimbursed after production of receipt.

(xii) All approvals during construction stage and commissioning phase are to be obtained by the Contractor at his own cost.

(xiii) The Contractor shall use materials bearing ISI Certification Mark unless otherwise specified or allowed in writing by the Engineer. Any material banned by any central/state/local public authority shall not be used in the work. Even ISI marked materials may be subjected to quality test at the discretion of the Engineer. Whenever ISI marked materials are brought to the site of work, the Contractor shall, if required by the Employer, furnish manufacturer's test certificate or test certificate from approved testing laboratory to establish that the materials procured by the Contractor, satisfy the provisions of relevant IS codes. The testing charges shall be borne by the Contractor. However, cement/steel will be necessarily tested before start of work and also during the execution of work as per the requirements of specifications and will not be used till test certificates are obtained and approved by Engineer. For electrical items, FAT will be applicable as mentioned in Appendix to ITB.

(xiv) The Contractor shall be required to get all the tests as per the specifications/IS codes, carried out on materials/work from an approved laboratory as per the direction of the Engineer. The testing charges and conveyance from the site shall be borne by the Contractor.

(xv) In case any material/ work is found sub-standard the same shall be rejected by the Engineer and the same shall be removed from the site of work within 48 hours, failing which the same shall be got removed by the Engineer at the risk and cost of the Contractor without giving any further notice and time.

(xvi) Cement bags shall be stored in separate godowns to be constructed by Contractor on the land to be arranged by him at his own cost as per sketch approved by Engineer with weather-proof roofs and walls.

(xvii) The theoretical consumption of cement and steel shall be worked out as per procedure.

(xviii) The steel reinforcement shall be stored by the Contractor in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking at any time as and when desired by the Engineer.

(xix) The Contractor shall be responsible for completing the work and for satisfying all terms and conditions of the Contract without any extra payment over his quoted rates unless otherwise specified. The Contractor shall quote his rates for various items of work accordingly and no claim whatsoever shall be entertained for any incidental or extra work involved in the execution of the work as per nomenclature of the item and the specifications indicated in the tender documents.

(xx) Conduits for electrical wiring/cables (in case of underground ducting & others) will be laid in a way that they leave enough space for other works and do not adversely affect structural members and as directed by the Engineer.

(xxi) The Contractor shall give a satisfactory performance test of installations individually and as a whole to ensure their proper functioning before the work is finally declared completed and accepted.

(xxii) The Contractor shall protect the adjoining buildings or works and the work under execution from fire and shall make adequate arrangements for fire protection and firefighting and if any property is damaged, by fire due to the negligence of the Contractor, the same shall be rectified by the Contractor at his own cost, to the entire satisfaction of Engineer.

(xxiii) The Contractor shall provide adequate lighting arrangements as approved by the Engineer for carrying out the work during night-time, if so required and also provide all other facilities for the labor employed to carry out the work as per direction of Engineer.

(xxiv) In order to achieve the targeted date of completion the Contractor may have to work in multiple shifts, round the clock and nothing extra shall be paid on this account.

(xxv) The Contractor shall be responsible for all statutory provisions and deductions towards ESI, PF or any other, as the case may be, or any other levies and taxes shall be borne by the Contractor. The TDS and Contract Tax or any other statutory levies/ taxes incorporated from time to time shall be deducted progressively from the running account bills, as applicable at the time of payment. No claim in this regard shall be entertained.

(xxvi) The Contractor shall arrange land/space for storage/office space for his use and the Employer will not provide the same.

(xxvii) The Contractor shall prepare and produce instruction, operation and maintenance manuals in English for the use, operation and the maintenance of the supplied equipment and installations and submit to the Engineer in (5) hard copies and the soft copy at the time of handing over. The manual shall generally consist of the following:

a. Description of the project

b. Operating instructions

c. Maintenance instructions including procedures for Preventive maintenance

d. Manufacturers catalogues

e. Spare parts list

f. Trouble shooting charts

g. Drawings

h. Type and routine test certificates of major items.

i. One (1) set of reproducible `as built' drawings on polyester film.

(xxviii) The Contractor shall employ competent fully licensed electricians for the electrical works. The licensed electrician shall be available at all times at site to receive instructions from the Engineer in the day-to-day activities throughout the duration of execution of all electrical and such related works.

(xxix) All spaces allotted to the Contractor, if any and as described above, shall be vacated and all structures removed from site at any time as and when required and directed by the Engineer, unconditionally and without any reservation. The Engineer will not be obliged to give any reason for such removal. Upon receiving instructions to vacate the space, the Contractor shall immediately remove all his structures, materials, etc. from the sources and clear and clean-up the site to the satisfaction of the Engineer.

(xxx) It shall be the responsibility of the Contractor to safeguard the site and ensure that no illegal encroachments are made by outside elements within the area allotted to the Contractor. Upon completion of the work or earlier as required by Engineer, the Contractor shall vacate the land totally without any reservation.

(xxxi) The Contractor will arrange to erect, at his own cost, barricading as per norms of NGT/Employer around the infrastructure site, with entry/ exit gates at suitable points. The Contractor shall, at his own cost, provide and erect suitable fencing around the spaces allotted to him at the infrastructure sites to ensure the security of his men, materials and equipment within the sites and in relation to other Contractors who will also be allotted spaces at above sites.

(xxxii) SITE DOCUMENTS: The following site documents shall mainly be maintained by the Contractor at site:

a. Copy of contract documents and drawings.

b. Computerized bill format.

c. Site Order Book.

d. Material testing registers/ Quality Inspection Reports.

e. Measurement books on computerized format.

f. Progress bar chart.

g. Sample approval register.

h. Visitors register.

i. Any other detail and specific requirement as deemed necessary.

j. Hindrance Register

k. Work Diary

l. Stage passing Register

In case the above are not provided at site within 10 days of placement of LOI, CLIENT shall provide the same and necessary expenditure shall be deducted from the bills for documents.

(xxxiii) The Contractor shall ensure that before energizing the E&M installation the inspection of the Electrical Inspector / Inspector of Electrical Machinery have carried out pre-

commissioning test and shall be responsible for all safety / security aspects as per IE Rules and other rules.

(xxxiv) The Contractor shall be responsible for smoke test for sewage and manhole system, hydraulic Pressure test for pipeline system, slope test for drain and sewage and other relevant tests applicable at different stages.

(xxxv) Manufacturer's Warranties:

a. The Contractor shall ensure that all the manufacturer's warranties are made available to the Employer and the legal documentation between the Contractor and the Supplier must have a transparent pass through of the warranty benefits to the Employer as the user/maintenance Body of the Asset for the entire duration of each available warranty.

b. The Contractor shall provide a Warranty that the material is new and free from all defects and faults in workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and shall perform in full conformity with the specifications and drawings.

c. The Contractor shall be responsible for any defects that may develop under proper use but arising from faulty materials, design or workmanship and shall remedy such defects at its own cost, or get them remedied from the supplier, when called upon to do so by the Employer, who shall state in writing in what respect the material is faulty. This warranty shall survive inspection and acceptance of material but shall expire twenty-four months after the date of issue of Defect Liability Certificate, except in respect of complaints notified prior to such date.

d. If it becomes necessary for the Contractor, or on its behalf by the supplier, to replace or renew any defective portion/portions of the material/equipment supplied in the work, the provisions above would also apply to the portion/portions of materials so replaced or renewed until the end of the aforesaid period of twelve months, whichever may be later. If any defect is not remedied within a reasonable time, the Employer may proceed to do the work at the Contractor's risk and cost but without prejudice to any other rights which the Employer may have against the Contractor in respect of such defects. However, for such components, which require immediate replacement, the Employer shall act, and the Contractor shall be required to reimburse that cost.

(xxxvi) **Witnessing of Tests by the Engineer:** The Contractor shall make under the direction and in the presence of Engineer, such tests and inspections as have been specified or as the Engineer shall consider necessary to determine whether or not the full intent of requirements of the specifications and the other related contract documents have been fulfilled. In case the work does not meet the full intent of the specifications and the other related contract documents it shall be rectified by the Contractor at no extra cost and the Contractor shall bear all the expenses for any further tests considered necessary.

(xxxvii) **Inspection of materials & Equipment:** The Contractor before supplying of any materials/ equipment shall give an inspection notice well in advance for inspection & testing of the same at the manufacturing units/ shop. The expenditure on account of TA/ DA of inspecting officials of the Employer and its representatives including Consultants for the inspection of the said items shall be borne by the Contractor. However, inspection report issued by the inspecting officials representing the Employer should not be treated as a waiver of quality /performance of equipment & due quality/ performance & successful commissioning of equipment is the responsibility of Contractor.

(xxxviii) The final bill will be submitted by the Contractor within 90 days from the date of acceptance of completion of work accompanied by the following documents:

a. Completion certificate issued by the Employer specifying the handing over of the work.
b. Computerized Measurement Books.
c. No claim certificate by the Contractor.
d. 'As built' drawings and Operation and Maintenance manual
e. Periodical services and measurement books.
f. Road Register.
g. Plant Record books.
h. History Sheet of Machines.
i. Drawings for lay out of underground cables etc.
j. All operation and maintenance manuals.
k. All statuary approvals from various State/Central Govt./Local Bodies /Owner if required for completion & handover of work.
l. All test certificates of manufacturers and test conducted at site as well as outside agencies.
m. "FINAL REPORT" of the completed project containing all Pre & other related details.

(xxxix) **Handing over of project:** The Contractor within 15 days from virtual completion of Project including services shall prepare a list of all inventory and submit to the Engineer and the Contractor shall be liable to maintain the work up to defect liabilities period. If the project is not taken over by the Owner due to any reason, the Contractor shall provide necessary watch & ward at his own cost which will be reimbursed beyond DLP period till the project is handed over to the Owner.

(xl) Along with monthly computerized running bill / final bill, the Contractor shall submit a monthly progress report showing various details, photographs of works etc. as per direction of the Engineer in two hard copies and soft copies. The Contractor shall also submit video-grapy of the site showing progress of work monthly. Please note that the running / final bill payment shall only be released after submission as aforesaid.

(xli) Tender drawings enclosed with the tender documents are indicatives only. However, the work shall be executed based on the good for construction drawings (GFC) issued at site from time to time and nothing extra shall be paid or no claim will be entertained if any GFC drawing varies from tender drawings.

(xlii) **Minor details of construction:** The rates quoted by the Contractor shall be deemed to cover for all the minor details / requirement of construction which may not have been specifically shown on the drawings or given in particular specifications, BOQ, but are required as per established engineering practice.

(xliii) **Discrepancy in drawings:** The Contractor shall be responsible to ensure correlation in various drawings and Bill of Quantities, before quoting for the work and also before commencement and execution of work. In case of discrepancy, the Contractor shall bring it to the notice of the Engineer for clarifications within 28 days of the issue of Letter of Acceptance. In the event of such discrepancy arising during the course of the work for which drawings are given after the date of issue of Letter of Acceptance, the Contractor shall seek clarifications within 14 days of receipt of such drawings. The Contractor shall take into consideration such contingencies in the completion schedule the programme of work is finalized and the Contractor shall not be eligible for any extension of time for such occurrences. The decision of the Engineer shall be final and binding in this case. The bidder is also advised to visit the site and seek clarifications before submitting his bid.

(xliv) **Documents for supply items:** For supply items in BOQ, the Contractor shall submit the following documents to the Engineer:

a. Warranty Cards.

b. Manufacturer's test certificate.

c. Any other test certificate from an external laboratory to determine the technical Specification.

d. Catalogues

e. Pollution Control Certificate.

f. Documents required for registration of vehicle with the local transport Authority and other interstate movement of vehicle.

g. List of recommended spares with specification and costs thereof.

h. Operation & Maintenance manuals.

(xlv) **Surveyor:** Contractor shall provide a team of skilled Surveyors for necessary site markings at the beginning of the work, which shall be preserved till completion of the Project. One Total Station and sufficient nos. of leveling machines shall be made available at site till completion for day-to-day work.

9 SECTION 5: SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

(Please refer separate document)

10 SECTION 6: DRAWINGS

(Please refer separate document)

11 SECTION 7 FORM OF BID

TECH FORM-1

LETTER OF TECHNICAL BID

_____ [Date]

To

The Chief Engineer (NH),

PWD (Roads), Lower Lachumiere,

Shillong-793001, Meghalaya

Description of the Works: Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong

I/ We offer to execute the works described above and remedy any defects therein in conformity with the Conditions of Contract, specifications, drawings, Bill of Quantities and Addenda.

