



TECHNOLOGY CENTRE SYSTEMS PROGRAMME (TCSP)

NATIONAL COMPETITIVE BIDDING (NCB)

**NCB No: AB-30028/38/2016/AB Section II-DCMSME/WORKS/TC-Pudi,
Visakhapatnam**

For

**Construction of New Technology Centre
at Pudi, Visakhapatnam**

**Office of the Development Commissioner (MSME)
Ministry of Micro, Small and Medium Enterprises,
Government of India,
Nirman Bhawan, Maulana Azad Road, New Delhi-110108.
India**

Issued On: 30/06/2016



GOVERNMENT OF INDIA
Ministry of Micro, Small & Medium Enterprises
Office of the Development Commissioner (MSME)



INVITATION OF BIDS
NATIONAL COMPETITIVE BIDDING (NCB)

CONSTRUCTION OF BUILDING FOR 2 EXISTING AND 3 NEW TECHNOLOGY CENTERS (TCs) AT 5 DIFFERENT LOCATIONS
PROJECT NAME: TECHNOLOGY CENTRE SYSTEMS PROGRAMME (TCSP) - A WORLD BANK FUNDED PROJECT

1. BACKGROUND

Ministry of Micro, Small & Medium Enterprises, Government of India is implementing a World Bank Funded Project i.e. Technology Centre Systems Programme (TCSP) at an estimated cost of USD 400 Million. To know more visit www.dcmsme.gov.in/tcsp.html. It is intended that part of the proceeds will be utilized for payments under the Contract(s) to be placed for Procurement of Works for Construction of Technology Centres.

2. INVITATION OF BIDS

The Development Commissioner (MSME), Ministry of MSME, Government of India now invites sealed bids from eligible and qualified bidders for the Construction Works as under:

1. New TC at Rohtak, Haryana - NCB No: AB-30028/37/2016/AB Section II-DCMSME/WORKS/TC-Rohtak at an estimated cost of INR 77 Crore
2. New TC at Bengaluru, Karnataka - NCB No. AB-30028/36/2016/AB Section II-DCMSME/WORKS/TC-Bengaluru at an estimated cost of INR 56 Crore
3. New TC at Pudi, Visakhapatnam - NCB No. AB-30028/38/2016/AB Section II-DCMSME/WORKS/TC- Pudi at an estimated cost of INR 71 Crore
4. Existing TC at Mumbai, Maharashtra - NCB No. AB-30028/40/2016/AB Section II-DCMSME/WORKS/TC- Mumbai at an estimated cost of INR 15 Crore
5. Existing TC at Aurangabad, Maharashtra - NCB No. AB-30028/39/2016/AB Section II-DCMSME/WORKS/TC- Aurangabad at an estimated cost of INR 12 Crore

3. INFORMATION

A complete set of bidding documents in English language can be downloaded free of cost by the bidders from the website www.dcmsme.gov.in/tcsp.html. Interested eligible bidders may obtain further information and clarification from the office of the Director (Tool Room), Office of Development Commissioner, Micro, Small & Medium Enterprises (MSME), Government of India, Room No. 723A, 7th Floor, 'A' Wing, Nirman Bhawan, Maulana Azad Road, New Delhi – 110 108 during office hours from 30.06.16 to 08.07.16. The bidders shall be solely responsible for checking the website for any addendum/amendment issued in regards to this NCB and take into consideration the same while preparing and submitting the bids.

Important Dates and time are as mentioned below:

1. Availability of bid documents at website: From 30.06.16
2. Pre-bid meeting: 12.07.16 at 11:30 Hrs (IST)
3. Bid closing time and date: 10.08.16 at 12:00 Hrs (IST)
4. Bid opening time and date: 10.08.16 at 12:30 Hrs (IST)

4. SUBMISSION OF BIDS

Closing time and date of submitting bids is as mentioned above at the address given below. All bids must be accompanied by a Bid Security as specified in Bidding documents. Bids will be publically opened in the presence of the bidders' designated representatives (bearing Authorization Letter), who choose to attend in person at the address mentioned in the bidding documents at time and date mentioned above.

Director (Tool Room), O/o DC (MSME),
Room No 723A, 7th Floor
A Wing, Nirman Bhawan, Maulana Azad Road, New Delhi – 110108
Tel: +91 11 23062561; Fax: +91 11 23061068;
E mail: tcsp@dcmsme.gov.in

NATIONAL COMPETITIVE BIDDING

**NCB No: AB-30028/38/2016/AB Section II-DCMSME/WORKS/TC- Pudi,
Visakhapatnam**

NAME OF WORK	CONSTRUCTION OF NEW TECHNOLOGY CENTRE AT PUDI, VISAKHAPATNAM,
AVAILABILITY OF BIDDING DOCUMENT ON WEBSITES FROM 30 th June, 2016	www.dcmsme.gov.in/tcsp.html and http://www.citdindia.org .
TIME AND DATE OF PRE-BID CONFERENCE	<u>11:30 Hrs. 12th July, 2016</u>
LAST DATE AND TIME FOR RECEIPT OF BIDS	<u>12:00 Hrs, 10th August, 2016</u>
OFFICER INVITING BIDS	The Development Commissioner (MSME), Ministry of Micro, Small and Medium Enterprises, Government of India 'A' Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road, New Delhi – 110 108

Checklist

Sr. No	Description	Attached (Yes/No)	Page No.
1.	Form 1: Letter of Bid		
2.	Power of attorney in favour of person signing the letter of Bid		
3.	Copy of Certificate of Registration as Civil Works Contractor with the Government of India or any of the other State Governments/Union Territory, or Central/State Government Undertakings.		
4.	Form 2: Bill of Quantities (attached as Annexure I)		
5	Bid Security		
6	Form 4: Technical Proposal		
a	Form 4.1: Site Organization		
b	Form 4.2: Method Statement		
c	Form 4.3: Mobilization Schedule		
d	Form 4.4: Construction Schedule		
e	Form 4.5: Forms for Personnel (PER 1 and PER 2)		
f	Form 4.5: Forms for Personnel (PER 2) for each of the personnel included in PER1		
g	Form 4.6: Forms for equipment		
h	Form 4.7: SC- Sub Contracting		
7	Bidder's Qualification Information Forms		
a	Form- ELI-1.1: Bidder Information Form.		
b	Form CON-2 Historical Contract Non Performance, Pending Litigation and Litigation History.		
c	Format 3.1 Historical Financial Performances		
d	Form FIN- 3.1(A) Format for Evidence of Access to or availability of cash Flow.		
e	Form FIN-3.2 Annual Construction Turnover		
f	Form EXP-4.1. General Construction Experience		
g	Form EXP-4.2(a). Similar Construction Experience (with certificate from Engineer in-Charge of Client)		
h	Form EXP-4.2(b). Construction Experience in Key Activities(with certificate from Engineer in-Charge of Client)		
i	Form Exp-4.2 (c) for Current Contract Commitments/Work in Progress(with certificate from Engineer in-Charge of Client)		
j	Form 5: Declaration regarding customs/excise duty exemption for materials/construction equipment bought to work		
8	Annexure II: Technical schedules to be filled by the bidder		
9	Annexure IV: All Drawings attached (as Annexure IV) of the bidding document should be signed, stamped and submitted along with the bid.		

INVITATIONS FOR BIDS (IFB)

NATIONAL COMPETITIVE BIDDING

Country : India

Name of Project : Technology Centre Systems Programme (TCSP)

Loan No : 8330-IN

Name of Works : Construction of New Technology Centre at Pudi,
Visakhapatnam

NCB No : AB-30028/38/2016/AB Section II-DCMSME/WORKS/TC- Pudi

Date: 30/06/2016

1. The Government of India has received financing from the World Bank towards the cost of Technology Centre Systems Programme (TCSP) Project and intends to apply a part of the funds to cover eligible payments under the contracts for construction of works as detailed below. Bidding will be conducted through National Competitive Bidding procedures agreed with the World Bank. Bidding is open to all eligible bidders as defined in the World Bank's Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, January 2011. Bidders from India should, however, be registered as a Civil Works Contractor with the Government of India or other State Governments 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. **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 1.6 and 1.7 of the World Bank's Guidelines setting forth the World Bank's policy on conflict of interest.
2. **The Development Commissioner (MSME), Ministry of Micro, Small and Medium Enterprises, Government of India (Implementing Agency)** now invites sealed bids for the construction of works, detailed in the table below.

Name of Work	Bid Security (INR)	Approx. value of Works	Period of Completion
Construction of New Technology Centre at Pudi, Visakhapatnam	142 lakh	71 Crores.	15 months

3. Interested bidders may obtain further information from the office of the Director (Tool Room) / Office of Development Commissioner, Micro, Small & Medium

Enterprise (MSME), Government of India, 'A' Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road, New Delhi – 110 108 between 10:00 Hrs to 17:00 Hrs (Indian Standard Time) till 8th July, 2016. A complete set of bidding documents in English language can be downloaded by the bidders from the website www.dcsmse.gov.in/tcsp.html and <http://www.citdindia.org>.

4. The prospective bidders are advised to remain in touch with the website for any updates in respect to this NCB.
5. Bids must be accompanied by security of the amount specified for the work in the table in Para 2 above. 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.
6. Bids must be delivered to the address mentioned below on or before 12:00 hours on 10th August 2016 and will be publicly opened on the same day at 12:30 hours, in the presence of the bidders designated representatives who wish to attend. If the office happens to be closed on the date of receipt of the bids as specified, the bids will be received and opened on the next working day at the same time and venue. Late Bids will be rejected. **Electronic bids shall not be accepted.**

The Director (Tool Room), O/o DC MSME
Room No 723 (A), A Wing,
7th Floor, Nirman Bhawan,
Maulana Azad Road, New Delhi – 110108
Tel: +91 11 23062561;
Fax: +91 11 23061068
E mail: tcsp@dcsmse.gov.in

7. A pre-bid meeting will be held on 12/07/2016 at 11:30 hrs. at the office of Director (Tool Room) / Office of Development Commissioner, Micro, Small & Medium Enterprise (MSME), Government of India, 'A' Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road, New Delhi – 110 108 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.
8. Other details can be seen in the bidding documents.
9. The address for communication is as under:
The Director (Tool Room), O/o DC MSME
Room No 723 (A), A Wing,
7th Floor, Nirman Bhawan,
Maulana Azad Road, New Delhi – 110108
Tel: +91 11 23062561;
Fax: +91 11 23061068
E mail: tcsp@dcsmse.gov.in

PART I – Bidding Procedures

Section I. Instructions to Bidders

Section I - Instructions to Bidders

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Section I - Instructions to Bidders

A. General

- 1. Scope of Bid**

 - 1.1 The Employer, as indicated in the BDS, issues this Bidding Document for the procurement of the Works as specified in Section VII (Works Requirements) & Invitation for Bids (IFB). The name, identification, and number of contracts of this bidding are **specified in the BDS**.
 - 1.2 Throughout this Bidding Document:

 - (a) the term “in writing” means communicated in written form and delivered against receipt;
 - (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
 - (c) “day” means calendar day.
- 2. Source of Funds**

 - 2.1 The Government of India or the Recipient (hereinafter called “Borrower”) **specified in the BDS** has received/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**, towards the cost of the project **specified in the BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Documents are 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 (or other financing) account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, 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. **Corrupt and Fraudulent Practices**
- 3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section VI.
- 3.2 In further pursuance of this policy, Bidders shall permit and shall cause its agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers and any personnel thereof, to permit the Bank to inspect all accounts, records and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.
4. **Eligible Bidders**
- 4.1.1 A Bidder may be a natural person, a firm that is a private entity, or a government-owned entity—subject to ITB 4.5—or any combination of them in the form of a joint venture, under an existing agreement, or with the intent to constitute a legally-enforceable joint venture, unless otherwise **specified in the BDS**.
- 4.1.2 Bids submitted by a joint venture of two or more firms as partners when permitted as per ITB Clause 4.1.1 BDS shall comply with the following requirements:
- [a] the bid shall include all the information listed in Bidders Qualification Forms for all the Partners. The maximum number of members in the Joint Venture shall be as **specified in the BDS**;
- [b] the bid and, in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all partners;
- [c] one of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
- [d] the partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge;
- [e] all partners of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under (c) above, as

well as in the bid and in the Agreement [*in case of a successful bid*];

- [f] The joint venture agreement should indicate precisely the role of all members of JV in respect of planning, design, construction equipment, key personnel, work execution, and financing of the project. 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;
- [g] The joint venture agreement should be registered in place **specified in BDS** so as to be legally valid and binding on partners; and
- [h] a copy of the Joint Venture Agreement entered into by the partners shall be submitted with the bid. Alternatively, a Letter of Intent to execute a joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed Agreement.

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) participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
- (f) 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

- (g) 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
- (h) 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
- (i) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding documents 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 Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.7. 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 sub-contractors or sub-consultants for any part of the Contract including related Services.

4.4 A Bidder that has been sanctioned by the Bank in accordance with the above ITB 3.1, including in accordance with the Bank's Guidelines on Preventing and Combating Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants ("Anti-Corruption Guidelines"), shall be ineligible to be prequalified for, bid 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.**

- 4.5 Bidders that are Government-owned enterprises or institutions in the Employer's Country may participate only if they can establish that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not dependent agencies of the Employer. To be eligible, a government-owned enterprise or institution shall establish to the Bank's satisfaction, through all relevant documents, including its Charter and other information the Bank may request, that it: (i) is a legal entity separate from the government (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to the government, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt; and (iv) is not bidding for a contract to be awarded by the department or agency of the government which under their applicable laws or regulations is the reporting or supervisory authority of the enterprise or has the ability to exercise influence or control over the enterprise or institution.
- 4.6 Not used
- 4.7 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.
- 4.8 Bidder shall provide such evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request
- 4.9 Not used

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|--|---|
| 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. |
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B. Contents of Bidding Document

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| 6. Sections of Bidding Document | 6.1 The Bidding Document consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8. |
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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 - Bank Policy-Corrupt and Fraudulent Practices

PART 2 Work's Requirements

Section VII - Works Requirements

PART 3 Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract (GCC)
 Section IX - Particular Conditions of Contract (PCC)
 Section X - Contract Forms

- | | |
|-----|---|
| 6.2 | Not used. |
| 6.3 | Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the Bidding Documents, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the Bidding Documents in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail. |
| 6.4 | The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its bid all information and documentation as is required by the Bidding Documents. |

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

- 7.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address **indicated in the BDS** or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing 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**. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Employer shall also promptly publish its response at the web page identified in the BDS. *(where electronic downloading of bid document is permitted, the employer will upload the addenda on the website and it will be the responsibility of the bidders [who downloaded the bidding documents] to search the website for any addenda)*. Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Documents following the procedure under ITB 8 and ITB 22.2.
- 7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and 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. 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 in writing, to reach the Employer not later than one week before the meeting.

- 7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
- 7.7 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 Documents by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.
- 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.
- 11. Documents Comprising the Bid**
- 11.1 The Bid shall comprise the following:
- (a) Letter of Bid;
 - (b) completed Schedules, in accordance with ITB 12 and 14, as **specified in BDS;**

- (c) Bid Security, in accordance with ITB 19;
- (d) alternative bids, if permissible, in accordance with ITB 13;
- (e) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
- (f) documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract;
- (g) Technical Proposal in accordance with ITB 16;
- (h) Construction methodology as detailed in Para 1.1 of Section III Evaluation Criteria; and
- (i) Any other document **required in the BDS**.

11.2 In addition to the requirements under ITB 11.1, bids submitted by a JV (where permitted) 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.

11.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

12. Letter of Bid and Schedules

12.1 The Letter of Bid, Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms in Section IV (Bidding Forms), if so provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

13.1 Bidders shall submit offers that comply with the requirements of the bidding documents, including the basic technical design as indicated in the drawing and specifications. Alternatives will not be considered.

14. Bid Prices and Discounts

14.1 The prices and discounts (including any price reduction) quoted by the Bidder in the Letter of Bid and in the Schedules shall conform to the requirements specified below.

14.2 The Bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works (both in figures and words), as identified in Section IV, Bidding Forms along with the total bid price (both in figures

and words). The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. **Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.** Corrections if any in the bid shall be made by crossing out, initialing, dating and rewriting.

- 14.3 The price to be quoted in the Letter of Bid in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.
- 14.4 Unconditional discounts, if any, and the methodology for their application shall be quoted in the Letter of Bid, in accordance with ITB 12.1.
- 14.5 Unless otherwise **provided in the BDS** and the Conditions of Contract, the prices quoted by the Bidder shall be fixed
- 14.6 If so indicated in ITB 1.1, bids are invited for individual contracts or for any combination of lots/contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the bids for all lots/contracts are submitted and opened at the same time.
- 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as applicable on the date of submission of Bid, shall be included in the rates and prices and the total bid price submitted by the Bidder.
- 14.8 Bidders may like to ascertain availability of excise/custom duty exemption benefits available in India to the contracts financed under World Bank loan/credits. 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 documents.

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 Central Excise Notification and Customs Notification as per form stipulated in section IV. 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 quantity indicated therein are reasonable keeping in view the quantities in bill of quantities, 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 customs/excise 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 customs/excise 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.

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| 15. Currencies of Bid and Payment | 15.1 | The unit rates and prices shall be quoted by the Bidder and shall be paid for, entirely in Indian Rupees. |
| 16. Documents Comprising the Technical Proposal | 16.1 | The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as per details stipulated in Section IV (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time. |
| 17. Documents Establishing the Qualifications of the Bidder | 17.1 | To establish its qualifications to perform the Contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the complete information as 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 90 days or for a period **specified in the BDS** after the bid submission deadline date prescribed by the Employer. 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 up to 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.
- 18.3 If the award is delayed beyond the expiry of the initial bid validity, the Contract price shall be determined as follows:
- (a) In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor **specified in the BDS**.
 - (b) In the case of adjustable price contracts, no adjustment shall be made.
 - (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 Unless otherwise **specified in the BDS**, the Bidder shall furnish as part of its bid, in original form, a bid security for the amount shown in BDS for this particular work.
- 19.2 The bid security shall be a demand guarantee, at the Bidder's option, in any of the following forms:
- (a) an unconditional bank guarantee, issued by a Nationalized/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 from a Nationalized or Scheduled Bank located in India;
 - (d) another security **indicated in the BDS**.

In case of a bank guarantee, the bid security shall be

submitted using the Bid Security form included in the 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.

- 19.3 Any bid not accompanied by a substantially responsive Bid Security shall be rejected by the Employer as non-responsive.
- 19.4 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 of the performance security pursuant to ITB 42.
- 19.5 If a bid security is specified pursuant to ITB 19.1, 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.
- 19.6 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, 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 31 or
 - (c) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 41; or
 - (ii) furnish a performance security in accordance with ITB 42.
- 19.7 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 partners as named in the letter of intent mentioned in ITB 4.1.2 and ITB 11.2.

20. Format and Signing of Bid

- 20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it "ORIGINAL". Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked "Alternative" In addition, the Bidder shall submit copies of the bid in the number **specified in the BDS**, and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies,

the original shall prevail.

- 20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person 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 attached to 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 initialed by the person signing the bid.
- 20.3 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
- 20.4 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

- 21.1 Bidders may always submit their bids by mail or by hand. When so **specified in the BDS**, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows:
- (a) Bidders submitting bids by mail or by hand shall enclose the original and each copy of the Bid including alternatives if permitted, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL”, “ALTERNATIVE” and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB sub-Clauses 21.2 and 21.3.
 - (b) Bidders submitting bids electronically shall follow the electronic bid submission procedures **specified in the BDS**.
- 21.2 The inner and outer envelopes shall:
- (a) bear the name and address of the Bidder;
 - (b) be addressed to the Employer as provided in the BDS pursuant to ITB 22.1;

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- (c) bear the specific identification of this bidding process indicated in accordance with ITB 1.1; and
 - (d) bear a warning not to open before the time and date for bid opening.
 - 21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.
 - 22. **Deadline for Submission of Bids**
 - 22.1 Bids must be received by the Employer at the address and no later than the date and time **indicated in the BDS**. Bidders submitting bids electronically (when permitted) shall follow the electronic bid submission procedures **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 Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
 - 24. **Withdrawal, Substitution, and Modification of Bids**
 - 24.1 A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:
 - (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and
 - (b) received by the Employer prior to the deadline prescribed for submission of bids, in accordance with ITB 22.
 - 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.
 - 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 19.6.

25. Bid Opening

- 25.1 Except in the cases specified in ITB 23 and 24, the Employer shall publicly open and read out in accordance with ITB 25.3 all 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 choose to attend. Any specific electronic bid opening procedures required, if electronic bidding is permitted in accordance with ITB 21.1, shall be as **specified in the BDS**.
- 25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding bid being substituted, and the substituted bid shall not be opened, but returned to the Bidder. No bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at bid opening shall be considered further.
- 25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification, the total Bid Price, per lot (contract) if applicable, including any discounts and alternative bids, the presence or absence of a bid security; and any other details as the Employer may consider appropriate. Only discounts and alternatives and modifications read out at bid opening shall be considered for evaluation. The Letter of Bid and the Bill of Quantities are to be initialed by representatives of the Employer attending bid opening in the manner **specified in the BDS**. The Employer shall neither discuss the merits of any bid nor reject any bid at bid opening (except for late bids, in accordance with ITB 23.1).

- 25.4 The Employer shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per contract if applicable, including any discounts and alternative bids; and the presence or absence of a bid security, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

26. Confidentiality

- 26.1 Information relating to the examination, evaluation, comparison, and post qualification of bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders in accordance with ITB 40.
- 26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid.
- 26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may 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 including breakdown of unit rates. 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 31.
- 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. Determination of Responsiveness**
- 29.1 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.
- 29.2 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.
- 29.3 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section VII (Work’s Requirements) have been met without any material deviation, reservations or omissions.
- 29.4 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 deviations or reservations.
- 29.5 Not used
- 30. Nonconformities, Errors, and**
- 30.1 Provided that a bid is substantially responsive, the Employer may waive any non-conformities in the bid which do not

Omissions	constitute a material deviation, reservation or omission.
30.2	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 or substance of the bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.
30.3	Provided that a bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price may be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the methods specified in Section III (Evaluation and Qualification Criteria).
31. Correction of Arithmetical Errors	31.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis: (a) only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected; (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
31.2	If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors in accordance with ITB 31.1, its bid shall be declared non-responsive and the Bid Security may be forfeited in accordance with ITB Sub-Clause 19.6.
32. Conversion to Single Currency	32.1 Not used.

