

BIDDING DOCUMENT

National Open Competitive Procurement

for

Procurement of Works

**(Engineering, Procurement, Construction (“EPC”) following two envelope
Bidding Process with e-Procurement)**

November’ 2024

GOVERNMENT OF ASSAM.

PROJECT: Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) Project

REQUEST FOR BIDS NO: IN-AHIDMS-457643-CW-RFB

NATIONAL OPEN COMPETITIVE PROCUREMENT

(Engineering, Procurement, Construction (“EPC”) following two envelope Bidding Process with e-Procurement)

NAME OF WORK: Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode :

PERIOD OF SALE OF BIDDING DOCUMENT : FROM 20.11.2024 TO 07.01.2025

TIME AND DATE OF PRE-BID MEETING¹ : DATE: 29.11.2024 TIME 1300 HOURS

LAST DATE AND TIME FOR RECEIPT OF BIDS : DATE : 07.01.2025 TIME 1300 HOURS

* TIME AND DATE OF OPENING – Technical Part : DATE: 07.01.2025 TIME 1400 HOURS OF BIDS

PLACE OF OPENING OF BIDS : Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, Govt. of Assam, 4th floor, Nayantara Supermarket Complex, Six Mile, Khanapara, Guwahati, Assam, India-781006, Phone: 03613501033
Email: pmu.ahidms@gmail.com

OFFICER INVITING BIDS : **PROJECT DIRECTOR**, Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, Govt. of Assam, 4th floor, Nayantara, Supermarket Complex, Six Mile, Khanapara, Guwahati, Assam, India-781006 Phone: 03613501033

REQUEST FOR BIDS

(RFB)

GOVERNMENT OF ASSAM
ASSIST PROJECT
REQUEST FOR BIDS (RFB)
E-Procurement Notice
(Engineering, Procurement, Construction (“EPC”) Contract following Two-Envelope Bidding Process with e-Procurement)

NATIONAL OPEN COMPETITIVE PROCUREMENT

Name of Project: Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) Project

Contract Title: Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.

Loan No: 9570-IN

RFB Reference No.: IN-AHIDMS-457643-CW-RFB

Date: 20.11.2024

1. The Government of Assam on behalf of Govt. Of India has obtained financing from the World Bank toward the cost of the Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) Project and intends to apply a part of the proceeds to cover eligible payments under the contract for construction of works as detailed below.
2. Bidding will be conducted through national open competitive procurement using a Request for Bids (RFB) as specified in the World Bank’s “Procurement Regulations for IPF Borrowers, July 2016_Revised August 2018, November’2020”(“Procurement Regulations”), and is open to all Bidders as defined in the Procurement Regulations.
3. Bidders from India should, however, be registered as Class I Civil Contractor with the Government of Assam or other State Governments/Government of India, or State/Central Government Undertakings. Bidders from India, who are not registered as above, on the date of bidding, can also participate provided they get themselves registered by the time of contract signing if they become successful bidders.
4. The Project Director, ASSIST, now invites online Bids from eligible Bidders for **Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode**. Interested bidders may obtain further information and inspect the bidding document at the address given below during office hours [10:00 to 1700 hours]. Bidders are advised to note the clauses on eligibility (Section I Clause 4) and minimum qualification criteria (Section III – Evaluation and Qualification Criteria), to qualify for the award of the contract. In addition, please refer to paragraphs 3.14 and 3.15 of the “Procurement Regulations” setting forth the World Bank’s policy on conflict of interest.
5. The bidding document is available online on www.assamtenders.gov.in (website) from 20.11.2024 to 07.01.2025. Bid Security documents are to be submitted as per the

- procedure described in paragraph 9 below. Bidders will be required to register on the website. The bidders would be responsible for ensuring that any addenda available on the website is also downloaded and incorporated.
6. For submission of the bid, the bidder is required to have Digital Signature Certificate (Class-3 digital signature) from one of the Certifying Authorities authorized by Government of India for issuing DSC. Aspiring bidders who have not obtained the user ID and password for participating in e-procurement in this Project, may obtain the same from the website: www.assamtenders.gov.in.
 7. Bids comprise two Parts, namely the Technical Part and the Financial Part, and both parts must be submitted simultaneously online on www.assamtenders.gov.in on or before 1300 hours on 07.01.2025 and the 'Technical Part' of the bids will be publicly opened online at the address given at para 10 on the same day at 1400 hours, in the presence of the bidders' designated representatives and anyone who chooses to attend. The "Financial Part" shall remain unopened in the e-procurement system until the second public Bid opening for the financial part. Any bid or modifications to bid (including discount) received outside e-procurement system will not be considered. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue. The electronic bidding system would not allow any late submission of bids.
 8. Procedure for submission of bid security is described below :

Bid Security: The bidders are required to submit ₹ 1,75,22,000/- (**One Crore Seventy Five Twenty Two Thousand Only**). Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid. Procedure for submission of bid security is described in Para 9.

Cost of Bid Document: ₹ 25,000/- (**₹Twenty Five thousand only**) (To be deposited through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019)

9. Bid Security may either be remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019 **OR** submitted through any of following mode:

Bank Guarantee/ Fixed Deposit/Time Deposit certificate issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values are acceptable provided it is pledged in favour of **Assam Health Infrastructure Development and Management Society (AHIDMS)** (Implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate.

In case bidder(s) opt to submit bid security in the form of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, please comply the following instructions:

- a. Bidder has to submit the **ORIGINAL** Bank Guarantee/ Fixed Deposit/Time Deposit certificate before the bid submission end date & time, failing to which bid of the bidder shall be rejected outrightly and bid shall not be opened. **ORIGINAL** Bank Guarantee/ Fixed Deposit/Time Deposit certificate shall be submitted in the address mentioned in ITB/BDS 21.3.
 - b. Only to accommodate the submission of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, Option of “**BID SECURITY/EMD EXEMPTION**” provision is enabled in the e-procurement portal. Bidder has to select/click the 100% exemption option to proceed further for submission of bid. The scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit certificate needs to be submitted under Technical Folder along with other qualification documents.
 - c. Bidder to note that there is otherwise no **BID SECURITY/EMD EXEMPTION** for any bidder whosoever. This option is only enabled to submit Bank Guarantee/ Fixed Deposit/Time Deposit certificate as bid security. Bidder who does not submit the **ORIGINAL** Bank Guarantee/ Fixed Deposit/Time Deposit certificate before the bid submission end date & time, bid of the bidder shall be rejected outrightly even if scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit certificate submitted under Technical Folder along with other qualification documents.
 - d. In case bidder(s) opt to submit bid security in the form of Bank Guarantee, the following bank details of AHIDM Society may be used while obtaining Bank Guarantee:

Account Name -Assam Health Infra Development &Mgt Society World Bank ASSIST Project Account
 Number- 245601002420 IFSC - ICIC0002456
 Bank Name- ICICI Bank Ltd.
 Branch Name- Downtown, Guwahati

(Bidder should note date this Bank Account should not be used for remitting cost for bid document or for Bid Security may remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019OR. The above mentioned account details only be used while obtaining Bank Guarantee.).
10. A pre-bid meeting will be held on 29.11.2024 at 1300 hours at the office of Project Director, Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile ,Kanapara, Guwahati, Assam to clarify the issues and to answer questions on any matter that may be raised at that stage as stated in ITB Clause 7.4 of ‘Instructions to Bidders’ of the bidding document. Bidders are advised to download the bidding document prior to the pre-bid meeting for bidders to have a good understanding of the

scope of work under this contract for discussion and clarification at the pre-bid meeting.

11. Other details can be seen in the bidding document. The Employer shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the bidders of any bid updates, the Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.

Dr. Siddharth Singh, IAS

The Project Director
Assam Health Infrastructure Development & Management Society,
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PART 1-BIDDING PROCEDURES

Section I - Instructions to Bidders

A. General

1. Scope of Bid

1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), **specified in the Bid Data Sheet (BDS)**, the Employer, as **specified in the BDS**, issues this bidding document for the provision of Works as specified in Section VII, Works' Requirements. The name, identification and number of lots (contracts) of this RFB are **specified in the BDS**.

1.2 Throughout this bidding document:

- (a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including if **specified in the BDS**, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;
- (b) if the context so requires, "singular" means "plural" and vice-versa;
- (c) "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is a working day of the Borrower. It excludes the Borrower's official public holidays;
- (d) "Works" refers to Works, subject of this Bidding document, to be executed on EPC contracting arrangement; and
- (e) the term "ES" means environmental and social (including Sexual Exploitation, and Abuse (SEA));

"Sexual Exploitation and Abuse" "(SEA)" stands for the following:

- (i) Sexual exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed operations/projects, sexual exploitation occurs when access to or benefit from a Bank financed Goods, Works, Non-consulting Services or Consulting Services is used to extract sexual gain.
- (ii) Sexual Abuse is defined as sexual activity with another

person who does not consent. It is a violation of bodily integrity and sexual autonomy and is broader than narrower conceptions of “rape”, especially because (a) it may be committed by other means than force or violence, and (b) it does not necessarily entail penetration.

- 2. Source of Funds**
- 2.1 The Borrower or Recipient (hereinafter called “Borrower”) specified in the BDS has received or has applied for financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount specified in the BDS, toward the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.
- 2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the Loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).
- 3. Fraud and Corruption**
- 3.1 The Bank requires compliance with the Bank’s Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework, as set forth in Section VI.
- 3.2 In further pursuance of this policy, Bidders shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

- 4.1 A Bidder may be a firm that is a private entity, or a state-owned enterprise or institution subject to ITB 4.6, or any combination of them in the form of a joint venture (JV), under an existing agreement, or with the intent to enter into such an agreement supported by a letter of intent, unless otherwise **specified in the BDS**. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all members. Unless **specified in the BDS**, there is no limit on the number of members in a JV. The joint venture agreement shall be registered in the place **specified in BDS** so as to be legally valid and binding on members.
- 4.2 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:
- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
 - (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
 - (e) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or
 - (f) any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the Contract implementation; or
 - (g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or

were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or

- (h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency (Assam Health Infrastructure Development and Management Society (AHIDMS), or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the contract.

- 4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a Subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.
- 4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.
- 4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available

at the electronic address **specified in the BDS**.

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

**5. Eligible Materials,
Equipment and
Services**

- 5.1 The materials, equipment and services to be supplied under the Contract and financed by the Bank may have their origin in any country subject to the restrictions specified in Section V, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Bidders

may be required to provide evidence of the origin of materials, equipment and services.

B. Contents of Bidding Document

6. Sections of Bidding Document

6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART 1 Bidding Procedures

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

PART 2 Works' Requirements

- Section VII - Works' Requirements:

PART 3 Conditions of Contract together with Schedules.

6.2 The Specific Procurement Notice - Request for Bids (SPN-RFB) issued by the Employer is not part of this bidding document.

6.3 Unless obtained directly from the Employer or downloaded from the official website specified in the 'E-Procurement Notice', the Employer is not responsible for the completeness of the bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer or downloaded from the official website specified in the 'E-Procurement Notice' shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information and documentation as is required by the bidding document.

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

- 7.1 The electronic bidding system **specified in the BDS** provides for online clarifications. A Bidder requiring any clarification on the bidding document may notify the Employer online or raise its inquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. Clarifications requested through any other mode shall not be considered by the Employer. The Employer will respond to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period **specified in the BDS**. Description of clarification sought and the response of the Employer shall be uploaded for information of all Bidders without identifying the source of request for clarification. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 22.2. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document.
- 7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 7.4 If so **specified in the BDS**, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a Site of Works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested, to submit any questions only through the e-procurement portal, not later than one week before the meeting. Clarifications requested through any other mode shall not be considered by the Employer.
- 7.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared

after the meeting, will be uploaded online on e-procurement system. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

- 8.1 At any time prior to the deadline for submission of bids, the Employer may amend the bidding document by issuing addenda.
- 8.2 Any addendum issued shall be part of the bidding document and shall be deemed to have been communicated to all the bidders. The addenda will appear on the e-procurement system under "Latest Corrigendum", and Email notification is also automatically sent to those bidders who have started working on the tender, unless otherwise **specified in the BDS**. The Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.
- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

9. Cost of Bidding

- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

10. Language of Bid

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

11. Documents Comprising the

- 11.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted

Bid

simultaneously.

11.2 The Technical Part shall contain the following:

- (a) **Letter of Bid– Technical Part** prepared in accordance with ITB 12;
- (b) **Bid Security** in accordance with ITB 19.1;
- (c) **Alternative Bid – Technical Part**, if permissible, in accordance with ITB 13, the Technical Part of any Alternative Bid;
- (d) **Authorization:** written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3, and in accordance with ITB 20.4 in case of a JV;
- (e) **Bidder’s Eligibility:** documentary evidence in accordance with ITB 17 establishing the Bidder’s eligibility to Bid;
- (f) **Qualifications:** documentary evidence in accordance with ITB 17 establishing the Bidder’s qualifications to perform the Contract if its Bid is accepted;
- (g) **Conformity:** a technical proposal in accordance with ITB 16;
- (h) **Construction methodology** as detailed in Para 1.1 of Section III Evaluation Criteria;
- (i) Contractor Registration certificate (as per RFB), if applicable; and
- (j) any other document and schedules **required in the BDS.**
- (k) Submission of Schedules with Technical Part has to be submitted within stipulated time as mentioned in RFB.

11.3 The **Financial Part** shall contain the following:

- (a) **Letter of Bid – Financial Part:** prepared in accordance with ITB 14;
- (b) **Alternative Bid - Financial Part:** if permissible in accordance with ITB 13, the Financial Part of any Alternative Bid; and
- (c) any other document **required in the BDS.**
- (d) Submission of Price Schedules with Financial part has to

be submitted within stipulated time as mentioned in RFB.

11.4 The Technical Part shall not include any information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive.

11.5 In addition to the requirements under ITB 11.2, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

11.6 The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid, and to contract execution if the Bidder is awarded the contract.

12. Letters of Bid and Schedules

12.1 The Letter of Bid – Technical Part, Letter of Bid – Financial Part, Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.3. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

13.1 Unless otherwise specified **in the BDS**, alternative Bids shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included **in the BDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the bidding document must first price the Employer's design as described in the bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous

Bid conforming to the basic technical requirements shall be considered by the Employer.

13.4 When specified **in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified **in the BDS** and described in Section *VII, Works' Requirements*. The method for their evaluation will be stipulated in Section *III, Evaluation and Qualification Criteria*.

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Letter of Bid – Financial Part shall conform to the requirements specified below.

14.2 Deleted.

14.3 The price to be quoted in the Letter of Bid – Financial Part, in accordance with ITB 12.1, shall be the total price of the Bid, including any discounts offered.

14.4 Deleted.

14.5 Unless otherwise **specified in the BDS** and the Contract, the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract.

14.6 Deleted.

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

14.8 Bidders may like to ascertain availability of tax/duty exemption benefits available in India. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Employer will not compensate the bidder (Contractor). The bidder shall furnish along with his bid a declaration to this effect in the Declaration Format provided in Section IV of the bidding document.

Where the bidder has quoted taking into account such benefits, it must give all information required for issue of certificates in terms of the Government of India's relevant Notifications as per the declaration format. In case the bidder has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the

goods/construction equipment for which certificate is required is Nil.

To the extent the Employer determines the quantities indicated therein are reasonable keeping in view the approved design, work requirements, construction program and methodology, the certificates will be issued within 60 days of signing of the contract and no subsequent changes will be permitted. In case of materials pertaining to Variation items and quantities, the certificate shall be issued only on request from the Contractor when in need and duly certified by the Engineer.

No certificate will be issued for items where no quantity/capacity of equipment is indicated in the statement.

If the bidder has considered the tax/duty exemption for materials/construction equipment to be bought for the work, the bidder shall confirm and certify that the Employer will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the required certificate. The bids which do not conform to the above provisions or any condition by the bidder which makes the bid subject to availability of tax/duty exemption for materials/construction equipment or compensation on withdrawal of any variations to the said exemptions will be treated as non-responsive and rejected.

Any delay in procurement of the construction equipment/machinery/goods as a result of the above shall not be a cause for granting any extension of time.

- | | |
|--|---|
| 15. Currencies of Bid and Payment | 15.1 The currency of the bid and the currency of payments shall entirely be ₹ only. |
| 16. Documents Comprising the Technical Proposal | 16.1 The Bidder shall furnish a technical proposal in the Technical Part of the Bid, including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work's requirements and the completion time. |
| 17. Documents Establishing the Eligibility and Qualifications of the Bidder | <p>17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid – Technical Part, included in Section IV, Bidding Forms.</p> <p>17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the</p> |

Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.

18. Period of Validity of Bids

18.1 Bids shall remain valid for the period **specified in the BDS**. The Bid Validity period starts from the date fixed for the Bid submission deadline (as prescribed by the Employer in accordance with ITB 22.1). A Bid valid for a shorter period shall be rejected by the Employer as nonresponsive.

18.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for forty five (45) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 18.3.

18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity period, the Contract price shall be determined as follows:

- (a) in the case of **fixed price** contracts, the Contract price shall be the Bid price adjusted by the factor **specified in the BDS**;
- (b) in the case of **adjustable** price contracts, no adjustment shall be made; or
- (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

19. Bid Security

19.1 The Bidder shall furnish as part of the Technical Part of its Bid, a Bid Security as **specified in the BDS**, in original form, and for the amount **specified in the BDS**.

19.2 Not used.

19.3 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:

- (a) an unconditional bank guarantee issued by a Nationalized or Scheduled bank located in India;

- (b) an irrevocable letter of credit issued by a Nationalized or Scheduled bank located in India;
- (c) a cashier's or certified check or demand draft issued by a Nationalized or Scheduled bank located in India;
- (d) another security **specified in the BDS**,

In the case of a bank guarantee, the Bid Security shall be submitted using the Bid Security Form included in Section IV, Bidding Forms. The form must include the complete name of the Bidder. The Bid Security shall be valid for forty-five (45) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2.

19.4 If a Bid Security is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially *responsive* Bid Security in accordance with ITB 19.3 shall be rejected by the Employer as non-responsive.

19.5 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 50.

19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 50.

19.7 The Bid Security may be forfeited:

- (a) if a Bidder withdraws/modifies/substitutes its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid - Technical Part and repeated in Letter of Bid - Financial Part, or any extension thereto provided by the Bidder; or
- (b) if the Bidder does not accept the correction of its Bid Price pursuant to ITB 36; or
- (c) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 49; or
 - (ii) furnish a Performance Security and if required in the

BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 50.

19.8 The Bid Security of a *JV* shall be in the name of the *JV* that submits the Bid. If the *JV* has not been constituted into a legally enforceable *JV*, at the time of Bidding, the Bid Security shall be in the names of all future members as named in the letter of intent mentioned in ITB 4.1 and ITB 11.2.

20. Format and Signing of Bid

20.1 The Bidder shall prepare the Bid, in accordance with this Instruction, ITB 11 and ITB 21.

20.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business.

20.3 The Bid shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as **specified in the BDS** and shall be uploaded along with the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialled by the person signing the Bid.

20.4 In case the Bidder is a *JV*, the Bid shall be signed by an authorized representative of the *JV* on behalf of the *JV*, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives. Documents establishing authority to sign the bid on behalf of the *JV* shall be uploaded along with the bid.

20.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the Bid.

D. Online Submission of Bids

21. Sealing and Marking of Bids

21.1 Bids, both Technical and Financial Parts, shall be submitted online on the e-procurement system specified in BDS 7.1. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Request for Bids under this Project is published on this website. Any citizen or prospective bidder can logon to this website and view the Request for Bids and can view the details of works for which bids are invited. A prospective bidder can submit its bid online; however, the bidder is required to have enrolment/registration in the website, and should have valid Digital Signature Certificate (Class-3 digital

signature) in the form of smart card/e-token obtained from any certifying agency authorised by the Government of India (for class of DSC **specified in BDS**). The bidder should register in the website using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the website. The bidder can then login the website through the secured login by entering the password of the e-token & the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go through them carefully and submit the specified documents, along with the bid, otherwise the bid will be rejected. The bidders shall fill up online, the forms that are available for online filling on the e-portal. The rest of the forms shall be download by the bidders and filled up. The filled up pages shall then be scanned and uploaded on the e-procurement portal along with the scanned copies of the supporting documents.

- 21.2 The e-Procurement system will scan the uploaded documents for virus and if a document uploaded by bidder is found to have virus, the system will reject the uploaded file. Bidders shall take due care to ensure that the documents uploaded by them in e-Procurement system are virus free. The e-Procurement system restricts bidders from uploading file attachments larger than the file size **specified in BDS**. Hence, the bidders are informed to restrict the size of file attachments uploaded as part of their bid response to less than this size per file.
- 21.3 The original (a) Bid Security in approved form, (b) Power of Attorney (s), (c) payment documents towards the cost of bidding document; and registration on e-procurement website(if applicable), and (d) affidavit regarding correctness of information furnished with bidding document, shall be delivered by the Bidder to the office **specified in the BDS** before the bid submission deadline. Hard copy of rest of the bid or any other document are not to be submitted.
- 21.4 In case of non-receipt of these original documents, the bid will be declared non-responsive and will not be opened.
- 21.5 The completed bid comprising of documents indicated in ITB 12, should be uploaded on the e-procurement portal along with scanned copies of requisite certificates as are mentioned in different sections in the bidding document and scanned copy of the bid security.
- 21.6 All the documents are required to be signed digitally by the bidder. After electronic online bid submission, the system

generates a unique bid identification number which is time stamped as per server time. This shall be treated as acknowledgement of bid submission.

21.7 Physical, e-mail, Telex, Cable or Facsimile bids will be rejected as non-responsive.

22. Deadline for Submission of Bids

22.1 Bids, both Technical and Financial Parts, must be uploaded online no later than the date and time **specified in the BDS**.

22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1 The electronic bidding system would not allow any late submission of bids after due date & time as per server time.

24. Withdrawal, Substitution, and Modification of Bids

24.1 Bidders may modify their bids by using the appropriate option for bid modification on e-procurement portal, before the deadline for submission of bids. For this the bidder need not make any additional payment towards the cost of bidding document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential re-submission of bids is allowed any number of times. A bidder may withdraw his bid by using the appropriate option for bid withdrawal, before the deadline for submission of bids, however, if the bid is withdrawn, re-submission of the bid is not allowed (or allowed **if specified in BDS**).

24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall not be available in the system, and shall therefore not be opened.

24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereof. This will result in the forfeiture of the Bid Security pursuant to ITB 19.7.

E. Public Opening of Technical Parts of Bids

25. Public Opening of

25.1 The Employer shall publicly open Technical Parts of all Bids

Technical Parts of Bids

received by the deadline, at the date, time and place **specified in the BDS**, in the presence of Bidders' designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The Financial Parts of the bids shall remain unopened in the e-procurement system, until the subsequent public opening, following the evaluation of the Technical Parts of the Bids. In all cases, original documents submitted as specified in ITB 21 shall be first scrutinized, and Bids that do not comply with the provisions of ITB 21 will be declared non-responsive and will not be opened. Thereafter, bidders' names, the presence or absence of a Bid Security, if one was required, alternative bids – technical parts, if any, and such other details as the Employer may consider appropriate will be notified, online by the Employer at the time of bid opening.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

- 25.2 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Technical Parts of Bids, and technical parts of Alternative Bids if any, that are opened at technical Bid opening shall be considered further for evaluation.

F. Evaluation of Bids – General Provisions

26. Confidentiality

- 26.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 45. In cases where ITB 45 is not applicable, such information shall not be disclosed until Notification of Award is transmitted in accordance with ITB 47.
- 26.2 Any effort by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of Bid opening to the time of Contract award, if a Bidder wishes to contact the Employer on any matter related to the Bidding process, it shall do so in writing.

- 27. Clarification of Bids**
- 27.1 To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid giving a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.
- 27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.
- 28. Deviations, Reservations, and Omissions**
- 28.1 During the evaluation of Bids, the following definitions apply:
- (a) "Deviation" is a departure from the requirements specified in the bidding document;
 - (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
 - (c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.
- 29. Nonmaterial Nonconformities**
- 29.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid which do not constitute a material deviation, reservation or omission.
- 29.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

G. Evaluation of Technical Parts of Bids

- 30. Evaluation of Technical Parts**
- 30.1 In evaluating the Technical Parts of each Bid, the Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification Criteria. No other evaluation

criteria or methodologies shall be permitted.

31. Determination of Responsiveness

31.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.

31.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

(a) if accepted, would:

(i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or

(ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or

(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

31.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

31.4 If a Bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32. Qualification of the Bidder

32.1 The Employer shall determine to its satisfaction whether the eligible Bidders that have submitted substantially responsive Bid - Technical Parts meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document), or any other firm different from the Bidder.

32.3 If a Bidder does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, its Bid shall be

rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32.4 Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have the Financial Parts of their Bids opened at the second public opening.

33. Subcontractors

33.1 Unless otherwise stated **in the BDS**, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer.

33.2 The subcontractor's qualifications shall not be used by the Bidder to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer **in the BDS** as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Bidder may be added to the qualifications.

33.3 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as **specified in the BDS**. Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works.

33.4 The Bidder shall be responsible for ensuring that any proposed subcontractor (both specialized subcontractors and others) complies with the requirements of ITB 4, and that any Works to be provided by the subcontractor comply with the requirements of ITB 5 and ITB 11.2. The Bidder shall submit its Code of Conduct that meets the requirements set out in Section IV-Bidding Forms. The Bidder shall also submit an undertaking from each proposed subcontractor to confirm that they have read, understand and will comply with the Environmental and Social (ES) obligations and Code of Conduct for Contractor's Personnel.

H. Public Opening of Financial Parts of Bids

34. Public Opening of Financial Parts

34.1 Following the completion of the evaluation of the Technical Parts of the Bids, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:

- (a) the grounds on which their Technical Part of Bid failed to meet the requirements of the bidding document;

- (b) their Financial Part of Bid shall not be opened; and
- (c) notify them of the date, time, and location for public opening of Financial Parts of the Bids.

34.2 The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:

- (d) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;
- (e) their Financial Part of Bid will be opened at the public opening of the Financial Parts; and
- (f) notify them of the date, time and location for public opening of the Financial Parts of the Bids, **as specified in the BDS.**

34.3 The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bids shall be opened publicly in the presence of Bidders' designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The bidder's names, the Bid prices, per lot (contract) if applicable, including any discounts and Alternative Bid - Financial Part if any, and such other details as the Employer may consider appropriate, will be notified online by the Employer at the time of bid opening.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

34.4 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Financial Parts of Bids, Financial Parts of Alternative Bids, and discounts that are opened at Bid opening shall be considered further for evaluation.

I. Evaluation of Financial Parts of Bids

35. Evaluation of Financial Parts

35.1 To evaluate the Financial Part, the Employer shall consider the following:

- (a) the Bid price, excluding Provisional Sums, if any;

- (b) price adjustment for correction of arithmetic errors in accordance with ITB 36.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.3;
- (d) deleted;
- (e) deleted;and
- (f) the additional evaluation factors as specified in Section III, Evaluation and Qualification Criteria.

35.2 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

35.3 Deleted.

**36. Correction of
Arithmetical
Errors**

36.1 In evaluating the Financial Part of each Bid, the Employer shall correct arithmetical errors on the following basis:

- (a) if in the Letter of Bid – Financial Part, there are errors between the sub-totals and total of the amounts, the former shall prevail and the latter will be corrected accordingly; and
- (b) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) above.

36.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 36.1, shall result in the rejection of the Bid and the Bid Security may be forfeited in accordance with ITB Sub-Clause 19.7.

**37. Conversion to
Single Currency**

37.1 Not used.

**38. Margin of
Preference**

38.1 Not applicable.

**39. Comparison of
Financial Parts**

39.1 The Employer shall compare the evaluated costs of all responsive and qualified Bids to determine the Bid that has the lowest evaluated cost.

**40. Abnormally Low
Bids**

40.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material

concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.

40.2 In the event of identification of a potentially Abnormally Low Bid, the Employer, unless otherwise **specified in the BDS**, shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.

40.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.

41. Unbalanced or Front-Loaded Bids

41.1 Deleted.

41.2 Deleted.

42. Most Advantageous Bid

42.1 Having compared the evaluated costs of Bids, the Employer shall determine the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:

(a) substantially responsive to the bidding document; and

(b) the lowest evaluated cost.

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

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

44. Standstill Period

44.1 Standstill Period shall not apply.

45. Notice of Intention to Award

45.1 Not used.

J. Award of Contract

46. Award Criteria

46.1 Subject to ITB 43, the Employer shall award the Contract to the

successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid as specified in ITB 42.

47. Notification of Award

47.1 Prior to the expiration of the Bid Validity Period, the Employer shall transmit the Letter of Acceptance to the successful Bidder. The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).

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

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

47.3 The Contract Award Notice shall be published on a National website (GoI website <http://tenders.gov.in> or GoI Central Public Procurement Portal <https://eprocure.gov.in/cppp/>) or on the Employer’s website, and on the e-procurement system.

47.4 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

48. Debriefing by the Employer

48.1 Not used.

49. Signing of Contract

49.1 The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement. The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder.

49.2 Within twenty-eight (28) days of receipt of the Letter of Acceptance, the successful Bidder shall (a) furnish the

performance security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB Clause 50; (b) if the successful bidder is a JV, it shall also furnish the JV agreement duly signed by all the members, if it had submitted only a letter of intent to execute the JV agreement along with the bid; and (c) shall sign, date and return the Agreement to the Employer along with the documents stated at (a) and (b) above.

50. Performance Security

- 50.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 41.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Schedule-G. The performance security and if required in the BDS, the Environmental and Social (ES) Performance Security of a Joint Venture shall be in the name of the Joint Venture specifying the names of all members.
- 50.2 Failure of the successful Bidder to submit the above-mentioned Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.
- 50.3 Upon the successful Bidder's signing the Agreement and furnishing of the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB Clause 50.1, the Employer shall promptly notify the name of the winning bidder to each unsuccessful bidder and shall discharge the Bid Securities of the bidders pursuant to ITB Clause 19.5 and 19.6.

Section II - Bid Data Sheet (BDS)

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

ITB Reference	A. General
ITB 1.1	<p>The number of the Request for Bids is: IN-AHIDMS-457643-CW-RFB</p> <p>The Employer is: Project Director, Assam Health Infrastructure Development & Management Society</p> <p>The name of the RFB is: <i>Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.</i></p>
ITB 1.2	The Employer shall use the e-procurement system specified in BDS 7.1.
ITB 2.1	<p>The Borrower is: Government of India. The sub-Borrower is Government of Assam</p> <p>Loan or Financing Agreement amount: \$251.03 million</p> <p>The name of the Project is: Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) Project</p>
ITB 4.1	<p>Bids from Joint ventures are acceptable.</p> <p>Where Joint Ventures are permitted:</p> <p>(a) Maximum number of members in the Joint Venture (JV) shall be: 2 (Two)</p> <p>(b) Place where the agreement to form JV to be registered is: India</p> <p>(c) A statement to the effect that all members of the joint venture shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms, shall be included in the authorization nominating a Representative or member in charge, as well as in the Bid and in the Agreement [<i>in case of a successful bid</i>].</p> <p>(d) The joint venture agreement should precisely define the division of assignments to each member of JV. All members of JV should have active participation in the execution during the currency of the contract. This should not be varied/ modified subsequently without prior approval of the Employer.</p>
ITB 4.5	A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr .
B. Contents of Bidding Document	

ITB 7.1	<p>Electronic – Procurement System</p> <p>The Employer shall use the following electronic-procurement system to manage this Bidding process:</p> <p>www.assamtenders.gov.in</p> <p>The electronic-procurement system shall be used to manage the following aspects of the Bidding process:</p> <p><i>1) Issuing bidding document, 2) Issue of clarifications 3) Issue of Amendments, 4) Uploading Minutes of Prebid Meetings 5) submission of Bids, 6) Opening of Bids 7) Disclosing technical and financial bids 8) Disclosure on Awards</i></p> <p>Requests for clarification should be received by the Employer no later than: 14 days prior to the deadline for submission of bids.</p>
ITB 7.4	<p>A Pre-Bid meeting “<i>shall</i>” take place at Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile , Kanapara, Guwahati, Assam</p> <p>Date: 29.11.2024</p> <p>Time: 1300 Hours</p> <p>A site visit conducted by the Employer “<i>shall not be</i>” organized.</p>
ITB 8.2	No change in the stated procedure
C. Preparation of Bids	
ITB 11.2 (j)	<p>The Bidder shall submit the following additional documents in its Bid:</p> <p>(i) Contractor Registration certificate on e-procurement system as per RFB, if applicable</p> <p>(ii) Code of Conduct for Contractor’s Personnel (ES) for preventing Gender Based Violence and Violence Against Children</p> <p>The Bidder shall submit its Code of Conduct that will apply to its employees and subcontractors, to ensure compliance with its Environmental and Social(ES) obligations under the contract. The Bidder shall use for this purpose the Code of Conduct form provided in Section IV. No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks.</p> <p>Management Strategies and Implementation Plans (MSIP) to manage the (ES) risks</p> <p>The Bidder shall submit Management Strategies and Implementation Plans (MSIP) to manage the following key Environmental and Social (ES) risks.</p>

	<ul style="list-style-type: none"> • Gender Based Violence (GBV),Sexual Exploitation, and Abuse (SEA)and Sexual Harasment (SH) prevention and response action plan. Mechanisms need to be in place to identify, prevent and manage SEA/SH incidents at workplace. The workers must abide by the Code of Conduct (CoC) which is applicable to its employees and subcontractors. • Labour Management plan in compliance to legal and regulatory requirements and grievance redressal mechanism for labour. • Environment Social Health and Safety Management Plan for construction and operation which includes: <ul style="list-style-type: none"> a. Water Resource Protection Plan to prevent contamination of drinking water sources, other surface and ground water sources etc. b. Boundary Marking and Protection Strategy for mobilization and construction to prevent offsite adverse impacts; c. Legal requirements such as Consent to Establish for the proposed DH from Pollution Control Board, Assam/Permits prior to the start of relevant works such as opening a quarry or borrow pit, Labour licenses, permits from ULB/ RLB for solid and liduid waste discposal d. Occupational Health & Safety Plan for labour e. Community health and safety plan for public/community (that includes management of any legacy waste on the site, vector management, pollution control (air, water, noise) and infection control and probable inconveniences caused to the public due to construction activities.) f. Develop Waste Management Plans such as Solid Waste Management Plan, Liquid Waste Management Plan infection control plan and construction waste management plan. The Liquid waste management plan shall include the preliminary treatment/ disinfection of all liquid waste using Karnataka pollution control board norms and further treatment in ETP and STP as per approval from SPCB. g. Construction traffic management plan to ensure safety of local communities from construction traffic. h. Grievance redressal mechanism for community as well as workers. i. Prohibition Child and Forced Labour.
ITB 11.3 (c)	The Bidder shall submit the following additional documents in its Bid: <i>NIL</i>
ITB 13.1	Alternative Bids <i>shall not be</i> permitted.
ITB 13.2	Alternative times for completion <i>shall not be</i> permitted.
ITB 13.3	Not Applicable

ITB 13.4	Alternative technical solutions shall not be permitted for any parts of the Works
ITB 14.5	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
ITB 18.1	The Bid validity period shall be 150 days
ITB 18.3 (a)	Nil
ITB 19.1	The Bidder shall furnish a Bid Security in the amount of ₹ 1,75,22,000/- (One Crore Seventy Five Twenty Two Thousand Only).
ITB 19.3 (d)	<p>Bid Security may either be remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019 OR submitted through any of following mode :</p> <p style="text-align: center;">Bank Guarantee/ Fixed Deposit/Time Deposit certificate issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values are acceptable provided it is pledged in favour of Assam Health Infrastructure Development and Management Society (AHIDMS) (implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate.</p> <p style="text-align: center;">In case bidder(s) opt to submit bid security in the form of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, please comply the following instructions :</p> <p>a. Bidder has to submit the ORIGINAL Bank Guarantee/ Fixed Deposit/Time Deposit certificate before the bid submission end date & time, failing to which bid of the bidder shall be rejected outrightly and bid shall not be opened.</p> <p>b. Only to accommodate the submission of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, Option of “BID SECURITY/EMD EXEMPTION” provision is enabled in the e-procurement portal. Bidder has to select/click the 100% exemption option to proceed further for submission of bid. The scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit certificate needs to be submitted under Technical Folder along with other qualification documents.</p> <p>c. Bidder to note that there is otherwise no BID SECURITY/EMD EXEMPTION for any bidder whatsoever. This option is only enabled to submit Bank Guarantee/ Fixed Deposit/Time Deposit certificate as bid security. Bidder who does not submit the ORIGINAL Bank Guarantee/ Fixed Deposit/Time Deposit certificate before the bid submission end date & time, bid of the bidder shall be rejected outrightly even if scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit</p>

	<p>certificate submitted under Technical Folder along with other qualification documents.</p> <p>d. In case bidder(s) opt to submit bid security in the form of Bank Guarantee, the following bank details of AHIDM Society may be used while obtaining Bank Guarantee:</p> <p style="padding-left: 40px;">Account Name -Assam Health Infra Development &Mgt Society World Bank ASSIST Project Account Number- 245601002420 IFSC - ICIC0002456 Bank Name- ICICI Bank Ltd. Branch Name- Downtown, Guwahati</p> <p>(Bidder should note date this Bank Account should not be used for remitting cost for bid document or for Bid Security may remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019OR. The abovementioned account details only be used while obtaining Bank Guarantee.).</p>
ITB 20.3	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of:</p> <p>(a) Legally valid Power of Attorney is required to demonstrate the authority of the signatory to sign the Bid; and</p> <p>(b) In the case of Bids submitted by an existing or intended JV, if permitted as per ITB 4.1, the authorization shall be evidenced by a Power of Attorney signed by legally authorized signatories of all the members.</p>
D. Online Submission of Bids	
ITB 21.1	Class of DSC required is: Class-3 digital signature
ITB 21.2	The e-Procurement system restricts bidders from uploading file attachments larger than 35MB
ITB 21.3	<p>For submission of original documents, the Employer's address is:</p> <p>Project Director, Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile , Kanapara, Guwahati, Assam, India-781006, Phone:03613501033.</p>
ITB 22.1	<p>The deadline for uploading the Bids is:</p> <p>Date: 07.01.2025 Time: 1300 hours</p>

ITB 24.1	Re-submission of the bid. <i>“not allowed”</i> , if withdrawn.
E. Public Opening of Technical Parts of Bids	
ITB 25.1	The online Bid opening of Technical Parts of Bids shall take place at: ProjectDirector, Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile , Kanapara, Guwahati, Assam, India-781006, Phone:03613501033. Date: <i>07.01.2025</i> Time: <i>1400 hours</i>
F. Evaluation of Bids – General Provisions	
ITB 27.2	ITB 27.2 is modified as under: ‘If a Bidder does not provide clarifications of its bid by the date and time set in the Employer’s request for clarification, its bid will be evaluated based on the available information and interpretation of the Employer.’
G. Evaluation of Bids - Technical Parts	
ITB 33.1	At this time the Employer <i>“does not intend”</i> to execute certain specific parts of the Works by subcontractors selected in advance.
ITB 33.2	Employer accepts Specialised Sub-Contractors proposed by the bidder. The specialized qualifications of the proposed Specialised Subcontractors will be added to the qualifications of the Bidder for the purpose of evaluation wherever is allowed as indicated in Section III - Evaluation and Qualification Criteria.
ITB 33.3	(a) Contractor’s proposed subcontracting: Maximum percentage of subcontracting permitted is:20% of the total contract amount including the specialized subcontracting. (c) All obligations and liabilities under this Agreement for the entire Work shall at all times remain with the Contractor, irrespective of the subcontracting done through specialized and other subcontractors. <i>[Note-Work should not be split into small parts and sub-contracted].</i>
H. Public Opening of Financial Parts	
ITB 34.2 (c)	Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the date, time, and location of the public opening of Financial Parts. The online bid opening of Financial Parts of Bids shall take place at: Project Director, Project Director, Assam Health Infrastructure Development

	& Management Society, Dept. of Medical Education & Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile , Kanapara, Guwahati, Assam, India-781006, Phone:03613501033.
I. Evaluation of Bids - Financial Parts	
ITB 40.2	Provisions related to Abnormally Low Bids shall apply.
ITB 43.1	In case of annulment of Bids, the original Bid Security and Power of Attorney(s) only shall be returned to the Bidders.
J. Award of Contract	
ITB 49.1	<p>Add the following at the end of this sub-clause:</p> <p>“Bidder shall give its consent to enter into this Agreement and the enforceability of the provisions thereof, within 10 (ten) business days of the date of issue of Letter of Acceptance.”</p>
ITB 50.1 and 50.2	<p>The successful Bidder shall also be required to submit an Environmental and Social (ES) Performance Security in addition to the regular 'performance security'</p> <p>Throughout this bidding document the term 'performance security', unless the context clearly indicates otherwise, means and includes both 'the performance security and the ES performance security' to be submitted by the successful bidder in the amounts specified in Section VII Conditions of Contract Article 7, Clause 7.1.</p>

Section III - Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders through post-qualification. No other factors, methods or criteria shall be used other than specified in this bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

Table of Criteria

- (i) Technical Part**
- (ii) Financial Part**

1. Technical Part

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include

(i) an assessment of the essential technical and functional/performance characteristics of the proposed Works demonstrating substantial responsiveness of the Works to the Employer's Requirements without any material deviation, reservation, or omission.

(ii) an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, material sourcing, and quality control/ assurance in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Works' Requirements.

For this purpose the Bidder should also submit:

A detailed note outlining its proposed methodology and program of construction including Environmental and Social Management Strategies and Implementation Plans (ES-MSIP), backed with equipment, materials and manpower planning and deployment, duly supported with broad calculations and quality control system/assurance procedures proposed to be adopted, justifying their capability of execution and completion of the work requirements within the stipulated period of completion as per milestones.

(ii) an assessment of the details of subcontracting elements of works amounting to more than 5% of the bid price; for each element proposed to be sub-contracted furnish details whether the identified Sub-contractor possesses the required qualifications and experiences to execute that element satisfactorily. [Work should not be split into small parts and sub-contracted].

(iii) Bidders shall submit an undertaking from each proposed subcontractor to confirm that they have read, understand and will comply with the ES obligations and Code of Conduct for Contractor's Personnel.

1.2 Alternative Technical Solutions for specified parts of Works(ITB 13.4) – Not Applicable

1.3 Subcontractors for Electrical Works

The sub-contractors for Electrical Works proposed shall be fully qualified for their work proposed, and meet the following criteria:

- The Sub Contractor should have valid Electrical Contractor License issued or recognized/endorsed by state licensing Board, Govt. Of Assam. In case license expires during contract period the same shall be renewed by the contractor. The contract may be terminated if the license is not renewed. The documents will have to be submitted in detail as required, which will be checked as per NIT for approval of the sub-contractors.

1.4 Specialised Sub-Contractors

Any Specialized Sub-contractor, if identified and proposed shall meet the applicable requirements. Only the specific experience of **Specialized Subcontractors** for specific works will be considered. The general experience and financial resources of the Specialized Subcontractors shall not be added to those of the Bidder for purposes of qualification of the Bidder.

The bidder may propose **Specialised Sub-Contractor** for the following activities, who has minimum qualifications as indicated. The bidder will have to submit **Memorandum of Understanding** from the **Specialised Sub-Contractor** drawn specifically for this Contract duly indicating its commitment to provide services for the activity as per the scope of work

<i>Activity No.</i>	Description of Activity	Minimum Criteria to be met
1	Design, Construction, Operation and Maintenance of Effluent Treatment Plant (ETP) only	<p>Must have experience of designing and establishing ETP of not less than 20 KLD for a hospital premises.</p> <p>Must have installed at least 3 ETPs of minimum 20 KLD capacity in last 5 years in hospitals.</p> <p>Must have experience of Operating and maintaining at least one ETP for minimum 2 years of minimum 20 KLD capacity.</p>
2	Design Experience	<p>The Specialised Consultant must have experience of designing at least One Hospital Building of not less than 100 Beds</p>

2.1 Qualification Criteria

Pursuant to ITB 32.1, the Employer shall assess each Bid against the following Qualification Criteria. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
1. Eligibility							
1.1	Nationality	Nationality in accordance with ITB 4.4	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.3	Bank Eligibility	Not having been declared ineligible by the Bank, as described in ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.4	State-owned enterprise or institution of the Borrower country	Meets conditions of ITB 4.6	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.5	United Nations resolution or Borrower's country law	Not having been excluded as a result of prohibition in the Borrower's country laws or official regulations against commercial relations with the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.8 and Section V.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
2. Historical Contract Non-Performance							
2.1	History of Non-Performing Contracts	Non-performance of a contract ² did not occur as a result of contractor default since 1 st January 2019	Must meet requirement	Must meet requirements	Must meet requirement ³	N/A	Form CON-2
2.2	Suspension Based on Execution of Bid/ Proposal Securing Declaration by the Employer or withdrawal of the Bid within Bid validity period	Not under suspension based on execution of a Bid/ Proposal Securing Declaration pursuant to ITB 4.7 or withdrawal of the Bid pursuant ITB 19.7	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
2.3	Pending Litigation	Bidder's financial position and prospective long-term profitability sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2

² Non-performance, as decided by the Employer, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

³ This requirement also applies to contracts executed by the Bidder as JV member.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
2.4	Litigation History	No consistent history of court/arbitral award decisions against the Bidder ⁴ since 1 st January 2019	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Form CON – 2
2.5	Declaration: Environmental and Social (ES) past performance	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons of breach of environmental, or social (including sexual exploitation and abuse) contractual obligations in the past five years ⁵ .	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Each must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Form CON-3 ES Performance Declaration
3. Financial Situation and Performance							
3.1	Financial Situation and Performance	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit ⁶ , and other	Must meet requirement	Must meet Requirement	Must meet at least 25% of the requirement as a minimum	Must meet at least 50% of the requirement as a minimum	Form FIN – 3.1, with attachments Form Fin 3.3

⁴The Bidder shall provide accurate information on the Letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

⁵The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

⁶In case the bidder submits a letter of intent from a commercial bank with the bid, firm commitment from the bank to provide line of credit shall be required before contract signing.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Rs. 15 crores (Fifteen Crores) for the subject contract(s) net of the Bidder's other commitments					
		(ii) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.	Must meet requirement	Must meet requirement	N/A	N/A	
		(iii) The audited balance sheets or, if not required by the laws of the Bidder's country, other financial statements acceptable to the Employer, for the last five years (FY 2019-20 to FY 23-24) shall be submitted and must demonstrate the current soundness of the Bidder's financial	Must meet requirement	N/A	Must meet requirement	N/A	

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		position and indicate its prospective long-term profitability.					
<p>Note: The construction cash flow requirement should be for a number of months determined as the total time needed to pay contractor invoice by the employer. The cash flow should not normally exceed 3 months peak contract requirements and availability should be certified by Bank (Nationalized or Scheduled Bank In India) in form Fin 3.3</p>							
3.2	Average Annual Construction Turnover	Minimum average annual construction turnover of Rs. 66 Crore.[Sixty six Crores], calculated as total certified payments received for contracts in progress and/or completed within the last five financial years(FY 2019-20 to FY 23-24), divided by five years.	Must meet requirement	Must meet requirement	Must meet 25%, (twenty five percent) of the requirement	Must meet 50%, (fifty percent) of the requirement	Form FIN – 3.2
4. Experience							
4.1 (a)	General Construction Experience	Experience under construction contracts “Construction of Non Residential/Institutional Buildings of a multi-storied RCC framed structure including finishing works, water supply, drainage & sanitary installations, electrical works, Firefighting, Lifts and	Must meet requirement	N/A	N/A	Must meet requirement	Form EXP – 4.1

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<p>Centralized HVAC all composite executed under one project) in the role of prime contractor, JV member for:</p> <p>1. At least one contract of INR 70.00 crore value in the last five years since 1st January 2019 as a single entity</p> <p>OR</p> <p>2. Two contracts of at least INR 44.00 crore value each in the last five years, 1st January 2019 as a single entity</p>					
4.2 (a)	Specific Construction & Contract Management Experience	<p>(i) The Contractor should have experience of Construction of at least one Hospital Building (Minimum 50 Bedded) completed and made operational as a prime contractor, joint venture member, between 1st January 2019 and bid submission deadline.</p> <p>OR</p>	Must meet requirement	N/A	N/A	Must meet the requirement	Form EXP 4.2(a)

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		Substantially completed and made operational atleast 50 bed in a contract for higher bedded hospital (Certificate from client mentioning completion of physical/financial progress required to be submitted by the bidder along with the technical bid)					
4.2 (b)	Construction Experience in Key Activities	<p>For the above OR any other contracts as prime contractor, joint venture member, or as a Specialised Sub Contractor between 1st January 2019 and Application submission deadline, a minimum construction experience in the following key activities successfully completed:</p> <p>Minimum area of RCC slab built in a project- 5000 Sqm</p> <p>Minimum value of MEP works (including electrical, plumbing, MGPS, firefighting)</p>	Must meet requirements	N/A	N/A	Must meet requirements	Form EXP – 4.2 (b) and Form ELI- 1.2 A& MOU (Enclosure-I) in case of specialized Sub-Contractor

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		executed in a project – INR 15 Crore. Minimum capacity of ETP built in a project-20KLD (The Bidder or its nominated specialized subcontractor must have the experience)					
4.2(c)	Specific Design Experience	The Bidder or its nominated specialized subcontractor must have experience of designing at least i) One Hospital Building of not less than 100 Beds	Must meet requirements	DELETED	DELETED	Must meet requirements	Form EXP – 4.2 (c) and Form ELI- 1.2 A & MOU (Enclosure-I) in case of specialized Sub-Contractor
4.2 (e)	Bid Capacity	Available Bid Capacity should be more than value of INR 88 Crore.	Must meet requirement	Must meet requirement	Must meet 40% (Forty percent) of the requirement	Must meet 60% (Sixty percent) of the requirement	Form FIN 2.4 & EXP 1
<p>Bid Capacity: The available bid capacity will be calculated as under: Assessed Available bid capacity = (A*N*1.5-B) Where, A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the financial year 2023-24 at the</p>							

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
<p>rate of 5% per year), taking into account the completed as well as works in progress).</p> <p>N = Number of years prescribed for construction (excluding any maintenance/ operations period) 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).</p> <p>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.</p> <p>Note: the statements in Section IV showing the value of existing commitments of 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</p>							

3. Key Personnel

The Bidder must demonstrate that it will have suitably qualified (and in adequate numbers) minimum Key Personnel, as described in the Table below, that are required to perform the Contract.

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

The Contractor shall require the Employer's consent to substitute or replace the Key Personnel (reference the Particular Conditions of Contract 9.1).

Key Personnel

Requirement of Technical / Architectural Personnel required to be deployed by the Contractor for planning stage

Sl no.	Position	No. Of Positions	Essential Qualification	Minimum Experience* (Years)
1	Lead Architect	1	Bachelors in Architecture	12
2	Architect	1	Bachelors in Architecture	07
3	Structural Engineer	1	B.E./B.Tech in Civil Engineering	12
4	Electrical Engineer	1	B.E./B.Tech in Electrical Engineering	12
5	Mechanical Engineer	1	B.E./B.Tech in Mechanical Engineer	12
6	Landscape & Site Development Expert	1	Masters in Architecture (Landscape)	5
7	Environmental, Health & Safety Expert	1	B.E./ B.Tech in Enviromental Engineering and relevant experience in development of EIA/EMPs for construction projects	12 (Having core experience in Infrastructure Projects)
8	Social/Gender Based Violence Expert	1	Master Degree in Sociology/ Social work	5
9	Fire Safety Expert	1	Master degree in Industrial Safety or equivalent	10

* Similar works is defined as design of multi-speciality hospital in seismic zone 4.

The Requirement of Technical / Architectural Personnel for the construction work:

Sl no.	Position	No. Of Positions	Essential Qualification	Minimum Experience (Years)
1	Project Manager	1	B.E./B.Tech in Civil Engineering	15 years (and having experience of one similar nature of work)
2	Project/ Site Engineer	1	B.E./B.Tech in Civil Engineering	5 years
3	Quality Manager	1	B.E./B.Tech in Civil Engineering	10years experience in Quality assurance
4	Project Engineer	1	B.E./B.Tech in Mechanical Engineer	12 years (and having experience of one similar nature of work)
5	Site Engineer	1	B.E./B.Tech in Electrical Engineering	5 years
6	Project Planning/ billing Engineer/ Quantity Surveyor	1	B.E./B.Tech in Civil Engineering	6 years
7	Site Architect	1	Bachelors in Architecture	5 years
8	Environmental, Health & Safety Engineer	1	B.E./ B.Tech in Enviromental Engineering	12 years (Having core experience in Infrastructure Projects)
9	Horticulturist	1	BSc Agriculture	5 years

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

The Bidder must not have in his employment:

- [i] the near relations (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons of the any State Government Departments of Govt of Assam .
- [ii] without permission of Central/ State Government, any person who retired as gazetted officer in India within the last two years.

4. Equipment

The Bidder must demonstrate that it will have access to (through ownership, lease or purchase) the key Contractor's equipment listed hereafter:

Sl. No.	Equipment	Numbers
1.	100MT compression testing machine, electrical -cum- manually operated)	2
2.	Slump cone, steel plate, tamping rod, steel scale, scoop	3
3.	Vicat Apparatus with Desk pot	1

4	Sets of sieves of 450mm internal dia for coarse aggregate [100mm, 80mm, 40mm, 20mm, 12.5mm]	2 sets
5	Sets of sieves of 200mm internal dia for fine aggregate [4.75mm; 2.36mm; 1.18mm; 600microns; 300 microns & 150 micron, with lid and pan]	2 sets
6	Cube moulds size 70mmx70mmx70mm	18
7	Cube moulds size 150mmx150mmx150mm	36
8	Electronic balance 600gx0.1g., 10kg and50 kg	2
9	Digital PH meter least count 0.01mm	3 each
10	Mortar Cube vibrator	1

REQUIREMENTS OF PLANT AND EQUIPMENT AT SITE

Sl. No.	Equipment
1	Centralized concrete batch mix plant of minimum capacity 30 cum per hour
2	Transit mixers
3	Concrete pump
4	Concrete Mixer Machine (with weigh batcher)
5	Excavator cum loader (JCB 3D model or equivalent)
6	Vibratory roller
7	DG set of minimum capacity 62.5 KVA.
8	Needle Vibrators
9	Dumper/Tipper
10	Total station
11	Water pump minimum capacity 2 HP
12	Constant Pressure pumps
13	Good quality Camera for taking photographs and video recording of major activities for record purpose and for quality assurance.

Notes:

- Bidders are requested to verify latest position in respect of “Duties on Contractor’s Equipment” from Department of Revenue, Ministry of Finance, Government of India.
- The equipment listed above should not be older than 05 years of age.
- Based on their own studies of the equipment required, the Bidders shall furnish details of the above equipment and such other equipment that the Bidder considers appropriate, using Form EQU included in Section IV.

5. Multiple Contracts – Not Applicable

2. Financial Part

2.1 Margin of Preference - Not Applicable

2.2 Multiple Contracts (ITB 35)– Not Applicable

2.3 Sustainable procurement (Section VII –Works’ Requirements) – Not Applicable

2.4 Alternative Completion Times (ITB 13.2) - Not Applicable

2.5 Alternative Technical Solutions for specified parts of the Works (ITB 13.4) - Not Applicable

2.6 Other criteria(if permitted under ITB 35.1(f)):Not Applicable

2.7 Special Additional Criteria - the relevant evaluation method, if any, shall be as follows:

When offering their bid for more than one EPC packages (RFB for which are being released separately but simultaneously), the bidder must provide evidence that it meets or exceeds the sum of all the individual requirements for the packages being applied for in regard to its financial qualification(i.e Turn Over and Liquid Assets) and aggregate bid capacity. In case the bidder fails to fully meet any of these criteria on cumulative basis, it will be qualified only for those packages for which the bidder meets the above requirements and combination of the packages to be awarded to such bidders will be decided based on the lowest cost of the combination to the Employer. The decision of the Employer shall be final and binding on the bidder.

Section IV - Bidding Forms

Letter of Bid – Technical Part

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

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

Note: All italicized text is to help Bidders in preparing these forms.

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

RFB No.:*[insert number of RFB process]*

Alternative No⁷:*[insert identification No. if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned, hereby submit our Bid, in two parts, namely:

- (a) the Technical Part, and
- (b) the Financial Part

In submitting our Bid, we make the following declarations:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) We have not been suspended nor declared ineligible by the Employer based on execution of a Bid Securing Declaration in the Employer's country in accordance with ITB 4.7;
- (d) **Conformity:** We offer to execute in conformity with the bidding document the following Works: *Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode*
- (e) **Bid Validity Period:** Our Bid shall be valid for a period specified in BDS ITB 18.1 (or as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) **Performance Security:** If our Bid is accepted, we commit to obtain a performance security *and an Environmental and Social (ES) Performance Security*, in accordance with the bidding document;

⁷ Delete if not applicable

- (g) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
- (h) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (i) **State-owned enterprise or institution:** We are not a state-owned enterprise or institution/ We are a state-owned enterprise or institution but meet the requirements of ITB 4.6⁸;
- (j) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (k) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and
- (l) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.

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

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

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

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] **day of** [insert month], [insert year]

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

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

⁸Use one of the two options as appropriate

Technical Proposal

Technical Proposal Forms

Bidder to provide details covering the followings:

- **Key Personnel Schedule**
 - **Equipment**
 - **Site Organization**
 - **Method Statement**
 - **Mobilization Schedule**
 - **Construction Schedule**
 - **Environmental, Health & Safety and Social (ES) Management Strategies and Implementation Plans**
 - **Code of Conduct for Contractor's Personnel (ES)**
 - **Sub-contracting elements or works which in aggregate adds to more than 5% of Bid price (*for each the qualifications and experiences on the identified subcontractor in the relevant field should be given*)**
- Note: Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable.*
- ***MoU with the Specialised Sub-Contractor (if applicable)***
 -
 - **Others**
 - **Bidder's Qualification**
 - **Form of Bid Security**

Appendix to Technical Part: Personnel

Forms for Personnel

Form PER – 1: Key Personnel Schedule

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

Key Personnel⁹

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

⁹As listed in Section III (Evaluation and Qualification criteria).

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

Appendix to Technical Part

Form PER-2:

Resume and Declaration

Key Personnel

Name of Bidder

Position [#1]: <i>[title of position from Form PER-1]</i>											
Personnel information	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 5px;">Name:</td> <td style="padding: 5px;">Date of birth:</td> </tr> <tr> <td style="padding: 5px;">Address:</td> <td style="padding: 5px;">E-mail:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Professional qualifications:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Academic qualifications:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i></td> </tr> </table>	Name:	Date of birth:	Address:	E-mail:	Professional qualifications:		Academic qualifications:		Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Name:	Date of birth:										
Address:	E-mail:										
Professional qualifications:											
Academic qualifications:											
Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>											
Details	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px;">Name of employer:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Address of employer:</td> </tr> <tr> <td style="width: 40%; padding: 5px;">Telephone:</td> <td style="padding: 5px;">Contact (manager / personnel officer):</td> </tr> <tr> <td style="padding: 5px;">Fax:</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Job title:</td> <td style="padding: 5px;">Years with present employer:</td> </tr> </table>	Name of employer:		Address of employer:		Telephone:	Contact (manager / personnel officer):	Fax:		Job title:	Years with present employer:
Name of employer:											
Address of employer:											
Telephone:	Contact (manager / personnel officer):										
Fax:											
Job title:	Years with present employer:										

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

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

Declaration

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

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

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

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

- (a) be taken into consideration during Bid evaluation;
- (b) result in my disqualification from participating in the Bid;
- (c) result in my dismissal from the contract.

Name of Key Personnel: *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

Appendix to Technical Part: Equipment

Form EQU: Forms for Equipment

(Major Equipments)

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Type of Equipment*		
Equipment Information	Name of manufacturer,	Model and power rating
	Capacity*	Year of manufacture*
	Registration number or any other unique identification number	
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

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

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

Appendix to Technical Part

Site Organization

[insert Site Organization information]

Appendix to Technical Part

Method Statement

[insert method Statement – A detailed note should be submitted outlining bidders proposed methodology and program of construction including Contractor’s Environmental and Social (ES) Management Strategies and Implementation Plans (C-ESMP), backed with equipment, materials and manpower planning and deployment, duly supported with broad calculations and quality control system/assurance procedures proposed to be adopted, justifying their capability of execution and completion of the work requirements within the stipulated period of completion as per milestones]

Appendix to Technical Part

Mobilization Schedule

[insert Mobilization Schedule]

In accordance with the Particular Conditions, Sub-Clause 10.3, the Contractor shall not carry out mobilization to Site unless the Authority's Engineer gives consent that appropriate measures are in place to address environmental and social risks and impacts, which as a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel, submitted as part of the Bid and agreed as part of the Contract.

Appendix to Technical Part

Construction Schedule

[insert Construction Schedule]

The construction schedule shall include the following key milestone - No-objection to the Contractor's MSIPs, which collectively form the C-ESMP, in accordance with Article 10.3.

Appendix to Technical Part

ES Management Strategies and Implementation Plans

(ES-MSIP)

The Bidder shall submit comprehensive and concise Environmental and Social Management Strategies and Implementation Plans (ES-MSIP) as required by ITB 11.2 (j) of the Bid Data Sheet. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the ESHS provisions of the contract including those as may be more fully described in The Environmental and Social Management Framework (ESMF)]; and Consent Conditions (regulatory authority conditions attached to any permits or approvals for the project)]

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

Appendix to Technical Part

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

Note to the Employer:

The following minimum requirements shall not be modified. The Employer may add additional requirements to address identified issues, informed by relevant environmental and social assessment.

The types of issues identified could include risks associated with: labour influx, spread of communicable diseases, and Sexual Exploitation and Abuse (SEA) etc.

Delete this Box prior to issuance of the bidding documents

Note to the Bidder:

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

The Bidder shall fill up the form with all required details initial and submit the Code of Conduct form as part of its bid. To be read and signed by all contractors personnel

*The **Codes of Conduct** are to prevent Gender-based Violence (GBV) and Sexual Abuse & Exploitation (SEA) of Children & Women.*

We are the Contractor, [enter name of Contractor]. We have signed a contract with [enter name of Employer] for [enter description of the Works]. These Works will be carried out at [enter the Site and other locations where the Works will be carried out]. Our contract requires us to implement measures to address environmental and social risks related to the Works., We are committed to creating and maintaining an environment in which gender-based violence (GBV) has no place and are responsible in preventing potential risks of sexual exploitation and Abuse and gender-based violence.