I / We undertake to commence the works on receiving the Notice to Proceed with work in accordance with the contract documents.

This Bid and your written acceptance of it shall constitute a binding Contract between us.

I / We understand that you are not bound to accept the lowest or any Bid you receive.

We hereby confirm that this Bid complies with the requirements as stipulated in the Bidding Document for Bid validity and Bid Security/ Earnest Money Deposit.

Authorized Signature:

_____

Name and Title of Signatory:

_____

Name of Bidder:

_____

Authorized Address of communication:

_____

Telephone No(s):

(Office):_____

Mobile No. :_____

Facsimile (FAX) No.:_____

Electronic Mail Identification (E-Mail ID):

TECH FORM-2

BIDDERS INFORMATION SHEET

Bidder's Information	
Bidder's legal name	
In case of JV, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	
Enclose the copies of the following original documents. ❑ 1. In case of single entity, articles of incorporation or constitution of the legal entity named above. ❑ 2. Authorization to represent the firm or JV named in above. ❑ 3. In case of JV or Consortium or Association, relevant Agreement. ❑ 4. In case of a government-owned entity, any additional documents not covered under 1 above.	

Each member of a JV or Consortium or Association must fill in this form

For brevity, only JV is mentioned below

11.1.1.1.1 JV / Specialist Sub-Contractor Information	
Bidder's legal name	
JV Partner's or Specialist Sub-Contractor's legal name	
JV Partner's or Specialist Sub-Contractor's country of constitution	
JV Partner's or Specialist Sub-Contractor's year of constitution	
JV Partner's or Specialist Sub-Contractor's legal address in country of constitution	

11.1.1.1.1 JV / Specialist Sub-Contractor Information	
JV Partner's or Specialist Sub-Contractor's authorized representative information *(name, address, telephone numbers, fax numbers, e-mail address)*	

Enclose the copies of the following original documents.

- ❑ 1. Articles of incorporation/constitution or Partnership Deed (as applicable) of the legal entity named above
- ❑ 2. Authorization to represent the firm named above.
- ❑ 3. In the case of government-owned entity, documents establishing legal and financial autonomy and compliance with commercial law.

TECH FORM-2A

JV AGREEMENT

Joint Venture Agreement (similar Consortium Agreement/ Association Agreement to be signed in case of a Consortium/ Association)

(On Rs. 200/- Non-judicial Stamp Paper)

Memorandum of Understanding for

JOINT VENTURE

This Memorandum of Understanding (hereinafter referred to as "MOU") is made and entered into this ---------- ("Effective Date").

BETWEEN

M/s. _____, a company incorporated, and having its registered office at _____.

(Hereinafter referred to as the "**First Party"/ "Lead Partner**");

M/s. _____) a company incorporated, and having Registered office at _____.

(Hereinafter referred to as the "**Second Party"/ "Other Partner**");

Hereinafter jointly referred to as the "**Parties**" and individually as "**Each Party**" or "**a Party**" as the case may be.

WHEREAS,

A) **PWD(Roads), Meghalaya [hereinafter referred to as PWD(Roads) or procuring entity] invited bid for** "Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong" under Smart City Mission.

(B) The **Parties** hereto formed a Joint Venture or will form a joint venture (hereinafter referred to as the "**JV**") to jointly execute the above project in all respect

NOW THEREFORE IT IS HERE BY AGREED as follows

ARTICLE 1: JOINT VENTURE:

1.1. The Parties hereto agree to form the Joint Venture with _____ designated as the **One Partner and First Partner**.

1.2. _____ **shall be the Second Member – or Second Partner**

ARTICLE 2: JOINT VENTURE NAME:

2. The JV shall do business in the name of "_____ **Joint Venture**".

ARTICLE 3: JOINT AND SEVERAL LIABILITY:

3. The Parties hereto shall, for the above-referred Projects, be jointly and severally liable to the Employer for the execution of the Project in accordance with the Contract till the actual completion of Contract including Defect Liability Period and operation & maintenance as per bid conditions.

ARTICLE 4: PROPORTIONATE SHARE:

4.1 Each member of the Joint Venture agrees to place at the disposal of the Joint Venture, the benefit of all its experience, technical knowledge and skill, and shall in all respects bear its share of responsibility and burden of completing the contract. The parties herein shall be responsible for physical and financial distribution of work as under.

Lead Partner:

Financial responsibility: ----------

Physical responsibility: ----------

Other Partner:

Financial responsibility: ----------

Physical responsibility: ----------

4.2 All rights, interests, liabilities, obligations, risks, costs, expenses and pecuniary obligations and all net profits or net losses arising out of the Contract shall be shared or borne by the Parties in the above Proportions.

4.3 The members in the proportion as mentioned in article 4.1, shall contribute sufficient initial fixed capital for timely execution of the project including commissioning & operating period as per the contract.

ARTICLE 5: JOINT EFFORT AND MANAGEMENT:

5.1 The Parties shall participate as a JV in the submission of bids and further negotiations with the Employer and shall co-operate and contribute their respective expertise and resources to secure and execute the Projects.

5.2 On award of Projects, the First Partner in consultation with the other member of JV will decide on the final management structure for the successful execution of the Projects as per the terms of Contract.

5.3 All the Parties hereby agree to pool in their financial, administrative, managerial, technical and material resources for execution of the Projects, including commissioning as stipulated in the contract. The share of interest of the JV shall be as per the mutual understanding for the successful completion of the project.

ARTICLE 6: EXCLUSIVITY:

6.1 The co-operation between the Parties hereto shall be mutually exclusive i.e. none of them shall without the other Party's consent & prior approval of the Employer, approach or cooperate with any other parties in respect of the Project.

6.2 In the course of working as associates, the parties to the JV will be sharing information with each other which may be proprietary /confidential information /knowledge acquired by each other. It is hereby agreed that the parties will maintain complete secrecy regarding such information / knowledge and will not divulge to any party for any other purpose except for the success of the joint execution of the contract. All parties will also indemnify each other against any claim that may arise out of using information, which are being claimed proprietary.

ARTICLE 7: MEMORANDUM OF UNDERSTANDING:

7.1 This **Memorandum of Understanding** shall be terminated:-

a. if the **Parties** mutually confirm that the **JV's** bid proposal has not been finally accepted by Employer and all rights and obligations of the **Parties** under or in connection with this **Memorandum of Understanding** have ceased, or

b. after successful completion of the project including commissioning and defect liability period from the date of this **Memorandum of Understanding** unless extended for a further period on demand of the Employer & mutual consent of the Parties, or

7.2 The **Memorandum of Understanding** can be modified by mutual consent of the Parties to suit the efficient and expeditious execution of Projects including commissioning of Plant or to make this agreement more meaningful to suit the requirements of Employer **after the consent of the Employer.**

ARTICLE 8: ARBITRATION:

8.1 Any dispute resulting from this Agreement shall be settled amicably by mutual Consultation by the Managing Directors/Chairman of _____&_____. In the event that an amicable settlement is not reached within 60 days in any particular case, the dispute shall be referred to arbitration and shall be resolved in accordance with and subject to the provisions of the _____ _____ and any statutory modifications and enactment hereof for the time being in force. The decision of the arbitrators shall be final and binding upon both parties. The venue of arbitration will be Shillong, Meghalaya, India.

ARTICLE 9: GOVERNING LAWS:

9.1 This Agreement shall in all respects be governed by and interpreted in accordance with the __ _____ Laws.

ARTICLE 10: CONFIDENTIALITY:

10.1 No Party hereto shall disclose to any other party any information of a confidential nature including but not limited to trade secrets, know-how acquired from any Party in connection with the subject matter of this Agreement.

ARTICLE 11: ADDRESS OF CONSORTIUM:

Any and all correspondence from the Employer to the JV shall be addressed to _____ (name of JV) at the address stated herein below (address of the Lead Partner). The address of the Consortium office of the partner companies will be deemed to be the address for the purpose of communication.

The notice, if any required to be served on the party by the other party, will be deemed to be served, if the said notice / communication is delivered by Registered Post at the respective address (name of JV)

_____

_____

ARTICLE 12: AUTHORIZED REPRESENTATIVE:

The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

Authorized Representative of JV: _____

ARTICLE 13: ASSIGN ABILITY:

13.1 The interests and rights of a Party in the Contract and as a Party of the Joint Venture shall not be transferable or assignable without the written consent of the Employer & other party.

ARTICLE14: INTERPRETATION OF HEADINGS:

14. The headings of each of the Articles herein contained are inserted merely for convenience of reference and shall be ignored in the interpretation and construction of any of the provisions herein contained.

ARTICLE 15: OTHERS

15.1 Any other matters not contained in this Agreement shall be discussed and amicably agreed upon by the Parties in the spirit of mutual trust and cooperation for timely completion of project including commissioning and operation of project. Notwithstanding anything above all the Parties are severally and jointly responsible to the Employer for execution of the Contract:

IN WITNESS WHEREOF the Parties hereto have caused this Agreement to be executed by each of the duly authorized representatives as appearing below:-

Signed by **in the presence of**

For and on behalf of (_____) Name:

Designation:

Name:

Designation:

Signed by **in the presence of**

For and on behalf of (_____) Name:

Designation:

Name:

Designation:

TECH FORM-2B(1)

FORMAT FOR POWER OF ATTORNEY AUTHORISING THE LEAD MEMBER OF A JV (or Consortium/ Association, as applicable)

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

Know by all men by these presents, We_____ (Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize Mr. / Ms_____ (name and residential address of Power of attorney holder) who is presently employed with us and holding the position of _____ as our true and lawful attorney (hereinafter referred to as the "Authorized Representative") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for the Bid for "Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong" under Smart City Mission including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/responses to PWD(Roads), representing us in all matters before PWD(Roads), signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with PWD(Roads) in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with PWD(Roads).

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ... THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS .....DAY OF ....., 20**

For _____

Name:

Designation:

Date:

Time:

Seal:

Business Address:

Witness:

1.

2.

Notarized Accepted

Signature of the Applicant

(Signature, name, designation and address)

Bid for “Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong” under Smart City Mission.

Accepted,

_____ (Signature)

(Name, Title and Address of the Attorney)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder.

CERTIFICATE AS TO AUTHORISED SIGNATORIES

I_____, the Company Secretary of _____, certify that_____ who signed the above Bid is authorized to do so and bind the company by authority of its board/ governing body.

Date:

Signature:

(Company Seal) (Name)

TECH FORM-2B(2)

FORMAT FOR POWER OF ATTORNEY AUTHORISING SIGNATORY OF BID

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

Know by all men by these presents, We_____ (Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize Mr. / Ms_____ (name and residential address of Power of attorney holder) who is presently employed with us and holding the position of _____ as our true and lawful attorney (hereinafter referred to as the "Authorized Representative") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for _____ (Name of the work) under Smart Cities Mission, Shillong Including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre bid and other conferences and providing information/responses to SSCL, representing us in all matters before SSCL, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with SSCL in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with SSCL.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ... THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS .....DAY OF ....., 20**

For _____

Name:

Designation:

Date:

Time:

Seal:

Business Address:

Witness:

1.

2.

Notarized Accepted

Signature of the Applicant

(Signature, name, designation, and address)

Bid for _____ (Name of the work)

Accepted,

_____ (Signature)

(Name, Title and Address of the Attorney)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- The Power of Attorney shall be provided on a stamp paper of Rs.200/- and above
- The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder.

CERTIFICATE AS TO AUTHORISED SIGNATORIES

I_____, the Company Secretary of _____, certify that_____ who signed the above Bid is authorized to do so and bind the company by authority of its board/ governing body.

Date:

Signature:

(Company Seal) (Name)

TECH FORM-3

FINANCIAL CAPACITY

Each Bidder or member of a JV or Consortium or Association must fill in this form

SN	Description	Financial Data for Latest Last 3 Financial Years (Indian Rupees)		
		FY 2017-18	FY 2018-19	FY 2019-20
1	Total Assets			
2	Current Assets			
3	Total external Liabilities			
4	Current Liabilities			
5	Profits Before Taxes			
6	Profits After Taxes			
7	Net Worth = (1-3)			
8	Working Capital = (2-4)			
9	Annual Turnover			

*Enclose the copies of financial statements (balance sheets including all related notes, and income statements) for the last THREE years, as indicated above, complying with the following conditions.

- All such documents reflect the financial situation of the legal entities comprising the Bidder or partner to a JV or Consortium or Association, and not sister or parent companies, subsidiaries or affiliates.
- Financial statements must be audited by a certified accountant.
- Financial statements must be complete, including all notes to the financial statements.
- Financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be accepted).