- 33. Margin of Preference** 33.1 Not used.
- 34. Sub-contractors** 34.1 Unless otherwise stated in the BDS, the Employer does not intend to execute any specific elements of the Works by sub-contractors selected in advance by the Employer.
- 34.2 The Employer may permit subcontracting for certain specialized works as indicated in Section III. When subcontracting is permitted by the Employer, the specialized sub-contractor's experience shall be considered for evaluation. Section III describes the qualification criteria for sub-contractors.
- 34.3 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as **specified in the BDS**.
- 35. Evaluation of Bids** 35.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
- 35.2 To evaluate a bid, the Employer shall consider the following:
- (a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary of Bill of Quantities, but including Daywork items, where priced competitively;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.4;
- (d) Not Used,
- (e) price adjustment for nonconformities in accordance with ITB 30.3;
- (f) The additional evaluation factors as specified in Section III (Evaluation and Qualification Criteria);
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

- 35.4 If this Bidding Document allows Bidders to quote separate prices for different lots (contracts), and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section III (Evaluation and Qualification Criteria).
- 35.5 If the bid of the successful bidder, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses (with breakdown of unit rates) for any or all items of the Bill of Quantities, to provide justification for the quoted prices and to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
- 36. Comparison of Bids** 36.1 The Employer shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 35.2 to determine the lowest evaluated bid.
- 37. Qualification of the Bidder** 37.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section III (Evaluation and Qualification Criteria).
- 37.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.
- 37.3 An affirmative determination of qualification shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.

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| 38. Employer's
Right to Accept
Any Bid, and to
Reject Any or
All Bids | 38.1 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders. |
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F. Award of Contract

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| 39. Award Criteria | 39.1 Subject to ITB 37.1, the Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily. |
| 40. Notification of
Award | 40.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, via the Letter of Acceptance included in the Contract Forms, that its bid has been accepted.

40.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract. |
| 41. Signing of
Contract,
Publication of
award and
Recourse to
unsuccessful
Bidders | 41.1 The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder. It shall be kept ready in the office of the Employer for the signature of the Employer and the successful Bidder, within 21 days following the date of Letter of acceptance. Within 21 days of receipt of Letter of acceptance, the successful Bidder shall sign the Agreement and furnish the performance security in accordance with ITB Clause 42 and revised construction methodology. If the successful bidder is a JV, it shall also furnish the JV agreement duly signed by all the partners, if it had submitted only a letter of intent to execute the JV agreement along with the bid.

41.2 The Employer within 3 weeks of issue of notification of award shall publish in a national website the results identifying the bid and lot numbers and the following information: (i) name of each bidder who submitted the bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.

41.3 The Employer shall promptly respond in writing to any |

unsuccessful Bidder who, after publication of contract award, requests the Employer in writing to explain on which grounds its bid was not selected.

42. Performance Security

- 42.1 Within twenty-one (21) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the conditions of contract, subject to ITB 35.5, using for that purpose the Performance Security Form included in Section X (Contract Forms). The performance security of a Joint Venture shall be in the name of the Joint Venture specifying the names of all partners.
- 42.2 Failure of the successful Bidder to submit the above-mentioned 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 next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.
- 42.3 Upon the successful Bidder's signing the Agreement and furnishing of the Performance Security pursuant to ITB Clause 42.1, 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 19.4 and 19.5.

43. Adjudicator or Dispute Review Expert

- 43.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator (or Dispute Review Expert) under the Contract, at the daily rate **specified in the BDS**, plus reimbursable expenses (actual boarding, lodging, travel and other incidental expenses). If the Bidder disagrees with this proposal, the Bidder should so state in Letter of Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator [or Disputes Review Expert] proposed by the Bidder, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator [or Disputes Review Expert].

Section II - Bid Data Sheet (BDS)

The following specific data for construction of 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.

A. Introduction

ITB 1.1	The Employer is: The Development Commissioner (MSME), Ministry of Micro Small and Medium Enterprises, Government of India through The Director (Tool Room) Room No 723 (A), A Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road, New Delhi – 110108 Tel: +91 11 23062561; Fax: +91 11 23061068 E mail: tcsp@dcmsme.gov.in
ITB 1.1	The name of the work is: Construction of New Technology Centre at Pudi, Visakhapatnam The identification number of the work is: NCB No: AB-30028/38/2016/AB Section II-DCMSME/WORKS/TC- Pudi, Visakhapatnam The number and identification of lots comprising this bidding process is: Not Applicable
ITB 2.1	The Borrower is Government of India.
ITB 2.1	The name of the Project is: Technology Centre Systems Programme (TCSP) Project ID is “P145502” Loan or Financing Agreement amount: No. 8330-IN
ITB 4.1.1	Bids from Joint ventures are not acceptable.
ITB 4.1.2 (a)	Maximum number of members in the JV shall be : Not Applicable

ITB 4.1.2 (g)	Place where the agreement to form JV to be registered is. Not Applicable
ITB 4.4	A list of debarred firms and individuals is available at the Bank's external website www.worldbank.org/debarr .

B. Bidding Documents

ITB 7.1 ITB 7.5	For <u>clarification purposes</u> only, the Employer's address is: Attention: Mr. R.K Rai, Director (Tool Room) Office of Development Commissioner, Micro, Small & Medium Enterprise (MSME), Government of India, 'A' Wing, 7th Floor, Room No. 723 (A), Nirman Bhawan, Maulana Azad Road, New Delhi – 110 108, India Tel: +91-11-23062561; Facsimile : +91-11-23061068 E-mail : tcsp@dcmsme.gov.in Requests for clarification should be received by the Employer in writing/email no later than 08.07.2016
ITB 7.1	Web page: www.dcmsme.gov.in/tcsp.html The prospective Bidders are advised to remain in touch with the website for any updates in respect of this NCB.
ITB 7.4	A Pre Bid meeting shall take place as per details given below: - Date: 12th July, 2016 Time: 1130 hrs (IST) Venue: Office of Development Commissioner, Micro, Small & Medium Enterprises (MSME), Committee Room , A Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road, New Delhi – 110108 Tel: +91 11 23062561; Fax: +91 11 23061068 The person attending the pre bid conference should have valid authorization from the authorized signatory of the prospective bidder.

	The prospective Bidders shall intimate the name of representative(s) (not more than 2 from one organization) to the e-mail ID tcsp@dcmsme.gov.in latest by 10.00 Hrs. on 12 th July, 2016 for facilitating entry passes in Nirman Bhawan.
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C. Preparation of Bids

ITB 11.1 (b)	The following schedules shall be submitted with the bid: Form 2: Bill of Quantities (Duly filled in) Form 4: Technical Proposal Forms Bidder's qualification information forms • Form EL 1.1: Bidder Information Form • Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History • Format 3.1: Historical Financial Performances • Form FIN – 3.1 (A): Format for evidence of access to or availability of cash flow • Form FIN – 3.2: Annual Construction Turnover • Form Exp – 4.1: General Construction Experience • Form Exp-4.2 (a): Similar Construction Experience • Form Exp – 4.2 (b): Construction Experience in Key Activities • Form Exp – 4.2 (c): Form for Current Contract Commitments/Works in Progress • Form 5: Declaration regarding customs/excise duty exemption for materials/construction equipment bought to work Annexure II: Technical schedules to be filled by bidder
ITB 13.1	Alternative bids <i>shall not be</i> permitted.
ITB 14.7	The following is added to the existing Clause: However, the Service tax as applicable on cost of installation and commissioning of equipment shall be reimbursed on production of receipts of payment of service tax.
ITB 18.1	The bid validity period shall be: 120 days.
ITB 18.3 (a)	In case the award is delayed beyond initial bid validity, then the bid price shall be adjusted by the following factor: The factor is @ 0.1% per week or part there of
ITB 19.1	The Bidder shall furnish a bid security for the amount of INR 142 lakh Beneficiary: The Development Commissioner, MSME, Ministry of MSME, Government of India, New Delhi IFCSC Code of Purchaser's Bank is SBIN0000583

ITB 19.2 (a)	A bank guarantee issued by a nationalized/scheduled commercial bank located in India in the form given in Section IV; and the named beneficiary shall be The Development Commissioner, MSME, Ministry of MSME, Government of India, New Delhi; valid for 45 days beyond the validity of the bid.
ITB 19.2 (c)	Deleted
ITB 19.2 (d)	Fixed Deposit/Time Deposit certificate issued by a Nationalized or Scheduled Commercial Bank located in India for equivalent or higher values are acceptable provided it is pledged in favour of “The Development Commissioner, MSME, Ministry of MSME, Government of India, New Delhi” and such pledging has been noted and suitably endorsed by the Bank issuing the certificate
ITB 20.1	In addition to the Original of the Bid , the number of copies is: Three hard copies, one soft copy on CD in PDF (non-editable) , and one soft copy in Word Format (editable) and one duly filled soft copy of BOQ Items (Excel file) as indicated in Form 2: Bill of Quantities.
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: “Legal Power of Attorney on stamp paper to sign on behalf of the Bidder confirming the signature of the person duly authorized to sign should be attached with the bid. The name and position held by each person signing authorization must be typed below the signature.” Each and every page of the entire bid should be numbered serially and need to be signed and stamped by the authorized signatory.

D. Submission and Opening of Bids

ITB 21.1	Bidders <i>shall not</i> have the option of submitting their bids electronically.
ITB 22.1	If bidders shall have the option of submitting their bids electronically, the electronic bidding submission procedures shall be: <i>Not Applicable</i>
ITB 22.1	For <u>bid submission purposes</u> only, the Employer’s address is: Attention: Mr. R.K. Rai, Director (TR) / MSME, Office of the Development Commissioner (MSME), Ministry of Micro, Small and Medium Enterprises, Government of India, 7th Floor, A-Wing, Room No.-723A, Nirman Bhawan, Maulana Azad Road,

	New Delhi-110108 Tel: +91-11-23062561; Facsimile : +91-11-23061068 E-mail (where permitted): tcsp@dcmsme.gov.in The deadline for bid submission is: Date: 10th August , 2016 Time: 1200 Hrs
ITB 25.1	The bid opening shall take place at: Office of Development Commissioner, Micro, Small & Medium Enterprise (MSME), Committee Room , A Wing, 7th Floor, Nirman Bhawan, Maulana Azad Road, New Delhi – 110108 Tel: +91 11 23062561; Fax: +91 11 23061068 The opening of bids shall be as per below specified date and time: Date: 10th August, 2016 Time: 12.30.Hrs (IST) The person attending the bid opening should have valid authorization from the authorized signatory of the bidder. The Bidders shall intimate the name of representative(s) (not more than 2 from one organization) to the e-mail ID tcsp@dcmsme.gov.in latest by 10.00 hrs on 10th August, 2016 for facilitating entry passes in Nirman Bhawan.
ITB 25.1	If electronic bid submission is permitted in accordance with ITB 22.1, the specific bid opening procedures shall be: Not Applicable

E. Evaluation and Comparison of Bids

ITB 25.3	The Letter of Bid and Priced Bill of Quantities shall be initialled by at least two representatives of the Employer conducting Bid opening
ITB 34.3	(a) Contractor's proposed subcontracting: Maximum percentage of subcontracting permitted is 25% of the total contract amount. Anyone or more of the following parts of the works may be considered for subcontracting: (i) Electrical and LV works (ii) Plumbing, water supply and sanitation works

	(iii) Heating Ventilation and Air Conditioning (HVAC) System (iv) Firefighting System (v) Landscaping (vi) Compressed Air supply system (vii) EOT Crane (b) Bidders planning to subcontract more than 10% of total volume of work shall specify, in the Bid Submission Form, the activity (ies) or parts of the works to be subcontracted along with complete details of the sub-contractors and their qualification and experience. The qualification and experience of the sub-contractors must meet the minimum criteria for the relevant work to be sub-contracted failing which such sub-contractors will not be permitted to participate. (c) Sub-contractors' qualification and experience will not be considered for evaluation of the Bidder except to the extent specified in the criteria. The Bidder on its own (without taking into account the qualification and experience of the sub-contractor) should meet the qualification criteria. <i>[Note-Work should not be split into small parts and sub-contracted].</i>
ITB 35.3 ITB 35.4	Not Applicable
ITB 43.1	The Adjudicator/Dispute Review Expert proposed by the Employer is Mr. G.C Khattar residing at Flat No. 1025, Apna Villa Apts., Plot No. 23, Sector 10, Dwarka, New Delhi – 110 075. The daily fee for the proposed Adjudicator/Dispute Review Expert shall be INR 5000 per day plus reimbursable expenses (actual boarding, lodging, travel and other incidental expenses). The biographical data of the proposed Adjudicator/Dispute Review Expert is as follows: Educational & Technical Qualifications: • B.Sc. Engineering (Civil)- 1969, University of Delhi. • Master's Diploma in Public Administration, 1993 Indian Institute of Public Administration. Membership of Professional Bodies : • Fellow - Institution of

	Engineers, India. • Life Member – Arbitration Council of India. • Life Member - Indian Roads Congress. Particulars of service: • Worked for 4 years in Military Engg. Services till 1974. During this tenure designed a variety of civil structures and also handled the maintenance work of Army Hospital Building at Leh, Ladakh. • After clearing Central Engg. Services Exam. 1973 of UPSC, joined Central Public Works Department, Govt. of India. Got posted in different posts right from the Assistant Executive Engineer to the Chief Engineer with a total work Experience of 36-1/2 Yrs in Construction, maintenance & planning of Civil Works. During my service of 32 1/2 years in Central Public Works Department (CPWD), I had the opportunity of doing Structural designing of a variety of civil structures, construction of roads and buildings and bridges, Project Monitoring of works spread all over India. During my tenure as Chief Engineer, Andaman Public Works Department, I had the occasion to handle all civil restoration works after the Tsunami that hit the Islands in December'2004. During the service while working as Superintending Engineer, I had functioned in the newly created wing of Tecnolegal Cell of the department and also functioned as sole Arbitrator for a number Arbitration Cases of New Delhi Municipal Committee, New Delhi. Apart from the above, I have functioned/functioning as Sole Arbitrator in the following cases :- 1. Extension of Runway at Port Blair Airport, Andaman Public works Department, A & N Islands. involving disputes of over Rs. 11
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	Crores. Award published in Nov'2009. 2. Spl. Repair to old SFA quarters for ITBP Bn, CPWD, Chandigarh. Award published in Oct'2010. 3. C/o FSI Building at Old JNU Campus, CPWD, New Delhi. Award published in Apr'2013. 4. C/o Fencing under Phase III along IBB in Nadia District of West Bengal Sector, IBBZ, CPWD involving disputes of over Rs. 13 Crores. Arbitration hearings completed award being published. 5. Providing and laying flooring with Vitrified Tiles and Granite Stone in the Terminal Building at Amritsar Airport. (Balance Work), Airport Authority of India in hand.
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Section III - Evaluation and Qualification Criteria

1. Evaluation

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

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include:

- i. 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 Technical proposal (Refer Section IV)** outlining its proposed methodology and program of construction including Environmental Management Plan [In line with the Environment Management Framework available on TCSP website <http://dcmsme.gov.in/tcsp.html>], backed with equipment planning and deployment, 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 as per technical specifications within the stipulated period of completion as per milestones.

- ii. An assessment of the details of subcontracting elements of works amounting to more than 10% 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***].

1.2 Multiple Contracts: Not applicable

2. Qualification

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Partner	One Partner	

2.1 Eligibility

2.1.1	Nationality	Nationality in accordance with ITB Sub-Clause 4.3.	Must meet requirement	N / A	N / A	N / A	Form ELI –1.1 with attachments
2.1.2	Conflict of Interest	No conflicts of interest in ITB Sub-Clause 4.2.	Must meet requirement	N / A	N / A	N / A	Form 1: Letter of Bid
2.1.3	Bank eligibility	Not having been declared ineligible by the Bank, as described in ITB Sub-Clause 4.4.& 4.7.	Must meet requirement	N / A	N / A	N / A	Form 1: Letter of Bid
2.1.4	Government Owned Entity	Applicant required to meet conditions of ITB-A Sub-Clause 4.5. The entity should not be a dependent agency of the borrower or sub-borrower or Employer.	Must meet requirement	N / A	N / A	N / A	Form ELI -1.1 with attachments
2.1.5	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 4.7 and Section V.	Must meet requirement	N / A	N / A	N / A	Form ELI -1.1 with attachments

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Partner	One Partner	

Historical Contract Non-Performance

2.2.1	History of Non-Performing Contracts	Non-performance of a contract ¹ did not occur as a result of contractor default since 01 st April 2011	Must meet requirement by itself or as partner to past or existing JV	N / A	N / A	N / A	Form CON - 2
2.2.2	Suspension due to withdrawal of the Bid within Bid validity	Not under suspension due to withdrawal of the Bid pursuant ITB 19.6.	Must meet requirement	N/A	N / A	N/A	Form 1: Letter of Bid
2.2.3	Pending Litigation	Bidder's financial position and prospective long term profitability sound according to criteria established in 2.3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement by itself or as partner to past or existing JV	N / A	N / A	N / A	Form CON - 2

¹ Non performance, as decided by the Employer, shall include all contracts where (a) nonperformance 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.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Partner	One Partner	
2.2.4	Litigation History	No consistent history of court/arbitral award decisions against the Bidder ² since 01 st April 2011	Must meet requirement by itself or as partner to past or existing JV	N/A	N/A	N/A	Form CON - 2

²The 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.

Qualification Criteria			Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture where permitted		Submission Requirements
				All Parties Combined	Each Member	One Member

2.3 Financial Situation and Performance

2.3.1	Financial Capabilities	(a) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Rs 14 crore for the subject contract(s) net of the Bidders other commitments (b) 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 (c) 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 (Financial years 2010-	(a) Must meet requirement (b)) Must meet requirement (c) Must meet requirement	N / A	N / A	N / A	Form FIN - 3.1 with attachments Note: Evidence of access to or availability of cash flow from a Nationalized or Scheduled Bank in India should be of a date not earlier than the date of release of the bidding document i.e. 30.06.2016.
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Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
		11, 2011-12, 2012-13, 2013-14 and 2014-15) shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability.					
2.3.2	Annual Construction Turnover	Achieved in at least two financial years (in the last five financial years i.e. FY 2011-12, 2012-13, 2013-14, 2014-15 and 2015-16) a minimum annual financial turnover ³ in civil engineering construction work of INR 114 Crore (Indian Rupees One Hundred Fourteen Crore) calculated as total certified payments received for contracts in progress or completed	Must meet requirement	N/A	N/A	N/A	Form FIN - 3.2

³ At 2015-16 price level. Financial turnover of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of year 2015-16.

Qualification Criteria			Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture where permitted		Submission Requirements
				All Parties Combined	Each Member One Member	

2.4 Experience

2.4.1	General Construction Experience	Experience under construction contracts for similar works such as those pertaining to construction of any type of buildings and structures. e.g. Institutional/Commercial/Industrial/Office/Residential with RCC and steel framed structure in the role of contractor, JV member, subcontractor, or management contractor for during the last five [5] years i.e., (FY 2011-12 to FY2015-16), prior to the bid submission deadline.	Must meet requirement	N/A	N / A	N/A	Form EXP – 4.1
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Qualification Criteria			Compliance Requirements		Documentation
No.	Subject	Requirement	Single Entity	Joint Venture where permitted	Submission Requirements

				All Parties Combined	Each Member	One Member	
2.4.2 (a)	Specific Construction Experience	Bidder should have successfully completed as a prime contractor, JV member ⁴ , management contractor or subcontractor, minimum one (1) contract substantially within the last five (5) years (FY 2011-12 to FY2015-16), with a value ⁵ of at least INR 57 Crore which is similar to the proposed works. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Section VII, Employer's requirements	Must meet requirement	N/A	N/A	N/A	Form EXP 4.2(a). The contractor should have borne responsibility for execution of works to the extent he claims experience. A contractor should not claim experience for the works he has never executed.
Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	

⁴ For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

⁵ At 2015-16 price level. Cost of completed works of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of year 2015-16.

2.4.2 (b)	Specific Experience	b) For the above or other contracts executed during the period stipulated in 2.4.2(a) above, the minimum quantity of work done by the bidder in the following key activities in one year: Earthwork: 15,000 cum RCC work: 7700cum Masonry work: 1200 cum Steel framed structure: 98 MT	Must meet requirements	N/A	N/A	N/A	Form EXP-4.2(b)
2.4.2 (c) For a bidder (either individually as a single entity) to qualify for a group of lots (contracts) made of this and other contracts for which this Bid and other Bids are being invited, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for all the contracts in question.							
2.4.2 (d)	Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value of the work. 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 15-16 at the rate of 5% per year), taking into account the completed as well as works in progress). N = Number of years prescribed for completion of the works for which bids are invited (period upto 6 months to be taken as half-year and more than 6 months as one year).						