Therefore, in order to ensure that all our staff, labourers and other employees at the Works Site are aware of this commitment, and in order to prevent, identify, and respond to any allegations of GBV, the following Code of Conduct will apply to all our staff, labourers and other employees without exception.

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

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

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

REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health.
 - b. wearing required personal protective equipment.
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health.
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children.
6. no women shall be subjected to sexual harassment at any workplace
7. not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel.
8. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed projects, sexual exploitation occurs when access to or benefit from Bank financed Goods, Works, Consulting or Non-consulting services is used to extract sexual gain.
9. not engage in circumstances of any act of behavior of sexual harassment which amounts to sexual harassment viz. (i) implied or explicit promise of preferential treatment in her employment, (ii) implied or explicit threat of detrimental treatment in her employment, (iii) implied or explicit threat about her present or future employment status, (iv) interference with her work or creating an intimidating or offensive or hostile work environment for her, (v) humiliating treatment likely to affect her health or safety
10. not engage in Sexual Abuse, which means sexual activity with another person who does not consent. It is a violation of bodily integrity and sexual autonomy and is broader than narrower conceptions of "rape", especially because (a) it may

be committed by other means than force or violence, and (b) it does not necessarily entail penetration.

11. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage.
12. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Abuse (SEA);
13. report violations of this Code of Conduct; and
14. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the [Project Grievance [Redress] Mechanism].

RAISING CONCERNS

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

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

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

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

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

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

FOR CONTRACTOR'S PERSONNEL:

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

Name of Contractor's Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

Appendix to Technical Part
Form SC-Sub-Contracting

SCHEDULE OF SUBCONTRACTORS

Item	Element of work	% of bid price	Name and address of sub-contractor	Qualification and experience of sub-contractor on similar works of the elements executed

The Bidder shall enter in this schedule a list of the major sections and appropriate value of the work for which he proposed to use subcontractors *[for those costing more than 5% of the bid price for each element]*, together with the names, addresses and experiences of the proposed subcontractors.

The capability of the sub-contractor will also be assessed (on the same lines as for the main Contractor) before according approval to him.

(Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable).

Appendix to Technical Part Others

Appendix to Technical Part

Bidder's Qualification

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

Appendix to Technical Part

Form ELI -1.1¹⁰: Bidder Information Form

Date: _____
RFB No. and title: _____
Page _____ of _____ pages

Bidder's legal name
In case of Joint Venture (JV), legal name of each member:
Bidder's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
<p>Bidder's authorized representative information</p> Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
<p>1. Attached are copies of original documents of</p> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> Authorization to represent the firm or JV named in above, in accordance with ITB 20. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the Employer <p>2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.</p>

¹⁰Form ELI-1.3 (Appendix Technical Part) is also to be furnished by bidder as well as each member of JV.

Appendix to Technical Part

Form ELI -1.2: Information Form for JV Bidders

(Where permitted as per BDS ITB 4.1)
(to be completed for each member of Joint Venture)

Date: _____
RFB No. and title: _____
Page _____ of _____ pages

JV Information
Bidder's Joint Venture legal name:
JV member's legal name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <ul style="list-style-type: none"> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> Authorization to represent the firm or JV named in above, in accordance with ITB 20. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and is not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Appendix to Technical Part

Form ELI -1.2 A

Specialized Subcontractor's Information Form

(to be completed for each Specialized Subcontractor)

Date: _____

RFB No. and title: _____

Page _____ of _____ pages

Bidder's legal name:

Specialized Subcontractor's legal name:

Specialized Subcontractor's country of registration:

Specialized Subcontractor's year of constitution:

Specialized Subcontractor's legal address in country of constitution:

Specialized Subcontractor's authorized representative information

Name: _____

Address: _____

Telephone/Fax numbers: _____

E-mail address: _____

Attached are copies of original documents of

- Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4.
- Authorization to represent the Specialized Subcontractor.

Appendix to Technical Part

DETAILS OF PARTICIPATION IN THE JOINT VENTURE

PARTICIPATION DETAILS	FIRM 'A' (Lead Member)	FIRM 'B'	FIRM 'C'
Financial			
Name of the Banker(s)			
Planning			
Construction Equipment			
Key Personnel			
Execution of Work (Give details on proposed contribution of each)			

The Joint Venture should indicate the details of participation as above.

Appendix to Technical Part

Form ELI-1.3

Structure and Organization

1. The Bidder is
 - [a] an individual
 - [b] a proprietary firm
 - [c] a firm in partnership
 - [d] a Limited Company or Corporation
 - [e] a group of firms/joint venture
(If yes, give completion information in respect of each member)

2. Attach the organization Chart showing the structure of the Organization, including the names of the directors and position of officers.

3. Number of years of experience
 - [a] as a Prime Contractor (Contractor shouldering major responsibility)
 - [i] in own country
 - [ii] in other countries (specify countries)

 - [b] as a Management Contractor
 - [i] in own country
 - [ii] in other countries (specify countries)

 - [c] in a Joint Venture
 - [i] in own country
 - [ii] in other countries (specify countries)

 - [d] as sub-contractor (specify main contractor)
 - [i] in own country
 - [ii] in other countries (specify countries)

4. Name and address of any associates the bidder has in India (in case the bidder happens to be

from foreign country) who are knowledgeable in the procedure of customs, immigration, taxes and other information necessary to do the work.

5. For how many years has your organization been in business of similar work under its present name? What were your fields when your organization was established? Whether any new fields were added in your organization? And if so, when?

6. Were you ever required to suspend construction for a period of more than six months continuously after your started? If so, give the name of project and give reasons therefor.

7. Have you ever left the work awarded to you incomplete? (If so, give name of project and reasons for not completing work.)

8. In which fields of civil engineering construction do your claim specialization and interest?

9. Give details of your experience in Design of multi speciality hospital (mention with detailes like, area, type of hospital, year of construction, cost, client etc.)

10. Give details of your experience in construction of multi speciality hospital (mention with detailes like, area, type of hospital, year of construction, cost, client etc.)
11. Give details of your experience in modular and fast construction technologies

Appendix to Technical Part

Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History

[to be completed for the Bidder and for each member of a Joint Venture]

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

RFB No. and title: _____

Page _____ of _____ pages

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

Year of dispute	Amount in dispute (₹)	Contract Identification	Total Contract Amount (₹)
<i>[insert year]</i>	<i>[insert amount]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate “Employer” or “Contractor”]</i></p> <p>Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate “Employer” or “Contractor”]</i></p> <p>Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p>	<i>[insert amount]</i>
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (₹)

<i>[insert year]</i>	<i>[insert percentage]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification]</p> <p>Name of Employer: <i>[insert full name]</i></p> <p>Address of Employer: <i>[insert street/city/country]</i></p> <p>Matter in dispute: <i>[indicate main issues in dispute]</i></p> <p>Party who initiated the dispute: <i>[indicate “Employer” or “Contractor”]</i></p> <p>Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i></p>	<i>[insert amount]</i>
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Appendix to Technical Part

Form CON – 3: Environmental and Social Performance Declaration

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

Bidder's Name: _____ *[insert full name]*
Date: _____ *[insert day, month, year]*

Joint Venture Member's or Specialized Subcontractor's Name: _____ *[insert full name]*
RFB No. and title: _____ *[insert RFB number and title]*
Page _____ *[insert page number]* of _____ *[insert page number]* pages

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

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

Appendix to Technical Part

Form FIN – 3.1: Financial Situation and Performance

[To be completed by the Bidder and by each member of a Joint Venture]

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

1. Financial data

Type of Financial information in (₹)	Historic information for previous _____ years, _____ (amount in ₹)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Shareholder's Funds (Net Worth)=(Paid up equity +Reserves)-(revaluation reserves + Miscellaneous expenditure not written off)					
Depreciation					
Information from Income Statement					
Total Revenue (TR)					

Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					
Net cash accruals= Profit after Tax + depreciation					
This information should be extracted from the Annual Financial Statements/ Balance sheets, which should be enclosed. Year 1 will be the latest year for which audited financial statements are available. Year 2 shall be the year immediately preceding year 1 and year 3 shall be the year immediately preceding Year 2.					

2. Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (₹)
1		
2		
3		

3. Financial documents

The Bidder and its parties shall provide copies of financial statements for _____ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

- (a) reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).
- (b) be independently audited or certified in accordance with local legislation. In case of Indian bidders, the financial statements shall be audited by a certified chartered accountant.
- (c) be complete, including all notes to the financial statements.
- (d) correspond to accounting periods already completed and audited.

- Attached are copies of financial statements¹¹ (balance sheets, including all related notes, and income statements) for the _____ years required above; and complying with the requirements. (If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified)

- Attached is a copy of certificate given from the commercial bank assuring cash flow (working capital for the subject contract) in the format attached.

¹¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

Appendix to Technical Part

Form FIN - 3.2: Average Annual Construction Turnover

[To be completed by the Bidder and by each member of a Joint Venture]

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

Annual turnover data (construction only)	
Year	Amount in ₹
<i>[indicate year]</i>	<i>[insert amount]</i>
Average Annual Construction Turnover *	

- * See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2. Annual construction turnover calculated as total certified payments received for work in progress or completed, for 5 years. This should be certified by a Chartered Accountant.

Appendix to Technical Part

JOINT VENTURE

Names of all members of a joint venture
1. Member in charge
2. Member
3. Member

Total value of annual construction turnover, in terms of work billed to clients, in ₹

Annual Turnover Data (construction only; in ₹ *)							
Member	Form 3.2 page no.	Year 1	Year 2	Year 3	Year 4	Year 5	Average
1. Member in charge							
2. Member							
3. Member							
TOTALS							

*** To be certified by a chartered accountant**

Name and address of Bankers to the Joint Venture

Provide details regarding financial responsibility and participation (percentage share in the total) of each firm in the Joint Venture. Attach a Memorandum of Understanding for the Proposed Agreement of joint Venture which should lay down responsibility regarding work and financial arrangements in respect of each of the firm in the Joint Venture (Refer also ITB Clause 4.1).

Appendix to Technical Part

Form FIN - 3.3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria.

Source of financing	Amount (₹)
1.	
2.	
3.	
4.	

FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CASH FLOW

[To be given from a Nationalized or Scheduled Bank in India]

Clause 3.1(ii) of Section III – Qualification Criteria

(1) AVAILABILITY OF CASH FLOW (WORKING CAPITAL)

This is to certify that M/s. _____ is a reputed company with a good financial standing.

If the contract for the works, namely _____ [funded by the World Bank] is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of ₹equivalent _____ to meet their capital requirements for executing the above contract.

-- Sd. --

Name of Bank Manager

Senior Bank Manager

Address of the Bank

*** Change the text as follows for Joint venture:**

This is to certify that M/s. who has formed a JV with M/s.

..... and M/s. for participating in this bid, is a reputed company with a good financial standing.

If the contract for the work, namely [funded by the World Bank] is awarded to the above Joint Venture, we shall be able to provide overdraft/credit facilities to the extent of ₹ to meet the working capital requirements for executing the above contract.

[This should be given by the JV members in proportion to their financial participation.]

Appendix to Technical Part

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

Bidders and each member of a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

(A) Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (₹) equivalent in million)	Stipulated period of completion	Value of works ¹² remaining to be completed (₹) equivalent in million)	Anticipated date of completion	Average Monthly Invoicing Over Last Six Months (₹/month) Equivalent in millions)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

¹²Attach certificate(s) from the Engineer(s)-in-Charge.

(B) Works for which bids already submitted and likely to be awarded – expected additional commitment.

Description of Work	Place & State	Name and Address of Employer	Estimated value of Works (₹) equivalent in million)	Stipulated period of completion	Date when decision is expected	Remarks, if any
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Appendix to Technical Part

Form EXP - 4.1: General Construction Experience

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

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

[Identify contracts that demonstrate continuous construction work over the past [5] years pursuant to Section III, Qualification Criteria and Requirements, Sub-Factor 4.1. List contracts chronologically, according to their commencement (starting) dates.]

Starting Month/ Year	Ending Month/ Year	Contract Identification	Role of Bidder [“Contractor” or “JV Member” or “Subcontractor” or “Contract Manager”]
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	

Appendix to Technical Part

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

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

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

(A) Work performed as prime Contractor or JV Member or Sub-Contractor or Management Contractor (in the same name and style) on construction works of a similar nature and volume over the last five years¹³. *[Attach certificate from the Engineer-in-charge.]*

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub- contractor <input type="checkbox"/>
Total Contract Amount	₹ *			
If member in a JV or subcontractor, specify participation in total Contract amount (% of Total)			*	
Employer's Name:				
Address:				
Telephone/fax number				
E-mail:				

¹³Immediately preceding the financial year in which bids are received.

Appendix to Technical Part**Form EXP - 4.2(a) (cont.)****Specific Construction and Contract Management Experience (cont.)**

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

Appendix to Technical Part

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

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

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

Subcontractor's Legal Name¹⁴ (as per ITB 33.2 and 33.3): _____

RFB No. and title: _____

Page _____ of _____ pages

Subcontractor's Name (as per ITB 33.2 and 33.3): _____

All subcontractors for key activities must complete the information in this form as per ITB 33.2 and 33.3 and Section III, Qualification Criteria and Requirements, Sub-Factor 4.2.

(B) Quantities of work executed as prime contractor or Sub-Contractor (in the same name and style) in the last five years:¹⁵ *[Attach certificate from the Engineer-in-charge.]*

1. Key Activity No One: _____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	₹			
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year in the last five years	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)	
Year 1				
Year 2				
Year 3				
Year 4				

¹⁴ If applicable.

¹⁵ Immediately preceding the financial year in which bids are received.

Year 5			
Employer's Name:			
Address:			
Telephone/fax numberE-mail:			

2. Activity No. Two

3.

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

Appendix to Bid Technical Part

Form EXP – 4.2(c): Specific Design Experience

[The following table shall be filled in for the Bidder, each member of Joint Venture, and Specialized Subcontractors]

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

RFB No. and title: _____

Page _____ of _____ pages

Sub-contractor's Name (as per ITB 33.2 and 33.3): _____

All Sub-contractors for key activities must complete the information in this form as per ITB 33.2 and 33.3 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

(C) Quantities of work executed as prime contractor or Sub-Contractor (in the same name and style) in the last five years:¹⁶ *[Attach certificate from the Engineer-in-charge.]*

1. ¹⁷Key Activity No One: _____ *[repeat if applicable, for each activity specified in Section III: Qualification Criteria]*

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub- contractor <input type="checkbox"/>
Total Contract Amount	₹			
Quantity (Value) performed under the contract per year or part of the year in the last five years.	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)	
Year 1				
Year 2				
Year 3				
Year 4				

¹⁶ Immediately preceding the financial year in which bids are received.

¹⁷ Activities for which data is requested should tally with those specified in Section III: Qualification Criteria

Year 5			
Employer's Name:			
Address:			
Telephone/fax number			
E-mail:			

Appendix to Technical Part Enclosure-I Memorandum of Understanding

This memorandum of understanding (MOU) is entered by and between M/S _____ (*name of the bidder*) having office at _____ and M/S _____ (*Specialized Sub-contractor*) having office at _____ on dd/mm/yyyy to provide specialized job of providing _____ (specify the job) stipulated in the RFB vide no. _____ for Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.

In case the bid is successful, the tender inviting authority awards the contract to _____ (*name of the bidder*), then _____ (*Specialized Sub-contractor*) hereby confirms and accepts to provide _____ services as per the RFB No.- _____ to the project Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam. Further both parties are jointly and severally liable to execute the specialised job as agreed above.

Both the parties understood that this memorandum of understanding (MOU) shall be irrevocable and binding for both the parties.

For & On behalf of M/S _____ (Name of the bidder)

Signature:
Name :
Designation.

For & On behalf of M/S _____ (Name of the Specialized Sub Contractor)

Signature:
Name :
Designation.

Appendix to Technical Part

Form EXP - 4.2(d)

Specific Experience in Managing ES aspects

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

Bidder's Name: _____

Date: _____

Bidder's JV Member Name: _____

RFB No. and title: _____

Page _____ of _____ pages

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

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

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

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

...

Appendix to Technical Part

Form.....

(Name of the Project)

(Declaration regarding tax/duty exemption for materials/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
Government Order/Circular Number under which tax/duty Exemption is being sought: ...

1. We confirm that we are solely responsible for obtaining tax/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's relevant Notifications.
3. The goods/construction equipment for which certificates are required are as under:

Items <i>(modify the list suitably for each specific work)*</i>	Make/ Brand Name	Capacity <i>[where applicable]</i>	Quantity	Value	State whether it will be procured locally or imported <i>[if so from which country]</i>	Remarks regarding justification for the quantity and their usage in works.
Goods						
[a]						
[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 approved design, work requirements 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 Government of India's Notifications as current of date of bidding.**

Appendix to Technical Part: Bid Security

Form of Bid Security - Bank Guarantee

[Guarantor letterhead or SWIFT identifier code]

Bank Guarantee No.....[insert guarantee reference number]

Date.....[insert date of issue of the guarantee]

WHEREAS, _____ [name of Bidder]¹⁸ (hereinafter called "the Applicant") has submitted his Bid dated _____ [date] or will submit his Bid for the construction of _____ [name of Contract] (hereinafter called "the Bid") under Request for Bids No.....[insert number] (hereinafter called "the RFB")

KNOW ALL PEOPLE by these presents that We _____ [name of bank] of _____ [name of country] having our registered office at _____ (hereinafter called "the Bank") are bound unto _____ [name of Employer] (hereinafter called "the Employer") in the sum of _____¹⁹ for which payment well and truly to be made to the said Employer the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20_____.

THE CONDITIONS of this obligation are:

(1) If after Bid opening the Applicant (a) withdraws his bid during the period of Bid validity specified in the Letter of Bid, ("the Bid Validity Period"); or (b) does not accept the correction of the Bid Price pursuant to ITB 36;

Or

(2) If the Applicant having been notified of the acceptance of his bid by the Employer during the period of Bid validity:

- (a) fails or refuses to execute the Contract Agreement in accordance with the Instructions to Bidders, if required; or
- (b) fails or refuses to furnish the Performance Security and if required, the Environmental, Social, Health and Safety (ESHS) Performance Security, in accordance with the Instruction to Bidders.

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

¹⁸Insert name of the Bidder, which in the case of a joint venture shall be (a) the name of the joint venture that submits the bid if the JV has been constituted into a legally enforceable JV, or (b) the names of all future members of the JV as named in the letter of intent to execute the JV Agreement submitted by the bidder alongwith its bid.

¹⁹The Applicant should insert the amount of the guarantee in words and figures denominated in ₹. This figure should be the same as shown in Clause 19.1 of the Instructions to Bidders.

This Guarantee will remain in force up to and including the date _____²⁰days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK _____

WITNESS _____ SEAL _____

[signature, name, and address]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

²⁰45 days after the end of the validity period of the Bid.

Letter of Bid - Financial Part

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

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address. This document to be submitted in pdf in the financial folder-BoQ

Note: *All italicized text is to help Bidders in preparing this form.*

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

Request for Bid No.: *[insert identification]*

Alternative No.²¹: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned, hereby submit the second part of our Bid, the Bid Price. This accompanies the Letter of Bid - Technical Part.

In submitting our Bid, we make the following additional declarations:

- (a) **Bid Validity Period:** Our Bid shall be valid for a period specified in BDS 18.1 (or as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) **Bid Price:** The total price of our Bid, including any discounts offered is:
Total price is: *[insert the total price of the Bid in ₹ in words and figures]*;
- (c) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*.

Name of Recipient	Address	Reason	Amount

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

²¹Delete if not applicable

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

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

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

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

*: In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder.

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

Appendix to Financial Part: Schedules Form SC-Sub-contracting

SCHEDULE OF SUBCONTRACTORS

[Note: Entries in this Schedule shall be the same as included in the same Schedule in the technical part of the bid, except for the column on 'Approximate value of subcontract' added in the table below]

Item	Element of work	Approximate value of subcontract	% of bid price	Name and address of sub-contractor	Qualification and experience of sub-contractor on similar works of the elements executed

The Bidder shall enter in this schedule a list of the major sections and appropriate value of the work for which he proposed to use subcontractors *[for those costing more than 5% of the bid price for each element]*, together with the names, addresses and experiences of the proposed subcontractors.

The capability of the subcontractor will also be assessed (on the same lines as for the main Contractor) before according approval to him.

(Work should not be split into small parts and subcontracted; but subcontracting specialized elements of works is acceptable).

Section V - Eligible Countries

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

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

Under ITB 4.8 (a) and 5.1 : *None*

Under ITB 4.8 (b) and 5.1 : *None*

[Note: as and when some country/ countries become ineligible insert the list of such countries following approval by the Bank to apply the restriction]

Section VI - Fraud and Corruption

(Section VI shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

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

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;²² (ii) to be a nominated²³ sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect²⁴ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

²² For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

²³ A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

²⁴ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

PART 2 – Works' Requirements²⁵

Section VII - Works' Requirements:

Work's Requirements

Employer proposed “**Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode**”.

The details of building and approximate plinth area and particulars are indicated in **Architecture DBR**. The minimum plinth area and particulars are also indicated. The work is to be executed on **Engineering Procurement and Construction Basis**. The suggestive layout plan and conceptual architectural plans of buildings shall be provided by the department and are annexed with the document. The bidder shall provide complete planning and design, architectural drawings, detailed working drawings, structural drawings & service drawings for all buildings and development works & services sub head in schedule and any other drawings required for completing the project. The Contractor will also get the structural designs and drawings proof checked from a “Proof Consultant” if instructed by the Authority by an organization of national repute approved by the Authority’s Engineer for proof checking of structural drawings/proposals prepared by the structural Engineer of EPC Contractor. The fee for proof checking shall be borne by the Contractor. The Contractor will liaison and co-ordinate with the Proof Consultant as and when required and as per the direction of Authority. The execution shall be done on the basis on the approved working architectural & structural drawings. CPWD Specifications, relevant IS codes, National Building Code 2016, Harmonised Guidelines & Standards for Universal Accessibility in India 2021, Guidelines of AERB, IPHS/NMC Norms and other standard specifications shall be followed in general except otherwise mentioned in bid document. Samples of the materials of approved make or otherwise shall be got approved from the Engineer-in-charge before use in the work.

The scope of work includes (Pre-Post) Statutory Approvals, topographical Survey, soil Investigation, preparation of architectural drawings, detailed working drawings, structural design & drawings of buildings, required services i.e electrical installations including all electrical fittings/fixtures, water supply pumps, sub-mersible pump, de-watering pumps etc. HT and LT including emergency and backup supply, sub-station, DG set with AMF panel, HT Panel, LT panel, feeder pillars. Lightning protection and Earthing system, External Lighting, Firefighting, fire detection, UPS, Lifts, Air conditioning VRV/VRF system, Ventilation, Smoke evacuation system, Street light design with control panel, Lighting in meeting room and any other services required but not specifically indicated,. Signages, liaisoning with statutory agencies like Fire Services, BSNL/MTNL, Central Electricity authority, Municipal Authority, Water supply & sewerage authorities, EIA, CPCB, CGWB / State Water Board etc, forest officer, fire officer, Electrical Service provider for obtaining the pre-construction and post construction clearances. The statutory payments to these agencies will be paid by the agency except the charges of HT Electrical Service connection from local supply agency to the HT energy meter in the premises of the building which will be initially paid by the contractor and reimbursed by the department to the contractor on producing the proof of charges paid to the local concern agency. Liasoning with the local supply agency shall be in the scope of the contractor for which, nothing extra shall be paid to the contractor. Thereafter complete construction and commissioning of building(s) alongwith all mentioned services is in the scope of the work. The scope of work is inclusive of site clearance, removing any legacy waste, vegetation, re-routing of existing underground services if any, making site encumbrance free for construction, setting layout on ground, profile, establishment of reference bench mark, installing various signage, taking spot levels, survey with total station construction of all safety and protection devices, barriers, earth embankments, preparatory works, all testing of materials working during monsoon, working at all depths, height and locations etc. unless specified in the schedule of quantities

The design of the hospital should be based on GRIHA specifications and the bidder is to get the hospital so constructed to get 3 (three) star rating by GRIHA Version 2019 or latest. The work shall be carried out as per specifications laid down by CPWD including latest amendments, if any.

Environmental and Social (ES) Requirements

The Employer should use the services of a suitably qualified environmental and social specialist/s to prepare the specifications for ES working with a procurement specialist/s.

The Employer should attach or refer to the Employer's environmental and social standards in the ESF including the specific requirements set out in the Environmental and Social Commitment Plan (ESCP), EHSGs and other GIIP as well as SEA prevention and management obligations. The ES requirements should be prepared in manner that does not conflict with the relevant Works' Requirements: Conditions of Contract together with Schedules.

Management and Safety of Hazardous Materials

As applicable, specify requirements for the management and safety of hazardous materials (see ESF - ESS4 para. 17 and 18 and relevant guidance notes for preventing and safeguarding workplace occupational health and safety, and Community Health and safety.

Resource Efficiency and Pollution Prevention and Management

As applicable specify Resource Efficiency and Pollution Prevention and Management measures (see ESF -ESS3 and relevant guidance notes). Constriction waste management and dust suppression

- **Resource efficiency**

The Employer shall specify, as applicable, measures for improving efficient and optimal consumption of energy, water and raw materials, as well as other resources.

- **Energy:** *When the Works have been assessed to involve a potentially significant use of energy, specify any applicable measures to optimize energy usage.*
- **Water:** *When the Works have been assessed to involve a potentially significant use of water or will have potentially significant impacts on water quality, specify any applicable measures that avoid or minimize water usage so that the Works' water use does not have significant adverse impacts on communities, other users and the environment.*
- **Raw material:** *When the Works have been assessed to involve a potentially significant use of raw materials, specify any applicable measures to support efficient use of raw materials.*

- **Pollution prevention and management**

- **Management of air pollution:** *specify any measure to avoid or minimize Works related air pollution. See also PCC 4.18 and the table above.*
- **Management of hazardous and non-hazardous wastes:** *specify any applicable measures to minimize the generation of waste, and reuse, recycle and recover waste in a manner that is safe for human health and the environment including storage, transportation and disposal of hazardous wastes.*
- **Management of chemicals and hazardous materials:** *specify any applicable measures to minimize and control the release and use of hazardous materials for Works activities including the production, transportation, handling, and storage of the materials.*

- **Biodiversity Conservation and Sustainable Management of Living Natural Resources**

The Employer shall specify, as applicable, Biodiversity Conservation and Sustainable Management of Living Natural Resources (see E&S- ESS6 and relevant guidance notes). This includes, as applicable:

- *invasive alien species: managing the risk of invasive alien species during the execution of the Works;*
- *sustainable management of living natural resources; and*
- *certification and verification requirements for the supply of natural resource materials where there is a risk of significant conversion or significant degradation of natural or critical habitats.*

PAYMENT FOR ES REQUIREMENTS

The Employer's ES and procurement specialists should consider how the Contractor payments shall be linked to the ES (including requirements relating to gender-based violence (GBV) and Sexual Exploitation and Abuse (SEA))/ Sexual Harassment (SH) which are to be satisfied by the Contractor in executing the Works. Payment for the delivery of ES requirements is a subsidiary obligation of the Contractor and is covered within the quoted EPC prices. Contractors obligations under the ES requirements should accordingly be required to be complied with before release of Interim/ Stage Payments.

Provisional sums may also be specified by the Employer for example for HIV counselling service, and, SEA awareness and sensitization or to encourage the contractor to deliver additional ES outcomes beyond the requirement of the Contract.

The environmental and social impact assessment (ESIA) will be required for preparation of site-specific ESMPs for district hospitals. This comprises of a set of mitigation, monitoring, and institutional measures required eliminate/address adverse environmental and social risks and impacts. The contractor will undertake the following:

- (i) Determine the environmental and social baseline condition at project site.(primary baseline and samples included)*
- (ii) Assess the environmental and social impacts of the construction and operation of the selected infrastructure investments related to the project, in accordance with the National regulations and the World Bank Environment and Social Standards*
- (iii) Identify cost related mitigation measures and monitoring activities for the impacts/ risks identified*
- (iv) undertake public consultations, focusing particularly on project affected people, if any, and other main stakeholders to discuss any environmental and social impacts, positive and negative as well as key project benefits to feed into preparation of ESMP, and further periodic consultations during implementation to mitigate any emerging E&S issues.*
- (iv) Prepare an ESMP such that environmental and social requirements (mitigation measures and monitoring, technical specifications) related to the construction phase could be incorporated in the bidding/contract documents of the sub projects. The ESMP will also include a Workers' Code of Conduct which will form a part of the bidding/contract document.*
- (v) The mitigation plan that identifies and summarizes all expected potential environmental and social impacts; describes each mitigation measure with technical details (e.g., designs, equipment description, related operating procedures) including the type of impact to which it relates and the condition under which it is required; and provides linkages with any other mitigation plans (occupational health and safety, community health and safety, labour management) required for the Project.*
- (vi) Prepare and implement Labour management plan in conformity to legal and regulatory requirements encompassing labour camps and ensuring adherence to necessary standards such as separate kitchen and living rooms with proper ventilation, availability of electricity, lighting and fans in rooms, availability of sufficient quantity of safe drinking water, availability of proper sanitation facilities for men and women, display of all emergency numbers including empanelled hospital(s) on a board, proper health and sanitation maintained, provision of safe*

disposal of waste-water, grievance redress mechanism, and addressing SEA/SH and GBV related measures among others.

- (vii) The grievance redress mechanism (GRM) shall have provisions for receiving, registering, following up and resolution system for any complaint/grievance received during the construction period. A complaints register and a drop box shall always be maintained at the site office and grievances/Complaints to be addressed through specific protocol and responsibilities as developed by employer. And quarterly reporting on the grievances received and resolved to the contracting authority or as directed under the contract.*
- (viii) A monitoring plan including a specific description of monitoring measures (affiliated with the mitigation measures proposed in the mitigation plan) with the parameters to be measured, methods to be used, sampling locations, frequency of measurements; specific description of institutional arrangements, and the reporting procedures; and*
- (ix) An implementation schedule for mitigation and monitoring measures proposed in the above plans and cost estimates and sources of funds for implementing the ESMP.*

The Contractor will assist the client in carrying-out the public consultation, and disclosure process for the ESIA reports to allow public awareness of the selected project investments and the envisaged related environmental and social impacts. The Contractor will organize in collaboration with GoA two public meetings/stakeholder consultation meeting on the draft documents when the reports are available. One meeting for presenting the drafts will take place in Guwahati and the other site where the most significant impacts will occur/ subproject is to be implemented. Minutes including questions and answers from these meeting should be included in the final reports. The draft documents should be made publicly accessible by posting it on the GoA website as well as on the website of the relevant IAs in local languages before the date of the public meeting.

Part I Preliminary

NOTIFICATION OF AWARD

Letter of Acceptance

[on letterhead paper of the Employer]

[The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clause 47. This Standard Form of Letter of Acceptance shall be filled in and sent to the successful Bidder only after evaluation of bids has been completed, subject to any review by the World Bank required under the Loan Agreement.]

..... *[date]*

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

Subject: *[Notification of Award Contract No]*

This is to notify you that your Bid dated . . . *[insert date]* . . . for execution of the
[insert name of the contract and identification number]. for the Accepted Contract
 Amount of *[insert amount in numbers and words]*, as corrected and modified²⁶ in
 accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security and an Environmental and Social (ES)
 Performance Security in the form detailed in ITB Clause 50 for amounts²⁷ of ₹, and ₹.
 specified therein and sign the contract within 28 days of the receipt of this letter of
 acceptance, failing which action as stated in ITB Clause 50.2 will be taken, in accordance with
 the Conditions of Contract. The securities shall be valid up to 28 days from the date of
 completion i.e. up to and shall be as per the Performance Security Form and the ES
 Performance Security Form included in Schedule-G: Form of Bank Guarantee.

We note that as per your bid, you do not intend to subcontract any component of work.

[OR]

We note that as per your bid, you propose to employ M/s. as sub-contractor for
 executing

[Delete whatever is inapplicable]

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

²⁶Delete "corrected and" or "and modified" if not applicable. See Notes on Standard Form of Agreement, next page.

²⁷Insert amounts for (i) Performance Security; and (ii) ES Performance Security respectively.

ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT

THIS AGREEMENT is entered into on this the day of, 20.....

BETWEEN

Project Director, Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) Project for and on behalf of Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, GOA,(hereinafter referred to as the “**Authority**” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of One Part;

AND

{-----,} means the selected bidder *{single entity or the joint venture which is the selected bidder under the RFBNo.....having its registered office atand at(in case ofJV),* (hereinafter referred to as the “**Contractor**” which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the Other Part.

WHEREAS:

- (A) Projector Director, ASSIST has intended to take up the Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode
- (B) The Authority had resolved to take up the work “**Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.**” in accordance with the terms and conditions to be set forth in an agreement to be entered into.
- (C) The Authority had prescribed the technical and commercial terms and conditions, and invited bids RFB No.IN-AHIDMS-457643-CW-RFB from all bidders having required eligibility and qualification criteria for undertaking the Project.
- (D) After evaluation of the bids received, the Authority had accepted the bid of the selected bidder and issued its Letter of Acceptance No. dated (hereinafter called the “**LOA**”) to the selected bidder for the work “**Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Modeon Engineering, Procurement and Construction (EPC) Mode-1 Basis**” at the contract price specified hereinafter, requiring the selected bidder to inter alia:
 - (i) To give his consent to enter into this Agreement and the enforceability of the provisions thereof, within 10 (ten) business days of the date of issue of LOA;
 - (ii) Submit Performance Security and ES Performance Security (if any) as per RFB requirements, and-
 - (iii)execute this Agreement within 28(twenty eight) days of the date of issue of LOA.
- (E) The Contractor has fulfilled the requirements specified in Recital (D) above;

NOW THEREFORE in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, the Authority hereby covenants to pay the Contractor, in consideration of the obligations specified herein, the Contract Price or such other sum as may become payable under the provisions of the Agreement at the times and in the manner specified by the Agreement and intending to be legally bound hereby, the Parties agree as follows:

**PART 3: Conditions of Contract together
with Schedules.**

ARTICLE 1

DEFINITIONS AND INTERPRETATION**1.1 Definitions**

The words and expressions beginning with capital letters and defined in this Agreement (including those in Article 28) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

1.2 Interpretation

1.2.1 In this Agreement, unless the context otherwise requires,

- (a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
- (b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
- (c) references to a “person” and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- (d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
- (e) the words “include” and “including” are to be construed without limitation and shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases;
- (f) references to “construction” or “building” include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of plant, materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Project, including maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the construction and “construct” or “build” shall be construed accordingly;
- (g) references to “development” include, unless the context otherwise requires, designing, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto during the Construction Period, and “develop” shall be construed accordingly;
- (h) any reference to any period of time shall mean a reference to that according to Indian standard time;
- (i) any reference to day shall mean a reference to a calendar day;

- (j) references to a “business day” shall be construed as a reference to a day (other than a Sunday) on which banks in India [insert the name of the State/ city] are generally open for business;
- (k) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;
- (l) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;
- (m) any reference to any period commencing “from” a specified day or date and “till” or “until” a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;
- (n) the words importing singular shall include plural and vice versa;
- (o) references to any gender shall include the other and the neutral gender;
- (p) “lakh” means a hundred thousand (100,000) and “crore” means ten million (10,000,000);
- (q) “indebtedness” shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
- (r) references to the “winding-up”, “dissolution”, “insolvency”, or “reorganisation” of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganisation, dissolution, arrangement, protection or relief of debtors;
- (s) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, licence or document of any description shall be construed as reference to that agreement, deed, instrument, licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Clause shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;
- (t) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Authority’s Engineer shall be valid and effective only if it is in writing under the hand of a duly authorised representative of such Party or the Authority’s Engineer, as the case may be, in this behalf and not otherwise;
- (u) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
- (v) references to Recitals, Articles, Clauses, Sub-clauses or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses and Schedules of or to this Agreement, and references to a Paragraph shall, subject to any contrary indication, be construed as a reference to a Paragraph of this Agreement or of the Schedule in which such reference appears;
- (w) the damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and

damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the “Damages”); and

- (x) time shall be of the essence in the performance of the Parties’ respective obligations. If any time period specified herein is extended for the reasons specified in the Agreement, such extended time shall also be of the essence.
- (y) References to “World Bank” shall mean the International Bank for Reconstruction and Development (The Bank). The Bank is the financing institution which has provided funds toward a part of the cost of the Project. Payments by the World Bank will be made only at the request of the Borrower (Government of India) of the funds and upon approval by the World Bank in accordance with the terms and conditions of the financing agreement (Loan Agreement) and will be subject in all respects to the terms and conditions of that Loan Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the Loan (or other financing) account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan Agreement or have any claim to the proceeds of the Loan (or other financing).”

- 1.2.2 Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Contractor to the Authority shall be provided free of cost and in three copies, and if the Authority is required to return any such Documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.
- 1.2.3 The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.
- 1.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

1.3 Measurements and arithmetic conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

1.4 Priority of agreements and errors/discrepancies

- 1.4.1 This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:
 - (a) Corrigendum to Conditions of Contract together with Schedules (issued if any)
 - (b) this Agreement including Conditions of Contract together with Schedules; and
 - (c) all other agreements and documents forming part hereof or referred to herein; i.e. this Agreement at (b) above shall prevail over the agreements and documents at (c).
- 1.4.2 Subject to the provisions of Clause 1.4.1, in case of ambiguities or discrepancies within this Agreement, the following shall apply:

- (a) between a Clause of this Agreement and Corrigendum, the provisions of Corrigendum
- (b) between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
- (c) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;
- (d) between any two Schedules, the Schedule relevant to the issue shall prevail;
- (e) between the written description on the Drawings and the Specifications & Standards, the latter shall prevail;
- (f) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and
- (g) between any value written in numerals and that in words, the latter shall prevail.

1.5 Joint and several liability

1.5.1 If the Contractor has formed a Joint Venture (JV) of two for implementing the Project:

- (a) these two shall, without prejudice to the provisions of this Agreement, be deemed to be jointly and severally liable to the Authority for the performance of the Agreement; and
- (b) the Contractor shall ensure that no change in the composition of the Joint Venture (JV) is effected without the prior consent of the Authority. Hiding any information regarding changes in roles and responsibilities of JV members, which is not authorized by the Authority, shall be treated as violation of Appendix to Conditions of Contract (Fraud and Corruption).

1.5.2 Without prejudice to the joint and several liability of all the members of the Joint Venture (JV), the Lead Member shall represent all the members of the Joint Venture (JV) and shall at all times be liable and responsible for discharging the functions and obligations of the Contractor. The Contractor shall ensure that each member of the Joint Venture (JV) shall be bound by any decision, communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the Authority shall be entitled to rely upon any such action, decision or communication of the Lead Member. The Authority shall release the payment only to the Joint Venture (JV)

Part II Scope of Project

ARTICLE 2
SCOPE OF THE PROJECT

2.1 Scope of the Project

Under this Agreement, the scope of the Project (the “**Scope of the Project**”) shall mean and include:

- (a) Designing and construction of the Project on the Site set forth in Schedule-A and as specified in Schedule-B together with provision of Project Facilities as specified in Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D which is “fit for use”; obtaining 3 (Three) Star GRIHA Version 2019 or latest certification for the Project so constructed.
- (b) maintenance of the Project in accordance with the provisions of this Agreement and in conformity with the requirements set forth in Schedule-E; and
- (c) performance and fulfilment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.

ARTICLE 3
OBLIGATIONS OF THE CONTRACTOR

3.1 Obligations of the Contractor

- 3.1.1 Subject to and on the terms and conditions of this Agreement, the Contractor shall undertake the survey, investigation, design, engineering, procurement, construction, and maintenance of the Project and observe, fulfill, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 3.1.2 The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement. The Contractor shall comply with (a) all environmental clearances/consents/permissions required during construction and maintenance including implementation of Contractor's Environmental and Social Management Plan (C-ESMP); (b) ES Management Strategies and Implementation Plans; and (c) Code of Conduct for Contractor's Personnel.
- 3.1.3 Subject to the provisions of Clauses 3.1.1 and 3.1.2, the Contractor shall discharge its obligations in accordance with Good Industry Practice and as a reasonable and prudent person.
- 3.1.4 The Contractor shall remedy any and all loss or damage to the Project from the Appointed Date until the end of the Construction Period at the Contractor's cost, save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Authority.
- 3.1.5 The Contractor shall remedy any and all loss or damage to the Project during the Defects Liability Period at the Contractor's cost to the extent that such loss or damage shall have arisen out of the reasons specified in Clause 17.3.
- 3.1.6 The Contractor shall remedy any and all loss or damage to the Project during the Maintenance Period at the Contractor's cost, including those stated in Clause 14.1.2, save and except to the extent that any such loss or damage shall have arisen on account of any default or neglect of the Authority or on account of a Force Majeure Event.
- 3.1.7 The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:
- (a) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth in Schedule-F and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;
 - (b) procure, as required, the appropriate proprietary rights, licences, agreements and permissions for Materials, methods, processes and systems used or incorporated into the Project;
 - (c) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;
 - (d) ensure and procure that its Sub-contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;

- (e) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
- (f) support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;
- (g) ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labour in accordance with the Applicable Laws and Good Industry Practice;
- (h) keep, on the Site, a copy of this Agreement, publications named in this Agreement, the Drawings, Documents relating to the Project, and Change of Scope Orders and other communications given under this Agreement. The Authority's Engineer and its authorised personnel shall have the right of access to all these documents at all reasonable times;
- (i) cooperate with other contractors employed by the Authority and personnel of any public authority; and
- (j) not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Authority or of others.

3.1.8 The Contractor shall undertake all necessary superintendence to plan, arrange, direct, manage, inspect and test the Works.

3.1.9 Inspections and Audit by the World Bank

The Contractor shall permit, and shall cause its Subcontractors and sub-consultants to permit, the World Bank and/or persons appointed by the World Bank to inspect the Site and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the World Bank if requested by the World Bank. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Clause 3.9 [Corrupt or Fraudulent Practices] which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Clause 11.6.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the World Bank's prevailing sanctions procedures).

3.1.10 The Contractor shall maintain required staff and necessary Contractor's equipment and materials within the reach of the Site during the Defects Liability Period so that any defects arising are promptly attended.

3.2 Obligations relating to sub-contracts and any other agreements

3.2.1 The Contractor shall not sub-contract any Works in more than 20 (twenty per cent) of the contract price and shall carry out Works directly under its own supervision and through its own personnel. Provided, however, that in respect of the Works carried out directly by the Contractor, it may enter into contracts for the supply and installation of Materials, Plant, equipment, safety devices and labour, as the case may be, for such Works. The Parties further agree that all obligations and liabilities under this Agreement for the entire Project shall at all times remain with the Contractor.

3.2.2. In the event any sub-contract for Works, or the aggregate of such sub-contracts with any Sub-contractor, exceeds 5% (five percent) of the Contract Price the Contractor shall communicate

the name and particulars, including the relevant experience of the sub-contractor, to the Authority prior to entering into any such sub-contract. The Authority shall examine (i) the particulars of the sub-contractor from the national security and public interest perspective; and (ii) qualification of the sub contractor for suitability; and may require the Contractor, no later than 15 business days from the date of receiving the communication from the Contractor, not to proceed with the sub-contract, and the Contractor shall comply therewith.

- 3.2.3 In the event any sub-contract referred to in Clause 3.2.2 relates to a sub-contractor who has, over the preceding 3 (three) years, not undertaken at least one work of a similar nature with a contract value exceeding 80% (eighty per cent) of the value of the sub-contract to be awarded hereunder and received payments in respect thereof for an amount equal to at least such 80% (eighty per cent), the Authority may, no later than) 15 business days from the date of receiving the communication from the Contractor, require the Contractor not to proceed with such sub-contract, and the Contractor shall comply therewith without delay or demur.
- 3.2.4 It is expressly agreed that the Contractor shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the agreements with its Sub-contractors or any other agreement that may be entered into by the Contractor, and no default under any such agreement shall excuse the Contractor from its obligations or liability hereunder. However, in case of non-compliance of the Contractor towards his obligations for payments to the approved Sub-contractor(s), which is likely to affect the progress of works, the authority reserves the right to intervene and direct the Contractor to release such outstanding payments to approved Sub-contractor(s) out of the payments due for the completed Works in the interest of work without diluting the responsibility and liability of the Contractor.
- 3.2.5 Hiding information about any sub-contracting not authorized by the Authority shall be treated as violation of Appendix to Conditions of Contract (Fraud and Corruption).

3.3 Employment of foreign nationals

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and/or its Sub-contractors and their sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event, and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Agreement.

3.4 Contractor's personnel

- 3.4.1 The Contractor shall ensure that the personnel engaged by it or by its Sub-contractors in the performance of its obligations under this Agreement are at all times appropriately qualified, skilled and experienced in their respective functions in conformity with Good Industry Practice. The Contractor shall give preference to the local villagers for unskilled labour requirement and provide a quarterly report to the Authority Engineer on the details of person days of employment provided to the local villagers (for both men and women separately).
- 3.4.2 The Authority's Engineer may, for reasons to be specified in writing, direct the Contractor to remove any member of the Contractor's or Sub-contractor's personnel. Provided that any such direction issued by the Authority's Engineer shall specify the reasons for the removal of such person. The reasons to remove a person also include amongst others, behavior which breaches the Code of Conduct for Contractor's Personnel (e.g. spreading communicable

diseases, sexual harassment, gender-based violence, sexual exploitation and Abuse (SEA), illicit activity or crime.

- 3.4.3 The Contractor shall on receiving such a direction from the Authority's Engineer order for the removal of such person or persons with immediate effect. It shall be the duty of the Contractor to ensure that such persons are evicted from the Site within 07 (Seven) days of any such direction being issued in pursuance of Clause 3.4.2. The Contractor shall further ensure that such persons have no further connection with the Works or Maintenance under this Agreement. The Contractor shall then appoint (or cause to be appointed) a replacement.

3.5 Advertisement on Project Site

The project site or any part thereof shall not be used in any manner by the contractor to advertise any commercial product or services. The Authority, however, can use the site as it deems fit for such purposes so long such activities do not hamper progress of construction works.

3.6 Contractor's care of the Works

The Contractor shall bear full risk in and take full responsibility for the care of the Works, and of the Materials, goods and equipment for incorporation therein, from the Appointed Date until the date of Provisional Certificate (with respect to the Works completed prior to the issuance of the Provisional Certificate) and/or Completion Certificate (with respect to the Works referred to in the Punch List), save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Authority.

3.7 Electricity, water and other services

The Contractor shall be responsible for procuring of all power, water and other services that it may require.

3.8 Unforeseeable difficulties

Except as otherwise stated in the Agreement:

- (a) the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works;
- (b) the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and
- (c) the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs.

3.9 Corrupt or Fraudulent Practices

The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Appendix to the Conditions of Contract.

3.10 Co-ordination of the Works

The Contractor shall, as specified in the Works' Requirements or as instructed by the Authority or Authority's Engineer, co-operate with and allow appropriate opportunities for carrying out work by:

- (a) the Authority's Personnel;
- (b) any other contractors employed by the Authority;
- (c) the personnel of any Governmental Instrumentality; and
- (d) such other persons as is required in the opinion of the Authority for successful completion of the Project.

who may be employed in the carrying out, on or near the Site, of any work not included in the Contract. Such appropriate opportunities may include the use of Contractor's Equipment, Temporary Works, access arrangements which are the responsibility of the Contractor, and/or other Contractor's facilities or services on the Site.

The Contractor shall be responsible for the Contractor's construction activities on the Site, and shall use all reasonable endeavors to co-ordinate these activities with those of other contractors to the extent (if any) specified in the Works' Requirements or as instructed by the Authority or Authority's Engineer.

If the Contractor suffers delay and/or incurs Cost as a result of an instruction under this Sub-Clause, to the extent (if any) that co-operation, allowance of opportunities and coordination was Unforeseeable having regard to that specified in the Works' Requirements, the Contractor shall be entitled to Claims for Payment and/or EOT.

In the event the actions of the Contractor result in the breach by the Authority of any or all of the other Project contracts and such breach imposes any liability on the Authority, the Contractor shall:

- (a) undertake all steps as may be possible to mitigate or neutralize the liability that has arisen, and
- (b) Indemnify the Authority against any such liability

3.11 Clearance of the Site

During the provision of the Works, and as a pre-condition to the issue of the Taking- Over Certificate, the Contractor shall clear away and remove from the Site, all Contractor's equipment, surplus material, wreckage, rubbish and temporary Works, and shall keep the Site free from all unnecessary obstructions, and shall not store or dispose of any Contractor's equipment or surplus materials on the Site. The Contractor shall promptly clear away and remove from the Site any wreckage, rubbish or temporary Works no longer required and leave the Site and the Works in a clean and safe condition to the sole satisfaction of the Authority.

ARTICLE 4

OBLIGATIONS OF THE AUTHORITY**4.1 Obligations of the Authority**

- 4.1.1 The Authority shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 4.1.2 The Authority shall be responsible for the correctness of the Scope of the Project, Project Facilities, Specifications & Standards and the criteria for testing of the completed Works.
- 4.1.3 The Authority shall provide to the Contractor:
- (a) upon receiving the Performance Security and the Environmental and Social (ES) Performance Security under Clause 7.1.1, the Land for construction of the hospital and Right of Way in accordance with the provisions of Clauses 8.2 and 8.3, as specified in Schedule A;
 - (b) Deleted.
 - (c) Deleted
- 4.1.4 Delay in providing the land in accordance with the provisions of Clause 4.1.3 shall entitle the Contractor to Damages in a sum calculated in accordance with the provisions of Clause 8.3 of this Agreement and Time Extension in accordance with the provisions of Clause 10.5 of this Agreement. For the avoidance of doubt, the Parties agree that the Damages for delay in approval of Drawings shall be deemed to be equal to the Damages payable under the provisions of Clause 8.3 for delay.
- 4.1.5 Notwithstanding anything to the contrary contained in this Agreement, the Parties expressly agree that the aggregate Damages payable under Clauses 4.1.4, 8.3 and 9.2 shall not exceed 4% (Four per cent) of the Contract Price. For the avoidance of doubt, the Damages payable by the Authority under the aforesaid Clauses shall not be additive if they arise concurrently from more than one cause but relate to the same part of the Project.

Both the parties agree that payment of these Damages shall be full and final settlement of all claims of the Contractor and such compensation shall be the sole remedy against delays of the Authority and both parties further agree this as final cure against delays of the Authority.

- 4.1.6 The Authority agrees to provide support to the Contractor and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and the Applicable Laws, the following:
- (a) upon written request from the Contractor, and subject to the Contractor complying with Applicable Laws, provide reasonable support to the Contractor in procuring Applicable Permits required from any Government Instrumentality for implementation of the Project;
 - (b) upon written request from the Contractor, provide reasonable assistance to the Contractor in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favourable than those generally available to commercial customers receiving substantially equivalent services;

- (c) procure that no barriers that would have a material adverse effect on the works are erected or placed on or about the Project by any Government Instrumentality or persons claiming through or under it, except for reasons of Emergency, national security, law and order or collection of inter-state taxes;
- (d) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
- (e) support, cooperate with and facilitate the Contractor in the implementation of the Project in accordance with the provisions of this Agreement; and
- (f) upon written request from the Contractor and subject to the provisions of Clause 3.3, provide reasonable assistance to the Contractor and any expatriate personnel of the Contractor or its Sub-contractors to obtain applicable visas and work permits for the purposes of discharge by the Contractor or its Sub-contractors of their obligations under this Agreement and the agreements with the Sub-contractors.
- (g) upon written request from the Contractor and subject to the provisions of the Contract, shall issue certificate for tax/duty exemption for materials used in the work as per the latest notification, if any, and based on the work requirements. The Authority will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the required certificate. Any delay in procurement of the construction equipment/ machinery/goods as a result of the above shall not be a cause for granting any extension of time under the contract.

4.2 Maintenance obligations prior to the Appointed Date

The Authority shall, prior to the Appointed Date, maintain the Project Area, at its own cost and expense. For the avoidance of doubt, the Authority shall undertake only routine maintenance prior to the Appointed Date, and it shall undertake special repairs only in the event of excessive deterioration or damage caused due to unforeseen events such as floods or earthquake.

4.3 Environmental Clearances

The Authority represents and warrants that the environmental clearances **as applicable** are required for construction of the Project to be obtained by the contractor. The Authority shall provide administrative support limited to issuance of official letter, if required. **The proposed C-ESMP is to be implemented by the Contractor.**

ARTICLE 5
REPRESENTATIONS AND WARRANTIES

5.1 Representations and warranties of the Contractor

The Contractor represents and warrants to the Authority that:

- (a) it is duly organised and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (b) it has taken all necessary corporate and/or other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- (c) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;
- (d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- (e) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;
- (f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- (g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;
- (h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;
- (i) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;
- (j) no representation or warranty by it contained herein or in any other document furnished by it to the Authority or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or

will omit to state a material fact necessary to make such representation or warranty not misleading;

- (k) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the contract or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection therewith;
- (l) all information provided by the {selected bidder/ members of the JV} in response to the RFB No. IN-AHIDMS-457643-CW-RFB or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects; and
- (m) nothing contained in this Agreement shall create any contractual relationship or obligation between the Authority and any Sub-contractors, designers, consultants or agents of the Contractor.

5.2 Representations and warranties of the Authority

The Authority represents and warrants to the Contractor that:

- (a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;
- (b) it has taken all necessary actions under the Applicable Laws to authorise the execution, delivery and performance of this Agreement;
- (c) it has the financial standing and capacity to perform its obligations under this Agreement;
- (d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (e) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Authority's ability to perform its obligations under this Agreement;
- (f) it has complied with Applicable Laws in all material respects;
- (g) it has good and valid right to the Site and has the power and authority to grant the Right of Way in respect thereof to the Contractor; and
- (h) it has procured Right of Way and environment clearances such that the Contractor can commence construction forthwith on the Project as per Schedule A.

5.3 Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

ARTICLE 6
DISCLAIMER

6.1 Disclaimer

- 6.1.1 The Contractor acknowledges that prior to the execution of this Agreement, the Contractor has, after a complete and careful examination, made an independent evaluation of the Invitation for Bid, Scope of the Project, Specifications and Standards of design, construction and maintenance, Site, local conditions, physical qualities of ground, subsoil and geology, traffic volumes, suitability and availability of access routes to the Site and all information provided by the Authority or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in Clause 4.1.2 and Clause 5.2, the Authority makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Contractor confirms that it shall have no claim whatsoever against the Authority in this regard.
- 6.1.2 The Contractor acknowledges and hereby accepts to have satisfied itself as to the correctness and sufficiency of the Contract Price stated in the Contract Agreement.
- 6.1.3 The Contractor acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Contractor, or any person claiming through or under any of them, and shall not lead to any adjustment of Contract Price or Scheduled Completion Date.
- 6.1.4 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above shall not vitiate this Agreement, or render it voidable.
- 6.1.5 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 6.1.1 above, that Party shall immediately notify the other Party, specifying the mistake or error.
- 6.1.6 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Contractor; and the Authority shall not be liable in any manner for such risks or the consequences thereof.

Part III

Construction and Maintenance

ARTICLE 7

PERFORMANCE SECURITY**7.1 Performance Security**

7.1.1 The Contractor shall, for the performance of its obligations hereunder during the Construction Period, provide to the Authority, within 28 days of the date of issuance of LOA, Performance Security and an Environmental and Social (ES) Performance Security. The standard forms of Performance Security and ES Performance Security shall be irrevocable and unconditional guarantees from Scheduled/ Nationalized Banks in the forms set forth in Schedule-G (the "Performance Security" and "ES Performance Security"). The Performance Security amount is equal to 5% of the Contract Price, and Environmental and Social (ES) Performance Security amount is 2% Two percent of Contract Price. The Contractor has the option of submitting two guarantees of equal amount towards Performance Security totalling to 7 %) of the Contract Price. The Performance Security and ES Performance Security shall be valid until 60 (sixty) days after the Defects Liability Period. Until such time the Performance Security and ES Performance Security are provided by the Contractor pursuant hereto and the same come into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security and ES Performance Security, the Authority shall release the Bid Security to the Contractor. Further, The Contractor shall, for the performance of its obligations under the Operation & Maintenance Period provide the Authority before the completion of – defect liability Period the Performance security for a period of 4 years, The Performance Security Amount for Operation & Maintenance equal to 7% of O&M Contract Price (5% towards O&M and 2% towards ES)

7.1.2 Notwithstanding anything to the contrary contained in this Agreement, the Parties agree that in the event of failure of the Contractor to provide the Performance Security and ES Performance Security in accordance with the provisions of Clause 7.1.1 and within the time specified therein or such extended period as may be provided by the Authority, the Authority may encash the Bid Security and appropriate the proceeds thereof as Damages, and thereupon all rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and this Agreement shall be deemed to have been terminated by mutual agreement of the Parties.

7.2 Extension of Performance Security

The Contractor shall procure the extension of the validity of the Performance Security, as necessary, at least 2 (two) months prior to the date of expiry thereof. Upon the Contractor providing an extended Performance Security, the previous Performance Security shall be deemed to be released and the Authority shall return the same to the Contractor within a period of 7 (seven) business days from the date of submission of the extended Performance Security. Further the Performance Security for construction will be released only after the receipt of maintenance Performance Security.

7.3 Appropriation of Performance Security

7.3.1 Upon occurrence of a Contractor's Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate the relevant amounts from the Performance Security as Damages for such Contractor's Default.

7.3.2 Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 30days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Contractor shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Authority shall be entitled to terminate the Agreement in accordance with Article 23. Upon replenishment or furnishing of a fresh Performance Security, as the case may be, as aforesaid, the Contractor shall be entitled to an additional Cure Period of 30days for remedying the Contractor's Default, and in the event of the Contractor not curing its default within such Cure Period, the Authority shall be entitled to encash and appropriate such Performance Security as Damages, and to terminate this Agreement in accordance with Article 23.

7.4 Release of Performance Security

The Authority shall return the Performance Security to the Contractor within 60days of the expiry of the Defects Liability Period under this Agreement. Notwithstanding the aforesaid, the Parties agree that the Authority shall not be obliged to release the Performance Security until all Defects identified during the Defects Liability Period have been rectified. In case the Contractor has provided two bank guarantees in accordance with Clause 7.1.1, the Authority shall return one of the guarantees to the Contractor 1 years after completion of construction.

Further, The Contractor shall, for the performance of its obligations under the Operation & Maintenance Period provide the Authority before the completion of defect liability Period the Performance security for a period of 4 years to cover the O&M period. The Performance Security Amount for Operation & Maintenance equal to 7% of O&M Contract Price (5% towards O&M and 2% towards ES) . This performance security shall be released 60 days from the completion of Operation & Maintenance Period.

7.5 Retention Money

7.5.1 From every payment for Works due to the Contractor in accordance with the provisions of Clause 19.5, the Authority shall deduct 5% (five percent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "**Retention Money**") subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.

7.5.2 Upon occurrence of a Contractor's Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to appropriate the relevant amounts from the Retention Money as Damages for such Contractor's Default.

7.5.3 The Contractor may, upon furnishing an irrevocable and unconditional bank guarantee valid upto end of contract period and must be extended in case EOT is granted in the form provided at Annex-II of Schedule-G, require the Authority to refund the Retention Money deducted by the Authority under the provisions of Clause 7.5.1. Provided that the refund hereunder shall be made in tranches of not less than 2% of the Contract Price.

7.5.4 Within 15 (fifteen) days of the date of issue of the Completion Certificate, the Authority shall discharge the bank guarantees furnished by the Contractor under the provisions of Clause 7.5.3 and refund the balance of Retention Money remaining with the Authority after adjusting the amounts appropriated under the provisions of Clause 7.5.2 and the amounts refunded under the provisions of Clause 7.5.3.

7.5.5 The Parties agree that in the event of Termination of this Agreement due to Contractor's default, the Retention Money and the bank guarantees specified in this Clause 7.5 shall be treated as if they are Performance Security and shall be reckoned as such for the purposes of Termination Payment under Clause 23.6.

ARTICLE 8
PROJECT SITE AND RIGHT OF WAY

8.1 The Site

The site of the Project (the “**Site**”) shall comprise the site described in Schedule-A in respect of which the Right of Way and the Possession shall be provided by the Authority to the Contractor. The Authority shall be responsible for:

- (a) acquiring and providing Right of Way and the Possession to the Site free from all encroachments and encumbrances, and free access thereto for the execution of this Agreement; and
- (b) obtaining licences and permits for environment clearance for the Project.

8.2 Procurement of the Site

8.2.1 The Authority Representative and the Contractor shall, within 15 days of the date of this Agreement, inspect the Site and prepare a memorandum containing an inventory of the Site including the vacant and unencumbered land, buildings, structures, road works, trees and any other immovable property on or attached to the Site. Subject to the provisions of Clause 8.2.3, such memorandum shall have appended thereto an appendix (the “**Appendix**”) specifying in reasonable detail those parts of the Site to which vacant access and Right of Way has not been given to the Contractor. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall be deemed to constitute a valid evidence of giving the Right of Way and the Possession of the Site to the Contractor for discharging its obligations under and in accordance with the provisions of this Agreement and for no other purpose whatsoever.

Whenever the Authority is ready to hand over any part or parts of the Site included in the Appendix, it shall inform the Contractor, by notice, the proposed date and time such of handing over. The Authority Representative and the Contractor shall, on the date so notified, inspect the specified parts of the Site, and prepare a memorandum containing an inventory of the vacant and unencumbered land, buildings, structures, road works, trees and any other immovable property on or attached to the Site so handed over. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall be deemed to constitute a valid evidence of giving the relevant Right of Way to the Contractor.

8.2.2 The Authority shall provide the Right of Way and the Possession of the Site to the Contractor in respect of all land included in the Appendix by the date specified in Schedule-A for those parts of the Site referred to therein, or no later than 90 days of the Appointed Date for those parts of the Site which have not been specified in Schedule-A, and in the event of delay for any reason other than Force Majeure or breach of this Agreement by the Contractor, it shall pay to the Contractor, Damages in a sum calculated in accordance with Clause 8.3.

8.2.3 Notwithstanding anything to the contrary contained in this Clause 8.2, the Authority shall specify the parts of the Site, if any, for which Right of Way and Possession of the Site shall be provided to the Contractor on the dates specified in Schedule-A. Such parts shall also be included in the Appendix prepared in pursuance of Clause 8.2.1. For the avoidance of doubt, the Parties expressly agree that the Damages specified hereunder and the Time Extension specified in Clause 10.5 shall be restricted only to failure of the Authority to provide the **Project Site and Right of Way**.