TECH FORM - 4

AVERAGE ANNUAL CONSTRUCTION TURNOVER

Each Bidder or member of a JV or Consortium or Association must fill in this form

Annual Turnover Data for the Last 3 Years (Civil Construction works only)			
Year	Amount Currency	Exchange Rate	INR Equivalent
FY 2019-20			
FY 2018-19			
FY 2017-18			
Average Annual Construction Turnover for the Last 3 Years			

The information supplied should be the Annual Turnover from Construction Activities of the Bidder or each member of a JV or Consortium or Association in terms of the amounts billed to Clients for each year for work in progress or completed, converted to INRs at the rate of exchange at the end of the period reported.

TECH FORM-4A

AVAILABILITY OF FINANCIAL RESOURCES

Specify proposed sources of financing, such as liquid assets, lines of credit, and other financial resources (means other than any Contractual advance payments), available to meet the financial resources requirements. Each Bidder or member of a JV or Consortium or Association must fill in this form.

Financial Resources		
SN	**Source of financing**	**Amount (INR equivalent)**
1		
2		
3		

Note:

i. The bidder shall provide supporting documents like letter from the Banks for the revolving line of credit facility etc. specific to the project if applicable for its declared availability of financial resources.

ii. Bidder shall provide details on available credit facility from each source of financing after utilizing the commitments.

TECH FORM-4B

SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES

BANK CERTIFICATE

This is to certify that M/S ---------- is a reputed company with a good financial standing.

If the contract for the work, namely, _____ is awarded to the above firm, we shall be able to provide overdraft/credit facilitiesto the extent of Rs. _____ to meet their working capital requirements for executing the above contract.

Signature of Senior Bank Manager _____

Name of the Senior Bank Manager _____

Address of the Bank ----------

Stamp of the Bank

Note: Certificate should be on the letterhead of the bank.

TECH FORM - 5

CURRENT CONTRACT COMMITMENTS / WORKS IN HAND

Bidder (or each member in a JV or Consortium or Association) should provide information indicated below in order to calculate the aggregated financial resources requirement, which equals the sum of: (i) the Bidder's (or each partner's in a JV or Consortium or Association) current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued and (ii) financial resources requirement for subject contract as determined by the Employer. Bidder must also disclose any other financial obligations that could materially affect the implementation of subject contract if such contract were to be awarded to the Bidder.

Description of Work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (Rs. lakhs)	Stipulated period of completion	Value of works remaining to be completed (Rs. lakhs)	Anticipated date of completion
1	2	3	4	5	6	7	8

TECH FORM-6

BIDDING CAPACITY INFORMATION & DECLARATION

(To be submitted by bidder through affidavit)

Bidders (JV put together) who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value. The available bid capacity will be calculated as under:

Assessed Available Bid capacity = (A*N*M - B)

Where,

***A* =** Maximum value of civil engineering works executed in any one year during the last seven years (updated to the price level of the last year at the rate of 5 percent a year) taking into account the completed as well as works in progress.

***N* =** Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and more than 6 months as one year). M = 2.5

***B* =** Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited.

Note:

i. The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

ii. In the case of a JV or Consortium or Association, the above formula will be applied to each member to the extent of the proposed participation in the JV or Consortium or Association. If the proposed % participation is not mentioned, then equal participation will be assumed.

Example for calculation of bid capacity in case of JV or Consortium or Association

Suppose there are 'P' and 'Q' members of the JV or Consortium or Association with their participation as 70% and 30% respectively and available bid capacity of these members as per above formula individually works out 'X' and 'Y' respectively, then Bid Capacity of the JV or Consortium or Association shall be as under:

Bid Capacity of the JV or Consortium or Association = 0.7X + 0.3Y

TECH FORM - 7

GENERAL WORK EXPERIENCE

Each Bidder or member of a JV or Consortium or Association must fill in this form

General Construction Experience				
Starting Month Year	**Ending Month Year**	**Years**	**Contract Identification and Name; Name and Address of Employer; and Brief Description of the Works Executed by the Bidder (including value of works)**	**Role of Bidder**

TECH FORM – 7A

SPECIFIC EXPERIENCE FOR "CIVIL WORKS"

Fill up one (1) form per work.

Name of the Work	
Contract No.	
Award Date (DD/MM/YYYY)	
Completion Date* (DD/MM/YYYY)	
Role in Contract (please tick)	Main Contractor
	Sub-Contractor
Total Contract Amount (INR Lakhs)	
If partner in a JV or Sub-Contractor, specify participation of total contract amount (INR Lakhs)	
Employer's Name Address Telephone/Fax Number E-mail	
Project Description (in accordance with Clause1.4.4.1 of the ITB)	

Note:

- Copy of Work Order/Agreement, Completion Certificate in support of above experience shall be furnished by the Bidder.
- Details of only "completed" works as defined at Clause 1.4.4.1 of the ITB shall be furnished by the Bidder.

TECH FORM – 7B

SPECIFIC EXPERIENCE FOR "ELECTRICAL WORKS"

Fill up one (1) form per work.

Name of the Work	
Contract No.	
Award Date (DD/MM/YYYY)	
Completion Date* (DD/MM/YYYY)	
Role in Contract (please tick)	Main Contractor
	Sub-Contractor
Total Contract Amount (INR Lakhs)	
If partner in a JV or Sub-Contractor, specify participation of total contract amount (INR Lakhs)	
Employer's Name Address Telephone/Fax Number E-mail	
Project Description (in accordance with Clause 1.4.4.1 of the ITB)	

Note:

- Copy of Work Order and Agreement, Completion Certificate in support of above experience shall be furnished by the Bidder.
- In case the Bidder of any member of the JV or Consortium or Association happens to be OEM authorized design partner (for electrical works), the performance certificate /Work Orders or Purchase Orders of the OEM shall suffice.
- Only details of "completed works" as defined in this Bidding Document are to be provided.

TECH FORM – 8A

SITE ORGANIZATION

(Bidder shall insert the Site Organization information)

The Bidder shall supply a table of personnel and a chart showing the proposed organization to be established for (i) carrying out the construction works during all phases of works included under this Contract package like mobilization; construction; supply, installation, testing and commissioning of relevant items; repairing during Defect Liability Period; health, safety and environment management, etc.).

TECH FORM – 8B

METHOD STATEMENT

(Bidder shall insert the Method Statement complying with the following)

1. The bidder is required to submit Approach and Method Statement for carrying out all the activities under this project.
2. The activities for methodology shall also include following:
    a. Bidder's assessment of site, availability of construction materials, labour, etc.;
    b. Surveys/Investigations that the Bidder feels necessary, in addition to the ones that have been carried out already by the Employer;
    c. Preparation of phasing of works;
    d. Construction Methodology for various works;
    e. Implementation schedule as per scope of works;
    f. Proposed Safety Plan / safety measures to be put in place;
    g. Proposed mechanism to protect environment;
    h. Preparation of "as-built" drawings;
    i. Preparation of Operation & Maintenance Manual; and
    j. Any other activity.

TECH FORM – 8C

MOBILIZATION SCHEDULE

(Bidder shall insert the Mobilization Schedule)

The Bidder shall submit mobilization and de-mobilization schedule of personnel and equipment/machineries in detail for all phases of works. The mobilization schedule should include mobilization of skilled and unskilled manpower, different machineries and equipment, materials, as required in each Phase.

TECH FORM – 8D

WORK PLAN AND CONSTRUCTION SCHEDULE

(Bidder shall insert the Work Plan and Construction Schedule)

The Bidders will submit detailed Work Plan as part of Technical Bid covering all sections of work to achieve key milestones of sectional and full work.

The Bidder shall prepare and submit overall construction schedule. The construction schedule shall be designed and documented in a series of tasks and task assignments complete with projected completion target dates with the aid of computer operated management software like Microsoft Project, Primavera or any other equivalent latest software by using Gantt charts and PERT diagrams to allow all actors to know their contribution towards fulfilling the Employer's Requirement.

TECH FORM – 8E

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 Clause 4.4(c)(i) of ITB. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

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

The following information will be provided 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 agreements specific to the project	

Note: For owned equipment, copy of bills/invoices are to be furnished (only owned equipment are to be given marks during evaluation of Bids).

A summary table is to be provided by the Bidder in the following format:

Item of Equipment	Requirement			Owned and available		Remarks
	No.	Capacity	Owned	Number/ Capacity	Age/ Condition	

TECH FORM – 8F

PERSONNEL

Bidders should provide the names of suitably qualified personnel to meet the specified requirements stated in Clause 4.4(c)(ii) of ITB. The data on their experience should be supplied using the Form below for each candidate.

1.	Title of position*
	Name
2.	Title of position*
	Name
3.	Title of position*
	Name

TECH FORM – 8F(i)

RESUME OF PROPOSED PERSONNEL

Name of Bidder		
Position		
Personnel information	**Name**	**Date of birth**
	Professional qualifications	
Present employment	**Name of Employer**	
	Address of Employer	
	Telephone	**Contact (manager / personnel officer)**
	Fax	**E-mail**
	Job title	**Years with present Employer**

Summarize professional experience over the last 20 years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From	To	Company / Project / Position / Relevant technical and management experience

From	To	Company / Project / Position / Relevant technical and management experience

TECH FORM – 9

PENDING LITIGATIONS

Each Bidder or member of a JV or Consortium or Association must fill in this form

Pending Litigation			
❑ **No pending litigation and arbitration in accordance with Clause 4.2(j) of ITB.** ❑ **Below is the description of all Pending litigation and arbitration involving the bidder (or each JV member if Bidder is a JV member) in accordance with Clause 4.2(j) of ITB**			
Year & Client	**Matter in Dispute**	**Value of Pending Claim in INR**	**Value of Pending Claim as a Percentage of Net Worth**

TECH FORM – 10

FORMAT FOR DECLARATION BY THE BIDDER FOR NOT BEING BLACKLISTED / DEBARRED

(To be submitted on the Letterhead of the Bidder)

(To be provided by Lead Member/Partner and all members of Consortium in separate letters)

Date: dd/mm/yyyy

To

_____

_____

Subject: Declaration for not being debarred / black-listed by Central / any State Government department in India as on the date of submission of the bid

RFP Reference No: XX

Dear Sir,

I, authorized representative of _____, hereby solemnly confirm that the Company _____ is not debarred / black-listed by any Central/State Government/ PSU entity or by any Urban Local Body (ULB) in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices or for any other reason as on last date of submission of the Bid. In the event of any deviation from the factual information/ declaration, the Employer reserves the right to reject the Bid or terminate the Contract without any compensation to the Company.

Thanking you,

Yours faithfully,

_____

Signature of Authorized Signatory (with official seal)

Date :

Name :

Designation :

Address :

Telephone & Fax :

E-mail address:

TECH FORM – 11

INTEGRITY PACT

To

The Chief Engineer (NH),

PWD (Roads), Lower Lachumiere,

Shillong-793001, Meghalaya

Sub: Submission of Tender for the work of "Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong".

Dear Sir,

I/We acknowledge that PWD(Roads), Meghalaya is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed Integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process.

I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by PWD(Roads). I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, PWD(Roads) shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid is accordance with terms and conditions of the tender/ bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

To be signed by the bidder and signatory competent / authorized to sign the relevant contract on behalf of PWD(Roads)

INTEGRITY AGREEMENT

This Integrity Agreement is made at..... on this ..... day of..... 20 .....

BETWEEN

PWD(Roads), Meghalaya represented through the Chief Engineer(NH), (Hereinafter referred as the **'Principal/Owner',** which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

……(Name and Address of the Individual/firm/Company) through ..... *(Details of duly authorized signatory*) (Hereinafter referred to as the **"Bidder/Contractor"** and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (Tender No .....) (Hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for (Name of work) hereinafter referred to as the "Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

(1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

   a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

   b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

   c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

(2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer of Meghalaya and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

(1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government /Department all suspected

acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

(2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/ Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

(3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

(4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

(5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

(1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the Contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or Terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the

severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

(2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.

(3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

(1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

(3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors or their Associates involved in the Project

(1) The Bidder(s)/Contractor(s) undertake(s) to demand from all their Associates engaged by them and involved in the Project, if applicable, a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-Contractors/sub-vendors (if applicable in the Project).

(2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

(3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/ Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority.

Article 7- Other Provisions

(1) This Pact is subject to Indian Law, place of performance and jurisdiction is Shillong, Meghalaya.

(2) Changes and supplements need to be made in writing. Side agreements have not been made.