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

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 of client

**2.4.2
(e)**

In case subcontracting elements of works as indicated in clause ITB 34.3 of Bid Data Sheet amounting to more than 10% of the bid price; for each element proposed to be sub contracted furnish details of the similar works successfully completed within the last three (3) years (FY 2013-14 to FY2015-16) as prime contractor or subcontractor and meet the following criteria:

- i. The sub-contractor for electrical and LV works should have a valid electrical license from competent authority and should have completed one similar electrical and LV work including supply, installation, testing and commissioning for an amount of INR 2 crore or two similar electrical and LV works each costing not less than INR 1 crore during any one of the last three financial years
- ii. The sub-contractor for plumbing, water supply and sanitation works should have a valid license from competent authority and should have completed one similar work including supply and installation for an amount of INR 68 lakh or two similar works each costing not less than INR 35 lakh during any one of the last three financial years
- iii. The sub-contractor for HVAC works should have experience in supply, installation, testing and commissioning of similar works for an amount of INR 1 Crore or two similar works each costing not less than INR 50 lakh during any one of the last three financial years
- iv. The sub-contractor for Fire-fighting works should have experience in supply, installation, testing and commissioning of similar works for an amount of INR 77 lakh or two similar works each costing not less than INR 40 lakh during any one of the last three financial years
- v. The sub-contractor for landscaping works should have experience in supply, installation, testing and commissioning of similar works for an amount of INR 43 lakh or two similar works each costing not less than INR 22 lakh during any one of the last three financial years

2.4.2 (f)	vi. The sub-contractor for Compressed Air works should have experience in supply, installation, testing and commissioning of similar works for an amount of INR 20 lakh or two similar works each costing not less than INR 10 lakh during any one of the last three financial years vii. The sub-contractor for EOT Crane works should have experience in supply, installation, testing and commissioning of similar works for an amount of INR 33 lakh or two similar works each costing not less than INR 17 lakh during any one of the last three financial years Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have: - - made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement; - record of poor performance such as abandoning the works, not properly completion or financial failures etc. - consistent history of litigation or arbitration awards against the bidder or any partner or the joint venture. - Participated in the previous bidding (if this is a re-bidding) for the same work and had quoted unreasonably high bid price and could not furnish any rational justification for the same to the employer.
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2.5 Personnel

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

S. No.	Designation of Personnel (Position)	No.	Minimum Qualification	Minimum years of experience	Minimum experience in similar position and works
1	Project Manager	1	Graduate Engineer	20 years	8 to 10 years
2	Sr Er Civil (Billing)	1	Graduate Engineer (Civil)	10 years	5 years
3	Sr Er Electrical	1	Graduate Engineer (Electrical)	10 years	5 years
4	Sr Er Civil (Planning)	1	Graduate Engineer (Civil)	5 years	3 years
5	HSE officer	1	Graduate Civil /Environment Engineer with Diploma in Safety Management	12 years	3 years
6	Jr Er Civil (Survey)	1	Diploma Engineer (Civil)	10 years	3 years
7	Sr. Er Civil (Quality)	1	Graduate Engineer (Civil)	10 years	5 years
8	Sr Er Mechanical (HVAC & Plumbing)	1	Graduate Engineer (Mechanical)	10 years	5 years
9	Jr Er Civil	2	Graduate Engineer (Civil)	5 years	1 years

Note:

- Man power/Resources need to be increased by Contractor as and when required by project.
- Site supervisor/ Foremen/ Safety Stewards to be deployed as and when required at site.

Note: Bidder should furnish Curriculum Vitae of all personnel being proposed for deployment to confirm meeting the requirements as per Form 4.5: Form for Personnel (PER – 1 and PER – 2).

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 following Government Departments.
- [ii] without Government permission, any person who retired as gazetted officer within the last two years.

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Forms included in Section IV, Bidding Forms.

2.6 Equipment

The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter:

No	Equipment Type and Characteristics	Capacity	Minimum Number required
A	Equipment for Construction		
1	JCB	3DX Machine	1 No.
2	Builder hoist	5 T	2 No.
3	Concrete pump	35 Cum/Hrs	1 No.
4	Mini batching plant	5 Cum/Hrs	2 No.
5	Earth Compactors	Standard	1 No.
6	Total stations	Standard	1 No.
7	Auto level	Standard	2 No.
8	Electrical pumps	5 HP	As required at site
9	Tractor with trolley	Standard	3 No.
10	Bar bending Machine	45 mm dia	2 No.
11	Bar cutting Machine	45 mm dia	2 No.
12	Water tankers	Standard	2 No.
13	Welding Machine	Standard	1 No.
B	Equipment for QA/QC		
1	Compression testing machine 100 T	100 T	1 No.
2	Slump cone, Temping rod and accessories	standard	3 No.

3	Vicats apparatus with Desk pot	standard	1 No.
4	Weighing Machine upto 300 kg	300 Kg	1 No.
5	Weighing Machine upto 10 kg	10 Kg	2 No.
6	Complete sets of sieves for coarse aggregate	standard	1 No. set
7	Complete sets of sieves for fine aggregate	standard	1 No. set
8	Cube moulds	standard	18 No.
9	Digital thermometer	standard	1 No.
10	Measuring jar 100 ml, 200 ml, 500 ml	100 ml, 200 ml, 500 ml	2 No. each
11	Vernier caliper	standard	1 No.
12	Iron Weight of 5 kg, 2 kg, 1 kg, 500 gm, 200 gm, 100 gm	5 kg, 2 kg, 1 kg, 500 gm, 200 gm, 100 gm	1 No. each
13	Equipment for testing of soil compaction by sand replacement method & core cutting method	standard	1 No. set

Note: Equipments need to be increased as and when requirement of site arises.

NOTE:

Based on the studies, carried out by the Engineer the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule is shown in the above list. The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in Section IV to allow the employee to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

The Bidder shall provide details of proposed items of equipment using the relevant Form-5 in Section IV.

Section IV - Bidding Forms

Form 1: Letter of Bid

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

Note: All italicized text is for use in preparing these forms and shall be deleted from the final products.

Date: _____

Invitation for Bid No.: _____

To:

Director (Tool Room)
Office of Development Commissioner,
Micro, Small & Medium Enterprise (MSME), Government of India,
'A' Wing, 7th Floor, Room No. 723 (A), Nirman Bhawan,
Maulana Azad Road,
New Delhi – 110 108, India

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB 8) ;
- (b) We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) We offer to execute in conformity with the Bidding Documents the following Works:
_____;
- (d) The total price of our Bid, excluding any discounts offered in item (d) below is:
_____ ***[both in words and figures];***

The total price of the Bid ***[insert the total price of the bid in words and figures];***

- (e) The discounts offered and the methodology for their application are:

(i) The discounts offered are: ***[Specify in detail each discount offered.]***

(ii) The exact method of calculations to determine the net price after application of discounts is shown below: ***[Specify in detail the method that shall be used to apply the discounts];***

_____;

- (f) Our bid shall be valid for a period of 120 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (g) We accept the appointment of ***[insert name proposed in Bid Data Sheet]*** as the Adjudicator/Dispute Review Expert

[or]

We do not accept the appoint of ***[insert name proposed in Bid Data Sheet]*** as he Adjudicator/Dispute Review Expert, and propose instead that ***[insert name]*** be appointed as Adjudicator/Dispute Review Expert, whose daily fees and biographical data are attached;

- (h) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;
- (i) We are not participating, as a Bidder, in more than one bid in this bidding process in accordance with ITB 4.2,
- (j) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by the Bank, under the Employer's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council;
- (k) We are not a government owned entity / We are a government owned entity but meet the requirements of ITB 4.5;⁶
- (l) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:⁷

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

- (m) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.
- (n) We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India on date namely "Prevention of Corruption Act 1988."

⁶Use one of the two options as appropriate.

⁷If none has been paid or is to be paid, indicate "none".

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- (o) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (p) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and
- (q) If awarded the contract, the person named below shall act as Contractor's Representative: _____

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 Schedules.

Form 2: Bill of Quantities

Bill of Quantities is attached as Annexure I

The Bidder shall fill in rates for all the items of the works described in the Bill of Quantities both in figures and Words. For the ease of submission of bids a soft copy of BOQ Items (Excel file) is being attached which should be used for filling the rates both in figure and words for all BOQ items. The print out of duly filled soft copy of BOQ Items (Excel file) should be taken signed, stamped and attached with the bid. The same duly filled soft copy of all BOQ Items (Excel file) should be submitted along with the Bid. In case of any discrepancy between signed hard copy of BOQ and soft copy of BOQ, the rates quoted in signed hard copy will prevail.

Note:

- 1. Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities (refer :ITB Clause 14.2 and GCC Clause 41.3)*
- 2. Unit rates and prices shall be quoted by the bidder in Indian Rupees [ITB Clause 14.1 and ITB Clause 15.1]*
- 3. Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern as explained in [ITB Clause 31.1(a)].*
- 4. Where there is a discrepancy between the rate in figures and words, the rates in words will govern.[ITB Clause 31.1(c)]*

Form 3: Form of Bid Security (Bank Guarantee)

[Guarantor letterhead or SWIFT identifier code]

Beneficiary:

The Development Commissioner, MSME,
Ministry of MSME, Government of India.
'A' Wing, 7th Floor, Nirman Bhawan,
Maulana Azad Road,
New Delhi – 110 108

Invitation for Bids No: *_[Insert reference number for the Invitation for Bids]*

Date:*[Insert date of issue]*

BID GUARANTEE No.:*[Insert guarantee reference number]*

Guarantor: *_[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of the Bidder, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof]* (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its bid (hereinafter called "the Bid") for the execution of *[insert description of contract]* under Invitation for Bids No. *[insert number]* ("the IFB").

Furthermore, we understand that, according to the Beneficiary's conditions, bids must be supported by a bid guarantee.

At the request of the Applicant, we , as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in letters]* (*insert amount in numbers*) upon receipt by us of the Beneficiary's complying supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) has withdrawn its Bid during the period of bid validity specified by the Applicant in the Letter of Bid, or any extension thereto provided by the Applicant; or
- (b) having been notified of the acceptance of its Bid by the Beneficiary during the period of bid validity, (i) fails to execute the Contract Agreement or (ii) fails to furnish the performance security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the performance security issued

to the Beneficiary upon the instruction of the Applicant; and (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the bidding process; or (ii) twenty-eight days after the Validity Period, which date shall be established by presentation to us of copies of the Letter of Bid and any extension(s) thereto, accompanied by the bidding document; or (c) three years after the date of issue of this guarantee.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[signature(s)]

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

Form 4: Technical Proposal

Technical Proposal Forms

- **Form 4.1: Site Organization**
- **Form 4.2: Method Statement**
- **Form 4.3: Mobilization Schedule**
- **Form 4.4: Construction Schedule**
- **Form 4.5: Forms for Personnel**
- **Form 4.6: Forms for Equipment**
- **Form 4.7: Sub-contracting elements or works which in aggregate adds to more than 10% 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.***

Technical Proposal – Form 4.1: Site Organization

[Insert Site Organization information]

Technical Proposal – Form 4.2: Method Statement

[insert method Statement – A detailed note should be submitted outlining bidders proposed methodology and program of construction including Environmental Management Plan[In line with the Environment Management Framework available on TCSP website <http://dcmsme.gov.in/tcsp.html>], 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 as per technical specifications within the stipulated review of completion as per mile stones]

Technical Proposal – Form 4.3: Mobilization Schedule

[Insert Mobilization Schedule]

Technical Proposal – Form 4.4: Construction Schedule

[Insert Construction Schedule]

Technical Proposal – Form 4.7: Sub Contracting

[Insert proposal of sub-contracting elements of works amounting to more than 10% of the bid price for each element and indicate the name of the sub-contractor, its qualifications and experiences to execute that element satisfactorily]

Form 4.5: Forms for Personnel

Form PER – 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

S. No.	Position	Name	Qualification	Years of Experience	Years of Experience in proposed position				
					Building works	Road works	External services	Others*	Total

(Modify this as appropriate to suit the works for which bids are invited).*

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

[illegible]

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). The Bidder shall provide all the information requested below.

[illegible]

Form 4.7: SC-Sub Contracting

SCHEDULE OF SUBCONTRACTORS

The following information need to be provided for each of the proposed sub-contractor separately:

Item	Element of work	Approximate value of sub-contract	% 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 10% 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.

The bidder shall attach the certificate for the completed works from Engineer-in-charge of client

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

Bidder's Qualification Information Forms

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

Form-ELI -1.1: Bidder Information Form

1.1 Bidder Information			
Bidder's legal name			
Bidder's country of constitution			
Bidder's year of constitution			
Bidder's legal address in country of constitution			
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)			
Attached are copies of the following original documents. 1. In case of single entity, articles of incorporation or constitution of the legal entity names above, in accordance with ITB 4.1.1 and 4.3. 2. Authorization to represent the firm named in above, in accordance with ITB 20.2. 3. In case of government-owned entity, documents establishing legal and financial authority and compliance with the principles of commercial law in accordance with ITB 4.5 read with Sub-clause 2.1.4 of Qualification Criteria 4. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.			

Form CON – 2

Historical Contract Non-Performance, Pending Litigation and Litigation History

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

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Party Name: *[insert full name]*

NCB No. and title: *[insert NCB number and title]*

Page *[insert page number]* of *[insert total number]* pages

Non-Performed Contracts in accordance with Section III, Qualification Criteria and Requirements			
☐ Contract non-performance did not occur during the <i>(number)</i> years specified in Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.1.			
☐ Contract(s) not performed during the <i>(number)</i> of years specified in Section III, Qualification Criteria and Requirements, requirement 2.2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (in Indian Rupees)
<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, Qualification Criteria and Requirements			
☐ No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2. 2.3.			
☐ Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2. 2.3 as indicated below.			

Year of dispute	Amount in dispute (Rupees)	Contract Identification	Total Contract Amount (Rupees)
<i>[insert year]</i>	<i>[insert amount]</i>	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> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>
☐ No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.3. ☐ Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.3 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (Rupees)
<i>[insert year]</i>	<i>[insert percentage]</i>	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> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>

Financial Situation

FORMAT 3.1 Historical Financial Performances

Bidder's Legal Name: _____

Date: _____

Bidding No.: _____

Page _____ of _____ pages

To be completed by the Bidder

SUMMARY OF FINANCIAL STATEMENTS								
Name of bidder:		(Equivalent Rs. Lakh)						
S.No.	Financial Information in Rupee equivalent with exchange rate at the end of concerned year	Actuals for Previous five years excluding the current financial year					Ref. of Page Nos. of Balance Sheets	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Total Assets							
2.	Total Turnover							
3.	Current Assets							
4.	Current Assets + Loan & Advances							
5.	Total Liabilities							
6.	Current Liabilities							
7.	Current liabilities & provision							
8.	Profit before Interest and Tax							
9.	Profit before Tax							
10.	Profit after Tax							
11.	Shareholder's Funds (Net Worth)=(Paid up equity +Reserves)-(revaluation reserves + Miscellaneous expenditure not written off) Depreciation							
12.	Current Ration (2)/(5)							
13.	Net cash accruals= Profit after Tax + depreciation							
14.								

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. Financial documents

The Bidder should provide copies of the balance sheets and/or financial statements for *five* years (Financial Years 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15) pursuant Section III, Qualifications Criteria and Requirements, Sub-factor 2.3.1. The financial statements shall:

- (a) reflect the financial situation of the Bidder and not sister or parent companies.
 - (b) 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 (no statements for partial periods shall be requested or accepted).
- ☐ Attached are copies of financial statements (balance sheets, including all related notes, and income statements) for the *five* 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 contraction) in the format attached.

FORM FIN – 3.1(A)

FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CASH FLOW

[To be given from a Nationalized or Scheduled Bank in India-No substitute other than this will be acceptable)]

Clause 2.3.1(b) of Section II – 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 Rs. equivalent _____ to meet their capital requirements for executing the above contract.

-- Sd. --

Date:

Name of Bank Manager

Senior Bank Manager

Address of the Bank

Note: Evidence of access to or availability of cash flow from a Nationalized or Scheduled Bank in India should be of a date not earlier than the date of release of the bidding document i.e. 30.06.2016.

Form FIN - 3.2

Annual Construction Turnover

[The following table shall be filled in for the Bidder]

Bidder's Legal Name: *[insert full name]*

Date: *[insert day, month, year]*

NCB No. and title: *[insert NCB number and title]*

Page *[insert page number]* of *[insert total number]* pages

Annual turnover data (construction only)*		
Year	Amount in Rupees	
2015-16		
2014-15		
2013-14		
2012-13		
2011-12		

* *Annual construction turnover calculated as total certified payments received for work in progress or completed for 5 years (Immediately preceding the financial year in which bids are received i.e., 2015-16, 2014-15, 2013-14, 2012-13 and 2011-12). Specified in Section III, Qualification Criteria and Requirements, Sub-Factor 2.3.2. This should be certified by a Chartered Accountant.*

Form EXP - 4.1

General Construction Experience

[The following table shall be filled in for the Bidder]

Bidder's Legal Name: *[insert full name]*

Date: *[insert day, month, year]*

NCB No. and title: *[insert NCB number]*

Page *[insert page number]* of *[insert total number]* pages

[Identify contracts that demonstrate continuous construction work over the past [5] years pursuant to Section III, Qualification Criteria and Requirements, Sub-Factor 2.4.1. List contracts chronologically, according to their commencement (starting) dates.]

Starting Month / Year	Ending Month / Year	Contract Identification	Role of Applicant
<i>[indicate month/year]</i>	<i>[indicate month/year r]</i>	Contract name: <i>[insert full name]</i> Brief Description of the Works performed by the Bidder: <i>[describe works performed briefly]</i> Amount of contract: <i>[insert amount in Rupees]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Contractor" or "Subcontractor" or "Contract Manager"]</i>
		Contract name: <i>[insert full name]</i> Brief Description of the Works performed by the Bidder: <i>[describe works performed briefly]</i> Amount of contract: <i>[insert amount in Rupees]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Contractor" or "Subcontractor" or "Contract Manager"]</i>
		Contract name: <i>[insert full name]</i> Brief Description of the Works performed by the Bidder: <i>[describe works performed briefly]</i> Amount of contract: <i>[insert amount in Rupees]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Contractor" or "Subcontractor" or "Contract Manager"]</i>

Form EXP - 4.2(a)

Similar Construction Experience

[The following table shall be filled in for contracts performed by the Bidder and specialist sub-contractors]

Bidder's Legal Name: *[insert full name]*

Date: *[insert day, month, year]*

NCB No. and title: *[insert NCB number and title]*

- i. **Work performed as prime Contractor 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 years⁸. *[Attach certificate from the Engineer-in-charge of client.]*

Project Name	Name of Employer	Description of work	Contract No.	Value of contract	Date of Issue of Work Order	Stipulated Date of Completion	Actual Date of Completion	Remarks explaining reasons for Delay, if any

⁸ Immediately preceding the financial year in which bids are received i.e. 2015-16, 2014-15, 2013-14, 2012-13 and 2011-12.

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

Bidder's Name: *[insert full name]*

Date: *[insert day, month, year]*

(B) Quantities of work executed as prime contractor or Sub-Contractor (in the same name and style) in the last five years:⁹

Year	Name of the Work	Name of the Employer *	Quantity of Work performed (cum) @				Remarks * (indicate contract agreement Ref for each year)
			Earthwork	RCC	Masonry	Steel framed structure	
2015-16							
2014-15							
2013-14							
2012-13							
2011-12							

@ the items or work for which date is requested should tally with that specified in Qualification Criteria

**** Attach certificates from Engineer in-charge of client***

⁹ Immediately preceding the financial year in which bids are received i.e. 2015-16, 2014-15, 2013-14, 2012-13 and 2011-12.

Form EXP - 4.2(c)

Form for Current Contract Commitments/Works in Progress

Bidders 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 (Rupees)	Stipulated period of completion	Value of works* remaining to be completed (Rupees)	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

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

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

* Attach certificate(s) from the Engineer(s)-in-Charge of client.

Form 5
(Name of the Project)

(Declaration regarding customs/ excise 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

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

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

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

5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Bill of Quantities and the construction program and methodology as furnished by us along with the bid.
6. We confirm that the above goods and construction equipment will be exclusively used for the construction of the above work and the construction equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: _____

Place: _____

(Signature) _____

(Printed Name) _____

(Designation) _____

(Common Seal) _____

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

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

Section V - Eligible Countries

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

1. In reference to ITB 4.7, 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 4.7 (a) and 5.1 : *None*

Under ITB 4.7 (b) and 5.1 : *None*

Section VI. Bank Policy - Corrupt and Fraudulent Practices

(Section VI shall not be modified)

Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

“Fraud and Corruption:

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.¹⁰ In pursuance of this policy, 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;¹¹
 - (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;¹²
 - (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;¹³
 - (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;¹⁴
 - (v) “obstructive practice” is

¹⁰In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

¹¹ For the purpose of this sub-paragraph, “*another party*” refers to a public official acting in relation to the procurement process or contract execution. In this context, “*public official*” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

¹² For the purpose of this sub-paragraph, “*party*” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

¹³ For the purpose of this sub-paragraph, “*parties*” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.

¹⁴ For the purpose of this sub-paragraph, “*party*” refers to a participant in the procurement process or contract execution.

-
- (aa) 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
 - (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 1.16(e) below.
- (b) will reject a proposal for award if it determines that the bidder recommended for award, or 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) will declare misprocurement and cancel the portion of the loan allocated to a contract if it 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 or the implementation 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) will sanction a firm or individual, at any time, in accordance with the prevailing Bank's sanctions procedures,¹⁵ including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated¹⁶;
 - (e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank."

¹⁵ A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

¹⁶ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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.

PART 2 – Works Requirements

Section VII - Works Requirements

Salient details of the work for which bids are invited are as under:

Name of the work: Construction of new technology centre at Pudi, Visakhapatnam

- 1 The work of technology centre includes construction of Training Block, Production Block, Admin Building, Dining Block, Executive Hostel, Staff Accommodation, Girls Hostel, Boys Hostel, Internal Guard Room and Utility Block in RCC Framed Structure and Steel Structure, Finishing, Elevation Treatment, Site Development Works and Landscaping etc.
- 2 The tentative particulars of buildings to be constructed are as follows:

S. No.	Building	Structure	Approx. Built up Area in Sq. M.
1.	Training Block	RCC Framed Structure	7,642
2.	Production Block	Steel Structure	4607
3.	Admin Building	RCC Framed Structure with Steel Truss for Conference Room	1710
4.	Dining Block	RCC Framed Structure	1394
5.	Executive Hostel	RCC Framed Structure	328
6.	Staff Accommodation	RCC Framed Structure	578
7.	Girls Hostel	RCC Framed Structure	822
8.	Boys Hostel	RCC Framed Structure	1156
9.	Internal Guard Room – 3 No.	RCC Framed Structure	25.5
10.	Utility Block	RCC Framed Structure	373

- 3 All the buildings, except Production Block, are proposed to be constructed as conventional RCC framed structure. The masonry walls are proposed using fly-ash concrete blocks. All walls will be plastered with 12 mm thick plaster internally and 18 mm thk two coat plaster externally. Ceilings will have 6 mm thk plaster. Wet areas will have a sunken slab to accommodate waterproofing treatment and prevent flow of water to other areas.
- 4 The Production Block will be structurally detached from the Training block. It is to be constructed as a building with Conventional steel framework, RCC foundations and Masonry Wall up to 4.5m height. Above this height, the steel columns will be covered with PUF insulated Sandwiched Metal cladding – profile sheets on the sides and roof.