8.3 Damages for delay in handing over the Site

8.3.1 In the event the Project Site and Right of Way to the Site is not provided by the Authority on or before the date(s) specified in Clause 8.2 for any reason other than Force Majeure or breach of this Agreement by the Contractor or after conclusion of all the concurrent activities of the contract such as preparation of drawings, obtaining approvals, etc. which can otherwise be undertaken without the project site and right of way to the site, whichever is later, the Authority shall pay damages to the Contractor in sum calculated in accordance with the following formula for

Amount of Damages in ₹ per month due to delay in handing over of the Project Site = 0.05 % of the Contract Price per month of delay

However, if the Authority provides part site on or before the date(s) specified in Clause 8.2 the Damages due to delay in handing over of Project Site is not payable. Moreover, if the contractor is in a position to carry out concurrent activities without Project Site and Right of Way to the Site, the Damages due to delay in handing over of Project Site is not payable.

The Contractor must provide a Design and Drawing Submission Schedule as part of the Project Implementation Plan (Gantt Chart). The final completed designs and drawings must be submitted at least 60 days before the corresponding work is scheduled to start at site. In the event that any Damages are due and payable to the Contractor under the provisions of this Clause 8.3.1 for delay in providing the Possession to the Site and Right of Way, the Contractor shall, subject to the provisions of Clause 10.5, be entitled to Time Extension equal to the period for which the Damages have become due and payable under this Clause 8.3.1, save and except that:

- (a) if any delays involve time overlaps, the overlaps shall not be additive; and
- (b) such Time Extension shall be restricted only to the Works which are affected by the delay in providing the Possession of the Site and Right of Way.

For the avoidance of doubt, the Parties expressly agree that the Damages specified hereunder and the Time Extension specified in Clause 10.5 shall be restricted only to failure of the Authority to provide the Right of Way required for construction work.

8.3.2 Notwithstanding anything to the contrary contained in this Agreement, the Contractor expressly agrees that Works on all parts of the Site for which Right of Way is granted within 90 days of the Appointed Date, or with respect to the parts of the Site provided in Schedule-A, no later than the date(s) specified therein as per Schedule A, as the case may be, shall be completed before the Scheduled Completion Date and shall not qualify for any Time Extension under the provisions of Clause 8.3.1.

8.3.3 Notwithstanding anything to the contrary contained in this Agreement, the Authority may at any time withdraw any Works forming part of this Agreement, subject to such Works not exceeding an aggregate value, such value to be determined in accordance with Schedule-H, equal to 10%

8.3.4 In the event of withdrawal of Works under Clause 8.3.3, the Contract Price shall be reduced by an amount equal to 90% (Ninety) per cent of the value of the Works withdrawn and the Contractor shall not be entitled to any other compensation or Damages for the withdrawal of Works.

Provided that if any Works are withdrawn after commencement of the Construction of such works, the Authority shall pay to the Contractor 110% of the fair value of the work done, as assessed by the Authority's Engineer in accordance with Article 13.2.3 (a).

8.4 Site to be free from Encumbrances

Subject to the provisions of Clause 8.2, the Site shall be made available by the Authority to the Contractor pursuant hereto free from all Encumbrances and occupations and without the Contractor being required to make any payment to the Authority on account of any costs, compensation, expenses and charges for the acquisition and use of such Site for the duration of the Project Completion Schedule. For the avoidance of doubt, it is agreed that the existing rights of way, easements, privileges, liberties and appurtenances to the Site shall not be deemed to be Encumbrances. It is further agreed that, unless otherwise specified in this Agreement, the Contractor accepts and undertakes to bear any and all risks arising out of the inadequacy or physical condition of the Site.

8.5 Protection of Site from encroachments

On and after signing the memorandum and/or subsequent memorandum referred to in Clause 8.2.1, and until the issue of the Completion Certificate, the Contractor shall maintain a round-the-clock vigil over the Site and shall ensure and procure that no encroachment thereon takes place. During the Construction Period, the Contractor shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Sub-contractor or other person claiming through or under the Agreement to place or create any Encumbrance or security threat over all or any part of the Site or the Project Assets, or on any rights of the Contractor therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement. In the event of any encroachment or occupation on any part of the Site, the Contractor shall report such encroachment or occupation forthwith to the Authority and undertake its removal at its own cost and expenses.

8.6 Special/temporary Right of Way

The Contractor shall bear all costs and charges for any special or temporary right of way required by it in connection with access to the Site. The Contractor shall obtain at its cost such facilities on or outside the Site as may be required by it for the purposes of the Project and the performance of its obligations under this Agreement.

8.7 Access to the Authority and the Authority's Engineer

8.7.1 The Right of Way given to the Contractor hereunder shall always be subject to the right of access of the Authority and the Authority's Engineer and their employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.

8.7.2 The Contractor shall ensure, subject to all relevant safety procedures, that the Authority has unrestricted access to the Site during any emergency situation, as decided by the Authority's Engineer.

8.8 Geological and archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of this Agreement with the Contractor for the Works, and the Contractor hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest

and that such rights, interest and property on or under the Site shall vest in and belong to the Authority or the concerned Government Instrumentality. The Contractor shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform the Authority forthwith of the discovery thereof and comply with such instructions as the concerned Government Instrumentality may reasonably give for the removal of such property. For the avoidance of doubt, it is agreed that any reasonable expenses incurred by the Contractor hereunder shall be reimbursed by the Authority. It is also agreed that the Authority shall procure that the instructions hereunder are issued by the concerned Government Instrumentality within a reasonable period.

ARTICLE 9
UTILITIES AND TREES

9.1 Existing utilities and roads

Notwithstanding anything to the contrary contained herein, the Contractor shall ensure that the respective entities owning the existing roads, right of way, level crossings, structures, or utilities on, under or above the Site are enabled by it to keep them in continuous satisfactory use, if necessary, by providing suitable temporary diversions with the authority of the controlling body of that road, right of way or utility.

9.2 Shifting of obstructing utilities

The Contractor shall, in accordance with Applicable Laws and with assistance of the Authority, shift any utility (including electric lines, water pipes, telephone cables etc.) to an appropriate location or alignment, if such utility or obstruction adversely affects the execution of Works or Maintenance of the Project in accordance with this Agreement. The Contractor shall engage registered contractors of concerned utility Agency for such shifting. For shifting of electrical utilities, contractors registered with State Govt. and have C or A grade License from Chief Electrical Inspector to Government shall be employed. For utility shifting works, registered contractors of State Govt. with Grade I qualification shall be employed. The actual cost of such shifting, based on executed BOQ basis on rates estimated and corrected by the utility agency, less supervision charges of Agency plus 15% towards Contractor's overhead shall be paid by the Authority to the Contractor separately in addition to the Contract Price. However, the Authority will assist in obtaining required permissions for such shifting from the concerned utility Agency including submission of application on Authority name. The works shall be carried out in close coordination with utility agency and all precaution / conditions stipulated by the agency shall be diligently followed.

9.3 New utilities

- 9.3.1 The Contractor shall allow, subject to such conditions as the Authority may specify, access to, and use of the Site for laying telephone lines, water pipes, electric cables or other public utilities. Where such access or use causes any financial loss to the Contractor, it may require the user of the Site to pay compensation or damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Site under this Clause 9.3 shall not in any manner relieve the Contractor of its obligation to construct and maintain the Project in accordance with this Agreement and any damage caused by such use shall be restored forthwith at the cost of the Authority.
- 9.3.2 The Authority may, by notice, require the Contractor to connect any adjoining road to the Project site, and the connecting portion thereof falling within the Site shall be constructed by the Contractor at the Authority's cost in accordance with Article 10.
- 9.3.3 The Authority may by notice require the Contractor to connect, through a paved road, any adjoining service station, hotel, motel or any other public facility or amenity to the Project site, whereupon the connecting portion thereof that falls within the Site shall be constructed by the Contractor on payment of the cost. The cost to be paid by the Authority to the Contractor shall be determined by the Authority's Engineer. For the avoidance of doubt, in the event such road is to be constructed for the benefit of any entity, the Authority may require such entity to make an advance deposit with the Contractor or the Authority, as the case may be, of an amount equal to the estimated cost as determined by the Authority's Engineer and such advance shall

be adjusted against the cost of construction as determined by the Authority's Engineer hereunder.

- 9.3.4 In the event the construction of any Works is affected by a new utility or works undertaken in accordance with this Clause 9.3, the Contractor shall be entitled to a reasonable Time Extension as determined by the Authority's Engineer.

9.4 Felling of trees

The Authority shall assist the Contractor in obtaining the Applicable Permits for felling and disposal of trees to be identified by the Contractor for this purpose if and only if such trees cause a Material Adverse Effect on the construction or maintenance of the Project. The cost of such felling and disposal shall be included in the Contract price. The Parties hereto agree that the felled trees shall be deemed to be owned by the Contractor after depositing the required amount to the concerned Department at the rates estimated by the Forest Department, Government of Assam and shall be disposed in such manner and subject to such conditions of the concerned Department. However, the Authority will assist in obtaining applicable permits for felling of trees.

ARTICLE 10
DESIGN AND CONSTRUCTION OF THE PROJECT

10.1 Obligations prior to commencement of Works

10.1.1 Within 20days of the Appointed Date, the Contractor shall:

- (a) appoint its representative, duly authorised to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement;
- (b) appoint a design director (the “**Design Director**”) who will head the Contractor’s design unit and shall be responsible for surveys, investigations, collection of data, and preparation of preliminary and detailed designs;
- (c) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement, the Applicable Laws and Applicable Permits; and
- (d) make its own arrangements for quarrying of materials needed for the Project under and in accordance with the Applicable Laws and Applicable Permits.
- (e) Prepare construction zone and Camp Site safety checklist.
- (f) Prepare updated Contractor’s Environmental and Social Management Plan (C-ESMP) including the action plan and checklist.
- (g) Apply for Consent to Establish to PCBA.

10.1.2 The Authority shall, within 15days of the date of this Agreement, appoint an engineer (the “**Authority’s Engineer**”) to discharge the functions and duties specified in this Agreement, and shall notify to the Contractor the name, address and the date of appointment of the Authority’s Engineer forthwith.

10.1.3 Within 30days of the Appointed Date, the Contractor shall submit to the Authority and the Authority’s Engineer a programme (the “**Programme**”) for the Works, developed using networking techniques (like Ms-Project / Primavera) giving the following details:

Part I Contractor’s organisation for the Project, the general methods and arrangements for design and construction, Management Strategies and Implementation Plans (MSIP) to manage the environmental and social (ES) risks, Quality Assurance Plan including design quality plan, traffic management and safety plan covering safety of users and workers during construction (including use of 'ROBOTS' for diversion and control of Traffic), Contractor’s key personnel and equipment.

Part II Programme for completion of all stages of construction given in Schedule-H and Project Milestones of the Works as specified in Project Completion Schedule set forth in Schedule-J. The Programme shall include:

- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of design and stages of Works;

- (b) the periods for reviews under Clause 10.2;
- (c) the sequence and timing of inspections and tests specified in this Agreement.

The Contractor shall submit a revised programme whenever the previous programme is inconsistent with the actual progress or with the Contractor's obligations. The revised Program shall include C-ESMP, the health and safety risk assessments and any additional MSIPs/ESIA as are necessary to manage the ES risks and impacts of ongoing Works.

Part III Monthly cash flow forecast.

The 'Programme' and any revision in the 'Programme' shall only be agreed in writing.

- 10.1.4 The Contractor shall compute, on the basis of the Drawings prepared in accordance with Clause 10.2.4, and provide to the Authority's Engineer, the quantities like length, area, volume and numbers, as the case may be, in respect of the various items of work specified in Schedule-H and comprising the Scope of the Project. The Parties expressly agree that these details shall form the basis for estimating the interim payments for the Works in accordance with the provisions of Clause 19.3. For the avoidance of doubt, the sum of payments to be computed in respect of all the items of work shall not exceed the Contract Price, as may be adjusted in accordance with the provisions of this Agreement.
- 10.1.5 Within 15 days of the appointment date, the Contractor shall appoint a safety consultant (the "**Safety Consultant**") to carry out safety audit at various stages of the project in accordance with the Applicable Laws and Good Industry Practice. The Safety Consultant shall be appointed after proposing to the Authority a panel of three names of qualified and experienced firms from whom the Authority may choose one to be the Safety Consultant. Provided, however, that if the panel is not acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of three names for obtaining the consent of the Authority. The Contractor shall also obtain the consent of the Authority for the key personnel of the Safety Consultant who shall have adequate experience and qualifications in safety audit of the projects. The Authority shall, within 15 days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Safety Consultant.
- 10.1.6 The safety audit pursuant to Clause 10.1.5 shall be carried out by the Safety Consultant in respect of all such design details that have a bearing on safety of Users as well as pedestrians and animals involved in or associated with accidents. The recommendations of the Safety Consultant shall be incorporated in the design of the Project and the Contractor shall forward to the Authority's Engineer a certificate to this effect together with the recommendations of the Safety Consultant. In the event that any works required by the Safety Consultant shall fall beyond the scope of Schedule-B, Schedule-C or Schedule-D, the Contractor shall make a report thereon and seek the instructions of the Authority for Change in Scope. For the avoidance of doubt, the Safety Consultant to be engaged by the Contractor shall be independent of the design and implementation team of the Contractor.

10.2 Design and Drawings

- 10.2.1 Design and Drawings shall be developed in conformity with the Specifications & Standards set forth in Schedule-D..
- 10.2.2 If instructed by the Authority the Contractor shall appoint a proof check consultant (the "**Proof Consultant**") after proposing to the Authority a panel of three names of qualified and

experienced firms from whom the Authority may choose one to be the Proof Consultant. Provided, however, that if the panel is not acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of three names for obtaining the consent of the Authority. The Contractor shall also obtain the consent of the Authority for two key personnel of the Proof Consultant who shall have adequate experience and qualifications in structural engineering. The Authority shall, within 15days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Proof Consultant.

10.2.3 The Proof Consultant shall:

- (a) evolve a systems approach with the Design Director so as to minimise the time required for final designs and construction drawings; and
- (b) proof check the detailed calculations, drawings and designs, which have been approved by the Design Director.

10.2.4 In respect of the Contractor's obligations with respect to the design and Drawings of the Project as set forth in Schedule-I, the following shall apply:

- (a) The Contractor shall prepare and submit, with reasonable promptness and in such sequence as is consistent with the Project Completion Schedule, three copies each of the design and Drawings, to the Authority's Engineer for review. In case of Structural designs and drawings the Contractor will submit them after getting duly certified by the Proof Consultant. Provided, however, that in respect of Structures/ and other critical components, the Authority's Engineer may require additional drawings for its review in accordance with Good Industry Practice. In rare occasion, client may ask the contractor to vet Structural designs/drawing and other design/drawing of critical components by institute of repute like IIT.
- (b) by submitting the Designs and Drawings for review to the Authority's Engineer, the Contractor shall be deemed to have represented that it has determined and verified that the design and engineering, including field construction criteria related thereto, are in conformity with the Scope of the Project, the Specifications and Standards and the Applicable Laws;
- (c) within 15days of the receipt of the Drawings, the Authority's Engineer/ Authority Representative shall review the same and convey its observations to the Contractor with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. The Contractor shall not be obliged to await the observations of the Authority's Engineer on the Drawings submitted pursuant hereto beyond the said period of 21days and may begin or continue Works at its own discretion and risk; Provided, however that in case of a RCC Structure, the aforesaid period of 15days may be extended up to 30days;
- (d) if the aforesaid observations of the Authority's Engineer/ Authority Representative indicate that the Designs and Drawings are not in conformity with the Scope of the Project or the Specifications & Standards, such designs and Drawings shall be revised by the Contractor in conformity with the provisions of this Agreement and resubmitted to the Authority's Engineer for review. The Authority's Engineer shall give its observations, if any, within 15days of receipt of the revised designs and Drawings. In the event the Contractor fails to revise and resubmit such Drawings to the Authority's Engineer for review as aforesaid, the Authority's Engineer may withhold the payment for the affected

works in accordance with the provisions of Clause 19.5.4. If the Contractor disputes any decision, direction or determination of the Authority's Engineer hereunder, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure;

- (e) no review and/or observation of the Authority's Engineer/ Authority Representative and/or its failure to review and/or convey its observations on any Designs & Drawings shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Authority's Engineer or the Authority be liable for the same in any manner; and if errors, omissions, ambiguities, inconsistencies, inadequacies or other Defects are found in the Designs and Drawings, they and the construction works shall be corrected at the Contractor's cost, notwithstanding any review under this Article 10;
- (f) the Contractor shall be responsible for delays in submitting the Designs & Drawing as set forth in Schedule-I caused by reason of delays in surveys and field investigations, incomplete submissions, and shall not be entitled to seek any relief in that regard from the Authority; and
- (g) the Contractor warrants that its designers, including any third parties engaged by it, shall have the required experience and capability in accordance with Good Industry Practice and it shall indemnify the Authority against any damage, expense, liability, loss or claim, which the Authority might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.

10.2.5 Deleted -.

10.2.6 Works shall be executed in accordance with the Drawings provided by the Contractor in accordance with the provisions of this Clause 10.2 and the observations of the Authority's Engineer thereon as communicated pursuant to the provisions of Clause 10.2.4 (d). Such Drawings shall not be amended or altered without prior written notice to the Authority's Engineer. If a Party becomes aware of an error or defect of a technical nature in the design or Drawings, that Party shall promptly give notice to the other Party of such error or defect.

10.2.7 Within 90 (ninety) days of the Project Completion Date, the contractor shall furnish to The Authority and the PMC a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to The Authority, reflecting the project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the project, of the buildings and structures forming part of project facilities.

10.3 Construction of the Project

10.3.1 The Contractor shall construct the Project as specified in Schedule-B and Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. The 730th (seven hundred thirty) day from the Appointed Date shall be the scheduled completion date (the "**Scheduled Completion Date**") and the Contractor agrees and undertakes that the construction shall be completed on or before the Scheduled Completion Date, including any extension thereof.

The Contractor shall not carry out any Works, including mobilization and/or pre-construction activities (e.g. limited clearance for haul roads, site accesses and work site establishment, geotechnical investigations or investigations to select ancillary features such as quarries and borrow pits), unless the Authority's State Environment Management & Safeguard Specialist as well as State Social Development Specialist(E&S Team) is satisfied that appropriate measures

are in place to address environmental and social (ES) risks, health and safety risks and impacts. At a minimum, the Contractor shall apply the Management Strategies and Implementation Plans and Code of Conduct, submitted as part of the Bid and agreed as part of the Contract. The Contractor shall submit, on a continuing basis, for the Authority Engineer's prior approval, such supplementary Management Strategies and Implementation Plans as are necessary to manage the ES risks and impacts of ongoing works. These Management Strategies and Implementation Plans collectively comprise the Contractor's Environmental and Social Management Plan (C-ESMP). The C-ESMP shall be approved prior to the commencement of construction activities (e.g. excavation, earth works and structure works, stream and road diversions, quarrying or extraction of materials, concrete batching and asphalt manufacture). The approved C-ESMP shall be reviewed, periodically (but not less than every six (6) months), and updated in a timely manner, as required, by the Contractor to ensure that it contains measures appropriate to the Works activities to be undertaken. The updated C-ESMP shall be subject to prior approval by the Authority's E&S Team.

- 10.3.2 The Contractor shall construct the Project in accordance with the Project Completion Schedule set forth in Schedule-J. In the event that the Contractor fails to achieve any Project Milestone or the Scheduled Completion Date within the period as set forth in Schedule-J, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Authority, it shall pay Penalty to the Authority a sum calculated as per Schedule- J. The Penalties deducted in accordance with this clause are non-refundable. For the avoidance of doubt, it is agreed that recovery of Penalty under this Clause 10.3.2 shall be without prejudice to the rights of the Authority under this Agreement including the right of Termination thereof. The Parties further agree that Time Extension hereunder shall only be reckoned for and in respect of the affected works as specified in Clause 10.5.2.
- 10.3.3 The Authority shall notify the Contractor of its decision to impose Penalty in pursuance with the provisions of this Clause 10.3. Provided that no deduction on account of Penalty shall be effected by the Authority without notifying the Contractor of its decision to impose the Penalty, and taking into consideration the representation, if any, made by the Contractor within 20days of such notice. The Parties expressly agree that the total amount of Penalty under Clause 10.3.2 shall not exceed 4% (four percent) of the Contract Price. If the damages exceed 4% (four percent) of the Contract Price, the Contractor shall be deemed to be in default of this agreement having no cure and the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice in accordance with the provisions of Clause 23.1 (ii).

10.4 Maintenance during Construction Period

During the construction period, the contractor shall maintain, at its cost, the already constructed external services of existing buildings; if required will do necessary re-routing of services without any additional cost to client. Contractor also has to do the necessary barricading and take necessary precautionary safety measures at project site. For this necessary survey and study to be done by the contractor at project site prior to quoting.

10.5 Extension of time for completion

- 10.5.1 Without prejudice to any other provision of this Agreement for and in respect of extension of time, the Contractor shall be entitled to extension of time in the Project Completion Schedule (the "**Time Extension**") to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:
- (a) delay in providing the Right of Way, environmental clearances/consent/permissions or approval of drawings by the authorities, specified in Clause 4.1.4;

- (b) Change of Scope (unless an adjustment to the Scheduled Completion Date has been agreed under Article 13);
- (c) occurrence of a Force Majeure Event;
- (d) any delay, impediment or prevention caused by or attributable to the Authority, the Authority's personnel or the Authority's other contractors on the Site; and
- (e) delay in providing approvals to designs and drawings as specified in 10.2.4
- (f) any other cause or delay which entitles the Contractor to Time Extension in accordance with the provisions of this Agreement.

10.5.2 The Contractor shall, no later than 15business days from the occurrence of an event or circumstance specified in Clause 10.5.1, inform the Authority's Engineer by notice in writing, with a copy to the Authority, stating in reasonable detail with supporting particulars, the event or circumstances giving rise to the claim for Time Extension in accordance with the provisions of this Agreement. Provided that the period of 15business days shall be calculated from the date on which the Contractor became aware, or should have become aware, of the occurrence of such an event or circumstance.

Provided further that notwithstanding anything to the contrary contained in this Agreement, Time Extension shall be due and applicable only for the Works which are affected by the aforesaid events or circumstances and shall not in any manner affect the Project Completion Schedule for and in respect of the Works which are not affected hereunder.

10.5.3 In the event of the failure of the Contractor to issue to the Authority's Engineer a notice in accordance with the provisions of Clause 10.5.2 within the time specified therein, the Contractor shall not be entitled to any Time Extension and shall forfeit its right for any such claims in future. For the avoidance of doubt, in the event of failure of the Contractor to issue notice as specified in this clause 10.5.3, the Authority shall be discharged from all liability in connection with the claim.

10.5.4 The Authority's Engineer shall, on receipt of the claim in accordance with the provisions of Clause 10.5.2, examine the claim expeditiously within the time frame specified herein. In the event the Authority's Engineer requires any clarifications to examine the claim, the Authority's Engineer shall seek the same within 15days from the date of receiving the claim. The Contractor shall, on receipt of the communication of the Authority's Engineer requesting for clarification, furnish the same to the Authority's Engineer within 10days thereof. The Authority's Engineer shall, within a period of 60days from the date of receipt of such clarifications, forward in writing to the Contractor its determination of Time Extension.

Provided that when determining each extension of time under this Clause 10.5, the Authority's Engineer shall review previous determinations and may increase, but shall not decrease, the total Time Extension.

10.5.5 If the event or circumstance giving rise to the notice has a continuing effect:

- (a) a fully detailed claim shall be considered as interim;
- (b) the Contractor shall, no later than 10days after the close of each month, send further interim claims specifying the accumulated delay, the extension of time claimed, and such further particulars as the Authority's Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 30days after the effect of the event or the

circumstance ceases.

Upon receipt of the claim hereunder, the Authority's Engineer shall examine the same in accordance with the provisions of Clause 10.5.4 within a period of 60days of the receipt thereof.

10.6 Incomplete Works

In the event the Contractor fails to complete the Works in accordance with the Project Completion Schedule, including any Time Extension granted under this Agreement, the Contractor shall endeavour to complete the balance work expeditiously and shall pay Penalty to the Authority in accordance with the provisions of Clause 10.3.2 for delay of each day until the Works are completed in accordance with the provisions of this Agreement. Recovery of Penalty under this Clause shall be without prejudice to the rights of the Authority under this Agreement including the right to termination under Clause 23.1.

10.7 Maintenance Manual

No later than 60days prior to the Project Completion Date, the Contractor shall, in consultation with the Authority's Engineer, evolve a maintenance manual (the "Maintenance Manual") for the regular and preventive maintenance of the Project in conformity with the Specifications and Standards, safety requirements and Good Industry Practice, and shall provide 5 (five) copies thereof to the Authority's Engineer. The Authority's Engineer shall review the Maintenance Manual within 15days of its receipt and communicate its comments to the Contractor for necessary modifications, if any.

- 10.8 The Contractor shall prepare, and keep up-to-date, a complete set of as built records of the execution of the Works, showing the exact as built locations, sizes and details on the Works as executed with cross references to all relevant specifications and data sheets. These records shall be kept on the Site and shall be used exclusively for the purpose of this Sub-Clause 10.8. The Contractor shall provide 2 (two) copies of as built records to the Authority prior to the commencement of the Tests on Completion.
- 10.9 Intellectual property in the Authority's requirements and Specifications and Standards and all other documents and materials issued by the Authority or the Authority's Representative to the Contractor shall (as between the parties) remain the property of the Authority. The Contractor may, at its cost, copy, use and communicate any such documents for the purposes of the Contract. They shall not, without the consent of the Authority, be used, copied or communicated to a third party by the Contractor, except as necessary for the purposes of the Works under the Agreement.

ARTICLE 11

QUALITY ASSURANCE, MONITORING AND SUPERVISION**11.1 Quality of Materials and workmanship**

The Contractor shall ensure that the Construction, Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Good Industry Practice.

11.2 Quality control system

11.2.1 The Contractor shall establish a quality control mechanism to ensure compliance with the provisions of this Agreement (the “**Quality Assurance Plan**” or “**QAP**”).

11.2.2 The Contractor shall, within 30days of the Appointed Date, submit to the Authority’s Engineer its Quality Assurance Plan which shall include the following:

- (a) organisation, duties and responsibilities, procedures, inspections and documentation;
- (b) quality control mechanism including sampling and testing of Materials, test frequencies, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, check list for site activities, and proforma for testing and calibration in accordance with the Specifications for RCC Structures by IS Code 456:2000, NFPA 70 NFPA70 – National Electrical Code, ASHRAE and as mentioned in Technical Specifications of HVAC, Electrical , Plumbing & Fire Fighting provided with SBD and Good Industry Practice; and
- (c) internal quality audit system.

The Authority’s Engineer shall convey its comments to the Contractor within a period of 21days of receipt of the QAP stating the modifications, if any, required, and the Contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of this Clause 11.2.

11.2.3 The Contractor shall procure all documents, apparatus and instruments, fuel, consumables, water, electricity, labour, Materials, samples, and qualified personnel as are necessary for examining and testing the Project Assets and workmanship in accordance with the Quality Assurance Plan.

11.2.4 The cost of testing of Construction, Materials and workmanship under this Article 11 shall be borne by the Contractor.

11.3. Methodology

The Contractor shall, at least 15days prior to the commencement of the construction, submit to the Authority’s Engineer for review the methodology proposed to be adopted for executing the Works, giving details of equipment to be deployed, traffic management and measures for ensuring safety. The Authority’s Engineer shall complete the review and convey its comments to the Contractor within a period of 10days from the date of receipt of the proposed methodology from the Contractor.

11.4. Inspection and technical audit by the Authority

The Authority or any representative authorised by the Authority in this behalf may inspect and review the progress and quality of the construction of Project and issue appropriate directions to the Authority's Engineer and the Contractor for taking remedial action in the event the Works are not in accordance with the provisions of this Agreement.

11.5 External technical audit

At any time during construction, the Authority may appoint an external technical auditor to conduct an audit of the quality of the Works. The findings of the audit, to the extent accepted by the Authority, shall be notified to the Contractor and the Authority's Engineer for taking remedial action in accordance with this Agreement. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder. Notwithstanding anything contained in this Clause 11.5, the external technical audit shall not affect any obligations of the Contractor or the Authority's Engineer under this Agreement.

11.6 Inspection of construction records

The Authority shall have the right to inspect the records of the Contractor relating to the Works.

11.6.1 Inspection and Audit by the World Bank

The World Bank and/or persons appointed by the World Bank shall have the right to inspect the Site and all accounts and records of the Contractor, its sub-contractors and sub-consultants relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the World Bank if requested by the World Bank. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Clause 3.9 [Corrupt or Fraudulent Practices] which provides, inter alia, that acts intended to materially impede the exercise of the World Bank's inspection and audit rights provided under this Clause 11.6.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the World Bank's prevailing sanctions procedures).

11.7 Monthly progress reports

During the Construction Period, the Contractor shall, no later than 10 days after the close of each month, furnish to the Authority and the Authority's Engineer a monthly report on progress of the Works and shall promptly give such other relevant information as may be required by the Authority's Engineer. The Contractor agrees that reporting under this Clause 11.7 shall continue until the date of the completion of the Works. Each report shall include:

- (a) an executive summary that shall also include a statement of utilization of advance payment;
- (b) charts showing the status of Contractor's documents, construction and manufacturing and environmental works;
- (c) details of work subcontracted and the performance of Sub-contractors. A certificate from the Contractor, that no sub-contractors, other than those authorized by the Authority, are implementing the Contract;
- (d) for the construction of each main part of the Works, the extent of progress (both quantity and percentage of the whole), the actual or expected dates of commencement, anticipated completion date of the activity, Contractor's inspections and tests;
- (e) records of manpower and Contractor's equipment on the Site;

- (f) copies for that month of quality assurance documents, test results and certificates;
- (g) safety statistics, accident data collection including details of any hazardous incidents and activities relating to environmental aspects and public relations;
- (h) comparisons of actual and planned progress, with details of any aspects which may jeopardise the completion in accordance with the Agreement, and the measures being (or to be) adopted to overcome such aspects;
- (i) details of any unresolved disputes or claims, in relation to the Project;
- (j) details of any revision to the cash flow estimate, together with a copy of the revised cash flow estimate;
- (k) status of various Applicable Permits and compliance of conditions therein;
- (l) details of various royalty payment and insurances required to be taken by the Contractor; and
- (m) such other reports as may be required by the Authority for enabling the Authority to comply with its obligations under the other Project contracts.
- (n) details of defects by the Authority;
- (o) change in emission of any sewage or effluent of any nature whatsoever, whether qualitatively or quantitatively;
- (p) any Material Adverse Effect;
- (q) declaration towards compliance with Applicable Laws including but not limited to environmental and labour legislations;
- (r) declaration specifying compliance with all Manuals provided to the Contractor; and
- (s) any change in the flow of traffic in the existing Project.

This report will also include progress on the E&S Management Strategies and Implementation Plans (ES-MSIP) to manage the (ES) risks, and compliance to the applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, and the applicable parts of the Contractor's Environment and Social Management Plan of the project.

In addition to the progress report the Contractor shall also provide a report on the Environmental and Social (E&S) metrics set out in Appendix B. In addition to Appendix B reports, the Contractor shall also provide immediate notification to the Authority's Engineer of incidents in the following categories. Full details of such incidents shall be provided to the Authority's Engineer within the timeframe agreed with the Authority's Engineer.

- (a) confirmed or likely violation of any law or international agreement;
- (b) any fatality or serious (lost time) injury;
- (c) significant adverse effects or damage to private property (e.g. vehicle accident, damage from fly rock, working beyond the boundary)
- (d) major pollution of drinking water aquifer or damage or destruction of rare or endangered habitat (including protected areas) or species; or

- (e) any allegation of gender-based violence, sexual exploitation or Abuse (SEA), sexual harassment or sexual misbehaviour, rape, child abuse, or defilement, or other violations involving children.

11.8 Inspection

11.8.1 The Authority's Engineer and its authorised representative shall at all reasonable times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained for use in the Works; and
- (b) during production, manufacture and construction at the Site and at the place of production, be entitled to examine, inspect, measure and test the Materials and workmanship, and to check the progress of manufacture of Materials.

11.8.2 The Contractor shall give the Authority's Engineer and its authorised agents access, facilities and safety equipment for carrying out their obligations under this Agreement.

11.8.3 The Authority's Engineer shall submit a monthly inspection report (the "**Inspection Report**") to the Authority and the Contractor bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. For the avoidance of doubt, such inspection or submission of Inspection Report by the Authority's Engineer shall not relieve or absolve the Contractor of its obligations and liabilities under this Agreement in any manner whatsoever.

11.9 Samples

The Contractor shall submit the following samples of Materials and relevant information to the Authority's Engineer for pre-construction review:

- (a) manufacturer's test reports and standard samples of manufactured Materials; and
- (b) samples of such other Materials as the Authority's Engineer may require.

11.10 Tests

11.10.1 For determining that the Works conform to the Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out or cause to be carried out tests, at such time and frequency and in such manner as specified in this Agreement, and in accordance with Good Industry Practice for quality assurance. The checks by the Authority's Engineer shall comprise of 50% (fifty percent) of all the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor.

11.10.2 In the event that results of any tests conducted under this Clause 11.10 establish any Defects or deficiencies in the Works, the Contractor shall carry out remedial measures and furnish a report to the Authority's Engineer in this behalf. The Authority's Engineer shall require the Contractor to carry out or cause to be carried out tests to determine that such remedial measures have brought the Works into compliance with the Specifications and Standards, and the procedure shall be repeated until such Works conform to the Specifications and Standards. For the avoidance of doubt, the cost of such tests and remedial measures in pursuance thereof shall be solely borne by the Contractor.

11.11 Examination of work before covering up

In respect of the work which the Authority's Engineer is entitled to examine, inspect, measure and/or test before it is covered up or put out of view or any part of the work is placed thereon, the Contractor shall give notice to the Authority's Engineer whenever any such work is ready and before it is covered up. The Authority's Engineer shall then either carry out the examination, inspection or testing without unreasonable delay, or promptly give notice to the Contractor that the Authority's Engineer does not require to do so. Provided, however, that if any work is of a continuous nature where it is not possible or prudent to keep it uncovered or incomplete, the Contractor shall notify the schedule of carrying out such work to give sufficient opportunity, not being less than 5 business days' notice, to the Authority's Engineer to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Authority's Engineer within a period of 5 business days from the date on which the Contractor's notice hereunder is delivered to the Authority's Engineer, the Contractor shall be entitled to assume that the Authority's Engineer would not undertake the said inspection.

11.12 Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Authority's Engineer shall reject the Plant, Materials, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the Defect and ensure that the rejected item complies with the requirements of this Agreement.

If the Authority's Engineer requires the Plant, Materials, design or workmanship to be retested, the tests shall be repeated under the same terms and conditions, as applicable in each case. If the rejection and retesting cause the Authority to incur any additional costs, such cost shall be recoverable by the Authority from the Contractor; and may be deducted by the Authority from any monies due to be paid to the Contractor.

11.13 Remedial work

11.13.1 Notwithstanding any previous test or certification, the Authority's Engineer may instruct the Contractor to:

- (a) remove from the Site and replace any Plant or Materials which are not in accordance with the provisions of this Agreement;
- (b) remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and
- (c) execute any work which is urgently required for the safety of the Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 21.6 shall apply.

11.13.2 If the Contractor fails to comply with the instructions issued by the Authority's Engineer under Clause 11.13.1, within the time specified in the Authority's Engineer's notice or as mutually agreed, the Authority's Engineer may advise the Authority to have the work executed by another agency. The cost so incurred by the Authority for undertaking such work shall, without prejudice to the rights of the Authority to recover Damages in accordance with the provisions of this Agreement, be recoverable from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.

11.14 Delays during construction

Without prejudice to the provisions of Clause 10.3.2, in the event the Contractor does not achieve any of the Project Milestones or the Authority's Engineer shall have reasonably determined that the rate of progress of Works is such that Completion of the Project is not likely to be achieved by the end of the Scheduled Completion Date, it shall notify the same to the Contractor, and the Contractor shall, within 15days of such notice, by a communication inform the Authority's Engineer in reasonable detail about the steps it proposes to take to expedite progress and the period within which it shall achieve the Project Completion Date.

11.15 Quality control records and Documents

The Contractor shall hand over to the Authority's Engineer a copy of all its quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.2. The Contractor shall submit Road Signage Plans to the Authority Engineer for approval at least 6 (six) months prior to expected completion of Project.

11.16 Video recording

During the Construction Period, the Contractor shall provide to the Authority for every calendar quarter, a video recording, which will be compiled into a 3 (three)-hour compact disc or digital video disc, as the case may be, covering the status and progress of Works in that quarter. The video recording shall be provided to the Authority no later than 15days after the close of each quarter after the Appointed Date.

11.17 Suspension of unsafe Construction Works

- 11.17.1 Upon recommendation of the Authority's Engineer to this effect, the Authority may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Authority's Engineer, such work threatens the safety of the Users and pedestrians.
- 11.17.2 The Contractor shall, pursuant to the notice under Clause 11.17.1, suspend the Works or any part thereof for such time and in such manner as may be specified by the Authority and thereupon carry out remedial measures to secure the safety of suspended works, the Users and pedestrians. The Contractor may by notice require the Authority's Engineer to inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked. Upon receiving the recommendations of the Authority's Engineer, the Authority shall either revoke such suspension or instruct the Contractor to carry out such other and further remedial measures as may be necessary in the reasonable opinion of the Authority, and the procedure set forth in this Clause 11.17 shall be repeated until the suspension hereunder is revoked.
- 11.17.3 Subject to the provisions of Clause 21.6, all reasonable costs incurred for maintaining and protecting the Works or part thereof during the period of suspension (the "**Preservation Costs**"), shall be borne by the Contractor; provided that if the suspension has occurred as a result of any breach of this Agreement by the Authority, the Preservation Costs shall be borne by the Authority.
- 11.17.4 If suspension of Works is for reasons not attributable to the Contractor, the Authority's Engineer shall determine any Time Extension to which the Contractor is reasonably entitled.

11.18 Protection of Environment

The Contractor shall ensure that during continuance of the contract, the Contractor and his Subcontractor(s) shall abide at all times by all existing enactments on environmental protection and rules made thereunder, regulations, latest 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. Salient features of some of the major laws that are applicable are given below:

1. The Environment (Protection) Act, 1986 and as amended: This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.
2. The Forest Conservation Act, 1980, as amended, and Forest (Conservation) Rules, 1981 as amended: These provides for protection of forests by restricting conversion of forested areas into non- forested areas and prevention of deforestation, and stipulates the procedures for cutting any trees that might be required by the applicable rules. Permissions under the Act also stipulates the norms and compliance requirements of the employer and any contractor on behalf of the employer.
3. State Tree Preservation Acts as may be in force: These provide for protection of trees of important species. Contractors will be required to obtain prior permission for full or partial cutting, uprooting, or pruning of any such trees.
4. The Wildlife (Protection) Act, 1972, and as amended: This provides for protection of wildlife through notifying National Parks and Sanctuaries and buffer areas around these zones; and to protect individuals of nationally important species listed in the Annex of the Act.
5. The Biological Diversity Act, 2002: This provides for conservation of biological diversity, sustainable use of components of biological diversity, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
6. The Public Liability Insurance Act, 1991 as amended and The Public Liability Insurance Rules, 1991 as amended: These provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for 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.
7. The Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, the Ancient Monuments and Archaeological Sites and Remains Rules, 1959 amended 2011, the National Monuments Authority Rules, 2011 and the similar State Acts: These provide for conservation of cultural and historical remains found in India. Accordingly, area within the radii of 100m and 300m from the "protected property" are designated as "protected area" and "controlled area" respectively. No development activity (including building, mining, excavating, blasting) is permitted in the "protected area" and development activities likely to damage the protected property is not permitted in the "controlled area" without prior permission of the Archaeological Survey of India (ASI) or the State Departments of Art and Culture or Archaeology as applicable.

8. The Environmental Impact Assessment Notification, 2006 and as amended: This provides for prior environmental clearance for new, modernization and expansion projects listed in Schedule 1 of the Notification. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any environmental management plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
9. The Water (Prevention and Control of Pollution) Act, 1974 as amended, and the Water (Prevention and Control of Pollution) Rules, 1975 as amended: These provide for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates waste water, and observe the required standards of establishment and operation of these items of work or installations; as well as install and operate all required waste water treatment facilities.
10. The Water (Prevention and Control of Pollution) Cess Act, 1977 and The Water (Prevention and Control of Pollution) Cess Rules, 1978: These provide for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution under the Water (Prevention and Control of Pollution) Act, 1974.
11. The Air (Prevention and Control of Pollution) Act, 1981 as amended, and the Air (Prevention and Control of Pollution) Rules, 1982: These provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates air pollution such as batching plants, hot mix plants, power generators, backup power generation, material handling processes, and observe the required standards of establishment and operation of these items of work or installations.
12. Noise Pollution (Control and Regulation) Rules, 2000, and as amended: This provides for standards for noise for day and night for various land uses and specifies special standards in and around sensitive receptors of noise such as schools and hospitals. Contractors will need to ensure compliance to the applicable standards, and install and operate all required noise control devices as may be required for all plants and work processes.
13. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996: This provides for Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas.
14. The Explosives Act 1884 and the Explosives Rules, 2008: These provide for safe manufacture, possession, sale, use, transportation and import of explosive materials such as diesel, Oil and lubricants etc.; and also for regulating the use of any explosives used in blasting and/or demolition. All applicable provisions will need compliance by the contractors.
15. The Petroleum Rules, 2002: This provides for safe use and storage of petroleum products, and

will need to be complied by the contractors.

16. The Gas Cylinder Rules 2004 and amendments: This provides for regulations related to storage of gas, and possession of gas cylinder more than the exempted quantity. Contractors should comply with all the requirements of this Rule.
17. Manufacture, Storage and Import of Hazardous Chemical Rules of 1989 and as amended: These provide for use and storage of hazardous material such as highly inflammable liquids like HSD/LPG. Contractors will need to ensure compliance to the Rules; and in the event where the storage quantity exceeds the regulated threshold limit, the contractors will be responsible for regular safety audits and other reporting requirements as prescribed in the Rules.
18. Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016: These provide for protection of general public from improper handling storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal. Contractors will need to obtain permission from the State Pollution Control Boards and other designated authorities for storage and handling of any hazardous material; and will to ensure full compliance to these rules and any conditions imposed in the permit.
19. The Bio Medical Waste Management Rules, 2016: This provides for control, storage, transportation and disposal of bio-medical wastes. As and where the contractor has any first aid facility and dispensaries, established in either temporary or permanent manner, compliance to these Rules are mandatory.
20. Construction and Demolition Waste Management Rules, 2016: This provides for management of construction and demolition waste (such as building materials possible to be reused, rubble and debris or the like); and applies to all those waste resulting from construction, re-modelling, repair or demolition of any civil structure. Contractor will need to prepare a waste disposal plan and obtain required approval from local authorities, if waste generation is more than 20 tons in any day or 300 tons in any month during the contract period; and ensure full compliance to these rules and any conditions imposed in the regulatory approval.
21. The E-Waste (Management) Rules, 2016: This provides for management of E-wastes (but not covering lead acid batteries and radio-active wastes) aiming to enable the recovery and/or reuse of useful material from e-waste, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment. This Rule applies to every manufacturer, producer, consumer, bulk consumer, collection centres, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.
22. Plastic waste Management Rules, 2016: This provides for control and management of the plastic waste generated from any activity. Contractors will ensure compliance to this Rule.
23. The Batteries (Management and Handling) Rules 2001: This provides for ensuring safe disposal and recycling of discarded lead acid batteries likely to be used in any equipment during construction and operation stage. Rules require proper control and record keeping on the sale or import of lead acid batteries and recollection of the used batteries by registered recyclers to ensure environmentally sound recycling of used batteries. Contractors will ensure compliance to this Rule.
24. The Ozone Depleting Substances (Regulation and Control) Rules, 2000 and as amended: This provides for regulation of production and consumption of ozone depleting substances in the

country, and specifically prohibits export to or import from countries not specified in the Rules, and prohibits unless specifically permitted, any use of ozone depleting substance.

25. The Coastal Regulation Zone Notifications, 1991 and as amended: This provides for regulation of development activities within the 500m of high tide line in coastal zone and 100m of stretches of rivers and estuaries influenced by tides. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
26. The Motor Vehicle Act 1988 as amended (and State Motor Vehicle Acts as may be in force) and the Motor Vehicle Rules, 1989, and as amended (and State Motor Vehicle Rules as may be in force): To minimize the road accidents, penalizing the guilty, provision of compensation to victim and family and check vehicular air and noise pollution. Contractors will be required to ensure full compliance to these rules.
27. Easement Act, 1882: This provides for the rights of landowners on groundwater. Contractors will need to ensure that other landowners' rights under the Act is not affected by any groundwater abstraction by the contractors.
28. State Groundwater Acts and Rules as may be in force and the Guidelines for Groundwater Abstraction for drinking and domestic purposes in Notified Areas and Industry/Infrastructure project proposals in Non-Notified areas, 2012: These provide for regulating extraction of ground water for construction/industrial and drinking and domestic purposes. Contractors will need to obtain permission from Central/State Groundwater Boards prior to groundwater abstraction through digging any bore well or through any other means; and will to ensure full compliance to these rules and any conditions imposed in the permit.
29. The Mines Act, 1952 as amended; the Minor Mineral and concession Rules as amended; and the State Mineral (Rights and Taxation) Acts as may be in force: These provide for safe and sound mining activity. The contractors will procure aggregates and other building materials from quarries and borrow areas approved under such Acts. In the event the contractors open any new quarry and/or borrow areas, appropriate prior permission from the State Departments of Minerals and Geology will need to be obtained. Contractors will also need to ensure full compliance to these rules and any conditions imposed in the permit.
30. The Insecticides Act, 1968 and Insecticides Rules, 1971 and as amended: These provide for regulates the manufacture, sale, transport, distribution, export, import and use of pesticides to prevent risk to human beings or animals, and for matters connected therewith. No one should import or manufacture; sell, stock or exhibit for sale; distribute, transport, use: (i) any misbranded insecticides, (ii) any insecticide the sale, distribution or use of which is for the time being prohibited under the Act; and (iii) any insecticide except in accordance with the condition on which it was registered under the Act.
31. National Building Codes of India, 2005 and as amended: This provides guidelines for regulating the building construction activities in India. The code mainly contains administrative regulations, development control rules and general building requirements; stipulations regarding materials, structural design and construction; and building and plumbing services. Contractors will be required to comply with all Bureau of Indian Standards Codes dealing with: (i) use and disposal of asbestos containing materials in construction; (ii) paints containing lead; (iii) permanent and temporary ventilations in workplace; (iv) safety, and hygiene at the workplace; (v) prevention of fire; (vi) prevention of accidents from faulty electrical gadgets, equipment and accessories; and all other such codes incidental to the Contract.

The reference to above mentioned Acts is only illustrative and not exhaustive. Bidders and Contractors are responsible for checking the correctness and completeness of the list. The law as current on the date of bid opening will apply.

The Contractor shall follow and implement the Environmental and Social Management Plan given at Specification and also the updates if any.

The contractor shall develop Environmental and Social Management Systems that covers all its operations and shall be certified to ISO 14001 within one year from the award of the contract.

The contractor shall develop Occupational Health & Safety Management Systems that cover all its activities / operations and shall be certified to OHSAS 18001 within one year from the award for contract.

The Contractor shall implement all mitigation measures for which responsibility is assigned to him as stipulated in the Environmental and Social Management [Plan/Framework (strike out whichever is not applicable)], and the conditions stipulated in Section VII-Work Requirements: Conditions of Contract together with Schedules, of this Bidding Document, even if not explicitly covered under the C-ESMP submitted by the bidder and made part of the Contract Document.

11.19 Labour Laws

The Contractor and its Subcontractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of Government and Government Instrumentality and any other labour law (including rules), regulations, byelaws that may be passed or notification that may be issued under any labour law in future either by the Government and Government Instrumentality.

The Contractor shall keep the Authority 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 Authority 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 Employer 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 Authority.

The Contractor is expected to be acquainted with all the latest applicable Laws, including those concerning safety at work. Salient features of some of the major laws that are applicable are given below. The list is illustrative and not exhaustive. Bidders and Contractors are responsible for checking the correctness and completeness of the list. The law as current on the date of bid opening will apply.

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| <p>(a) <u>Employees Compensation Act 1923</u>: The Act provides for compensation in case of injury, disease or death arising out of and during the course of employment.</p> <p>(b) <u>Payment of Gratuity Act 1972</u>: gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.</p> <p>(c) <u>Employees P.F. and Miscellaneous Provision Act 1952 (since amended)</u>: The Act provides for monthly contribution by the employer plus workers @ 10% or</p> |
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8.33%. The benefits payable under the Act are:

- (i) Pension or family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F. accumulation on retirement/death etc.
- (d) Maternity Benefit Act 1961: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- (e) Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013: This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee or a Local Complaints Committee
- (f) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
- (g) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
- (h) Payment of Wages Act 1936: It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.
- (i) Equal Remuneration Act 1976: The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- (j) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. Some of the State Governments have reduced this requirement from 20 to 10. The Act provides for payments of annual bonus subject to a minimum of 8.33% of the wages drawn in the relevant year. It applies to skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward to employees who draw a salary of ₹ 10,000/- per month or less. To be eligible for bonus, the employee should have worked in the establishment for not less than 30 working days in the relevant year. The Act does not apply to certain establishments.
- (k) Industrial Disputes Act 1947: the Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the

Act have been given certain immunities from civil and criminal liabilities.

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

the appropriate Government. The Act provides for the setting up of an Employees' State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central Government. The Act also provides for benefits to dependents of insured persons in case of death as a result of an employment injury.

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

ARTICLE 12
COMPLETION CERTIFICATE

12.1 Tests on completion

- 12.1.1 At least 15 days prior to the likely completion of each of the engineering services like but not limited to electrical, plumbing, waste management, ETP /STP , WTP,HVAC, fire fighting, medical gases, steam, IT networking & communication, security system and civil works, including prior to over all completion of the Project, the Contractor shall notify the Authority's Engineer of its intent to take up trial Commissioning / testing of the respective components of work for establishing the soundness and completion of the respective work/ milestone.Necessary testing/commissioning of all electro-mechanical equipment and accessories etc to be carried out for this. The date and time of each of the Tests shall be determined by the Authority's Engineer in consultation with the Contractor, and notified to the Authority who may designate its representative to witness the Tests. The Contractor shall either conduct the Tests as directed by the Authority's Engineer or provide such assistance as the Authority's Engineer may reasonably require for conducting the Tests. In the event of the Contractor and the Authority's Engineer failing to mutually agree on the dates for conducting the Tests, the Contractor shall fix the dates by giving not less than 10) days' notice to the Authority's Engineer.
- 12.1.2 All Tests shall be conducted in accordance with Schedule-K. The Authority's Engineer shall either conduct or observe, monitor and review the Tests conducted by the Contractor, as the case may be, and review the results of the Tests to determine compliance of the Project or a Section thereof, with Specifications and Standards and if it is reasonably anticipated or determined by the Authority's Engineer during the course of any Test that the performance of the Project or Section or any part thereof, does not meet the Specifications and Standards, it shall have the right to suspend or delay such Test and require the Contractor to remedy and rectify the Defect or deficiencies. Upon completion of each Test, the Authority's Engineer shall provide to the Contractor and the Authority copies of all Test data including detailed Test results. For the avoidance of doubt, it is expressly agreed that the Authority's Engineer may require the Contractor to carry out or cause to be carried out additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Project or Section thereof with the Specifications and Standards.

12.2 Provisional Certificate

- 12.2.1 Subject to the provisions of Clause 12.2.5, upon completion of all Works forming part of the Project, save and except the Works for which Time Extension has been granted under Clause 10.5, the Authority's Engineer shall, at the request of the Contractor, issue a provisional certificate of completion substantially in the form set forth in Schedule-L (the "**Provisional Certificate**") if the Tests for and in respect of the completed Works are successful. The Provisional Certificate shall have appended thereto a list of outstanding items of work (the "**Punch List**") that need to be completed in accordance with the provisions of this Agreement. The Contractor undertakes to complete the minor outstanding items of works in respect of those Sections of the Project for which the Provisional Certificate has been issued, within a period of 30 days of the date of Provisional Certificate, and those parts of the Works in respect of which Time Extension has been granted, within the extended period thereof. For the avoidance of doubt, the Parties agree that the Punch List shall include all Works for which Time Extension has been granted and shall also include any minor outstanding items of work forming part of the completed Sections if such works do not materially affect the use of the completed Sections for their intended purpose. The Parties further agree that

Provisional Certificate shall not be issued if the completed Works cannot be safely and reliably placed in service of the Users thereof.

- 12.2.2 Upon issue of Provisional Certificate, the provisions of Articles 14 and 17 shall apply to the completed parts of the Project and the property and ownership of all such completed Works shall vest in the Authority.
- 12.2.3 If the Authority's Engineer determines that the Project or any completed part thereof does not conform to the provisions of this Agreement and cannot be safely and reliably placed in operation, it shall forthwith make a report in this behalf and send copies thereof to the Authority and the Contractor and withhold issuance of the Provisional Certificate until the Defects or deficiencies are rectified by the Contractor and Tests are successful in accordance with this Article 12.
- 12.2.4 Notwithstanding anything to the contrary contained in Clause 12.2.3, the Authority may, at any time after receiving a report from the Authority's Engineer under that Clause, direct the Authority's Engineer to issue a Provisional Certificate under Clause 12.2.1 and such direction shall be complied forthwith.
- 12.2.5 No Provisional Certificate shall be issued under the provisions of this Clause 12.2 until the Contractor has submitted valid claims for payment of at least 80% (eighty per cent) of the amount arrived at after reducing the lump sum price specified in Clause 19.1.1 by the amount attributable to works which have been withdrawn under the provisions of Clause 8.3.3. For the avoidance of doubt and by way of illustration, the Parties agree that if the Contract Price specified in Clause 19.1.1 is ₹ 105 cr. (₹ one hundred and five crore) and the works withdrawn under Clause 8.3.3 have a value of ₹ 5 cr. (₹ five crore), a Provisional Certificate shall not be issued until valid claims for payment of an amount of ₹. 80 cr. (₹ eighty crore) have been submitted by the Contractor in accordance with the provisions of this Agreement. It is further agreed that all price adjustments made in pursuance of Clause 19.10 shall not be reckoned for computation of the claims for payments referred to in this Clause 12.2.5.

12.3 Completion of remaining Works

All items in the Punch List shall be completed by the Contractor in accordance with the provisions of this Agreement. For any delay in their completion other than for the reasons solely attributable to the Authority or due to Force Majeure, the Authority shall be entitled to recover Penalty from the Contractor in accordance with the provisions of Clause 10.3.2 of this Agreement.

12.4 Completion Certificate

- 12.4.1 Upon completion of all Works, including the items specified in the Punch List, and the Authority's Engineer determining the Tests to be successful and after the receipt of notarized true copies of the certificate(s) of insurance, copies of insurance policies and premium payment receipts in respect of the insurance defined in Article 20 and Schedule P of this Agreement, it shall, at the request of the Contractor forthwith issue to the Contractor and the Authority a certificate substantially in the form set forth in Schedule-L (the "**Completion Certificate**").
- 12.4.2 Upon receiving the Completion Certificate, the Contractor shall remove its equipment, materials, debris and temporary works from the Site within a period of 30days thereof, failing which the Authority may remove or cause to be removed, such equipment, materials, debris and temporary works and recover from the Contractor an amount equal to 120% of the actual cost of removal incurred by the Authority.

- 12.4.3 Without prejudice to the obligations of the Contractor specified in Articles 14 and 17, the property and ownership of all the completed Works forming part of the Project shall vest in the Authority.

12.5 Rescheduling of Tests

If the Authority's Engineer certifies to the Authority and the Contractor that it is unable to issue the Completion Certificate or Provisional Certificate, as the case may be, because of events or circumstances on account of which the Tests could not be held or had to be suspended, the Contractor shall be entitled to re-schedule the Tests and hold the same as soon as reasonably practicable.

ARTICLE 13
CHANGE OF SCOPE

13.1 Change of Scope

13.1.1 The Authority may, notwithstanding anything to the contrary contained in this Agreement, require the Contractor to make modifications/alterations to the Works ("**Change of Scope**") before the issue of the Completion Certificate either by giving an instruction or by requesting the Contractor to submit a proposal for Change of Scope involving additional cost or reduction in cost. Any such Change of Scope shall be made and valued in accordance with the provisions of this Article 13.

Provided that any such Change of Scope may be required and agreed to be executed between the parties beyond the period of six months of the Appointed Date but before expiry of 50% of the original Scheduled Construction Period of the Project, subject to the condition that it shall not entail any claims (e.g. Extension of Time/ Prolongation related claims), against The Authority

13.1.2 Change of Scope shall mean:

- (a) change in specifications of any item of Works;
- (b) omission of any work from the Scope of the Project except under Clause 8.3.3; provided that, subject to Clause 13.5, the Authority shall not omit any work under this Clause in order to get it executed by any other authority; and / or
- (c) any additional work, Plant, Materials or services which are not included in the Scope of the Project, including any associated Tests on completion of construction.

13.1.3 If the Contractor determines at any time that a Change of Scope will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Authority of executing, maintaining or operating the Project, (iii) improve the efficiency or value to the Authority of the completed Project, or (iv) otherwise be of benefit to the Authority, it shall prepare a proposal with relevant details at its own cost. The Contractor shall submit such proposal, supported with the relevant details and the amount of reduction in the Contract Price to the Authority through the Authority's Engineer to consider such Change of Scope. The Authority shall, within 15 days of receipt of such proposal, either accept such Change of Scope with modifications, if any, and initiate proceedings therefore in accordance with this Article 13 or reject the proposal and inform the Contractor of its decision. For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without the express consent of the Authority, save and except any Works necessary for meeting any Emergency.

13.2 Procedure for Change of Scope

13.2.1 In the event of the Authority determining that a Change of Scope is necessary, it may direct the Authority's Engineer to issue to the Contractor a notice specifying in reasonable detail the works and services contemplated thereunder (the "**Change of Scope Notice**"). The Contractor shall submit a detailed proposal as per Clause 13.2.2 within 15 days from the receipt of Change of Scope Notice.

13.2.2 Upon receipt of a Change of Scope Notice, the Contractor shall, with due diligence, provide to the Authority and the Authority's Engineer such information as is necessary, together with preliminary documentation in support of:

- (a) the impact, if any, which the Change of Scope is likely to have on the Project Completion Schedule if the works or services are required to be carried out during the Construction Period; and
- (b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof, including the following details:
 - (i) break down of the quantities, unit rates and cost for different items of work;
 - (ii) proposed design for the Change of Scope; and
 - (iii) Impact on Environment, Social and health aspects (if any) and mitigation proposed with associated costs.
 - (iv) Proposed modifications, if any, to the Project Completion Schedule of the Project.

For the avoidance of doubt, the Parties expressly agree that, subject to the provisions of Clause 13.4.2 & provision under note-7, clause 2.3.1.1 of Annexure-1, Schedule B the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

13.2.3 The Contractor's quotation of costs for the Change of Scope shall be determined on the following principles:

The parties agree that costs and time for implementation of the proposed Change of Scope shall be determined as per the following:

- (a) For additional scope of works where item is available in Schedule of Rates (SOR) as applicable in State's Public Works Department, the same shall be applicable for determination of costs with cost index as applicable with premium/ discount percentas quoted by the bidder in the original agreement. Items not covered in SOR will be worked out based on Market rates using skeleton of analysis of rates as applicable in States Public Work Department.
- (b) For works not similar in nature to the works being executed, the prevailing market rates as determined by the Authority shall apply, and for any item in respect of which no requisite details available, the authority shall determine the rate in accordance with good industry practice.
- (c) The design charges shall be considered only for new works or items (i.e. the Works or items not similar to the works or items in the original scope) @ 1% (one per cent) of cost of such new works or items.
- (d) The costs of existing works or items, which are being changed/ omitted shall also be valued as per above procedure and only net cost shall be considered.
- (e) The reasonable time for completion of works to be taken under Change of Scope shall be determined by the Authority's Engineer on the basis of Good Industry Practice and if such time exceeds the Scheduled Completion Date, the issue of Completion Certificate shall not be affected or delayed on account of construction of Change of Scope items/ works remaining incomplete on the date of Tests.

13.2.4 Upon consideration of the detailed proposal submitted by the Contractor under the Clause 13.2.3, the Authority, within 15 (fifteen) days of receipt of such proposal, may in its sole discretion either accept such Change of Scope with modifications, if any, and initiate

proceedings in accordance with this Article 13 or reject the proposal and inform the Contractor of its decision thereof.

Upon reaching an agreement, the Authority shall issue an order (the “**Change of Scope Order**”) requiring the Contractor to proceed with the performance thereof.

In the event that the Parties are unable to agree, the Authority may:

- (a) issue a Change of Scope Order requiring the Contractor to proceed with the performance thereof at the rates and conditions approved by the Authority till the matter is resolved in accordance with Article 26; or
- (b) proceed in accordance with Clause 13.5.

For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without the express consent of the Authority, save and except any works necessary for meeting any Emergency, that too with verbal approval of Authority which shall be confirmed in writing in next 3 (three) days.

13.2.5 The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works undertaken by the Contractor under this Article 13.

13.3 Payment for Change of Scope

Payment for Change of Scope shall be made in accordance with the payment schedule specified in the Change of Scope Order.

13.4 Restrictions on Change of Scope

13.4.1 No Change of Scope shall be executed unless the Authority has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.

13.4.2 Unless the Parties mutually agree to the contrary, the total value of all Change of Scope Orders shall not exceed 10 (ten) per cent of the Contract Price.

13.4.3 Notwithstanding anything to the contrary in this Article 13, no change made necessary because of any default of the Contractor in the performance of its obligations under this Agreement shall be deemed to be Change of Scope, and shall not result in any adjustment of the Contract Price or the Project Completion Schedule.