(3) If the Contractor is a Joint Venture or Consortium or Association, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

(4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

(5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Principal/Owner)

(For and on behalf of Bidder/Contractor)

WITNESSES:

1 .....

(signature, name and address)

2 .....

(signature, name and address)

Place:

Dated

TECH FORM – 12

DECLARATION REGARDING CUSTOMS/ EXCISE DUTY EXEMPTION FORMATERIALS/CONSTRUCTION EQUIPMENT BOUGHT FOR THE WORK

(*Bidder's Name and Address*)

To: ……..

(*Name of the Employer& address*)

Dear Sir:

Re: [*Name of Work*]…….Certificate for Import/Procurement of Goods/Construction Equipment

1. We confirm that we are solely responsible for obtaining customs/excise duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the Employer will not compensate us.
2. We are furnishing below the information required by the Employer for issue of the necessary certificates in terms of the Government of India Central Excise Notification No.108/95 read along with all subsequent amendments including the amendment dated 01-03-2008 and Customs Notification No. 85/99.
3. The goods/construction equipment for which certificates are required are as under:

Items *(modify the list suitably for each specific work)*	Make/ Brand Name	Capacity [*where applicable*]	Quantity	Value	State whether it will be procured locally or to be imported [if imported, from which country]	Remarks regarding justification for the quantity and their usage in works.
Goods						
[a] Bitumen						
[b] Cement						
[c] Steel						
Construction Equipment						

4. We agree that no modification to the above list is permitted after bids are opened.

5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Bill of Quantities and the construction program and methodology as furnished by us along with the bid.

6. We confirm that the above goods and construction equipment will be exclusively used for the construction of the above work and the construction equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: _____ (*Signature*)_____

Place:_____ (*Printed Name*)_____

(*Designation*)_____

(*Common Seal*) _____

[***This certificate will be issued within 60 days of signing of contract and no subsequent changes will be permitted.***]

* ***Modify the above to suit the requirements given in Central Excise/Customs Notification as current of date of bidding.***

TECH FORM - 13

Format for Bid Security Declaration

"I/we hereby accept that if I/we withdraw or modify my/our bids during period of bid validity, I/we will be suspended for the time specified in the Bidding Document".

Date: _____

Place:_____

(*Signature*)_____

(*Printed Name*)_____

(*Designation*)_____

(*Common Seal*) _____

TECH FORM - 14

FORMAT FOR CERTIFICATION W.R.T. BIDDERS FROM COUNTRIES THAT SHARE LAND BORDER WITH INDIA

Certificate

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority[11]. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. *[Where applicable, evidence of valid registration by the Competent Authority shall be attached]*

Date: _____

Place:_____

(*Signature*)_____

(*Printed Name*)_____

(*Designation*)_____

(*Common Seal*) _____

[11] For the purpose of this registration, Competent Authority is as defined in the Office Memorandum No. F.No.6/18/2019-PPD dated 23rd July, 2020 of the Public Procurement Division, Department of Expenditure, Ministry of Finance, Govt. of India.

FORMAT FOR SENDING PRE-BID QUERIES

NIT Reference No: XX

Bidder's Request For Clarification				
Name and complete official address of Organization submitting query / request for clarification			Telephone, Fax and E-mail of the organization Tel: Fax: Email:	
SN	**Clause No.**	**Page No.**	**Content of Bid document Requiring Clarification**	**Change Requested/ Clarification required**
1				
2				
3				
4				
5				

Signature:

Name of the Authorized signatory:

Company seal:

Date and Stamped

Note: Bidder(s) are requested to send the queries in PDF with Sign and Company Seal and also in MS Word / Excel for making consolidation process easy.

FIN FORM – 1

LETTER OF FINANCIAL BID

[to be submitted in Financial Bid Envelope]

Dated:

To,

The Chief Engineer (NH),

PWD (Roads), Lower Lachumiere,

Shillong-793001, Meghalaya

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued;

(b) We offer to execute in conformity with the Bidding Documents and the Technical Bid submitted for the following Works: "Construction of 6 KM Smart Roads in Shillong under Smart City Mission, Shillong" under Smart City Mission.

(c) The total price of our Bid, is: _____. Detailed item-wise priced Bill of Quantities is submitted alongwith the Financial Bid.

(d) Our Bid shall be valid for a period of 180 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(e) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

(f) 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; and

(g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

12 SECTION 8 Bill of Quantities

Preamble to Bill of Quantities (BOQ)

1. The Bill of Quantities (BOQ) shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Scope of Work and Technical Specifications, and Drawings.
2. The quantities given in the BOQ 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 Employer's Representative, and valued at the rates and prices bid in the priced BOQ, where applicable, and otherwise at such rates and prices as the Employer's Representative may fix within the terms of the Contract.
3. Description of items is given briefly and is linked with relevant clauses & sections of Technical Specifications (MoRTH or CPWD, whichever is applicable) specified in this Bidding Document. For detailed description, provisions and interpretation, the Technical Specifications are to be referred. In case of any discrepancy between the description given in the BoQ and that given in the Technical Specifications, the one given in the Technical Specifications will prevail.
4. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labour, supervision, materials, surveying, setting out, erection, maintenance, insurance, profit, taxes (including GST), and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
5. General directions and descriptions of work and Materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
6. The method of execution and measurement of completed work for payment shall be in accordance to the respective procedures provided in the Technical Specifications or Particular Specifications under this Contract and in the absence of which shall be in accordance to the relevant Bureau of Indian Standards and Standard Specifications of the State of Meghalaya or Standard Specification published by the Central Public Works Department, Government of India as the case may be.
7. Rock is defined as all material that, in the opinion of the Employer's Representative, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake horsepower (BHP) with a single, rear-mounted, heavy-duty ripper.
8. All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost and time.
9. In view of the site location and their prevailing condition, it is mandatory to the Contractor to visit the site and make himself/herself thoroughly familiar with the site conditions, access and account for all possible difficulties and other requirements mentioned elsewhere in his bid prior to submission. When a contractor submits his bid for this work, it will be considered that he has quoted for this work with full and complete knowledge of the site and prevailing conditions, and no claim for additional compensation shall be entertained on this account.
10. The Bidder shall, in the course of studying the bid document, point out all his/her remarks on the documents and make all his/her queries to the Employer who will study these remarks and clarify any discrepancy between the Bidding Documents.
11. Submissions shall be strictly in accordance with the documents and shall not be qualified in any way. The Bidder shall not alter the text of the BOQ.
12. Extra and excess items of work shall not vitiate the Contract. The Contractor shall be bound to execute extra items of work as directed by the Engineer. The rates for extra items will be as per rates decided under Contract Conditions.
13. The Bidder shall satisfy himself/herself as to the meaning of every item in the BOQ. The rates and prices inserted in the BOQ by the bidder shall be deemed to cover all costs, taxes (including

GST), customs and import duties, levies, profits, risks, liabilities, insurance and obligations set forth or implied in the bid including, but not limited to the following:

i. All labour and Materials including consumables;

ii. All temporary works of every description required including over ground pumping and other requirements to avoid disruption to the service whilst maintenance or repair work is carried out;

iii. The provision and use of all equipment, tools and Plant of every kind, whether mechanical or non-mechanical, required for the expeditious carrying out of the Works in their proper sequence;

iv. Provision for staging, guard rails, temporary stairs, temporary access during execution, approach roads up to the Site for the movement of vehicles, and heavy excavation machinery with supporting transport facility;

v. Provision for excavation, back-filling, bringing to the Site extra fill for back-fill, making good and reinstating surfaces, disposing of surplus material, dealing with all ground water and wastewater flows, and for work in close proximity to other utility apparatus including protecting that apparatus;

vi. Provision for work on corridors such as traffic control measures, safety barriers, obtaining any approvals and permits from authorities, and reinstatement of surfaces;

vii. Cooperation and coordination of the work with related authorities, other contractors and utilities, including obtaining their permission before starting the related Works if required;

viii. Providing security arrangements to guard the Site and premises at all times and to maintain strict control on the movement of Materials and labour until the completion of the work.

ix. All electricity costs and initial connection charges etc. associated with operations shall be paid by the contractor directly to the electricity service provider and nothing extra shall be payable to the contractor in this regard.

14. All dismantled materials shall become the property of the Employer. The contractor will hand over the same to the designated store of the Employer as directed by the Engineer (dismantling charges and transportation charges shall be borne by the contractor and no payment shall be made to the Contractor in this regard unless this item is included in the BOQ), for which contractor should consider or include the salvage value in the rates quoted. The materials recovered from cutting of hard rock / rock or roadway may be used by the Contractor, if found of the allowable quality, for the different works to be carried out as per bills of quantities, after approval of the Engineer. The Contractor has to deposit the required royalty / taxes with the concerned department for the quantity used in the works and as certified by the Engineer. Bidders are advised to take it into account and quote the rates and prices accordingly.

15. Works itemized in the BOQ will be subject to measurement. Such measurement will be in the unit of measurement shown the BOQ and payment shall be made on the measured quantities.

16. All rules and regulations of the labour department, contract labour Laws, provident fund and employee state insurance and connected Laws, and all other Laws of the land are to be complied with by the Bidder within the quoted rates.

17. Contractor shall make arrangements for required space for construction of, office and stores at suitable locations. No land will be provided by the Employer to the Contractor for constructing any structure for his labour, workman and supervisory camps, un-authorized hutments, at the Site or within the premises. The Contractor shall make his/her own arrangements for the same outside the premises/boundary. These, if any, shall be with the knowledge of and prior approval of the Employer's Representative.

18. The Provisional Sum (if included) and so designated in the BOQ shall be expended in whole or in part at the direction and discretion of the Employer's Representative in accordance with the Conditions of Contract. It will be used by the Employer's Representative for nominated sub-contractors, line agencies, installation of power connections/power feeder by the electricity

department, third party inspecting agencies, charges levied by statutory electrical, telephone, or other authorities, or for other miscellaneous works. The use of the Provisional Sum will also be for relocation of utilities above or underground that conflict with the existing or permanent line or level of the Works, independent sampling and laboratory testing, as directed by the Employer's Representative, replacement or compensation for plants and trees removed due to the Works etc. as directed by the Employer's Representative.

2. Metric System and Abbreviations

a. Millilitre -ml
b. Million Litres per Day- mld
c. Million Litre -ML
d. Litre- ltr
e. Linear meter -m
f. Gram -gm
g. Square metre -m^2
h. Cubic metre -m^3
i. Number- No.
j. Kilogram- kg
k. Lump Sum- LS
l. Indian Rupees -Rs
m. Millimetre -mm
n. Square Centimetre- cm^2
o. Square Millimetre -mm^2

12.1 Abstract Price Schedule: Construction of 6KM "Smart Roads" in Shillong

Sl. No.	Description of work	Amount in figure (INR)	Amount in words (Indian Rupees)
1.	Road Works, Water Pipeline Duct, Electrical Duct and Storm Water Drainage		
2.	Electrical Works		
3.	Landscaping Works		
4.	Road Signage Works		
	TOTAL		

12.2 Price Schedule/ Bill of Quantities (Part-1 of 4: Road Works, Water Pipeline Duct, Electrical Duct and Storm Water Drainage)

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
Note: Non-scheduled items are indicated as "NSR"; items as per Meghalaya PWD(Buildings) Schedule of Rates 2015-16 are indicated as "MPWD(Buildings) SoR 2015-16"; items as per Delhi Schedule of Rates are indicated as "CPWD DSR 2018"; items as per Schedule of Rates for Road and Bridge Works under PWD(Roads) National Highway Circle 2019-20 are indicated as "PWD(Roads) SOR for NH Circle Meghalaya, Shillong 2019-20"									
	DISMANTLING								
1	**2.5**	**202**	**Dismantling of Structures.**						
			Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of Lime Concrete, Cement Concrete, Reinforced Cement Concrete, etc. including T&P and scaffolding whenever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and of 1000 m as per Technical Specification Clause 202.						
			(I) By Manual Means:						
			(B) Cement Concrete.	**1067**	**CuM**				
			(C) Reinforced Cement Concrete	**264**	**CuM**				
			II. By Mechanical Means:						
			(A) Cement Concrete:	**254**	**CuM**				
			(B) Reinforced Cement Concrete.	**881**	**CuM**				
2	**2.14**	**202**	**Dismantling of Flexible Pavements**						