5 Items covered in the buildings broadly are:

- i) Earth Work
- ii) Concrete Work
- iii) Reinforced Cement Concrete Work
- iv) Fly Ash Concrete Block Work
- v) Stone Work (Wet & Dry Cladding)
- vi) Wood Works (Doors, Hardware's etc.)
- vii) Steel Works (Structural Steel, Railing, Gratings, Metal Door, Fire Door, etc.)
- viii) Flooring Works (Granite, Kota, Tiles, and Concrete, etc.)
- ix) Roofing Works (False Ceiling, PUF insulated Metal Sheet, etc.)
- x) Finishing Items
- xi) Aluminium Works (Door, Window, Ventilator shutters and Partitions, etc.)
- xii) Waterproofing Works
- xiii) Specialized items like Fire paint, insulation, etc.
- xiv) GRC (Glass Reinforced Concrete Jali), etc.
- xv) Plumbing Works
- xvi) Fire Fighting & Fire alarm system
- xvii) HVAC
- xviii) Compressed Air Supply
- xix) Internal Electrical Installation including light fittings
- xx) External Electrical Works including DG, Transformer, etc.
- xxi) IBMS
- xxii) IT works
- xxiii) EOT Cranes
- xxiv) External Services (including Potable Water Network, Recycle Water Network, sewerage System, Storm Water Drainage & Rain Water harvesting)
- xxv) Roads
- xxvi) Landscaping

- 6 Griha Accreditation: "Although Griha accreditation is not part of scope, the Contractor should note that the Tender has been prepared considering Griha compliant features. The Contractor should further adopt good Green practices as part of responsibility to the Environment as feasible considering optimal Bid cost."
- 7 Explosive NOC: The Contractor has to obtain the necessary approvals/NOC for storage and use of HSD, explosives, etc, as required for the project.
- 8 Statutory Approvals: The bidder's scope includes obtaining all approvals as listed below for initiation of works at site, execution and completion. In case statutory fees are to be deposited the same shall be directly paid by employer to the authorities as per demand notes received.

- a. Fire No Objection certificate (NOC) - Occupancy

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- b. Building Completion Certificate
 - c. Labour License
 - d. Fuel Storage
 - e. Tools, Tackles, Pressure Vessels, Hoists
 - f. Electrical Systems
 - g. Temporary Electric Supply
 - h. Temporary Water Supply & Sewerage
 - i. All other necessary approvals as per local rules and regulations

9 Completion period and milestones:

Description	Activities	Timelines from date of signing of Contract
Completion	Works completion period	15 months
Milestone 1	Completion of foundation and structure up to plinth for Production and Training block	2.5 months
Milestone 2	Completion of foundation and structure up to plinth for Admin Building, Hostels, Staff Accommodation, Dining Block and Utility Building	3 months
Milestone 3	Completion of sub-grade for roads & parking areas	5 months
Milestone 4	Completion of whole Structure of Training, Production and Utility (including equipment foundation)	8 months
Milestone 5	Completion of external services. Completion of drainage, trenches, culverts, water bodies, area development, civil works for STP, etc.	9 months

Milestone 6	Completion of first fix of all MEP works for Production Block, Training Block and Utility Block	10 months
Milestone 7	Completion of whole structure for Admin building, Hostels, Staff accommodation and dining block	10 months
Milestone 8	Completion of façade for Production and Training Block	11 months
Milestone 9	Final inspection and completion of all works in all respects including second fix of MEP works, internal finishing, ready for handing over including minor touch up and cleaning for Production Block, Training Block and Utility Block, commissioning of STP	12 months
Milestone 10	Completion of first fix of all MEP works for Admin building, Hostels, Staff Accommodation and Dining Block	12 months
Milestone 11	Completion of façade for Admin building, Hostels, Staff Accommodation and Dining Block	13 months
Milestone 12	Final inspection and completion of all works in all respects including second fix of MEP works, internal finishing, ready for handing over including minor touch up and cleaning for Admin building, Hostels, Staff Accommodation and Dining Block, Completion of Roads	14.5 months
Milestone 13	Handing over	15 months

Specifications

10 Preamble to specifications

A. GENERAL

Preamble to specifications be read in conjunction with the draft contract agreement, Bill of Quantities, specifications of work, drawings and any other documents forming part of this contract wherever the context so requires.

- 10.1 The work shall generally be carried out in accordance with the Technical Specifications mentioned in the contract and latest CPWD Specifications with up to date correction slips, drawings and as per instructions of project manager. Working drawings will be released progressively to the contractor commensurate to the construction schedule approved by Project Manager.

The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.

In case, there is any difference or discrepancy between the description of items as given in the Bill of Quantities, Specifications governing the contract for individual items of work and I.S. Codes etc., the following order of precedence shall be observed.

- I. Description of items as given in Bill of Quantities.
- II. Detailed Technical Specifications for Architectural, Civil and MEP works attached as Annexure III.
- III. Tender drawings attached.
- IV. CPWD Specifications, CPHEEO and any standard(s) mentioned in technical specifications including correction slips issued up to the last date of uploading/submission of tender.
- V. Indian Standards Specifications of B.I.S.
- VI. ASTM, BS, or other foreign origin codes mentioned in tender document.
- VII. Manufacturer's specifications and as decided by the Project Manager.
- VIII. Sound Engineering practices or well established local construction practices.

- 10.2 Excavated good earth declared surplus or otherwise shall be disposed of at designated locations within the site.
- 10.3 Disposal of surplus excavated earth, if any, including mud, liquid mud, dismantled Reinforced Cement Concrete (RCC)/RMC, dismantled brick work, Dismantled tiles, etc. shall be made only in the dumping yard approved by local authority. It will be the responsibility of the Contractor to get the permission for dumping yard from local authority as required. If any royalty/ fee is payable to local authority, such royalty/ fee shall also be borne by the Contractor. Disposal shall be carried out strictly as per the regulations of local authority. However, the above materials shall not be removed out of TC premises without prior written authorisation of the Project Manager.
- 10.4 The Contractor shall carefully protect and preserve all bench marks, site details, pegs and other things used in the setting out of the building for Construction. All preliminary works such as establishment of a set of bench marks, permanent DGPS, Total Station/ theodolite stations, centre line pillars, etc. including required materials, tools, plants, equipment, labour, etc. for performing such functions necessary and ancillary there to for the commencement and during the progress of the work and till physical completion of the work shall be carried out by the Contractor at his own cost. It shall be Contractor's responsibility to shift the existing benchmark to his work site to set out the necessary control points and alignment of the various works. The Contractor shall also provide DGPS instrument with other required precision Survey Instruments as per site requirement and/ or as directed by the Project Manager. The work of setting out shall be deemed to be a part of general works preparatory to the execution of the work and no separate payment shall be made for the same.
- 10.5 All temporary works, ancillary works, enabling works, including dewatering of surface and subsoil water, preparation and maintenance of temporary drains at the work site, preparation and maintenance of approaches to working areas, wherever required, for execution of the work shall be the responsibility of the Contractor and all costs towards the same shall be deemed to have been included in the quoted prices.
- 10.6 Contractor shall take all necessary precautions to protect and safeguard the foundation of the adjacent building/ Structure/ overhead/ underground utilities. In case any damage occurs to the adjacent building/ Structure/ overhead/ underground utilities, the contractor shall be liable for such damages and shall make good for all such damages at his own cost. Nothing extra shall be payable on this account.

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- 10.7 First Party shall not permit the Contractor to set up labour camp within their boundary. Contractor shall make his own arrangements to set up labour camps.
- 10.8 Method statement for construction activities: The Contractor shall submit a 'Method Statement' for the approval of the Project Manager. soon after the award of work to him. The 'Method Statement' is a statement by which the construction procedures for important activities of construction are stated, checked and approved. The 'Method Statement' should have a description of the item with elaborate procedures in steps to implement the same, the specifications of the materials involved, their testing and acceptance criteria, equipment to be used, precautions to be taken, mode of measurement, etc.
- 10.9 Work programme: The Contractor shall, within 14 days after the date of award of the work, submit his detailed work programme, detailed Project Quality Plan for works executable at site for the approval of the Project Manager. which shall clearly set out his proposed schedule for the whole of the Works, the time for completing the major sections of the Works and his schedule for mobilising the materials and equipment necessary for implementing the Works in a timely, cohesive and efficient manner. The Contractor shall submit the above Resource Mobilisation Plan.
- 10.10 Tools and Machinery: The deployment of Tools, Plant and Machinery (TP&M) shall be planned as per work requirement to suit the nature, quantum and speed of the work for lifting/ hoisting construction materials/ equipment, etc. The TP&M shall be maintained in good working condition throughout the progress of work. All adequate precautions regarding formal upkeep of valid Statutory/ Safety credentials of major construction equipment as directed by the Project Manager, their installation, operation, maintenance, materials, etc., shall be taken care of. The operating staff to be deployed shall be properly qualified and adequately trained and experienced. All safety precautions shall be taken during the project duration, against possible accident. The Contractor shall deploy his representative to effectively enforce the safety rules and regulations in this regard. Nothing extra shall be payable on this account for the above.
- 10.11 Completion drawings and standard measurement book: During the execution of the Works a set of drawings shall be retained in the Contractor's Site Office for the exclusive purpose of recording changes made to the Work as the construction proceeds. On completion of the Work, the Contractor shall submit required details and "Mark-up" of changes, if any, in all drawings of the project to the Project Manager. The Contractor shall prepare and submit the "As Built" drawings to the Engineer. These drawings shall include and show all the changes/ deviations made from the working drawings during the course of construction and also the other details as called for by the Engineer.

Along with the completion drawings, the Contractor shall also prepare and submit to the Engineer the Standard Measurement Book (SMB) in the form of a bound book in two sets and a soft copy of the same in Excel. SMB shall incorporate the standard measurements of the items as per the completion/ “As Built” drawings. All the above to be done at no extra cost.

- 10.12 Environmental aspect: Although Griha accreditation is not proposed, required Griha compliances/practices will have to be followed during construction as directed by Project Manager. Sustainable measures like efficient water and energy management during construction, barricade the site to avoid pollution of the outside environment which will also work as safety measure, provide dedicated areas for storage of construction waste dust control during vehicle movement, preserve top soil and use it for landscaping , resources conservation and resource utilization recovery and reuse, and provisions for occupant health and well-being of the workers should be applied.

- 10.13 Document, drawing submission and distribution schedule: The Contractor shall submit and distribute to the EMPLOYER and PROJECT MANAGER the following number of copies of the required documents and drawings mentioned in the tender.

Sl. No.	Description	Contractor	Employer	Project Manager
1.	General Correspondence from Vendor / Contractor			
	a) Commercial	S	Ori.+ 1	3 (*)
	b) Technical	S	Ori. + 1	3 (*)
2.	General Correspondence from :			
	TCE	Ori.	2	S
3.	Vendor / Contractor Manufacturing, fabrication, delivery and erection schedule	S	2	3 (*)
4.	Manufacturing Test Reports	S	Ori. + 2	3
5.	Operating, Maintenance and Erection Manuals	S	2	3 (*)
6.	Vendor / Contractor Drawings / Documents			
	a)First submission and subsequent revisions	S	3	6
	b) As-Built	S	R + 4	3 (*)
	c)As-Built (on CD) (Soft Copy)	S	2	2
7.	Draft & Final Reports	S	2	4 (*)

n -- Number of Copies required
 (*): One copy to Project Manager

Legend:

S--Source

Ori. -- Original

R -- Reproducible

MEP WORKS**10.14 General**

These special conditions are meant to amplify the specifications and General Conditions of Contract. If any discrepancy is noticed between these conditions, General Conditions of Contract, Specifications, Bills of Quantities and Drawings, the most stringent of the above shall apply for execution of the work.

The materials, design and workmanship shall satisfy the specifications contained herein and Codes Referred to. Where the technical specifications stipulate the requirement in addition to those contained in the Standard Codes and specifications those additional requirements shall also be satisfied. In the absence of any Standard/ Specifications covering any part of the work covered in this tender document, the instruction/ directions of Employer/Project Manager will be binding on the contractor.

The scope of this section is to describe materials and systems for complete Mechanical, Electrical and Plumbing (MEP) works of building which form together with the project documents, a complete volume of work and quality description.

MEP Works installation shall be of high quality, safe, complete and fully operational including all necessary items and accessories whether or not specified in detail. All specified work shall be completed in accordance with the regulations and standards to the satisfaction of the Employer/ Project manager and as per Inspectorate or Local Authority's requirement. The general provisions, special provisions and general requirements apply to the entire installation.

10.15 Scope of work

The scope under this contract shall include the MEP works installation for the project. The work to be carried out under this contract shall cover the supply, installation, testing and commissioning of MEP works shown in the BOQ, drawings and specifications.

Contractor shall carry out and complete the said works under this contract in every respect in conformity with the current rules and regulations of the local statutory authority. The contractor shall furnish all labour and install all materials, appliances, equipment (except those items which will be supplied by the Employer to the contractor at site, if any), necessary for the complete provision and testing of the MEP works as specified herein and shown on the drawings. This also includes any materials, appliances, equipment not specifically mentioned herein or noted on the drawings as being furnished or installed but which are necessary and customary to

make complete installation shown on the schedule and described herein, properly in working condition.

The works shall include all incidental jobs connected with MEP works installation such as cutting/drilling and grouting for fixing of MS Channels, equipment, making good the damages etc.

If any breakage of finished walls or floors are done after the other agencies completed their work, MEP contractor shall bear all expenses towards redoing & finishing the same to the satisfaction of Employer/Project manager.

The tenderer should give detailed all calculations wherever required as per standard calculation format separately for all the seasons in which, the specified conditions are to be maintained.

The equipment selection shall be applicable as per loads calculations only in case if it the capacity of equipment required as per load calculation will be more than equipment capacity given in tender.

10.16 Deleted

10.17 Approval by statutory bodies

The complete MEP equipment installation shall be in conformity with the Tender Specification and shall comply with the statutory regulations and requirements. Contractor before the award of work shall immediately bring to the notice of Employer/Project Manager, any item not in compliance with statutory regulation.

All statutory approvals and sanctions from Local Authorities, Electrical inspectors and concerned Electricity Board for Permanent connection, Water, Sewer and any other statutory approval etc are to be obtained by the Contractor at no extra cost. In case statutory fees are to be deposited the same shall be directly paid by employer to the authorities as per demand notes received.

10.18 Shop drawings

On the award of the work, the Contractor shall immediately proceed with the preparation of detailed working drawings showing the detail of the equipment that are to be installed and the ancillary works that are to be carried out.

Six sets of all such working drawings duly signed by the head of the planning & design department shall be submitted to the Employer / Project manager for approval to ensure that the works will be carried out in accordance with the specifications and drawings, including such changes as may have been mutually agreed upon. All the drawings shall be received by the Employer / Project manager for approval within 04 (Four) weeks of the award of work. The approval of the drawings by the Employer / Project manager shall in no way relieve the Contractor from his obligations to

provide a complete and satisfactory System installation, testing and commissioning as per intent and purpose as laid down in the specifications.

Any omissions and / or errors shall be made good or rectified whether or not the drawings are approved. Contractor shall obtain written approval for samples and other materials before placing the order. Contractor shall guarantee the specified inside conditions at specified outside conditions. Prior to the completion of the work, the contractor shall furnish to the employer (4) four sets of a comprehensive manual, describing all components furnishing a list of spare parts and setting forth in details the instructions for the operation and maintenance of the System.

The following shop drawings shall be prepared by the MEP contractor for approval by Project manager-

I. HVAC Works

- a. Layout drawings including sections of the equipments to be installed in various rooms such VRV System Indoor, outdoor units, Air Washers, Kitechen Ventilation Equipment, Ventilation Works and other equipments.
- b. Schematic VRV System drawings.
 - o Duct layout plans showing sizes, locations of dampers, grilles & diffusers of all floors.
 - o Ventilation layout plans Utility Block, Canteen Area, and Toilets etc.
- c. Foundation details of all equipments.
 - o Drawings showing the details of all insulations and vapour barrier works, supports for refrigerant pipes, cable trays, ducts etc.
 - o Drawings including section, showing the details of erection of entire equipments including their foundations, water basin for the air washers etc.
- d. Any other shop drawings necessary for the project.

II. Electrical Works

- a) Single line power distribution diagram including control wiring of Main LT Panel, MDB, SDB, EMERGENCY Panel and Capacitor Panel.
- b) HT/ LT Cable routing layout plan including cable trench details / Directly buried in ground.
- c) 33kV/0.415kV transformers including followings:
 - o General arrangement drawings shall indicate the overall dimensions, net weights, quantity of oil, crane requirements for assembly and dismantling of transformers and general constructional features.

- o General arrangement drawings of the transformer, showing plan, front elevation and side elevation complete with all accessories and fittings, detailed.
- o Control wiring diagram for marshalling box.
- o Foundation drawing with position of foundation bolts and depth.
- d) Lighting Layout plan with all fixture details, mounting details & with all relevant sections.
- e) Run and size of conduits, inspection, and junction and pull boxes. Conduiting layouts showing all sockets and switches controlling Lighting and Power circuits.
- f) Number and size of conductors in each conduit with phase identification.
- g) Location and rating of sockets and switches controlling the lighting and power outlets.
- h) Location of all earthing stations, route and size of all earthing conductors manhole.
- i) Control wiring diagram of Street lighting Distribution board.
- j) LT Cables on cable trays and in hume pipes including installation, cable trays, hangers, supports, cable terminations and all fixing accessories
- k) 0.415kV DG Sets schematic and control and wiring diagram.
- l) Any other shop drawings necessary for the project.

III.Plumbing and Fire Fighting

- a) All shop drawings should detailed pipe routing and levels, showing location of other services at crossings etc., cable runs, route cable trays and all allied works and must be fully co-ordinate with other services.
- b) Shop drawings shall also be furnished for detailed layout of all equipment, foundation, bolting and vibration elimination details along with information on dead and dynamic load, vibration.

IV. IBMS

- a) Shop drawings of Building Management System, CCTV System, Access control system, Public Address system and Fire Detection & Alarm system

showing location of all components of system such as camera, smoke detectors, controllers, sensors etc. , cable runs, route cable trays and all allied works and must be fully co-ordinated with other services.

- b) System Architecture of IBMS Package.
- c) Any other shop drawings necessary for the project.

10.19 Co-ordination with other contractors and agencies

The Contractor during the execution of the Works shall co-ordinate with other Contractors, and other Agencies associated with the Project and shall work in harmony with them without causing any hindrance or obstruction or impeding the progress of their work in any way. Shafts/cutouts (sizes) confirmation that specified can be accommodated within the available size of shafts etc.

In respect of the work of other Contractors and Agencies, where the commencement or progress of such work of any other Contractor, or Agency is dependent upon the completion of particular portions of the Contractor's Works or generally upon the Contractor maintaining progress in accordance with the approved co-ordinated construction programme, it shall be the responsibility of the Contractor to complete such portions and maintain such progress.

Should any differences arise between the Contractor and the other Contractors, and Agencies, these shall immediately be brought to the attention of the Employer/ Project manager who after reviewing the matters causing the differences will give his decision which shall be final and binding on the Contractor.

10.20 Performance Bound Contract

The contract will be a performance bound contract and therefore the Bidder shall make their independent check for Load calculations, selection of equipments etc. The drawings enclosed with the tender documents shall be only tentative layout plans and for guidance purpose only. The detailed shop drawings shall be prepared and submitted for approval to the Employer/ Project manager. The contractor shall guarantee the MEP system shall be provided with suitable Vibration isolators and controls and noise control.

10.21 Guarantee

The contractor shall guarantee the complete MEP system for a period of 12 months from the date of successful handing over.

10.22 Repairs / Replacement Of Parts During Guarantee

Any defects or other faults which may appear within defect liability/ guarantee period of 12 months from the date of handing over the system in a satisfactory working conditions to the Client (except for normal wear and tear) arising in the System from material or workmanship not in accordance with the contract

specification will be rectified by the contractors free of cost & nothing shall be paid extra on any account.

10.23 Tools, Tackles, Equipments & Scaffolding

All tools, tackles & equipments necessary for the MEP installation and testing shall be provided by the contractor. The quoted rates shall take into account for providing any such equipment, which may not form part of the installation, but are necessary for the execution of the job. Contractor shall be responsible to make his own arrangement to provide scaffolding/ supports etc., necessary for his work. However the contractor may use the civil contractors scaffoldings if available with prior understanding with the civil contractors.

10.24 Drilling/cutting

The contractor shall have to do all drilling and cutting of walls or other elements of the building for the complete and proper installation of the conduits, and other equipments etc. by using electrically operated tools. Manual drilling or chisseling shall be permitted on special request only.

Beams, girders and other principal structural members shall not be cut or drilled unless prior permission has been granted by the Employer/ Project manager.

If such drilling and cutting are made on finished surfaces, any marring of the surfaces shall be made good by repair at the MEP contractor's expense.

10.25 Plastering of wall chases/opening etc.,

All chases and openings made by the contractor for his conduits, boxes etc., shall be filled/covered over with cement plaster in reasonable manner, to be finished by the civil contractor.

Before rough plastering on the conduit surface the concealed conduits shall be secured to the wall by using saddles and nails.

10.26 Manufacturers

Where manufacturers have furnished specific instructions relating to the materials used in this job, covering points not specifically mentioned in these documents, these instructions shall be followed in all cases.

Where manufacturer's names and/or catalogue numbers are given, this is an indication of the quality, standards and performance required.