13.5 Power of the Authority to undertake works

13.5.1 In the event the Parties are unable to agree to the proposed Change of Scope Orders in accordance with Clause 13.2, the Authority may, after giving notice to the Contractor and considering its reply thereto, get these executed through agencies selected by the Authority in accordance with its own relevant rules and regulations. The Contractor shall provide assistance and cooperation to the Agency that undertakes the works or services hereunder. The Contractor shall not be responsible for rectification of any Defects, but the Contractor shall carry out maintenance of such works after completion of Defect Liability Period of work by other person or agency during the remaining period of this agreement, with extra payment for maintenance.

13.5.2 The works undertaken in accordance with this Clause 13.5 shall conform to the Specifications and Standards and shall be carried out in a manner that minimises the disruption in operation of the Project. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works carried out under this Clause 13.5.

ARTICLE 14

MAINTENANCE

14.1 Maintenance obligations of the Contractor

14.1.1 The Contractor shall maintain the Project for a period of **five years** commencing from the date of Issue of "**Construction Completion Certificate**". The Comprehensive Operation & Maintenance of the Contract (CMC) for 5 years will run concurrently with DLP for the first year. For the performance of its Operation and Maintenance obligation, the Contractor shall be paid INR _____ . The maintenance of the services will include for un-interrupted functioning of engineering services as per standards including but not limited to all engineering services like electrical, plumbing, fire fighting, HVAC, MGPS, Pneumatic Tube System, MOT, ETP/ STP/ WTP, steam, data networking & communications, Nurse Call System, security for efficient uninterrupted functioning of the Project/ Hospital.

14.1.2 During the Maintenance Period the Authority shall provide to the Contractor access to the Site for Maintenance in accordance with this Agreement. The obligations of the Contractor hereunder shall include:

- (a) undertaking routine maintenance including but not limited to prompt repairs of leakages in pipelines (water supply, waste water, medical gases, steam etc.), wiring, MEP equipment, potholes, cracks, joints, drains, lighting;
- (b) undertaking repairs to structures and services electrical wiring, plumbing lines, HVAC system, medical gases and steam system, pumps, motors, fire fighting, IT communication and security system as the case may be for efficient and uninterrupted functioning of the hospital.;
- (c) Maintenance of all communication, and security system necessary for the efficient maintenance of the Project in accordance with the provisions of this Agreement.

14.1.3 In respect of any Defect or deficiency not specified in Schedule-E, the Contractor shall, at its own cost, undertake repair or rectification in accordance with Good Industry Practice, save and except to the extent that such Defect or deficiency shall have arisen on account of any default or neglect of the Authority or a Force Majeure Event.

14.1.4 The Contractor shall remove promptly from the Project any waste materials, rubbish and other debris and keep the Project in a clean, tidy and orderly condition immediately after undertaking the Maintenance/ repair activities, and in conformity with the Applicable Laws, Applicable Permits and Good Industry Practice.

14.2 Maintenance Requirements

The Contractor shall ensure and procure that at all times during the Maintenance Period, the Project conforms to the maintenance requirements set forth in Schedule-E (the "Maintenance Requirements").

14.3 Maintenance Programme

14.3.1 The Contractor shall prepare a monthly maintenance programme (the Maintenance Programme") in consultation with the Authority's Engineer and submit the same to the Authority's Engineer not later than 7 (seven) days prior to the commencement of the month in which the Maintenance is to be carried out. For this purpose, a joint monthly inspection by the Contractor and the Authority's Engineer/ Authority Representative shall be undertaken. The Maintenance Programme shall contain the following:

- (a) the proposed maintenance works and down time required/ proposed; start time and end time
- (b) Services impacted by the proposed maintenance works and the duration of impact
- (c) proposed deployment of resources for maintenance.

14.3.2 The 'Maintenance Programme' and any revision in the 'Maintenance Programme' should only be agreed in writing.

14.6 Reduction of payment for non-performance of Maintenance obligations

- 14.6.1 In the event that the Contractor fails to maintain the services set forth in Schedule-E within the period specified therein, it shall be deemed as failure of performance of Maintenance obligations by the Contractor and the Authority shall be entitled to effect reduction in monthly lump sum payment for maintenance in accordance with Clause 19.7 and Schedule-M, without prejudice to the rights of the Authority under this Agreement, including Termination thereof.
- 14.6.2 If the nature and extent of any maintenance requirement justifies more time for its repair or rectification than the time specified in Schedule-E, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Authority's Engineer and conveyed to the Contractor and the Authority with reasons thereof.

14.7 Authority's right to take remedial measures

In the event the Contractor does not maintain and/or repair the Project or any part thereof in conformity with the Maintenance Requirements, the Maintenance Manual or the Maintenance Programme, as the case may be, and fails to commence remedial works within 01 (One) days of receipt of the Maintenance Inspection Report under Clause 15.2 or a notice in this behalf from the Authority or the Authority's Engineer, as the case may be, the Authority shall, without prejudice to its rights under this Agreement including Termination thereof, be entitled to undertake such remedial measures at the cost of the Contractor, and to recover its cost from the Contractor. In addition to recovery of the aforesaid cost, a sum equal to 20% (twenty per cent) of such cost shall be paid by the Contractor to the Authority as Damages.

14.9 Overriding powers of the Authority

- 14.9.1 If in the reasonable opinion of the Authority, the Contractor is in material breach of its obligations under this Agreement and, in particular, the Maintenance Requirements, and such breach is causing or likely to cause disruption in health care services and or put at risk the lives of patients, doctors and users of the hospital the Authority may, without prejudice to any of its rights under this Agreement including Termination thereof, by notice require the Contractor to take reasonable measures immediately for rectifying or removing such hardship or danger, as the case may be.
- 14.9.2 In the event that the Contractor, upon notice under Clause 14.9.1, fails to rectify or remove any hardship or danger within a reasonable period, the Authority may exercise overriding powers under this Clause 14.9.2 and take over the performance of any or all the obligations of the Contractor to the extent deemed necessary by it for rectifying or removing such hardship or danger; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required hereunder; provided further that any costs and expenses incurred by the Authority in discharge of its obligations hereunder shall be recovered by the Authority from the Contractor, and the Authority shall be entitled to deduct any such costs and expenses incurred from the payments due to the Contractor under Clause 19.7 for the performance of its Maintenance obligations.

14.9.3 In the event of a national emergency, civil commotion or any other circumstances specified in Clause 21.3, the Authority may take over the performance of any or all the obligations of the Contractor to the extent deemed necessary by it, and exercise such control over the Project or give such directions to the Contractor as may be deemed necessary; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required in the circumstances which caused the exercise of such overriding power by the Authority. For the avoidance of doubt, it is agreed that the consequences of such action shall be dealt in accordance with the provisions of Article 21. It is also agreed that the Contractor shall comply with such instructions as the Authority may issue in pursuance of the provisions of this Clause 14.9.3, and shall provide assistance and cooperation to the Authority, on a best effort basis, for performance of its obligations hereunder.

14.10 Authorities Taking Over

The Maintenance Requirements set forth in Schedule-E having been duly carried out, Maintenance Period as set forth in Clause 14.1.1 having been expired and Authority's Engineer determining the Test on Completion of Maintenance to be successful in accordance with Schedule-Q, the Authority will issue Taking Over Certificate to the Contractor substantially in the format set forth in Schedule-R.

14.11 Miscellaneous

Each Services under Comprehensive Maintenance has to be as per Manufacturer Manuals/Technical Specs of Items mentioned.

1. **HVAC WORK:** Maintenance for 5 Years (routine& preventive) and breakdown maintenance of high side & low side of the Air conditioning comprising of all the machinery, equipment installed.
2. **STP,WTP, ETP , FIRE PUMP:** Maintenance for 5 years of STP,WTP, ETP , FIRE PUMP units after warranty charges/maintenance inclusive of all spare, accessories, consumbles, manpower, tools and tackles , replacement of parts, (except fuel , power and water) including routine servicing and maintenance of equipment etc complete in all respect as per direction of Engineer in charge.The treated water to be got tested quarterly from NABL lab or from SPCB lab.
3. **Lifts:**Maintenance LIFT units after warranty charges/maintenance be inclusive of all spare, accessories, consumables, manpower, tools and tackles , replacement of parts,(except fuel , power and water) including routine servicing and maintenance of equipment etc complete in all respect as per direction of Engineer in charge.
4. **ESS, DG SETS, TRANSFORMER :** Maintenance ESS, DG SETS units after warranty charges/maintenance inclusive of all spare, accessories, consumbles, manpower, tools and tackles , replacement of parts,(except fuel , power and water) including routine servicing and maintenance of equipment etc complete in all respect as per direction of Engineer in charge.

Condition for Non MedicalEquipments

On installation, the vendor is to provide CLIENT with a third party certification in order to ensure compliance to the desired specifications. Payment to the vendor shall be made only after the third party certification has been submitted.

14.12 Training and Documentation

1. Bidder should provide two copies of complete set of part manual, service manual and user manual in English for each equipment supplied.
2. Bidder should provide certificate of calibration and inspection of equipment from factory at the time of delivery of equipment.
3. Final system test, relevant safety test and calibrations should be carried out by authorized personnel with calibrated instrument with valid traceability.
4. Technicians of CLIENT have to be trained for a period of two weeks or more as per requirement.
5. OEM or his authorized agent should post a trained Engineer who should be available at site or should reach the site within 24 hrs of raising a service call.
6. Consumables for training and handover should be provided free of cost with the system.

14.13 Warranty/ Guarantee period and Comprehensive Maintenance period for non medical equipment.

The Warranty / Guarantee period and Comprehensive Maintenance period as mentioned of work for non medical equipment or elsewhere in tender document for non medical equipment shall be read as under:

1. Warranty/ Guarantee period and Comprehensive Maintenance period of all non medical equipment shall be 05 (five years).
2. The contractor has to ensure that all the manufacturers/ authorised service provider/ vendors/ supplies of the non medical equipment should provide warranty / guarantee and comprehensive maintenance. Separate agreement for each non medical equipment/ services should be executed between Client and respective manufacturers/ authorised service provider/ vendors/ suppliers of non medical equipment for requisite period.
3. The contractor has to ensure that all the manufacturers/ authorised service provider/ vendors/ supplies of the non medical equipment should deposit Performance Bank Guarantee @ 10% of their respective cost of equipment & installation as per Schedule of Payment annexed in the tender or invoice value of the said equipment, whichever is higher, on successful completion of project (before the maintenance period starts). This PBG shall be valid for a period of 5 years or extended period as the case may be.
4. The performance bank guarantee of the main contractor will be released only after compliance of above clauses.

5. The contractor has to ensure that all the manufacturers/ authorised service provider/vendors/ suppliers of the Electromechanical equipment should provide warranty / guarantee as mentioned in document. Comprehensive Maintenance will run concurrently with DLP.

MINIMUM MANPOWER DEPLOYMENT (24X7 & 365days) During Operation & Maintenance

The contractor shall provide well-trained, disciplined, honest and sincere workforce, which shall be maintained throughout O & M Period of 5 years. The contractor shall provide minimum manpower as given below for proper functioning of all services.

However if more manpower is required, the contractor has to depute the same without any extra cost for uninterrupted functioning of all services-

A) All Works

S.N O	POSITION	SHIFTS OF OPERATION AND COMPREHENSIVE MAINTENANCE		
		1st	2nd	3rd
1	FACILITY MANAGER	1		
2	FACILITY SUPERVISOR	1	1	1

B) Electrical Works

S.N O	POSITION	SHIFTS OF OPERATION AND COMPREHENSIVE MAINTENANCE		
		1st	2nd	3rd
1	SKILLED	1	1	1
2	SEMI SKILLED	2	2	2

C) HVAC

S.N O	POSITION	SHIFTS OF OPERATION AND COMPREHENSIVE MAINTENANCE		
		1st	2nd	3rd
1	SKILLED	1	1	1
2	SEMI SKILLED	2	2	2

D) Plumbing & Firefighting

S.NO	POSITION	SHIFTS OF OPERATION AND COMPREHENSIVE MAINTENANCE		
		1st	2nd	3rd

1	SKILLED	1	1	1
2	SEMI SKILLED	2	2	2

Note :- Periodic Fire drill is to be carried out in coordination with Local fire authorities.

E) STP &ETP

S.NO	POSITION	SHIFTS OF OPERATION AND MAINTENANCE		
		1st	2nd	3rd
1	SKILLED	1	1	1
2	UNSKILLED	1	1	1

F) NON MEDICAL EQUIPMENT

S.NO	POSITION	Minimum Number of Staff or as required for each service
A	MGPS/NURSE CALL SYSTEM/MOT/PTS (Pneumatic Tube System)	
1	HOD	1
2	Technician	2 in each shift (in 3 shifts)

G) Lift

S.NO	POSITION	SHIFTS OF OPERATION AND COMPREHENSIVE MAINTENANCE		
		1st	2nd	3rd
1	Technician	1	1	1
2	Lift Operator	4	4	4

ARTICLE 15

SUPERVISION AND MONITORING DURING MAINTENANCE

15.1 Inspection by the Contractor

- 15.1.1 The Authority's Engineer shall undertake regular inspections to evaluate continuously the compliance with the Maintenance Requirements.
- 15.1.2 The Contractor shall carry out a detailed pre-monsoon inspection of all project assets so built at the site in accordance with the guidelines. Report of this inspection together with details of proposed maintenance works as required shall be conveyed to the Authority's Engineer forthwith. The Contractor shall complete the proposed maintenance works before the onset of the monsoon and send a compliance report to the Authority's Engineer. Post monsoon inspection shall be undertaken by the Contractor and the inspection report together with details of any damages observed and proposed action to remedy the same shall be conveyed to the Authority's Engineer forthwith.

15.2 Inspection and payments

- 15.2.1 The Authority's Engineer may inspect the Project at any time, but at least once every month, to ensure compliance with the Maintenance Requirements. It shall make a report of such inspection ("**Maintenance Inspection Report**") stating in reasonable detail the Defects or deficiencies, if any, with particular reference to the Maintenance Requirements, the Maintenance Manual, and the Maintenance Programme, and send a copy thereof to the Authority and the Contractor within 10days of such inspection.
- 15.2.2 After the Contractor submits to the Authority's Engineer the Monthly Maintenance Statement for the Project pursuant to Clause 19.6, the Authority's Engineer shall carry out an inspection within 10days to certify the amount payable to the Contractor. The Authority's Engineer shall inform the Contractor of its intention to carry out the inspection at least 3business days in advance of such inspection. The Contractor shall assist the Authority's Engineer in verifying compliance with the Maintenance Requirements.
- 15.2.3 For each case of non-compliance of Maintenance Requirements as specified in the inspection report of the Authority's Engineer, the Authority's Engineer shall calculate the amount of reduction in payment in accordance with the formula specified in Schedule-M.
- 15.2.4 Any deduction made on account of non-compliance will not be paid subsequently even after establishing the compliance thereof. Such deductions will continue to be made every month until the compliance is procured.

15.3 Tests

For determining that the Project conforms to the Maintenance Requirements, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests specified by it in accordance with Good Industry Practice. The Contractor shall, with due diligence, carry out or cause to be carried out all such tests in accordance with the instructions of the Authority's Engineer and furnish the results of such tests forthwith to the Authority's Engineer. At any time during Maintenance Period, the Authority may appoint an external technical auditor to conduct an audit of the quality of the Works. The Auditor in the presence of the representatives of the Contractor and the Authority's Engineer shall carry out the Tests and/ or collect samples for testing in the laboratory. The timing, the testing equipment and the sample

size of this audit shall be as decided by the Authority. The findings of the audit, to the extent accepted by the Authority, shall be notified to the Contractor and the Authority's Engineer for taking remedial measures. After completion of the remedial measures by the Contractor, the auditor shall undertake a closure audit and this process will continue till the remedial measures have brought the maintenance works into compliance with the Specifications and Standards. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder. Notwithstanding anything contained in this Clause 15.3, the external technical audit shall not affect any obligations of the Contractor or the Authority's Engineer under this Agreement.

15.4 Reports of unusual occurrence

The Contractor shall, during the Maintenance Period, prior to the close of each day, send to the Authority and the Authority's Engineer, by facsimile or e-mail, a report stating accidents and unusual occurrences on the Project relating to the safety and security of the Users and Project. A monthly summary of such reports shall also be sent within 3business days of the closing of month. For the purposes of this Clause 15.4, accidents and unusual occurrences on the Project shall include:

- (a) accident, death or severe injury to any person;
- (b) damaged or dislodged fixed equipment;
- (c) flooding of Project; and
- (d) any other unusual occurrence.
- (e) disruption of engineering services

ARTICLE 16

REGULATION DURING CONSTRUCTION & MAINTENANCE**16.1 Traffic regulation by the Contractor**

- 16.1.1 The contractor shall take all the required measures and make arrangements for the safety of users during the construction and maintenance of the project or a Section thereof in accordance with the provisions of standard specifications. It shall provide, erect and maintain all such barricades, signs, markings, flags, and lights as may be required by good industry practice for the safety of the laborers and users of the project facilities under construction or maintenance.
- 16.1.2 All works shall be carried out in a manner creating least interference to users using the project facilities or a section thereof. In parts where construction or maintenance works on the project facilities are taken up, the contractor shall ensure that proper warning to users are given. The contractor shall take prior approval of the PMC for any proposed arrangement for user regulation during construction and maintenance, which approval shall not be unreasonably withheld

ARTICLE 17
DEFECTS LIABILITY

17.1 Defects Liability Period

17.1.1 The Contractor shall be responsible for all the Defects and deficiencies, except usual wear and tear and defects not attributable to the Contractor, in the Project or any component thereof, till the expiry of a period of 12 months commencing from the date of Issue of Completion Certificate (the “**Defects Liability Period**”). For the avoidance of doubt, any repairs or restoration on account of usual wear or tear in the project or any Component thereof shall form a part of the maintenance obligations of the contractor as specified in Article. Defects Liability Period will run concurrently with first year of Maintenance Period).

17.1.2 Deleted

17.2 Remediating Defects

Save and except as provided in Clause 14.1.2, the Contractor shall repair or rectify all Defects and deficiencies observed by the Authority’s Engineer during the Defects Liability Period within a period of 15days from the date of notice issued by the Authority’s Engineer in this behalf, or within such reasonable period as may be determined by the Authority’s Engineer at the request of the Contractor, in accordance with Good Industry Practice.

17.3 Cost of remedying Defects

For the avoidance of doubt, any repair or rectification undertaken in accordance with the provisions of Clause 17.2, including any additional testing, shall be carried out by the Contractor at its own risk and cost, to the extent that such rectification or repair is attributable to:

- (a) the design of the Project;
- (b) Plant, Materials or workmanship not being in accordance with this Agreement and the Specifications and Standards;
- (c) improper maintenance during construction of the Project by the Contractor; and/ or
- (d) failure by the Contractor to comply with any other obligation under this Agreement.

17.4 Contractor’s failure to rectify Defects

In the event that the Contractor fails to repair or rectify such Defect or deficiency within the period specified in Clause 17.2, the Authority shall be entitled to get the same repaired, rectified or remedied at the Contractor’s cost so as to make the Project conform to the Specifications and Standards and the provisions of this Agreement. All costs consequent thereon shall, after due consultation with the Authority and the Contractor, be determined by the Authority’s Engineer. The cost so determined and an amount equal to twenty percent of the cost as Damages shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to the Contractor.

17.5 Contractor to search cause

17.5.1 The Authority’s Engineer may instruct the Contractor to examine the cause of any Defect in the Works or part thereof before the expiry of the Defects Liability Period.

- 17.5.2 In the event any Defect identified under Clause 17.5.1 is attributable to the Contractor, the Contractor shall rectify such Defect within the period specified by the Authority's Engineer, and shall bear the cost of the examination and rectification of such Defect.
- 17.5.3 In the event such Defect is not attributable to the Contractor, the Authority's Engineer shall, after due consultation with the Authority and the Contractor, determine the costs incurred by the Contractor on such examination and notify the same to the Contractor, with a copy to the Authority, and the Contractor shall be entitled to payment of such costs by the Authority.

17.6. Extension of Defects Liability Period

The Defects Liability Period shall be deemed to be extended till the identified Defects under Clause 17.2 have been remedied.

17.7 Performance Certificate

- 17.7.1 Performance of the Contractor's obligations shall not be considered to have been completed until the Authority's Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed its obligations with regard to any remedial or other work required as a result of any defect in the Works, as identified under Clause 17.1, to the satisfaction of the Authority's Engineer.
- 17.7.2 The Authority's Engineer shall issue the Performance Certificate substantially in the format set forth in Schedule-S within 15 days after the latest of the expiry dates of the Defects Liability Period, or as soon thereafter as the Contractor has supplied all the Contractor's documents, completed and tested all the Works, including remedying any defects.

ARTICLE 18
AUTHORITY'S ENGINEER

18.1 Appointment of the Authority's Engineer

- 18.1.1 The Authority shall appoint a consulting engineering firm substantially in accordance with the selection criteria set forth in Schedule-N, to be the engineer under this Agreement (the "Authority's Engineer").
- 18.1.2 The appointment of the Authority's Engineer shall be made no later than 15 days from the date of this Agreement. The Authority shall notify the appointment or replacement of the Authority's Engineer to the Contractor. In the event of any replacement or termination of Authority's Engineer, the Authority shall appoint its representative to act as Authority's Engineer till such replacement.
- 18.1.3 The staff of the Authority's Engineer shall include suitably qualified engineers and other professionals who are competent to assist the Authority's Engineer to carry out its duties.

18.2 Duties and authority of the Authority's Engineer

- 18.2.1 The Authority's Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, and substantially in accordance with the terms of reference ("Terms of Reference" or "TOR") set forth in Annex 1 of Schedule N, but subject to obtaining prior written approval of the Authority before determining:
- (a) any Time Extension;
 - (b) any additional cost to be paid by the Authority to the Contractor;
 - (c) the Termination Payment;
 - (d) approval of designs, drawings submitted by the Contractor, quantity check, issuance of completion certificate; or
 - (e) any other matter which is not specified in (a), (b) or (c) above and which creates an obligation or liability on either Party for a sum exceeding 0.2% of Contract price.
- 18.2.2 No decision or communication of the Authority's Engineer shall be effective or valid unless it is accompanied by an attested true copy of the approval of the Authority for and in respect of any matter specified in Clause 18.2.1.
- 18.2.3 The Authority's Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Authority's Engineer within 7 days of the beginning of every month. For the avoidance of doubt, the Authority's Engineer shall include in its report, compliance of the recommendations of the Safety Consultant.

18.3 Delegation by the Authority's Engineer

- 18.3.1 The Authority's Engineer may, by order in writing, delegate any of his duties and responsibilities to suitably qualified and experienced personnel who are accountable to Authority's Engineer, or may revoke any such delegation, under intimation to the Authority

and the Contractor. Provided, however, that the Authority's Engineer shall be responsible and liable for all actions and omissions of such personnel.

- 18.3.2 Any failure of the Authority's Engineer to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Authority to reject the work, Plant or Materials, which is not in accordance with the provisions of this Agreement and the Specifications and Standards.
- 18.3.3 Notwithstanding anything stated in Clause 18.3.1 above, the Authority's Engineer shall not delegate the authority to refer any matter for the Authority's prior approval wherever required in accordance with the provisions of Clause 18.2.

18.4 Instructions of the Authority's Engineer

- 18.4.1 The Authority's Engineer may issue to the Contractor instructions for remedying any Defect. The Contractor shall take such instructions from the Authority's Engineer, or from an assistant to whom appropriate authority has been delegated under Clause 18.3.
- 18.4.2 The instructions issued by the Authority's Engineer shall be in writing. However, if the Authority's Engineer issues any oral instructions to the Contractor, it shall confirm in writing the oral instructions within 2 (two) working days of issuing them.
- 18.4.3 In case the Contractor does not receive the confirmation of the oral instruction within the time specified in Clause 18.4.2, the Contractor shall seek the written confirmation of the oral instructions from the Authority's Engineer. The Contractor shall obtain acknowledgement from the Authority's Engineer of the communication seeking written confirmation. In case of failure of the Authority's Engineer or its delegated assistant to reply to the Contractor within 2 (two) days of the receipt of the communication from the Contractor, the Contractor may not carry out the instruction.
- 18.4.4 In case of any dispute on any of the instructions issued by the delegated assistant, the Contractor may refer the dispute to the Authority's Engineer, who shall then confirm, reverse or vary the instructions within 7 (seven) business days of the dispute being referred.

18.5 Determination by the Authority's Engineer

- 18.5.1 The Authority's Engineer shall consult with each Party in an endeavour to reach agreement wherever this Agreement provides for the determination of any matter by the Authority's Engineer. If such agreement is not achieved, the Authority's Engineer shall make a fair determination in accordance with this Agreement having due regard to all relevant circumstances. The Authority's Engineer shall give notice to both the Parties of each agreement or determination, with supporting particulars.
- 18.5.2 Each Party shall give effect to each agreement or determination made by the Authority's Engineer in accordance with the provisions of this Agreement. Provided, however, that if any Party disputes any instruction, decision, direction or determination of the Authority's Engineer, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

18.6 Remuneration of the Authority's Engineer

The remuneration, cost and expenses of the Authority's Engineer shall be paid by the Authority.

18.7 Termination of the Authority's Engineer

The Authority may, in its discretion, replace the Authority's Engineer at any time, but only after appointment of another Authority's Engineer in accordance with Clause 18.1.

18.8 Resolution of issues between Authority's Engineer and Contractor

If the Contractor has reasons to believe that the Authority's Engineer is not discharging its duties and functions in accordance with the provisions of this Agreement, it may make a written representation to the Authority. Upon receipt of such representation, the Authority shall hold a tripartite meeting with the Contractor and Authority's Engineer and make best efforts for an amicable resolution of the representation. If the issue is not resolved at this stage, then the Authority shall take up this matter to the top management of the Authority's Engineer and the Contractor for resolution. If still remains unresolved, then the decision of the Authority in this regard is final and binding.

Part IV

Financial Covenants

ARTICLE 19

PAYMENTS

19.1 Contract Price

- 19.1.1 The Authority shall make payments to the Contractor for the Works on the basis of the lump sum price accepted by the Authority in consideration of the obligations specified in this Agreement for an amount of ₹ (₹... ..) (the “**Contract Price**”), which shall be subject to adjustments in accordance with the provisions of this Agreement. For the avoidance of doubt, the Parties expressly agree that the Contract Price shall not include the cost of Maintenance amounting to ₹ (₹... ..) which shall be paid separately in accordance with the provisions of Clause 19.7. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.
- 19.1.2 The Contract Price includes all duties, taxes, royalty, and fees that may be levied in accordance with the laws and regulations in force as on the Base Date on the Contractor's equipment, Plant, Materials and supplies acquired for the purpose of this Agreement and on the services performed under this Agreement. Nothing in this Agreement shall relieve the Contractor from its responsibility to pay any tax including any tax that may be levied in India on profits made by it in respect of this Agreement.
- 19.1.3 The Contract Price shall not be adjusted for any change in costs stated in Clause 19.1.2 above, except as stated in Clauses 19.10 and 19.17.
- 19.1.4 The Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs, unless otherwise provided for in this Agreement.
- 19.1.5 Unless otherwise stated in this Agreement, the Contract Price covers all the Contractor's obligations for the Works under this Agreement and all things necessary for the Construction and the remedying of any Defects in the Project.
- 19.1.6 Deleted

19.2 Advance Payment²⁸

- 19.2.1 The Authority shall make an interest-free advance payment (the “**Advance Payment**”), equal in amount to 10 (ten) percent of the Contract Price, for mobilisation expenses and for acquisition of equipment. The Advance Payment shall be made in three installments. The first installment shall be an amount equal to 2% (two percent) of the Contract Price, the second installment shall be equal to 3% (three percent) of the Contract Price, and the third installment shall be equal to 5% (five percent) of the Contract Price.
- 19.2.2 The Contractor may apply to the Authority for the first installment of the Advance Payment at any time after the Appointed Date, along with an irrevocable and unconditional guarantee from a Bank for an amount equal to the advance payment installment, in the form provided at Annex-III of Schedule-G, to remain effective till the complete and full repayment thereof and the same will be recovered by the time 80% of the financial progress or 365 days whichever is earlier. Minimum 10% of the advance will be deducted from each bill/ payment being made to the Contractor towards the work done during the Construction Period.

²⁸ The quantum of advance payment and the number and timing of instalments be modified to suit the requirements for Works for which bids are invited.

- 19.2.3 At any time after 30days from the Appointed Date, the Contractor may apply for the second installment of the Advance Payment along with an irrevocable and unconditional guarantee from a Bank for an amount equal to the value of the advance payment installment, in the form provided at Annex-III of Schedule-G, to remain effective till the complete and full repayment thereof. The application shall also include the details of utilization of earlier advances.
- 19.2.4 At any time, after 60days from the Appointed Date, the Contractor may apply to the Authority for the third installment of the Advance Payment along with an irrevocable and unconditional guarantee from a Bank for an amount equal to the value of the advance payment installment, in the form provided at Annex-III of Schedule-G, to remain effective till the complete and full repayment thereof. The application shall also include the details of utilization of earlier advances.
- 19.2.5 The first, second and the third installments shall be paid by the Authority to the Contractor within 15) days of the receipt of its respective requests in accordance with the provisions of this Clause 19.2.
- 19.2.6 Each installment of Advance Payment shall be repaid by the Contractor to the Authority no later than 365days from the respective date of Advance Payment.
- 19.2.7 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Authority's Engineer.
- 19.2.8 If the Advance Payment has not been fully repaid prior to Termination under Clause 21.7 or Article 23, as the case may be, the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Authority.

19.3 Procedure for estimating the payment for the Works

- 19.3.1 The Authority shall make interim payments to the Contractor as certified by the Authority's Engineer on completion of a stage, in a length, number or area as specified, and valued in accordance with the proportion of the Contract Price assigned to each item and its stage in Schedule-H.
- 19.3.2 The Contractor shall base its claim for interim payment for the stages completed till the end of the month for which the payment is claimed, valued in accordance with Clause 19.3.1, supported with necessary particulars and documents in accordance with this Agreement.
- 19.3.3 Any reduction in the Contract Price arising out of Change of Scope or the works withdrawn under Clause 8.3 shall not affect the amounts payable for the items or stage payments thereof which are not affected by such Change of Scope or withdrawal. For avoidance of doubt and by way of illustration, the Parties agree that if the amount assigned to building is reduced from ₹ 1 crore to ₹ 50 Lakh owing to Change of Scope or withdrawal of work, the reduction in payment shall be restricted to relevant payments for buildings only and the payment due in respect of all other stage payments under the items mentioned in payment schedule shall not be affected in any manner. The Parties further agree that the adjustments arising out of the aforesaid modifications shall be carried out in a manner that the impact of such modifications is restricted to the said Change of Scope or withdrawal, as the case may be, and does not alter the payments due for and in respect of items or stage payments which do not form part of such Change of Scope or withdrawal.

19.4 Stage Payment Statement for Works²⁹

The Contractor shall submit a statement (the “**Stage Payment Statement**”), in 3 copies, by the 7th (seventh) day of the month to the Authority’s Engineer in the form set forth in Schedule-O, showing the amount calculated in accordance with Clause 19.3 to which the Contractor considers himself entitled for completed stage(s) of the Works. The Stage Payment Statement shall be accompanied with the progress reports and any other supporting documents. The Contractor shall not submit any claim for payment of incomplete stages of work.

19.5 Stage Payment for Works

- 19.5.1 Within 10 days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, the Authority’s Engineer shall broadly determine the amount due to the Contractor and recommend the release of 75 (seventy five) percent of the amount so determined as part payment against the Stage Payment Statement, pending issue of the Interim Payment Certificate by the Authority’s Engineer. Within 15 days of the receipt of recommendation of the Authority’s Engineer, the Authority shall make electronic payment directly to the Contractor’s bank account.
- 19.5.2 Within 15 days of the receipt of the Stage Payment Statement referred to in Clause 19.4, the Authority’s Engineer shall determine and shall deliver to the Authority and the Contractor an IPC certifying the amount due and payable to the Contractor, after adjusting the payments already released to the Contractor against the said statement. For the avoidance of doubt, the Parties agree that the IPC shall specify all the amounts that have been deducted from the Stage Payment Statement and the reasons therefor.
- 19.5.3 In cases where there is a difference of opinion as to the value of any stage, the Authority’s Engineer’s view shall prevail and interim payments shall be made to the Contractor on this basis; provided that the foregoing shall be without prejudice to the Contractor’s right to raise a Dispute.
- 19.5.4 The Authority’s Engineer may, for reasons to be recorded, withhold from payment:
- (a) the estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and the Authority’s Engineer had notified the Contractor; and
 - (b) the estimated cost of rectification of work done being not in accordance with this Agreement.
- 19.5.5 if the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Authority’s E&S Team, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Authority’s Engineer, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:
- (i) failure to comply with any E&S obligations or work described in the Works’ Requirements which may include: working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation,

²⁹Periodicity of interim payments as well as proposed milestones should be carefully designed so that contractor has adequate cashflow from the contract.

pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archaeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion;

- (ii) failure to regularly review C-ESMP and/or update it in a timely manner to address emerging ES issues, or anticipated risks or impacts;
- (iii) failure to implement the C-ESMP e.g. failure to provide required training or sensitization;
- (iv) failing to have appropriate consents/permits prior to undertaking Works or related activities;
- (v) failure to submit E&S report/s (as described in Appendix B), or failure to submit such reports in a timely manner;

failure to implement remediation as instructed by the E&S Team within the specified timeframe (e.g. remediation addressing non-compliance/s).

19.5.6 Payment by the Authority shall not be deemed to indicate the Authority's acceptance, approval, consent or satisfaction with the work done.

19.6 Monthly Maintenance Statement of the Project

19.6.1 The Contractor shall submit to the Authority's Engineer a monthly maintenance statement ("**Monthly Maintenance Statement**") in 3 (three) copies by the 7th (seventh) day of each month in the format set forth in Schedule-O for the Maintenance of the Project during the previous month duly signed by Authority Representative.

The Monthly Maintenance Statement will list the performance of the various services for effective functioning of the hospital against the Key Performance Indicators defined in Annex 1 of Schedule- E; list the number of non-compliance events as defined in 19.7.2 and steps being taken to prevent occurrence of non compliance event.

19.7 Payment for Maintenance of the Project

19.7.1 Within 15(Fifteen) days of receipt of the Monthly Maintenance Statement from the Contractor pursuant to Clause 19.6, the Authority's Engineer shall verify the Contractor's monthly maintenance statement and certify the amount to be paid to the Contractor taking into account:

- (a) Compliance with the Maintenance Requirements; and
- (b) reduction for non-compliance with the Maintenance Requirement in accordance with Clause 19.7.2.

The Authority's Engineer shall deliver to the Authority an IPC approving or amending the monthly maintenance statement to reflect the amount due to the Contractor in accordance with this Agreement.

19.7.2 Non-Compliance of the maintenance requirement will be measured in terms of not achieving the Key Performance Indicators of Maintenance defined as in Annex 1 of Schedule- E. Occurrence of Each "Non-Compliance event will attract a penalty and reduction of 5% of the Monthly Maintenance amount payable to the Contractor subject to a maximum of 30% of the Monthly Maintenance Amount. Continuous penalty of 30% of Monthly Maintenance Amounts for consecutive 3 months will be considered as Breach of this Agreement and shall be dealt as per clause 23.1 The reductions for non-compliance with the Maintenance Requirements shall be applied on the basis of monthly inspections by the Authority's Engineer.

19.7.3 The deduction made on account of non-compliance with the Maintenance Requirements shall not be subsequently considered for payment after the compliance is achieved by repair or rectification.

19.7.4 The Authority shall pay to the Contractor every quarter any amount due under any IPC under this Clause 19.7. The payment shall be made no later than 15 days from the date of submission of the last IPC for the relevant quarter.

19.8 Payment of Damages

19.8.1 The Contractor may claim Damages due and payable to it in accordance with the provisions of this Agreement.

19.8.2 The Authority's Engineer shall issue the IPC within 15days of the receipt of the claim under Clause 19.8.1, after making adjustments in accordance with the provisions of this Agreement. The Authority shall pay to the Contractor the amount due under any IPC within a period of 15days from the date of the submission of the claim under this Clause 19.8. In the event of the failure of the Authority to make payment to the Contractor within the specified time, the Authority shall be liable to pay to the Contractor interest thereon and the provisions of Clause 19.9 shall apply *mutatis mutandis* thereto.

19.9 Time of payment and interest

19.9.1 The Authority shall pay to the Contractor any amount due under any payment certificate issued by the Authority's Engineer in accordance with the provisions of this Article 19, or in accordance with any other clause of this Agreement as follows:

- (a) payment shall be made no later than 15days from the date of submission of the Stage Payment Statement by the Contractor to the Authority's Engineer for certification in accordance with the provisions of Clause 19.4 for an IPC; provided that, in the event the IPC is not issued by the Authority's Engineer within the aforesaid period of 15days, the Authority shall pay the amount shown in the Contractor's Stage Payment Statement and any discrepancy therein shall be added to, or deducted from, the next payment certificate issued to the Contractor; and
- (b) payment shall be made no later than 15days from the date of submission of the Final Payment Certificate for Works along with the discharge submitted to the Authority's Engineer in accordance with the provisions of Clause 19.15 for certification.

19.9.2 In the event of the failure of the Authority to make payment to the Contractor within the time period stated in this Clause 19.9, the Authority shall be liable to pay to the Contractor interest at the State Bank of India Base Rate plus 2% (two percent), calculated at quarterly rests, on all sums remaining unpaid from the date on which the same should have been paid, calculated in accordance with the provisions of Clause 19.9.1(a) and (b) and till the date of actual payment.

19.10. Price adjustment for the Works

19.10.1

There shall be no price adjustment for works undertaken by the contractor and the contractor shall be paid by The Authority in quoted rate as per the quote submitted by the contractor and agreed to by The Authority in accordance with the provisions under this Agreement as per the schedule of payment.

19.11 Restrictions on price adjustment

Not Applicable

19.12. Price adjustment for Maintenance of Project

There shall be no payment due to the Contractor for maintenance works as specified in Clause 14.1.1

19.13 Final Payment Statement

19.13.1 Within days after receiving the Completion Certificate under Clause 12.4, the Contractor shall submit to the Authority's Engineer for consideration six copies of a Final Payment Statement (the "**Final Payment Statement**") for Works, with supporting documents showing in detail, in the form prescribed by the Authority's Engineer:

- (a) the summary of Contractor's Stage Payment claims for Works as submitted in accordance with Clause 19.4;
- (b) the amounts received from the Authority against each claim; and
- (c) any further sums which the Contractor considers due to it from the Authority.

If the Authority's Engineer disagrees with or cannot verify any part of the Final Payment Statement, the Contractor shall submit such further information as the Authority's Engineer may reasonably require. The Authority's Engineer shall deliver to the Authority:

- (i) an IPC for those parts of the Final Payment Statement which are not in dispute, along with a list of disputed items which shall then be settled in accordance with the provisions of Article 26; or
- (ii) a Final Payment Certificate in accordance with Clause 19.15 if there are no disputed items.

19.13.2 If the Authority's Engineer does not prescribe the form referred to in Clause 19.13.1 within 15 (fifteen) of the date of issue of the Completion Certificate, the Contractor shall submit the statement in such form as it deems fit.

19.14 Discharge

Upon submission of the Final Payment Statement for Works under Clause 19.13, the Contractor shall give to the Authority, with a copy to the Authority's Engineer, a written discharge confirming that the total of the Final Payment Statement represents full and final settlement of all monies due to the Contractor in respect of this Agreement for all the Works arising out of this Agreement, except for any monies due to either Party on account of any Defect. Provided that such discharge shall become effective only after the payment due has been made in accordance with the Final Payment Certificate issued pursuant to Clause 19.15.

19.15 Final Payment Certificate

19.15.1 Within 30 days after receipt of the Final Payment Statement for Works under Clause 19.13, and the written discharge under Clause 19.14, and there being no disputed items of claim, the Authority's Engineer shall deliver to the Authority, with a copy to the Contractor, a final payment certificate (the "**Final Payment Certificate**") stating the amount which, in the opinion of the Authority's Engineer, is finally due under this Agreement or otherwise. For the avoidance of doubt, before issuing the Final Payment Certificate, the Authority's Engineer shall ascertain from the Authority all amounts previously paid by the Authority and for all

sums to which the Authority is entitled, the balance, if any, due from the Authority to the Contractor or from the Contractor to the Authority, as the case may be.

19.15.2 The Authority shall, in accordance with the provisions of Clause 19.9, pay to the Contractor the amount which is stated as being finally due in the Final Payment Certificate.

19.16 Final payment statement for Maintenance

19.16. There shall be no payment due to the contractor for maintenance works as specified in Clause 14.1.1 and hence, there shall be no final payment statement for maintenance

19.17 Change in law

19.17.1 If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15 days from the date it becomes reasonably aware of such addition in cost, notify the Authority with a copy to the Authority's Engineer of such additional cost due to Change in Law.

19.17.2 If as a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall, within 15 days from the date it becomes reasonably aware of such reduction in cost, notify the other Party with a copy to the Authority's Engineer of such reduction in cost due to Change in Law.

19.17.3 The Authority's Engineer shall, within 15 days from the date of receipt of the notice from the Contractor or the Authority, determine any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.

19.18 Correction of Interim Payment Certificates

The Authority's Engineer may by an Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate issued by the Authority's Engineer.

19.19 Authority's claims

If the Authority considers itself to be entitled to any payment from the Contractor under any Clause of this Agreement, it shall give notice and particulars to the Contractor 20 days before making the recovery from any amount due to the Contractor, and shall take into consideration the representation, if any, made by the Contractor in this behalf, before making such recovery.

19.20 Bonus for early completion

In the event that the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus equivalent to 0.5% (zero point five per cent) of the Contract Price for each month by which the Project Completion Date precedes the Scheduled Completion Date, but subject to a maximum of 3% (three per cent) of the Contract Price. Provided, however, that the payment of bonus, if any, shall be made only after the issue of the Completion Certificate. For the avoidance of the doubt, the Parties agree that for the purpose of determining the bonus payable hereunder, the works shall always be deemed to be as specified in this Contract Agreement but excluding the works deemed to be deleted from the scope of work under clause 8.3 of this Contract Agreement and the Contract Price shall always be deemed to be the amount specified in Clause 19.1.1, after excluding the Contract Price of the Works deemed to be deleted from the Scope of Work under clause 8.3 of

this Contract Agreement and shall exclude any revision thereof for any reason. The Parties also agree that bonus shall not be payable in case Extension of Time has been granted for any reason for completion of works.

19.21 Escrow Account

Deleted

ARTICLE 20
INSURANCE

20.1 Insurance for Works and Maintenance

20.1.1 The Contractor shall effect and maintain at its own cost the insurances specified in Schedule-P and as per the requirements under the Applicable Laws.

20.1.2 Subject to the provisions of Clause 21.6, the Authority and the Contractor shall, in accordance with its obligations as provided for in this Agreement, be liable to bear the cost of any loss or damage that does not fall within the scope of this Article 20 or cannot be recovered from the insurers.

20.1.3 Subject to the exceptions specified in Clause 20.1.4 below, the Contractor shall, save and except as provided for in this Agreement, fully indemnify, hold harmless and defend the Authority from and against any and all losses, damages, costs, charges and/or claims with respect to:

- (a) the death of or injury to any person; or
- (b) the loss of or damage to any property (other than the Works);

that may arise out of or in consequence of any breach by the Contractor of this Agreement during the execution of the Works or the remedying of any Defects therein.

20.1.4 Notwithstanding anything stated above in Clause 20.1.3, the Authority shall fully indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims arising out of or with respect to

- (a) the use or occupation of land or any part thereof by the Authority;
- (b) the right of the Authority to execute the Works, or any part thereof, on, over, under, in or through any land;
- (c) the damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any Defects therein, in accordance with this Agreement; and
- (d) the death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Authority, its agents, servants or other contractors, not being employed by the Contractor.

Provided that, in the event of any injury or damage as a result of the contributory negligence of the Contractor, the Authority shall be liable to indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims to the extent as may be proportionately determined to be the liability of the Authority, its servants or agents or other contractors not associated with the Contractor in such injury or damage.

20.1.5 Without prejudice to the obligations of the Parties as specified under Clauses 20.1.3 and 20.1.4, the Contractor shall maintain or effect such third party insurances as may be required under the Applicable Laws.

20.1.6 The Contractor shall provide to the Authority, within 30 days of the Appointed Date, evidence of professional liability insurance maintained by its Design Director and/or consultants to cover the risk of professional negligence in the design of Works. The professional liability coverage shall be for a sum of not less than [3% (three per cent)] of the Contract Price and shall be maintained until the end of the Defects Liability Period.

20.2 Notice to the Authority

No later than 15 (fifteen) days after the date of this Agreement, the Contractor shall by notice furnish to the Authority, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article 20. Within 15 (fifteen) days of receipt of such notice, the Authority may require the Contractor to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

20.3 Evidence of Insurance Cover

20.3.1 All insurances obtained by the Contractor in accordance with this Article 20 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 10 days from the Appointed Date, the Contractor shall furnish to the Authority notarised true copies of the certificate(s) of insurance, copies of insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty-five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Contractor to the Authority. The Contractor shall act in accordance with the directions of the Authority. Provided that the Contractor shall produce to the Authority the insurance policies in force and the receipts for payment of the current premia.

20.3.2 The Contractor shall ensure the adequacy of the insurances at all times in accordance with the provisions of this Agreement.

20.4 Remedy for failure to insure

If the Contractor shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Authority shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Contractor, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Contractor.

20.5 Waiver of subrogation

All insurance policies in respect of the insurance obtained by the Contractor pursuant to this Article 20 shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, the Authority, and its assigns, successors, undertakings and their subsidiaries, Affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

20.6 Contractor's waiver

The Contractor hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, the Authority and its assigns, undertakings and their subsidiaries, Affiliates, employees, successors, insurers and underwriters, which the Contractor may

otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Contractor pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

20.7 Cross liabilities

Any such insurance maintained or effected in pursuance of this Article 20 shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Authority as separately insured.

20.8 Accident or injury to workmen

Notwithstanding anything stated in this Agreement, it is hereby expressly agreed between the Parties that the Authority shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or Sub-contractor, save and except as for death or injury resulting from any act, omission or default of the Authority, its agents or servants. The Contractor shall indemnify and keep indemnified the Authority from and against all such claims, proceedings, damages, costs, charges, and expenses whatsoever in respect of the above save and except for those acts, omissions or defaults for which the Authority shall be liable.

20.9 Insurance against accident to workmen

The Contractor shall effect and maintain during the Agreement such insurances as may be required to insure the Contractor's personnel and any other persons employed by it on the Project from and against any liability incurred in pursuance of this Article 20. Provided that for the purposes of this Clause 20.9, the Contractor's personnel/any person employed by the Contractor shall include the Sub-contractor and its personnel. It is further provided that, in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this Clause 20.9 shall be discharged if the Sub-contractor shall have insured against any liability in respect of such persons in such manner that the Authority is indemnified under the policy. The Contractor shall require such Sub-contractor to produce before the Authority, when required, such policy of insurance and the receipt for payment of the current premium within 10 days of such demand being made by the Authority.

20.10 Application of insurance proceeds

The proceeds from all insurance claims, except for life and injury, shall be applied for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project and the provisions of this Agreement in respect of construction of works shall apply mutatis mutandis to the works undertaken out of the proceeds of insurance.

20.11 Compliance with policy conditions

Each Party hereby expressly agrees to fully indemnify the other Party from and against all losses and claims arising from its failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.

20.12 The Contractor must:

- (a) immediately deposit copies of the policies or certificates of any insurance which it is required to effect under the Contract, together with receipts for the premiums;

- (b) effect all insurances for which the Contractor is responsible with an insurer approved by the Authority;
- (c) make no material changes to the terms of any insurance without the Authority's approval;
- (d) in all respects comply with any conditions stipulated in the insurance policies which the Contractor is required to effect under the Agreement or which the Authority has effected in relation to the Facility and notified to the Contractor; and shall provide all assistance to the Authority in the application for, and finalization of, such comprehensive insurance package;
- (e) regardless of the extent of settlement of claims by the underwriters or the time taken for settlement of claims, the Contractor shall make good any loss, or damage at its own cost promptly;
- (f) provide all assistance to the Authority in the application for, and finalization of, such comprehensive insurance package;
- (g) pay the Contractor's share of the insurance premiums for insurance premiums allocated under such comprehensive insurance package policy to the insurances directly to the insurance provider promptly on demand. In case the Contractor fails to make such payment in time, the Authority may elect to pay the Contractor's share and adjust it against amounts payable to the Contractor under this Agreement;
- (h) in the case of occurrence of any event leading to an insurance claim, promptly follow the procedures specified by the insurance provider, and provide full cooperation and access to the insurance provider or its representative, to settle the claim expeditiously;
- (i) require all the Sub-Contractors providing equipment and materials or services to the Contractor or the Authority to obtain, maintain and keep in force during the time in which they are involved in the performance of the Works hereunder insurance coverage consistent with the Contractor's insurance obligations hereunder and the Contractor shall also be responsible for fulfillment of this requirement; and
- (j) the required insurance coverage and the Contractor's obligations-referred to shall in no way affect or limit the Contractor's liability with respect to its performance of the Works. Nothing in this Section shall limit or relieve the Contractor of its liabilities and obligations under this Agreement.

Part V

Force Majeure and Termination

ARTICLE 21
FORCE MAJEURE

21.1 Force Majeure

As used in this Agreement, the expression “Force Majeure” or “Force Majeure Event” shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined in Clauses 21.2, 21.3 and 21.4 respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the “Affected Party”) of its obligations under this Agreement and which act or event (i) is beyond the reasonable control of the Affected Party, and (ii) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (iii) has Material Adverse Effect on the Affected Party.

21.2 Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

- (a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- (b) strikes or boycotts (other than those involving the Contractor, Sub-contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 20 days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 21.3;
- (c) any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;
- (d) any judgement or order of any court of competent jurisdiction or statutory authority made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority;
- (e) the discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or
- (f) any event or circumstances of a nature analogous to any of the foregoing.

21.3 Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

- (a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- (b) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 96days in an Accounting Year;
- (c) any civil commotion, boycott or political agitation which prevents construction of the Project by the Contractor for an aggregate period exceeding 20days in an Accounting Year;
- (d) any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;
- (e) any Indirect Political Event that causes a Non-Political Event; or
- (f) any event or circumstances of a nature analogous to any of the foregoing.

21.4 Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- (a) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Clause 19.17;
- (b) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub-Contractors;
- (c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub-contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit;
- (d) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event; or
- (e) any event or circumstances of a nature analogous to any of the foregoing.

21.5 Duty to report Force Majeure Event

21.5.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

- (a) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article 21 with evidence in support thereof;

- (b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
- (c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
- (d) any other information relevant to the Affected Party's claim.

21.5.2 The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.

21.5.3 For so long as the Affected Party continues to claim to be materially affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause 21.5.1, and such other information as the other Party may reasonably request the Affected Party to provide.

21.6 Effect of Force Majeure Event on the Agreement

21.6.1 Upon the occurrence of any Force Majeure after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the "Force Majeure costs") shall be allocated and paid as follows:

- (a) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;
- (b) upon occurrence of an Indirect Political Event, all Force Majeure costs attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Contractor, and to the extent Force Majeure costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Authority to the Contractor for the Force Majeure events; and
- (c) upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the Authority to the Contractor.

For the avoidance of doubt, Force Majeure costs may include costs directly attributable to the Force Majeure Event, but shall not include debt repayment obligations, if any, of the Contractor.

21.6.2 Save and except as expressly provided in this Article 21, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

21.6.3 Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor's obligations is affected on account of the Force Majeure Event or its subsisting effects.

21.7 Termination Notice for Force Majeure Event

21.7.1 If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 21, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

21.8 Termination Payment for Force Majeure Event

21.8.1 In the event of this Agreement being terminated on account of a Non-Political Event, the Termination Payment shall be an amount equal to the sum payable under Clause 23.5.

Provided that in the event Termination occurs during the Maintenance Period, the Authority's Engineer shall only determine the value of Works associated with Maintenance.

21.8.2 If Termination is on account of an Indirect Political Event, the Termination Payment shall include:

- (a) any sums due and payable under Clause 23.5; and
- (b) the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for use in Construction or Maintenance, only if such Plant and Materials are in conformity with the Specifications and Standards;

Provided that in the event Termination occurs during the Maintenance Period, the Authority's Engineer shall only determine the value of Works associated with Maintenance.

21.8.3 If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Contractor in an amount that would be payable under Clause 23.6.2 as if it were an Authority Default.

21.9 Dispute resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

21.10 Excuse from performance of obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

- (a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;

- (b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
- (c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

ARTICLE 22

SUSPENSION OF CONTRACTOR'S RIGHTS**22.1 Suspension upon Contractor Default**

Upon occurrence of a Contractor Default, the Authority shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (i) suspend carrying out of the Works or Maintenance or any part thereof, and (ii) carry out such Works or Maintenance itself or authorise any other person to exercise or perform the same on its behalf during such suspension (the "Suspension"). Suspension hereunder shall be effective forthwith upon issue of notice by the Authority to the Contractor and may extend up to a period not exceeding 90 days from the date of issue of such notice.

22.2 Authority to act on behalf of Contractor

During the period of Suspension hereunder, all rights and liabilities vested in the Contractor in accordance with the provisions of this Agreement shall continue to vest therein and all things done or actions taken, including expenditure incurred by the Authority for discharging the obligations of the Contractor under and in accordance with this Agreement shall be deemed to have been done or taken for and on behalf of the Contractor and the Contractor undertakes to indemnify the Authority for all costs incurred during such period. The Contractor hereby licences and sub-licences respectively, the Authority or any other person authorised by it under Clause 22.1 to use during Suspension, all Intellectual Property belonging to or licenced to the Contractor with respect to the Project and its design, engineering, construction and maintenance, and which is used or created by the Contractor in performing its obligations under the Agreement.

22.3 Revocation of Suspension

22.3.1 In the event that the Authority shall have rectified or removed the cause of Suspension within a period not exceeding 60days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Authority may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

22.3.2 Upon the Contractor having cured the Contractor Default within a period not exceeding 60days from the date of Suspension, the Authority shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement.

22.4 Termination

22.4.1 At any time during the period of Suspension under this Article 22, the Contractor may by notice require the Authority to revoke the Suspension and issue a Termination Notice. The Authority shall, within 15days of receipt of such notice, terminate this Agreement under and in accordance with Article 23.

22.4.2 Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, mutatis

mutandis, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Contractor Default.

ARTICLE 23
TERMINATION

23.1 Termination for Contractor Default

23.1.1 Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Contractor fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 days, the Contractor shall be deemed to be in default of this Agreement (the “**Contractor Default**”), unless the default has occurred solely as a result of any breach of this Agreement by the Authority or due to Force Majeure. The defaults referred to herein shall include:

- (a) the Contractor fails to provide, extend or replenish, as the case may be, the Performance Security and the Environmental and Social (ES) Performance Security, in accordance with this Agreement;
- (b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with Clause 7.3, the Contractor fails to cure, within a Cure Period of 30 days, the Contractor Default for which the whole or part of the Performance Security was appropriated;
- (c) the Contractor does not achieve the latest outstanding Project Milestone due in accordance with the provisions of Schedule-J, subject to any Time Extension, and continues to be in default for 45 days;
- (d) the Contractor abandons or manifests intention to abandon the construction or Maintenance of the Project without the prior written consent of the Authority;
- (e) the Contractor fails to proceed with the Works in accordance with the provisions of Clause 10.1 or fails to adhere to agreed C-ESMP or stops Works and/or the Maintenance for 30 days without reflecting the same in the current programme and such stoppage has not been authorised by the Authority’s Engineer; OR the contractor fails to improve the maintenance of the Project and consistently fails in achieving the Key Performance Indicators for the Maintenance for three consecutive months resulting in imposition of maximum penalty of 30% of the monthly maintenance amounts
- (f) the Project Completion Date does not occur within the period specified in Schedule-J for the Scheduled Completion Date, or any extension thereof;
- (g) failure to complete the Punch List items within the periods stipulated therefor in Clause 12.2.1, or the Contractor fails to rectify any Defect, the non-rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Authority’s Engineer;
- (h) the Contractor fails to rectify any Defect, the non-rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Authority’s Engineer;
- (i) the Contractor subcontracts the Works or any part thereof in violation of this Agreement or assigns any part of the Works or the Maintenance without the prior approval of the Authority;
- (j) the Contractor creates any Encumbrance in breach of this Agreement;

- (k) an execution levied on any of the assets of the Contractor has caused a Material Adverse Effect;
- (l) the Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Contractor or for the whole or material part of its assets that has a material bearing on the Project;
- (m) the Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect;
- (n) a resolution for winding up of the Contractor is passed, or any petition for winding up of the Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 days of the date thereof or the Contractor is ordered to be wound up by court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Contractor are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Contractor under this Agreement; and provided that:
 - (i) the amalgamated or reconstructed entity has the capability and experience necessary for the performance of its obligations under this Agreement; and
 - (ii) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and has a credit worthiness at least as good as that of the Contractor as at the Appointed Date;
- (o) any representation or warranty of the Contractor herein contained which is, as of the date hereof, found to be materially false or the Contractor is at any time hereafter found to be in breach thereof;
- (p) the Contractor submits to the Authority any statement, notice or other document, in written or electronic form, which has a material effect on the Authority's rights, obligations or interests and which is false in material particulars;
- (q) the Contractor has failed to fulfill any obligation, for which failure Termination has been specified in this Agreement; or
- (r) the Contractor commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the Authority.
- (s) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:
 - (i) for doing or forbearing to do any action in relation to the Contract, or
 - (ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract,

or

if any of the Contractor's personnel, agents or subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this

sub-paragraph (s). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination

23.1.2 Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Contractor Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Contractor; provided that before issuing the Termination Notice, the Authority shall by a notice informing the Contractor of its intention to issue such Termination Notice and grant 15days to the Contractor to make a representation, and may after the expiry of such 15days, whether or not it is in receipt of such representation, issue the Termination Notice.

23.1.3 After termination of this Agreement for Contractor Default, the Authority may complete the Works and/or arrange for any other entities to do so. The Authority and these entities may then use any Materials, Plant and equipment, Contractor's documents and other design documents made by or on behalf of the Contractor.

23.2 Termination for Authority Default

23.2.1 In the event that any of the defaults specified below shall have occurred, and the Authority fails to cure such default within a Cure Period of 90days or such longer period as has been expressly provided in this Agreement, the Authority shall be deemed to be in default of this Agreement (the "**Authority Default**") unless the default has occurred as a result of any breach of this Agreement by the Contractor or due to Force Majeure. The defaults referred to herein shall include:

- (a) the Authority commits a material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Contractor;
- (b) the Authority has failed to make payment of any amount due and payable to the Contractor within the period specified in this Agreement;
- (c) deleted
- (d) the Authority repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement; or
- (e) the Authority's Engineer fails to issue the relevant Interim Payment Certificate within 30days after receiving a statement and supporting documents.
- (f) the whole work is suspended by Authority beyond 120 (one hundred twenty) days for any reason which is not attributed to the Contractor.

23.2.2. If the Authority determines, based on reasonable evidence, that the Contractor has engaged in corrupt, fraudulent, collusive or coercive practices, in competing for or in executing the Contract, then the Authority may, after giving 15days' notice to the Contractor, terminate the Contract and expel him from the Site, and the provisions of Article 23 shall apply as if such termination had been made under Clause 23.1

Should any employee of the Contractor be determined, based on reasonable evidence, to have engaged in corrupt, fraudulent or coercive practice during the execution of the work then that employee shall be removed from the site or works. If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

23.2.3 Without prejudice to any other right or remedy which the Contractor may have under this Agreement, upon occurrence of an Authority Default, the Contractor shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority; provided that before issuing the Termination Notice, the Contractor shall by a notice inform the Authority of its intention to issue the Termination Notice and grant 15 days to the Authority to make a representation, and may after the expiry of such 15 days, whether or not it is in receipt of such representation, issue the Termination Notice.

If on the consideration of the Authority's representation or otherwise, the contractor does not issue the Termination Notice on such 15th day and prefers to continue with the project, it is deemed that the cause of action of the Termination Notice has been condoned by the Contractor. Hence he forfeits his right to any other remedy on that count.

23.3 Termination for Authority's convenience

Notwithstanding anything stated hereinabove, the Authority may terminate this Agreement for convenience. The termination shall take effect 30days from the date of notice hereunder.

23.4 Requirements after Termination

Upon Termination of this Agreement in accordance with the terms of this Article 23, the Contractor shall comply with and conform to the following:

- (a) deliver to the Authority all Plant and Materials which shall have become the property of the Authority under this Article 23;
- (b) deliver all relevant records, reports, Intellectual Property and other licences pertaining to the Works, Maintenance, other design documents and in case of Termination occurring after the Provisional Certificate has been issued, the "as built" Drawings for the Works;
- (c) transfer and/or deliver all Applicable Permits to the extent permissible under Applicable Laws; and
- (d) vacate the Site within 15days.

23.5 Valuation of Unpaid Works

23.5.1 Within a period of 45days after Termination under Clause 23.1, 23.2 or 23.3, as the case may be, has taken effect, the Authority's Engineer shall proceed in accordance with Clause 18.5 to determine as follows the valuation of unpaid Works (the "**Valuation of Unpaid Works**"):

- (a) value of the completed stage of the Works, less payments already made;
- (b) reasonable value of the partially completed stages of works as on the date of Termination, only if such works conform with the Specifications and Standards; and
- (c) value of Maintenance, if any, for completed months, less payments already made,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement; and (ii) all taxes due to be deducted at source.

23.5.2 The Valuation of Unpaid Works shall be communicated to the Authority, with a copy to the Contractor, within a period of 30 days from the date of Termination.

23.6 Termination Payment

23.6.1 Upon Termination on account of Contractor's Default under Clause 23.1, the Authority shall:

- (a) encash and appropriate the Performance Security and Retention Money, or in the event the Contractor has failed to replenish or extend the Performance Security, claim the amount stipulated in Clause 7.1.1, as agreed pre-determined compensation to the Authority for any losses, delays and cost of completing the Works and Maintenance, if any;
- (b) encash and appropriate the bank guarantee, if any, for and in respect of the outstanding Advance Payment and interest thereon; and
- (c) pay to the Contractor, by way of Termination Payment, an amount equivalent to the Valuation of Unpaid Works after adjusting any other sums payable or recoverable, as the case may be, in accordance with the provisions of this Agreement.