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
			Dismantling of flexible pavements and disposal of dismantled material upto a lead of 100m stacking of serviceable and unserviceable materials separately as per Technical Specification Clause 202.						
			By Manual Means						
			(A) Bituminous Courses	**331**	**CuM**				
			(B) Granular Courses	**1730**	**CuM**				
			By Mechanical Means						
			(A) Bituminous Courses	**1550**	**CuM**				
			(B) Granular Courses	**7690**	**CuM**				
3	**2.16**	**202**	**Dismantling of Guard rails**						
			Dismantling of Guard rails by manual means and disposal of dismantled material with all lifts and upto a lead of 1000 m stacking serviceable material and unserviceable materials separately as per Technical Specification Clause 202.	**39**	**Rmt**				
4	**2.13**	**202**	**Dismantling of Hume Pipe**						
			Removing all types of Hume pipes and stacking within a lead 1000 m including Earthwork and dismantling of masonry works as per Technical Specification Clause 202.						
			(A) Upto 600 mm dia Hume pipe	**335**	**Rmt**				
			(B) Above 600 mm to 900 mm dia Hume pipe	**242**	**Rmt**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
5		**NSR**	Removal of paver block from existing road surface with care and stacking the same properly as directed						
			60mm/80mm	**3474**	**SqM**				
	Excavation for structures								
6	**11.1**	**300**	Earthwork in excavation for structures as per drawing and Technical Specification Clause 305.1 including setting out construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m dressing of sides and bottom and backfilling trenches with excavated suitable material						
			A. BY MANUAL MEANS						
			Without Dewatering						
			I. Ordinary Soil						
			(i) upto 3 m depth	**4550**	**CuM**				
			II. Ordinary rock (not requiring blasting)						
			Upto 3m depth	**26**	**CuM**				
			IV. Hard rock (blasting prohibited)						
			Upto 3m depth including 1.5m depth in hard rock	**26**	**CuM**				
			Including Dewatering						
			I. Ordinary Soil						
			(i) upto 3 m depth	**26**	**CuM**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
			II. Ordinary rock (not requiring blasting)						
			Upto 3m depth	**1490**	**CuM**				
			IV. Hard rock (blasting prohibited)						
			Upto 3m depth including 1.5m depth in hard rock	**1830**	**CuM**				
			Earthwork in excavation for structures by mechanical means as per drawing and Technical Specification Clause 305.1 including setting out construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m dressing of sides and bottom and backfilling trenches with excavated suitable material						
			BY MECHANICAL MEANS						
			Without Dewatering						
			I. Ordinary Soil						
			(i) upto 3 m depth	**9767**	**CuM**				
			II. Ordinary rock (not requiring blasting)	**26**	**CuM**				
			Including Dewatering						
			I. Ordinary Soil						
			(i) Upto 3m depth	**26**	**CuM**				
			II. Ordinary rock (not requiring blasting)						
			Upto 3m depth	**4382**	**CuM**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
7	**11.4**	**800 & 1200**	Providing concrete for plain/reinforced concrete in open foundations complete as per drawing and Technical Specification Clauses 802, 803, 1202 & 1203 (1500,1700 & 2100 MORT&H Specification)						
			II. P.C.C. grade M15						
			(i) Nominal Mix 1:2:4	**3402**	**CuM**				
			V. R.C.C. M25	**15367**	**CuM**				
8	**11.8**	**1000 & 1202**	Supplying, fitting and placing TMT bar reinforcement in foundation complete as per drawings and Technical Specification Clause 1000 and 1202	**1554**	**Tonne**				
9	**11.2**	**300 & 1200**	Filling in foundation trenches as per drawing and technical Specification clause 305.3.9						
			I. Sand Filling	**2661**	**CuM**				
10	**6.7**	**1500**	**Interlocking Concrete Block Pavement**						
			(1) Providing and laying of interlocking concrete block pavement having thickness 80 mm as per drawings and Technical Specification Clause 1504.	**3912**	**SqM**				
			(2) Providing and laying of interlocking concrete block pavement having thickness 60 mm as per drawings and Technical Specification Clause 1504.	**11899**	**SqM**				
11	**16.90 (CPWD DSR 2018)**		Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8 mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor	**2779**	**SqM**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
			floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.-						
12	**11.20 (CPWD DSR 2018)**		Chequered precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).						
			1. Light shade pigment using white cement	**613**	**SqM**				
13	**3.14**	**303.1**	**Construction of Subgrade and Earthen Shoulders**						
			Construction of Subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and lead, transporting to site, spreading, grading to required slope and compacted to meet requirement of Tables 300.2 with lead upto 1000m as per Technical Specification Clause 303.1.	**331**	**CuM**				
14	**4.1**	**401**	**Granular Sub-base with Well Graded Material (Table 400.1)**						
			(A) By Mix in Place Method						
			Construction of granular sub-base by providing well graded material spreading in uniform layers with motor grader on						

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
			prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.						
			(II) For Grading II Material.	**262**	**CuM**				
15	**4.9**	**406**	**Wet Mix Macadam**						
			Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification Including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying In uniform layers in sub-base/base course on a well prepared sub base and compacting with smooth wheel roller of 80-100 kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc. as per Tables 400.11 & 400.12 and Technical Specification Clause 406						
			By Mechanical Means with 1 km lead.	**295**	**CuM**				
16	**5.1**	**502**	**Prime Coat**						
			(ii) Medium porosity						
			Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 -1.20 kg/sqm using mechanical means as per Technical Specification clause 502.	**1662**	**SqM**				
17	**5.2**	**503**	**Tack Coat with Bitumen Emulsion**						

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
		(ii)	Providing and applying tack coat with bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kq/sqm on the dry and hungry bituminous surface cleaned with hydraulic broom as per Technical Specification Clause 503.	**17221**	**SqM**				
		(iv)	Providing and applying tack coat with bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.30 to 0.35 kq/sqm on the prepared non- bituminous surfaces (cement concrete pavement) cleaned with hydraulic broom as per Technical Specification Clause 503.	**13688**	**SqM**				
18		**NSR**	Providing and applying RS-1 Cationic Bitumen Emulsion (tack coat) conforming to BIS 8887-2004 at the rate of 0.30 to 0.35 kq/sqm on the prepared non- bituminous surfaces (cement concrete surfaces) cleaned with hydraulic broom complete as per direction of the Engineer-in-Charge.	**13688**	**SqM**				
19	**5.4**	**504**	**Bituminous Macadam**						
			Providing and applying bituminous macadam with hot mix plant using crushed aggregates of grading as per Table 500.4 premixed with bituminous binder, transported to site upto a lead of 1000 m laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled to achieve the desired compaction as per Technical Specification Clause 504						
			USING PENETRATION GRADE BITUMEN 80/100						
			B. With Anti-Stripping Agent						
			40 MM NOMINAL SIZE GRADING	**471**	**CuM**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
20	**5.7 [PWD(Roads) SOR for NH Circle Meghalaya, Shillong 2019-20]**	**509**	**Bituminous Concrete**						
			Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading. Premixed with bituminous binder @ 5.4 to 5.6 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification Clause: 509 complete in all respects						
		I	**Bitumen**						
		(II)	**For Grading II (10 mm nominal size)**	**1261**	**cum**				
21	**13.7**	1200 (810 & 1900 as per Revision 5 of MoRT&H Specifications)	Providing, fitting and fixing mild steel railing complete as per drawing and Technical Specification Clause 1208.2 (Technical Specification Clause 810 and 1900 as per Revision 5 of MoRT&H Specification)	**9270**	**Rm**				
22	**17.1 [MPWD (Buildings)**		Structural steel work in single sections including cutting, hoisting, fixing in position and applying a priming coat of red lead paint (up to 4.6m height) from plinth level including						

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
	SOR 2015-16]		drilling holes, supplying, fitting and fixing with bolts and nuts or welding, if necessary, as directed.						
	(c)		In M.S. angles, channels, tees etc.	**569**	**Qntl**				
23	**38.8 [MPWD (Buildings) SOR 2015-16]**		Supplying fitting and fixing UPVC pipes with all necessary fitting (using uPVC high pressure pipes & fitting of SUPEIME/SFMC/FUSION brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed						
			110mm	**285**	**Rmt**				
			140mm	**718**	**Rmt**				
			160mm	**244**	**Rmt**				
			200mm	**98**	**Rmt**				
24	**NSR**		Supply, fitting and fixing Fibreglass Reinforced Polyester Manhole Cover with Frame including transportation, labour, etc. complete as directed and specified.						
			Cover for Storm Water Drains						
			Cover size 600mm x 600mm: Test Load 10T	**493**	**Each**				
			Cover Size 450mm x 450mm: Test Load 10T	**411**	**Each**				
			Cover for Ducts (Electrical + Communication and Water Supply)						
			Cover size 1000mm x 1000mm: Test Load 10T	**15**	**Each**				
			Cover size 1000mm x 1000mm: Test Load 40T	**129**	**Each**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
			Grating for Gully Chambers/Storm Water Drains						
			Size 300mm x 300mm: Test Load 40T	**399**	**Each**				
			Size 450mm x 450mm: Test Load 40T	**259**	**Each**				
25	**12.1**	600 & 1200	Brick Masonry Work in Cement Mortar In substructure complete excepting pointing and plastering, as per drawing and Technical Specification Clauses 602,603,604,1202 and 1204.						
			I) In 1:3 cement mortar	**53**	**CuM**				
26	**12.4**	700 & 1200	Stone Masonry in cement mortar for sub-structure complete as per drawing and Technical Specification Clauses 702,704,1202 and 1204.						
			III. Random Rubble Masonry						
			(i) In cement mortar 1:3	**53**	**CuM**				
27	**2.7**	**202**	Dismantling Stone Masonry						
			Dismantling of existing structure like culverts, bridges, retaining walls and other structures comprising of Stone Masonry in Lime Mortar, Cement Mortar, Mud Mortar and Dry Rubble Masonry, Stone Pitching/Dry Stone Spalls, Boulder laid in wire carters etc., including T&P and scaffolding whenever necessary, sorting the dismantle material, disposal of unserviceable material and stacking the serviceable material with all lifts and of 1000 m as per Technical Specification Clause 202						
			a) Rubble Stone Masonry in Cement Mortar	**53**	**CuM**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
28	**12.3**	**600 & 1200**	Plastering with cement mortar (1:4), 15mm thick on brickwork in sub-structure as per Technical Specification clauses 613.4 and 1204.	**105**	**SqM**				
29		**NSR**	Supply, Laying, Jointing, Field Testing, Commissioning HDPE (PE100 Pipes PN-10) pipes as per IS:4984 and specifications for water supply of various diameter, including all necessary fittings and specials, valves, valve chambers, supporting structure etc cost of material, labour required, transportation, loading, unloading & stacking etc. in underground RCC concrete duct, and including payment of all taxes and duties as applicable under rule, all complete as directed and specified(material cost of valve and extra cost for valve chamber construction in duct if any will be added separately).						
			1) 40mm	**315**	**Rmt**				
			2) 63mm	**630**	**Rmt**				
			3) 110mm	**525**	**Rmt**				
			4) 160mm	**210**	**Rmt**				
			5) 225mm	**105**	**Rmt**				
30		**NSR**	Brass ferrule & saddle piece for house connection						
			15 mm diameter	**53**	**Each**				
			20 mm diameter	**53**	**Each**				
31	**38.8 [MPWD (Buildings)**		Supplying fitting and fixing fusion welded PP-R (Poly propylene-random copolymer) Pipes with all necessary						

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
	SOR 2015-16]		fittings (of SFMC/Fusion brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed.						
			15 mm diameter	**525**	**Rm**				
			20 mm diameter	**525**	**Rm**				
32	**4.9 CPWD DSR 2018**		Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300mm long in the Bollard and M.S. Pipes 40 mm dia and 450mm long in cement concrete 1:3:6 (1 Cement: 3 coarse sand (zone-III): 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250x250x450mm deep for the same in bitumen/ concrete pavement at specified spacing.	**158**	**Each**				
33		**NSR**	Proving and fixing Injection Moulded Plastic Cable Trays / channel - Length per pc/per mtr-1000 mm (approx.), width (Internal/ External)-240 mm/340 mm, Height(Internal/External)-155 mm/230mm, Tolerance +/- 1%, Minimum Weight - Top & Bottom-8.0 Kg, Material-Polyolefin - Engineering Plastic, - Fire Protection Class K 1 in accordance with DIN 53438 part-2, Load Strength > 12 KN at room Temperature" - With one separator and including providing and laying of synthetic non-woven fabric of needle punched geotextile having following properties - Material-Polyester Fibre, Colour-White, Thickness-2.5 mm minimum, weight / Unit area- 230 g.s.m Minimum, Tensile strength-Machine direction- 20 Kg./ 5 cm Minimum, Cross Direction- 33 Kg. / 5cm Minimum, permeability- 50 litre / m2/sec (at 50 mm WH), Opening Sizes- 60mm to 120um	**525**	**Rmt**				