For items not covered under the List of Approved Makes', contractor shall offer items of first class quality, standards and performance and obtain the approval of Employer/ /Project manager before procuring them.

Where interfacing occurs, equipment shall be mutually compatible in all respects.

10.27 Rating

Rating of all items shall be appropriate for the conditions on the particular site on which the item will be used. All the equipment shall be fit for continuous work under the most severe weather conditions of site.

10.28 Inspection And Testing

The Employer/project manager reserves the right to request inspection and testing at manufacturer's works at all reasonable times during manufacture of items for this contract. Tests on site of completed works shall demonstrate, among other things:

- o That the equipment installed complies with specification in all particulars and is of the correct rating for the duty and site conditions.
- o That all items operate efficiently and quietly to meet the specified requirements.
- o That all circuits are correctly protected and that protective devices are properly coordinated.
- o That all non-current carrying metal parts are properly and safely grounded in accordance with the specifications and Codes of Practice.

The contractor shall provide all necessary instruments and labour for testing, shall make adequate records of test procedures and readings, shall repeat any tests requested by the Employer/ Project managers and shall provide test certificates signed by a properly authorised person. Such test shall be conducted on all materials and equipments and on completed work as called for by the Employer/ Project managers.

If it is proved that the installation or part thereof is not satisfactorily carried out then the contractor shall be liable for the rectification and retesting of the same as called for by the Employer/ Project managers at the cost of the contractor. The Employer/ Project manager decision as to what constitutes a satisfactory test shall be final.

The above general requirements as to testing shall be read in conjunction with any particular requirements specified elsewhere. All tests shall be carried out by a test house approved by the Employer/ Project manager.

All testing instruments, velocity meter, digital thermometer, psychrometer, measuring steel tapes, tools, scaffolding and ladders etc. that may be required for taking measurements shall be arranged by air-conditioning contractor at his own cost.

All types of routine and other tests shall be carried out at the works of the Contractor or the manufacturers of the components. The Client shall be free to witness any or

all tests, if they so desired. The Contractor has to inform to the Client before dispatch of any material / equipment.

On the completion of the installation the Contractor shall arrange to carry out various initial tests, in the presence of Employer / Project manager and to the entire satisfaction of the Employer / Project manager. Any defect or short-coming found during the tests shall be speedily rectified or made good by the Contractor at his own expenses.

10.29 Test Certificates

The contractor shall submit test certificates for all the major equipments. Type tests shall be carried out as per relevant standards issued by Bureau of Indian Standards. For other items, such test certificates issued by Government recognised inspection office certifying that all equipment, materials, construction and functions are in compliance with the requirements of these specifications and accepted standards of BIS/International standards.

10.30 Samples And Catalogues

Before ordering the material necessary for these installations, the contractor shall submit to the Employer/ Project managers for approval, a sample of every kind of material such as cables, conductors, switches, boxes etc., along with the catalogues with their dimensional details.

10.31 As Built Drawings

At the completion of work and before issuance of certificate of virtual completion the contractor shall submit Four (04) sets of following drawings to the Project Manager, layout drawing drawn at appropriate scale indicating the complete MEP system “as installed”. In addition one set will be given on compact disc.

10.32 Instruction/Maintenance Manual

The Contractor shall prepare and produce instruction, operation and maintenance manuals in English for the use, operation and the maintenance of the supplied equipment and installations, and submit to the Employer/ project manager in (6) copies at the time of handing over. The manual shall generally consist of the following:

- a) Description of the project.
- b) Operating instructions.
- c) Maintenance instructions including procedures for preventive maintenance.
- d) Manufacturers catalogues.
- e) Spare parts list.

-
- f) Trouble shooting charts.
 - g) Drawings.
 - h) Type and routine test certificates of major items.
 - i) One (1) set of reproducible 'as built' drawings.

10.33 Completion Certificate

On completion of the installation a certificate shall be furnished by the contractor countersigned by the licensed supervisor, under whose direct supervision the installation was carried out. This certificate shall be in the prescribed form as required by the local statutory authority. The contractor shall be responsible for getting the installation inspected and approved by the local concerned authorities and for obtaining the necessary clearance certificates from the authorities.

10.34 Codes And Standards

Codes or standards which are required but not mentioned in the technical specs should be considered as per the latest Indian standards & international standard in case of absence of Indian standard.

10.35 Contractor To Provide

All the materials including installation, testing and commissioning.

10.36 Operation Of System

The tenderer shall arrange to operate the system for a period of ONE MONTH from the date of commissioning of System and successful completion of initial test free of cost.

10.37 Technical Data

All technical data to be filled by the bidders in Technical specs shall be accepted in metric system only. Any bidder submitting the technical data in any other unit would render his bid liable for rejection. The technical data should be typed in capitals only.

10.38 Training Of Personnel

The contractor shall impart training to the minimum one technical staff appointed by the Client free of cost during erection and commissioning of the system.

11 "Equivalency of Standards and Codes

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

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

12 Mode Of Measurement

Code of Practice

Unless specifically mentioned, Mode of measurement will be as per below IS Standard IS:1200 Method of measurement of Building and Engineering works

1. Architectural and Civil

Formwork

Where the formwork is paid for separately, it shall be very clearly understood that payment for formwork is inclusive of formwork, shuttering, shoring, propping, scaffolding, deshuttering, etc. complete. Only the net area of concrete formed (shuttered) shall be measured for payment.

Concrete and Allied Works

- o The unit rate for concrete work under various categories shall be all inclusive and no claims for extra payment on account of such items and leaving holes, embedding inserts, etc. shall be entertained unless separately provided for in the Schedule of Quantities. No extra claim shall also be entertained due to change in the number, position and/or dimensions of holes, slots or openings, sleeves, inserts or on account of any increased lift, lead of scaffolding, etc. All these factors shall be taken into consideration while quoting the unit rates. Unless provided for in the schedule of Quantities the rates shall also include fixing inserts in all concrete work, whenever required.
- o Payments for concrete will be made on the basis of unit rates quoted for the respective items in the Schedule of Quantities. No deduction in the concrete quantity will be made for reinforcements, inserts etc. and opening less than 0.100 sqm, in areas where concrete is measured in sqm and 0.010 cum where concrete is measured in cubic metres. Where no such deduction for concrete is made, payment for shuttering work provided for such holes, pockets, etc. will not be made. Similarly, the unit rates for concrete work shall be inclusive or exclusive of shuttering as provided for in the Schedule of Quantities.
- o Payment for beams will be made for the quantity based on the depth being reckoned from the underside of the slabs and length measured as the clear distance between supports. Payment for columns shall be made for the quantity based on height reckoned upto the underside of slabs.
- o The unit rate for precast concrete members shall include formwork, mouldings, finishing, hoisting and setting in position including setting mortar, provision of lifting arrangement etc. complete. Reinforcement and inserts shall be measured and paid for separately under respective item rates.
- o Only the actual quantity of steel embedded in concrete including laps as shown on drawings or as approved by Project Manager shall be measured and paid for, irrespective of the level or height at which the work is done. The unit rate for reinforcement shall include all wastage, binding wires, chairs, spacer bars etc. for which no separate payment shall be made.

- Where the formwork is paid for separately, it shall be very clearly understood that payment for formwork is inclusive of formwork, shuttering, shoring, propping, scaffolding, deshuttering, etc. complete. Only the net area of concrete formed (shuttered) shall be measured for payment.
- Where reinforcement is supplied by EMPLOYER, the quantity of chairs and spacer bars shall be measured for accounting wastage only.

Supply and Fabrication Of Structural Steel

- For the purpose of payment, the weight of the actual completed structures shall be calculated from the approved drawings for different items of work. The Contractor shall submit to the Employer relevant material list containing weight of each item.
- No allowances will be permitted for bolts, nuts, washers, studs, screws, etc., galvanizing, welding or for rolling margins. One tonne for the purpose of payment shall mean ONE METRIC TONNE i.e. 1000 Kg
- The weight of a member made out of standard rolled section such as beams, channels, angles, etc. shall be based on the standard IS: 808 without deductions for holes, notches, bevel cuts, etc. Where a component consists of a cut joist or channels, the full weight of the rolled section shall be considered only if more than half the depth of the original section is used. Otherwise, only half the section unit weight shall be considered for calculation of the weight of the components. Deductions shall be made in the weight of gussets/ plates for cuts and notches of 900 cm² or larger.
- For gussets/ plates used in trusses, bracings, columns, beams, etc, the area shall be that of the minimum circumscribing rectangle except as stated above.
- The weight of any built-up members shall be based on the weight of each component

Erection of structural steel

- For the purpose of payment, the weight of the actual, completed structures shall be calculated from the approved fabrication drawings for different items of work. Contractor shall submit to Employer relevant material list containing weight of each item.
- No allowance will be permitted for weights of bolts, nuts, washers, screws, etc. in calculating the weight of the completed structure. No allowances will be permitted for galvanising, welding or for rolling margins. One tonne for the purpose of payment shall mean ONE METRIC TONNE i.e. 1,000 Kg.
- The weight of a member made out of standard rolled sections such as beams, channels, angles, etc. shall be based on the weight of the member given in IS: 808, without deducting for holes, notches, bevel cuts, etc. Where a component consists of a cut joist or channel, the full weight of the rolled section shall be considered only if more than half the depth of the section is used. Otherwise only half the section unit weight shall be taken. Deductions

shall be made in the weight of gussets/ plates including chequered plates for skew cuts, notches and openings of 900 cm² or larger.

- o For gussets/ plates used in trusses, bracings, columns, beams, etc. the area shall be that of the minimum circumscribing rectangle, except as stated in clause above.
- o The weight of any built-up member shall be separated into the weight of each component.
- o Erection bolts installed by erector shall be left in position on completion of erection. However, no additional payment shall be made either for supply or use of such bolts. If erection bolts are removed after erection is complete, holes shall be plug welded and ground smooth. No extra payment shall be made for such plug welding.

Earthwork in grading, excavation and back filling

- o All excavation shall be measured nett. Dimensions for purpose of payment shall be reckoned on the horizontal area of the excavation at the base for foundations of the walls, columns, footings, tanks, rafts or other foundations/ structures to be built, multiplied by the mean depth from the surface of the ground in accordance with the drawings. Excavation in side slopes will not be paid for. The CONTRACTOR may make such allowance in his rates to provide for excavation in side slopes keeping in mind the nature of the soil and safety or excavation.
- o Unless otherwise specified, the unit rates quoted for excavation in different types of material shall also account for a basic lead of 100 metres for disposal as specified or directed. Only leads beyond the basic lead of 100 metres will be considered as extra lead and paid for at the rates quoted in the schedules.
- o Backfilling as per specification the sides of foundations of columns, footings, structures, walls, tanks, rafts, trenches, etc. with excavated material will not be paid for separately. It shall be clearly understood that the rate quoted for excavation including backfilling shall include stacking of excavated material as directed, excavation/ packing of selected stacked material, conveying it to the place of final backfill, compaction etc. as specified. As a rule material to be backfilled shall be stacked temporarily within the basic lead of 100 metres unless otherwise directed by the Project Manager. If the Project Manager directs/ permits a lead of over 100 metres for such material, the conveyance of the material for the extra distance over the basic lead of 100 metres for backfilling will be paid for.
- o Payment for fill inside trenches, plinth or similar filling with selected excavated material will be made for only compaction as specified/ directed. Cost of all other operations shall be deemed to have been covered in the rate quoted for excavation. Payment for this work will be made based on measurement of plinth/ trench dimensions filled. The plinth ground levels shall be surveyed before hand for this purpose. If no compaction is specified/ desired, such filling will not be separately paid for. In such a event the fill shall be levelled/ finished to the profile as directed at no extra cost.

- Backfilling, plinth filling, etc. with borrowed earth will be paid for at rates quoted. The quoted rate shall include all operations such as clearing, excavation, lead and transport, fill, compaction, etc. as specified. Actual quantity of consolidated filling or actual quantity of excavation in the borrow pits (less such top soil which has been excavated and not used for filling) whichever is less shall be measured and paid for in cubic metres. The lead, lift etc. shall be as indicated in the schedule of quantities.
- Actual quantity of consolidated sand filling shall be measured and paid in cubic metres.

Dewatering

- Unless separately provided for in the Schedule of Quantities, dewatering is deemed to have been included in the unit rates quoted for excavation.

Water Sealing Materials

- Measurement shall be in running metres correct to two places of decimal.

2. Plumbing and Fire Fighting

- Rate for fixing only of sanitary fixtures accessories, CP fittings shall etc. include all items, and operations stated in the respective specifications and bill of quantities and nothing extra is payable.
- Rates for all items under specifications shall be inclusive of cutting holes and chases and making good the same, CP screws, nuts, bolts and any fixing arrangements required and recommended by manufacturers, testing and commissioning and making good to the satisfaction of the Employer's Site Representative.

Excavation

- Measurement for excavation of pipes trenches shall be made per linear meter.
- Trenches shall be measurement between outside walls of manholes at top and the depth shall be the average depth between the two ends to the nearest cm. The rate quoted shall be for a depth upto 1.5 metre or as given in the Bill of Quantities.
- Payment for trenches more than 1.5 m in depth shall be made for extra depth as given in the Bill of Quantities and above the rate for depth upto 1.5 m.
- RCC pipes shall be measured for length of the pipe line per linear meter.
- Length between manholes shall be recorded from inside of one manhole or inside of other manhole.
- Length between gully trap and manhole shall be recorded between socket of pipe near gully trap and inside of manhole.

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- Gully traps shall be measured by the number and rate which shall include all excavation, foundation, concrete, brick masonry, cement plaster inside and outside, C I grating and sealed cover and frame.
 - The length above ground shall be measured in running meter correct to a cm for the finished work, which shall include pipe and fittings such as coupling , bends, tees, elbows, reducers, crosses, plugs, sockets, nipples and nuts, unions. Deductions for length of valves shall be made. Rate quoted shall be inclusive of all fittings, clamps, cutting holes chased and making good the same and all items mentioned in the specifications and Bill of Quantities.
 - All pipes below ground shall be measured per linear meters (to the nearest cm) and shall be inclusive of all fittings e.g. coupling, tees, bends, elbows, unions, deduction for valves shall be made rate quoted shall be inclusive of all fittings, excavation, back filling and disposal of surplus earth, cutting holes and chase and making good all item mentioned in Bill of Quantities.

Measurement of Insulation

- Unless otherwise specified measurement for pipe insulation for the project shall be on the basis of centre line measurements described herewith
- Pipe Insulation shall be measured in units of length along the centre line of the installed pipe, strictly on the same basis as the piping measurements. The linear measurements shall be taken before the application of the insulation. It may be noted that for piping measurement, all valves, orifice plates and strainers shall not be separately measurable by their number and size. It is to be clearly understood that for the insulation measurements, all these accessories including valves, orifice plates and strainers etc. shall be considered strictly by linear measurements along the centre line of pipes and no special rate shall be applicable for insulation of any accessories, fixtures or fittings whatsoever
- Manhole shall be measured in numbers as indicated in the Bill of Quantity. The depth of manhole shall be measured from invert of channel to the top of manhole cover.
- Manhole with depth greater than specified under the main item shall be paid for under 'Extra Depth' and shall include all items as given for manholes depth will be measured to the nearest cm. Depth of the manholes shall be measured from top of the manhole cover to bottom of channel. The following are inclusive in the cost of manhole viz;
 - a. Bed concrete
 - b. Brick work.
 - c. Plastering (inside & outside)
 - d. R C C top slab, benching and channeling including drop connections.
 - e. Supply and fix foot rests.
 - f. Keeping holes and embedding pipes for all the connections.

- g. Excavation, refilling, necessary de-watering and disposing off surplus soil to a places as directed by Project Manager.
 - h. Curing.
 - i. Cost of angle frame and embedding the frame in concrete bed.
 - j. Testing.
 - k. De-watering of chambers.
- Fire extinguishers shall be counted in numbers and include installation of all necessary items required as given in the specifications.
 - Each panels shall be counted as one unit. Quoted rates shall include as lumpsum (NOT measurable lengths) for all internal wiring, power wiring and earthing connections from the control panel to the starter and to the motor, control wiring for interlocking, power and control wiring for automatic and safety controls, and control wiring for remote start/stop as well as indication as per the specifications. Cables shall be separate item (1 lot) in BOQ. Similarly earthing shall be separate item (1 lot) in BOQ. The quoted rate of panel shall also include all accessories, switchgear, contactors, indicating meters and lights as per the Specifications and Schedule of Quantities.

3. HVAC

Sheet metal work

Duct Work :

- Measurement shall be done on final finished sheet area (Sq.Mtr) only. Wastage shall not be added.
- Vanes, splitters, flanges, access doors shall not be separately measured and the same shall be included as a part of duct work.
- Transformation pieces, bends, elbows etc. Shall be measured along the centre line and measured as per duct work.
- Duct supports shall not be separately measured and shall be treated as a part of ducting work.

Grilles, Diffusers, Dampers

- Grilles, diffusers : Where grilles, diffusers are quantified on area basis in the bill of quantities, these will be measured in terms of effective area i.e. neck area. Any grille , diffuser having area less than 0.1 Sq. Mtr will be treated as 0.1 Sq. Mtr for Measurement purpose. Where grilles, diffusers are quantified in terms of specific sizes in the bill of quantities, these will be measured in terms of number of such units.
- All volume control and fire dampers will be measured in terms of the effective area i.e. neck area.
- Box dampers shall be included as a part of duct and shall not be measured separately.
- Fresh air dampers will be measured in terms of the effective area i.e. neck area. Bird screen, louvers shall not be measured separately and shall be included in the fresh air damper.

Insulation

- Duct insulation shall be measured on the basis of bare duct surface area, thus the duct area and the insulation area shall be same. Same basis shall be applied for the measurement of acoustic lining of ducts and plenums i.e the area of lining and area of duct shall be same.
- Pipe insulation shall be measured in terms of linear length of pipe for each different pipe size. Insulation of Bends, elbows, tees etc shall be measured along with the centre line of insulation. Insulation of valves shall be separately accounted as per bill of quantities.
- Insulation of Chillers, expansion tank, suction line shall be deemed to be part of the equipment and no separate measurement will be accounted unless specifically mentioned in the bill of quantities.

Electrical work

- All power cabling, control cabling, earthing, cable trays shall be measured in terms Of linear measurement in running meters.
- End termination of cables including thimbles, glands etc. Shall not be separately measured and shall be treated as a part of cabling work, unless specifically mentioned in the bill of quantities.

Structural supports

- Structural supports shall not be measured separately and all supports for piping, ducting, cabling, any equipment not mentioned here shall be deemed to be part of piping, ducting, cabling work or the specific equipment.
- Structural supports for the outdoor units shall be measured as a separate item in terms of number of outdoor units and not on Kg. Basis.

4. Electrical & Cabling

Measurement of electrical control panels

Panels shall be counted as number of units. Quoted rates shall include as lumpsum (NOT measurable lengths) for all internal wiring, power wiring and earthing connections from the control panel to the starter and to the motor, control wiring for interlocking, power and control wiring for automatic and safety controls, and control wiring for remote start/stop as well as indication as per the specifications. The quoted rate of panel shall also include all accessories, switchgear, contactors, indicating meters and lights as per the Specifications and Schedule of Quantities.