23.6.2 Upon Termination on account of an Authority Default under Clause 23.2 or for Authority's convenience under Clause 23.3, the Authority shall:

- (a) return the Performance Security and Retention Money forthwith;
- (b) encash and appropriate the bank guarantee, if any, for and in respect of the outstanding Advance Payment; and
- (c) pay to the Contractor, by way of Termination Payment, an amount equal to:
 - (i) Valuation of Unpaid Works;
 - (ii) the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for its use, only if such Plant and Materials are in conformity with the Specifications and Standards;
 - (iii) the reasonable cost of temporary works, as determined by the Authority's Engineer; and
 - (iv) 10% (ten per cent) of the cost of the Works and Maintenance that are not commenced or not completed,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all taxes due to be deducted at source.

23.6.3 Termination Payment shall become due and payable to the Contractor within 30 days of a demand being made by the Contractor to the Authority with the necessary particulars, and in the event of any delay, the Authority shall pay interest at the State Bank of India Base Rate plus 2% (two percent), calculated at quarterly rests, on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 days. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Authority of its payment obligations in respect thereof hereunder.

23.6.4 The Contractor expressly agrees that Termination Payment under this Article 23 shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

23.7 Other rights and obligations of the Parties

Upon Termination for any reason whatsoever

- (a) property and ownership in all Materials, Plant and Works and the Project shall, as between the Contractor and the Authority, vest in the Authority in whole; provided that the foregoing shall be without prejudice to Clause 23.6
- (b) risk of loss or damage to any Materials, Plant or Works and the care and custody thereof shall pass from the Contractor to the Authority; and
- (c) the Authority shall be entitled to restrain the Contractor and any person claiming through or under the Agreement from entering upon the Site or any part of the Project except for taking possession of materials, stores, implements, construction plants and equipment of the Contractor, which have not been vested in the Authority in accordance with the provisions of this Agreement.

23.8 Survival of rights

Notwithstanding anything to the contrary contained in this Agreement any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

Part VI

Other Provisions

ARTICLE 24
ASSIGNMENT AND CHARGES

24.1 Restrictions on assignment and charges

This Agreement shall not be assigned by the Contractor to any person, save and except with the prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.

24.2 Hypothecation of Materials or Plant

Notwithstanding the provisions of Clause 24.1, the Contractor may pledge or hypothecate to its lenders, any Materials or Plant prior to their incorporation in the Works. Further, the Contractor may, by written notice to the Authority, assign its right to receive payments under this Agreement either absolutely or by way of charge, to any person providing financing to the Contractor in connection with the performance of the Contractor's obligations under this Agreement. The Contractor acknowledges that any such assignment by the Contractor shall not relieve the Contractor from any obligations, duty or responsibility under this Agreement.

ARTICLE 25

LIABILITY AND INDEMNITY**25.1 General indemnity**

25.1.1 The Contractor will indemnify, defend, save and hold harmless the Authority and its officers, servants, agents, Government Instrumentalities and Government owned and/or controlled entities/enterprises, (the “**Authority Indemnified Persons**”) against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Contractor of any of its obligations under this Agreement or from any negligence under the Agreement, including any errors or deficiencies in the design documents, or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Authority Indemnified Persons.

25.2 Indemnity by the Contractor

25.2.1 Without limiting the generality of Clause 25.1, the Contractor shall fully indemnify, hold harmless and defend the Authority and the Authority Indemnified Persons from and against any and all loss and/or damages arising out of or with respect to:

- (a) failure of the Contractor to comply with Applicable Laws and Applicable Permits;
- (b) payment of taxes required to be made by the Contractor in respect of the income or other taxes of the Sub-contractors, suppliers and representatives; or
- (c) non-payment of amounts due as a result of Materials or services furnished to the Contractor or any of its Sub-contractors which are payable by the Contractor or any of its Sub-contractors.

25.2.2 Without limiting the generality of the provisions of this Article 25, the Contractor shall fully indemnify, hold harmless and defend the Authority Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Authority Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Contractor or by the Sub-contractors in performing the Contractor’s obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Contractor shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Project, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Contractor shall promptly make every reasonable effort to secure for the Authority a licence, at no cost to the Authority, authorising continued use of the infringing work. If the Contractor is unable to secure such licence within a reasonable time, the Contractor shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

25.3 Notice and contest of claims

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Article 25 (the “**Indemnified Party**”) it shall notify the other Party (the “**Indemnifying Party**”) within 15 days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

25.4 Defence of claims

- 25.4.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Article 25, the Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.
- 25.4.2 If the Indemnifying Party has exercised its rights under Clause 25.3, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).
- 25.4.3 If the Indemnifying Party exercises its rights under Clause 25.3, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Indemnified Party, when and as incurred, unless:

- (a) the employment of counsel by such party has been authorised in writing by the Indemnifying Party; or
- (b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defence of such action; or
- (c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defence of such action and shall have been so notified by the Indemnified Party; or
- (d) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
 - (i) that there may be specific defences available to it which are different from or additional to those available to the Indemnifying Party; or
 - (ii) that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this Clause 25.4.3 shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defence of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

25.5 No consequential claims

Notwithstanding anything to the contrary contained in this Article 25, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

25.6 Survival on Termination

The provisions of this Article 25 shall survive Termination.

ARTICLE 26

26.1 Dispute Resolution

26.1.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “Dispute”) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 26.2.

26.1.2 The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

26.2 Conciliation**26.2.1 Contractor’s claims**

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of this Agreement, the Contractor shall give notice to the Authority’s Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance. If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Authority shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Clause shall apply. The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance. The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Authority’s Engineer. Without admitting the Authority’s liability, the Authority’s Engineer may, after receiving any notice under this Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Authority’s Engineer to inspect all these records, and shall (if instructed) submit copies to the Authority’s Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Authority’s Engineer, the Contractor shall send to the Authority’s Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim shall be considered as interim;
- (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Authority’s Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Authority’s Engineer. Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Authority’s Engineer and approved by the Contractor, the Authority’s Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further

particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.

Within the above defined period of 42 days, the Authority's Engineer shall to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry), and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract. Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate. If the Authority's Engineer does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Authority's Engineer and any of the Parties may refer to the Dispute Board in accordance with Clause 26.2.2.

The requirements of this Clause are in addition to those of any other Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded for reasons under this Clause.

26.2.2 Appointment of the Dispute Resolution Board

Disputes shall be referred to a DB for decision in accordance with this Clause. The Parties shall appoint a DB within 3 months of signing of Agreement. The DB shall comprise of three suitably qualified persons (the members), each of whom shall be a professional experienced in the type of construction involved in the Works and with the interpretation of contractual documents. The DB is to comprise of three persons, each Party shall nominate one member for the approval of the other Party. The first two members shall recommend and the Parties shall agree upon the third member, who shall act as chairman.

The agreement between the Parties and either the three members shall incorporate by reference the General Conditions of Dispute Board Agreement contained in the Appendix A to these Conditions of Contract, with such amendments as are agreed between them.

The terms of the remuneration of each of the three members, including the remuneration of any expert whom the DB consults, shall be mutually agreed upon by the Parties. Each Party shall be responsible for paying one-half of this remuneration.

If at any time the Parties so agree, they may jointly refer a matter to the DB for it to give its opinion. Neither Party shall consult the DB on any matter without the agreement of the other Party.

If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Clause. The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Authority or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DB (including each member) shall expire when the Performance Certificate is issued by the Authority.

26.2.3 Failure to Agree on the Composition of the Dispute Board

If any of the following conditions apply, namely:

- (a) either Party fails to nominate a member (for approval by the other Party), or fails to approve a member nominated by the other Party, by the date stated in the first paragraph of Sub-Clause 26.2.2,
- (b) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DB by such date, or

- (c) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment,

then the appointing entity] shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the DB. This appointment shall be final and conclusive.

26.2.4 Obtaining Dispute Board's Decision

If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Authority's Engineer, either Party may refer the dispute in writing to the DB for its decision, with copies to the other Party and the Authority's Engineer. Such reference shall state that it is given under this Clause. The DB shall be deemed to have received such reference on the date when it is received by the chairman of the DB. Both Parties shall promptly make available to the DB all such additional information, further access to the Site, and appropriate facilities, as the DB may require for the purposes of making a decision on such dispute. The DB shall be deemed to be not acting as arbitrator(s). Within 84 days after receiving such reference, or within such other period as may be proposed by the DB and approved by both Parties, the DB shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either Party is dissatisfied with the DB's decision, then either Party may, within 28 days after receiving the decision, give a Notice of Dissatisfaction to the other Party indicating its dissatisfaction and intention to commence arbitration. If the DB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference, then either Party may, within 28 days after this period has expired, give a Notice of Dissatisfaction to the other Party. In either event, this Notice of Dissatisfaction shall state that it is given under this Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Neither Party shall be entitled to commence arbitration of a dispute unless a Notice of Dissatisfaction has been given in accordance with this Clause. If the DB has given its decision as to a matter in dispute to both Parties, and no Notice of Dissatisfaction has been given by either Party within 28 days after it received the DB's decision, then the decision shall become final and binding upon both Parties.

26.3 Arbitration

26.3.1 Any Dispute which is not resolved amicably by conciliation, as provided in Clause 26.2, shall be finally decided by reference to arbitration by a Board of Arbitrators appointed in accordance with Clause 26.3.2. Such arbitration shall be held in accordance with the Arbitration & Conciliation Act, 1996 of India.

26.3.2. Disputes shall be settled by arbitration in accordance with the following provisions:

1. Selection of Arbitrators. Each dispute submitted by a Party to arbitration shall be heard by an arbitration tribunal composed of three (3) arbitrators, in accordance with the following provisions:
 - (a) the Authority and the Contractor shall each appoint one (1) arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration tribunal. If the arbitrators named by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after

the latter of the two (2) arbitrators named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by Secretary, the Indian Council of Arbitration³⁰, New Delhi

- (b) If, in a dispute subject to paragraph (a) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party which has named an arbitrator may apply to the Secretary, the Indian Council of Arbitration, New Delhi to appoint an arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application shall be the arbitrator of the other party for that dispute.
2. Rules of Procedure. Arbitration proceedings shall be conducted in accordance with procedure of the Arbitration & Conciliation Act 1996, of India.
3. Substitute Arbitrators. If for any reason an arbitrator is unable to perform his/her function, a substitute shall be appointed in the same manner as the original arbitrator.
4. Nationality and Qualifications of Arbitrators. The arbitrators appointed pursuant to paragraphs 1 (a) through 1(b) above shall be an expert with extensive experience in relation to the matter in dispute.
5. Miscellaneous. In any arbitration proceeding hereunder:
 - (a) proceedings shall be held in Guwahati, Assam
 - (b) the English language shall be the official language for all purposes; and
 - (c) the decision of the majority of the arbitrators shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.
 - (d) The expenses incurred by each party in connection with the dispute preparation, presentation etc. of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself. Fees and expenses for the Presiding Arbitrator including the cost of proceedings shall be shared equally by both the parties.
 - (e) Court Jurisdiction Guwahati

³⁰ If considered necessary replace 'Secretary, the Indian Council of Arbitration' with 'President of the Institution of Engineers (India)' or '*Chairman of the Executive Committee of the Indian Roads Congress*' or any other appropriate institution.

ARTICLE 27
MISCELLANEOUS

27.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Guwahati shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

27.2 Waiver of immunity

Each Party unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

27.3 Delayed payments

The Parties hereto agree that payments due from one Party to the other Party under the provisions of this Agreement shall be made within the period set forth therein, and if no such period is specified, within 15 days of receiving a demand along with the necessary particulars. In the event of delay beyond such period, the defaulting Party shall pay interest for the period of delay calculated at a rate equal to State Bank of India Base Rate plus 2 (two) percent, calculated at quarterly rests, and recovery thereof shall be without prejudice to the rights of the Parties under this Agreement including Termination thereof.

27.4 Waiver

27.4.1 Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:-

- (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
- (c) shall not affect the validity or enforceability of this Agreement in any manner.

27.4.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

27.5 Liability for review of Documents and Drawings

Except to the extent expressly provided in this Agreement:

- (a) no review, comment or approval by the Authority or the Authority's Engineer of any Document or Drawing submitted by the Contractor nor any observation or inspection of the construction, or maintenance of the Project nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Agreement, the Applicable Laws and Applicable Permits; and
- (b) the Authority shall not be liable to the Contractor by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

27.6 Exclusion of implied warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

27.7 Survival

27.7.1 Termination shall:

- (a) not relieve the Contractor or the Authority, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

27.7.2 All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

27.8 Entire Agreement

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the RFB as the case may be, shall be deemed to form part of this Agreement and treated as such.

27.9 Severability

If for any reason whatever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

27.10 No partnership

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

27.11 Third parties

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

27.12 Successors and assigns

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

27.13 Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

(a) in the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside Guwahati may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the person as the Contractor may from time to time designate by notice to the Authority;

[***]

(b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the Authority with a copy delivered to the Authority Representative or such other person as the Authority may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in Guwahati it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier; and

(c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

27.14 Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

27.15 Counterparts

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

27.16 Confidentiality

The Parties shall treat the details of this Agreement as private and confidential, except to the extent necessary to carry out obligations under it or to comply with Applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous agreement of the Authority.

27.17 Copyright and Intellectual Property rights

27.17.1 As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor. The Contractor shall be deemed (by signing this Agreement) to give to the Authority a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and

- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by this Agreement, including replacements of any computers supplied by the Contractor:

27.17.2 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Authority for purposes other than those permitted under this Clause 27.17.

27.17.3 As between the Parties, the Authority shall retain the copyright and other intellectual property rights in this Agreement and other documents made by (or on behalf of) the Authority. The Contractor may, at its cost, copy, use, and obtain communication of these documents for the purposes of this Agreement. They shall not, without the Authority's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the contract.

27.18 Limitation of Liability

27.18.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Agreement, save and except as provided under Articles 23 and 25.

27.18.2 The total liability of one Party to the other Party under and in accordance with the provisions of this Agreement, save and except as provided in Articles 23 and 25, shall not exceed the Contract Price. For the avoidance of doubt, this Clause shall not limit the liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

ARTICLE 28 DEFINITIONS

28.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

“Accounting Year” means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

“Advance Payment” shall have the meaning set forth in Clause 19.2;

“Affected Party” shall have the meaning set forth in Clause 21.1;

“Affiliate” means, in relation to either Party {and/or Members}, a person who controls, is controlled by, or is under the common control with such Party {or Member} (as used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

“Agreement” means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

“Applicable Laws” means all laws, brought into force and effect by GOI or the State Government including rules, regulations and notifications made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

“Applicable Permits” means all clearances, licences, permits, authorisations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the construction, operation and maintenance of the Project during the subsistence of this Agreement;

“Appointed Date” means that date which is later of the 15th day of the date of this Agreement, the date on which the Contractor has delivered the Performance Security and the Environmental and Social (ES) Performance Security, in accordance with the provisions of Article 7 and the date on which the Authority has provided in stretches the Right of Way on first Section as per Schedule A;

“Arbitration Act” means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

“Authority” shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

“Authority Default” shall have the meaning set forth in Clause 23.2;

“Authority’s Engineer” shall have the meaning set forth in Clause 18.1;

“Authority Representative” means such person or persons as may be authorised in writing by the Authority to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfill any obligations of the Authority under this Agreement;

“Bank” means a bank incorporated in India and having a minimum net worth of ₹ 1,000 crore (₹ one thousand crore) or any other bank acceptable to the Authority;

“Base Rate” means the floor rate of interest announced by the State Bank of India for all its lending operations;

“Base Date” means the last date of that calendar month, which date precedes the Bid Due Date by at least 28 (twenty eight) days;

“Bid” means the documents in their entirety comprised in the bid submitted by the [selected bidder/joint venture] in response to the Request for Bids in accordance with the provisions thereof;

“Bid Security” means the bid security provided by the Contractor to the Authority in accordance with the Request for Bids, and which is to remain in force until substituted by the Performance Security and the Environmental and Social (ES) Performance Security;

“Change in Law” means the occurrence of any of the following after the Base Date:

- (a) the enactment of any new Indian law;
- (b) the repeal, modification or re-enactment of any existing Indian law;
- (c) the commencement of any Indian law which has not entered into effect until the Base Date;
- (d) a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Base Date.

“Change of Scope” shall have the meaning set forth in Article 13;

“Change of Scope Notice” shall have the meaning set forth in Clause 13.2.1;

“Change of Scope Order” shall have the meaning set forth in Clause 13.2.4;

“Completion Certificate” shall have the meaning set forth in Clause 12.4;

“Construction” shall have the meaning set forth in Clause 1.2.1 (f);

“Construction Period” means the period commencing from the Appointed Date and ending on the date of the Completion Certificate;

“Contract Price” means the amount specified in Clause 19.1.1;

“Contractor” shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

“Contractor Default” shall have the meaning set forth in Clause 23.1;

“Cure Period” means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

- (a) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
- (b) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and
- (c) not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Contractor requires any reasonable action by the Contractor that must be approved by the Authority or the Authority’s Engineer hereunder, the applicable Cure Period shall be extended by the period taken by the Authority or the Authority’s Engineer to accord their approval;

“Damages” shall have the meaning set forth in paragraph (w) of Clause 1.2.1;

“Defect” means any defect or deficiency in Construction of the Works or any part thereof, which does not conform with the Specifications and Standards, and in the case of Maintenance, means any defect or deficiency which is specified in Schedule-E;

“Defects Liability Period” shall have the meaning set forth in Clause 17.1; **“Dispute”** shall have the meaning set forth in Clause 26.1.1;

“Dispute Resolution Procedure” means the procedure for resolution of Disputes set forth in Article 26;

“Drawings” means all of the drawings, calculations and documents pertaining to the Project as set forth in Schedule-I, and shall include ‘as built’ drawings of the Project;

“Document” or “Documentation” means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

“Emergency” means a condition or situation that is likely to endanger the safety or security of the individuals on or about the Project, including Users thereof, or which poses an immediate threat of material damage to any of the Project Assets;

“Encumbrances” means, in relation to the Project, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project, where applicable herein but excluding utilities referred to in Clause 9.1;

“EPC” means engineering, procurement and construction;

“E&S” means environmental and social (including Sexual Exploitation & Abuse (SEA) and Gender-Based Violence (GBV));

“ES Performance Security” shall have the meaning set forth in Clause 7.1;

“Final Payment Certificate” shall have the meaning set forth in Clause 19.15.1;

“Final Payment Statement” shall have the meaning set forth in Clause 19.13.1;

“Force Majeure” or “Force Majeure Event” **shall have the meaning ascribed to it in Clause 21.1;**

“GAD” or “General Arrangement Drawings” shall have the meaning set forth in Clause 4.1.3 (b);

“GOI/GOTN” or “Government” means the Government of India / as the case may be;

“Good Industry Practice” means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner;

“Government Instrumentality” means any department, division or sub-division of the Government or the State Government and includes any commission, board, authority, agency or municipal and other local authority or statutory body including panchayat under the control of the Government or the State Government, as the case may be, and having jurisdiction over all or any part of the Project or the performance of all or any of the services or obligations of the Contractor under or pursuant to this Agreement;

“IRC” means the Indian Roads Congress;

“Indemnified Party” means the Party entitled to the benefit of an indemnity pursuant to Article 25;

“Indemnifying Party” means the Party obligated to indemnify the other Party pursuant to Article 25;

“Indirect Political Event” shall have the meaning set forth in Clause 21.3;

“Insurance Cover” means the aggregate of the maximum sums insured under the insurances taken out by the Contractor pursuant to Article 20, and includes all insurances required to be taken out by the Contractor under Clauses 20.1 and 20.9 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;

“Intellectual Property” means all patents, trademarks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

“Interim Payment Certificate” or “IPC” means the interim payment certificate issued by the Authority’s Engineer for payment to the Contractor in respect of Contractor’s claims for payment raised in accordance with the provisions of this Agreement;

“Joint Venture” means the group of entities which, for implementation of the project, have come together in the form of a joint venture (JV), wherein all JV members are jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms;

“Lead Member” shall, in the case of a Joint Venture (JV), mean the member of such JV who shall have the authority to bind the contractor and each member of the JV; and shall be deemed to be the Contractor for the purposes of this Agreement; }^s

^sThis definition may be omitted if the Contractor is not a Joint Venture.

“LOA” or “Letter of Acceptance” means the letter of acceptance referred to in Recital (E);

“Maintenance” means the maintenance of the Project as set forth in Article 14 for the period specified therein;

“Maintenance Inspection Report” shall have the meaning set forth in Clause 15.2.1;

“Maintenance Manual” shall have the meaning ascribed to it in Clause 10.7;

“Maintenance Programme” shall have the meaning set forth in Clause 14.3;

“Maintenance Period” shall have the meaning set forth in Clause 14.1.1;

“Maintenance Requirements” shall have the meaning set forth in Clause 14.2;

Manual” shall mean the manual of standards and specifications for construction of building/structure of standards generally accepted and accepted by Authority.

“Material Adverse Effect” means a material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

“Materials” are all the supplies used by the Contractor for incorporation in the Works or for the maintenance of the Project;

“Monthly Maintenance Statement” shall have the meaning set forth in Clause 19.6.1;

“Non-Political Event” shall have the meaning set forth in Clause 21.2;

“Parties” means the parties to this Agreement collectively and “Party” shall mean any of the parties to this Agreement individually;

“Penalty” means Liquidated Damage amounts to be deducted from Contractor’s payment on Contractors failure to achieve the construction milestones as defined in Schedule-J.

“Performance Security” shall have the meaning set forth in Clause 7.1;

“Plant” means the apparatus and machinery intended to form or forming part of the Works;

“Political Event” shall have the meaning set forth in Clause 21.4;

“Programme” shall have the meaning set forth in Clause 10.1.3;

“Project” means the construction and maintenance of the Project in accordance with the provisions of this Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Project;

“Project Assets” means all physical and other assets relating to (a) Tangible assets such as civil works and equipment including foundations, embankments, pavements, drainage works, sign boards, electrical systems, communication systems, rest areas, relief entrées, maintenance depots and administrative offices; and (b) Project Facilities situated on the site;

“Project Completion Date” means the date on which the Provisional Certificate is issued and in the event no Provisional Certificate is issued, the date on which the Completion Certificate is issued;

“Project Completion Schedule” means the progressive Project Milestones set forth in Schedule-J for completion of the Project on or before the Scheduled Completion Date;

“Project Facilities” means all the amenities and facilities situated on the Site, as described in Schedule-C;

“

“Project Milestone” means the project milestone set forth in Schedule-J;

“Proof Consultant” shall have the meaning set forth in Clause 10.2.2;

“Provisional Certificate” shall have the meaning set forth in Clause 12.2;

“Punch List” shall have the meaning set forth in Clause 12.2.1;

“Quality Assurance Plan” or **“QAP”** shall have the meaning set forth in Clause 11.2;

“Re.”, “Rs.” or “Rupees” or “Indian Rupees” or “INR” or “₹” means the lawful currency of the Republic of India;

“Request for Bids” or **“RFB”** shall have the meaning set forth in Recital ‘D’;

“Request for Qualification” or **“RFQ”** shall have the meaning set forth in Recital ‘C’;

“Retention Money” shall have the meaning set forth in Clause 7.5.1;

“Right of Way” means the constructive possession of the Site free from encroachments and encumbrances, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction and maintenance of the Project in accordance with this Agreement;

“Safety Consultant” shall have the meaning set forth in Clause 10.1.5;

“Scheduled Completion Date” shall be the date set forth in Clause 10.3.1;

“Scope of the Project” shall have the meaning set forth in Clause 2.1;

“Section” means a part of the Project;

“Site” shall have the meaning set forth in Clause 8.1;

“Specifications and Standards” means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Project, as set forth in Schedule-D, and any modifications thereof, or additions thereto, as included in the design and engineering for the Project submitted by the Contractor to, and expressly approved by, the Authority;

“Stage Payment Statement” shall have the meaning set forth in Clause 19.4;

“Structures” means an elevated road or a flyover, as the case may be;

“Sub-contractor” means any person or persons to whom a part of the Works or the Maintenance has been subcontracted by the Contractor and the permitted legal successors in title to such person, but not an assignee to such person;

“Suspension” shall have the meaning set forth in Article 22;

“Taxes” means any Indian taxes including excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, Materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

“Termination” means the expiry or termination of this Agreement;

“Termination Notice” means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

“Termination Payment” means the amount payable by either Party to the other upon Termination in accordance with Article 23;

“Terms of Reference” or “TOR” shall have the meaning set forth in Clause 18.2.1;

“**Tests**” means the tests set forth in Schedule-K to determine the completion of Works in accordance with the provisions of this Agreement;

“**Time Extension**” shall have the meaning set forth in Clause 10.5.1;

“**User**” means a person who travels or intends to travel on the Project or any part thereof in/on any vehicle;

“**Valuation of Unpaid works**” shall have the meaning set forth in Clause 23.5.1;

“**Works**” means all works including survey and investigation, design, engineering, procurement, construction, Plant, Materials, maintenance, temporary works and other things necessary to complete the Project in accordance with this Agreement; and

“**WPI**” means the wholesale price index for various commodities as published by the Ministry of Commerce and Industry, GOI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding month.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

SIGNED, SEALED AND

SIGNED, SEALED AND

DELIVERED

DELIVERED

For and on behalf of

For and on behalf of

Authority:

THE CONTRACTOR by:

Project Director,

Assam Health Infrastructure Development
and Management Society

.....

(Signature)

(Signature)

(Name)

(Name)

(Designation)

(Designation)

In the presence of: 1.

2.

APPENDIX TO CONDITIONS OF CONTRACT

(text in this Appendix shall not be modified)

Fraud and Corruption

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

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

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or

- indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
 - d. Pursuant to the Bank's Anti-Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;³¹ (ii) to be a nominated³² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
 - e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³³ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

³¹For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

³²A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

³³ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

APPENDIX A

(to Conditions of Contract)

A General Conditions of Dispute Board Agreement

1. Definitions

Each “Dispute Board Agreement” is a tripartite agreement by and between:

- (a) the “Employer’s Personnel”;
- (b) the “Contractor’s Personnel”; and
- (c) the “Member” who is defined in the Dispute Board Agreement as being:
 - (i) the sole member of the "DB" and, where this is the case, all references to the “Other Members” do not apply, or
 - (ii) one of the three persons who are jointly called the “DB” (or “Dispute Board”) and, where this is the case, the other two persons are called the “Other Members”.

The Employer and the Contractor have entered (or intend to enter) into a contract, which is called the "Contract" and is defined in the Dispute Board Agreement, which incorporates this Appendix. In the Dispute Board Agreement, words and expressions which are not otherwise defined shall have the meanings assigned to them in the Contract.

2. General Provisions

Unless otherwise stated in the Dispute Board Agreement, it shall take effect on the latest of the following dates:

- (a) the Commencement Date defined in the Contract,
- (b) when the Employer, the Contractor and the Member have each signed the Dispute Board Agreement, or
- (c) when the Employer, the Contractor and each of the Other Members (if any) have respectively each signed a dispute board agreement.

This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 days’ notice of resignation to the Employer and to the Contractor, and the Dispute Board Agreement shall terminate upon the expiry of this period.

3. Warranties

The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Engineer. The Member shall promptly disclose, to each of them and to the Other Members (if any), any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

When appointing the Member, the Employer and the Contractor relied upon the Member’s representations that he/she is:

- (a) experienced in the work which the Contractor is to carry out

under the Contract,

- (b) experienced in the interpretation of contract documentation, and
- (c) fluent in the language for communications defined in the Contract.

4. General Obligations of the Member

The Member shall:

- (a) have no interest financial or otherwise in the Employer, the Contractor or Engineer, nor any financial interest in the Contract except for payment under the Dispute Board Agreement;
- (b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Board Agreement;
- (c) have disclosed in writing to the Employer, the Contractor and the Other Members (if any), before entering into the Dispute Board Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Employer, the Contractor or the Engineer, and any previous involvement in the overall project of which the Contract forms part;
- (d) not, for the duration of the Dispute Board Agreement, be employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except as may be agreed in writing by the Employer, the Contractor and the Other Members (if any);
- (e) comply with the annexed procedural rules and with Sub-Clause 26.2.4 of the Conditions of Contract;
- (f) not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules;
- (g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor or the Engineer regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Board Agreement;
- (h) ensure his/her availability for all site visits and hearings as are necessary;
- (i) become conversant with the Contract and with the progress of the Works (and of any other parts of the project of which the Contract forms part) by studying all documents received which shall be maintained in a current working file;

- (j) treat the details of the Contract and all the DB's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Employer, the Contractor and the Other Members (if any); and
- (k) be available to give advice and opinions, on any matter relevant to the Contract when requested by both the Employer and the Contractor, subject to the agreement of the Other Members (if any).

5. General Obligations of the Employer and the Contractor

The Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the Member regarding the Contract, otherwise than in the normal course of the DB's activities under the Contract and the Dispute Board Agreement. The Employer and the Contractor shall be responsible for compliance with this provision, by the Employer's Personnel and the Contractor's Personnel respectively.

The Employer and the Contractor undertake to each other and to the Member that the Member shall not, except as otherwise agreed in writing by the Employer, the Contractor, the Member and the Other Members (if any):

- (a) be appointed as an arbitrator in any arbitration under the Contract;
- (b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any arbitration under the Contract; or
- (c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith.

The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability under the preceding paragraph.

Whenever the Employer or the Contractor refers a dispute to the DB under Sub-Clause 26.2.4 of the Conditions of Contract, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.

6. Payment

The Member shall be paid as follows, in the currency named in the Dispute Board Agreement:

- (a) a retainer fee per calendar month, which shall be considered as payment in full for:
 - (i) being available on 28 days' notice for all site visits and hearings;

- (ii) becoming and remaining conversant with all project developments and maintaining relevant files;
- (iii) all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and
- (iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Board Agreement becomes effective; until the last day of the calendar month in which the Completion Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which the Completion Certificate is issued for the whole of the Works, the retainer fee shall be reduced by one third. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Board Agreement is otherwise terminated.

- (b) a daily fee which shall be considered as payment in full for:
 - (i) each day or part of a day up to a maximum of two days' travel time in each direction for the journey between the Member's home and the Site, or another location of a meeting with the Other Members (if any);
 - (ii) each working day on Site visits, hearings or preparing decisions; and
 - (iii) each day spent reading submissions in preparation for a hearing.
- (c) all reasonable expenses including necessary travel expenses (air fare in less than first class, hotel and subsistence and other direct travel expenses) incurred in connection with the Member's duties, as well as the cost of telephone calls, courier charges, faxes and telexes: a receipt shall be required for each item in excess of five percent of the daily fee referred to in sub-paragraph (b) of this Clause;
- (d) any taxes properly levied in the Country on payments made to the Member (unless a national or permanent resident of the Country) under this Clause 6.

The retainer and daily fees shall be as specified in the Dispute Board Agreement. Unless it specifies otherwise, these fees shall remain fixed for the first 24 calendar months, and shall thereafter be adjusted by agreement between the Employer, the Contractor and the Member, at each anniversary of the date on which the Dispute Board Agreement became effective.

If the parties fail to agree on the retainer fee or the daily fee, the appointing entity or official named in the Contract Data shall

determine the amount of the fees to be used.

The Member shall submit invoices for payment of the monthly retainer and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a Site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract.

If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Board Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the DB; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in Sub-Clause 14.8 of the Conditions of Contract.

If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may (i) suspend his/her services (without notice) until the payment is received, and/or (ii) resign his/her appointment by giving notice under Clause 7.

7. Termination

At any time: (i) the Employer and the Contractor may jointly terminate the Dispute Board Agreement by giving 42 days' notice to the Member; or (ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Board Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Board Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

8. Default of the Member

If the Member fails to comply with any of his obligations under Clause 4 (a) - (d) above, he shall not be entitled to any fees or

expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members (if any), for proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

If the Member fails to comply with any of his obligations under Clause 4 (e) - (k) above, he shall not be entitled to any fees or expenses hereunder from the date and to the extent of the non-compliance and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses already received by the Member, for proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

9. Disputes

Any dispute or claim arising out of or in connection with this Dispute Board Agreement, or the breach, termination or invalidity thereof, shall be finally settled by institutional arbitration. If no other arbitration institute is agreed, the arbitration shall be conducted under the Rules of of Domestic Commercial Arbitration of the Indian Council of Arbitration by one arbitrator appointed in accordance with these Rules of Arbitration.

PROCEDURAL RULES

Unless otherwise agreed by the Employer and the Contractor, the DB shall visit the Site at intervals of not more than 140 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor and the DB, the period between consecutive visits shall not be less than 70 days, except as required to convene a hearing as described below.

The timing of and agenda for each Site visit shall be as agreed jointly by the DB, the Employer and the Contractor, or in the absence of agreement, shall be decided by the DB. The purpose of Site visits is to enable the DB to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims, and, as far as reasonable, to endeavour to prevent potential problems or claims from becoming disputes.

Site visits shall be attended by the Employer, the Contractor and the Engineer and shall be co-ordinated by the Employer in co-operation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each Site visit and before leaving the site, the DB shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.

The Employer and the Contractor shall furnish to the DB one copy of all documents which the DB may request, including Contract documents, progress reports, variation instructions, certificates and other documents pertinent to the performance of the Contract. All communications between the DB and the Employer or the Contractor shall be copied to the other Party. If the DB comprises three persons, the Employer and the Contractor shall send copies of these requested documents and these communications to each of these persons.

If any dispute is referred to the DB in accordance with Sub-Clause 26.2.4 of the Conditions of Contract, the DB shall proceed in accordance with Sub-Clause 26.2.4 and these Rules. Subject to the time allowed to give notice of a decision and other relevant factors, the DB shall:

- (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case, and
- (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.

The DB may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.

Except as otherwise agreed in writing by the Employer and the Contractor, the DB shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor and the Engineer, and to proceed in the absence of any party who the DB is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.

The Employer and the Contractor empower the DB, among other things, to:

- (a) establish the procedure to be applied in deciding a dispute,
- (b) decide upon the DB's own jurisdiction, and as to the scope of any dispute referred to it,
- (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Rules,
- (d) take the initiative in ascertaining the facts and matters required for a decision,

- (e) make use of its own specialist knowledge, if any,
- (f) decide upon the payment of financing charges in accordance with the Contract,
- (g) decide upon any provisional relief such as interim or conservatory measures, and
- (h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute.

The DB shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the DB shall make and give its decision in accordance with Sub-Clause 26.2.4, or as otherwise agreed by the Employer and the Contractor in writing. If the DB comprises three persons:

- (a) it shall convene in private after a hearing, in order to have discussions and prepare its decision;
- (b) it shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and
- (c) if a Member fails to attend a meeting or hearing, or to fulfil any required function, the other two Members may nevertheless proceed to make a decision, unless:
 - (i) either the Employer or the Contractor does not agree that they do so, or
 - (ii) the absent Member is the chairman and he/she instructs the other Members not to make a decision.

APPENDIX B

Environmental and Social (E&S)

Metrics for Progress Reports

- a. Metrics for regular reporting: environmental incidents or non-compliances with contract requirements, including contamination, pollution or damage to ground or water supplies; accidents and fatalities.
- b. health and safety incidents, accidents, injuries that require treatment and all fatalities;
- c. interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);
- d. status of all permits and agreements:
 - i. work permits: number required, number received, actions taken for those not received;
 - ii. status of permits and consents:
 - *list areas/facilities with permits required (quarries, asphalt & batch plants), dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);*
 - *list areas with landowner agreements required (borrow and spoil areas, camp sites), dates of agreements, dates submitted to resident engineer (or equivalent);*
 - *identify major activities undertaken in each area in the reporting period and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation);*
 - *for quarries: status of relocation and compensation (completed, or details of activities and current status in the reporting period).*
- e. health and safety supervision:
 - iii. safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;
 - iv. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);
- f. worker accommodations:
 - i. number of expats housed in accommodations, number of locals;
 - ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;
 - iii. actions taken to recommend/require improved conditions, or to improve conditions.
- g. Health Services: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);

- h. gender (for expats and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);
- i. training:
 - i. number of new workers, number receiving induction training, dates of induction training;
 - ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;
 - iii. number and dates of communicable diseases (including STDs) sensitization and/or training, no. workers receiving training (in the reporting period and in the past); same questions for gender sensitization, flag person training.
 - iv. number and date of SEA prevention sensitization and/or training events, including number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past), etc.
- j. environmental and social supervision:
 - i. Environment Health and Safety Expert: days worked, areas inspected and numbers of inspections of each (road section, work camp, accommodations, quarries, borrow areas, spoil areas, swamps, forest crossings, etc.), highlights of activities/findings (including violations of environmental and/or social best practices, actions taken), reports to environmental and/or social specialist/construction/site management;
 - v. sociologist: days worked, number of partial and full site inspections (by area: road section, work camp, accommodations, quarries, borrow areas, spoil areas, clinic, HIV/AIDS center, community centers, etc.), highlights of activities (including violations of environmental and/or social requirements observed, actions taken), reports to environmental and/or social specialist/construction/site management; and
 - vi. community liaison person(s): days worked (hours community center open), number of people met, highlights of activities (issues raised, etc.), reports to environmental and/or social specialist /construction/site management.
- k. *Grievances*: list new grievances (e.g. number of allegations of GBV/SEA/SH) received in the reporting period and number of unresolved past grievances by date received, complainant's age and sex, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):
 - vii. i. Worker grievances;
 - viii. ii. Community grievances
- l. *Traffic*, road safety and vehicles/equipment:
 - ix. traffic and road safety incidents and accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;
 - x. traffic and road safety incidents and accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;
 - xi. overall condition of vehicles/equipment (subjective judgment by environmentalist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).
- m. *Environmental* mitigations and issues (what has been done):

- xii. dust: number of working bowsers, number of waterings/day, number of complaints, warnings given by environmentalist, actions taken to resolve; highlights of quarry dust control (covers, sprays, operational status); % of rock/spoil lorries with covers, actions taken for uncovered vehicles.
 - xiii. erosion control: controls implemented by location, status of water crossings, environmentalist inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation.
 - xiv. quarries, borrow areas, spoil areas, asphalt plants, batch plants: identify major activities undertaken in the reporting period at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation.
 - xv. blasting: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross-reference other sections as needed);
 - xvi. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination).
 - xvii. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;
 - xviii. details of tree plantings and other mitigations required undertaken in the reporting period;
 - xix. details of water and swamp protection mitigations required undertaken in the reporting period.
- n. compliance:
- xx. compliance status for conditions of all relevant consents/permits, for the Work, including quarries, etc.): statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;
 - xxi. compliance status of C-ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - xxii. Compliance status as per labour management plan and legal and regulatory measures related to Labour
 - xxiii. compliance status of SEA prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - xxiv. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - xxv. other unresolved issues from previous reporting periods related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spills not dealt with, continued compensation or blasting issues, etc. Cross-reference other sections as needed.
- o. Drinking Water: In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking. Where drinking water is obtained from an Intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored. Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely

closed in and be provided with a trap door which shall be dust and waterproof. A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

- p. Sanitation: Latrines shall be provided in every work place on the following scale namely (a) Where female are employed, there shall be at least one latrine for every 25 females (b) Where males are employed, there shall be at least one latrine for every 25 males. Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 thereafter. Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings. Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system (i) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers “For Men only” or “For Women Only” as the case may be The notice shall also bear the figure of a man or of a woman, as the case may be. There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter. The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times. Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities. Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals. Disposal of excreta :- Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure). The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor’s workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.
- q. Vector Control: Anti-Malarial Precautions: The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.
- a. Epidemic Situation: In such situation contractor shall deploy special labour to keep the site, worker’s hutments, rest rooms etc. neat and clean including sanitization. Contractor shall provide all epidemic related arrangements (at his cost following the guidelines issued by State/ Central Government in this regard

Schedules

SCHEDULE - A

(See Clauses 2.1 and 8.1)

SITE OF THE PROJECT

1.1 The Site

- 1.1 **Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.**
- 1.2 The dates of handing over the Right of Way to the Contractor are specified in **Annex-II** of this **Schedule-A**.
- 1.3 An inventory of the Site including the land, buildings, structures, road works, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2.1 of this Agreement.
- 1.4 The Location plans of the Project are specified in **Annex-III**.
- 1.5 The status of the environment clearances obtained or awaited is given in **Annex IV**.

Annex - I

(Schedule-A)

1.2 SITE OF THE PROJECT

1.2.1 Site

Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.

1.2.2 Land

The Site of the Project is available as indicated in the Master Plan and will be handed over on “as-is, where-is basis” for development and construction of the Project. Site development works such as dismantling of existing structures, shifting of utilities, jungle clearance & tree felling (including obtaining all required permissions from concerned Govt. departments) and earth cutting/ earth filling to Finished Ground Level (FGL), shall be considered at least 0.5m above from Existing Ground Level (EGL) or the Highest Flood Level (HFL) whichever is higher under the scope of works.

1.2.3 Building and civil works

As per drawing.

Annex - II
(Schedule-A)

Dates for providing Right of Way

Dates for providing Right of Way

The dates on which The Authority shall provide Right of Way to the contractor of the Site are stated below:

Date for Common Inspection by The Authority and contractor –

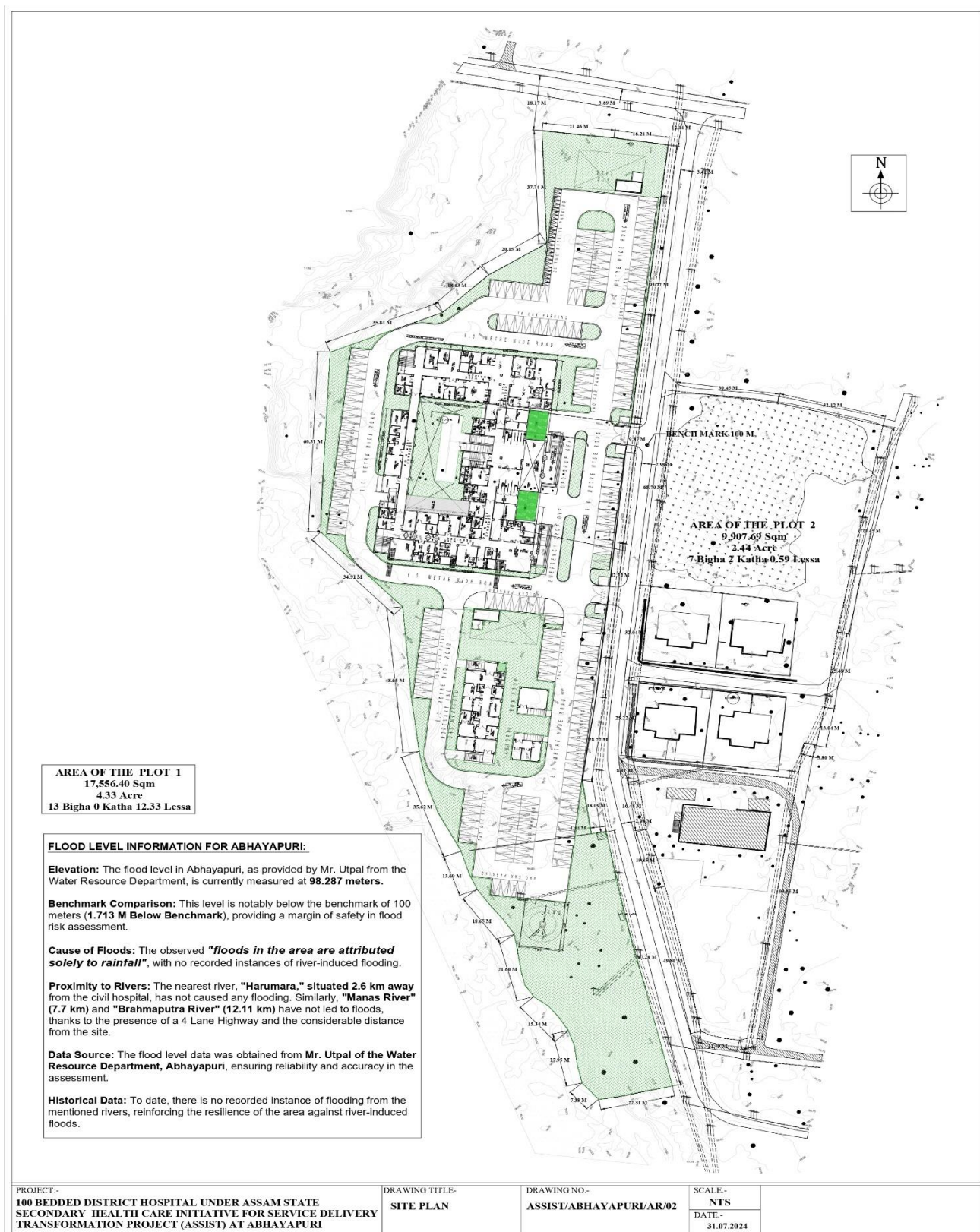
Date of site handover:

Annex - III

(Schedule-A)

1.1 MASTER PLAN

Below is the Master Plan of the proposed site:



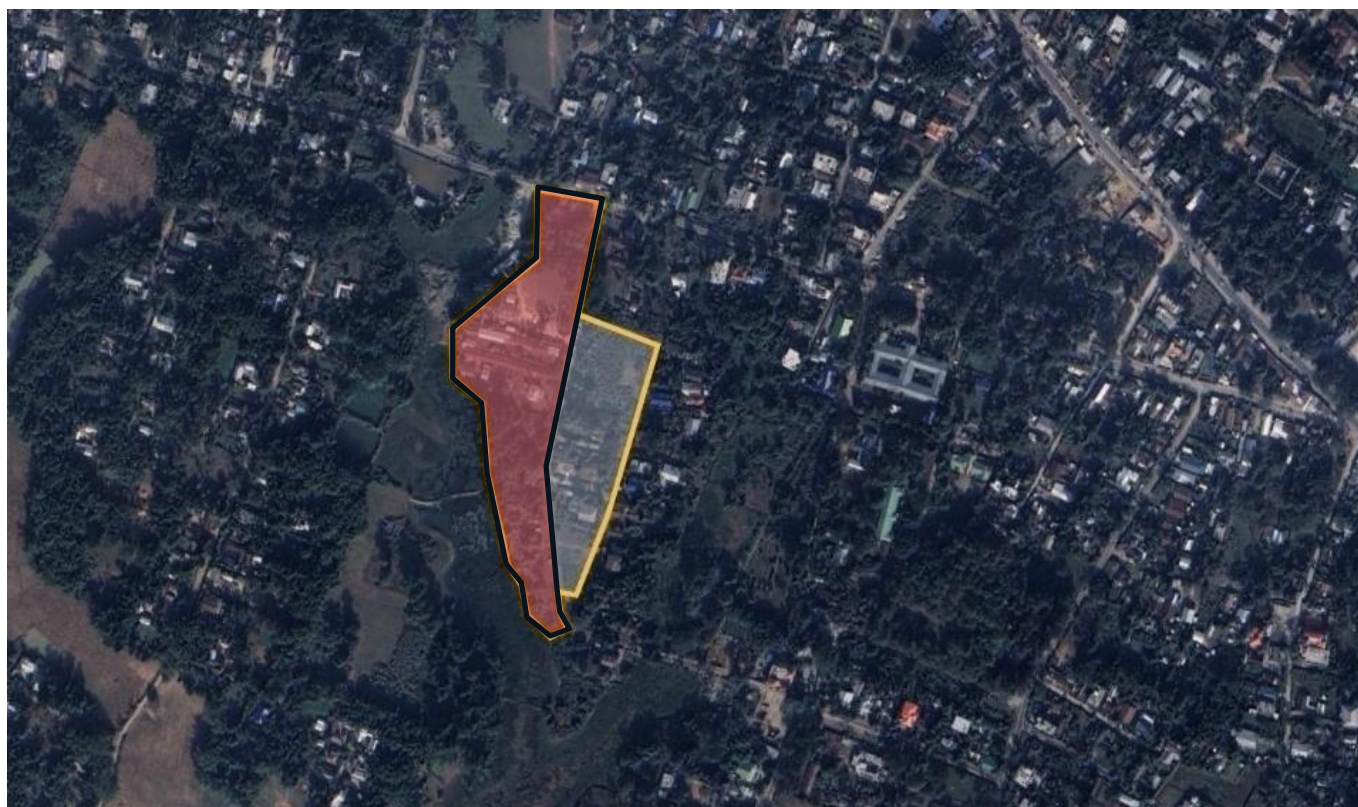
Components of the project:

- Main District Hospital
- Mortuary & Gas Manifold
- BMW Block & Laundry
- ESS Block

Note: All base Architectural drawings are provided in the **Schedule** for ready reference of the bidder.

Location of District Hospital:

The Proposed Location of the District Hospital is in the plot of Abhayapuri, (Bongaigaon Distt.) Assam. The Geographical Location is **26°20'16"N 90°39'38"E**.



Annex - IV
(Schedule-A)

Environment Clearances and Building Permissions

Environmental Clearance if required to be obtained from concerned Authority. However, permission for cutting of trees shall be obtained from the district administration during execution. Further the C-ESMP has to be implemented by the Contractor

The Building permissions/statutory approvals (Pre-Post) Construction are required for the Project and to be obtained by EPC Contractor/Bidder.

However, in the event such clearances are required, the same will be applied on the name of client. The statutory fee if any; to be paid by the EPC Contractor/Bidder and will be reimbursed as per actual on production of proof. Clearances requirement will be as listed below (not limited to):

- I. Clear titled Land records from Revenue Department
- II. Non-agricultural Land Certificate from SDC/Circle Officer.
- III. Consents and Authorization requirement from Assam State Pollution Control Board as applicable.

Regulatory Requirements to be obtained from Pollution Control Board, Assam for Construction of 100 Bedded New District Hospital in Abhaypuri (Bongaigaon District), Assam.

1. As the project is establishing new 100 bedded District Hospital, **Consent to Establish under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981** shall be obtained from the Pollution Control Board Assam mandatorily prior to initiating any civil activity on the site.
2. Prior to start functioning/operating the HCF, following regulatory requirements shall be fulfilled mandatorily:
 - a. Consent to Operate under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981; and thereafter
 - b. Authorization for generation, segregation, pre-treatment, transportation and disposal of Bio-Medical Waste under BMW Rules 2016

This shall be renewed regularly.

3. Post Commencement/functioning, following requirements shall be fulfilled regularly:
 - Submission of annual report to be submitted by the HCF under the Bio Medical Waste Management Rules, 2016 (Form-IV)
 - Application Form for Accident Reporting under the Bio Medical Waste Management Rules, 2016. (Form I)
4. Other conditions laid down by the PCBA in the grant of consents and authorization shall be fulfilled regularly.

SCHEDULE - B

(See Clause 2.1)

Development of the Project

To develop and create part of the infrastructure as laid out in the master plan and as stated in the drawings.

2.1 Scope of the Project

Under this Agreement, the scope of the Project (the “**Scope of the Project**”) shall mean and include:

- 2.1.1 Construction activities for site development, building and civil construction, supply of tools and equipment as specified, internal water supply network, internal plumbing & sewage system, internal electrical works, Survey, Soil Investigation, Medical Gas Pipeline System, Solid Waste Management System, Hospital Curtain Track System & I.V. Tree system, Furniture etc set forth in Schedule-A and as specified in Schedule-B together with provision of project facilities as specified in Schedule-C, and in conformity with the specifications and standards set forth in Schedule-D;
- 2.1.2 Maintenance of the facilities created in accordance with the provisions of this Agreement and in conformity with the requirements set forth in Schedule-E; and
- 2.1.3 Performance and fulfilment of all other obligations of the contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the contractor under this Agreement.
- 2.1.4 Survey, Soil Investigation
- 2.1.5 Preparation of Architectural drawings
- 2.1.6 Structural Design & Preparation of Drawings
- 2.1.7 Detailed working drawings for Architecture, Structure, Fire Fighting & FA-PA System, MEP Services, External Development, Landscaping, Tree / Plantation etc.
- 2.1.8 Planning & Design of all E&M equipment.
- 2.1.9 Supply Installation Testing & Commissioning of:
 - Substation Equipment.
 - 2.1.10 Diesel General Sets.
 - 2.1.11 UPS
 - 2.1.12 VRV/VRF AC System
 - 2.1.13 Solar Photo Voltaic Power Generation System
 - 2.1.14 Solar Water Heating System
 - 2.1.15 CCTV System
 - 2.1.16 Hydropneumatic Water Supply System
 - 2.1.17 Lighting Automation Including Occupancy Sensors
 - 2.1.18 LAN System
 - 2.1.19 Street Lighting with LED
 - 2.1.20 IP based EPABX System
 - 2.1.21 Nurse Call System, MOT, MGPS, Pneumatic Tube System, Liquid Medical Oxygen tank (LMO)
 - 2.1.22 Audio Visual/Conference System
 - 2.1.23 STP
 - 2.1.24 ETP
 - 2.1.25 Emergency & Illuminated Signages
 - 2.1.26 Medical Gas Pipeline System

- 2.1.27 Heat Pump for Water Supply System
- 2.1.28 Solid Waste Management System
- 2.1.29 Bio medical waste management system
- 2.1.30 Infection control (adequate handwashing facilities)
- 2.1.31 Hospital Curtain Track System & I.V. Tree system
- 2.1.32 Electromechanical for WTP & RO System
- 2.1.33 Furniture ((To be Installed Concurrent to Commissioning of building).
- 2.1.34 Drinking Water Cooler
- 2.1.35 Drinking Water Treatment with RO.
- 2.1.36 Tube well.
- 2.1.37 Sewage & Drainage Pumps
- 2.1.38 Internal Electrical.
- 2.1.39 Power Wiring & Plugs
- 2.1.40 Lighting Conductors
- 2.1.41 Telephone Conduits
- 2.1.42 Fire Fighting and Fire Alarm & Public Address System
- 2.1.43 Boundary Wall with Main Gate, Guard Room etc. as shown in Master Plan.
- 2.1.44 Sewerage & Drainage System
- 2.1.45 Rain water Harvesting.
- 2.1.46 Lifts
- 2.1.47 Signages
- 2.1.48 UGT along with Pump Room/OHT
- 2.1.49 Construction of ESS
- 2.1.50 External Development (Internal Road, Footpath, Landscape, Horticulture, Under Ground Sump etc.)
- 2.1.51 Demolition of existing structure; if any.
- 2.1.52 Infrastructure required for Biomedical Waste Handling & Disposal including biomedical waste storage room.
- 2.1.53 The provision for vertical extension/future expansion of up to one floor should be considered while designing the structure and the foundation should be accordingly designed with similar loading considerations.
- 2.1.54 De-watering shall be done conforming to BIS Code IS: 9759 (guidelines for dewatering during construction) and / or as per the specifications approved by the Engineer-in-Charge. De-watering shall be carried out by suitable means with adequate stand-by arrangements of pumps etc. and it shall be ensured that its disposal is carried out as per the regulations of the local bodies.

Annex - I
(Schedule-B)

2.2 ARCHITECTURAL SERVICES

2.2.1 General Conditions for Planning & Design

- 2.2.1.1 The bidder should engage a reputed Firm/ Architect (Architectural or Engineering firm) who is on versant with local byelaws, NBC and other rules regarding architectural services for preparation of drawings for the project in a time bound manner. The Architects shall be required to submit and present the conceptual plan, methodology and work programme during the tender stage. The Authority is not bound to accept the concept plan as-is and may suggest some or many modifications in the conceptual plan and methodology. This will be binding on the successful bidder. All cost/fee regarding preparation and modifications thereof of the conceptual plan, model, walk through, traveling & lodging cost, honorarium etc. to be paid to the Architects shall be borne by contractor. The Authority will have the intellectual right on conceptual plan, model etc. and will have the right to use some of the concepts or features from drawings submitted.
- 2.2.1.2 Architect shall provide comprehensive architectural services in preparation of master plan including obtaining its statutory and local bodies approval, detailed architectural drawings, detailed structural analysis, design and detailing including designing and detailing of all services, their drawings & approval, external development works, landscaping, etc. Architect shall prepare and supply all the coordinated good for construction drawings duly proof checked and approved. The Architect shall be associated till completion of the project and obtain completion certificate from the concerned local body.
- 2.2.1.3 The bidders will be required during the tender stage to give their presentation with conceptual plan of each building before a committee whose marking will form a part of the total technical score.

2.2.2 SCOPE OF SERVICES

- 2.2.3.1 The Architect shall provide Comprehensive Architectural Services in the following areas. The Architect /agency shall appoint specialized Architects for which in-house arrangement is not available:
- (a) All Architectural Services including building plans/ all hard and soft Landscaping/ Signages, AV equipment design.
 - (b) All Quantity Surveying Services
 - (c) All Civil & Structural Engineering Services including all proof checking work.
 - (d) All Electrical Engineering Services including all proof checking works.
 - (e) All Mechanical Engineering Services including all proof checking works.
 - (f) All Public Health Engineering Services including all proof checking works.
 - (g) All Wastewater disposal and Management System including all proof checking works.
 - (h) All interiors and all acoustical treatments.

- (i) All artwork and signages
 - (j) All water supply & drainage system
 - (k) STP & ETP
 - (l) All waste management services
 - (m) Non Medical Equipment such as MGPS, MOT, Nurse Call System etc.
 - (n) Any other services which are required but not specifically indicated.
 - (o) Estimate based on CPWD PAR 2021.
 - (p) Any Other work required to make building functional in all aspects
- 2.2.3.2 The Architect shall provide comprehensive Architectural services broadly described hereinafter. However, it should be clearly understood that the description of services is only indicative and the Architect shall be required to perform any other services which may be required whether or not expressly mentioned hereinafter in this contract document of this work up to the entire project requirement and satisfaction of the client.
- 2.2.3.3 The Architect shall perform all the Architectural, Structural design work design of services, landscaping, horticultural works by utilizing the most economical, effective and widely accepted engineering concepts/practices and shall at all times show a high degree of professionalism in his work.
- 2.2.3.4 The Architect will be fully responsible for the design of all the Civil, Elect. & structural engineering works including water supply and sanitary, landscaping and site development services.
- Building & services to be constructed and taken up in the scope of this tender as per Table: A (under Clause No. 2.3).
- 2.2.3.5 Preliminary Stage**
- (a) Carry out topographical survey and the survey of all existing services and other constraints existing in and around the site.
 - (b) Carry out soil investigation of the site to establish the soil characteristics and other parameters required for the foundation design of multi-storey buildings. Types of investigation/test and their qualities shall be getting approved from Authority's Engineer. Soil investigation agency should be experienced, specialized and should be got approved from the Authority.
 - (c) The contractor shall also get ascertained the liquefaction potential of soil to required depths using modern methodology e.g Spectral Analysis of Surface Waves (SASW) test or any other method and combination of tests approved by Authority's Engineer and suggest remedial measures and account for same while suggesting bearing capacity/ load carrying capacity and suitable pile foundation.
 - (d) The Contractor shall have to identify the location of Electrical Power supply source conducting joint survey with local authority and shall ascertain details of requirement and right of way for external electrification work.
- 2.2.3.5.1 Master Plan/Lay out plan**
- (a) Submission of the revised Master Plan to client and incorporating changes, if any, suggested by them and re-submitting the same.

- (b) Obtaining approval of the revised master plan from local authorities for the work under this project.
- (e) Interact with the client and Authority to finalize the functional plan.
- (f) Submission of the final design along with models, photographs, 3D-walk through and as per the requirements of the Authority etc. The cost of such models, walk through, photographs, etc. shall be borne by the Architect.

2.2.3.6 Approval Stage

- (a) Development of the Submission Plans.
- (b) Submission of the design, drawings and related documents to concerned authorities
- (c) Modifications of the design, drawings etc. considering the comments, suggestions etc. of the local bodies, if applicable.
- (d) Re-Submission & obtaining approval of the design, drawings etc. from local bodies.
- (e) Carrying out Environment Impact Assessment, submission of the same and getting approval from concerned authorities, if applicable.
- (f) Obtaining necessary approval of the project from Local authority, if applicable.

2.2.3.7 Detailed Design Stage

2.2.3.7.1 Architectural Services

- (a) Prepare drawings, schedules and specification of materials and workmanship, in sufficient detail. The drawings & documents shall include detailed site plan, detailed drawings for each building including floor plans, elevations, door & window schedules, finishing schedules, wall profiles, Staircases, ramp and lift details, Electrical point layout drawings, RCP (reflected ceiling plan), Circuit diagram, Single Line Diagrams of Electrical Power Distribution plan showing details of switchgears and connected load, Earthing layout drawings, Drawing for Air- conditioning work, Details and Drawings of security and safety equipment, Details of Air Conditioning and HVAC, Details drawings for External Electrification work showing position of Sub-stations/Transformer and control switchgears, solar plants, Drawing for Fire Detection & Fire hydrant systems, electro-mechanical works, details of important building parts/ areas, landscape & site development details etc. As far as possible, standards of quality performance requirement and descriptive names shall be used rather than specific products or brand names.
- (b) Prepare and issue “Good for Construction” drawings. Drawings shall be adequately detailed and shall contain enough information to enable construction, full measurement, pricing and production of bill for payment. The working drawing shall include.
- (c) Layout Plan showing:
 - i) All proposed buildings, parade ground, main gate and gatehouse, boundary wall, green area, location of water tank, , Sump, RWH, Electrical Sub-Station, Electrical Power Cable trenches, Drains, Roads, etc.
 - ii) Blow up of road junction / parking area and other such area as required.

- iii) Coordinated External services
- (d) Detailed Drawings:
 - i) Floor plans, fully coordinated with all services/disciplines
 - ii) Elevations
 - iii) Sections
 - iv) Wall profiles
 - v) Doors & Window details
 - vi) Grill and railing details
 - vii) Stairs/Ramps/Lifts details
 - viii) Details of chajjas, fins and gutters
 - ix) Details of building parts, areas, critical special treatments.
 - x) Toilet details including blow ups showing sanitary and plumbing details
 - xi) Flooring pattern, size and details
 - xii) Dado details
 - xiii) Roof flow
 - xiv) Any other detail required by the Authority's Engineer.
 - xv) Fire-fighting details like wet risers, overhead tank, fire tank, fire-fighting pipe network with yard hydrant points, Evacuation Signage Plan.
 - xvi) Landscape including water bodies & plantation works around the buildings.
 - xvii) Drawings of landscape including blow up of critical areas/ landscapes /plant scapes in detailed coordination with all external services
 - xviii) Checking and certifying the Architectural drawings, technical specifications, services and all other drawings to ensure their completeness/correctness
 - xix) Finalizing finishes schedule, elevation treatment, fixtures, colour scheme of all buildings
- (e) Integration of design with the existing landscape including water bodies and suggest modification, if any
- (f) Any other details required for completion of the buildings/services.
- (g) Inspect the works and attend meetings during execution to give clarifications, if any, and to modify the drawings as per the site/construction requirements.