COMBINED PRICE SCHEDULE/ BILL OF QUANTITIES FOR (1) ROAD WORKS; (2) WATER PIPELINE DUCT; (3) ELECTRICAL DUCT; AND (4) STORM WATER DRAINAGE									
Sl. No.	**Item No. as per MPWD (Roads) SoR (other than NH) 2020-21**	**MORD/ MORT&H Specification**	**Description of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
34	**12.1**	**600 & 1200**	Brick Masonry Work in Cement Mortar In substructure complete excepting pointing and plastering, as per drawing and Technical Specification Clauses 602,603,604,1202 and 1204.						
			I) In 1:3 cement mortar	**140**	**CuM**				
35	**12.3**	**600 & 1200**	Plastering with cement mortar (1:4), 15mm thick on brickwork in sub-structure as per Technical Specification clauses 613.4 and 1204.	**333**	**SqM**				
	TOTAL								

12.3 Price Schedule/ Bill of Quantities (Part-2 of 4: Electrical Works)

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Note: Non-scheduled items are indicated as "NSR"; items as per Delhi Schedule of Rates 2018 are indicated as "CPWD DSR 2018";								
		Compact Sub-Station						
1	**NSR**	Supply, installation, testing and commissioning of 11kV, 630 KVA, Outdoor Package / Compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following: HT Switchgear: 11KV, 630A, 25KA for 1 Sec SF6 Insulated SCADA compatible / Integrable RMU [4 way] consisting of 2 nos. remote operated motorised Load Break Switch and 2 no. remote operated motorised VCB unit with self-powered microprocessor based 3 ph. numerical relay and metering unit with CTs and PTs. FRTU and SCADA shall be of same make. PSS Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM. Complete PSS enclosure with GI and thickness as 2mm and base as 4mm HRCA PSS should have valid Type test for IAC AFLR. 21KA for 1 sec. FRTU should be integrated to SCADA for remote monitoring (HT & LT) and control (HT). Thermal sensors should be provided in the cable chamber of Ring main unit, Transformer terminations and LV bus/Incomer. Humidity sensor should be provided in the transformer compartment. All the sensors shall communicate with FRTU for remote SCADA monitoring through a sensor Data concentrator. 11/ 0.433kV, 630 kVA, Dry type Transformer [Losses as per IS tolerance / ECBC standard]. Metering compartment and LT isolator Breaker LT: I/C - 1000A 433V, 4Pole, 50Hz, 50KA	10	Set				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		electrically operated type ACB. O/G - 5 nos. 250A, 433V, 3Pole, 50Hz, 36KA MCCB						
2	**NSR**	Supply, installation, testing and commissioning of 11kV, 630 KVA, Outdoor Package / Compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following: HT Switchgear: 11KV, 630A, 25KA for 1 Sec SF6 Insulated SCADA compatible / Integrable RMU [4 way] consisting of 3 nos. remote operated motorised Load Break Switch and 1 no. remote operated motorised VCB unit with self-powered microprocessor based 3 ph. numerical relay and metering unit with CTs and PTs. FRTU and SCADA shall be of same make. PSS Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM. Complete PSS enclosure with GI and thickness as 2mm and base as 4mm HRCA PSS should have valid Type test for IAC AFLR. 21KA for 1 sec. FRTU should be integrated to SCADA for remote monitoring (HT & LT) and control (HT). Thermal sensors should be provided in the cable chamber of Ring main unit, Transformer terminations and LV bus/Incomer. Humidity sensor should be provided in the transformer compartment. All the sensors shall communicate with FRTU for remote SCADA monitoring through a sensor Data concentrator. 11/ 0.433kV, 630 kVA, Dry type Transformer [Losses as per IS tolerance / ECBC standard]. Metering compartment and LT isolator Breaker LT: I/C - 1000A 433V, 4Pole, 50Hz, 50KA electrically operated type ACB. O/G - 5 nos. 250A, 433V, 3Pole, 50Hz, 36KA MCCB	5					

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
3	**NSR**	Supply, installation, testing and commissioning of 11kV, 315KVA, Outdoor Package / Compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following: HT Switchgear: 11KV, 630A, 25KA for 1 Sec SF6 Insulated SCADA compatible / Integrable RMU [4 way] consisting of 2 nos. remote operated motorised Load Break Switch and 2 no. remote operated motorised VCB unit with self-powered microprocessor based 3 ph numerical relay and metering unit with CTs and PTs. FPI, RMU & Relay should be of same make for the ease of integration. FRTU and SCADA shall be of same make. PSS Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM. Complete PSS enclosure with GI and thickness as 2mm and base as 4mm HRCA, PSS should have valid Type test for IAC AFLR. 21KA for 1 sec FRTU should be integrated to SCADA for remote monitoring (HT & LT) and control (HT). Thermal sensors should be provided in the cable chamber of Ring main unit, Transformer terminations and LV bus/Incomer. Humidity sensor should be provided in the transformer compartment. All the sensors shall communicate with FRTU for remote SCADA monitoring through a sensor Data concentrator. 11/ 0.433kV, 315 kVA, Dry type Transformer [Losses as per IS tolerance / ECBC standard]. Metering compartment and LT isolator Breaker LT: I/C - 800A 433V, 4Pole, 50Hz, 50KA electrically operated type ACB. O/G - 2 nos. 250A, 3nos 125A, 433V, 3Pole, 50Hz, 36KA MCCB	1	Set				
		Ring Main Unit						

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
4	**NSR**	Supply, installation, testing and commissioning of outdoor type RMU (4 Way Ring Main Unit). comprising 2 Nos. 11 KV, 630 A, 25 KA for 1 sec Load break switches and 2 nos. 630 A VCB 25 KA for 1 sec [Vacuum Interrupter and RMU should be of same OEM make] as outgoings and earth switch bus bars, interlocking. Suitable for manual & motorized operation, FPI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking, FRTU and SCADA shall be of same make. RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU. RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM	11	Set				
5	**NSR**	Supply, installation, testing and commissioning of outdoor type RMU (3 Way Ring main unit). comprising 2 Nos. 11 KV, 630 A, 25 KA for 1 sec Load break switches and 1 no. 630 A VCB 25 KA as outgoings [Vacuum Interrupter and RMU should be of same make] and earth switch bus bars, interlocking. Suitable for manual & motorized operation, FPI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking, FRTU and SCADA shall be of same make. RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU.RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM.	1	Set				
6	**NSR**	Supply, installation, testing and commissioning of outdoor type RMU (5 Way Ring main unit). comprising 4 Nos. 11 KV , 630 A,	2	Set				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		25 KA for 1 sec Load break switches and 1 nos. 630 A VCB 25 KA as outgoings [Vacuum Interrupter and RMU should be of same make] and earth switch bus bars, interlocking .Suitable for manual & motorized operation, F.PI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking. FRTU and SCADA shall be of same make. RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU. RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box. RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM.						
7	**NSR**	Supply, installation, testing and commissioning of outdoor type RMU (4 Way Ring main unit). comprising 3 Nos. 11 KV, 630 A, 25 KA for 1 sec Load break switches and 1 no. 630 A VCB 25 KA for 1 sec as outgoings [Vacuum Interrupter and RMU should be of same make] and earth switch bus bars, interlocking. Suitable for manual & motorized operation, FPI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking. FRTU and SCADA shall be of same make RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU. RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA. RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM.	12	Set				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
8	**NSR**	Supply, installation, testing and commissioning of outdoor type (7 Way Ring main unit). comprising 2 Nos. 11 KV, 630 A, 25 KA for 1 sec incoming Load break switches and 5 No's 11 KV, 630 A, 25 KA Load Break Switches as outgoing. Suitable for manual & motorized operation, FPI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking, FRTU for SCADA. FRTU and SCADA shall be of same make . RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU. RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA. Both Incomer LBS shall have a provision of mechanical interlocking through Castle Key. RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM.	2	Set				
9	**NSR**	Supply, installation, testing and commissioning of outdoor type (4 Way Ring main unit). comprising 2 Nos. 11 KV, 630 A, 25 KA for 1 sec Load break switches as incomer and 2 No's 11 KV, 630 A, 25 KA Load Break Switches as outgoing. Suitable for manual & motorized operation, FPI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking, FRTU for SCADA. FRTU and SCADA shall be of same make. RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU. RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA. Both Incomer LBS shall have a provision of mechanical interlocking through Castle Key. RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM.	1	Set				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
10	**NSR**	Supply, installation, testing and commissioning of outdoor type 1 no. 630 A VCB 25 KA for 1 sec [Vacuum Interrupter and RMU should be of same OEM make] as outgoings and earth switch bus bars, interlocking. Suitable for manual & motorized operation, FPI (Fault position Indication), bushing for 630A, arc proof cable cover complete with interlocking, FRTU and SCADA shall be of same make. RMU Manufacturer should have valid Type test for IAC AFLR 1 sec for both tank and cable box for a rating of 21kA RMU should have Auto Transfer Source Functionality between two LBS Function of RMU via FRTU. RMU Manufacturer should have valid TYPE TEST REPORTS or design authorisation from the OEM	2	Set				
		Feeder Pillar Panels						
11	**NSR**	Supply, installation, testing and commissioning of **Feeder Pillar panels** suitable for AC 440 V , 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather, dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Location for Timer Switch for Street light control inside the panel.	80	Each				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		The feeder pillar shall be Compact in size with complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering, safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note: -The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R, Y, B LED type indicating lamps. With facility for smart energy meters and GSM Dual sim Modem.						
		MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:						
		Rating of incomer **MCCB TPN 150 A, 35KA** (Adjustable thermal O/L with Ics = 100% Icu).						
		Outgoing MCB, 80KA, of 32A SP -30 nos,						
12	**NSR**	Supply, installation, testing and commissioning of **Feeder Pillar panels** suitable for AC 440 V, 50 HZ supply, fabricated with 14	80	Each				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather, dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Location for Timer Switch for Street light control inside the panel.						
		The feeder pillar shall be Compact in size with complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering, safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note: -The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R, Y, B LED type indicating						

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		lamps. With facility for smart energy meters and GSM Dual sim Modem.						
		MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:						
		Rating of incomer **MCCB TPN 100 A, 35KA** (Adjustable thermal O/L with Ics = 100% Icu).						
		Outgoing MCB, 80KA, of 32A SP - 24 nos,						
13	**NSR**	Supply, installation, testing and commissioning of **Feeder Pillar panels** suitable for AC 440 V, 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather, dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Location for Timer Switch for Street light control inside the panel.	40	Each				
		The feeder pillar shall be Compact in size with complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter						