Detailed technical specifications for Architectural, Civil and MEP works

The detailed technical specifications attached as Annexure III

The bidder is also required to fill the Annexure II: Technical schedules

Drawings

Summary of Tender drawings

Sr. No.	Discipline	No. of drgs
	<u>Architectural & Civil</u>	
1	Architectural	52
2	Civil	32
	Total - Arch + Civil (A)	<u>84</u>
	<u>MEP Services</u>	
		-
3	Plumbing	19
4	Fire fighting	14
5	HVAC	21
6	Compressed Air System	2
7	Electrical	24
8	IBMS & IT	24
	Total - MEP Services (B)	<u>104</u>
	<u>External Services</u>	
		-
9	External Services	10
10	Landscaping	3
	Total - External - (C)	<u>13</u>
	Total - A + B + C	201

List of drawings

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
1	Architectural				
I	SITE PLAN				
1	Site Plan	TCE.10106A-1000-AC-12101	P0	1	A1
II	TRAINING BLOCK				
	Ground Floor Plan	TCE.10106A-1006-AC-12110	P0	1	A1
	First Floor Plan	TCE.10106A-1006-AC-12111	P0	1	A1

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	Second Floor Plan	TCE.10106A-1006-AC-12112	P0	1	A1
	Terrace Plan	TCE.10106A-1006-AC-12113	P0	1	A1
	Elevation - 1, 2,3 & 4	TCE.10106A-1006-AC-12114	P0	1	A1
	Section 1-1 & 2-2	TCE.10106A-1006-AC-12116	P0	1	A1
III	PRODUCTION BLOCK				
	Ground Floor Plan	TCE.10106A-1006-AC-12120	P0	1	A1
	First Floor Plan	TCE.10106A-1006-AC-12121	P0	1	A1
	Terrace Plan	TCE.10106A-1006-AC-12122	P0	1	A1
	Elevation - 1, 2, 3 & 4	TCE.10106A-1006-AC-12123	P0	1	A1
	Section 1-1 & 2-2	TCE.10106A-1006-AC-12124	P0	1	A1
IV	ADMIN BUILDING				
	Ground Floor Plan	TCE.10106A-1006-AC-12130	P0	1	A1
	First Floor Plan	TCE.10106A-1006-AC-12131	P0	1	A1
	Second Floor Plan	TCE.10106A-1006-AC-12132	P0	1	A1
	Terrace Plan	TCE.10106A-1006-AC-12133	P0	1	A1
	Elevation-1 & 2	TCE.10106A-1006-AC-12134	P0	1	A1
	Elevation-3 & 4	TCE.10106A-1006-AC-12135	P0	1	A1
	Section 1-1 & 2-2	TCE.10106A-1006-AC-12136	P0	1	A1
V	DINING BUILDING				
	Ground Floor Plan	TCE.10106A-1009-AC-12140	P0	1	A1
	First Floor Plan	TCE.10106A-1009-AC-12141	P0	1	A1
	Terrace Plan	TCE.10106A-1009-AC-12142	P0	1	A1
	Elevation-1 & 2	TCE.10106A-1009-AC-12143	P0	1	A1
	Elevation-3 & 4	TCE.10106A-1009-AC-12144	P0	1	A1
	Section 1-1 & 2-2	TCE.10106A-1009-AC-12145	P0	1	A1
VI	BOYS HOSTEL				
	Ground & First Floor Plan	TCE.10106A-1010-AC-12150	P0	1	A1
	Second & Terrace Floor Plan	TCE.10106A-1010-AC-12151	P0	1	A1
	Elevation-1 & 2	TCE.10106A-1010-AC-12152	P0	1	A1

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	Elevation-3 & 4	TCE.10106A-1010-AC-12153	P0	1	A1
	Section 1-1 & 2-2	TCE.10106A-1010-AC-12154	P0	1	A1
VII	GIRLS HOSTEL				
	Ground & First Floor Plan	TCE.10106A-1010-AC-12160	P0	1	A1
	Second & Terrace Floor Plan	TCE.10106A-1010-AC-12161	P0	1	A1
	Elevation-1 & 2	TCE.10106A-1010-AC-12162	P0	1	A1
	Section 1-1 & 2-2	TCE.10106A-1010-AC-12164	P0	1	A1
VIII	STAFF ACCOMODATION				
	Ground Floor Plan	TCE.10106A-1015-AC-12170	P0	1	A1
	First & Terrace Floor Plan	TCE.10106A-1015-AC-12171	P0	1	A1
	Elevations	TCE.10106A-1015-AC-12172	P0	1	A1
	Sections	TCE.10106A-1015-AC-12173	P0	1	A1
IX	EXECUTIVE HOSTEL				
	Floor plans	TCE.10106A-1010-AC-12180	P0	1	A1
	Elevations	TCE.10106A-1010-AC-12181	P0	1	A1
	Sections	TCE.10106A-1010-AC-12182	P0	1	A1
XI	SUBSTATION/ UTILITY BUILDING				
	Utility Building 1	TCE.10106A-1005-AC-12185	P0	1	A1
	Utility Building 2	TCE.10106A-1005-AC-12186	P0	1	A1
	Utility Building 3	TCE.10106A-1005-AC-12187	P0	1	A1
XII	BOUNDARY WALL DRAWINGS				
	Typical Guard House Detail - Plan, Elevation & Section - Sheet 01	TCE.10106A-1010-AC-10001	P0	1	A1
	Typical Guard House Detail - Plan, Elevation &	TCE.10106A-1010-AC-10002	P0	1	A1

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	Section - Sheet 02				
	Typical Boundary Wall Detail - Plan, Elevation & Section	TCE.10106A-1010-AC-10003	P0	1	A1
	Boundary Wall Setting Out Plan	TCE.10106A-1000-AC-12102	P0	1	A1
	Boundary Wall Elevations - Elevation A (South) + Detail Plan & Elevation	TCE.10106A-1000-AC-12103	P0	1	A1
	Boundary Wall Elevations - Elevation B (East) + Detail Plan & Elevation	TCE.10106A-1000-AC-12104	P0	1	A1
	Boundary Wall Elevations - Elevation C (North) + Detail Plan & Elevation	TCE.10106A-1000-AC-12105	P0	1	A1
	Boundary Wall Elevations - Elevation D (West) + Detail Plan & Elevation	TCE.10106A-1000-AC-12106	P0	1	A1
	Total - Architectural			52	
2	Civil				
2.1	Typical details	TCE-10106A-3092-RC-30151	P0	1	A1
2.2	Admin Building Footing Layout and Column schedule	TCE-10106A-1006-RC-32205	P0	1	A1
2.3	Admin Building General arrangement at Ground Floor	TCE-10106A-1006-RC-32208	P0	1	A1
2.4	Admin Building General arrangement at First Floor	TCE-10106A-1006-RC-32210	P0	1	A1
2.5	Admin Building General arrangement at Second Floor	TCE-10106A-1006-RC-32212	P0	1	A1
2.6	Admin Building General arrangement at Terrace Floor	TCE-10106A-1006-RC-32213	P0	1	A1

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
2.7	Dining Block Foundation Layout	TCE-10106A-1009-RC-32218	P0	1	A1
2.8	Dining Block Ground, First, Terrace & Mumty Floor Beam layout	TCE-10106A-1009-RC-32221	P0	1	A1
2.9	General arrangement of executive hostel	TCE-10106A-1012-RC-32229	P0	1	A1
2.10	Boys Hostel Foundation layout and plinth beam details (Sheet 1 of 2)	TCE-10106A-1012-RC-32235	P0	1	A1
2.11	Boys Hostel First, Second, Terrace & Mumty Floor beam Layout (Sheet 2 of 2)	TCE-10106A-1012-RC-32236	P0	1	A1
2.12	Girls Hostel Foundation and plinth beam layout (SHEET 1 of 2)	TCE-10106A-1012-RC-32243	P0	1	A1
2.13	Girls Hostel First, Second, Terrace & Mumty Floor beam Layout (Sheet 2 of 2)	TCE-10106A-1012-RC-32244	P0	1	A1
2.14	Staff Accommodation Foundation and plinth beam layout (Sheet 1 of 2)	TCE-10106A-1013-RC-32250	P0	1	A1
2.15	Staff Accommodation First, Terrace & Mumty Floor Beam layout (Sheet 2 of 2)	TCE-10106A-1013-RC-32251	P0	1	A1
2.16	Training Block Foundation Layout (Sheet 1 of 2)	TCE-10106A-3055-RC-32256	P0	1	A1
2.17	Training Block Foundation Layout (Sheet 2 of 2)	TCE-10106A-3055-RC-32257	P0	1	A1
2.18	Training Block Plinth Beam Layout (Sheet 1 of 2)	TCE-10106A-3055-RC-32260	P0	1	A1
2.19	Training Block Plinth Beam Layout (Sheet 2 of 2)	TCE-10106A-3055-RC-32261	P0	1	A1

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
2.20	Training Block First Floor Beam Layout (Sheet 1 of 2)	TCE-10106A-3055-RC-32263	P0	1	A1
2.21	Training Block First Floor Beam Layout (Sheet 2 of 2)	TCE-10106A-3055-RC-32264	P0	1	A1
2.22	Training Block Second Floor Beam Layout	TCE-10106A-3055-RC-32267	P0	1	A1
2.23	Training Block Terrace Floor Beam Layout	TCE-10106A-3055-RC-32270	P0	1	A1
2.24	Footing Layout of Production block	TCE-10106A-3055-RC-32274	P0	1	A1
2.25	Production Block Foundation and Plinth beam layout (Sheet 1 of 2)	TCE-10106A-3055-RC-32280	P0	1	A1
2.26	Production Block First, Terrace & Mumty Floor beam layout (Sheet 2 of 2)	TCE-10106A-3055-RC-32281	P0	1	A1
2.27	Utility Building Foundation , Ground & Terrace Floor Beam Layout	TCE-10106A-3019-RC-32287	P0	1	A1
2.28	Utility Building-2 Basement , Ground & Terrace floor plans and Sections	TCE-10106A-3029-RC-32290	P0	1	A1
2.29	Utility Building-3 Foundation , Ground & Terrace Floor Beam Layout	TCE-10106A-3019-RC-32295	P0	1	A1
2.30	Guard room & Internal Boundary wall details	TCE-10106A-3057-SI-32296	P0	1	A1
2.31	Guard House Details	TCE.10106A-100-GA-6000	P0	1	A1
2.32	Boundary Wall Details	TCE.10106A-100-GA-6001	P0	1	A1
	Total - Civil			32	
3	Plumbing				
3.1	SCHEMATIC - WATER	TCE-10106A-1015-WS-15654	P0	1	A1

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	SUPPLY SYSTEM				
3.2	Production Block Floor Plans	TCE-10106A-1015-AC-15655	P0	1	A0
3.3	Production Block Details First floor plan and Details	TCE-10106A-1015-AC-15656	P0	1	A0
3.4	Training Block Floor Plans	TCE-10106A-1015-AC-15657	P0	1	A0
3.5	Training Block First floor plan and Details	TCE-10106A-1015-AC-15658	P0	1	A0
3.6	Admin Building Floor Plans	TCE-10106A-1015-AC-15659	P0	1	A1
3.7	Admin Building Toilet Details	TCE-10106A-1015-AC-15660	P0	1	A1
3.8	Canteen Building Floor Plans	TCE-10106A-1015-AC-15661	P0	1	A1
3.9	Canteen Building Toilet details	TCE-10106A-1015-AC-15662	P0	1	A1
3.10	Executive Hostel Floor Plans	TCE-10106A-1015-AC-15663	P0	1	A1
3.11	Executive Hostel Details	TCE-10106A-1015-AC-15664	P0	1	A1
3.12	Girls Hostel Floor Plans	TCE-10106A-1015-AC-15665	P0	1	A1
3.13	Girls Hostel Toilet Details	TCE-10106A-1015-AC-15666	P0	1	A1
3.14	Boys Hostel Floor Plans & Details	TCE-10106A-1015-AC-15667	P0	1	A1
3.15	Boys Hostel Floor Plans & Details	TCE-10106A-1015-AC-15668	P0	1	A1
3.16	Staff Accommodation Layout & Details	TCE-10106A-1015-AC-15669	P0	1	A1
3.17	Utility Building Layout and Underground tank Details	TCE-10106A-1015-AC-15670	P0	1	A1
3.18	Guard Block drainage layout	TCE-10106A-1015-AC-15671	P0	1	A2
3.19	Guard Block water supply layout	TCE-10106A-1015-AC-15672	P0	1	A2
	Total - Plumbing			19	
4	Fire Protection				

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
4.1	Fire Protection - Schematic Diagram	TCE-10106A-6042-FD-60801	P0	1	A1
4.2	Fire Protection System - Hydrant Layout	TCE-10106A-6042-ME-60802	P0	1	A1
4.3	Production And Training Centre Block-Ground Floor Fire Protection Layout	TCE-10106A-6042-ME-60803	P0	1	A1
4.4	Production And Training Centre Block-First Floor Fire Protection Layout	TCE-10106A-6042-ME-60804	P0	1	A1
4.5	Production And Training Centre Block-Second Floor Fire Protection Layout	TCE-10106A-6042-ME-60805	P0	1	A1
4.6	Administration Block-Ground Floor Fire Protection Layout	TCE-10106A-6042-ME-60806	P0	1	A1
4.7	Administration Block-First Floor Fire Protection Layout	TCE-10106A-6042-ME-60807	P0	1	A1
4.8	Administration Block-Second Floor Fire Protection Layout	TCE-10106A-6042-ME-60808	P0	1	A1
4.9	Dining Block-Ground Floor Fire Protection Layout	TCE-10106A-6042-ME-60809	P0	1	A1
4.10	Dining Block-First Floor Fire Protection Layout	TCE-10106A-6042-ME-60810	P0	1	A1
4.11	Girls Hostel-Ground To 2nd Floor Fire Protection Layout	TCE-10106A-6042-ME-60811	P0	1	A1
4.12	Boys Hostel-Ground To 2nd Floor Fire Protection Layout	TCE-10106A-6042-ME-60812	P0	1	A1
4.13	Executive Hostel Block-Ground & First Floor Fire Protection Layout	TCE-10106A-6042-ME-60813	P0	1	A1

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
4.14	Staff Accommodation Block-Ground & First Floor Fire Protection Layout	TCE-10106A-6042-ME-60814	P0	1	A1
	Total - Fire Fighting			<u>14</u>	
5	HVAC				
5.1	Admin HVAC Schematic Layout	TCE.10106A-6057-AV-60844	P0	1	A1
5.2	Production & Training And Guest HVAC Schematic Layout	TCE.10106A-6057-AV-60845	P0	1	A1
5.3	Typical Details For HVAC Equipment, Pumping, Ducting, Piping, Insulation Etc.	TCE.10106A-6057-AV-60846	P0	1	A1
	Admin Building				
5.4	Ground Floor HVAC Layout	TCE.10106A-6057-AV-60847	P0	1	A1
5.5	First Floor HVAC Layout	TCE.10106A-6057-AV-60848	P0	1	A1
5.6	Second Floor HVAC Layout	TCE.10106A-6057-AV-60849	P0	1	A1
5.7	Terrace Floor HVAC Layout	TCE.10106A-6057-AV-60850	P0	1	A1
	Training And Production Block				
5.8	Ground Floor HVAC Layout	TCE.10106A-6057-AV-60851	P0	1	A1
5.9	First Floor HVAC Layout	TCE.10106A-6057-AV-60852	P0	1	A1
5.10	Second Floor HVAC Layout	TCE.10106A-6057-AV-60853	P0	1	A1
5.11	Terrace Floor HVAC Layout	TCE.10106A-6057-AV-60854	P0	1	A1

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	Executive Hostel				
5.12	GF & First Floor HVAC Layout	TCE.10106A-6057-AV-60855	P0	1	A1
	Dinning Block				
5.13	Ground Floor Ventilation Layout	TCE.10106A-6057-AV-60858	P0	1	A1
5.14	First Floor Ventilation Layout	TCE.10106A-6057-AV-60859	P0	1	A1
5.15	SF & Terrace Floor Ventilation Layout	TCE.10106A-6057-AV-60860	P0	1	A1
	Boys Hostel				
5.16	GF & First Floor Ventilation Layout	TCE.10106A-6057-AV-60861	P0	1	A1
5.17	2nd & Terrace Floor Ventilation Layout	TCE.10106A-6057-AV-60862	P0	1	A1
	Girls Hostel				
5.18	Ground Floor Ventilation Layout	TCE.10106A-6057-AV-60863	P0	1	A1
5.19	1nd & Second Floor Ventilation Layout	TCE.10106A-6057-AV-60864	P0	1	A1
	Staff Accommodation				
5.2	Ground First Floor Ventilation Layout	TCE.10106A-6057-AV-60865	P0	1	A1
	Utility Block				
5.21	Utility Block Ventilation Layout	TCE.10106A-6057-AV-60866	P0	1	A1
	Total - HVAC			21	
6	Compressed Air Supply				
	P& ID for Compressed Air	TCE-10106A-6047-ME-60884	P0	1	A1

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	System				
	General Arrangement of Compressed Air System	TCE-10106A-6047-ME-60885	P0	1	A1
	Total - Compressed Air Supply			2	
7	ELECTRICAL				
1	Main Single Line Diagram	TCE-10106A-4000-AU-40901	P0	2	A1
2	Cable Route Layout	TCE-10106A-4000-GA-40903	P0	1	A1
3	Outdoor Lighting Layout	TCE-10106A-4000-GA-40904	P0	1	A1
4	Lighting, Receptacle, Cable Tray and Earthing Layout For Utility Block And Terrace	TCE-10106A-4026-GL-40905	P0	1	A1
5	Production & Training Block Lightning Protection Layout	TCE-10106A-4027-SE-40907	P0	2	A1
6	Lighting, Power And Earthing Layout For Production Block Ground And First Floor And Terrace Floor	TCE-10106A-4026-GL-40908	P0	3	A1
7	Production Block Raceway And Cable Layout For First Floor & Second Floor	TCE-10106A-4026-GL-40909	P0	1	A1
8	Lighting, Power And Earthing Layout For Training Block Ground, First And Second Floor Training Block	TCE-10106A-4026-GL-40910	P0	4	A1
9	Lighting, Power And Earthing Layout Ground, First And Terrace Of Staff Accomodation	TCE-10106A-4026-GL-40911	P0	1	A1

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
10	Lighting And Power Layout For Ground, First, Second Floor And Terrace Floor Of Admin Bldg	TCE-10106A-4026-GL-40912	P0	1	A1
11	Legends & Notes	TCE-10106A-4026-GL-40913	P0	1	A1
12	Training Block Raceway And Cable Layout For Ground Floor	TCE-10106A-4026-GL-40914	P0	2	A1
13	Lighting, Power Layout For Ground And Terrace Floor Of Canteen Area	TCE-10106A-4026-GL-40915	P0	1	A1
14	Lighting, Receptacle And Earthing Layout For Ground, First And Terrace Of Executive Hostel	TCE-10106A-4026-GL-40916	P0	1	A1
15	Lighting, Power Layout For Ground, First, Second And Terrace Floor Girls Hostel	TCE-10106A-4026-GL-40917	P0	1	A1
16	Lighting, Power Layout For Ground, First, Second And Terrace Floor Boys Hostel	TCE-10106A-4026-GL-40918	P0	1	A1
	Total - ELECTRICAL			24	
8	IBMS/IT				
1	System Architecture - Integrated Building Management System	TCE-10106A-5004-SK-50804	P0	1	A0
2	CCTV/FDAS/PA/ACS System Floor Layout For Ground Floor- Training And Production Block	TCE-10106A-5004-GA-50810	P0	1	A0
3	CCTV/FDAS/PA/ACS System Floor Layout For First Floor- Training And Production Block	TCE-10106A-5004-GA-50811	P0	1	A0

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
4	CCTV/FDAS/PA/ACS System Floor Layout For Second Floor- Training And Production Block	TCE-10106A-5004-GA-50812	P0	1	A0
5	Building Management System And Telephone And Data System Floor Layout For Ground Floor- Training And Production Block	TCE-10106A-5004-GA-50813	P0	1	A0
6	Building Management System And Telephone And Data System Floor Layout For Firstfloor- Training And Production Block	TCE-10106A-5004-GA-50814	P0	1	A0
7	Building Management System And Telephone And Data System Floor Layout For Second Floor- Training And Production Block	TCE-10106A-5004-GA-50815	P0	1	A0
8	CCTV/FDAS/PA/ACS System Floor Layout For Ground Floor - Admin Block	TCE-10106A-5004-GA-50816	P0	1	A1
9	CCTV/FDAS/PA/ACS System Floor Layout For First Floor - Admin Block	TCE-10106A-5004-GA-50817	P0	1	A1
10	CCTV/FDAS/PA/ACS System Floor Layout For Second Floor - Admin Block	TCE-10106A-5004-GA-50818	P0	1	A1
11	Building Management System And Telephone And Data System Floor Layout For Ground Floor - Admin Block	TCE-10106A-5004-GA-50819	P0	1	A1

**List of Tender drawings for
Construction of New Technology Centre at Pudi, Visakhapatnam**

Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
12	Building Management System And Telephone And Data System Floor Layout For First Floor - Admin Block	TCE-10106A-5004-GA-50820	P0	1	A1
13	Building Management System And Telephone And Data System Floor Layout For Second Floor - Admin Block	TCE-10106A-5004-GA-50821	P0	1	A1
14	CCTV/FDAS/PA/ACS System Floor Layout For Ground Floor - Dining Block	TCE-10106A-5004-GA-50822	P0	1	A1
15	CCTV/FDAS/PA/ACS System Floor Layout For First Floor - Dining Block	TCE-10106A-5004-GA-50823	P0	1	A1
16	Building Management System And Telephone And Data System Floor Layout For Ground Floor - Dining Block	TCE-10106A-5004-GA-50825	P0	1	A1
17	CCTV And Telephone And Data System Floor Layout For Ground Floor - Executive Hostel	TCE-10106A-5004-GA-50828	P0	1	A1
18	CCTV And Telephone And Data System Floor Layout For Ground Floor - Girls Hostel	TCE-10106A-5004-GA-50829	P0	1	A1
19	CCTV And Telephone And Data System Floor Layout For Ground Floor - Boys Hostel	TCE-10106A-5004-GA-50830	P0	1	A1
20	CCTV And Telephone And Data System Floor Layout For Ground Floor - Staff Accomodation	TCE-10106A-5004-GA-50831	P0	1	A1

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
21	Building Management System And FDAS System Floor Layout For Ground Floor - Utility Block 1	TCE-10106A-5004-GA-50832	P0	1	A1
22	CCTV - External Layout	TCE-10106A-5004-GA-50833	P0	1	A1
23	Building Management System And FDAS System Floor Layout For Ground Floor - Utility Block 2	TCE-10106A-5004-GA-50834	P0	1	A1
24	Building Management System And FDAS System Floor Layout For Ground Floor - Utility Block 3	TCE-10106A-5004-GA-50835	P0	1	A1
	Total - IBMS/IT			24	
9	External Services				
1	Proposed Potable And Raw Water Network	TCE.10106A-155-WS-6161	P0	1	A1
2	Proposed Non-Potable/Recycled Water Network	TCE.10106A-155-WS-6162	P0	1	A1
3	Proposed Storm Water Drainage Network	TCE.10106A-161-WS-6163	P0	1	A1
4	Proposed Sewerage Network	TCE.10106A-175-SI-6164	P0	1	A1
5	Typical Manhole Detail	TCE.10106A-161-WS-6165	P0	1	A3
6	Typical Detail For House Connection Chamber	TCE.10106A-161-WS-6166	P0	1	A3
7	Typical Detail Of Thrust Block	TCE.10106A-161-WS-6167	P0	1	A3
8	Typical Bedding And Trench Details	TCE.10106A-161-WS-6168	P0	1	A3
9	Typical Valve Chamber Details	TCE.10106A-161-WS-6169	P0	1	A3
10	Process Flow Daigram For Sewage Treatment Plant Moving Bed Biofilm Reactor Process 130 KLD	TCE.10106A-162-GA-6170	P0	1	A3

List of Tender drawings for Construction of New Technology Centre at Pudi, Visakhapatnam					
Sr. No.	Drawing title	Drawing No.	Rev.	No. of sheets	Size
	Total - External Services			10	
10	Landscaping				
1	Landscape Layout	TCE.10106A-1000-AC-16046	P0	1	A1
2	Hardscape Details	TCE.10106A-1000-AC-16047	P0	1	A1
3	Landscape Layout - Planting Details - Shrubs, Ground Cover & Lawn	TCE.10106A-1000-AC-16048	P0	1	A1
	Total - Landscaping			3	

Above mentioned drawings are attached as Annexure IV

All the drawings should be printed, signed, stamped and submitted along with the bid.