2.2.3.7.2 CIVIL AND STRUCTURAL ENGINEERING SERVICES

(a) Design Basis

- i) Conduct surveys, tests and other investigations as required determining the basis to accomplish safe designs as per latest specifications & codes. Planning for the structural arrangements with the architectural design.
- ii) The Building shall be analysed as a 'Space Frame'. The building shall be modelled using structural engineering software package ETABS/ STAAD.Pro or any other standard proven software. SI units should be followed for entire analysis and design. The modelled space frame should be analyzed for Dead Loads (DL), Live Loads (LL), Wind Loads (WL), Earthquake Loads (EQ) and

their combinations as per as per Zone-V requirements of IS: 1893-2002 (part-1). The Building should also be checked for storey drift. All supports (foundations) of the Building columns and shear walls shall be considered as fixed joints for analysis. Effective length of columns shall be considered as per the standard codes of practice. This structure should be designed and detailed as per Indian codes of practice. All disaster management practices as specified in NBC to be followed.

The structures will be located in an earthquake prone area. Transfer of lateral loads is very important & special care must be taken to transfer these loads in super structure and foundation. Shear walls may be provided for force transfer in lateral direction & to control the deflection due to lateral loads.

The vertical & lateral loads will be significant and there is also a potential danger of soil liquefaction as indicated in sub-soil investigation reports carried out for previous works nearby. Hence, reinforced concrete bored cast-in-situ piles or any other suitable pile foundation system shall be proposed for the foundation of all the buildings.

Importance factor of all buildings (except residential buildings) to be 1.50

- iii) Co-ordination & finalization of structural arrangement
 - Foundation system
 - Beam & Column location
 - Beam & Column size finalization
 - Slab profiles
 - All other detailing required for the finalization of design
- iv) Finalization of design basis & structural systems.
- v) Proof checking of structural design / drawings and issuing the “Good for construction” drawings. The contractor shall also submit the structural design / details (input / output) by the structural engineer and the proof checking thereof along with comments etc. of proof Architect.

(b) Structural Design Development

Design of all the structural and non-structural elements

(c) Drawing Stage

- i) Foundation plans & details
- ii) Column, walls and beam layout plans
- iii) Floor framing plans, fully coordinated with all disciplines
- iv) Floor slab structural details
- v) Column & beam structural details
- vi) Staircases, ramps, lift shafts and machine room details, rainwater harvesting chamber.
- vii) All other details and sketches required for proper execution of the works.

2.2.3.7.3 ELECTRICAL ENGINEERING SERVICES

(a) General

The services to be provided by Architect shall include (Schedule of Quantities of various items involved in this work, Design, Drawings, Vetting and shop drawings).

- i) Design of electrical installations includes all electrical fittings/fixtures, water supply pumps, de-watering pumps etc., as necessary.
- ii) Design of Power Supply & Distribution system of HT and LT including emergency and backup supply, LT panel, feeder pillars, etc.
- iii) Telephone system, intercom communications facilities, data cable/networking system.
- iv) Lightning protection and Earthing system.
- v) External Lighting around building periphery.
- vi) UPS back up, if required or wherever indicated.
- vii) Firefighting, fire detection and PA system design
- viii) Any other services required but not specifically indicated.
- ix) Proper coordination with civil engineering / mechanical engineering features / services.
- x) Liaising of other statutory agencies for obtaining the pre-construction and post construction clearances, if applicable. The statutory payments to these agencies however will be paid by the department/Client.
- xi) Air conditioning / HVAC systems.

(b) Services

- i) Carry out basic and detailed designs of comprehensive electrical power distribution scheme, indoor and outdoor lighting, lightning protection and earthing systems of all the buildings in accordance with the relevant Indian Electricity Rules (amended) and Standards. The work shall include, but not limited to the following services.
- ii) Design and draw up preliminary schemes on the electrical requirements. Design the distribution systems and prepare single line diagrams with details of accessories and equipment.
- iii) Specify the details and capacities of LT panels, standby diesel generators, and to specify the type of supply arrangement for incoming power supply, interlocking arrangement between HT panel, transformer, LT panel & DG sets.
- iv) Design the L T panel room, generator room, Operator Room and to specify the necessary switchgear and control 'Changeover panels, capacitor banks, bus duct, essential and non-essential panels as necessary with the appropriate load shedding.
- v) Make detailed specifications of all electrical items, essential and non - essential panels, power control centers, capacitor panels and the corresponding bill of quantities for the various items.
- vi) Design and prepare detailed layout drawings for the individual power. Indoor and outdoor lighting, lightning protection and earthing system as required.

(c) Telephone, Intercom & Communication System

- i) Telephone layout and telephone equipment including conduit and accessories layout for the telephone system and any protective devices battery back-up required.
- ii) Design the EPABX room. Prepare conduit layout of cables and terminals inclusive of a fiber optic or other special data transmission cables for system required.

- iii) Intercom layout and intercom equipment including conduit and accessories layout for the intercom system and any protective devices required.
- iv) Prepare the specifications.
- v) Check and approve detailed drawings of the suppliers and manufacturers and integrate with other services and in working drawings.
- vi) Check and approve the suppliers' / manufacturers' drawings/documents and integrate with other services and in working drawings.

(d) Cable TV/Dish Antenna System

- i) Prepare working drawings indicating the locations of TV points, Central panel/ racks of dish antenna and necessary conduits for cables.
- ii) Fixing details of dish antenna.
- iii) Prepare specifications.
- iv) Check and approve the suppliers'/ manufacturers drawings/ documents.

(e) Lightning Protection and Earthing System

- i) Lightning protection system shall be an advanced integrated lightning protection system. The work shall include, but not limited to, the following
- ii) Survey, investigation of ground resistivity of sub soil at different depth.
- iii) Prepare plans showing internal/external earth grid, earth electrodes and lightning protection with size of conductors and details of each electrical and lightning arrestors along-with details of earthing pits.
- iv) Design of earthing system shall be based on survey, investigation data, load and as per relevant Indian Standards and Indian Electricity rules.

(f) External Lighting

- i) Assess the external lighting requirement for parking, buildings etc.
- ii) Prepare plans indicating the road lighting with circuit details, typical pole detail with type of fixture, cabling, earthing etc.
- iii) Prepare the specifications.
- iv) Check and approve detailed drawings of the suppliers and manufacturers.

- (g) Planning & Designing C.C.TV & Entrance Security System & Equipment, D.G. Set & Air Conditioning and other services.

2.2.3.7.4 MECHANICAL ENGINEERING SERVICES

(a) General

The services to be provided by Contractor shall include.

- i) Fire detection, Firefighting system and smoke detection.
- ii) Water pumps etc.
- iii) External underground cabling work.
- iv) Audio visual equipment and services.
- v) Other services as specified in bidding documents.
- vi) Proper coordination with civil / electrical engineering features / services.

(b) Services

To carry out basic and detailed design of the required Heating, Ventilation & Air conditioning system. This shall include amongst others the following services:

- i) Fire Detection & Alarm System
 - Design the FDA Control Room layout.
 - Prepare working drawings (Floor wise) indicating the zones, location of the fire alarm sensors, Response Indicator, Manual call points, Hooters, their conduits and wiring and location/details of FDA control panels.
 - 3rd party vetting of drawings from local fire authority

- ii) Water Pumps
 - Specify the type of pumps for water supply & de-watering purpose.
 - Prepare specifications.
 - Check and approve the suppliers'/ manufacturers' drawings/ documents and incorporating in service drawings.
 - 3rd party vetting of design and drawings.

- iii) Ventilators system (as required)
 - Design and estimation of proper ventilation system from user comfort as specified in relevant codes, specifications and also from fire safety point of view.
 - 3rd party vetting of design and drawings.

- iv) Fire Fighting & Fire Suppression System
 - Design and prepare working drawings for internal fire protection fire extinguisher system, UG tanks, etc. in line with the statutory requirements.
 - Sizes of all equipment required and prepare detailed specifications.
 - Obtain necessary permissions from the local fire authority/ bodies etc. as required.

Check and approve detailed drawings and data sheet of suppliers/ manufacturers and incorporation of modification of any working /architectural /structural drawings.

2.2.3.7.5 PUBLIC HEALTH ENGINEERING

- i) All the design and drawings should be well coordinated with Architecture, structure and other services drawings.
- ii) All designs shall be as per the latest Indian Standards, Local bye-laws and statutory norms/regulation.
- iii) Design of Public Health & Engineering services taking into account various topographical, meteorological, Hydrological reports, etc. and identify the source and quality of water, conduct survey of existing water supply system, Sewerage system, Drainage system, Fire-fighting system, other site development works etc. for planning of services. These existing systems are to be augmented if required as per the design.

- iv) The services shall include following major components:

- Water Supply System including pumps.
- Overhead water storage tanks
- Water supply piping network
- Sewerage System.
- Drainage System including rain water harvesting, absorption trenches etc.
- Fire Fighting & Fire Suppression System.

(a) Services

i) Water Supply System

- Calculation of water requirements for entire facility and other blocks and other services for existing and for the buildings and services for the scope of present bidding document.
- Design and prepare working drawings of internal and external dual water supply system including Underground tank, Overhead tank, Water treatment, pumping stations, rising mains, distribution system and internal plumbing, disposal of waste water etc.
- Untreated water supply system for horticultural works including design of sprinkler and drip irrigation system, if necessary.
- Prepare specifications.
- Client's approval of detailed drawings and data sheets of suppliers/manufacturers. Incorporation of suggestion /modification in the drawings.

ii) Internal Sanitary Installations

- Design and prepare working drawings of internal sanitary installations.
- Identify, design and prepare working drawings of disabled friendly toilets and sanitary installations, where required.
- Prepare specifications.
- Client's approval of detailed drawings and data sheets of supplies/manufacturers.

iii) Sewerage System/Liquid Wastes as defined under BMW Rules

- Calculation for quantity of waste water generated from different sources and design waste water disposal system.
- Design and prepare the drawings for disposal of waste water from kitchen and dining halls before connecting to sewage system /including management of solid wastes by suitable disposal system
- Design and prepare the drawings of ETP as per Guidelines for Management of Healthcare Waste as per Biomedical Waste Management Rules,2016 considering the disposal of wastewater generation from the hospital wards, laboratories, used disinfectants, floor washing, washing of patient's area, hand washing, laundry, discharge of accidental spillage, fire fighting, bathroom/toilet etc
- STP and ETPs to be designed for augmentation / improvement of existing system.
- Prepare specifications.

- Check and approve detailed drawings and data sheets of suppliers/manufacturers.
- Client's approval of detailed drawings and data sheets of suppliers/manufacturers and incorporation of suggestion /modification in the drawings.

iv) **Drainage**

- Design and prepare working drawings for storm water drainage including roof drainage, service area drainage and surface drainage.
- Design and prepare working drawings for rain water harvesting system including rain water harvesting pits, trenches and perforated absorption drains.
- Obtain approval from statutory and local bodies for drainage connections and rainwater harvesting scheme etc.
- Prepare specifications.
- Vetting of detailed drawings and data sheets of suppliers/ manufacturers and incorporation of observation in the detail working drawings.

v) **Site development Works**

- Design and prepare working drawings (longitudinal & cross section) for roads/ footpaths/ parking areas etc.
- Prepare specifications of same.
- Vetting of detailed drawings of suppliers/ manufacturers.

vi) **Non Medical Equipment Works**

- MGPS, MOT, Pneumatic Tube System, Nurse Call System, etc.

vii) **Other Services**

- Project Documentation
 - ❖ Prepare and submit required number of copies of monthly progress accomplishment reports of the project.
 - ❖ Ensure the preparation of AS-BUILT drawings and record all approved deviations and changes in drawings.
- Provide any other services not explicitly mentioned but reasonably required for project development.

Compliance of the project as per Environment Impact Assessment norms, if necessary.

2.2.3.8 Number of Documents and copyrights.

2.2.3.8.1 All the documents/drawings, designs, reports and any other details envisaged under this agreement shall be supplied in five copies. All drawings as required for submission to all the local bodies and other authorities shall be submitted as per the requirement of the client. All the drawings for the comments, discussion and approval of employer shall be submitted in triplicate. Six copies of all the final drawings shall be submitted to the Authority's Engineer along with one reproducible in A-1 or large size along with a soft copy in DVD. If there is any revision in any drawing/document for any reason, six copies of drawing/document shall be re-issued along with soft copy in CD without any

extra charges. All these drawings will become the property of the Authority's Engineer. The Authority's Engineer may use these drawings in part or full in any other work without any notice to the Contractor and without any financial claim of the Contractor.

2.2.3.8.2 The drawings cannot be issued to any other person, firm or authority or used by the Contractor for any other project. No copies of any drawings or documents shall be issued to anyone except the Authority or his authorized representative.

2.2.3.8.3 Architectural Design should cover the following general requirements:

- (a) To cater for different functional requirements of user with creative indoor spaces, surroundings, better circulation and flexibility in space planning.
- (b) Integrated designs of electrical, mechanical and other services with structural system and construction methodology with low maintenance.
- (c) Climate responsive Architecture with integration of daylight and electric light, thermal comfort, ventilation and highest performance standards for workspace efficiency.
- (d) Water and solid waste management with water conservation and rainwater harvesting.
- (e) Development of surroundings with site terrain consideration, traffic circulation, indigenous vegetation and plantation.
- (f) The building(s) proposed to be developed should be amenable to latest systems of construction technologies for enabling repeatability and fast track and ease in construction, keeping in mind a lower embodied energy of material and lower energy consumption in the proposed complex.
- (g) All the spaces in the building provided shall be adequately ventilated for light and air.
- (h) The setbacks and height of the building shall conform to all regulatory authority rules and the setbacks shall adhere to the existing structure of the campus.
- (i) Premium quality materials shall be provided for walls, floors, windows, doors etc. in tune with the industry standards of similar buildings.
- (j) Proper care shall be taken to plan movement logistics to avoid criss - crossing of traffic
- (k) Service routing and ducts shall be planned for easy access, maintenance and scalability.
- (l) Compliance of the project as per Environment Impact Assessment norms, if necessary
- (m) Sufficient space for parking of vehicles as per the norms shall be provided
- (n) Vertical circulation shall be well planned to provide quick access to upper floors by suitable location of stairs and bank of elevators (where required as per scope of works).

2.2.3.8.4 Structural design should cover the following general requirements

- (a) The structural design shall be carried out in terms of latest editions and up-to-date correction/ amendment/ errata of BIS Codes (Bureau of Indian Standards), other relevant seismic/other codes for making Building Earthquake Resistant, sound engineering practices and as desired by the client/ Employer. The Contractor will also get the structural designs and drawings proof checked from a “Proof Consultant” if instructed by the Authority by an organization of national repute approved by the Authority’s Engineer for proof checking of structural drawings/proposals prepared by the structural Engineer. The fee for proof checking shall be borne by the Contractor. The Contractor will liaison and co-ordinate **with the Proof Consultant**s and when required and as per the direction of Authority. Any changes suggested at later stage in architectural drawings shall be incorporated in the design and required structural drawing shall be proof checked without any extra cost.
- (b) Submission of all design calculations in hard and soft copies as per the direction of the Authority.
- (c) Any other designing and detailing required for comprehensive planning and designing of the proposed buildings & campus.
- (d) The required buildings along with internal and external services must be planned to achieve minimum cost of operation, minimum maintenance cost and lowest consumption of energy, water & electricity etc.
- (e) One combined integrated drawing of all services will be prepared. (For internal & external services separately). For services being laid in false ceiling, an integrated plan of all services will also be prepared to avoid interference from each other.

2.2.3.8.5 Presentations and Models:

- (a) Preparation of Model(s) to scale 1:200 or any other suitable scale as decided by Authority.
- (b) Preparation of 3D views and blow ups of typical and critical areas and walk through.

2.2.3.8.6 Approval From local Authorities:

- (a) The agency shall take all necessary statutory approval from all local authorities including SFSO, Pollution Control Board, Environmental, AAI clearances etc., if necessary. Preparation of all submission drawings (any numbers) / materials and models as per the required size/scale as required by local bodies.
- (b) The agency shall take all necessary statutory approval of ‘Completion Plan’ from all local authorities including SFSO, Pollution Control Board, Environmental Clearances, NOC of Firefighting equipment. etc. for occupation of the buildings after completion of construction, Architectural works and preparation of all submission drawings (any numbers)/ materials and models for these approvals.
- (c) All statutory payments required for these approvals from local authorities shall be made by the Authority. For saving of time if the payment is required to be made urgently the contractor should make the payment and the amount will be reimbursed by the department after production of voucher & receipts.

2.2.3.8.7 Submission of Data sheet:

- (a) Preparation of Data sheet showing Room wise and Building wise finishing, flooring and Door window, and another high-end Inventory schedule.
- (b) Preparation of Technical Specification for civil works, electrical works, services etc. for all items and submit the data sheet.

Appendix B-1

2.3 Scope of the Project

Building/Infrastructure facilities to be constructed as part of the Project.

Table: A (under Clause No. 2.3)

Built Up Area

AREA SHEET				
	MAIN DISTRICT HOSPITAL	MORTUARY & GAS MANIFOLD	BMW & LAUNDRY BLOCK	ESS BLOCK
Description	100 Bedded Hospital			
No. Of Floors	G.F+4	G.F	G.F	G.F
GROUND FLOOR	2701.80	329.00	124.00	250.00
FIRST FLOOR	2523.30			
SECOND FLOOR	2696.90			
THIRD FLOOR	2586.70			
FOURTH FLOOR	2586.70			
FIFTH FLOOR				
SIXTH FLOOR				
SEVENTH FLOOR				
EIGHTH FLOOR				
TOTAL	13095.40	329.00	124.00	250.00
GRAND TOTAL	13798.40 sqm			
TOTAL BEDS	100	Beds		
TOTAL CAMPUS AREA	17556.40	Sqm		
LESS TOTAL GROUND COVERAGE	-3404.80	Sqm		
ACTUAL DEVELOPMENT AREA	14151.60	Sqm		
TOTAL BOUNDARY WALL LENGTH	771.44	Meter		
FLOOR TO FLOOR HEIGHT (In Meter)	4.05	3.90	3.60	5.10
PLINTH HEIGHT (In Meter)	0.60	0.60	0.60	0.60
LIFTS	02 Nos. (26 Pax Bed Lift)			
	02 Nos. Service Lifts			

Note: 1. Earth Cutting/ Earth Filling to Finished Ground Level (FGL) shall be considered at least 0.5m from Existing Ground Level (EGL) or the Highest Flood Level (HFL) whichever is higher.

2. Provision for One additional floor is to be kept during foundation design for future vertical expansion.

2.3.1 SCOPE OF WORK, USER REQUIREMENTS AND TECHNICAL SPECIFICATIONS

2.3.1.1 Scope:

ASSIST proposes to construct buildings along with site development and infrastructure support as detailed below in table. The minimum plinth area and particulars are also indicated below. The execution will be done on the basis of drawings and schedule to be prepared by the consultant as appointed by the agency with due approval of department. The bidder shall engage a consultant, who shall provide complete planning and design, architectural drawings, detailed working drawings, structural drawings & service drawings for all buildings and development works & services sub head in schedule and any other drawings required for completing the project. The Contractor will also get the structural designs and drawings proof checked from a “Proof Consultant” if instructed by the Authority by an organization of national repute approved by the Authority’s Engineer for proof checking of structural drawings/proposals prepared by the structural Engineer of EPC Contractor. The fee for proof checking shall be borne by the Contractor. The Contractor will liaison and co-ordinate with the Proof Consultant as and when required and as per the direction of Authority. The execution shall be done on the basis on the approved working architectural & structural drawings. Prevailing CPWD Specifications, relevant IS codes, National Building Code 2016, Harmonised Guidelines & Standards for Universal Accessibility in India 2021, Guidelines of AERB, IPHS/NMC Norms and other standard specifications shall be followed in general except otherwise mentioned in bid document. Samples of the materials of approved make or otherwise shall be got approved from the Engineer-in-charge before use in the work.

The scope of work includes topographical Survey, soil Investigation, preparation of architectural drawings, detailed working drawings, structural design & drawings of buildings, required services i.e electrical installations including all electrical fittings/fixtures, water supply pumps, sub-mersible pump, de-watering pumps etc. HT and LT including emergency and backup supply, sub-station, DG set with AMF panel, HT Panel, LT panel, feeder pillars. Lightning protection and Earthing system, External Lighting, Fire fighting, fire detection, UPS, Lifts, Air conditioning VRV/VRF system, Ventilation, Smoke evacuation system, Street light design with control panel, Lighting in meeting room and any other services required but not specifically indicated,. Signages, liaisoning with statutory agencies like Fire Services, BSNL/MTNL, Central Electricity authority, Muncipal Authority, Water supply & sewerage authorities, EIA, CPCB, CGWB / State Water Board etc, forest officer, fire officer, Electrical Service provider for obtaining the pre construction and post construction clearances. The statutory payments to these agencies will be paid by the agency except the charges of HT Electrical Service connection from local supply agency to the HT energy meter in the premises of the building which will be initially paid by the contractor and reimbursed by the department to the contractor on producing the proof of charges paid to the local concern agency. Liasoning with the local supply agency shall be in the scope of the contractor for which, nothing extra shall be paid to the contractor. Complete management of BMW in the HCF including providing of BMW disposal bags ,their collection /replacement and disposal, waste transport trolleys, PPE kits to the personal handling BMW etc., Construction of BMW storage room as per CPCB rules /guideline. Thereafter complete construction and commissioning of building(s) alongwith all mentioned services is in the scope of the work.

The brief scope of work is as follows:

- Survey.
- Soil Investigation

- Preparation of Architectural drawings
- Structural Design & Preparation of Drawings
- Detailed working drawings for Architecture, Structure, Fire Fighting & FA-PA System, MEP Services, External Development, Landscaping, Tree / Plantation etc.
- Planning & Design of all E&M equipment.
- Demolition of Existing Structures; if any.
- Supply Installation Testing & Commissioning of :
 - Substation Equipments.
 - Diesel General Sets.
 - UPS
 - VRV/VRF AC System
 - Solar Photo Voltaic Power Generation System
 - Solar Water Heating System
 - CCTV System
 - Hydropneumatic Water Supply System
 - Lighting Automation Including Occupancy Sensors
 - LAN System
 - Street Lighting with LED
 - IP based EPABX System
 - Nurse Call System, MOT, MGPS, Pneumatic Tube System
 - Audio Visual/Conference System
 - STP
 - ETP
 - Emergency & Illuminated Signages
 - Medical Gas Pipeline System & Liquid Medical Oxygen tank (LMO)
 - Heat Pump for Water Supply System
 - Solid Waste Management System
 - Bio medical waste management system
 - Infection control (adequate handwashing facilities)
 - Hospital Curtain Track System & I.V. Tree system
 - Electromechanical for WTP & RO System
 - Furniture ((To be Installed Concurrent to Commissioning of building).
 - Drinking Water Cooler
 - Drinking Water Treatment with RO.
 - Tube well.
 - Sewage & Drainage Pumps
 - Internal Electrical.
 - Power Wiring & Plugs
 - Lighting Conductors
 - Telephone Conduits
 - Fire Fighting and Fire Alarm & Public Address System
 - Boundary Wall with Main Gate, Guard Room etc. as shown in Master Plan.
 - Sewerage & Drainage System
 - Rain water Harvesting.
 - Lifts
 - Signages
 - UGT along with Pump Room/OHT
- The provision for vertical extension/future expansion of up to one floor should be considered while designing the structure and the foundation should be accordingly designed with similar loading considerations.
- External Development (Internal Road, Footpath, Landscape, Horticulture, Under Ground

Sump etc.)

- Liaisoning with statutory agencies like Municipal, Fire Services, AAI, EIA, BSNL etc. for obtaining the pre construction and post construction clearances. The statutory payments to these agencies will be paid by the contractor which is in the scope of the work except the charges of HT Electrical Service connection from local supply agency to the HT energy meter in the premises of the building which will be initially paid by the contractor and reimbursed by the department to the contractor on producing the proof of charges paid to the local concern agency. Liaisoning with the local supply agency shall be in the scope of the contractor for which, nothing extra shall be paid to the contractor.
- Plumbing & Water Supply system.
- Thereafter construction and commissioning of building(s) complete alongwith the above mentioned services.
- Obtaining mandatory approvals (Pre & Post Construction) from all local bodies/ State & Central authorities/ Municipal Corporation, EIA (Environmental Impact Assessment) clearance, fire clearance, forest clearance etc. for the complete works in scope of this contract. Approvals as per latest Assam local building Byelaws / Town & Country Planning (Assam) Bye laws with up to date corrections slips, necessary Environmental Clearance from the appropriate authority, Authorisation /CTE /CTO from SPCB, NOC from Fire Department, NOC from Airport Authority of India, IPHS/National Medical Commission etc. and any other statutory approval/Central Licensing Approving Authority etc. related to building for office building, approval from authorities required for commencing the work, execution of work & services and handing over the assets. The defect liability period after completion of work **shall be 12 months**. The contractor has to withstand the warranty and has to provide the repair services to building and all equipments & accessories during the defect liability period. The contractor has to attend the complaints of minor nature within 24 hours and the complaint of major nature within 3 days of receiving the complaints. For this purpose, the contractor has to depute sufficient number of technical manpower within the building complex. In case, **if the complaint is not attended and rectified by the contractor within the specified period as above the work shall be got rectified by the department and the recovery at the double rate of cost of execution of work shall be recovered from the dues of the contractor**. LED fitting/fixtures shall withstand the warranty of five years from the date of handing over the installations to the client department.
- The cost of labour, material, tools and plants and machinery required for execution of the whole project as per Layout plan & detailed design and drawings to be approved, specifications etc. is within the scope of this work.
- The buildings are to be planned and registered to meet **THREE STAR GRIHA** rating. The contractor is required to execute the work in a befitting manner to suit these standards. The contractor shall take all precautions and abide by all rules, regulations and directions of the regulatory authorities, municipalities, traffic, labour, green tribunal in respect of all kind of pollution, C&D waste management, labour safety measure etc.
- **Demolition of existing structure:**
 - a. The existing structure are to be demolished for clearing the site for construction & taking away the dismantled materials for which the quoted amount has to be deposited by the contractor with the Engineer-in-Charge before starting demolitions.
 - b. The bidder shall quote the lump sum amount (in minus) for Item No.1 for Demolition. The amount so quoted in financial bid in minus as per scope of demolition, shall be deposited with the Client Account before start of demolition. The structure are to be demolished for clearing the site for construction & taking away the dismantled materials for which the quoted amount has to be deposited by the contractor with the Engineer-in-

Charge before starting demolitions. The agency shall deposit the whole amount quoted against item No.1 in Schedule of quantities before start of work.

- c. The amount quoted for demolition shall be adjusted to the rates quoted for the main project and the lowest overall amount quoted by the agency together for both demolition and construction of office building to work out the lowest bidder to be declared as successful bidder. However, the Engineer-in-Charge does not bind himself to accept the lowest bid and reserves the right to reject any or all of the bids received, without assigning any reasons and there shall be no claims on this account.
 - d. The demolition work of existing structures on plot of land shall be completed within a period. All the pre-construction activities including preparation and requisite approvals of the designs and drawings shall be taken up simultaneously and completed within a period. The agency has to deposit bank guarantee of the amount so quoted in financial bid in minus against item no. 1, for demolition as per scope of demolition, in the name of Executive Engineer, , before start of demolition work, which will be release after the whole amount quoted against item no.1 is adjusted in the first 2 RA bill.
 - e. The Contractor shall, for the performance of its obligations hereunder during the Construction Period, provide to the Authority, within 28 days of the date of issuance of LOA, Dismantling of Existing Structures (DES) Performance Security. The standard forms of DES Performance Security shall be irrevocable and unconditional guarantees from Scheduled/ Nationalized Banks in the forms set forth below. The Performance Security amount is equal to 2% of the Contract Price (Quoted Price under Salvage). The DES Performance Security shall be valid until 60 (sixty) days after the Defects Liability Period. Until such time the DES Performance Security are provided by the Contractor pursuant hereto and the same come into effect, the Bid Security shall remain in force and effect, and upon such provision of the DES Performance Security, the Authority shall release the Bid Security to the Contractor.
- Contractor has to take all protective and preventive measures to protect buildings/ structures/other infrastructure/services in the vicinity of the proposed building from any kind of damage at his risk and cost. Sheet piling or other safety measures as directed by engineer in charge shall required to be taken by the contractor to protect the buildings/ structures/services including their foundations from any possible damage. The measures so taken are inclusive in the quoted rates of the contractor. Nothing extra shall be admissible for such measures. Any damage caused on account of any action of the contractor to any adjacent buildings/ structures/other infrastructure/services in the vicinity of the proposed building shall have to be made good by the contractor at his risk and cost, failing which the engineer in charge after giving a notice to this effect in writing shall get it done at the risk and cost of contractor.
 - Royalty at the prevailing rates wherever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand and bajri etc Or any other material collected by him for the work directly to revenue authorities/Govt authorities and nothing extra shall be paid by the department for the same.
-

FORM OF BANK GUARANTEE

DEMOLITION OF EXISTING STRUCTURES (DES) PERFORMANCE SECURITY

[Guarantor letterhead or SWIFT identifier code]

DES Performance Guarantee No.....*[insert guarantee reference number]*

Date.....*[insert date of issue of the guarantee]*

To: _____ *[name of Authority]*
 _____ *[address of Authority]*

WHEREAS _____ *[name and address of Contractor³⁴]* (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

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

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of guarantee]* _____ *[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 your demand for the sum specified therein.

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

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

This guarantee shall be valid until³⁵, and any demand for payment under it must be received by us at this office on or before that date.

³⁴*In the case of a JV, insert the name of the Joint Venture*

³⁵*Insert the date sixty days after the the expiry of Defects Liability Period. The Authority should note that in the event of an extension of this date for completion of the Contract, the Authority would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date*

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

Notes:

- (i) All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.
- (ii) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (iii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

established in the guarantee. In preparing this guarantee, the Authority might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Authority's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee"

Note:

1. The payments shall be made on the area basis with respect to each building. The area for the purpose of payment shall be the plinth area constructed. For calculation of plinth area, rules for working out the plinth area from plans as given in the annexure II of PAR-2021 shall be followed.

Following areas shall not be reckoned with for working out the plinth area and their cost shall be deemed to be included in the respective subheads / items of works.

- i. Areas for security cabins at entrances, pump room, underground structures including UG Tanks, STP/WTP/Borewells etc. shall not be reckoned towards the plinth areas and their cost shall be deemed to be included in the respective subheads/items of works. Please Note, Porch/Boxing on external wall/Facade will not be counted under built up area.
 - ii. Open courtyards, Lift wells, Shafts/Niches, Lift Machine rooms, Mumties, Chajjas, Shafts for sanitary, water supply installations, garbage chute, telecommunication, electrical, firefighting, air conditioning and lifts etc.
 - iii. If any; All Courtyard covering with steel structure and polycarbonate sheet not to be counted in the Plinth area for the calculation of EPC area calculation.
 - iv. Shafts for sanitary, water supply installations, telecommunication, electrical, fire fighting, air-conditioning and lifts etc will not be counted under built up area.
 - v. Area of Mumty/Machine room, architectural feature if any, above terrace not to be counted in the Plinth area for the calculation of EPC area calculation.
 - vi. The total plinth area of a building shall be the sum total of the plinth area at every floor including the basement, if any.
 - vii. Stilted area not to be counted in the Plinth area for the calculation of EPC area calculation.
2. Schematic layout plan, drawings of buildings and soil test report may be attached with bidding documents. These are only indicative just to give an idea regarding works. The successful bidder will have to prepare the architectural drawings afresh as per the requirement of the client and the Authority. Similarly, detail survey and soil investigation must be carried out by the successful bidder after award of work. No claim whatsoever will be entertained in future in this regard.
 3. The scope of works & specification are given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/ or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the contract document/specifications but will be necessary to complete the items in all respect. All these incidental works/ costs which are not mentioned, but are necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation/change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all

respects) on account of the directions of Engineer-in-charge. Nothing extra shall be payable on this account.

4. In case, some of descriptions are missing in the scope of work or specifications in the bidding documents, items / work shall be executed as given in the CPWD Specifications, NBC-2016, Harmonised Guidelines & Standards for Universal Accessibility in India 2021, IS Codes, IPHS/NMC Norms, Guidelines of AERB etc and according to sound engineering practices so as to make the building including related services fully functional. No claim what so ever shall be entertained at later stage. All cost of providing and making buildings with services, landscape and horticulture works fully complete and making buildings functional in all aspect unless specifically mentioned in the contract document.
5. In case there is any change in scope as defined in the contract, the contractor shall carry out the changes as per direction of Engineer in Charge and nothing extra shall be payable to the contractor on account of same if the additional cost of such work is up to 0.25% (zero point two five percent) of the accepted tendered amount below' Variations/deviations upto 0.25% (zero point two five percent) of the accepted tendered amount shall be deducted from overall variations/deviations for making payment.
6. In the event, there is any deviations/variations in work as defined in the contract, the contractor shall submit the complete proposal to Engineer-in-charge within 15 days duly supported with :-
 - Analysis of rates for items involved, along with relevant documents, rates of materials, tools/plants and labour, etc.
 - The impact, if any, which the deviations/variations is likely to have on the project completion schedule. On receipt of such proposal, either individually or covering group of items, the Engineer-in-charge shall examine the proposal regarding its admissibility and finalize the proposal/rates within 45 days after receipt of proposal with all requisite details and documents from the contractors, after giving due consideration to the proposal, analysis and rates of materials and labours, etc.
7. The increase/decrease in the rates due to deviations/variations shall be decided based on the following criteria: -
 - i. Pricing of deviations**
 - a. If the item of work as stipulated in the schedule of quantity/scope of work deviates on plus side, then the rate for the deviated quantity shall be paid at the agreement rate upto the deviation limit with the same terms & conditions of the contract. Beyond deviation limit rate shall be payable on market rates to be determined based on the relevant documents and prevailing market rates, as per Para (ii) below
 - b. If the item of work as stipulated in the schedule of quantity/scope of work deviates on minus side, then the amount for such deviated quantity shall be deducted proportionately at the agreement rate.
 - ii. Pricing of variations**

If there are changes in the quantity/specifications/alterations/substitutions/additions, etc. in the items, other than mentioned in para-(i) above, the rates shall be determined based on detailed analysis of rates with original stipulated scope of items & newly proposed/ provided items. The difference of rates so determined shall be payable to/recoverable from the contractor The rates for both the components i.e. materials & labour shall

be based on prevailing market rates. The rate finalized by the Engineer-in-Charge shall be final and binding.

8. In case of either non-submission of timely proposal or incomplete proposal by the contractor for deviations/variations, the Engineer-in-Charge shall give final opportunity to the Contractor to submit the complete proposal for change of cost within next 15 days. In case of non-submission or further incomplete submission by the contractor within the stated period, the Engineer-in-Charge shall initiate the proposal and decide the change of cost. In such case the proposal finalized by the Engineer-in-Charge shall be final and binding on the contractor.
9. Work(s) due to deviations/ variations shall be executed only after getting the instructions of Engineer-in-charge, save except to meet any work of emergent nature.

Note: Notwithstanding anything to the contrary in, any change arising from default of the contractor in the performance of his obligations under this agreement shall not be deemed to be deviations/variations and shall not result in any adjustment of the contract price or the project completion schedule.

2.3.1.1.1 Electrical Works:

1	Internal & External Electrifications	Design, Supply, installation, testing and commissioning of Internal LED lights, Fittings, Exhaust fan, Ceiling fan, Modular Switch board, Floor Panels, Rising main, Energy meters, Lightning arrester, LED Street lights along approach roads to be constructed and around the building periphery.
2	Building Internal Lifts	Design, Supply, installation, testing and commissioning of all lifts as described in the scope of works and additional scope of works, etc.
3	Fire Fighting, Fire Detection, Fire Alarm System	Design, Supply, installation, testing and commissioning of Fire Fighting, Smoke detectors, Fire alarm system as per requirement, updated BIS codes, Fire bye-laws of Govt. of Assam and CPWD PAR 2021 specifications for all buildings. The scope of work also includes connecting to Underground water tank including fire hydrant for electrical rooms and high risk areas, etc.
4	External Electrical Services	Providing electrical connection to the proposed buildings from existing ESS/Sub-station by underground armoured cables. Testing and commissioning of power supply to the proposed buildings

2.3.1.1.2 Site Development Works (including survey, investigation, design and construction):

1	Earth filling :	
	Earth filling of the locations of proposed buildings for ground area specified in table A below, to be carried out to Finished Ground level (top level of adjoining road surface)	As per site requirement
2	Roads:	

	Approach and internal road of the proposed project for construction with WBM layers and bituminous surface course.	As per site requirement
3	Peripheral drains:	
	Survey, investigation, design & construction of building peripheral drains, rain water harvesting in the external area around the buildings for the total roof area of each building is considered for construction as per approval from SPCB as given in Consent to Establish under water act (nos. will be as per requirements).	
4	External water supply:	
	Providing and laying water supply lines around the buildings, parade ground, main gate and gate house etc. and connection to main water line which is connected to central water supply reservoir. Providing overhead water storage tanks for lifting water with the help of deep boring with suitable pumping and filtration arrangement.	
5	Landscape :	
	Survey, investigation, design & construction of Landscape works (both hard & soft) in and around the buildings, roads & services in the scope of this tender and free maintenance of same for one year after the completion of work.	
6	Other items which are not mentioned above but are essential considering functional requirements and according to modern concept of building.	

Note:

1. All works has to be executed as per specifications provided in the bid document, CPWD (Building and NH/ Roads) Specifications and National Building Codes 2016 (in case of difference if any, stringent / higher specification of the two shall be followed. In absence of CPWD(Building and NH/ Roads) Specification, IS Codes, MoRTH Specifications, National Building Code 2016, Specifications, CPWD Specifications or sound engineering practices shall be adopted as per order of precedence defined in the contract.
2. The scope of works & specifications are given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/ or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the contract document/specifications but will be necessary to complete the item in all respect. All these incidental works/ costs which are not mentioned, but are necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation/change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Authority's Engineer. Nothing extra shall be payable on this account.

3. In case, some of items are missing in the scope of work or specifications in the bidding document same shall be taken from the specification mentioned in similar type of items mentioned for similar type of buildings in the scope of work or shall be executed as given in the CPWD (Building and NH/ Roads) Specifications, NBC- 2016, IS Codes or according to sound engineering practices so as to make the building including related services fully functional. No claim what so ever may be entertained at later stage. All cost of providing and making buildings with services, landscape and horticulture works fully complete in all aspect unless specifically mentioned in the contract document and making buildings with services fully functional are included in the cost tendered for this work.

2.3.1.1.3 Brief Description of activities: -

(a) Planning:

- i) Survey, investigation (including soil investigation) and other related works & services.
- ii) Architectural planning of buildings & services including integration with existing buildings in the campus and obtaining all statutory / local body approvals required to start construction work as per plinth area given above.
- iii) The structural design of earthquake resistant RCC framed structure buildings conforming to Zone-V of IS:1893 by response spectrum method with importance factor as 1.50 & design of services including integration with existing services in the campus and getting approval from client.
- iv) Compliance of the project as per Environment Impact Assessment norms, if necessary.
- v) All building shall be designed for differently-abled persons as per the latest norms of Central Govt.

(b) Execution of Work:

- i) After approval from the Authority and getting approval from local bodies including necessary modifications as per the requirements execution of works as per the scope of buildings & services defined in the contract document, CPWD Specifications, NBC-2016, IS Codes, MoRTH Specifications and Sound Engineering Practices and handing over the assets after making them functional in all respects.
- ii) Submission of completion plan of the building & services including getting approval/clearance from local bodies. Submission of building & services plan & drawings and other related documents both in hard copy and the soft copy (in Auto CAD and other software used for the purpose) after completion (i.e. 'as-built').
- iii) Jungle clearance of all the earmarked sites, and removal outside the campus to designated dumping grounds.
- iv) Tree-cutting and removal from site.
- v) Demolishing & removal of any temporary structures in the Construction Area and removal outside the campus to designated dumping grounds.
- vi) Shifting of all Utilities & underground and overhead services from the Construction area.

- vii) Earthfilling by selected soil and mechanised compaction, to Finished Ground Level (FGL) which will be the top level or more than that of the adjoining road surface.
- viii) Clearance of site before Handing over of the facilities after fulfilling all the obligations under the contract.

(c) Comprehensive Maintenance in Defect Liability period of 1 year:

- i) Free defect liability period for buildings, horticulture works and building services for one year after completion of complete project (not from the date of actual commissioning of installation).

Free operation of electrical installation i.e. firefighting, fire alarms, HVAC systems, electrical panels and all electrical fittings for first year under defect liability period after completion of the whole project.

SCHEDULE - C (See Clause 2.1)

PROJECT FACILITIES

3.1 Project Facilities

The Contractor shall construct the Project Facilities in accordance with the provisions of this Agreement. Such Project Facilities shall include:

3.1.1 Site Development works:

- i) Raising of low sites
- ii) Site drainage works
- iii) Boundary wall
- iv) Main gate and gatehouse

3.1.2 Civil, Structural & Finishing Works:

- i) Plinth protection works
- ii) Drainage systems

3.1.3 Mechanical, Electrical & Plumbing works (MEP):

- i) Electrical electrification, DG Set, UPS, & External Lighting
- ii) Plumbing systems, Pump, Sanitary fittings, Water supply works and fittings.
- iii) Rainwater Harvesting system for each building of the Project
- iv) Effluent Treatment Plant
- v) Sewage Treatment Plant
- vi) HVAC System

3.1.4 Fire Detection, Alarm & Fire Fighting Works, Security Equipment:

- i) Design the FDA Control Room layout.

Prepare working drawings (Floor wise) indicating the zones, location of the fire alarm sensors, Response Indicator, Manual call points, Hooters, their conduits and wiring and location/details of FDA control panels

3.1.5 Non Medical Equipments:

MGPS, MOT, Nurse Call System, Hospital Curtain Track System & I. V Tree System, Pneumatic Tube System etc

- 3.1.6 Bio Medical Waste Treatment facility: This facility shall be designed as per the Bio-medical Waste Management Rules, 2016 and Amendments thereof from time to time in co-ordination with PCBA. Looking into the status of functioning of the CBWTFs for the region, decision on establishment of captive BMW disposal facility shall be taken.

SCHEDULE - D
SPECIFICATIONS AND STANDARDS

1 Construction

The Contractor shall comply with the Specifications and Standards set forth in Annex-I of this Schedule-D for construction of the Project. The Contractor has to complete the work as per requirements in line with the Master Plan & Concept Designs and Finishing Schedule (Refer Volume III (Enclosed with RFB) as well as the Design Basis Reports (DBR's) and Technical Specifications made available with the RFB document (Refer Volume II (DBR and Technical Specifications). (DBR & Technical Specification of Civil/Architecture, Structure, Plumbing & Fire fighting, Electrical, HVAC, Nurse Call System, MOT, MGPS,Curtain Track System &I.V. Tree System, Solid Waste Management System, Pneumatic Tube System,Non Medical Furniture.

2 Design Standards

The Project including Project Facilities shall conform to design requirements set out in the following documents:

Refer Volume II: Design Basis Reports (DBR's) and Technical Specifications ((DBR & Technical Specification of Civil/Architecture, Structure, Plumbing & Fire fighting, Electrical, HVAC, Nurse Call System, MOT, MGPS,Curtain Track System &I.V. Tree System, Pneumatic Tube System, Solid Waste Management System, Non Medical Furniture.

Refer Volume III: Finishing Schedule & Drawings (Enclosed with RFB)

Annex - I
(Schedule-D)

Specifications and Standards for Construction

1

4.1 Construction Specifications

4.4.1 Building Works:

(a) Scope Of Works:

Scope of the work comprises of the following components:

- (i) Design and Drawings
- (ii) Construction of Various Buildings (RCC)
- (iii) Construction of Boundary Wall & Gate
- (iv) Internal Sanitary and water supply of buildings
- (v) External Sanitary and water supply of the complex
- (vi) Anti-termite treatment works
- (vii) Storm water drains & sewerage works
- (viii) Rain water harvesting works
- (ix) Firefighting & Protection works.
- (x) Landscaping and site development work

4.4.2 Specifications and Standards:

- i) The technical specifications for building, roads, electrical, water supply & sanitary works shall be as per the specifications detailed in the Central Public Works Departments PAR 2021
- ii) All the materials to be used in construction work, equipment and fixtures to be supplied shall be approved by the Authority, concerned Engineer in charge or his authorized representative before utilization in the work.
- iii) Compliance of the project as per Environment Impact Assessment norms, if necessary.
- iv) Building should conform to all requirements as laid down in the latest “Harmonized guidelines and Space standards for Barrier free built environment for persons with Disability and Elderly persons’ published by the Govt. of India.
- v) All provisions as per National Building Code (NBC) to be followed.

4.4.3 Construction of Various Buildings and Infrastructure Facilities:

4.4.3.1 Technical Specifications

The broad technical specifications for the project are given herewith.

4.4.3.1.1 Brief Specification:

All RCC works shall be designed as per IS:456: 2000 with its latest amendments

- i. Foundation : R.C.C. foundation as per design based on sub-soil investigation report.
- ii. Columns & Beams : R.C.C. as per design.

- iii. R.C.C. works: All RCC works are to be done using super plasticiser. Minimum grade of concrete is M20. All reinforcement will be TMT bars of TATA / SAIL Super ductile of Fe-500 grade from primary producers as per approved make of C.P.W.D. PAR 2021 and cement will be used as per approved make of C.P.W.D. PAR 2021.
- iv. Plinth wall: **(Brick Work Compliant to Three Star Griha Rating as per latest/Version 2019)**
 Outer Wall: 230 mm thick first class brick work in cement mortar prop. 1:4 and 15mm thick cement plaster in prop. 1:4 on outer side.
 Inner wall: 112 mm thick first class brick work in cement mortar prop. 1:4.
- v. Floor:
- 65mm cement concrete (with super plasticiser) prop. 1:3:6 over flat brick soling.
 - 25mm thick cement concrete topping in prop. 1:2:4 over R.C.C. slab as per design as leveling course of concrete floors in all floors except ground floor.
 - Vitrified floor tile
- vi. Wall : **(Brick Work Compliant to Three Star Griha Rating as per latest/Version 2019)**
- Superstructure walls 112mm thick brick wall in cement mortar in prop. 1:5
 - Ceramic Glazed tiles up to the height of 2100mm from floor level.
- vii. Plastering: All plastering shall be done using Recron 35 fibre.
- Interior plastering: 15mm thick cement plaster in prop. 1:4 on rough side and 10 mm thick plaster in prop. 1:4 on fair side of brick.
 - Exterior plastering: 20mm thick plastering in double layer (10mm + 10mm) in prop.1:4 with horizontal grooving work as per approved drawing and specification.
- viii. Painting :
- Exterior painting : Weather coat similar for outside walls over one coat of Birla White wall care putty.
 - Interior painting :One coat of Birla White Wall Care Putty.
 - One coat of Alkali resistant exterior grade primer of Asian paints / Berger Two coats of acrylic emulsion painting of Asian paints / Berger
 - Cupboards, chowkaths, doors, windows, C.S.W., pelmets, architraves, stair case railings, Collapsible gates, grills etc. are to be painted with two coats of painting of Asian paints / Berger. Wooden surfaces are to be prepared with wall putty and one coat of alkali resistant primer.
- ix. Roof : R.C.C. slab (As per design, drawing and specification) with proper application of water proofing treatment by Sika/ Choksey/ Fosroc/ Dr. Fixit. Roof grading to be done using Recron 35 fibres.
- x. Windows and Clerestory Windows : Aluminum window and CSW shutters with I.S. standard anodized aluminum extrude Sections frames.
 MS Grills @ 12kg / Sqm of approved design and specification are to be fixed to RCC or brick work.

- xi. Doors :
 - Front Doors : 40 mm thick Factory made fully panelled wooden teak door shutters with powder coated pressed steel door frames.
 - Other doors : 35mm thick pre-laminated waterproof and termite proof flush door fixed to powder coated pressed steel door frames. For toilet doors inside should be finished with melamine finish over enamel paint.
- xii. Miscellaneous : R.C.C. chajjah, lintel, M.S. Grills, Rain water down pipes, aprons, drains, fins etc. to be provided as per approved design, drawings and specification.
- xiii. Others : Architraves, SS 304 stair case railings, Collapsible gates as per approved design, drawings and specification.
- xiv. Plinth height : 600 mm (stilt parking) minimum from finished GL or it may be more subject to approval of the dept.
- xv. Floor height : As per basic drawings provided.
- xvi. Sanitary fittings: As per approved design, drawings. .
- xvii. Ramp : Ramp is to be constructed with a slope of 1:12 As per approved design, drawings and finished with antiskid tiles and directional Tec tiles.

4.4.4 Construction of Boundary Wall, Gate and Raising Low Site:

4.4.4.1 **Construction of Boundary Wall, Gate:** Construction of compound/ boundary wall, Gates as per approved design, drawings and specifications complete.

4.4.4.2 INTERNAL SANITARY AND WATER SUPPLY WORKS:

4.4.4.3.1 **Internal Sanitary installation:** Provision to be made as per scale laid down in latest I.S. code 1172 and specification as per sanitary installation (Parry ware / Jaquar / Cera make). Sanitary & water supply fitting shall be of brands approved in CPWD PAR. W.C. outlet points presently should be at 300mm away from wall with a provision for future at 100mm from wall. Sewer pipes should be of PVC of High pressure grade i.e. 6 kg/sq.cm.

4.4.4.3.2 **Internal water supply works:** Provisions and specifications as laid down in latest I.S code & schedule of rates. All internal distribution pipes shall be G.I. concealed type of TATA/Astral make as per design and specification.

4.4.4.3 EXTERNAL SANITARY AND WATER SUPPLY WORKS:

4.4.4.4.1 **External Sanitary installation:** Providing external sanitary arrangements of the building with 110mm dia PVC soil pipes and 450 x 450 mm inside inspection chamber where necessary with necessary arrangement for connection with future sewerage system line as per design specification complete.

4.4.4.4.2 **External water supply works:** Centralized Water supply system shall be developed inside the campus. All proposed buildings and facilities are to be connected to the network by adequate pipes.

The pipe networks are to be of approved make with heavy fittings of approved quality. Motor pump sets of reputed approved manufacturers are to be provided as per requirements. All works shall be as per relevant I.S. code of practices.

Overhead PCVC Tank for every building of adequate capacity to be provided and connected to overhead tank.

4.4.4.4 ANTITERMITE TREATMENT WORKS :

Anti termite works are to be done using “Chlorophyrafos” as chemical in specified strength. Latest I.S. 6313 part I & II are to be followed for specification & execution of the work.

4.4.4.5 STORM WATER DRAINS & SEWERAGE WORKS:

Storm water drain pipelines and sewerage works are to be laid to attain self-cleansing velocity and efficient flushing of all effluents. For storm water drains, consideration shall be given to the effects of local condition and to the intensity and duration of rainfall. Manhole, road gully and inspection chambers are to be provided at suitable location and their size shall be governed by relevant I.S. code, materials for drains & sewerage may be brick(**Brick Work Compliant to Three Star Griha Ratingas per latest/Version 2019**), cement concrete plain or R.C.C. as per site condition, durability & economy of the scheme. I.S. code 1172, 1742, and other relevant code of practices are to be followed for the work. Discharge of effluent and storm water to be made up to nearest natural outfall. Sewer pipes should be of PVC of High pressure grade i.e. 6 kg/ sq.cm. Sewage system to be connected to ETP/STP. The ETP/STP should be designed as per CPHEEO manual and the effluent discharge standards must comply with National Green Tribunal notifications. The ETP/STP has to meet the CPCB guidelines as defined in Bio Medical Waste Management Rules, 2016. Necessary permissions to be taken at operational stage by the Contractor as a commissioning of project.

4.4.4.6 FIRE FIGHTING & PROTECTION WORKS

Fire protecting and extinguishing system shall conform to accepted standards as per latest I.S. codes 2175, 2217, 2189 etc. and shall be installed in accordance with I.S. 1648, 3844. Minimum standard of fire safety, which can be reasonably achieved within the limit of cost, has to be provided without necessary interference with normal use and occupancy of the building and its premises. Underground water reservoirs (RCC/ MS as per design) of capacity not less than 20,000 liters proposed. The Fire fighting & Protection works should include the following components:

- Providing fire protection and fire fighting works as per relevant I.S. Code of practices, local authorities regulations etc. complete as per approved drawing, design and specifications.
- Piping network with fire hydrant as per I.S. Specification, approved design and drawing.
- Motor pump, Panel board and fittings as per latest I.S. codes 2175, 2217, 2189 etc. and shall be installed in accordance with I.S. 1648, 3844. All works shall be as per relevant I.S. code of practices.

4.4.4.7 **HVAC Works:** HVAC works shall conform to CPWD specifications for HVAC 2017

4.4.4.8 **MGP System, Pneumatic Tube System & MOT:** should conform to CPWD specifications for MGPS, Pneumatic Tube System & MOT.

4.4.4.9 **Data Networking, Communication and Security:** should confirm to specifications and standard of ITIL (IT Industry Library)

Annex – II (Schedule-D)

4.2 General Specifications

4.5.1 General specifications for construction

4.5.1.1 Except for the items, for which particular specifications are given or where it is specifically mentioned (Refer Volume II (DBR & Technical Specification of Civil/Architecture, Structure, Plumbing & Fire fighting, Electrical, HVAC, Nurse Call System, MOT, MGPS, Curtain Track System & I.V. Tree System, Solid Waste Management System, Non Medical Furniture (enclosed with RFB)), otherwise in the description of the items; the work shall generally be carried out in accordance with the “CPWD Specifications 2019 (Vol-I & II) with upto date corrections slips for Civil work, CPWD General Specification for Electrical Works Part I Internal – 2013, CPWD General Specification for Electrical Works Part IV Substation – 2013, CPWD General Specification for Electrical Works Part VII DG Sets – 2013, CPWD General Specification for Electrical Works Part V wet riser & sprinkler systems – 2020, General Specification for Heating Ventilation & Air- Conditioning-2017, General Specification for Electrical Works (Part III Lifts & Escalators)-2003, CPWD General Specification for Electrical Works Part II External – 1994, CPWD General Specification for Electrical Works Part VI Fire Detection and Alarm system-2018. Specification for horticulture and landscaping-2018 works with upto date correction slips (hereinafter to be referred to as CPWD specifications). Wherever CPWD Specifications are silent, the latest IS Codes/Specifications, National Building Code 2016, Harmonised Guidelines & Standards for Universal Accessibility in India 2021, Guidelines or AERB, MoRTH specification or any other specification shall be followed.

4.5.1.2 The order of precedence in case of any confusion/dispute will be as follows :

- Description of nomenclature of items in bidding documents.
- Description of user requirement and technical specifications.
- Particular specifications and special conditions for civil, electrical and horticulture works.
- Architectural/ structural drawings.
- CPWD General Specifications.
- Indian Standard Specifications of B.I.S.
- National Building codes 2016.
- Manufacturers specifications.
- Sound engineering practices.

A reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards upto last date of receipt of tenders. The Contractor shall keep at his own cost all such publications of relevant Indian Standard applicable to the work at site.

4.5.1.3 Samples including brand / quality of materials and fittings to be used in the work shall be got approved from the Authority, well in advance of actual execution and shall be preserved till the completion of the work.

4.5.1.4 The cost of work shall be inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any

source, such as rains, floods, and sub-soil water table being high due to any other cause whatsoever.

4.5.1.5 The following modifications to the above specifications shall however apply:

- All stone aggregates shall be of hard stone variety to be obtained from approved Quarries.
- River Sand conforming to Zone-I & II of IS:383 to be used for cement concrete work, mortar for masonry and plaster work shall be of standard quality. Sand shall be obtained from approved quarry and screened as required. The same shall be clean and consist of hard material.
- **(Brick Work Compliant to Three Star Griha (latest or Version 2019) Rating to be used.)** Bricks of 7.5-class designation of standard size as per IS specifications shall be used. Burnt Clay Brick shall be obtained from kilns as approved by the Authority's Engineer. AAC blocks of approved make and size may be used after due approval of the Authority, if so desired.

4.5.1.6 Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be inclusive of all cost & taxes and shall apply to all leads and lifts and nothing extra shall be payable on this account.

4.5.1.7 The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, material, tools and plants and other inputs involved in the execution of the item.

4.5.1.8 The foundation trenches shall be kept free from water while works below ground level are in progress.

4.5.1.9 No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.

4.5.1.10 All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, temporary boundary wall or fencing around the working sites, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, testing facilities/ laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Authority's Engineer, shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Authority's Engineer, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement & other storage, fabrication yard, site laboratory, water tank etc.

4.5.1.11 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work

according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.

- 4.5.1.12 All material shall only be brought at site as per program finalized with the Authority's Engineer. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
- 4.5.1.13 The cost of flooring is inclusive of providing sunken flooring in bath-rooms, kitchen, etc. and nothing extra on this account shall be payable.
- 4.5.1.14 Any legal or financial implications resulting out of carriage of earth from outside or disposal of earth shall be sole responsibility of the contractor. Nothing extra shall be paid on this account.
- 4.5.1.15 The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors are minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper coordination of various disciplines viz. sanitary & water supply, electrical, fire-fighting and any other services.
- 4.5.1.16 All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions submitted before covering.
- 4.5.1.17 Quality Assurance
- (a) The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted.
 - (b) The contractor shall get the source of various raw materials namely aggregate, cement, sand, steel, water etc. to be used on the work, approved from the Authority's Engineer and trial mixes for controlled concrete shall be done using the approved materials. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Authority's Engineer for which tests etc. shall be done by the contractor at his own cost.
 - (c) Similarly, the contractor shall submit brand/make of various materials to be used for the approval of the Authority's Engineer along with samples and once approved, he shall abide by it. Any change will have to be got approved from Authority's Engineer in advance.
 - (d) The contractor shall submit shop drawings of staging and shuttering arrangement, stone cladding and other works including mock work as desired by Authority's Engineer for his approval before execution. The contractor shall also submit bar bending schedule for approval of Authority's Engineer before execution.
 - (e) The contractor shall depute Quality Manager exclusively for enforcement of quality control. Such Quality Manager should be a qualified engineer with minimum Eight years of similar experience. For other staff to be deployed for quality assurance, the contractor may refer to attached qualification criteria of technical personnel to be deployed at site.
 - (f) **Third Party Quality Assurance:** In order to achieve a high standard of quality, it shall be required to go for Third Party Quality Assurance. For this purpose, a separate agency shall be appointed by the owner who will carry out independent testing of materials and
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checking and ensuring overall quality procedures. The contractor shall be required to fully cooperate with agency and facilitate them in taking samples, transportation and examination of various activities including documentation at no extra time and cost to the owner. In case of any adverse findings by the agency, the contractor shall do the needful rectifications at no extra time and cost to the owner. The Authority's Engineer shall be at liberty for getting quality assurance work done through other agencies approved by competent authority at its own cost. The successful tenderer shall include the provisions of Quality Assurance while framing the proposed methodology for tests.

4.5.1.18 Safety Precautions

Contractor shall within two weeks of award of work, submit to the Authority's Engineer for his approval, list of measures for maintaining safety of manpower deployed for construction and avoidance of accidents.

4.5.1.19 Scaffolding

For facia work, outer finishing and other RCC works etc. double steel scaffolding having two sets of vertical supports with steel staircase for inspection of works by Authority's Engineer shall be used. The supports shall be sound and strong, tied together with horizontal piece over which scaffolding planks shall be fixed.

4.5.1.20 Samples for Testing:

- (a) Samples of all materials required for testing is included in the cost of work. Similarly, all testing in house or through external lab shall be borne by the contractor.
- (b) If any load testing or special testing is to be done for any sample whose strength is doubtful, the cost of the same shall also be borne by the contractor.
- (c) In case there is any discrepancy in frequency of testing as given in list of mandatory tests and that in individual sub-heads of work as per CPWD Specifications, higher of the two frequencies of testing shall be followed.
- (d) The contractor has to establish field laboratory at site as specified including all necessary equipment for field tests at his own cost within one month from the award of work.

4.5.1.21 The contractor should submit for approval of Authority's Engineer workshop drawings and samples of the work to be performed under the specified items of work before actually commencing the mass execution of the work under the item. For this they will prepare a sample room / quarters and toilet blocks for each type of building for approval of Authority's Engineer of work. Nothing extra shall be payable on this account.

4.5.1.22 Maintenance of Register of Tests

- (a) All the registers of tests carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Authority's Engineer.
- (b) All samples of materials including cement concrete cubes shall be taken jointly with contractor by Authority's Engineer. All the necessary assistance shall be provided by the contractor. Cost of sampling & testing are to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site/ outside laboratory.
- (c) All the tests in field lab at construction site shall be carried out by the Engineering staff deployed by the contractor and shall be 100% witnessed by Authority's Engineer. At least 10% of the tests are to be witnessed by the Executive Engineer. Minimum 25% of all samples should be tested in outside approved laboratory/ Govt. Engineering colleges.

- (d) All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by Authority's Engineer.
- (e) Contractor shall be responsible for safe custody of all the test registers.
- (f) Submission of copy of all test registers, Material at site register and hindrance register along with each alternate Running Account Bill and Final Bill shall be mandatory. These registers should be duly checked by Authority's Engineer in division office and receipts of registers should also be acknowledged by Accounts Officer.
- (g) If all the test registers and hindrance register is not submitted along with alternate R/A Bill & Final Bill, no payment will be released to the contractor.
- 4.5.1.23 Maintenance of Material at Site (MAS) Register: All the MAS Registers including cement and Steel Registers which shall be issued to the contractor by Authority's Engineer shall be maintained by Contractor at site and shall be open for inspection by the Department.
- 4.5.1.24 Some restrictions may be imposed by the campus security in-charge on the working and on movement of labour, materials, etc in the campus. The contractor shall be bound to follow all such restrictions / instructions. Client will issue the identity cards to all persons authorized by him to do work / visit the work site and no claim whatsoever shall on this account will be entertained.
- 4.5.1.25 The contractor shall submit to the Authority's Engineer on the 7th day of each month, 2 hard copies and one soft copy (CD) of monthly progress report of the work. Such progress report will include the project progress, summary, work progress (planned vs actual), CPM chart, status of financial progress and achievement of milestone, manpower deployment status, inventory of materials and photographs of important activities. For delay in submission of the report, compensation @ ₹2000/- (₹ Two Thousand only) per day of delay subject to maximum of ₹.20,000/- for each report will be recovered from the amount payable to the contractor.
- 4.5.1.26 The contractor(s) shall inform/issue notices to the owner, Municipality, police and other authorities that may be required as per law and obtain all requisite permission/ licenses for temporary obstructions, enclosures etc. Contractor(s) shall pay all fees, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night. The contractor(s) shall do the barricading of 3 meter or higher height enclosing the area as per direction of Authority's Engineer, and nothing extra will be payable on this account.
- 4.5.1.27 The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night, speed limit board, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused to existing/new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work. In case of any accident of labours / contractual staff's the entire responsibility will rest on the part of the contractor and any compensation under such circumstances if becomes payable the same shall be entirely borne by the contractor and department shall have no role on this account.
- 4.5.1.28 The contractor(s) shall take instructions from the Authority's Engineer regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are

to be constructed. The stacking shall take place as per stacking plan. However, if any change is required, the same shall be done with the approval of Authority's Engineer

- 4.5.1.29 Contractor(s) shall provide permanent bench marks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of the work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.