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		connection between switch gear, control gear, metering, safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note: -The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R, Y, B LED type indicating lamps. With facility for smart energy meters and GSM Dual sim Modem.						
		MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:						
		Rating of incomer **MCCB TPN 63 A, 35KA** (Adjustable thermal O/L with Ics = 100% Icu).						
		Outgoing MCB, 80KA, of 32A SP -24 nos,						
14	**CPWD DSR 2018 Item No. 2.21**	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	100	Each				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
15	**CPWD DSR 2018 Item No. 2.22**	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	40	Each				
16	**CPWD DSR 2018 Item No. 4.1.3**	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 200 mm width X 50 mm depth X 1.6 mm thickness	50	Mtrs				
17	**CPWD DSR 2018 Item No. 4.2.3**	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 200 mm width X 50 mm depth X 1.6 mm thickness	60	Each				
		EARTHING and LIGHTNING						
18	**CPWD DSR 2018 Item No. 5.2**	Earthing with G.I. earth pipe 4.5 meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	100	Each				
19	**CPWD DSR 2018 Item No. 5.6**	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	60	Each				
20	**CPWD DSR 2018 Item No. 5.7**	Supplying and laying 6 SWG G.I. wire at 0.50 meter below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	12,000	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
21	**CPWD DSR 2018 Item No. 5.9**	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50 mm)	1,200	Mtrs				
22	**CPWD DSR 2018 Item No. 5.18**	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	200	Mtrs				
23	**CPWD DSR 2018 Item No. 6.2**	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	150	Each				
24	**CPWD DSR 2018 Item No. 6.7**	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or on surface of wall for lightning conductor complete as required. (For horizontal run)	1,000	Mtrs				
25	**CPWD DSR 2018 Item No. 6.8**	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or on surface of wall for lightning conductor complete as required. (For vertical run)	800					
26	**MePDCL SOR Item No. 15**	Fitting and fixing of Danger Plates as directed	50	Each				
		POWER CABLES - HT AND LT						
27	**NSR**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE, 11KV HT XLPE Cable - 3Cx300 sqmm	8,000	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
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(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
28	**NSR**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE, 11KV HT XLPE Cable - 3Cx240 sqmm	4,000	Mtrs				
29	**NSR**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE, 11KV HT XLPE Cable - 3Cx150 sqmm	200	Mtrs				
30	**NSR**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE, 11KV HT XLPE Cable - 3Cx120 sqmm	800	Mtrs				
31	**NSR**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE, **11KV HT XLPE Cable - 3Cx95 sqmm**	800	Mtrs				
32	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 2C x 06 Sq.mm	500	Mtrs				
33	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 2C x 10 Sq.mm	500	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
34	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 2C x 16 Sq.mm	500	Mtrs				
35	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5 x 16 Sq.mm	200	Mtrs				
36	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 25 Sq.mm	200	Mtrs				
37	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 35 Sq.mm	200	Mtrs				
38	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 50 Sq.mm	500	Mtrs				
39	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 70 Sq.mm	800	Mtrs				
40	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 95 Sq.mm	1,800	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
41	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 120 Sq.mm	2,500	Mtrs				
42	**NSR**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED 3.5C x 150 Sq.mm	1,500	Mtrs				
43	**CPWD DSR 2018 Item No. 7.1.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Upto 35 Sqmm.	400	Mtrs				
44	**CPWD DSR 2018 Item No. 7.1.2**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 35 sq. mm and upto 95 sq. mm	500	Mtrs				
45	**CPWD DSR 2018 Item No. 7.1.3**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 95 sq. mm and upto 185 sq. mm	500	Mtrs				
46	**CPWD DSR 2018 Item No. 7.5.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Upto 35 Sqmm.	200	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
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(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
47	**CPWD DSR 2018 Item No. 7.5.2**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Above 35 sq. mm and upto 95 sq. mm	1,500	Mtrs				
48	**CPWD DSR 2018 Item No. 7.5.3**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Above 95 sq. mm and upto 185 sq. mm	2,000	Mtrs				
49	**CPWD DSR 2018 7.6.2**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. Above 35 sq. mm and upto 95 sq. mm	100	Mtrs				
50	**CPWD DSR 2018 Item No. 7.6.3**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. Above 95 sq. mm and upto 185 sq. mm	100	Mtrs				
51	**CPWD DSR 2018 Item No. 7.6.4**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. Above 185 sq. mm and upto 400 sq. mm	100	Mtrs				
52	**CPWD DSR 2018 Item No. 7.8.2**	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	100	Mtrs				
53	**CPWD DSR 2018**	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.	100	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	Item No. 7.8.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)						
54	**CPWD DSR 2018 Item No. 8.1.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Upto 120 sq. mm	200	Mtrs				
55	**CPWD DSR 2018 Item No. 8.1.2**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 120 sq. mm and upto 400 sq. mm	500	Mtrs				
56	**CPWD DSR 2018 8.3.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC / HUME / METAL pipe as required. Upto 120 sq. mm	600	Mtrs				
57	**CPWD DSR 2018 8.3.2**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC / HUME / METAL pipe as required. Above 120 sq. mm and upto 400 sq. mm	12,200	Mtrs				
58	**CPWD DSR 2018 Item No. 8.4.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required. Upto 120 sq. mm	100	Mtrs				
59	**CPWD DSR 2018 Item No. 8.4.2**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required. Above 120 sq. mm and upto 400 sq. mm	100	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		CABLE JOINTING & END TERMINATION - HT AND LT						
60	**CPWD DSR 2018 Item No. 9.2.19**	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 50 sq. mm	4	Each				
61	**CPWD DSR 2018 Item No. 9.2.20**	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 70 sq. mm	100	Each				
62	**CPWD DSR 2018 Item No. 9.2.21**	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 95 sq. mm	120	Each				
63	**CPWD DSR 2018 Item No. 9.2.22**	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 120 sq. mm	90	Each				
64	**CPWD DSR 2018 Item No. 9.2.23**	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 150 sq. mm	90	Each				
65	**CPWD DSR 2018**	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size	20	Each				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	Item No. 9.4.8	of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 50 sq. mm						
66	**CPWD DSR 2018 Item No. 9.4.9**	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 70 sq. mm	20	Each				
67	**CPWD DSR 2018 Item No. 9.4.10**	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 95 sq. mm	20	Each				
68	**CPWD DSR 2018 Item No. 9.4.11**	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 120 sq. mm	30	Each				
69	**CPWD DSR 2018 Item No. 9.4.12**	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½ X 150 sq. mm	20	Each				
70	**CPWD DSR 2018 Item No. 10.5.2**	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required: 120 sq. mm	50	Each				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
71	**CPWD DSR 2018 Item No. 10.5.3**	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required: 240 sq. mm	40	Each				
72	**CPWD DSR 2018 Item No. 10.5.4**	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required: 300 sq. mm	60	Each				
73	**CPWD DSR 2018 Item No. 10.6.2**	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required: 120 sq. mm	12	Each				
74	**CPWD DSR 2018 Item No. 10.6.3**	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required: 240 sq. mm	30	Each				
75	**CPWD DSR 2018 Item No. 10.6.4**	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required: 300 sq. mm	20	Each				
76	**CPWD DSR Item No. 14.7**	Providing and laying in position cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) in	15	Cum				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		foundation of pump, DG set etc including form work etc as required.						
77	**CPWD DSR 2018 Item No. 14.13.2**	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required 80 mm dia	200	Mtrs				
78	**CPWD DSR 2018 Item No. 14.13.3**	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required 100 mm dia	100	Mtrs				
79	**CPWD DSR 2018 Item No. 14.13.4**	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required 150 mm dia	100	Mtrs				
80	**CPWD DSR 2018 Item No. 14.16.2**	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. 90 mm dia (OD-90 mm & ID-76 mm nominal)	400	Mtrs				
81	**CPWD DSR 2018 Item No. 14.16.3**	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. Direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. 120 mm dia (OD-120 mm & ID-103 mm nominal)	5,000	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
82	**CPWD DSR 2018 Item No. 14.16.4**	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. Direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. 160 mm dia (OD-160 mm & ID-135 mm nominal)	4,700	Mtrs				
83	**MePDCL SOR Item 26-A-(b)**	Fitting and fixing of HT Cable terminating kit (11KV), This include jointing the HT conductor in cable for XLPE/PILC type cable including fitting and fixing of kit complete Out door type: 3 core, cable box for 70 sqmm	18	per Set				
84	**MePDCL SOR Item 26-A-(c)**	Fitting and fixing of HT Cable terminating kit (11KV), This include jointing the HT conductor in cable for XLPE/PILC type cable including fitting and fixing of kit complete Out door type: 3 core, cable box for 95 sqmm	30	per Set				
85	**MePDCL SOR Item 26-A-(d)**	Fitting and fixing of HT Cable terminating kit (11KV), This include jointing the HT conductor in cable for XLPE/PILC type cable including fitting and fixing of kit complete Out door type: 3 core, cable box for 120 sqmm	30	per Set				
86	**MePDCL SOR Item 26-A-(e)**	Fitting and fixing of HT Cable terminating kit (11KV), This include jointing the HT conductor in cable for XLPE/PILC type cable including fitting and fixing of kit complete Out door type: 3 core, cable box for 240 sqmm and above	36	per Set				
87	**NSR**	40MM 7 WAY MULTI DUCT PIPES (7way 40mm Multi ducts with silicon lubricated inner layer with straight ribs and external sheath shall be in orange colour the colour of the seven PLB ducts shall be Green, Blue, Yellow, Brown, Violet, Grey & Red for differentiation)	18,000	Mtrs				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ELECTRICAL WORKS								
Sl. No.	**Item No. as per MePDCL SoR 2013-14**	**Description of Items**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
88	**NSR**	40MM Coupler for 40MM 7 WAY MULTI DUCT PIPES (Set of 7 Nos.)	55	each				
89	**NSR**	40MM end cap for 40MM 7 WAY MULTI DUCT PIPES (Set of 14 Nos.)	20	each				
90	**NSR**	PU Foam to seal LT and HT panels (750 ml/can)	40	each				
	TOTAL							

12.4 Price Schedule/ Bill of Quantities (Part-3 of 4: Landscaping Works)

PRICE SCHEDULE/ BILL OF QUANTITIES FOR LANDSCAPING WORKS								
Sl. No.	**Item No. as per MPWD SoR or DSR**	**Particular of item**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Note: Non-scheduled items are indicated as "NSR"; items as per Meghalaya PWD(Buildings) Schedule of Rates 2015-16 are indicated as "MPWD(Buildings) SoR 2015-16"; items as per Delhi Schedule of Rates 2018 are indicated as "CPWD DSR 2018"; items as per Delhi Schedule of Rates 2018 for horticulture works are indicated as "CPWD DSR(Hort) 2018"								
1	**2.1 [CPWD DSR(Hort) 2018]**	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly levelling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	**1800**	**CUM**				
2	**2.2 [CPWD DSR(Hort) 2018]**	Supplying and stacking of good earth at site including royalty and carriage upto 5 km lead complete (earth measured in stacks will be reduced by 20% for payment).	**900**	**CUM**				
3	**2.3 [CPWD DSR(Hort) 2018]**	Supplying and stacking sludge at site including royalty and carriage upto 5 km lead complete (sludge measured in stacks will be reduced by 8% for payment).	**900**	**CUM**				
4	**2.4 [CPWD DSR(Hort) 2018]**	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km lead complete (manure measured in stacks will be reduced by 8% for payment):						
	2.4.1	Screened through sieve of I.S. designation 20 mm	**900**	**CUM**				
5	**2.5 [CPWD DSR(Hort) 2018]**	Rough dressing the trenched ground including breaking clods.	**1800**	**SQM**				
6	**2.6 [CPWD DSR(Hort) 2018]**	Uprooting Weeds From the trenched Area after 10 to 15 Days of its Flooding with water including Disposal of Uprooted Vegetation.	**1800**	**SQM**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR LANDSCAPING WORKS								
Sl. No.	**Item No. as per MPWD SoR or DSR**	**Particular of item**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
7	**2.8 [CPWD DSR(Hort) 2018]**	Spreading of Sludge, Dump manure & good earth in required thickness (cost of sludge, dump manure or and good earth to be paid separately)	**1800**	**CUM**				
8	**2.9 [CPWD DSR(Hort) 2018]**	Mixing earth & sludge or manure in proportion Specified or directed.						
		Adding the quantity of earth, sludge and manure	**2700**	**CUM**				
9	**20.1 [MPWD (Buildings) SoR 2015-16]**	**LAWN MAKING BY DIBBLING :** 20.1 Supplying and dibbling of selected lawn grass after preparing the land by ploughing/ working to a depth of 40-45 cm, removing of all unwanted debris (rubbles, pebbles, plant roots etc.), mixing of organic manure (10- 15kg/sq.m), levelling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K) mixture as specified and directed by the department.						
		Carpet grass (Axonopus affinis)	**1500**	**SQM**				
10	**2.13 [CPWD DSR(Hort) 2018]**	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	**1800**	**CUM**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR LANDSCAPING WORKS								
Sl. No.	**Item No. as per MPWD SoR or DSR**	**Particular of item**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
11	**2.14 [CPWD DSR(Hort) 2018]**	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20%: 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately)						
		Holes 90 cm dia and 90 cm deep	**150**	**Each**				
		Holes 60 cm dia and 60 cm deep	**300**	**Each**				
		Holes 45 cm dia and 45 cm deep	**300**	**Each**				
12	**20.16 [MPWD (Buildings) SoR 2015-16]**	Half brick circular tree guard internal diameter 1.25m and height 1.2m above ground and 0.02m below ground bottom two courses laid dry and top three courses in cement mortar 1:6 and the intermediate courses being in dry honey comb masonry as per design complete.	**110**	**Each**				
15	**20.9 [MPWD (Buildings) SoR 2015-16]**	Supplying and planting of ornamental trees (30cm height sapling) including pit making (60cm x 60cm x 60cm), filling the pit with appropriate soil media, manure and fertilizers as per specification and necessary maintenance complete as specified and directed.						
	(a)	SHADE TREE						
	(i)	Neem / Mahaneem / Beef wood / Bakul / Acacia / Siris / Devils tree / Kadam / Palash / Pink Cassia / peepal / Silver oak / Simalu / Ajar	**50**	**Each**				
	(ii)	Kanchan / Nahar / Arjun	**50**	**Each**				
	(iii)	Bottle Brush / Nil Gulmohar / Debadaru / Weeping Willow	**50**	**Each**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR LANDSCAPING WORKS								
Sl. No.	**Item No. as per MPWD SoR or DSR**	**Particular of item**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	(iv)	Christmas tree / Kuki	**50**	**Each**				
	(b)	FLOWERING TREE						
	(i)	Gulmohar / Ashok	**50**	**Each**				
	(ii)	Kanchan	**50**	**Each**				
16	**20.10 [MPWD (Buildings) SoR 2015-16]**	Supplying and planting of ornamental shrub (below 30cm height) including pit making (60cm x 60cm x 60cm), filling the pit with appropriate soil media, manure and fertilizers as per specification and necessary maintenance complete as specified and directed.						
	(a)	Radhachura / Krishnachura / Rat ki rani / Ixora / Jetuka	**200**	**Each**				
	(b)	Allmanda / Khorika zai / May flower / Kamini / Kathanda / Tecoma / Acalypha / Bougainvillea / Dracaena / Togor / Nilakantha / Mussaenda	**180**	**Each**				
	(c)	Korobi / Azalea	**100**	**Each**				
	(d)	Thuja	**100**	**Each**				
	(e)	Poinsettia / Forget me not	**100**	**Each**				
17	**NSR**	Providing and laying 500x500x40 mm thick Turf paver (Turfpave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick local sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.						
			50	**SQM**				
18	**NSR**	Supplying, fitting and fixing Stone Benches fully complete at site with all accessories, labours, power supply etc. as per the approved design and specification and as per direction of Engineer in Charge						