PART 3 – Conditions of Contract and Contract Forms

Section VIII. General Conditions of Contract

General Conditions of Contract

A. General

1. Definitions

1.1 Boldface type is used to identify defined terms.

- (a) The Accepted Contract Amount means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- (b) Not used.
- (c) The Adjudicator or Dispute Review Expert is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.
- (d) Bank means the financing institution **named in the PCC**.
- (e) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
- (f) Compensation Events are those defined in GCC Clause 42 hereunder.
- (g) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.
- (h) The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- (i) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer.
- (j) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.
- (k) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- (l) Days are calendar days; months are calendar months.
- (m) Not used.
- (n) A Defect is any part of the Works not completed in accordance with the Contract.
- (o) The Defects Liability Certificate is the certificate issued

by Project Manager upon correction of defects by the Contractor.

- (p) The Defects Liability Period is the period named in the PCC pursuant to Sub-Clause 34.3 and calculated from the Completion Date.
- (q) Drawings means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- (r) The Employer is the party who employs the Contractor to carry out the Works, as **specified in the PCC**.
- (s) Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) "In writing" or "written" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- (u) The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.
- (v) The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the PCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (w) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (x) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (y) The Project Manager is the person **named in the PCC** (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- (z) PCC means Particular Conditions of Contract
- (aa) The Site is the area **defined as such in the PCC**.
- (bb) Site Investigation Reports are those that were included in

the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

- (cc) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (dd) The Start Date is **given in the PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (ee) A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (ff) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (gg) A Variation is an instruction given by the Project Manager which varies the Works.
- (hh) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, **as defined in the PCC**.

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
 - (a) Agreement,
 - (b) Letter of Acceptance,
 - (c) Contractor's Bid & Priced Bill of Quantities,

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- (d) Particular Conditions of Contract,
 - (e) General Conditions of Contract including Appendices,
 - (f) Specifications,
 - (g) Drawings, and
 - (h) Joint Venture Agreement [where applicable]
 - (i) any other document **listed in the PCC** as forming part of the Contract.
- 3. Language and Law**
- 3.1 The language of the Contract and the law governing the Contract are **stated in the PCC**.
- Salient features of major labour and other laws that are applicable to construction industry in India are given as Appendix 1 to these General Conditions of Contract.
- 3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the India when
- (a) as a matter of law or official regulations, India prohibits commercial relations with that country; 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, India prohibits any import of goods from that country or any payments to any country, person, or entity in that country.
- 4. Project Manager's Decisions**
- 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- However, if the Project Manager is required, under the rules and regulations and orders of the Employer, to obtain approval of some other authorities for specific actions, he will so obtain the approval. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Project Manager.
- 5. Delegation**
- 5.1 Unless otherwise **specified in the PCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator/Dispute Review Expert, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

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- 6. Communications** 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered. All oral instructions shall be confirmed in writing in seven working days.
- 7. Subcontracting** 7.1 The Contractor may subcontract with the approval of the Project Manager upto a ceiling **specified in PCC**, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.
- 7.2 The Project Manager should satisfy himself before recommending to the Employer whether:
- a) the circumstances warrant such sub-contracting; and,
 - b) the sub-Contractor so proposed for the Work possesses the experience, qualifications and equipment necessary for the job proposed to be entrusted to him in proportion to the quantum of Works to be sub-contracted.
- 7.3 If payments are proposed to be made directly to that sub-contractor, this should be subject to specific authorization by the prime contractor so that his arrangement does not alter the contractor's liability or obligations under the contract.
- 7.4 The Contractor shall not be required to obtain any consent from the Employer for:
- (a) the sub-contracting of any part of the Works for which the Sub-Contractor is already named in the contract;
 - (b) the provision for labour, or labour component, and,
 - (c) the purchase of materials which are in accordance with the standards specified in the contract.

(Note: 1. All bidders are expected to indicate clearly in the bid, if they proposed sub-contracting elements of the works amounting to more than 10 percent of the Bid Price. For each such proposal the qualification and the experience of the identified sub-contractor in the relevant field should be furnished alongwith the bid to enable the employer to satisfy himself about their qualifications before agreeing for such sub-contracting and include it in the contract. In view of the above, normally no additional sub-contracting should arise during execution of the contract.

2. However, [a] sub-contracting for certain specialized elements of the work is not unusual and acceptable for carrying out the works more effectively; but vertical splitting of the works for sub-contracting is not acceptable. [b] In any case, proposal for sub-contracting in addition to what was specified in bid and stated in contract agreement will not be acceptable if the value of such additional sub-contracting exceeds 25% of value of work which was to

be executed by Contractor without sub-contracting.

3. Assignment of the contract may be acceptable only under exceptional circumstances such as insolvencies/liquidation or merger of companies etc.)

**8. Other
Contractors**

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC.** The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

- 9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid and **referred to in the PCC**, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 9.2 The Project Manager may require the Contractor to remove from the Site of Works, a member of the Contractor's staff or his work force, who:
- (a) persists in any misconduct or lack of care,
 - (b) carries out duties incompetently or negligently,
 - (c) fails to conform with any provisions of the Contract, or
 - (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.
- 9.3 If the Employer, Project Manager or Contractor determines, that any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above
- 9.4 In all the above cases, the contractor shall ensure that the person leaves the site within seven days and has no further connection with the work in the contract. The Contractor shall appoint a suitable replacement within 28 days or earlier as may be agreed to between the Project manager and the Contractor.
- 9.5 The Contractor shall not employ any retired Gazetted officer who has either not completed two years after the date of retirement or has not obtained permission from the Government authorities for employment with the Contractor¹⁷.

¹⁷Based on Government Directives.

**Compliance with
Labour
Regulations**

9.6 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. The Contractor shall, if required by the Project Manager, deliver to the Project Manager a return in detail, in such form and at such intervals as the Project Manager may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Project Manager may require.

9.7 During continuance of the Contract, the Contractor and his Sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour laws (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law prevailing on the Base Date either by the State or the Central Government or the local authority. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contraventions including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Project Manager/ Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/ Project Manager shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

9.8 The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

9.9 The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961) and the rules made there under, and comply, failure or neglect to shall be subject to all liabilities and penalties provided in the said Act and Rules.

**10. Employer's
and
Contractor's
Risks**

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to
 - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to

- (a) a Defect which existed on the Completion Date,
- (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
- (c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the PCC** for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant, and Materials [which are incorporated in works];
- (b) loss of or damage to Construction Equipment;
- (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

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

13.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.

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

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings and as per instructions of Project Manager.

15.2.1 The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other cause arising as a consequence of his methods of operation..

Protection of Environment	15.2.2 During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made thereunder, regulations, notifications and by-laws of the State or Central Government, or local authorities and 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 the major laws are given in Appendix 1 to the General Conditions of Contract.
16 The Works to Be Completed by the Intended Completion Date	16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
17 Approval by the Project Manager	17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval. 17.2 The Contractor shall be responsible for design of Temporary Works. 17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works. 17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required. 17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.
18 Safety	18.1 The Contractor shall be responsible for the safety of all activities on the Site.
19 Discoveries	19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
20 Possession of the Site	20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the PCC , the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21 Access to the Site	21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
22 Instructions, Inspections and Audits	22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
	22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub-consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.
	22.3 The Contractor shall permit and shall cause its Subcontractors and sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the 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 Bank if requested by the Bank. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 25.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 22.2 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).
23 Appointment of the Adjudicator or Dispute Review Expert	23.1 The Adjudicator/Dispute Review Expert [DRE] named in PCC shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator/DRE, the Employer will request the Appointing Authority designated in the PCC , to appoint the Adjudicator/DRE within 14 days of receipt of such request.
	23.1.1 The Adjudicator/DRE should be in position before "notice to proceed with work" is issued to the Contractor and an agreement should be signed with the Adjudicator/DRE jointly by the Employer and the Contractor in the form attached – Appendix 3.
	23.2 Should the Adjudicator/DRE resign or die, or should the Employer and the Contractor agree that the Adjudicator/DRE is not functioning in accordance with the provisions of the

Contract; a new Adjudicator/DRE shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator/DRE shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request.

24 Procedure for Disputes

- 24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator/DRE within 14 days of the notification of the Project Manager's decision.
- 24.2 The Adjudicator/DRE shall give a decision in writing within 28 days of receipt of a notification of a dispute.
- 24.3 The Adjudicator/DRE shall be paid daily at the rate **specified in the PCC**, together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor. Whatever decision is reached by the Adjudicator/DRE, either party may refer that decision to an Arbitrator within 28 days of the Adjudicator's /DRE's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's /DRE's decision shall be final and binding.
- 24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC**.

The Arbitrator(s) shall give a decision in writing within 120 days of start of the proceedings unless otherwise agreed to by the Parties. The Arbitrators shall entertain only those issues which have been earlier referred to the Adjudicator/Dispute Review Expert and either party is dissatisfied with the decision given by the Adjudicator/Dispute Review Expert.

25. Corrupt And Fraudulent Practices

- 25.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix to the GCC.
- 25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information shall be disclosed as and when such payments are made or agreed to, and compliance with the disclosure requirement shall be furnished, while submitting each monthly statement for payments; such

disclosure must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

B. Time Control

26. Program

- 26.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a revised Program (revising the program given along with the bid) including Environmental Management Plan showing the general methods, arrangements, order, and timing for all the activities in the Works along with monthly cash flow forecasts.
- 26.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 26.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period **stated in the PCC**. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount **stated in the PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.
- 26.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.
- 26.5 The Contractor shall furnish monthly progress reports as directed by the Project Engineer by 7th of the succeeding month. The report shall include charts and detailed descriptions of the progress of identified activities, photographs showing status of progress at site, records of Contractor's personnel and equipment, Quality Assurance documents, comparison of actual and planned progress as per program.

27. Extension of the Intended Completion Date

- 27.1 The Project Manager shall extend the Intended Completion Date including milestones if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date as per agreed milestones without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur

additional cost.

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

28. Acceleration

- 28.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.
- 28.2 If the Contractor's priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

29. Delays Ordered by the Project Manager

- 29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

- 30.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. (Which will be held at the place **indicated in PCC**. The periodicity to be fixed by Project Manager / Contractor jointly). The business of a management meeting shall be to review the progress of construction with reference to the construction program given in accordance with GCC 26.1, the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

- 31.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the

Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

- 31.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

32. Quality Assurance

- 32.1 The Contractor shall institute Quality Assurance (QA) and Quality Control (QC) systems in accordance with Quality Assurance Plan to demonstrate compliance with the requirements of the Contract as approved by the Project Manager.
- 32.2 Compliance with the QA/QC systems shall not relieve the Contractor of any of his duties obligations or responsibilities under the Contract.

33. Tests

- 33.1 The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently.
- 33.2 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

34. Identifying and Correction of Defects

- 34.1. The Project Manager shall check the Contractor's work and notify the Contractor of any defects that are found specifying a time by which it should be corrected. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
- 34.2 The contractor shall permit the Employer's Technical auditor to check the contractor's work and notify the Project Manager and Contractor of any defects that are found. Such a check

shall not affect the Contractor's or the Project Manager's responsibility as defined in the Contract Agreement

34.3 The Project Manager shall give notice to the Contractor of any Defects [specifying a time limit by which it should be corrected] before the end of the Defects Liability Period, which begins at Completion, and is **defined in the PCC**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.4 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

35. Uncorrected Defects

35.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected and the Contractor shall pay this amount. .

Note: 1. Where in certain cases, the technical specifications provide for acceptance of works within specified tolerance limits at reduced rates, Engineer will certify payments to Contractor accordingly.

2. Where the failure to correct a particular defect within the specified time is considered as a fundamental breach of contract a notice should be given to the contractor as stated in GCC 57.2(e).

D. Cost Control

36. Contract Price

36.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price

37.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.

(a) If the quantity of work executed exceeds the quantity of the item in BOQ beyond the higher specified limit the Project Manager shall fix the rate to be applied for the additional quantity of the work executed.

(b) If the quantity of work executed less than the quantity

of the item in BOQ lesser than the lower specified limit, the Project Manager shall fix the rate to be applied for whole of the quantity of the work so executed.

37.2. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

37.3 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

38. Variations

38.1 All Variations shall be included in updated Programs, produced by the Contractor.

38.2 The Contractor shall provide the Project Manager with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

38.3 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 37.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

38.4 If the Contractor's quotation is unreasonable, [*or if contractor fails to provide the Project Manager with a quotation within a reasonable time specified by Project Manager in accordance with GCC38.2*] the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs

38.5 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

38.6 The Contractor shall not be entitled to additional payment for

costs that could have been avoided by giving early warning.

39. Cash Flow Forecasts	39.1 When the Program, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall be in Indian Rupees.
40. Payment Certificates	40.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously along with details of measurement of the quantity of works executed in a tabular form approved by the Project Manager. 40.2 The Project Manager shall check the details given in the Contractor's monthly statement and within 14 days certify the amounts to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amount and under conditions set forth in GCC Sub-Clause 49.4 <i>[Secured Advance]</i> 40.3 The value of work executed shall be determined by the Project Manager after due check measurement of the quantities claimed as executed by the contractor 40.4 The value of work executed shall comprise of the value of the quantities of work in the Bill of Quantities that have been completed; 40.5 The value of work executed shall include the valuation of Variations and Compensation Events. 40.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
41. Payments	41.1 Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of contract & taxes to be deducted at source [TDS] as per applicable law. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at 8% per annum

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- 41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator/DRE or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated at the rate stated in GCC 41.1 above, from the date upon which the increased amount would have been certified in the absence of dispute.
- 41.3 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

**42. Compensation
Events**

42.1 The following shall be Compensation Events:

- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
- (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
- (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
- (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- (e) The Project Manager unreasonably does not approve a subcontract to be let.
- (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
- (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

- (i) The advance payment is delayed.
- (j) The effects on the Contractor of any of the Employer's Risks.
- (k) The Project Manager unreasonably delays issuing a Certificate of Completion.

42.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

42.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

42.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

43. Tax

43.1 The rates quoted by the Contractor shall be deemed to be inclusive of the VAT, Sales and other taxes that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source [TDS] as per applicable law.

43.2 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price.

44. Currencies

44.1 All payments shall be made in Indian Rupees.

45. Price Adjustment

45.1 Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants and other

inputs to the works in accordance with the principles and procedures outlined below. A table of adjustment data is **included in the PCC** which indicates the coefficients of various inputs and the sources of indices for various schedules of BOQ. If the PCC does not include a table of adjustment data this sub clause shall not apply and there shall be no price adjustment.

- (a) The price adjustment according to sub para (d) below, shall apply for the work done from the start date given in the PCC up to the end of the Intended Completion Date. If there is delay in completion beyond such date for reasons attributable to the contractor, the Price Adjustment for the work carried out during such period, for reasons attributable to the Contractor, shall be regulated by sub-para (g) below.
- (b) The Contract Price shall be adjusted to take account of any increase or decrease in cost after the base date, which affect the Contractor in performance of obligations under the Contract.
- (c) The total value (R) of the work done during the specified period [GCC 40.1] shall be as under:

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

Where,

‘ R_{sn} ’ is the value of work done during the specified period to which the price adjustment shall be applied for the relevant schedule of Bill of Quantities (BOQ) specified in P.C.C during the specified period, and represented as under:

$R_{sn} = (V_{sn} + S_{sn})$ minus (amount of secured advance recovered in the same period + value of works executed under variations for which price adjustments will be worked separately based on terms mutually agreed between the Project Engineer and the Contractor)

where,

V_{sn} is the total value of work done during the specified period for the respective schedule of BOQ, and

S_{sn} is the secured advance paid during the specified

period for the respective schedule of BOQ,

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

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

where,

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

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

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

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

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

- (e) The cost indices or reference prices stated in the tables of adjustment data given in PCC shall be used. The base date shall be the date 28 days prior to the date of opening of bids.
- (f) If the Contractor fails to complete the Works within the Intended Completion date, adjustment of prices

thereafter shall be made using either:

- (i) index or price applicable for each cost element tabulated in the tables of adjustment data on the specified date prior to the expiry of the Intended Completion Date, or
- (ii) the current index or price applicable for the period in question whichever is more favourable to the Employer.
- (g) The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be varied by the Project Manager if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.
- (h) Unless otherwise **stated in the P.C.C.**, the Price adjustment shall be done in each monthly Interim Payment Certificate [IPC]. The coefficients and indices are given in the Tables of Adjustment Data in Contract data.

To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs

46. Retention

- 46.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works
- 46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. On completion of the whole works the Contractor may substitute the balance retention money with an “on demand” Bank guarantee.

47. Liquidated Damages

- 47.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestones as stated in the

PCC).. The total amount of liquidated damages shall not exceed the amount **defined in the PCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

Time is the essence of the contract and payment or deduction of liquidated damages shall not relieve the contractor from his obligation to complete the work as per agreed construction program and milestones, or from any of the Contractor's other obligations and liabilities under the contract.

- 47.2 If the Intended Completion Date including milestones is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 41.1.

48. Bonus

- 48.1 Not used.

49. Advance Payment

- 49.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the PCC** by the date **stated in the PCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts in Indian Rupees equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively (*each instalment not less than Rs. 500,000*) reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.
- 49.2 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 Project Manager.
- 49.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation

Secured Advances

Events, Liquidated Damages.

- 49.4 The Engineer shall make advance payment in respect of materials intended for but not yet incorporated in the Works in accordance with conditions **stipulated in the PCC**.

50. Securities

- 50.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the PCC**, by a Nationalized or Schedule bank in India, and denominated. The Bank Guarantee for Performance Security and additional security for unbalanced bids shall be valid until a date 45 days from the date of issue of the Certificate of Completion.

51. Dayworks

- 51.1 Not used.

52. Cost of Repairs

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

E. Finishing the Contract

53. Completion

- 53.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

54. Taking Over

- 54.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

55. Final Account

- 55.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract at the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate within 56 days of receiving the contractor's revised account..

56. Operating and Maintenance Manuals

- 56.1 If “as built” Drawings [including a compact disk containing digitized drawings] and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the PCC**.
- 56.2 If the Contractor does not supply the Drawings [including a compact disk containing digitized drawings] and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 56.1, or they do not receive the Project Manager’s approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor.

57. Termination

- 57.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract after giving fourteen (14) days written notice.
- 57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
 - (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
 - (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager’s certificate;
 - (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
 - (f) the Contractor does not maintain a Security, which is required;
 - (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the PCC**; or
 - (h) if the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC Clause 25.1,

then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site..

- (i) The contractor has contravened Clauses 7 and 9 of GCC.
- (j) The contractor does not adhere to the agreed construction program and agreed environmental management plan [Clause 26 of GCC] and also fails to take satisfactory remedial action as per agreements reached in the management meetings [Clause 30 of GCC] for a period of 60 days.
- (k) The contractor fails to carry out of the instructions of the Project Manager within a reasonable time determined by the Project Manager in accordance with GCC Clause 15.1 and 22.
- (l) The contractor (in case of Joint Venture) has modified the composition of the joint venture and/or the responsibility of each member of the joint venture from what is stated in joint venture agreement without the prior approval of the Employer.

57.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 57.2 above, the Project Manager shall decide whether the breach is fundamental or not.

57.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

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

58. Payment upon Termination

58.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate less other recoveries due in terms of contract, less taxes to be deducted at source [TDS] as per applicable law, and less the percentage to apply to the value of the work not completed, as **indicated in the PCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

58.2 If the Contract is terminated for the Employer's convenience or

because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate less other recoveries due in terms of the contract and less taxes due to be deducted at source [TDS] as per applicable law..

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| 59. Property | 59.1 | All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default. |
| 60. Release from Performance | 60.1 | If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made. |
| 61. Suspension of Bank Loan or Credit | 61.1 | <p>In the event that the Bank suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made:</p> <p>(a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Bank's suspension notice.</p> <p>(b) If the Contractor has not received sums due it within the 28 days for payment provided for in Sub-Clause 40.1, the Contractor may immediately issue a 14-day termination notice.</p> |

APPENDIX TO GENERAL CONDITIONS

Bank's Policy- Corrupt and Fraudulent Practices

Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

“Fraud and Corruption:

1.16 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.¹⁸ In pursuance of this policy, 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;¹⁹
 - (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;²⁰
 - (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;²¹
 - (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;²²
 - (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to

¹⁸In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

¹⁹ For the purpose of this sub-paragraph, “*another party*” refers to a public official acting in relation to the procurement process or contract execution. In this context, “*public official*” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

²⁰ For the purpose of this sub-paragraph, “*party*” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

²¹ For the purpose of this sub-paragraph, “*parties*” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other's bid prices or other conditions.

²² For the purpose of this sub-paragraph, “*party*” refers to a participant in the procurement process or contract execution.

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

- (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 1.16(e) below.
- (b) will reject a proposal for award if it determines that the bidder recommended for award, or 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) will declare misprocurement and cancel the portion of the loan allocated to a contract if it 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 or the implementation 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) will sanction a firm or individual, at any time, in accordance with the prevailing Bank's sanctions procedures,²³ including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated²⁴;
- (e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank."

²³ A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

²⁴ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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.

Section IX. Particular Conditions of Contract

The following Particular Conditions of Contract (PCC) shall supplement and/ or amend the General Conditions of Contract (GCC) .Whenever there is a conflict, the provisions herein shall prevail over those in GCC.