Contractor at his cost put up the barricading (around 3 metre) all around the buildings sites through suitable method for segregating the construction site and also to control the dust pollution in the campus. Entry to all these sites shall be controlled for proper security of man and materials and to avoid accidents.

On completion of work, the Contractor(s) shall submit at his own cost four prints of "as built" drawings to the Authority's Engineer. These drawings shall have the following information.

- (a) Run off all piping and their diameters including soil waste pipes and vertical stacks.
 - (b) Ground and invert levels of all drainage pipes together with locations of all manholes and connections, upto outfall.
 - (c) Run off all water supply line with diameters, locations of control valves, access panels etc.
 - (d) To show Electrical wiring circuit layout of every points and Distribution boards and circuits of the Power points and control switchgear and their position.
- 4.5.1.30 Water tanks, taps, sanitary, water supply and drainages pipes, fittings and accessories should conform to the specifications provided in bidding documents, NBC – 2016, IS codes. The contractor(s) should engage approved, licensed plumbers for the work and get the materials (fixtures/fittings) tested, by the municipal Body/Corporation authorities wherever required at his own cost. The Contractor(s) shall submit for the approval of the Authority's Engineer the name of the plumbing Agency proposed to be engaged by him.
- 4.5.1.31 The contractor shall give performance test of the entire installation(s) as per the specifications & codes in the presence of the Authority's Engineer or his authorized representative before the work is finally accepted and nothing extra what-so-ever shall be payable to the contractor for the test.
- 4.5.1.32 Any cement slurry added over base surface for continuation of concerting for better bond is deemed to have been built in the items and nothing extra shall be payable and no extra cement considered in consumption on this account.
- 4.5.1.33 The Contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department/arranged by the contractor.

(a) Water Proofing Treatment of All Types of Work: The water proofing work shall be carried out by specialized water proofing agencies. The Contractor(s) shall submit for the approval of the Authority's Engineer, the names of specialized agencies, of repute along with their technical capability proposed to be engaged by him, who have executed satisfactorily a work of value not less than 40% of corresponding value of works.

(b) Aluminium/Glass Work: The aluminium/glass work shall be carried out by specialized agency having adequate workshop with necessary equipment and having the experience in aluminium/glass works. The Contractor(s) shall submit for the approval of the Authority's Engineer, the names of specialized agencies, of repute along with their technical capability proposed to be engaged by him.

(c) Structural Glazing Work: The structural glazing work shall be carried out by specialized agency having adequate workshop with necessary equipment and having the experience in

structural glazing works. The Contractor(s) shall submit for the approval of the Authority's Engineer, the names of specialized agencies, of repute along with their technical capability proposed to be engaged by him.

- i) The work shall be carried out in accordance with the Architectural drawings and structural drawings, to be prepared and submitted by architectural/structural personnel engaged by the contractor, duly vetted and approved by the Authority's Engineer. Before commencement of any item of work the contractor shall correlate all the relevant architectural and structural drawings, nomenclature of items and specifications etc. issued for the work and satisfy himself that the information available there from is complete and unambiguous. The figure and written dimension of the drawings shall be superseding the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Authority's Engineer before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained on this account.
- ii) Other agencies will also simultaneously execute and install the works of electrification, lifts, fire-fighting etc. of this work and the contractor shall extend necessary facilities for the same. The contractor shall leave such recesses, holes, opening etc. as may be required for the electric and other related works and nothing extra shall be payable on this account.
- iii) The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Authority's Engineer and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed, so as not to interfere with the operations of other contractor simultaneously working or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

4.5.1.34 Execution of Electrical Works: Adequate number of Competent (Certificate holder of Chief Electrical Inspectorate of Assam) Electrical Supervisors, Electrician and Wireman should be deployed. Site Engineers from electrical discipline should be engaged to supervise all electrical works. Entire Electrical Work should be carried out as per authority's approved electrical layout drawings or electrical circuit layout drawings, Single Line Diagrams prepared by the electrical engineer engaged by the contractor. Contractor shall submit separate Electrical Test Certificate for the Internal Electrical works of the Buildings and External Electrical works as per format of the CEIA and as desired by APDCL authority during charging / energisation of the electrical installation. All Schedule Electrical Test should be conducted through competent electrical supervisor or firms having electrical supervisory certificate.

4.5.1.35 Programme Chart

- (a) The Contractor shall prepare an integrated programme chart in MS Project/ Primavera software for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfilment of the programme within the stipulated period or earlier and submit the same for approval to the Authority's Engineer within ten days of award of the contract. A recovery of ₹5000/- shall be made on per day basis in case of delay in submission the above programme subject to a max. of ₹10,00,000/-.

- (b) The programme chart should include the following:
- i) Descriptive note explaining sequence of the various activities.
 - ii) Network (PERT/CPM/BAR CHART) in MS Project/Primavera Software
 - iii) Programme for procurement of materials by the contractor.
 - iv) Programme of procurement of machinery / equipment having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor. In addition to above to achieve the progress of work as per programme, the contractor must bring at site at least 7000 sqm of shuttering material required for cement concrete and R.C.C. works etc for three floors within two months from the date of start of work till the completion of RCC work as per requirement of work. The construction agency shall submit shuttering schedule adequate to complete structure work within laid down physical milestone etc.
- (c) If at any time, it appears to the Authority's Engineer that the actual progress of work does not confirm to the approved programme referred above, the contractor shall produce a revised programme showing the modifications to the approved programme to ensure completion of the work. The modified schedule of programme shall be approved by the Authority's Engineer. Non-submission of such revised programme shall attract the recoveries as laid down in the document.
- (d) The submission for approval by the Authority's Engineer of such programme or the furnishing of such particulars shall not relieve the contractor of any of the duties or responsibilities under the contract. This is without prejudice to the right of Authority's Engineer to take action against the contractor as per terms and conditions of the agreement.

4.5.1.36 If the work is carried out in more than one shift or during night, no claim on this account shall be entertained. Normally contractors shall not be allowed to execute the RCC, electrical and finishing work at night. Work at night shall, however, be allowed if the site conditions/ circumstances so demand. However, if the work is carried out in more than one shift or at night, no claim on this account shall be entertained. The contractor has to take permission from the owner, police authorities etc. if required. In such situations the contractor shall make available to the department, proper means of communication such as Vehicle etc. at his own cost.

4.5.1.37 Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar service encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted, the same shall be payable to the contractor. The contractor shall work out the cost and the same shall be approved by Authority's Engineer. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

4.5.1.38 The contractor shall be responsible for the watch and ward / guard of the building's safety, fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

4.5.1.39 SAMPLE OF MATERIALS

- (a) BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Authority's Engineer besides testing of other materials as per the specifications described for the item/material. Wherever BIS marked materials are brought to

the site of work, the contractor shall, if required, by the Authority's Engineer furnish manufacturer's test certificate or test certificate from approved testing laboratory to establish that the material / procured by the contractor for incorporation in the work satisfies the provisions of specifications/BIS codes relevant to the material and / or the work done.

- (b) For certain items, if frequency of tests not mentioned in the CPWD Specifications and then relevant IS code shall be followed and tests shall be carried out as per the frequency specified therein.
- (c) The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. nothing extra shall be payable to the contractor on this account. However, cost of photographs, slides, audio-video photography etc. shall be borne by the department.
- (d) The contractor shall be fully responsible for the safe custody of materials brought by him/issued to him even though the materials may be under double lock and key system.
- (e) The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work. The contractor shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimensions as may be necessary for execution of work. The sealed samples are to be handed over to the testing lab by contractor in the presence of Authority's Engineer.
- (f) Debris, rubbish & other waste materials shall be reused at site as directed by Authority's Engineer or disposed off to recycling agents. No deduction on this account shall be made from the agency as well as no extra payment will be made to agency if it is disposed at pre-defined location within the campus.

4.3 Additional Conditions

- 4.5.1 The bidder shall acquaint himself with the proposed site of work, its approach roads, working space available etc. before quoting his rates and no claim on this account shall be entertained by the department.
- 4.5.2 The contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.
- 4.5.3 The contractor(s) shall study the indicative Site Plan and soil investigation report for the site, given herewith and satisfy himself about complete characteristics of soil and other parameters at site. However, no claim on the alleged inadequacy or incorrectness of the soil data supplied by the department shall be entertained.
- 4.5.4 The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account.
- 4.5.5 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.
- 4.5.6 The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and water-ways. He shall make good at his cost and to the satisfaction

of the Authority's Engineer, any damage to roads, paths, cross drainage works or public or private property whatsoever caused thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor without any reservation entirely to the satisfaction of the Authority's Engineer.

4.5.7 Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of building/ adjacent properties.

4.5.8 Setting Out:

4.5.8.1 The contractor shall establish, maintain and assume responsibility for grades, lines, levels and bench marks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions to the Authority's Engineer before commencing work. Commencement of work shall be regarded as the contractor's acceptance of such grades, lines, levels and dimensions and no claim shall be entertained at a later date for any errors found.

4.5.8.2 All the building sites are to be developed and raised by earthfilling to Finished Ground Level (FGL), which shall be considered at least 0.5m above from Existing Ground Level (EGL) or the Highest Flood Level (HFL) whichever is higher under the scope of work.

4.5.9 If at any time, any error in this respect shall appear during the progress of the work, the contractor shall, at his own expense rectify such errors, if so required, to the satisfaction of the Authority's Engineer.

4.5.9.1 Though the site levels may be indicated in the drawings the contractor shall ascertain himself and confirm the site levels with respect to GTS bench mark from the concerned authorities.

4.5.9.2 The approval by the Authority's Engineer of the setting out by the contractor shall not relieve the contractor of any of his responsibilities.

4.5.9.3 The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignment, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the contractor at his own cost to the instructions and satisfaction of the Authority's Engineer.

4.5.10 The rates quoted by the contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark, spot levels, construction of all safety and protection devices, barriers, earth embankments, preparatory works, all testing of materials working during monsoon, working at all depths, height and locations etc. unless specified in the schedule of quantities.

4.5.11 Royalty at the prevailing rates wherever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand and timber etc, or any other material collected by him for the work direct to revenue authorities and nothing extra shall be paid by the department for the same.

4.5.12 The contractor shall provide at his own cost suitable weighing, surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Authority's Engineer. Nothing extra shall be payable on this account.

- 4.5.13 The contractor shall get the water tested with regard to its suitability and conforming to the relevant IS Code. The contractor shall obtain written approval from the Authority's Engineer before he proceeds by using the same for execution of work. The water testing charges shall be borne by the contractor.
- 4.5.14 Other agencies will also simultaneously execute and install the works of sub-station / generating sets, air- conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
- 4.5.15 All materials obtained from Govt. Stores or otherwise shall be got checked by the Authority's Engineer or his any authorized supervisory staff on receipt of the same at site before use.
- 4.5.16 All material shall only be brought at site as per programme finalized with the Authority's Engineer. Any redelivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
- 4.5.17 The Indicative Architectural drawings given in the tender other than those indicated in nomenclature of items are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Authority.
- 4.5.18 All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Authority's Engineer which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Authority's Engineer. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per approved list of brand names given in the tender document / particular specifications for approval of technical sanctioning authority. For all other items, materials and fittings of ISI Marked shall be used with the approval of Authority's Engineer. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval. To avoid delay, contractor should submit samples as stated above well in advance so as to give timely orders for procurement. If any material, even though approved by Authority's Engineer is found defective or not conforming to specifications shall be replaced/ removed by the contractor at his own risk & cost.
- 4.5.19 The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set-out tolerance limit shall be summarily rejected by the Authority's Engineer & contractor shall be bound to replace / remove such sub- standard / defective work immediately.
- 4.5.20 The day to day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard Performa by the Authority's Engineer and which shall be duly signed by the contractor or his authorized representative.
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- 4.5.21 Cement bags shall be stored in separate godowns. The decisions of the Authority's Engineer regarding the capacity needed will be final. Each godown shall be provided with a single door with two locks.
- 4.5.22 For construction works which are likely to generate debris / rubbish, the contractor shall dispose of debris, rubbish & other unserviceable materials and wastes at his own cost to the notified designated Municipal dumping ground only and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.
- 4.5.23 In the event of any restrictions being imposed by the Security agency, Client, Traffic or any other authority having jurisdiction in the area on the working or movement of labour / material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc.
- 4.5.24 The proposed building work is a prestigious project and quality of work is of paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work. Many items like stone masonry & stone cladding work, stone flooring & other specialized flooring work, wood work, precast RCC coffers, polysulphide/ silicone sealant will specifically require engagement of skilled workers having experience particularly in execution of such items.
- 4.5.25 No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and work for which the payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P, Machinery brought to the site by him.

4.5.26 Construction Phase And Worker Facilities

The contractor shall specify and limit construction activity in preplanned/ designated areas and shall start construction work after securing the approval for the same from the Authority's Engineer. This shall include areas of construction, storage of materials, and material and personnel movement.

4.5.27 Preserve And Protect Landscape During Construction

- 4.5.29.1 The contractor shall ensure that no trees, existing or otherwise, shall be harmed and damage to roots should be prevented during trenching, placing backfill, driving or parking heavy equipment, dumping of trash, oil, paint, and other materials detrimental to plant health. These activities should be restricted to the areas outside of the canopy of the tree, or, from a safe distance from the tree/plant by means of barricading. Trees will not be used for support; their trunks shall not be damaged by cutting and carving or by nailing posters, advertisements or other material. Lighting of fires or carrying out heat or gas emitting construction activity within the ground, covered by canopy of the tree is not permitted.
- 4.5.29.2 The contractor shall take steps to protect trees or saplings identified for preservation within the construction site using tree guards of approved specification.
- 4.5.29.3 Contractor should limit all construction activity within the specified area as per the Construction Management Plan (CMP) approved by Authority's Engineer.

- 4.5.29.4 The contractor shall avoid cut and fill in the root zones, through delineating and fencing the drip line (the spread limit of a canopy projected on the ground) of all the trees or group of trees. Separate the zones of movement of heavy equipment, parking, or excessive foot traffic from the fenced plant protection zones.
- 4.5.29.5 The contractor shall ensure that maintenance activities during construction period shall be performed as needed to ensure that the vegetation remains healthy.
- 4.5.29.6 Contractor shall be required to develop and implement a waste management plan, quantifying material diversion goals. He shall establish goals for diversion from disposal in landfills and incinerators and adopt a construction waste management plan to achieve these goals. A project-wide policy of nothing leaves the Site, should be followed, in such a case when strictly followed; care would automatically be taken in ordering and timing of materials such that excess does not become waste. Consider recycling cardboard, metal, brick, acoustical tile, concrete, plastic, clean wood, glass, gypsum wallboard, carpet and insulation. Designate a specific area(s) on the construction site for segregated or commingled collection of recyclable material, and track recycling efforts throughout the construction process. Identify construction haulers and recyclers to handle the designated materials. The diversion may include donation of materials to charitable organizations and salvage of materials on-site.
- 4.5.29.7 Contractor shall collect all construction waste generated on site, segregate these wastes based on their utility and examine means of sending such waste to manufacturing units which use them as raw material or other site which require it for specific purpose. Typical construction debris could be broken bricks, steel bars, broken tiles, spilled concrete and mortar etc.
- 4.5.29.8 The contractor shall provide potable water for all workers. The water quality shall be got tested quarterly from a Govt approved lab .
- 4.5.29.9 The contractor shall provide the minimum basic level of sanitation and safety facilities for the workers at their camp/labour site. The contractor shall ensure cleanliness of workplace with regard to the disposal of waste and effluent; provide clean drinking water and latrines and urinals as per applicable standard. Adequate toilet facilities shall be provided for the workman within easy access of their place of work. The total no. to be provided shall not be less than 1 per 30 employees in any one shift. Toilet facilities shall be provided from the start of building operations, connection to a sewer shall be made as soon as practicable. Every toilet shall be so constructed that the occupant is sheltered from view and protected from the weather and falling objects. Toilet facilities shall be maintained in a sanitary condition. A sufficient quantity of disinfectant shall be provided. Natural or artificial illumination shall be provided.
- 4.5.29.10 The contractor shall ensure that air pollution due to dust/generators is kept to a minimum, preventing any adverse effects on the workers and other people in and around the site. The contractor shall ensure proper screening/hard barricading, covering stockpiles, covering brick and loads of dusty materials, wheel-washing facility, gravel pit, and water spraying. Contractor shall ensure the following activities to prevent air pollution during construction:
- (a) Clear vegetation only from areas where work will start right away
 - (b) Vegetation / mulch areas where vehicles do not ply.
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- (c) Apply gravel / landscaping rock to the areas where mulching / paving is impractical
- (d) Identify roads on-site that would be used for vehicular traffic. Upgrade vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral types that make up the surface & base. Add surface gravel to reduce source of dust emission. Limit amount of fine particles (smaller than 0.075mm) to 10 - 20%
- (e) Water spray, through a simple hose for small projects, to keep dust under control. Fine mists should be used to control fine particulate. However, this should be done with care so as not to waste water. Heavy watering can also create mud, which when tracked onto paved public roadways, must be promptly removed. Also, there must be an adequate supply of clean water nearby to ensure that spray nozzles don't get plugged.
- (f) Water spraying shall be done on:
 - Any dusty materials before transferring, loading and unloading
 - Area where demolition work is being carried out
 - Any un-paved main haul road
 - Areas where excavation or earth moving activities are to be carried out

4.5.29.11 The contractor shall ensure that the speed of vehicles within the site is limited to 20 km/hr.

4.5.29.12 All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust / particulate emissions.

4.5.29.13 Spills of dirt or dusty materials will be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / leaned up immediately before they can infiltrate into the soil / ground or runoff in nearby areas

4.5.29.14 Provide hard barricading of not less than 3 metre or higher as per direction of Authority's Engineer, along the site boundary, next to a road, around batching plant or other public area.

4.5.29.15 Provide dust screens, sheeting or netting to scaffold along the perimeter of the building

4.5.29.16 Cover stockpiles of dusty material with impervious sheeting

4.5.29.17 Cover dusty load on vehicles by impervious sheeting before they leave the site

4.5.29.18 Contractor shall be required to provide an easily accessible area that serves the entire building and is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals. He shall coordinate the size and functionality of the recycling areas with the anticipated collections services for glass, plastic, office paper, newspaper, cardboard, and organic wastes to maximize the effectiveness of the dedicated areas. Consider employing cardboard balers, aluminium can crushers, recycling chutes,

and collection bins at individual workstations to further enhance the recycling program

- 4.5.29.19 The contractor shall ensure that no construction leachate (e.g. cement slurry etc.), is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including, reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/swale, etc. shall be constructed to carry the pollutant-laden water directly to the treatment device or facility (municipal sewer line).
- 4.5.29.20 Staging (dividing a construction area into two or more areas to minimize the area of soil that will be exposed at any given time) should be done to separate undisturbed land from land disturbed by construction activity and material storage.
- 4.5.29.21 The contractor shall comply with the safety procedures, norms and guidelines (as applicable) as outlined in the document Part 7 Constructional practices and safety, 2005, National Building code of India, Bureau of Indian Standards. A copy of all pertinent regulations and notices concerning accidents, injury and first-aid shall be prominently exhibited at the work site. Depending upon the scope & nature of work, a person qualified in first-aid shall be available at work site to render and direct first-aid to casualties. A telephone may be provided to first-aid assistant with telephone numbers of the hospitals displayed. Complete reports of all accidents and action taken thereon shall be forwarded to the competent authorities.
- 4.5.29.22 The contractor shall ensure the following activities for construction workers safety, among other measures:
- a) Guarding all parts of dangerous machinery.
 - b) Precautionary signs for working on machinery
 - c) Maintaining hoists and lifts, lifting machines, chains, ropes, and other lifting tackles in good condition.
 - d) Durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
 - e) Ensuring that walking surfaces or boards at height are of sound construction and are provided with safety rails or belts.
 - f) Provide protective equipment; helmets etc.
 - g) Provide measures to prevent fires. Fire extinguishers and buckets of sand to be provided in the fire-prone area and elsewhere.
 - h) Provide sufficient and suitable light for working during night time.
 - i) Electrical Safety switchgears MCBs, MCCBs, proper earthing (as per IE Rules) should be used during utilization of construction electrical power.
 - j) Adequate number of competent Electrician should be engaged during construction period.
- 4.5.29.23 The storage of material shall be as per standard good practices as specified in Part 7, Section 2. Storage, Stacking and Handling practices, NBC 2005 and shall be to the satisfaction of the Authority's Engineer to ensure minimum wastage and to prevent any misuse, damage, inconvenience or accident. Watch and ward of the

Contractor's materials shall be his own responsibility. There should be a proper planning of the layout for stacking and storage of different materials, components and equipment with proper access and proper manoeuvrability of the vehicles carrying the materials. While planning the layout, the requirements of various materials, components and equipment at different stages of construction shall be considered.

- 4.5.29.24 The contractor shall provide for adequate number of garbage bins around the construction site and the workers facilities and will be responsible for the proper utilisation of these bins for any solid waste generated during the construction. The contractor shall ensure that the site and the workers facilities are kept litter free. Separate bins should be provided for plastic, glass, metal, biological and paper waste and labelled in both Hindi and English with suitable symbols.
- 4.5.29.25 The Contractor shall provide separate storage area for hazardous material such as chemicals, oils, lubricants, cleaners etc. and it should be away from heat and direct sunlight. The area shall be demarcated with proper warning signs as well as safety instructions.
- 4.5.29.26 The contractor shall prepare and submit Spill prevention and control plans before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, lubricant and petroleum products.
- 4.5.29.27 Contractor shall collect & submit the relevant material certificates for materials with high recycled (both post-industrial and post-consumer) content, including materials like RMC mix with fly-ash, glass with recycled content, calcium silicate boards, etc.
- 4.5.29.28 Contractor shall collect the relevant material certificates for rapidly renewable materials such as bamboo, wool, cotton insulation, Agri fiber, linoleum, wheat board, strawboard and cork etc.
- 4.5.29.29 Where possible, the contractor shall select materials/vendors, harvested and manufactured regionally, within an 800-km radius of the project site.
- 4.5.29.30 Contractor shall adopt an IAQ (Indoor Air Quality) management plan to protect the HVAC system during construction, control pollutant sources, and interrupt pathways for contamination. He shall sequence installation of materials to avoid contamination of absorptive materials such as insulation, carpeting, ceiling tile, and gypsum wallboard. He shall also protect stored on-site or installed absorptive materials from moisture damage. Air quality shall be tested on quarterly basis
- 4.5.29.31 The contractor shall ensure that a flush out of all internal spaces is conducted prior to handover. This shall comprise an opening of all doors and windows for 14 days to vent out any toxic fumes due to paints, varnishes, polishes, etc.
- 4.5.29.32 Contractor shall make efforts to reduce the quantity of indoor air contaminants that are odorous or potentially irritating harmful to the comfort and well-being of installer and building occupants. Contractor shall ensure that the VOC (Volatile Organic Compounds) content of paints, coatings and primers used must not exceed the VOC content limits mentioned below:
- Paints:
 - Non-flat - 150 g/L Flat (Mat) - 50 g/L

- Anti corrosive/ anti rust - 250 g/L Coatings / Clear wood finishes Varnish - 350 g/L Lacquer - 550 g/L
- Floor coatings - 100 g/L Stains - 250 g/L Sealers
- Waterproofing sealer - 250 g/L
- Sanding sealer - 275 g/L Other sealers - 200 g/L
- The VOC (Volatile Organic Compounds) content of adhesives and sealants used must be less than VOC content limits mentioned:
- Architectural Applications VOC Limit (g/l less water)
- Indoor Carpet adhesives - 50 g/L Carpet Pad Adhesives - 50 g/L Wood Flooring Adhesive - 100 g/L Rubber Floor Adhesives - 60 g/L Sub Floor Adhesives . 50 g/L Ceramic Tile Adhesives - 65 g/L
- VCT and Asphalt Tile adhesives - 50 g/L Dry Wall and Panel Adhesives - 50 g/L Structural Glazing Adhesives
- 100 g/L Multipurpose Construction Adhesives . 70 g/L
- Substrate Specific Application VOC Limit (g/l less water) Metal to Metal - 30 g/L Plastic Foams - 50 g/L
- Porous material (except wood) - 50 g/L Wood - 30 g/L Fiber Glass . 80 g/L

4.5.29.33 Wherever required, Contractor shall meet and carry out documentation of all activities on site, supplementation of information, and submittals in accordance with IGBC LEED India New Construction v1.0 standards and guidelines. Towards meeting the aforementioned building environmental rating standard(s) expert assistance shall be provided to him up on request.

4.5.29.34 Water Use during Construction

- (a) Contractor should spray curing water on concrete structure and shall not allow free flow of water. Concrete structures should be kept covered with hessian cloth/gunny bags and water should be sprayed on them. Contractor shall do water ponding on all sunken slabs using cement and sand mortar.
- (b) The Contractor shall remove from site all rubbish and debris generated by the Works and keep Works clean and tidy throughout the Contract Period. All the serviceable and non- serviceable (debris) material shall be segregated and stored separately. The debris obtained during construction shall be collected in well-formed heaps at properly selected places, keeping in a view safe condition for workmen in the area. Materials which are likely to cause dust nuisance or undue environmental pollution in any other way, shall be removed from the site at the earliest and till then they shall be suitable covered. Glass & steel should be dumped or buried separately to prevent injury. The work of removal of debris should be carried out during day. In case of poor visibility artificial light may be provided.
- (c) The contractor shall provide O & M Manuals wherever applicable.
- (d) The contractor shall make himself conversant with the Site Waste Management Program Manual and actively contribute to its compilation by estimating the nature and volume of waste generated by the process/installation in question.

4.5.28 Materials & Fixtures for The Project

- 4.5.30.1 Contractor will produce wherever feasible certificate regarding distance of the source of the relevant material.
- 4.5.30.2 Unless otherwise stated cement used at site for reinforced concrete, precast members, mortar, plaster, building blocks, etc. shall be PPC(Portland Pozzolana Cement) of the highest grade. The PPC must meet the requirements of IS 1489 (Part I) as regards to fly ash content in cement. The contractor shall obtain from the PPC manufacturer the certificate regarding fly ash content in the PPC in each batch of consignment.
- 4.5.30.3 The contractor has to comply as per MoEF issued notification 8.0.763(E) dated 14th Sept.1999 & latest notification of Jan. 2016 containing directive for greater fly ash utilization.
- 4.5.30.4 The contractor shall ensure that all paints, polishes, adhesives and sealants used both internally and externally, on any surface, shall be Low VOC products. The contractor shall get prior approval from the Authority's Engineer before the application of any such material.
- 4.5.30.5 All plumbing and sanitary fixtures installed shall be as per the direction of the Authority's Engineer and shall adhere to the minimum LPM (litres per minute) and LPF (litres per flush) mentioned. The contractor shall employ 100% zero ODP (ozone depletion potential) insulation; HCFC (hydro- chlorofluorocarbon)/ and CFC (chlorofluorocarbon) free HVAC and refrigeration equipment and/halon-free fire suppression and fire extinguishing systems.

4.5.29 Resources Consumed During Construction

- 4.5.31.1 The contractor shall ensure that the water and electricity is not wasted during construction. The Authority's Engineer can bring to the attention any such wastage and the contractor will have to ensure that such bad practices are corrected.
- 4.5.31.2 The contractor shall install necessary meters and measuring devices to record the consumption of water, electricity and diesel on a monthly basis for the entire tenure of the project.
- 4.5.31.3 The contractor shall ensure that all run-off water from the site, during construction is collected and reused to the maximum.
- 4.5.31.4 The contractor shall use treated recycled water of appropriate quality standards for construction, if available.
- 4.5.31.5 No lights shall be turned on during the period between 6:00 AM to 4:00 PM, without the permission of the Authority's Engineer.

4.5.30 Construction Waste

- 4.5.32.1 Contractor shall ensure that wastage of construction material is within 3%.
- 4.5.32.2 All construction debris generated during construction shall be carefully segregated and stored in a demarcated waste yard. Clear, identifiable areas shall be provided for each waste type. Employ measures to segregate the waste on site into inert, chemical, or hazardous wastes.
- 4.5.32.3 All construction debris shall be used for road preparation, back filling, etc, as per the instructions of the Authority's Engineer, with necessary activities of sorting, crushing, etc.

- 4.5.32.4 No construction debris shall be taken away from the site, without the prior approval of the Authority's Engineer.
- 4.5.32.5 The contractor shall recycle the unused chemical/hazardous wastes such as oil, paint, batteries, and asbestos.
- 4.5.32.6 If and when construction debris is taken out of the site, after prior permissions from the Authority's Engineer, then the contractor shall ensure the safe disposal of all wastes and will only dispose of any such construction waste in approved dumping sites.

4.5.31 Documentation

- 4.5.33.1 The contractor shall, during the entire tenure of the construction phase, submit the following records to the Authority's Engineer on a monthly basis:
- 4.5.33.2 Electricity consumption in kwh units
- 4.5.33.3 Digital photo documentation to demonstrate compliance of safety guidelines as specified here and in the Appendix on Safety Conditions.
- 4.5.33.4 The contractor shall, during the entire tenure of the construction phase, submit the following records to the Authority's Engineer on monthly basis:
- 4.5.33.5 Quantities of material brought into the site, including the material issued to the contractor by the Authority's Engineer.
- 4.5.33.6 Inventories of materials used in the work including cement, reinforcement, bricks etc.
- 4.5.33.7 Quantities of construction debris (if at all) taken out of the site
- 4.5.33.8 Digital photographs of the works at site, the workers facilities, the waste and other material storage yards, pre-fabrication and block making works, etc. as guided by the Authority's Engineer.
- 4.5.33.9 No. of different categories of labours deployed at site for work (shift wise).
- 4.5.33.10 The contractor shall submit a document after construction of the buildings, a brief description along with photographic records to show that other areas have not been disturbed during construction. The document should also include brief explanation and photographic records to show erosion and sedimentation control measures adopted. (Document CAD drawing showing site plan details of existing vegetation, existing buildings, existing slopes and site drainage pattern, staging and spill prevention measures, erosion and sedimentation control measures and measures adopted for top soil preservation during construction
- 4.5.33.11 The contractor shall submit to the Authority's Engineer after construction of the buildings, a detailed as built quantification of the following:
- Total materials consumed,
 - Total earth excavated
 - Total waste reused,
 - Total water consumed,
 - Total electricity consumed, and
 - Provide supporting document from the manufacturer of the cement specifying the fly ash content in PPC used in reinforced concrete.

- 4.5.33.12 The contractor shall submit the following information to the Authority's Engineer at the end of construction, for all material brought to site for construction purposes, including manufacturer's certifications, verifying information, and test data, where Specifications sections require data relating to environmental issues including but not limited to:
- 4.5.33.13 Source of products: Supplier details and location of the supplier.
- 4.5.33.14 Project Recyclability: Submit information to assist Owner and Contractor in recycling materials involved in shipping, handling, and delivery, and for temporary materials necessary for installation of products.
- 4.5.33.15 Recycled Content: Submit information regarding product post-industrial recycled and post-consumer recycled content; Use the Recycled Content Certification Form, to be provided by the Commissioning Authority appointed for the Project.

4.5.32 Equipment

- 4.5.34.1 To ensure energy efficiency during and post construction all pumps, motors and engines used during construction or installed, shall be subject to approval of the Authority's Engineer.
- 4.5.34.2 All lighting installed by the contractor around the site and at the labour quarters during construction shall be CFL / LED bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed.
- 4.5.34.3 In case any penalty is imposed by any Hon'ble Court, NGT or any other authority due to non-compliance of any statutory order, or law or guidelines or pollution control or environmental norms, the same will be borne by the contractor.

4.5.33 Submission of Pollution Control Plan

- 4.5.35.1 The contractor shall submit the detailed action plan for control of pollution and for adherence to all the environmental guidelines/ Laws/ statutes/ Court Orders/ NGT orders/ orders of pollution control authorities through the entire period of construction at site. The detailed action plan shall be submitted to the Authority's Engineer within 15 days of the stipulated date of start of work and shall be got approved from the Authority's E&S team & Engineer.
- 4.5.35.2 The contractor shall arrange for control measures of all dust/noise/emission from the construction activities at site of work and shall install screens/curtains/ covers/dust trappers etc. as per guidelines/orders of the NGT/Court of law/ statutory authorities etc. No hindrance shall be allowed, arising out of any stay/stopping of work from any court/statutory authority/NGT/Govt. Authorities as a consequence of the contractor not adhering to any pollution control guideline/ law/ order of the state bodies during the construction period. Nothing shall be paid to the contractor on account of expenses for any dust/pollution/ emission control measures at the site of work or any delay in work due to any orders passed by any court/ statutory authority/Govt. Authorities during the period of construction. Air quality be tested quarterly basis
- 4.5.35.3 The contractor is strongly advised to study all dust/ Noise/ emission/ pollution control norms/ laws/ Court Orders before bidding for the work and quote his rates

accordingly for any liability which may arise on this account during the period of construction.

4.5.34 Mode Of Measurements

- 4.5.36.1 The measurements shall be recorded and entered in computerized format in the first instance by the contractor, and a hard copy shall be submitted to the Department. All entries shall be made exactly as per the existing procedure.
- 4.5.36.2 These measurements shall then be 100% checked by the Authority's Engineer. The contractor shall incorporate all such changes or corrections, as may be done during these checks, to his draft computerized measurement, and submit to the department the corrected computerized measurement Books now in use, and with its pages machine numbered.
- 4.5.36.3 The Authority's Engineer shall test check these computerized measurement as per the existing instructions. This book shall be treated as a Computerized Measurement Book.
- 4.5.36.4 The Executive Engineer shall record the necessary certificates for their checks and test checks as per the existing procedure in this Computerized Measurement Book.
- 4.5.36.5 The Computerized Measurement Book shall be allotted a serial number as per the Register of Computerized Measurement Books.
- 4.5.36.6 A separate Computerized Measurement Book (as mentioned at pt 5 above) for measurement of items of work of electrical works to be maintained which will have to be verified and checked by the Authority's Engineer (Electrical)
- 4.5.36.7 The water proofing works, all aluminium works & structural glazing etc. shall be carried out through specialized agency. The Contractor shall apply for approval of specialized agencies within two weeks of start of work and delay on this account shall rest with the contractor only. The specialized agencies shall be approved by the Authority's Engineer.
- 4.5.36.8 Electrical work (Steel conduit & G.I. wires) shall be carried out as per specifications for Electrical works. This work shall be supervised and Material shall be got approved by Authority's Engineer before its use at site.

4.5.35 Special Conditions For Cement & Steel

- 4.5.37.1 The contractor shall, at his own expense procure and provide all materials including cement and steel required for the work.
- 4.5.37.2 The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.
- 4.5.37.3 All materials brought by the contractor for use in the work shall be got checked from the Authority's Engineer or his authorized representative of the work on receipt of the same at site before use.
- 4.5.37.4 The contractor shall also employ necessary watch and ward establishment for the safe custody of materials at his own cost.
- 4.5.37.5 Contractor has to produce manufacturers test certificate for each lot of cement & steel procured at site.

4.5.36 Conditions For Cement:-

- 4.5.38.1 The contractor shall procure Portland Pozzolana Cement (PPC) [conforming to IS:1489 (Part-I)], as required in the work, from reputed manufacturers of grey cement such as ACC, Lafarge, Ultra tech, Ambuja, & J. K. Cement, Topcem, Dalmiya or other reputed cement manufacturer having a production capacity not less than one million tonnes per annum as approved by Authority's Engineer. Supply of cement shall be taken in 50 Kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Authority's Engineer and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Authority's Engineer to do so.
- 4.5.38.2 PPC (Portland Pozzolana Cement) shall be used in RCC structures.
- 4.5.38.3 IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended upto date) shall be followed in regard to Concrete Mix Portion and its production as under:
- 4.5.38.4 The concrete mix design shall be done as "Design Mix Concrete" as prescribed in clause-9 of IS 456 mentioned above.
- 4.5.38.5 Concrete shall be manufactured in accordance with clause 10 of above mentioned IS:456 covering quality assurance measures both technical and organizational, which shall also necessarily require a qualified Concrete Technologist to be available during manufacture of concrete for certification of quality of concrete.
- 4.5.38.6 Minimum M20 grade of concrete shall be used in all structural elements made with RCC both in load bearing and framed structure.
- 4.5.38.7 Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot & arid regions, the minimum curing period shall be 14 days or its equivalent.
- 4.5.38.8 Subject to General Guidelines detailed out as above, PPC manufactured conforming to IS:1489 (Part-I) shall be treated at par with PPC for manufacture of Design Mix Concrete for structural use in RCC.
- 4.5.38.9 Till the time, BIS makes it mandatory to print the %age of flyash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be insisted upon before allowing use of such cements in works.
- 4.5.38.10 While using PPC for structural concrete work, no further admixing of flyash shall be permitted.
- 4.5.38.11 The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Authority's Engineer.
- 4.5.38.12 The cement godown of the capacity to store a minimum of 2000 bags of cement shall be constructed by the contractor at the site of work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Authority's Engineer or his authorized representative and the keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Authority's Engineer at any time.

- 4.5.38.13 The cement shall be got tested by Authority's Engineer and shall be used on work only after test results have been received. The contractor shall supply free of charge the cement required for testing. The cost of tests shall be borne by the contractor.
- 4.5.38.14 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out as per standard procedure.
- 4.5.38.15 Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Authority's Engineer.
- 4.5.38.16 Damaged cement shall be removed from site immediately by the contractor on receipt of notice in writing from the Authority's Engineer. If he does not do so within three days of receipt of such notice, the Authority's Engineer shall get it removed at the cost of the contractor.
- 4.5.38.17 Cement should be kept in godowns under double locks and keys and its consumption account invariably maintained, whether the cement is supplied departmentally or arranged by the contractor. A register should be maintained at the site of each work. The pages of the register should be machine numbered and each page initialed by the EE. The cement godown and the register are required to be checked by the Authority's Engineer.

4.5.37 Special Conditions For Steel:-

- 4.5.39.1** The Contractor shall procure IS marked TMT bars (Super ductile) of various grades from the steel manufacturer or their authorized dealers (as per following selection criteria) having valid BIS license for IS:1786:2008 (Amendment -1 November 2012)

The procured steel should have following qualities:-

- (a) Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
- (b) Consumption of steel should be accurate as per design.
- (c) Steel should have no brittleness problem in finished product.
- (d) Steel should possess anti-corrosion and earthquake resistance properties.
- (e) Quality steel with achievement of proper level of sulphur and phosphorus as per IS: 1786:2008.

4.5.38 Selection Criteria of steel manufacturers

- 4.5.40.1 The supply of reinforcement steel for all CPWD works should have following selection criteria of steel manufacturers:-

Steel producers of any capacity using iron ore/processed iron ore as the basic raw material adopting advanced refining technologies as given hereunder:-

DRI-EAF = Direct Reduced iron – Electric arc furnace.

Or

BF-BOF = Blast furnace – Basic oxygen furnace

Or

COREX-BOF = COREX – Basic oxygen furnace.

for production of liquid steel to finish product at single/multiple locations with NABL or any other similarly placed accrediting Government body which operates in accordance with ISO/IEC17011 and accredits labs as per ISO/IEC 17025 conforming to IS:1786:2008 (Amendment-1 November 2012).

- (a) The check list for incorporation any quality steel producer is enclosed for technical assessment is given in Annexure-1.
- (b) Chief Engineer shall approve the steel manufactures for projects.
- (c) The contractor shall have to obtain and furnish test certificates to the Authority's Engineer in respect of all supplies of steel brought by him to the site of work.
- (d) Samples shall also be taken and got tested by the Authority's Engineer as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to **the specifications as defined under para 11.2 (1) (d) & (1) (e) above**, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Authority's Engineer to do so.
- (e) The steel reinforcement bars shall be brought to the site in bulk supply of ten tonnes or more as decided by the Authority's Engineer.
- (f) The steel reinforcement shall be stored by the contractor at site of work 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.
- (g) For checking nominal mass, tensile strength, bend test, re-bend test etc. specimen of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below:
- (h) The contractor shall supply free of charge the steel required for testing including transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- (i) The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.
- (j) Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Authority's Engineer.
- (k) TMT reinforcement bars procured from secondary producers will not be allowed under any circumstances.
- (l) The following procedure should be followed in case of removal of rejected/sub-standard materials from the site of work.
- (m) Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the site order book

under the signature of the Authority's Engineer giving approximate quantity of such materials.

- (n) As soon as the material is removed, a certificate to that effect may be recorded by the Authority's Engineer against the original entry, giving the date of removal a mode of removal i.e. whether by truck, carts or by manual labour. If removal is by truck, the registration number of the truck should be recorded.
- (o) When it is not possible for the Authority's Engineer to be present at the site of work at the time of actual removal of the rejected/ sub-standard materials from the site the required certificate should be recorded by the Assistant Engineer/ Junior Engineer and the Authority's Engineer should countersign the certificate recorded by the Assistant Engineer/ Junior Engineer.
- (p) Factory made glazed steel doors, windows & ventilators shall be manufactured in a workshop approved by the Chief Engineer.

4.5.39 Design Specifications

The Specifications for Building Works shall be as per NBC, IS-456, IS-13926, IS-800 and other relevant IS codes which shall be deemed to be bound into this document.

4.5.40 Design And Drawings

- 4.5.42.1 The Site layout plan of each site and detail design & drawings of the various components of the buildings should be prepared and submitted in the following order. Drawings and designs are to be prepared by reputed Architect who has previous experience of designing project of similar nature.
- 4.5.42.2 Preparation and submission of conceptual design all the buildings and other facilities and layout of the site showing location of the building with other features, circulation pattern, site drainage, rain water harvesting proposals, sewerage, lighting, compound wall, landscaping and horticulture proposals, internal roads, paths, main gate and gatehouse, North direction etc. in suitable scale. Preliminary architectural drawing for floor plans, crucial sections, four side elevations and roof plans in six sets are to be submitted for obtaining approval from the client Department for preparation of detail working drawing of various components of the work, including carrying out changes as may be required by the Dept.(All the drawings are to be submitted in six sets).
- 4.5.42.3 Preparation and submission of 3D model of each building for approval of the Authority.
- 4.5.42.4 Preparation and submission of detailed architectural working drawings based on approved preliminary drawings, i.e. floor & roof plans, elevations, section drawings through major spaces, and other necessary working drawings for execution of work etc. in suitable scales and approval of the Dept. (all the drawings are to be submitted in six sets).
- 4.5.42.5 Preparation and submission of architectural working details including floor finish details, door & window details, toilet details, kitchen details, railing details, glazing details, architectural element and facade treatment details, parapet details, water supply drawings, sewerage drawings, external water supply drawings, firefighting

detail drawings, rain water harvesting detail drawings, internal electrical layouts of all the floor plans, external electricity drawings, service design & drawings of sanitary internal water supply, plumbing, drainage, internal and external electrical works, campus lighting, sewerage, firefighting arrangements, Telephone conduits detail, section & large details, of all typical & special areas, stair cases, toilets, doors, windows, ventilators, grills, collapsible gates, special feature, including perspective view of the NH & any other detail working drawing for execution of work etc. in suitable scales and approval of the Dept.

- 4.5.42.6 Preparation and submission of drawings for common facilities for circulation, pattern, parking spaces, compound wall, security arrangement, internal roads, etc. for approval of the Department.
- 4.5.42.7 Preparation and submission of detail structural design and drawings on the basis of approved architectural drawings & calculation as per relevant I.S. Code of practices and as per S.S.I. report. Loading under worst condition of all forces to be adopted for building design complete as per design calculation duly approved by Proof Consultant if instructed by the Authority by an organization of national repute approved by the Authority's Engineer for proof checking of structural drawings/proposals prepared by the structural Engineer of EPC Contractor. (S.S.I report done by the dept. may be used as reference only and the Contractor shall conduct sub-soil investigation at site of work at their own cost & arrangement for the purpose of final design of foundation.
-

Annex – III (Schedule-D)

LIST OF APPROVED MAKES

(Enclosed with RFB as enclosure Voume-IV)

Soil Report: Enclosed with RFB as enclosure Voume-IV). Please note the soil report provided is for reference purpose only. However, Bidder are required to get it done independently to satisfy themselves as per design requirements.

SCHEDULE - E
(See Clauses 2.1 and 14.2)
MAINTENANCE REQUIREMENTS

1 Maintenance Requirements

- 1.1 The Contractor shall, at all times maintain the Project in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits.
- 1.2 The Contractor shall repair or rectify any Defect or deficiency set forth in Paragraph 2 of this Schedule-E within the time limit specified therein and any failure in this behalf shall constitute non-fulfilment of the Maintenance obligations by the Contractor. Upon occurrence of any breach hereunder, the Authority shall be entitled to effect reduction in monthly lump sum payment as set forth in Clause 14.6 of this Agreement, without prejudice to the rights of the Authority under this Agreement, including Termination thereof.
- 1.3 All Materials, works and construction operations shall conform to the CPWD Specifications for building and civil works, electrical, sanitary, Medical gases, steam, fire fighting, HVAC, Data networking and communication and Security. Where the CPWD specifications for a work are not given, good industry practice may be adopted after taking due permission from the Authority Engineer

2 Repair/rectification of Defects and deficiencies

The obligations of the Contractor in respect of Maintenance Requirements shall include all activities necessary to be taken up for repair and rectification of the Defects and deficiencies that impact the effective and efficient functioning of the Hospital. Annex - I of this Schedule-E specifies the **Key Performance Indicators** pertaining to various components of the Project which facilitate effective and efficient functioning of the Hospital Project and the time limits in case of maintenance times set forth therein.

3 Other Defects and deficiencies

In respect of any Defect or deficiency not specified in Annex - I of this Schedule-E, the Authority's Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Contractor within the time limit specified by the Authority's Engineer.

4 Extension of time limit

Notwithstanding anything to the contrary specified in this Schedule-E, if the nature and extent of any Defect or deficiency justifies more time for its repair or rectification than the time specified herein, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Authority's Engineer and conveyed to the Contractor and the Authority with reasons thereof.

5 Emergency repairs/restoration

Notwithstanding anything to the contrary contained in this Schedule-E, if any Defect, deficiency or deterioration in the Project poses a hazard to safety or risk of damage to property, the Contractor shall promptly take all reasonable measures for eliminating or minimizing such danger.

6 Daily inspection by the Contractor

The Contractor shall, through its engineer, undertake a daily visual inspection of the Project and maintain a record thereof in a register to be kept in such form and manner as the Authority's Engineer may specify. Such record shall be kept in safe custody of the Contractor and shall be open to inspection by the Authority and the Authority's Engineer at any time during office hours.

7. Pre-monsoon inspection / Post-monsoon inspection

The Contractor shall carry out a detailed pre-monsoon inspection of all project facilities before 1st April in accordance with the guidelines contained in CPWD Manual. Report of this inspection together with details of proposed maintenance works as required on the basis of this inspection shall be sent to the Authority's Engineer before the 25th July every year. The Contractor shall complete the required repairs before the onset of the monsoon and send to the Authority's Engineer a compliance report. Post monsoon inspection shall be done by the 20th December and the inspection report together with details of any damages observed and proposed action to remedy the same shall be sent to the Authority's Engineer.

8. Repairs on account of natural calamities

All damages occurring to the Project on account of a Force Majeure Event or default or neglect of the Authority shall be undertaken by the Authority at its own cost. The Authority may instruct the Contractor to undertake the repairs at the rates agreed between the Parties.

9. Reporting during Maintenance Period

The Contractor shall submit to the Authority's Engineer a monthly maintenance statement ("**Monthly Maintenance Statement**") in 3 (three) copies by the 7th (seventh) day of each month in the format set forth in Schedule-O for the Maintenance of the Project during the previous month duly signed by Authority Representative.

The Monthly Maintenance Statement will list the performance of the various services for effective functioning of the hospital against the Key Performance Indicators defined in Annex 1 of Schedule- E; list the number of non-compliance events as defined in 19.7.2 and steps being taken to prevent occurrence of non compliance event.

Annex - I
(Schedule-E)

Key Performance Indicators

The Contractor shall ensure that the availability and functioning of the services associated with the Project on every day during the Maintenance period and shall be 100% complying to

1. Water Supply

- Supply of potable drinking water as per the BIS: 10500 standards

2. Waste Water Management and Effluent Treatment Plant

The Treated Effluent shall meet the following requirements.

Parameter	Unit	Value for ETP
pH	-	5.5-9.0
BOD	mg/L	≤10
TSS	mg/L	≤20
COD	mg/L	≤50
Nitrogen Total	mg/L	≤10
Phosphorus Total	mg/L	≤1.0
Faecal Coliform	MPN/100 mL	≤230
Bio Assay Test		90% survival of fish after 96 hours

- 75 % of the treated water is reused (In Flushing toilet and Gardening)

3. Medical Gases Piping System

Oxygen Supply

- a. Piped oxygen to be supplied at a pressure of 4 Bar (400 kPa) i.e., between 3.8 to 4.2 Bar at the terminal end.
- b. The flow rate of Oxygen should be-
 - i. Wards, Labor room, Newborn Care Stations: 10 LPM
 - ii. Operating Rooms, Ventilator- 100 LPM

Nitrous Oxide Supply

- iii. Nominal Distribution Pressure to be considered is 410 kPa
- iv. Flow rate is 15 LPM

4. Bio Medical Waste Disposal System

The BMW Disposal facility shall be designed as per the Bio-medical Waste Management Rules, 2016 and Amendments thereof from time to time in co-ordination with PCBA. Looking into the status of functioning of the CBWTFs for the region, decision on establishment of captive BMW disposal facility shall be taken.

5. HVAC System

As per CPWD standards. The following must be ensured

SN	Department	Min. Air Changes per Hour
1	Sterilization Room	15-25
2	Hospital Wards/ Rooms	6-8
3	X Ray Room	10-15
4	Administrative Units	6-10

Energy Efficiency Ratio:

6. Fire Fighting System

- Fully Functional Fire Alert and fighting system
- Functional fire extinguishers as per the fire safety standards

7. Maximum Permissible Down time

The Contractor should ensure the maximum downtime permissible for repair and maintenance of the services and facilities shall be limited to as given below.

SN	Service	Maximum Down Time (days) per month
1	Electrical Service	-
2	Water Supply System	6 hours per month
3	Waste Water Management & ETP	1 day per month
4	Medical Gases Piping System	1.5 day per month
5	Bio Medical Waste Handling and Disposal System	-
6	HVAC	2 days per month
7	Fire Fighting	-
8	Data, Networking, Communications & Security	0.5% of Time*

* time is defined as 24 hours a day, 7 days a week in a calendar month.

SCHEDULE - F
(See Clause 3.1.7(a))

APPLICABLE PERMITS

1 Applicable Permits

- 1.1 The Contractor shall obtain, as required under the Applicable Laws, the following Applicable Permits:
- (a) Permission of the State Government for extraction of stone from quarry;
 - (b) Permission of Village Panchayats and Pollution Control Board for installation of crushers;
 - (c) Licence for use of explosives;
 - (d) Permission of the State Government/ local bodies for drawing water for construction;
 - (e) Licence from inspector of factories or other competent Authority for setting up batching plant;
 - (f) Clearance of Pollution Control Board for setting up batching plant;
 - (g) Clearance of Village Panchayats and Pollution Control Board for setting up asphalt plant;
 - (h) Permission of Village Panchayats and State Government for borrow earth; and
 - (i) Permission of the State Government for felling of trees or jungle clearance, if necessary
 - (j) Any other permits or clearances required under Applicable Laws.
- 1.2 Applicable Permits, as required, relating to environmental protection and conservation shall have been procured by the Authority in accordance with the provisions of this Agreement.
-

SCHEDULE -G
 (See Clauses 7.1.1, 7.5.3 and 19.2)
FORM OF BANK GUARANTEE

Annex-I
 (See Clause 7.1.1)
Performance Security
[Guarantor letterhead or SWIFT identifier code]

Performance Guarantee No.....*[insert guarantee reference number]*
 Date.....*[insert date of issue of the guarantee]*

To: _____ *[name of Authority]*
 _____ *[address of Authority]*

WHEREAS _____ *[name and address of Contractor³⁶]*
 (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____
 dated _____ to execute _____ *[name of Contract*
and brief description of Works] (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

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

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of guarantee]* _____ *[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 your demand for the sum specified therein.

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

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

³⁶*In the case of a JV, insert the name of the Joint Venture*

This guarantee shall be valid until³⁷, and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

Notes:

- (i) All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.
- (ii) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (iii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

³⁷*Insert the date sixty days after the the expiry of Defects Liability Period. The Authority should note that in the event of an extension of this date for completion of the Contract, the Authority would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Authority might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Authority's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

SCHEDULE –G (Contd...)

FORM OF BANK GUARANTEE

Annex-I (contd...)
 (See Clause 7.1.1)

Environmental and Social (ES) Performance Security
[Guarantor letterhead or SWIFT identifier code]

ES Performance Guarantee No.....*[insert guarantee reference number]*

Date.....*[insert date of issue of the guarantee]*

To: _____ *[name of Authority]*
 _____ *[address of Authority]*

WHEREAS _____ *[name and address of Contractor³⁸]*
 (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____
 dated _____ to execute _____ *[name of Contract*
and brief description of Works] (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with Environmental and Social (ES) 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 your demand for the sum specified therein.

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

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

³⁸*In the case of a JV, insert the name of the Joint Venture*

This guarantee shall be valid until³⁹, and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

Notes:

- (i) All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.
- (ii) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (iii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

³⁹*Insert the date sixty days after the the expiry of Defects Liability Period. The Authority should note that in the event of an extension of this date for completion of the Contract, the Authority would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Authority might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Authority's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

Annex –II
(Schedule-G)
(See Clause 7.5.3)

Form for Bank Guarantee for Withdrawal of Retention Money
[Guarantor letterhead or SWIFT identifier code]

_____ *[Bank's name and address of issuing branch or office]*

Beneficiary: _____ *[Name and Address of Authority]*

Date: _____

RETENTION MONEY GUARANTEE NO.: _____

We have been informed that _____ *[name of contractor⁴⁰]* (hereinafter called “the Contractor”) has entered into Contract No. _____ *[reference number of the contract]* dated _____ with you, for the execution of _____ *[name of contract and brief description of Works]* (hereinafter called “the Contract”).

Furthermore, we understand that, according to the conditions of the Contract, the Contractor may withdraw the retention money (hereinafter called the “**Retention Money**”) after furnishing to the Authority a bank guarantee for an amount equal to the proposed withdrawal.

At the request of the contractor, we _____ *[name of Bank]* hereby irrevocably undertake to pay you the sum or sums not exceeding in total an amount of _____ *[amount in ₹]* (_____ *[amount in words]*) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract without cavil or argument.

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 any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall expire, at the latest, 90 days after the date of Completion Certificate. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

Signature and seal of the guarantor _____

⁴⁰*In the case of a JV, insert the name of the Joint Venture*

Name of Bank _____

Address _____

Date _____

Notes:

- (i) All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.
 - (ii) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
 - (iii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.
-

Annex – III
(Schedule-G)
(See Clause 19.2)

Form for Bank Guarantee for Advance Payment

[Guarantor letterhead or SWIFT identifier code]

Advance Payment Guarantee No.....*[insert guarantee reference number]*

Date.....*[insert date of issue of the guarantee]*

To: _____ *[name of Authority]*
 _____ *[address of Authority]*
 _____ *[name of Contract]*

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub-clause 19.2 ("Advance Payment") of the above-mentioned Contract, _____ *[name and address of Contractor⁴¹]* (hereinafter called "the Contractor") shall deposit with _____ *[name of Authority]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ *[amount of guarantee⁴²]* _____ *[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 Authority]* 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]* _____ *[in words]*.

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

This guarantee shall be valid until⁴³, and any demand for payment under this guarantee must be received by us at this office on or before that date.

⁴¹In the case of a JV, insert the name of the Joint Venture

⁴²An amount shall be inserted by the bank representing the amount of the Advance Payment installment, and denominated in ₹.

⁴³ Insert a date 90 (ninety) days after the end of one year from the date of payment of the Advance payment to the Contractor (in accordance with Clause 19.2 of the Agreement).

Signature and seal of the guarantor: _____

Name of Bank: _____

Address: _____

Date: _____

Notes:

- (i) All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.
 - (ii) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
 - (iii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.
-

SCHEDULE - H
(See Clauses 10.1.4 and 19.3)

CONTRACT PRICE WEIGHTAGES

Proportions of the Contract Price for different stages of Construction of the Project shall be as specified below:

PREAMBLE TO SCHEDULE OF QUANTITIES & RATES

1. The Schedule of Rates/Price shall be read with all other sections of this Bidding Document.
2. The Contractor is deemed to have studied the drawings, specifications and details of works to be done within the Time Schedule and should have acquainted himself of the conditions prevailing at site.
3. No claim shall be entertained during currency of this Contract towards any items due to the above including where the Contractor has quoted low/ high rates.
4. Owner/Consultant/Client reserves the right to interpolate or extrapolate the rates for any new item of work not covered in Schedule of Quantities & Rates from the similar items already available in Schedule of Quantities & Rates. All the works shall be measured upon completion and paid for at the rate quoted and accepted in the "Schedule of Quantities & Rates ". In case any activity though specifically not covered in Schedule of Quantities & Rates descriptions but the same is covered under scope of work/ scope of supply/ specification/ drawings etc. no extra claim on this account shall be entertained, since Schedule of Quantities & Rates is to be read in conjunction with all other documents forming part of the Contract.
5. All items of work mentioned in the Schedule of Quantities & Rates shall be carried out as per the specifications, drawings and instructions of Owner/Consultant/Definitions and the rates are deemed to be inclusive of material, consumable, labour, supervision, tools & tackles and detailing of construction drawings, isometric wherever required as called for in the detail specification and conditions of the Contract.
6. Owner/Consultant/Client reserves the right to cancel/ delete/ curtail any item or group of work if necessary. Such a step shall not be construed as reason for changing the rates.
7. The Schedule of Quantities & Rates (SOQR) rates are deemed to be inclusive of all taxes, duties and levies.
8. Bidder shall indicate **"Item Wise rate for each item and subhead" rounded upto two decimal places** in the "Prices" sheet.
9. Payment schedule as provided in NIT is at macro level worked out based on budget head. Successfully bidders has to submit micro level payment schedule after completion of Detail Engineering with proper supporting documents before first running bill without disturbing the percentage weightage of each category. Chief Engineer (Health & Education) will be approving authority with due approval of engineer in charge.
 10. the contractor shall ensure to design & execute all the backbone services keeping in mind the functional requirements.

- 11.** It is prerogative that the Client may get executed the excluded items by contractor through specialized agency under extra item clause after due sanction and approval from. Government/ competent authority or by inviting separate call of tender.
- 12. Contract Price and Payments**
- A.** The bidder shall quote their rates in the prescribed format as per “FINANCIAL BID” of the tender documents. The quoted rates shall be inclusive of all costs towards site visits, planning, designing , site surveys, soil investigations all material, labour, plant and machinery, tools and tackles, batching plant etc. including water & electricity, overhead charges, all taxes (including GST) , duties, levies statutory charges / levies applicable from time to time and others as specified etc., incidental works and all other charges for items contingent to the work, such as inspection, packing, forwarding, insurance, freight and delivery at Site, watch and ward of all materials & successful installation, testing & commissioning at site etc, including handing over of the works to the Client, Operation & Maintenance during Defect Liability Period etc. complete as per Scope of Work. The quoted rates shall also include cost of all other inputs required in the execution of the item, all taxes and duties including Goods & Services Tax. The fee paid by the contractor for obtaining various statutory approvals shall be reimbursed to him after submission of payment receipts and other relevant documents by the contractor.
- B.** Comprehensive Operation & Maintenance is also part of financial bid for which separate agreement will be entered upon after completion of defect liability period with end user for smooth transition.
- (i) The quantities given in the Schedule of Quantities are liable to variations. Such variations in quantities shall not, however, vitiate the contract in any way whatsoever. Contractor shall be paid for the actual measured quantities of work executed by the bidder.
- (ii) Unless otherwise specified the rates tendered by the contractor shall be all inclusive and shall apply to all shapes, heights, lifts, leads and depth of the building and nothing extra shall be payable to him on any account.
- (iii) Royalty, whenever payable, shall be borne by the contractor on the boulders, metal, shingle, sand and bajri etc., or any other materials collected by him for the work direct to the revenue authority of the District / State Government concerned and nothing extra shall be payable on this account.
- (iv) The words “as specified”, “as described”, “as shown”, “as directed”, or “as approved”, shall mean as described in the specifications, Schedule of Quantities and other Contract documents as shown on the drawings or as directed by Engineer-in-Charge.
- C.** The payments to Contractor shall be made on the area basis w.r.t each building. The area for purposes of payment shall be the plinth area actually constructed. Areas for security cabins at entrances, pump room, underground structures including UG Tanks, STP/WTP/Borewells etc. shall not be reckoned towards the plinth areas and their cost shall be deemed to be included in the respective subheads/items of works. Please Note, Porch/Boxing on external wall/Facade will not be counted under built up area.

(i) Shafts for sanitary, water supply installations, garbage chute, telecommunication, electrical, fire fighting, air-conditioning and lifts etc will not be counted under built up area.

(ii) For calculation of plinth area, rules for working out the plinth area from plans as given in the annexure II of PAR-2021 shall be followed.

(iii) Area of Mummy/Machine room, architectural feature if any, above terrace not to be counted in the Plinth area for the calculation of EPC area calculation.

(iv) The total plinth area of a building shall be the sum total of the plinth area at every floor including the basement, if any.

Payments for External Development and MEP High Side will be paid as per Job work as provided in Quoting Sheet and regulated as per payment schedule.