PRICE SCHEDULE/ BILL OF QUANTITIES FOR LANDSCAPING WORKS								
Sl. No.	**Item No. as per MPWD SoR or DSR**	**Particular of item**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
			35	**Each**				
19	**20.3 [MPWD (Buildings) SoR 2015-16]**	**POTTED PLANTS:** Supplying and planting of terrestrial orchids with required size of pot including filling the pot to the top surface with appropriate soil media made of garden soil, river sand, cow dung, leaf mould, fertilizer, pesticides as per specification and necessary maintenance for a period of 4 months from the date of planting complete as specified and directed. (Mixing of different ingredients of soil media to be made in presence of Deptt. official / Specialist concerned)						
	(a)	With Aerides						
	(i)	Using earthen pot of 30 cm dia.	**100**	**Each**				
	(ii)	Using earthen pot of 60 cm dia.	**75**	**Each**				
	(iii)	Using concrete pot of 60 cm dia.	**25**	**Each**				
	(b)	With Dendrobium (Hybrid)						
	(i)	Using earthen pot of 30 cm dia.	**100**	**Each**				
	(ii)	Using earthen pot of 60 cm dia.	**75**	**Each**				
	(iii)	Using concrete pot of 60 cm dia.	**25**	**Each**				
	(c)	With Vanda (Hybrid)						
	(i)	Using earthen pot of 30 cm dia.	**100**	**Each**				
	(ii)	Using earthen pot of 60 cm dia.	**75**	**Each**				
	(iii)	Using concrete pot of 60 cm dia.	**25**	**Each**				
20	**20.21 [MPWD (Buildings) SoR 2015-16]**	**FOUNTAINS:** Supplying, erection and commissioning of DECOR INDIA DOME WITH DANDELION FOUNTAIN in a pool of 7m dia. comprising of 1no. centre Dandelion 1metre diameter, 1no. inward ring, hydraulic circuit, accessories and fittings, 30 nos. of 150 watt & 220 V submersible lamps in aluminium casing	**1**	**Each**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR LANDSCAPING WORKS								
Sl. No.	**Item No. as per MPWD SoR or DSR**	**Particular of item**	**Qty**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
		powder coated body, gasket, light stand, light changer, 3 phase 10 HP submersible pump set with necessary electrical submersible cabling, conducting etc., electrical panel, MCB, starter, fuse, necessary internal wiring etc., outdoor electrical enclosure for the above electrical panel, plumbing, fitting of valve etc. complete as specified and directed. (Construction of Pool to be done as per design and to be measured and paid separately).						
	TOTAL							

12.5 Price Schedule/ Bill of Quantities (Part-4 of 4: Road Signage Works)

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ROAD SIGNAGE WORKS									
Sl. No.	**MPWD (Roads) (other than NH) SoR 2020-21**	**MORD/ MORT&H Specification**	**Descriptions of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
Note: Non-scheduled items are indicated as "NSR"; items as per Meghalaya PWD(Buildings) Schedule of Rates 2015-16 are indicated as "MPWD(Buildings) SoR 2015-16"; items as per Delhi Schedule of Rates 2018 are indicated as "CPWD DSR 2018"; items as per Delhi Schedule of Rates 2018 for horticulture works are indicated as "CPWD DSR(Hort) 2018)"									
			Traffic Signs						
			A. Retro Reflectorised Traffic Signs						
1	**10.2**	**1700, 800 & 300**	(1) Supported on mild steel angle iron post 75 mm x 75 mm x 6 mm Providing and fixing of retro-reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 1701.2.3 fixed over Aluminium Sheeting 1.5 mm thick supported on a Mild Steel Angle Post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawing and Technical Specification Clause 801.						
			I. 900 mm equilateral triangle	**35**	**Each**				
			III. 600mm circular	**51**	**Each**				
			IV. 800 mm x 600 mm rectangular	**32**	**Each**				
			V. 600mm x 450mm rectangular	**32.00**	**Each**				
			VII. 900mm Side Octagon	**22.00**	**Each**				
2	**10.3**	**1700, 800 & 300**	Direction and Place Identification Signs upto 0.9 sqm size board.						
			A. Retro Reflectorised Traffic Signs						
			(1) Supported on mild steel angle iron post 75 mm x 75 mm x 6 mm Providing and erecting direction and place identification retro-reflectorised sign as per	**15**	**SqM**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ROAD SIGNAGE WORKS									
Sl. No.	MPWD (Roads) (other than NH) SoR 2020-21	MORD/ MORT&H Specification	Descriptions of Item	Quantity	Unit	Rate in Figure (INR)	Rate in Words (Indian Rupees)	Amount in Figure (INR)	Amount in Words (Indian Rupees)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			IRC:67 made of encapsulated lens type reflective sheeting vide clause 1701.2.3 fixed over Aluminium Sheeting 2 mm thick with area not exceeding 0.9 sqm supported on a Mild Steel single angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawing and Technical Specification Clause 1701.						
3	10.4	1700, 800 & 300	Direction and Place Identification Signs with size more than 0.9 sqm.						
			A. Retro Reflectorised Traffic Signs						
			(1) Supported on mild steel angle iron post 75 mm x 75 mm x 6 mm Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 1701.2.3 fixed over Aluminium Sheeting 2 mm thick with area exceeding 0.9 sqm supported on a Mild Steel angle iron posts 75 mm x 75 mm x 6 mm, 2 Nos. firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawing and Technical Specification Clause 1701.	**8**	**SqM**				
			Painting lines, dashes, arrows etc						
4	**10.8**	**1700**	Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous surface, including cleaning the surface of all dirt, dust and other foreign matter,	**722**	**SqM**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ROAD SIGNAGE WORKS									
Sl. No.	**MPWD (Roads) (other than NH) SoR 2020-21**	**MORD/ MORT&H Specification**	**Descriptions of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			demarcation at site and traffic control as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete.						
5	**10.14**		Construction of Speed Breaker by providing BUSG of 75 mm nominal thickness along with 20 mm thick premix carpet and seal coat including printing lines and dashes with 2 coats off new work with ready-mix road marking paints conforming to IS 164 on bituminous surface complete as directed.	**80**	**Rmt**				
			Road Marking						
6	**10.17**		Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes and as per relevant clauses of section-800.	**2846**	**SqM**				
7	**16.65 [CPWD DSR 2018]**		Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti-theft steel to be installed as per direction of Engineer-in charge.	**500**	**Each**				
8	**16.50 [CPWD DSR 2018]**		Providing and fixing Glow studs of size 100x20 mm made of heavy-duty body shall be moulded ASA (Acrylic styrene Acryloretrite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in	**1500**	**Each**				

PRICE SCHEDULE/ BILL OF QUANTITIES FOR ROAD SIGNAGE WORKS									
Sl. No.	**MPWD (Roads) (other than NH) SoR 2020-21**	**MORD/ MORT&H Specification**	**Descriptions of Item**	**Quantity**	**Unit**	**Rate in Figure (INR)**	**Rate in Words (Indian Rupees)**	**Amount in Figure (INR)**	**Amount in Words (Indian Rupees)**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
			charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degrees to base. The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4: 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.						
9	**16.62 [CPWD DSR 2018]**		Providing and applying 2.5 mm thick road marking strips (retroreflective) of specified shade/ colour using hot thermoplastic material by fully/ semi-automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	**20**	**SqM**				
	TOTAL								

13 SECTION 9

FORMAT A: LETTER OF ACCEPTANCE (LOA)

To,

M/s.....

.....

.....

This is to notify you that on behalf of the Employer, the Chief Engineer (NH), PWD(Roads), Meghalaya, Shillong has accepted your Bid dated ..... for execution of …….. for the Contract Price of Rs..... (Rupees..…….....only).

You are hereby requested to furnish the following within 10 days of the receipt of this Letter of Acceptance valid up to 45 days from the date of expiry of Defects Liability Period (i.e. up to .....) and sign the contract, failing which action as stated in Clause 1.33.3 of ITB will be taken.

- Performance Security, in the form detailed in Clause 1.33.1 of ITB for an amount of Rs..... (Rupees.....)

Yours faithfully,

Chief Engineer(NH),

PWD(Roads),Meghalaya, Shillong

FORMAT B

ISSUE OF NOTICE TO PROCEED WITH THE WORK

LETTER NO..... DATED.....

To,

.....

.....

.....

Dear Sir,

Pursuant to your furnishing the requisite Performance Security in accordance with Clause 1.33 of Instructions to Bidders (ITB) and Clause 4.48 of General Conditions of Contract (GCC) of the Bidding Document and signing of the contract for _____ [name of the work], you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

Chief Engineer(NH),
PWD(Roads),Meghalaya, Shillong

FORMAT C

DRAFT AGREEMENT

This agreement, made this day the..... of 2020 among the Yours faithfully,

Chief Engineer(NH), PWD(Roads),Meghalaya, Shillong (hereinafter called “the Employer”);

Chief Executive Officer, Shillong Smart City Limited (hereinafter called “SSCL”); and

.....

.....

[Name and address of Contractor/JV] (Hereinafter called “the Contractor” of the other part).

Whereas the Employer is desirous that the Contractor execute the Work of …….Shillong (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 at a cost of Rupees..... (Rs.....only)

NOW THIS AGREEMENT WITNESSETH as follows:

1. 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. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.

3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein 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.

4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
    i) Letter of Acceptance;
    ii) Notice to proceed with the works;
    iii) Contractor’s Bid;
    iv) Contract Data;
    v) Special Conditions of contract and General Conditions of Contract;
    vi) Scope of Work and Technical Specifications;
    vii) Drawings;
    viii) Bill of Quantities; and
    ix) Any other document listed in the Contract Data as forming part of the contract.

FORMAT D

BANK GUARANTEE FOR ADVANCE PAYMENT

To

The Chief Engineer(NH),

PWD(Roads),

Meghalaya, Shillong.

Gentlemen:

In accordance with the provisions of the General Conditions of contract, clause 45 ("Advance Payment") of the above-mentioned Contract, _____ [name and address of Contractor, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof] (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] _____ [in words].

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][12] _____ .

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 Contractor documents which may be release us from any liability under this guarantee, 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.

Yours truly,

Signature and seal: _____

Name of Bank/Financial Institution: _____

[12] An amount shall be inserted by the bank or financial institution representing the amount of the Advance Payment and denominated in Indian Rupees.

Address: _____

Date: _____

_____

FORMAT E

PERFORMANCE BANK GUARANTEE

To,

The Chief Engineer(NH),

PWD(Roads),

Meghalaya, Shillong.

WHEREAS _____ [Name and Address of Contractor, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof] (Hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [Name of Contract and brief description of Works] herein after 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 Nationalized Bank or Scheduled Commercial 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] _____

_____ [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] as aforesaid without your needing to prove or to show grounds or reasons for a demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contactor 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 thereunder or of any of the Contract documents which may be made between you and the Contractor shall in anyway 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 a date 45 days after the expiry of defect liability period of 5 years after intended completion date.

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____