13. Note: The items / equipments / accessories and their ratings mentioned in specifications above are indicative and likely to be changed at the time of execution as per the requirement of the client at later stage. If the increase in over all quantities / rating of the equipment is upto 5% as mentioned in NIT/specifications, the same is included and is in the scope of the work. Nothing extra shall be paid to the contractor on this account. However, if the quantity / rating of the equipment increase beyond 5% as mentioned in the NIT/specifications, the quantity / rating beyond 5% shall be paid to the contractor on actual basis and deduction if any in rating will be recovered @ weightage of payment schedule.

14. Client may ask the contractor to execute additional infrastructure/Building beyond the mandate :

(i) Increase in built up area due to addition of building will be paid based on quoted price per sqm basis as per typology of building.

(ii) Infrastructure increase due to addition of buildings will be paid as per actual executed work based on DSR rates with latest cost index applicable/NSR rates on date of such variation.

15. Submission of bill Statement for Works

- a. The Client shall make interim payments to the Contractor as certified by the Client's Engineer on completion of a stage, as specified and valued in accordance with the proportion of the Contract Price assigned to each item and its stages
- b. The interim payment shall be made on "Pro rata basis" and shall be worked out on the percentage of work done out of total scope of work under their activity/item.
- c. The Contractor shall base its claim for interim payment for completed till the end of the month for which the payment is claimed, valued in accordance with the sub-Clause, supported with necessary particulars and documents in accordance with this Agreement.
- d. The proportion assigned to an item will apply only to the Contract Price stated in this Agreement. It shall not apply to any additions or reductions to the Contract Price arising from the issue of any Order for Change of Scope.
- e. The Contractor shall submit interim RA bill, within the time stipulated as per General Conditions of Contract to the Engineer-In-Charge in the form as directed, showing the amount calculated to which the Contractor considers himself entitled

for completed Works. The interim RA bill shall be accompanied with the required supporting documents.

- f. The Contractor should submit a compliance certificate, in every bill as per provisions of the EPF and ESI Act as amended from time to time.

16. Production of Records

- a. The Contractor shall, whenever required by the Engineer, produce or cause to be produced for examination by the Engineer, any quotation, invoice, cost or other account books, vouchers, receipts, letters, memoranda or any copy of or extract from any such documents and also furnish information and returns, as may be required, relating to the execution of this Contract or relevant for verifying or ascertaining the cost of execution of this Contract or ascertaining the Materials supplied by the Contractor are in accordance with the Specifications laid down in the Contract. The Engineer's decision on the question of relevancy of any documents, information or returns shall be final and binding on the parties.
- b. If any part or item of the work is allowed to be carried out by a subcontractor, assignee or any subsidiary or allied firm, the Engineer shall have power to secure the books of such sub-Contractor, assignee or any subsidiary or allied firm through the Contractor, and shall have power to examine and inspect the same. The above obligations are without prejudice to the obligations of the Contractor under any statute, rules or order.

All running / intermediate & final payments shall be made to the contractor in accordance with the following schedule and on pro-rata basis.

17. However, it is seen that any negative value is not accepted in the BOQ template. The following method will be followed for arriving at a corrected Bid price:

- The positive rate entered in Item No. 1 of the BOQ i.e; *“Credit for Demolition of building structures etc. complete and taking away all fetched material out of campus within 30 days after completing demolition part except the C&D waste kept for recycling and used the recycle product for non structural work such as in foot path, manhole, lean concrete, filling under plinth, re-filling of foundation etc. or as approved by Engineer-in-charge complete in all respect. The serviceable material received from dismantling/demolishing to be kept with executing agency and take away from the site as per direction of engineer-in-charge. Note : This amount to be paid by agency to the department”* will be treated as negative rate.
- The Bidder should enter the Bid Price correctly in the BOQ Template after considering the Item No. 1 of the BOQ as negative. Necessary corrections of the BOQ template will be made manually at the time of financial evaluation.

Payment Schedule

SCHEDULE OF STAGE PAYMENTS				
S No.	Stages of Payment against item No. 1		Breakup of % of Item Contract Value	% of Item Contract Value
1	Planning, Designing, and Construction on EPC Basis RCC framed structure building MAIN DISTRICT HOSPITAL (G+4) , with support services & allied facilities by incorporating stipulated specifications including handing over complete as per scope of work and directions of Engineer-in-charge by incorporating stipulated specification and adopting NBC-2016 norms, IPHS norms & IS Codes and guidelines complete in all respect. Note :- Plinth Area shall be measured for the actual constructed.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			
a.	On approval of Engineer-in-charge, the inception report & detailed survey and architectural drawings ready for submission for approval of local bodies and statutory authorities		0.25%	2.50%
b.	On approval of structure design by the proof consultant and Engineer-in-charge		0.35%	
c.	On obtaining all required approvals from statutory authorities and local bodies for commencement of construction as per requirements and directions of Engineer-in-charge.		0.35%	
d.	On submission of all Good for Construction (GFC) drawings as per requirements and directions of Engineer-in-charge:			
	i. Architectural drawings	0.25%	0.55%	
	ii. Structural design & Drawings	0.15%		
	iii. Design & Drawings for Services	0.15%		
e.	On completion of construction		1.00%	
	i. On Completion of Foundation work	0.10%		
	ii. On Completion of 100% Super structure	0.15%		
	iii. On Completion of work	0.25%		
	iv. On obtaining required statutory approvals after completion of works	0.25%		
	v. On handing over to Client	0.25%		
B)	<u>CONSTRUCTION</u>			
a	Civil Works			
(i)	Foundation Work upto plinth level	10.40%	69.66%	92.50%
(ii)	Structure Work RCC frame of the entire building from plinth level to terrace, stair roof, overhead tank, Lift machine room etc. including water proofing etc.	23.00%		
(iii)	Brick work & Partitioning work upto terrace.	6.97%		
(iv)	Flooring, skirting, dado, wall lining work	6.97%		
(v)	Doors & Windows with hardware	5.56%		
(vi)	External Glazing, GRC Jali, External Cladding etc	2.10%		
(vii)	False Ceiling Work	4.87%		
(viii)	Finishing Work i/c painting (inside & outside)	4.87%		
(ix)	All balance misc. civil Works, viz. Steel work, railing, panelling etc to make functional building	3.50%		
(x)	Structural/Window Glass glazing	1.40%		
	Services			
b	Water Supply & Sewerage System			
(i)	Water Supply System	2.06%	6.40%	
(ii)	Sanitary & Sewerage System	0.06%		
(iii)	Strom water drainage	2.06%		

(iv)	Fittings & Fixtures	2.06%		
(v)	Overhead tank	0.14%		
c	Fire Protection System			
(i)	With wet riser and sprinkler system	2.63%	3.94%	
(ii)	Automatic Fire Alarm System , Gas suppression system, fire extinguisher	1.31%		
d	Electrical Works			
(i)	Light Fixtures, Fans	2.49%	10.60%	
(ii)	Lightening conductors	0.16%		
(iii)	Telephone conduits with wire and switch connection up to exchange EPBX	0.16%		
(iv)	Internal Electrical Works, rising mains and DB & other related works	7.78%		
f	Lift	1.90%	1.90%	
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning, GRIHA 3 Star Certificate	2.50%	2.5%	5.0%
(ii)	Handing over	2.50%	2.5%	
	Total (1)		100.00%	100.00%
S No.	Stages of Payment against item No.2		Breakup of % of Item Contract Value	% of Item Contract Value
2	Planning, Designing, and Construction on EPC Basis RCC framed structure building BMW & LAUNDRY BLOCK (G) ,with support services & allied facilities by incorporating stipulated specifications including handing over complete as per scope of work and directions of Engineer-in-charge by incorporating stipulated specification and adopting NBC-2016 norms , IPHS norms & IS Codes and guidelines complete in all respect. Note :- Plinth Area shall be measured for the actual constructed.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			
a.	On approval of Engineer-in-charge, the inception report & detailed survey and architectural drawings ready for submission for approval of local bodies and statutory authorities		0.25%	2.50%
b.	On approval of structure design by the proof consultant and Engineer-in-charge		0.35%	
c.	On obtaining all required approvals from statutory authorities and local bodies for commencement of construction as per requirements and directions of Engineer-in-charge.		0.35%	
d.	On submission of all Good for Construction (GFC) drawings as per requirements and directions of Engineer-in-charge:			
	i. Architectural drawings	0.25%	0.55%	
	ii. Structural design & Drawings	0.15%		
	iii. Design & Drawings for Services	0.15%		
e.	On completion of construction			
	i. On Completion of Foundation work	0.10%	1.00%	
	ii. On Completion of 100% Super structure	0.15%		
	iii. On Completion of work	0.25%		
	iv. On obtaining required statutory approvals after completion of works	0.25%		
	v. On handing over to Client	0.25%		
B)	<u>CONSTRUCTION</u>			
a	Civil Works			92.50%

(i)	Foundation Work upto plinth level	11.18%	74.56%	
(ii)	Structure Work RCC frame of the entire building from plinth level to terrace, stair roof, overhead tank, Lift machine room etc. including water proofing etc.	24.60%		
(iii)	Brick work & Partitioning work upto terrace.	7.46%		
(iv)	Flooring, skirting, dado, wall lining work	7.45%		
(v)	Doors & Windows with hardware	5.96%		
(vi)	External Glazing, External Cladding etc	2.24%		
(vii)	False Ceiling Work	5.22%		
(viii)	Finishing Work i/c painting (inside & outside)	5.22%		
(ix)	All balance misc. civil Works, viz. Steel work, railing, panelling etc to make functional building	3.73%		
(x)	Structural/Window Glass glazing	1.49%		
	Services			
b	Water Supply & Sewerage System			
(i)	Water Supply System	0.95%	3.44%	
(ii)	Sanitary & Sewerage System	0.95%		
(iii)	Strom water drainage	0.03%		
(iv)	Fittings & Fixtures	0.95%		
(ii)	Overhead tank	0.56%		
c	Fire Protection System			
(i)	Down Comer System	1.40%	2.26%	
(ii)	Manual Fire Alarm System	0.86%		
d	Electrical Works			
(i)	Light Fixtures, Fans	2.88%	12.24%	
(ii)	Lightening conductors	0.18%		
(iii)	Telephone conduits with wire and switch connection up to exchange EPBX	0.18%		
(iv)	Internal Electrical Works, rising mains and DB & other related works	9.00%		
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning	2.50%	2.5%	5.0%
(ii)	Handing over	2.50%	2.5%	
	Total (2)		100.00%	100.00%
S No.	Stages of Payment against item No.3		Breakup of % of Item Contract Value	% of Item Contract Value
3	Planning, Designing, and Construction on EPC Basis RCC framed structure building MORTUARY & GAS MANIFOLD (G) ,with support services & allied facilities by incorporating stipulated specifications including handing over complete as per scope of work and directions of Engineer-in-charge by incoprating stipulated specification and adopting NBC-2016 norms , IPHS norms & IS Codes and guidelines complete in all respect. Note :- Plinth Area shall be measured for the actual constructed.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			
a.	On approval of Engineer-in-charge, the inception report & detailed survey and architectural drawings ready for submission for approval of local bodies and statutory authorities		0.25%	2.50%
b.	On approval of structure design by the proof consultant and Engineer-in-charge		0.35%	
c.	On obtaining all required approvals from statutory authorities and local bodies for commencement of construction as per requirements and directions of Engineer-in-charge.		0.35%	

4	Planning, Designing and construction of Civil External development works Levelling, Cement concrete pavement with vaccum dewatered concrete, Foothpath and pathway, External Sewerage, Filtered Water Supply, Distribution line, Peripheral grid 150 mm to 300 mm dia pipes, Unfiltered water supply distribution lines, Storm water drain, Rain Water Harvesting, Trenches for Services, Under ground Sump, Horticulture & Landscape, Earth Cutting/Filling Work, Boundary Wall, Campus Signage, Main Gate & Guard Room, Solar water heating system, Hyderopneumatic water supply system, Sewerage+effluent treatment plant , Water cooler, Tubewell, Sewage & drainage pump , Heat Pump for Water supply system , Electromechanical of WTP & RO System and ESS & Plant Room approval of the same by the Engineer- in-Charge			
A)	Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.			
a.	On approval of Engineer-in-charge, the inception report & detailed survey and architectural drawings ready for submission for approval of local bodies and statutory authorities		0.25%	2.50%
b.	On approval of structure design by the proof consultant and Engineer-in-charge		0.35%	
c.	On obtaining all required approvals from statutory authorities and local bodies for commencement of construction as per requirements and directions of Engineer-in-charge.		0.35%	
d.	On submission of all Good for Construction (GFC) drawings as per requirements and directions of Engineer-in-charge:			
	i. Architectural drawings	0.25%	0.55%	
	ii. Structural design & Drawings	0.15%		
	iii. Design & Drawings for Services	0.15%		
e.	On completion of construction		1.00%	
	i. On Completion of Foundation work	0.10%		
	ii. On Completion of 100% Super structure	0.15%		
	iii. On Completion of work	0.25%		
	iv. On obtaining required statutory approvals after completion of works	0.25%		
	v. On handing over to Client	0.25%		
B)	Completion of Civil Development Work			
(i)	Levelling	4.99%	79.94%	88.50%
(ii)	Cement concrete pavement with vaccum dewatered concrete	13.56%		
(iii)	Foothpath with PCC base, 60 mm thick paver blocks and kerb stone edging.	4.33%		
(iv)	External Sewerage	2.00%		
(v)	Filtered Water Supply, Distribution line upto 100mm Dia	1.60%		
(vi)	Peripheral grid 150 mm to 300 mm dia pipes	0.85%		
(vii)	Unfiltered water supply distribution lines	0.80%		
(viii)	Storm water drain	9.40%		
(ix)	Rain Water Harvesting (RWH)	2.00%		
(x)	Trenches for Services	1.13%		
(xi)	Under ground Sump with civil, electrical, fire pump , water treatment & mechanical complete	3.50%		
(xii)	Horticulture & Landscape (quantum area as per master plan)	2.30%		
(xiii)	Earth Cutting/Filling Work	7.60%		
(xiv)	771.44 M long Boundary Wall	8.65%		
(xv)	Campus Signage	1.30%		
(xvi)	Main Gate & Guard Room (1 Nos.)	1.70%		
(xvii)	Solar water heating system as per functional required area of respective buildings on pro-rata-basic	0.53%		
(xviii)	Hyderopneumatic water supply system	1.32%		
(xix)	Sewerage+effluent treatment plant with civil, electrical & mechanical	5.87%		

	complete			
(xx)	Water cooler (12 Nos.)	1.10%		
(xxi)	Tubewell (1 Nos.)	1.06%		
(xxii)	Sewage & drainage pump (1 set)	0.21%		
(xxiii)	Heat Pump for Water supply system (80KW)	1.50%		
(xxiv)	Electromechanical of WTP & RO System	2.67%		
C)	ESS & Plant Room			
a	Civil Works			
(i)	RCC Work in Sub-Structure	1.06%	7.05%	
(ii)	RCC Work in Super-Structure	2.47%		
(iii)	Brick work & Partitioning work upto terrace.	1.06%		
(iv)	Flooring, skirting, dado, wall lining work	0.71%		
(v)	Doors & Windows	0.71%		
(vi)	Finishing Work i/c painting (inside & outside)	0.49%		
(vii)	All balance misc. civil Works, viz. Steel work, railing, panelling etc to make functional building	0.35%		
(viii)	Structural/Window Glass glazing	0.20%		
	Services			
b	Water Supply & Sewerage System			
(i)	Internal Water Supply & Sanitary Installations	0.24%	0.29%	
(ii)	Overhead tank	0.05%		
c	Fire Protection System			
(i)	Down Comer System	0.12%	0.19%	
(ii)	Manual Fire Alarm System	0.07%		
d	Electrical Works			
(i)	Light Fixtures, Fans	0.25%	1.03%	
(ii)	Lightening conductors	0.02%		
(iii)	Telephone conduits with wire and switch connection up to exchange EPBX	0.02%		
(iv)	Internal Electrical Works, rising mains and DB & other related works	0.76%		
D)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning	4.50%	4.5%	9.0%
(ii)	Handing over	4.50%	4.5%	
	Total(4)		100.00%	100.00%
S No.	Stages of Payment against item No.5		Breakup of % of Item Contract Value	% of Item Contract Value
5	Planning, Designing and Construction on EPC Basis of INFRASTRUCTURE & EXTERNAL DEVELOPMENT – Electrical Works such as Electrical sub station ,DG set , UPS System, solar photo voltaic power generation system, IP based CCTV system, LAN System, IP based EPABX System, Audio Visual/Conference System, Street lighting with LED and Emergency Light and Illuminated digital signages with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			
a.	On approval of Engineer-in-charge, the inception report & detailed survey and architectural drawings ready for submission for approval of		0.25%	2.50%

	local bodies and statutory authorities			
b.	On approval of structure design by the proof consultant and Engineer-in-charge		0.35%	
c.	On obtaining all required approvals from statutory authorities and local bodies for commencement of construction as per requirements and directions of Engineer-in-charge.		0.35%	
d.	On submission of all Good for Construction (GFC) drawings as per requirements and directions of Engineer-in-charge:			
	i. Architectural drawings	0.25%		
	ii. Structural design & Drawings	0.15%	0.55%	
	iii. Design & Drawings for Services	0.15%		
e.	On completion of construction			
	i. On Completion of Foundation work	0.10%		
	ii. On Completion of 100% Super structure	0.15%	1.00%	
	iii. On Completion of work	0.25%		
	iv. On obtaining required statutory approvals after completion of works	0.25%		
	v. On handing over to Client	0.25%		
B	<u>Completion of Development Work such as Electrical sub station ,DG set , UPS System, solar photo voltaic power generation system, IP based CCTV system, LAN System, IP based EPABX System, Audio Visual/Conference System, Street lighting with LED and Emergency Light and Illuminated digital signages</u>			
I	Supplying, installation, testing and commissioning of 33kV/0.433kV or 11kV/0.433 kV substation equipments comprising HT Panel, Dry type Transformers, HT cable, Bus trunking from Transformer to LT Panel, LT Panel, Automatic Power factor correction panel, Active Harmonic Filters, TVSS (Transient Voltage suppression system),SPD (Surge protection system), Essential panel, Earthing, required inter-connections,substation safety equipments including LT cabling from sub station to the buildings fed by the sub station. (Capacity of 16060 KVA)			
i	Supply of equipment / material	16.75%	22.32%	
ii	On installation of all materials	5.60%		
II	Supplying installation testing and commissioning of silent type D.G. Set, AMF Panel, Bus Trunking /cables from DG Set to essential panel, control cable, Earthing of DG Set and AMF Panel, DG set exhaust piping as per CPCB norms and minor allied works. (Capacity of 1500 KVA)			
i	Supply of equipment / material	17.48%	23.30%	
ii	On installation of all materials	5.83%		
III	Supplying, installation, testing and commissioning of online 3 phase UPS System with 30 minutes back up including batteries, interconnecting cables, battery racks etc .(Capacity of 200 KVA)			88.50%
i	Supply of equipment / material	4.65%	6.20%	
ii	On installation of all materials	1.55%		
IV	Supplying, installation, testing and commissioning of Grid interactive roof top solar photo voltaic power generation system including space frame .(Capacity of 50 Kwp)			
i	Supply of equipment / material	3.20%	4.27%	
ii	On installation of all materials	1.07%		

V	Supplying, installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ / fixed camera, cabling, digital recording, HD display system with minimum display of 5" x 8" per camera and hard ware software support- For External Surveillance			
i	Supply of equipment / material	5.02%	6.69%	
ii	On installation of all materials	1.67%		
VI	Supplying, installation, testing and commissioning of LAN System comprising of Core switches & L2 switches with 10 G, 10 Giga SFP modules, WIFI Access points, WIFI controller, Network Management Software, Racks, CAT 6A cable, Patch Panels, OFC etc.			
i	Supply of equipment / material	7.65%	10.20%	
ii	On installation of all materials	2.55%		
VII	Supplying, installation, testing and commissioning of IP based EPABX System comprising of Core switches & L2 switches with 10 G, 10 Giga SFP modules, Industry Standard Appliance Server, Cloudbased, enterprise-grade UC Solution, MID/ENTRY Level IP/SIP Phone with, Dual 1 Gig Ports, Racks, CAT 6A cable, Patch Panels, OFC etc.			
i	Supply of equipment / material	7.65%	10.20%	
ii	On installation of all materials	2.55%		
VIII	Conference Hall: Supplying, installation, testing and commissioning of Audio Visual/Conference System.			
i	Supply of equipment / material	1.20%	1.60%	
ii	On installation of all materials	0.40%		
IX	Supplying, installation, testing and commissioning of LED Street/ Compound/ High mast/ Pathway/ Landscape Lighting for the Campus			
i	Supply of equipment / material	2.47%	3.29%	
ii	On installation of all materials	0.82%		
X	Emergency Light and Illuminated digital signages			
i	Supply of equipment / material	0.32%	0.43%	
ii	On installation of all materials	0.10%		
C)	COMPLETION AND HANDING OVER			
(i)	Testing & Commissioning	4.50%	4.5%	9.0%
(ii)	Handing over	4.50%	4.5%	
	Total(5)		100.00%	100.00%
S No.	Stages of Payment against item No.6		Breakup of % of Item Contract Value	% of Item Contract Value
6	Planning, Designing, and Construction on EPC Basis of HVAC with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%
	-			

B)	<u>Completion of VRV/VRF AC System, Double Skin AHU For OT, ICU, Casualty, Aluminium Ducting for OT, Hepa Filters for OT, Dehumidifier for OT and Smoke Extraction and Pressurization System.</u>				
I)	<u>VRV/VRF AC SYSTEMS</u>				
i	Supply of equipment / material	41.30%	55.10%	88.50%	
ii	On installation of all materials	13.80%			
II)	<u>Double Skin AHU For OT, ICU, Casualty, Aluminium Ducting for OT, Hepa Filters for OT, Dehumidifier for OT etc.</u>				
i	Supply of equipment / material	17.85%	23.80%		
ii	On installation of all materials	5.95%			
III)	<u>Smoke Extraction and Pressurization System.</u>				
i	Supply of equipment / material	7.20%	9.60%		
ii	On installation of all materials	2.40%			
C)	<u>COMPLETION AND HANDING OVER</u>				
(i)	Testing & Commissioning	4.50%	4.5%		9.0%
(ii)	Handing over	4.50%	4.5%		
Total(6)				100.00%	
S No.	Stages of Payment against item No.7		Breakup of % of Item Contract Value	% of Item Contract Value	
7	Planning, Designing, and Construction on EPC Basis of Medical Gas Pipeline System & Liquid Medical Oxygen Tank with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.				
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%	
B)	<u>Completion of Medical Gas pipeline system & Liquid Medical Oxygen Tank</u>				
I)	<u>Medical Gas pipeline system (as per international standards) comprising of oxygen, carbon dioxide, nitrous oxide, AGSS, Air-4, Air-7, Vacuum outlets, manifolds, pressure alarms, fully automatic gas control system, Bed head panels, copper piping, cylinder banks, plant equipment such as compressors, Vacuum pumps etc. (100 Beds)</u>				
i	Supply of equipment / material	29.00%	38.70%	88.50%	
ii	On installation of all materials	9.70%			
II)	<u>LIQUID MEDICAL OXYGEN TANK : Supply, Installation ,Testing and commissioning of Liquid Oxygen tank capacity 5,000 ltr with Vaporizers, Civil Work , fencing work, Interconnecting Piping , Flung & other accessories complete in all respect and Liquid Tank License obtain from relevant authority .</u>				
i	Supply of equipment / material	37.35%	49.80%		
ii	On installation of all materials	12.45%			
C)	<u>COMPLETION AND HANDING OVER</u>				
(i)	Testing & Commissioning		4.5%		9.0%
(ii)	Handing over		4.5%		
Total(7)					100.00%

S No.	Stages of Payment against item No.8		Breakup of % of Item Contract Value	% of Item Contract Value
8	Planning, Designing, and Construction on EPC Basis of Modular Operation Theater With stainless steel technology and Integration with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%
	-			
B)	<u>MOT comprising of walls & ceiling system for operating area, steel framework, static dissipative flooring, laminar flow, double dome OT light, touch screen surgeon's control panel, scrub station, X ray viewing screen, hatch box, automatic sliding doors, anesthesia pendent, surgeon pendent etc. With stainless steel technology. (3 OT)</u>			
i	Supply of equipment / material		66.40%	88.50%
ii	On installation of all materials		22.10%	
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning		4.5%	9.0%
(ii)	Handing over		4.5%	
	Total(8)			100.00%
S No.	Stages of Payment against item No.9		Breakup of % of Item Contract Value	% of Item Contract Value
9	Planning, Designing, and Construction on EPC Basis of Nursing call system with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%
	-			
B)	<u>Nursing call system comprising of VDE 0834/UL approved Nursing call system, System Switch for de-centralized communications, Nurse Station Terminal, Patient Handset, Event Data base Software, Nurse Call Server along with its Integration with LAN and EPBAX, cabling etc. (100 Beds)</u>			
i	Supply of equipment / material		66.40%	88.50%
ii	On installation of all materials		22.10%	
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning		4.5%	9.0%
(ii)	Handing over		4.5%	
	Total(9)			100.00%
S No.	Stages of Payment against item No.10		Breakup of % of Item Contract Value	% of Item Contract Value

10	Planning, Designing, Supply, Installation, Testing & Commissioning on EPC Basis of Pneumatic Tube System with RFID with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%
	-			
B)	<u>Pneumatic Tube System with RFID</u>			
i	Supply of equipment / material		66.40%	88.50%
ii	On installation of all materials		22.10%	
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning		4.5%	9.0%
(ii)	Handing over		4.5%	
	Total(10)			100.00%
S No.	Stages of Payment against item No.11		Breakup of % of Item Contract Value	% of Item Contract Value
11	Planning, Designing, and Construction on EPC Basis of Hospital curtain track system & I.V. tree system with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%
	-			
B)	<u>Completion of Cubical tracks system and I.V. tree system</u>			
I)	<u>Cubical tracks system made of Powder coated Aluminium alloy, mounted on the ceiling using Suspension hangers and bushes, powder coated wall bracket and Track Joiners wherever required. This system shall be complete with stain free polyester fabric, Water repellent Curtains having 18" Net on top. The curtain shall be approx 7X4 feet, with two curtains stiched together wherever required.</u>			
i	Supply of equipment / material	19.10%	25.50%	88.50%
ii	On installation of all materials	6.40%		
II)	<u>1 Pc of I.V. Hanger with 5 hooks, made from mirror finish stainless steel, 304 grade with adjustable height, provided with 4/6 feet aluminium alloy track powder coated with endcap of tracks, 1 pc of trolley for smooth IV Hanger movement on track, 2 pcs of suspension hanger powder coated, top & bottom bush, powder coated, for easy fitting and better aesthetics.</u>			
i	Supply of equipment / material	47.25%	63.00%	
ii	On installation of all materials	15.75%		
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning	4.50%	4.5%	9.0%
(ii)	Handing over	4.50%	4.5%	
	Total(11)			100.00%
S No.	Stages of Payment against item No.12		Breakup of % of Item Contract Value	% of Item Contract Value

12	Planning, Designing, and Construction on EPC Basis of Solid waste management with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.			
A)	<u>Planning, Design & Engineering Works- Investigation, Planning, Designing and obtaining approvals for works.</u>			2.50%
	-			
B)	<u>Solid Waste Treatment System (Organic Waste Compost Machine For 100 Kg/Day Waste Per Day and Bio-medical waste incinerators) With Waste Segregation, Collection & Disposal System (Installation Of Dustbins) As Per Guidelines For Management Of Healthcare Waste As Per Biomedical Waste Management Rules, 2016 Etc Complete.</u>			
i	Supply of equipment / material		66.40%	88.50%
ii	On installation of all materials		22.10%	
C)	<u>COMPLETION AND HANDING OVER</u>			
(i)	Testing & Commissioning		4.5%	9.0%
(ii)	Handing over		4.5%	
	Total(12)			100.00%

SCHEDULE - I
(See Clause 10.2.4)
DRAWINGS

1 Drawings

In compliance of the obligations set forth in Clause 10.2 of this Agreement, the Contractor shall furnish to the Authority's Engineer, free of cost, all Drawings (6 Copies) listed in Annex-I of this Schedule-I.

2 Additional Drawings

If the Authority's Engineer determines that for discharging its duties and functions under this Agreement, it requires any drawings other than those listed in Annex-I, it may by notice require the Contractor to prepare and furnish such drawings forthwith. Upon receiving a requisition to this effect, the Contractor shall promptly prepare and furnish such drawings to the Authority's Engineer, as if such drawings formed part of Annex-I of this Schedule-I.

Annex - I
(Schedule - I)

List of Drawings

[**Note:** all the Drawings that the Contractor is required to furnish]

- i) Master Plan of the Project including blow up at critical location.
- ii) Architectural Drawing:
- iii) All Floor Plans
- iv) Terrace Floor Plan
- v) Front, Back & Rear Side Elevation, Section etc.
- vi) Finishes Detail.
- vii) All Floor Finishes Detail, Opening Schedules, Staircase, Railing Details etc.
- viii) Cross section at critical locations
- ix) Drawing for staircase, ramp, railings and canopy.
- x) Structural Drawing:
- xi) Sub-structure
- xii) Details of Foundation
- xiii) Boundary Wall
- xiv) Super Structure – beam, slab, staircase, mummy.
- xv) Electrical Drawings for All Floors,
- xvi) External Electrical Works
- xvii) HVAC Systems
- xviii) Fire Fighting Works as per requirement of State Fire & Emergency Services, Assam
- xix) Detailed Plumbing Drawing for each floor including Blow up for each & Every Toilet, Pantry Area, External plumbing Layout, Water reservoir, etc.
- xx) Detailed drawing for Air conditioning, Air circulatory System.
- xxi) Detailed drawing for lighting, electrical accessories including layout.
- xxii) Detailed drawing for fire safety provisions, fire lighting arrangements, including layout.
- xxiii) Detailed drawings for drainage and plinth protection works
- xxiv) Detailed drawing for arrangement of other components.
- xxv) Drawing of Signage.
- xxvi) Landscape detailing, Tree plantation layout, etc.
- xxvii) Drawings For Non Medical Equipments as per Scope such as MGPS, MOT etc.
- xxviii) Drawings for BMW Storage Room
- xxix) As built drawing.
- xxx) Any other Req'd. Drawing as sought by Authority's Engineer

SCHEDULE - J
(See Clause 10.3.2)
PROJECT COMPLETION SCHEDULE

1 Project Completion Schedule

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-J for each of the Project Milestones⁴⁴ and the **Scheduled Completion Date**. Within 15 days of the date of each Project Milestone, the Contractor shall notify the Authority of such compliance along with necessary particulars thereof.

2 Project Milestone-I

2.1 Project Milestone-I shall occur on the date falling on the 90th day from the Appointed Date (the “Project Milestone-I”).

2.2 Prior to the occurrence of Project Milestone-I, the Contractor shall have commenced construction of the Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 1% (One cent) of the Contract Price.

3 Project Milestone-II

3.1 Project Milestone-II shall occur on the date falling on the 210th (Two Hundred Ten) day from the Appointed Date (the “Project Milestone-II”).

3.2 Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with construction of the Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 25% (Twenty Five per cent) of the Contract Price.

4 Project Milestone-III

4.1 Project Milestone-III shall occur on the date falling on the 360th (Three Hundred Sixty) day from the Appointed Date (the “Project Milestone-III”).

4.2 Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with construction of the Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 50% (Fifty per cent) of the Contract Price.

5 Project Milestone-IV

5.1 Project Milestone-IV shall occur on the date falling on the 510th (Five Hundred Tenth) day from the Appointed Date (the “Project Milestone-IV”).

5.2 Prior to the occurrence of Project Milestone-IV, the Contractor shall have continued with construction of the Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 75% (Fifty per cent) of the Contract Price.

6. Project Milestone-V

6.1 Project Milestone-V shall occur on the date falling on the 630th (Six Hundred Thirty) day from the Appointed Date (the “Project Milestone-V”).

6.2 Prior to the occurrence of Project Milestone-V, the Contractor shall have continued with construction of the Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 90% (Ninety per cent) of the Contract Price.

7. Project Milestone-VI

7.1 Project Milestone-V shall occur on the date falling on the 730th (Seven Hundred Thirtyth) day from the Appointed Date (the “Project Milestone-VI”).

7.2 Prior to the occurrence of Project Milestone-V, the Contractor shall have continued with construction of the Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 100% (Hundred per cent) of the Contract Price.

5 Scheduled Completion Date

5.1 The Scheduled Completion Date shall occur on the 730(Seven Hundred Thirtyth) day from the Appointed Date.

5.2 On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

6 Extension of time

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

PROJECT MILESTONE/COMPLETION SCHEDULE/ PENALTIES

Sl. No.	Description of Mile stone	Time allowed in months (From date of start)	Penalty Amount to be deducted in case of Non-achievement of mile stone*
1.	Planning, Design & Engineering Works- Investigation, planning, Designing and obtaining approvals of the same from the local body, client deptt., vetting of structural design, all complete. Preparation of all architectural working drawing, landscape drawings, detailed drawings, structural drawings and MEP / E&M services drawings including obtaining all approval of all local bodies / statutory bodies, all authorities concerned, as may be applicable for the work, all complete as per direction of engineer-in-charge to start the construction activities. Establishment of Site Office.	3 Months	0.25 %
(i) For Original work:			
2.	25% of Total work in Financial Terms	7 Months	0.25 %
3.	50% of Total work in Financial Terms	12 Months	0.50 %
4.	75% of Total work in Financial Terms	17 Months	1.00 %
5.	90% of Total work in Financial Terms	21 Months	1.00 %
6.	All civil, electrical & mechanical and horticulture work completed in all aspects in Residential & non-residential buildings with services, clearances from local body/ completion certificates/ GRIHA 3 Star Certificate (V.2019 or latest) etc. Required to declare buildings and campus authorized for occupation. All Tests for commissioning of engineering services are completed sussfully and the Hospital is "Fit for Use".	24 Months	1.00 %

* Penalty amounts deducted in case of Non Compliance/ failure to achieve the milestone are % of the Contract Price and are additive in nature.

NOTE:

The maximum amount of Penalty Amount to be deducted from the Contractors Payments in case of Non Achievement of Milestone is 4% of the Contract Amount.

Intending bidder may submit phasing of activities/milestones based on their resources and methodology at the time of bidding corresponding to physical milestones/stages indicated in the above table. These shall be formed part of the agreement after approval of the accepting authority, otherwise it would be assumed that agency agrees with the above mentioned physical milestones.

8 Scheduled Completion Date

- 8.1 The Scheduled Completion Date shall occur on the 730th day from the appointed date.
- 8.2 On or before the scheduled completion date, the contractor shall have completed construction in accordance with this Agreement.

9 Extension of time

Upon extension of any or all of the aforesaid project milestones or the scheduled completion date, as the case may be, under and in accordance with the provisions of this Agreement, the project completion schedule shall be deemed to have been amended accordingly.

SCHEDULE - K

(See Clause 12.1.2)

TESTS ON COMPLETION

1 Schedule for Tests

- 1.1 The Contractor shall, no later than 30days prior to the likely completion of construction, notify the Authority's Engineer and the Authority of its intent to subject the Project to Tests, and no later than 10days prior to the actual date of Tests, furnish to the Authority's Engineer and the Authority detailed inventory and particulars of all works and equipment forming part of Works.
- 1.2 The Contractor shall notify the Authority's Engineer of its readiness to subject the Project to Tests at any time after 10 days from the date of such notice, and upon receipt of such notice, the Authority's Engineer shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Authority who may designate its representative to witness the Tests. The Authority's Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 12 and this Schedule-K.

2 Tests

- 2.1 Visual and physical test: The Authority's Engineer shall conduct a visual and physical check of construction to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include measurement of crack, rutting area, area of potholes, depressions, shoving and settlement and upheaval, shoulder drop, erosion of soil from embankment,
- 2.4 Other tests: The Authority's Engineer may require the Contractor to carry out or cause to be carried additional tests, in accordance with Good Industry Practice, for determining the compliance of the Project with Specifications and Standards.
- 2.5 Environmental audit: The Authority's Engineer shall carry out a check to determine conformity of the Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 2.6 Safety Audit: The Authority's Engineer shall carry out, or cause to be carried out, a safety audit to determine conformity of the Project with the safety requirements and Good Industry Practice.

3 Agency for conducting Tests

All Tests set forth in this Schedule-K shall be conducted by the Authority's Engineer or such other agency or person as it may specify in consultation with the Authority.

4 Completion Certificate

Upon successful completion of Tests, the Authority's Engineer shall issue the Completion Certificate in accordance with the provisions of Article 12.

Type of Tests

• Visual Tests

- (a) All reinforcements will be checked as per approved drawings, and upon orders of Authority's Engineer in Site Order Book, will be allowed to be covered up by concreting.
- (b) RCC structures will be checked for damages and honeycombing.
- (c) RCC surfaces will be checked for presence of any deleterious oils, grease, etc. before covering up.
- (d) All makes and brands of materials utilized will be checked for conformity with allowed makes, prior to use.
- (e) Orderly upkeep of the project site will be checked from time to time.
- (f) Qualification of manpower used for the project will be checked.
- (g) Quality of materials used for construction will be checked.

• Quality Control Tests:

- (a) Cube strengths of each concrete pour to be tested and register for the same to be maintained in the lab.
 - (b) Coarse Aggregates to be tested as per relevant IS codes for impact resistance, flakiness, crushing strength, specific gravity, etc.
 - (c) Fine Aggregates to be tested as per relevant IS codes for Zoning, specific gravity, etc (only Zone-I and Zone-II fine aggregates are allowed). Usage of Stone dust for construction is not permitted.
 - (d) Cement to be tested as per relevant IS codes. Only PPCcement will be allowed.
 - (e) Reinforcement to be tested as per IS codes. Only Super ductile TMT bars of Fe-500 will be allowed for construction works.
 - (f) NFPA 70 NFPA70 – National Electrical Code, ASHRAE, as mentioned in Technical Specifications of HVAC, Electrical , Plumbing & Fire Fighting provided with SBD
-

SCHEDULE - L
(See Clause 12.2 and 12.4)
PROVISIONAL CERTIFICATE

1. I, (Name of the Authority's Engineer), acting as the Authority's Engineer, under and in accordance with the Agreement dated (the "**Agreement**"), for construction of (the "**Project**") on Engineering, Procurement and Construction (EPC) basis through (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been undertaken to determine compliance of the Project with the provisions of the Agreement.

2. Works that are incomplete on account of Time Extension have been specified in the Punch List appended hereto, and the Contractor has agreed and accepted that it shall complete all such works in the time and manner set forth in the Agreement. In addition, certain minor works are incomplete and these are not likely to cause material inconvenience to the Users of the Project or affect their safety. The Contractor has agreed and accepted that as a condition of this Provisional Certificate, it shall complete such minor works within 30 days hereof. These minor works have also been specified in the aforesaid Punch List.

3. In view of the foregoing, I am satisfied that the construction of the Project can be safely and reliably placed in service of the Users thereof, and in terms of the Agreement, the Project is hereby provisionally declared fit for entry into operation on this the day of 20.....

ACCEPTED, SIGNED, SEALED
AND DELIVERED
For and on behalf of
CONTRACTOR by:

(Signature)

SIGNED, SEALED AND
DELIVERED
For and on behalf of
AUTHORITY'S ENGINEER by:

(Signature)

COMPLETION CERTIFICATE

- 1 I, (Name of the Authority’s Engineer), acting as the Authority’s Engineer, under and in accordance with the Agreement dated (the “Agreement”), for name of Project on Engineering, Procurement and Construction (EPC) basis through (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I am satisfied that the Project can be safely and reliably placed in service of the Users thereof.

- 2 It is certified that, in terms of the aforesaid Agreement, all works forming part of Project have been completed, and the Project is hereby declared fit for entry into operation on this the day of 20.....

SIGNED, SEALED AND DELIVERED

For and on behalf of

the Authority’s Engineer by:

(Signature)

(Name)

(Designation)

(Address)

SCHEDULE - M
(See Clauses 14.6, 15.2 and 19.7)
PAYMENT REDUCTION FOR NON-COMPLIANCE

- 1. Payment reduction for non-compliance with the Maintenance Requirements**
 - 1.1 Monthly lump sum payments for maintenance shall be reduced in the case of non-compliance with the Maintenance Requirements set forth in Schedule-E.
 - 1.2 Any deduction made on account of non-compliance with the Maintenance Requirements shall not be paid even after compliance subsequently. The deductions shall continue to be made every month until compliance is done.
 - 1.3 In case of non-compliance with maintenance requirements, i.e., not achieving the Key Performance Indicators as defined in Annex 1 of Schedule- E, penalty may be imposed by The Authority.
 - Occurrence of each “Non-Compliance event will attract a penalty and reduction of 5% of the Monthly Maintenance amount payable to the Contractor subject to a maximum of 30% of the Monthly Maintenance Amount.
 - The Authority shall undertake a proper inspection of the facilities and before calculating the amount.
-

SCHEDULE - N

(See Clause 18.1.1)

SELECTION OF AUTHORITY'S ENGINEER

1 Selection of Authority's Engineer

- 1.1 The provisions of the World Bank "Procurement Regulations for IPF Borrowers, July 2016_Revised August 2018" shall apply for selection of an experienced firm to discharge the functions and duties of an Authority's Engineer.
- 1.2 In the event of termination of the Technical Consultants appointed in accordance with the provisions of Paragraph 1.1, the Authority shall appoint another firm of Technical Consultants forthwith and may engage a government-owned entity in accordance with the provisions of Paragraph 3 of this Schedule-N.

2 Terms of Reference

The Terms of Reference for the Authority's Engineer (the "TOR") shall substantially conform with Annex 1 to this Schedule N.

3 Appointment of Government entity as Authority's Engineer

Notwithstanding anything to the contrary contained in this Schedule, the Authority may in its discretion appoint a government-owned entity as the Authority's Engineer; provided that such entity shall be a body corporate having as one of its primary functions the provision of consulting, advisory and supervisory services for engineering projects; provided further that a government-owned entity which is owned or controlled by the Authority shall not be eligible for appointment as Authority's Engineer.

Annex – I
(Schedule - N)

TERMS OF REFERENCE FOR AUTHORITY’S ENGINEER

1 Scope

- 1.1 These Terms of Reference (the “TOR”) for the Authority’s Engineer are being specified pursuant to the EPC Agreement dated (the “Agreement), which has been entered into between the [name and address of the Authority] (the “Authority”) and (the “Contractor”) (Name Of Project) on Engineering, Procurement, Construction (EPC) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.
- 1.2 The TOR shall apply to construction and maintenance of the Project.

2 Definitions and interpretation

- 2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- 2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
- 2.3 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, mutatis mutandis, to this TOR.

3. General

- 3.1 The Authority’s Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.
- 3.2 The Authority’s Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Authority before determining:
- (a) any Time Extension;
 - (b) any additional cost to be paid by the Authority to the Contractor;
 - (c) the Termination Payment; or
 - (d) any other matter which is not specified in (a), (b) or (c) above and which creates an obligation or liability on either Party for a sum exceeding 0.2% of Contract price.
- 3.3 The Authority’s Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Authority’s Engineer within 10days of the beginning of every month.
- 3.4 The Authority’s Engineer shall inform the Contractor of any delegation of its

duties and responsibilities to its suitably qualified and experienced personnel; provided, however, that it shall not delegate the authority to refer any matter for the Authority's prior approval in accordance with the provisions of Clause 18.2.

- 3.5 The Authority's Engineer shall aid and advise the Authority on any proposal for Change of Scope under Article 13.
- 3.6 In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Authority's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

4 Construction Period

- 4.1 During the Construction Period, the Authority's Engineer shall review the Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Consultant in accordance with the provisions of Clause 10.1.6. The Authority's Engineer shall complete such review and send its observations to the Authority and the Contractor within 10days of receipt of such Drawings; provided, however that in case of Structure, the aforesaid period of 10days may be extended up to 20days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
- 4.2 The Authority's Engineer shall review any revised Drawings sent to it by the Contractor and furnish its comments within 10days of receiving such Drawings.
- 4.3 The Authority's Engineer shall review the Quality Assurance Plan submitted by the Contractor and shall convey its comments to the Contractor within a period of 21days stating the modifications, if any, required thereto.
- 4.4 The Authority's Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works, and convey its comments to the Contractor within a period of 10days from the date of receipt of the proposed methodology from the Contractor.
- 4.5 The Authority's Engineer shall grant written approval to the Contractor, where necessary, for interruption and diversion of the flow of traffic in the existing lane(s) of the Project for purposes of maintenance during the Construction Period in accordance with the provisions of Clause 10.4.
- 4.6 The Authority's Engineer shall review the monthly progress report furnished by the Contractor and send its comments thereon to the Authority and the Contractor within 7days of receipt of such report.
- 4.7 The Authority's Engineer shall inspect the Construction Works and the Project and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. In particular, the Authority's Engineer shall include in its Inspection Report, the compliance of the recommendations made by the Safety Consultant.

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- 4.8 The Authority's Engineer shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Authority's Engineer may require.
 - 4.9 For determining that the Works conform to Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance..
 - 4.10 The Authority's Engineer shall test check all the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor.
 - 4.11 The timing of tests referred to in Paragraph 4.9, and the criteria for acceptance/rejection of their results shall be determined by the Authority's Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.
 - 4.12 In the event that results of any tests conducted under Clause 11.10 establish any Defects or deficiencies in the Works, the Authority's Engineer shall require the Contractor to carry out remedial measures.
 - 4.13 The Authority's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 21.6 shall apply.
 - 4.14 In the event that the Contractor fails to achieve any of the Project Milestones, the Authority's Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Authority's Engineer shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Authority's Engineer shall review the same and send its comments to the Authority and the Contractor forthwith.
 - 4.15 The Authority's Engineer shall obtain from the Contractor a copy of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.4.
 - 4.16 Authority's Engineer may recommend to the Authority suspension of the whole or part of the Works if the work threatens the safety of the Users and pedestrians. After the Contractor has carried out remedial measure, the Authority's Engineer shall inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked.
 - 4.17 In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and Users, and requires the Authority's Engineer to inspect such works, the Authority's Engineer shall inspect the suspended works within 3days of receiving such notice, and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.
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- 4.18 The Authority's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-K and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 4.18 and all matters incidental thereto, the Authority's Engineer shall act under and in accordance with the provisions of Article 12 and Schedule-K.

5. Maintenance Period

- 5.1 The Authority's Engineer shall aid and advise the Contractor in the preparation of its monthly Maintenance Programme and for this purpose carry out a joint monthly inspection with the Contractor.
- 5.2 The Authority's Engineer shall undertake regular inspections, at least once every month, to evaluate compliance with the Maintenance Requirements and submit a Maintenance Inspection Report to the Authority and the Contractor.
- 5.3 The Authority's Engineer shall specify the tests, if any, that the Contractor shall carry out, or cause to be carried out, for the purpose of determining that the Project is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Contractor in this behalf.
- 5.4 In respect of any defect or deficiency referred to in Paragraph 3 of Schedule-E, the Authority's Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.
- 5.5 The Authority's Engineer shall examine the request of the Contractor for closure of any of the Project for undertaking maintenance/repair thereof, and shall grant permission with such modifications, as it may deem necessary, within 5 days of receiving a request from the Contractor. Upon expiry of the permitted period of closure, the Authority's Engineer shall monitor the reopening of such part and in case of delay, determine the Damages payable by the Contractor to the Authority under Clause 14.5.

6 Determination of costs and time

- 6.1 The Authority's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- 6.2 The Authority's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.
- 6.3 The Authority's Engineer shall consult each Party in every case of determination in accordance with the provisions of Clause 18.5.

7. Payments

- 7.1 The Authority's Engineer shall withhold payments for the affected works for which the Contractor fails to revise and resubmit the Drawings to the Authority's Engineer in accordance with the provisions of Clause 10.2.4 (d).
- 7.2 Authority's Engineer shall -

- (a) within 10days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and
 - (b) within 15days of the receipt of the Stage Payment Statement referred to in Clause 19.4, deliver to the Authority and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of Clause 19.10.
- 7.3 The Authority's Engineer shall, within 10days of receipt of the Monthly Maintenance Statement from the Contractor pursuant to Clause 19.6, verify the Contractor's monthly statement and certify the amount to be paid to the Contractor in accordance with the provisions of the Agreement.
- 7.4 The Authority's Engineer shall certify final payment within 15days of the receipt of the final payment statement of Maintenance in accordance with the provisions of Clause 19.16.

8. Other duties and functions

The Authority's Engineer shall perform all other duties and functions as specified in the Agreement.

9 Miscellaneous

- 9.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the Authority's Engineer to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the Authority's Engineer thereon, shall be furnished by the Authority's Engineer to the Authority forthwith.
- 9.2 The Authority's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- 9.3 Within 90days of the Project Completion Date, the Authority's Engineer shall obtain a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Authority, reflecting the Project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Project and setback lines, if any, of the buildings and structures forming part of Project Facilities; and shall hand them over to the Authority against receipt thereof.
- 9.4 The Authority's Engineer, if called upon by the Authority or the Contractor or both, shall mediate and assist the Parties in arriving at an amicable settlement of any Dispute between the Parties.
- 9.5 The Authority's Engineer shall inform the Authority and the Contractor of any event of Contractor's Default within 1weeks of its occurrence.
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SCHEDULE -O

(See Clauses 19.4.1, 19.6.1, and 19.8.1)

FORMS OF PAYMENT STATEMENTS**2. Stage Payment Statement for Works**

The Stage Payment Statement for Works shall state:

- (a) the estimated amount for the Works executed in accordance with Clause 19.3.1 subsequent to the last claim;
- (b) amounts reflecting adjustments in price for the aforesaid claim;
- (c) the estimated amount of each Change of Scope Order executed subsequent to the last claim;
- (d) amounts reflecting adjustment in price, if any, for (c) above in accordance with the provisions of Clause 13.2.3 (a);
- (e) total of (a), (b), (c) and (d) above;
- (f) Deductions:
 - (i) Any amount to be deducted in accordance with the provisions of the Agreement except taxes;
 - (ii) Any amount towards deduction of taxes; and
 - (iii) Total of (i) and (ii) above.
- (g) Net claim: (e) – (f) (iii);
- (h) The amounts received by the Contractor up to the last claim:
 - (i) For the Works executed (excluding Change of Scope orders);
 - (ii) For Change of Scope Orders, and
 - (iii) Taxes deducted

3. Monthly Maintenance Payment Statement

The monthly Statement for Maintenance Payment shall state:

- (a) the monthly payment admissible in accordance with the provisions of the Agreement;
- (b) the deductions for maintenance work not done;
- (c) net payment for maintenance due, (a) minus (b);
- (d) amounts reflecting adjustments in price under Clause 19.12; and
- (e) amount towards deduction of taxes

3. Contractor's claim for Damages

Note: The Contractor shall submit its claims in a form acceptable to the Authority.

SCHEDULE -P
(See Clause 20.1)
INSURANCE

1. Insurance during Construction Period

- 1.1 The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the Completion Certificate, the following insurances for any loss or damage occurring on account of Non Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:
- (a) insurance of Works, Plant and Materials and an additional sum of 15 (fifteen) per cent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and
 - (b) insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.
- 1.2 The insurance under paragraph 1.1 (a) and (b) above shall cover the Authority and the Contractor against all loss or damage from any cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

2. Insurance for Contractor's Defects Liability

The Contractor shall effect and maintain insurance cover for the Works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and which arises from a cause occurring prior to the issue of the Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under the Applicable Laws and in accordance with Good Industry Practice.

3. Insurance against injury to persons and damage to property

- 3.1 The Contractor shall insure against its liability for any loss, damage, death or bodily injury, or damage to any property (except things insured under Paragraphs 1 and 2 of this Schedule or to any person (except persons insured under Clause 20.9), which may arise out of the Contractor's performance of this Agreement. This insurance shall be for a limit per occurrence of not less than the adequate amount as determined by the contractor in discussion with the Authority with no limit on the number of occurrences.
- 3.2 The insurance shall be extended to cover liability for all loss and damage to the Authority's property arising out of the Contractor's performance of this Agreement excluding:
- (a) the Authority's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and

- (b) damage which is an unavoidable result of the Contractor's obligations to execute the Works.

4. **Insurance to be in joint names**

The insurance under paragraphs 1 to 3 above shall be in the joint names of the Contractor and the Authority.

SCHEDULE-Q
(See Clause 14.10)

Tests on **Completion** of Maintenance Period

1. Tests as Mentioned in the Technical Specifications of MEP Services as provided with the Tender Documents and as per latest CPWD Specifications/Manuals.

SCHEDULE-R
(See Clause 14.10)

Taking **Over** Certificate

I, (Name and designation of the Authority’s representative) under and in accordance with the Agreement dated (the “Agreement”), for] (the “Project) on Engineering, Procurement and Construction (EPC) basis through (Name of Contractor), hereby certify that the Tests on completion of Maintenance Period in accordance with Article 14 of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement and I hereby certify that the Authority has taken over the Project from the Contractor on this day.....

SIGNED, SEALED AND DELIVERED

(Signature)

(Name and designation of Authority’s Representative)

(Address)

SCHEDULE-S
(See Clause 17.7.2)

Performance Certificate

I, (Name and designation of the Authority’s representative) under and in accordance with the Agreement dated (the “**Agreement**”), for] (the “**Project**”) on Engineering, Procurement and Construction (EPC) basis through (Name of Contractor), hereby certify that the Contractor has discharged all its obligations under the Agreement and in accordance with Article 17 of the Agreement I hereby issue Performance Certificate to the Contractor on this day.....

SIGNED, SEALED AND DELIVERED

(Signature)

(Name and designation of Authority’s Representative)

(Address)

Financial Proposal Format

Financial Proposal Format (This format shall be available in excel format under financial folder-BoQ. Bidder has to fill the format in excel and upload the same in the financial folder.)

Name of Work :Design & Construction of 100 Bedded New District Hospital in Abhayapuri (Bongaigaon District), Assam in EPC Mode.					
S.No	Description of Items	Qty	Unit	Rate	Amount
A	SALVAGE				
1.0	Credit for Demolition of building structures etc. complete and taking away all fetched material out of campus within 30 days after completing demolition part except the C&D waste kept for recycling and used the recycle product for non structural work such as in foot path, manhole, lean concrete, filling under plinth, re-filling of foundation etc. or as approved by Engineer-in-charge complete in all respect. The serviceable material received from dismantling/demolishing to be kept with executing agency and take away from the site as per direction of engineer-in-charge. Note : This amount to be paid by agency to the department. Quote the lump sum amount (in minus)	-1	Job		
B	CIVIL Works				
1.0	Planning, Designing, and Construction on EPC Basis RCC framed structure building MAIN DISTRICT HOSPITAL (G+4) ,with support services & allied facilities by incorporating stipulated specifications including handing over complete as per scope of work and directions of Engineer-in-charge by incorporating stipulated specification and adopting NBC-2016 norms , IPHS norms & IS Codes and guidelines complete in all respect. Note :- Plinth Area shall be measured for the actual constructed..	13095.40	Sqm		
2.0	Planning, Designing, and Construction on EPC Basis RCC framed structure building BMW & LAUNDRY BLOCK (G) ,with support services & allied facilities by incorporating stipulated specifications including handing over complete as per scope of work and directions of Engineer-in-charge by incorporating stipulated specification and adopting NBC-2016 norms , IPHS norms & IS Codes and guidelines complete in all respect. Note :- Plinth Area shall be measured for the actual constructed..	124	Sqm		
3.0	Planning, Designing, and Construction on EPC Basis RCC framed structure building MORTUARY & GAS MANIFOLD (G) ,with support services & allied facilities by incorporating stipulated specifications including handing over complete as per scope of work and directions of Engineer-in-charge by incorporating stipulated specification and adopting NBC-2016 norms , IPHS norms & IS Codes and guidelines complete in all respect.	329	Sqm		

	Note :- Plinth Area shall be measured for the actual constructed.				
4.0	Planning, Designing and construction of Civil External development works Levelling, Cement concrete pavement with vacuum dewatered concrete, Footpath and pathway, External Sewerage, Filtered Water Supply, Distribution line, Peripheral grid 150 mm to 300 mm dia pipes, Unfiltered water supply distribution lines, Storm water drain, Rain Water Harvesting, Trenches for Services, Under ground Sump, Horticulture & Landscape, Earth Cutting/Filling Work, Boundary Wall, Campus Signage, Main Gate & Guard Room, Solar water heating system, Hydropneumatic water supply system, Sewerage+effluent treatment plant , Water cooler, Tubewell, Sewage & drainage pump , Heat Pump for Water supply system , Electromechanical of WTP & RO System and ESS & Plant Room approval of the same by the Engineer- in-Charge	1	Job		
5.0	Planning, Designing and Construction on EPC Basis of INFRASTRUCTURE & EXTERNAL DEVELOPMENT – Electrical Works such as Electrical sub station ,DG set , UPS System, solar photo voltaic power generation system, IP based CCTV system, LAN System, IP based EPABX System, Audio Visual/Conference System, Street lighting with LED and Emergency Light and Illuminated digital signages with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.	1	Job		
6.0	Planning, Designing, and Construction on EPC Basis of HVAC with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.	1	Job		
7.0	Planning, Designing, and Construction on EPC Basis of Medical Gas Pipeline System & Liquid Medical Oxygen Tank with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.	100	Per Bed		
8.0	Planning, Designing, and Construction on EPC Basis of Modular Operation Theater With stainless steel technology and Integration with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.	3	OT		
9.0	Planning, Designing, and Construction on EPC Basis of Nursing call system with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of	1	LS		

	Engineer In charge.				
10.0	Planning, Designing, Supply, Installation, Testing & Commissioning on EPC Basis of Pneumatic Tube System with RFID with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.	1	LS		
11.0	Planning, Designing, and Construction on EPC Basis of Hospital curtain track system & I.V. tree system with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge..	1	LS		
12.0	Planning, Designing, and Construction on EPC Basis of Solid waste management with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of Engineer In charge.	1	LS		
13.0	Designing, planning, Supplying, Installation and commissioning of Non Medical& Modular Lab Furniture as per List of makes, specifications etc. as per scope of work and directions of Engineer In charge	1	LS		
14.0	Operation and Maintenance of Services				
(i)	Comprehensive Operation & Maintenance Contract (CMC) Charges for 5 years comprehensive warranty for followings services which will run concurrently with DLP of 12 Months. (i). MGPS & LMO Tank (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (MGPS & LMO Tank)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (MGPS & LMO Tank)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M (MGPS & LMO Tank)			
d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (MGPS & LMO Tank)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (MGPS & LMO Tank)			
(ii)	Comprehensive Operation & Maintenance Contract (CMC) Charges for 5 years comprehensive warranty for followings services which will run concurrently with DLP of 12 Months. (i). MOT (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		

a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (MOT)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (MOT)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M (MOT)			
d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (MOT)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (MOT)			
(iii)	Comprehensive Operation & Maintenance Contract (CMC) Charges for 5 years comprehensive warranty for followings services which will run concurrently with DLP of 12 Months. (i). Nurse Call System (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (Nurse Call System)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (Nurse Call System)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M (Nurse Call System)			
d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (Nurse Call System)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (Nurse Call System)			
(iv)	Comprehensive Operation & Maintenance Contract (CMC) Charges for 5 years comprehensive warranty for followings services which will run concurrently with DLP of 12 Months. (i). Pneumatic Tube System (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (Pneumatic Tube System)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (Pneumatic Tube System)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M			

		(Pneumatic Tube System)			
d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (Pneumatic Tube System)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (Pneumatic Tube System)			
(v)	STP, WTP, ETP, FIRE PUMP: Operation & comprehensive maintenance STP, WTP, ETP, FIRE PUMP units after three year warranty charges/maintenance. Operator shall be available at plant 24X7. The rates shall be inclusive of all spare, accessories, consumbles, manpower, tools and tackles, replacement of parts, (except fuel, power and water) including routine servicing and maintenance of equipment etc complete in all respect as per direction of Engineer in charge. (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (STP, WTP, ETP, FIRE PUMP`)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (STP, WTP, ETP, FIRE PUMP`)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M (STP, WTP, ETP, FIRE PUMP`)			
d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (STP, WTP, ETP, FIRE PUMP`)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (STP, WTP, ETP, FIRE PUMP`)			
(vi)	Lifts: Operation & comprehensive maintenance LIFT units after three-year warranty charges/maintenance. Operator shall be available at plant 24X7. The rates shall be inclusive of all spare, accessories, consumables, manpower, tools and tackles, replacement of parts, (except fuel, power and water) including routine servicing and maintenance of equipment etc complete in all respect as per direction of Engineer in charge. (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (Lifts)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (Lifts)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M (Lifts)			

d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (Lifts)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (Lifts)			
(vii)	ESS, DG SETS, TRANSFORMER: Operation & comprehensive maintenance ESS, DG SETS units after three year warranty charges/maintenance. Operator shall be available at plant 24X7. The rates shall be inclusive of all spare, accessories, consumbles, manpower, tools and tackles, replacement of parts,(except fuel , power and water) including routine servicing and maintenance of equipment etc complete in all respect as per direction of Engineer in charge. (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (ESS, DG SETS, TRANSFORMER)			
b	For 2 nd year (After One Year Of DLP)	10% of quoted amount under O&M (ESS, DG SETS, TRANSFORMER)			
c	For 3 rd year (After Two Year Of DLP)	15% of quoted amount under O&M (ESS, DG SETS, TRANSFORMER)			
d	For 4 th year (After Three Year Of DLP)	30% of quoted amount under O&M (ESS, DG SETS, TRANSFORMER)			
e	For 5 th year (After Four Year Of DLP)	40% of quoted amount under O&M (ESS, DG SETS, TRANSFORMER)			
viii	HVAC: Operation & maintenance (routine & preventive) and breakdown maintenance of high side & low side of the HVAC System comprising of all the machinery, equipment installed etc complete in all respect as per direction of Engineer in charge. (The Lump Sum as Quoted will split as per weightage as given below)	1	LS		
a	For 1st year (Concurrently with DLP of 12 Months)	5% of quoted amount under O&M (HVAC)			
b	For 2nd year (After One Year Of DLP)	10% of quoted amount under O&M (HVAC)			
c	For 3rd year (After Two Year Of DLP)	15% of quoted amount under O&M (HVAC)			
d	For 4th year (After Three Year Of DLP)	30% of quoted amount under O&M (HVAC)			

e	For 5th year (After Four Year Of DLP)	40% of quoted amount under O&M (HVAC)
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