A. General	
GCC 1.1 (d)	The financing institution is: World Bank
GCC 1.1 (r)	The Employer is The Development Commissioner (MSME), Ministry of Micro Small and Medium Enterprises, Government of India 7th Floor, A-Wing, Room No.-723A, Nirman Bhawan, Maulana Azad Road, New Delhi-110108 Contract signing authority for and on behalf of the Employer: The Principal Director, Central Institute of Tool Design, Balanagar, Hyderabad - 500 037, India
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be <i>15 (Fifteen) months including monsoon period from the date of award of contract</i>
GCC 1.1 (y)	The Project Manager/Engineer is M/s Tata Consulting Engineers Ltd.
GCC 1.1 (aa)	The Site is located at Plot No.- 06, IC-Pudi, near APSEZ, at Achutapuram, Visakhapatnam District, Andhra Pradesh
GCC 1.1 (dd)	The Start Date shall be one week after the date of issue of notice to proceed with works to the contractor.
GCC 1.1 (hh)	The Works consist of Construction of New Technology Centre at Pudi, Visakhapatnam Identification number of Contract is NCB No: AB-30028/38/2016/AB Section II-DCMSME/WORKS/TC- Pudi, Visakhapatnam
GCC 2.2	Sectional Completions are: <i>For Training, Production and Utility Buildings, the completion period shall</i>

	<i>be 12 months from the date of award of contract</i>		
GCC 2.3 (i)	The following documents also form part of the Contract: <i>[list documents]</i>		
	S. No.	Document	Description of the document
	1.	Construction Methodology	Construction methodology given in bid amended as per comments of employer given in letter of acceptance.
	2.	Quality control	Quality control procedures and assurance plans given in the bid and amended as per comments of Employer given in letter of acceptance.
GCC 3.1	The language of the contract is <i>English</i>. The law that applies to the Contract is the laws of Union of India.		
GCC 5.1	The Project Manager <i>shall not</i> delegate any of his duties and responsibilities.		
GCC 7.1	The ceiling for sub-contractor is 25%		
GCC 8.1	Schedule of other contractors: <i>NA</i>		
GCC 9.1	Key Personnel and equipment: <i>[insert Schedule of Key Personnel and equipment as indicated in accepted bid& construction methodology]</i> .		
GCC 13.1	The minimum insurance amounts and deductibles shall be:		
	S.No.	Description	Minimum cover for Insurance
	(i)	Works and Plant and Materials which are incorporated in works	As required
	(ii)	Loss or damage to Construction Equipment	As required
	(iii)	Other Property	As required
	(iv)	Personal injury or death insurance:	As required

		a) for other people;		
		b) for Contractor's Employees	In accordance with the statutory requirements applicable in India	
GCC 14.1	Site Data are: <i>Geotechnical report and topographical survey shall be shared with the successful bidder</i>			
GCC 16	The works completion period and milestones to be followed in accordance with Section VII – Works Requirements			
GCC 20.1	The Site Possession Date(s) shall be: <i>within one week from the date of award of contract</i>			
GCC 23.1 & GCC 23.2	Name of the agreed Adjudicator/Dispute Review Expert (insert name before signing contract). Appointing Authority for the Adjudicator/Dispute Review Expert: <i>Institution of Engineers, Delhi</i>			
GCC 24.3	Daily rate and types of reimbursable expenses to be paid to the Adjudicator/Dispute Review Expert: <i>Rs. per day and reimbursable expenses – boarding/lodging/travel etc. as per actuals.</i>			
GCC 24.4	The procedure for arbitration will be as follows: (a) In case of Dispute or difference arising between the Employer and a domestic contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Indian Council of Arbitration Note: <i>[Sub-para (b) is applicable in case of contract award to foreign contractors]</i>. (b) In the case of dispute with a Foreign contractor the dispute shall be settled in accordance with provisions of UNCITRAL Arbitration Rules. The Arbitral Tribunal shall consist of three			

	Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties, and shall act a presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed, the Presiding Arbitrator shall be appointed by the Indian Council of Arbitration (c) If one of the parties fails to appoint its Arbitrator in pursuance of sub-clause (a) and (b) above within 30 days after receipt of the notice of the appointment of its Arbitrator by the other party, then the Indian Council of Arbitration both in cases of Foreign Contractor as well as Indian Contractor, shall appoint the Arbitrator. A certified copy of the order of the Indian Council of Arbitration, making such an appointment shall be furnished to each of the parties. (d) Arbitration proceedings shall be held at Delhi, India and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. (e) The decision of the majority of Arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the 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. (f) Where the value of the contract is INR 500 lakh and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority, namely the Indian Council of Arbitration (g) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.
B. Time Control	
GCC 26.1	The Contractor shall submit a revised Program including Environmental Management Plan for the Works (in such form and detail as the engineer shall reasonably prescribe) within 14 days of delivery of the Letter of

	Acceptance. <i>[This program should be in adequate detail and generally conform to the program submitted along with bid. Deviations if any from that should be clearly explained and should be satisfactory to the Engineer]</i>
GCC 26.3	The period between Program updates is 30 days. The amount to be withheld for late submission of an updated Program is Rs. 5,00,000
GCC 30	Venue of management meeting will be O/o DC MSME DELHI
C. Quality Control	
GCC 34.3	The Defects Liability Period is: 365 days from the date completion certificate is issued by the Project Manager (M/s Tata Consulting Engineers Ltd.)
GCC 40	New sub clause 40.7 as under is inserted The contractor shall submit to the project manager statements claiming payments against supply, installation, testing and commissioning of equipment (mentioned in BoQ) in accordance with the payment terms given below a. 75% on delivery of equipment at site in good condition along with manufacturer's test certificates etc. b. 15% on erection along with associated works and completion of testing and commissioning c. 10% on handing over and submission of operation manuals, warranty certificate and training of personnel
GCC 41.1	Paying Authority on behalf of Employer: The Principal Director, Central Institute of Tool Design, Balanagar, Hyderabad - 500 037, India
GCC 43.2	The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date of opening of Bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price.
D. Cost Control	

GCC 45.1	Price Adjustment : Not applicable											
GCC 46.1	The proportion of payments retained (Retention Money) shall be 6% from each bill subject to the maximum of 5% of final contract price.											
GCC 47.1	The liquidated damages for delay in completion of the works shall be as under: i. For Milestone 9 (Completion of Works for Training, Production and Utility block) defined in Section VII – Works Requirements:0.05% per day of 50% of contract price ii. For Completion of whole of the Works defined in Section VII – Works Requirements: 0.05% per day of the final Contract Price The maximum amount of liquidated damages is 10% of the final Contract Price.											
GCC 49.1	The amount of the advance payment are: <table><tr><td><u>Nature of Advance</u></td><td><u>Amount (Rs.)</u></td><td><u>Conditions to be fulfilled</u></td></tr><tr><td>1. Mobilization</td><td>10% of the Contract price</td><td>On submission of unconditional Bank Guarantee as per format provided in section X <i>(to be drawn not later than 2 months from the date of signing of the contract)</i></td></tr><tr><td>2. Secured advance for non-perishable materials brought to site <i>[Specify the item or items for which this will be given here]</i></td><td>75% of Invoice value or Market value – lower of the two.</td><td>a) The materials are in-accordance with the specification for Works; b) Such materials have been delivered to site, and are properly stored and protected against damage or deterioration to the satisfaction of the</td></tr></table>			<u>Nature of Advance</u>	<u>Amount (Rs.)</u>	<u>Conditions to be fulfilled</u>	1. Mobilization	10% of the Contract price	On submission of unconditional Bank Guarantee as per format provided in section X <i>(to be drawn not later than 2 months from the date of signing of the contract)</i>	2. Secured advance for non-perishable materials brought to site <i>[Specify the item or items for which this will be given here]</i>	75% of Invoice value or Market value – lower of the two.	a) The materials are in-accordance with the specification for Works; b) Such materials have been delivered to site, and are properly stored and protected against damage or deterioration to the satisfaction of the
<u>Nature of Advance</u>	<u>Amount (Rs.)</u>	<u>Conditions to be fulfilled</u>										
1. Mobilization	10% of the Contract price	On submission of unconditional Bank Guarantee as per format provided in section X <i>(to be drawn not later than 2 months from the date of signing of the contract)</i>										
2. Secured advance for non-perishable materials brought to site <i>[Specify the item or items for which this will be given here]</i>	75% of Invoice value or Market value – lower of the two.	a) The materials are in-accordance with the specification for Works; b) Such materials have been delivered to site, and are properly stored and protected against damage or deterioration to the satisfaction of the										

	Project Manager. c) the Contractor's records of the requirements, orders, receipt and use of materials are kept in a form approved by the Project Manager and such records shall be available for inspection by the Project Manager; d) The contractor has submitted with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Project Manager for the Purpose of valuation for material and providing evidence of ownership and payment thereof; e) Ownership of such materials shall be deemed to vest in the Employer for which the Contractor has submitted an Indemnity Bond in an acceptable format; and f) The quantity of materials are not excessive and shall be used within a reasonable time as determined by the Project Manager.
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	Repayment of advance payment for mobilization: The 10% advance shall be repaid with percentage deductions from the interim payments certified by the Engineer under the Contract. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the contractor has reached not less than 15 percent of the Contract Price or 3 months from the date of payment of advance, whichever period concludes earlier, and shall be made at the rate of 15% of the amounts of all Interim Payment Certificates until such time as the advance has been repaid, subject to the condition that the entire advance shall be completely repaid prior to the last payment due. Repayment of secured advance: The advance shall be repaid from each succeeding monthly payments to the extent materials [<i>for which advance was previously paid pursuant to Clause 49 of GCC and 49.1(2) of PCC.</i>] have been incorporated into the Works.
GCC 50	The successful bidder shall deliver the performance security to The Principal Director, Central Institute of Tool Design, Balanagar, Hyderabad - 500 037, India (who shall sign the Contract on behalf of Employer i.e. The Development Commissioner (MSME), Ministry of Micro Small and Medium Enterprises, Government of India)
GCC 50.1	The Performance Security for 5 percent of contract price plus Rs. as additional security for unbalanced bids [<i>in terms of ITB Clause 35.5</i>] The standard form of Performance Security acceptable to the Employer shall be an <u>unconditional</u> Bank Guarantee from a Scheduled or Nationalized bank in India of the type as presented in Section X of the Bidding Documents.
E. Finishing the Contract	
GCC 56.1	*The operating and maintenance manuals are required to be submitted before making a request for issue of certificate of completion of whole of works * The “as-built” drawings including a compact disc containing digitized drawings in 2 sets are required to be submitted before issue of certificate of completion of whole of the works
GCC 56.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals required in G.C.C. 56.1 is the total amount due on issue of completion certificate

GCC 57.2 (g)	The maximum number of days is 200 days
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is 20%.

Appendices

Appendix 1

Salient Features of Labour & Environment Protection Laws

**SALIENT FEATURES OF SOME MAJOR LABOUR LAWS
APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND
OTHER CONSTRUCTION WORK**

(The law as current on the date of bid opening will apply)

Labour Laws	(a) <u>Workman Compensation Act 1923</u> : The Act provides for compensation in case of injury by accident arising out of and during the course of employment. (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 the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees. (c) <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 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) <u>Maternity Benefit Act 1951</u>: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc. (e) <u>Contract Labour (Regulation & Abolition) Act 1970</u>: 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. (f) <u>Minimum Wage Act 1948</u>: The Employer is supposed to
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	pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a schedule employment. Construction of Buildings, Roads, Runways are schedule employments. (g) <u>Payment of Wages Act 1936</u>: It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers. (h) <u>Equal Remuneration Act 1979</u>: 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. (i) <u>Payment of Bonus Act 1965</u>: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act. (j) <u>Industrial Disputes act 1947</u>: 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. (k) <u>Industrial Employment (Standing Order) Act 1946</u>: 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. (l) <u>Trade Unions Act 1926</u>: 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
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	certain immunities from civil and criminal liabilities. (m) <u>Child Labour (Prohibition & Regulation) Act 1986</u>: 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 Building and Construction Industry. (n) <u>Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979</u>: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and bank etc. (o) <u>The Building and Other Construction works (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996</u>: All the establishments who carry on any building or other construction work and employs 10 or more workers and covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First –Aid facilities, Ambulance, Housing accommodations for workers near the 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) <u>Factories Act 1948</u>: the Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process (q) <u>Weekly Holidays Act -1942</u>
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**SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE
APPLICABLE FOR PROTECTION OF ENVIRONMENT.**

Laws on protection of Environment	1. The Water (Prevention and Control of Pollution) Act, 1974: This provides 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. 2. The Air (Prevention and Control of Pollution) Act, 1981: This 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. 3. The Environment (Protection) Act, 1986: 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. 4. The Public Liability Insurance Act, 1991, This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.
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Appendix 2

Tables of Adjustment Data

(Cl. 45 of GCC)

Not Applicable

Appendix -3
Appointment of Adjudicator / Dispute Review Expert

Suggested Draft of Letter of Appointment of Adjudicators in civil works contracts

Sub: _____(Name of the Contract)

To

Name and address of the Adjudicator / Dispute Review Expert

We hereby confirm your appointment as Adjudicator/ Dispute Review Expert for the above contract to carry out the assignment specified in this Letter of Appointment.

For administrative purpose _____(*name of the officer representing the Employer*) has been assigned to administer the assignment and to provide the Adjudicator / Dispute Review Expert with all relevant information needed to carry out the assignment on behalf of both the employer and the contractor. The services will be required during the period of contract for the work of (Name of the Contract)_____.

The Adjudicator / Dispute Review Expert shall visit the worksite once in 3 (three) months till the completion of the work indicated above or as specifically requested by Employer/ Contractor for the period upto the end of defects liability period with prior intimation to the Employer and the contractor. The duration of each visit shall ordinarily be for one day only. These durations are approximate and (*Name of the employer and Name of the Contractor*) may find it necessary to postpone or cancel the assignment and/or shorten or extend the duration.

The appointment will become effective upon confirmation of letter by you. The appointment of Adjudicator/ Dispute Review Expert shall be liable for termination under a 30 (thirty) days written notice from the date of issue of the notice, if both Employer and the Contractor so desire. Also the appointment shall automatically stand terminated 14 days after the defect notice / correction period as stated in Clauses 23 and 24 of the Conditions of Contract is over.

The Adjudicator/ Dispute Review Expert will be paid a fee of Rs. _____(Rupees _____ only) per each day of visit at the worksite. The actual expenses for boarding and traveling in connection with the assignment will be reimbursed to the Adjudicator/ Dispute Review Expert. The Adjudicator/ Dispute Review Expert will submit a pre-receipted bill in triplicate to the employer indicating the date of the visit, fees for the visit and a proof in support of the actual expenditure [only for items valued above Rs. 200 each] incurred by him against boarding, lodging and traveling expenses after performing the visit on each occasion. The Employer will make the admissible payment(both the Employer's and the Contractor's share) to the Adjudicator/ Dispute Review Expert within 30 days of the

receipt of the bill. The Contractor's share on this account(half the paid amount) will be recovered by the Employer from the Contractor's bills against the work.

In accepting this assignment, the Adjudicator/ Dispute Review Expert should understand and agree that he is responsible for any liabilities and costs arising out of risks associated with travel to and from the place of emergency repatriation, loss or damage to personal/professional effects and property. The Adjudicator/ Dispute Review Expert is advised to effect personal insurance cover in respect of such risks if he does not already have such cover in place. In this regard, the Adjudicator/ Dispute Review Expert shall maintain appropriate medical, travel, accident and third-party liability insurance. The obligation under this paragraph will survive till termination of this appointment.

Procedures for resolution of disputes by the Adjudicator/ Dispute Review Expert is described in the contract of _____(name of the contract) between the employer and the contractor vide clause no.24 of the General Conditions of Contract. Your recommendation should be given in the format attached, within 28 days of receipt of a notification of dispute.

The Adjudicator/ Dispute Review Expert will carry out the assignment in accordance with the highest standard of professional and ethical competence and integrity, having due regard to the nature and purpose of the assignment, and will conduct himself in a manner consistent herewith. After visiting the worksite, the Adjudicator / Dispute Review Expert will discuss the matter with the Employer and if necessary with the Contractor before arriving at any decision.

The Adjudicator/ Dispute Review Expert will agree that all knowledge and information not within the public domain, which may be acquired while carrying out this service shall be all time and for all purpose, regarded as strictly confidential and held in confidence, and shall not be directly or indirectly disclosed to any party whatsoever, except with the permission of the employer and the contractor. The Adjudicator's decision should be communicated in the form of a speaking order specifying the reasons.

The Adjudicator/ Dispute Review Expert will agree that any manufacturing or construction firm with which he might be associated with, will not be eligible to participate in bidding for any goods or works resulting from or associated with the project of which this consulting assignment forms a part

Read and Agreed

Name of Adjudicator/ Dispute Review Expert
Signature

Place:

Date:

Name of Employer

Signature of authorized representative of Employer

Name of the Contractor

Signature of authorized representative of Contractor

Attachment: Copy of contract document between the employer and contractor and format for recommendation.

SUMMARY OF ADJUDICATOR'S RESPONSIBILITIES

The Adjudicator has the following principal responsibilities:

1. Visit the site periodically.
2. Keep abreast of job activities and developments.
3. Encourage the resolution of disputes by the parties.
4. When a dispute is referred to it, conduct a hearing (no legal presentation), complete its deliberations, and prepare a recommendations in a professional and timely manner(as per sample format)

Sample Format of Adjudicator's Recommendation

[Project Name] Recommendation of Adjudicator

Dispute No. XX [NAME OF DISPUTE]

Hearing Date:_____

Dispute

Description of dispute. A one or two sentence summation of the dispute.

Contractor's Position

A short summation of the contractor's position as understood by the Adjudicator.

Employer's Position

A short summation of the Employer's position as understood by the Adjudicator.

Recommendation

The Adjudicator's specific recommendation for settlement of the dispute. (*The recommended course is consistent with the explanation*).

Explanation

(*This section could also be called Considerations, Rationale, Findings, Discussion, and so on.*)

The Adjudicator's description of how each recommendation was reached.

Respectfully submitted,

Date : _____

Date : _____

Date : _____

Section X - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

Letter of Acceptance

[letterhead paper of the Employer]

[insert date]

Identification No and Title of Contract: *[insert identification number and title of the Contract]*

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

This is to notify you that your Bid dated *[insert date]* for execution of the *[insert name of the Contract and identification number, as given in the PCC]* for the Contract Price *[insert amount in numbers and words]* as corrected and modified²⁵ in accordance with the Instructions to Bidders is hereby accepted by our Agency.

[insert one of the following (a) or (b) options]

- (a) We accept that *[insert name proposed by bidder]* be appointed as the Adjudicator/Dispute Review Expert [DRE].²⁶
- (b) We do not accept that *[insert name proposed by bidder]* be appointed as Adjudicator/DRE, and by sending a copy of this Letter of Acceptance to *[insert name of the Appointing Authority]*, we are hereby requesting *[insert name]*, the Appointing Authority, to appoint the Adjudicator/DRE in accordance with GCC 23.²⁷

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]

You are hereby requested to furnish Performance Security, plus additional security for unbalanced bids in terms of ITB clause 35.5, in the form detailed in ITB Clause 42 for an

²⁵ Delete “corrected and” or “and modified” if not applicable. See Notes on Standard Form of Agreement, next page.

²⁶ To be used only if the Contractor disagrees in the Bid with the Adjudicator proposed by the Employer in the Instructions to Bidders, and has accordingly offered another candidate.

²⁷ To be used only if the Contractor disagrees in the Bid with the Adjudicator proposed by the Employer in the ITB, has accordingly offered another candidate, and the Employer does not accept the counterproposal.

amount of Rs. ____ within 21 days of the receipt of this letter of acceptance, valid upto 28 days from the date of completion i.e. upto and visit this office to sign the contract, failing which action as stated in ITB Clause 42.2 will be taken.

We have reviewed the construction methodology submitted by you along with the bid in response to ITB Clause 16 and our comments are given in the attachment. You are requested to submit a revised Program including environmental management plan as per Clause 26 of General Conditions of Contract within 14 days of receipt of this letter of acceptance.

Yours faithfully,

Authorized Signature.....

Name and Title of Signatory.....

Name of Agency.....

Issue of Notice to proceed with the work

(letterhead of the Employer)

_____ (date)

To

_____ (name and address of the Contractor)

Dear Sirs:

Pursuant to your furnishing the requisite security as stipulated in ITB clause 42.1, insurance policy as per GCC 13, construction methodology as stated in letter of acceptance and signing of the contract agreement for the construction of _____ @ a Bid Price of Rs. _____, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of
signatory authorized to sign on
behalf of Employer)

Contract Agreement

THIS AGREEMENT made theday of,, between **The Principal Director, Central Institute of Tool Design, Balanagar, Hyderabad - 500 037, India (on behalf of Employer i.e. The Development Commissioner (MSME), Ministry of Micro Small and Medium Enterprises, Government of India.** (hereinafter “the Employer”), of the one part, and *[name of the Contractor]*.(hereinafter “the Contractor”), of the other part:

WHEREAS the Employer desires that the Works known as*[name of the Contract]*.should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) this Agreement
 - (b) the Letter of Acceptance
 - (c) the Contractor’s Bid including completed schedules and priced bill of quantities,
 - (d) the Addenda No’s *[insert addenda numbers if any]*.
 - (e) the Particular Conditions of contract
 - (f) the General Conditions of contract;
 - (g) the Specifications
 - (h) the Drawings; and
 - (i) Construction Program, Methodology, Quality Assurance Program and Environmental Management Plan
 - (j) Joint Venture Agreement [for JVs only]
 - (k) Any other document listed in PCC
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[name of the borrowing country]*. . . .on the day, month and year indicated above.

Signed by: _____
for and on behalf of the Employer

Signed by: _____
for and on behalf the Contractor

in the
presence of: _____
Witness, Name, Signature, Address, Date

in the
presence of: _____
Witness, Name, Signature, Address, Date

Performance Security (Bank Guarantee)

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Employer]*

Date: *_ [Insert date of issue]*

PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *_ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *_ [insert name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*,¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, 2...², and any demand for payment under it must be received by us at this office indicated above on or before that date.

¹ The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

² Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

[signature(s)]

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

Advance Payment Security

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Insert name and Address of Employer]*

Date: *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *[insert name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum *[insert amount in figures]* () *[insert amount in words]* is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* () *[insert amount in words]*²⁸ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
- (b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Applicant on its account number *[insert number]* at *[insert name and address of Applicant's bank]*..

²⁸The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the *[insert day]* day of *[insert month]*, 2 *[insert year]*,² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

[signature(s)]

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

² Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: “The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]**[one year]*, in response to the Beneficiary’s written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”

Retention Money Security

Demand Guarantee

_____ *Bank's name and address of issuing branch or office*

Beneficiary: _____ *[Name and Address of Employer]*

Date: _____

RETENTION MONEY GUARANTEE NO.: _____

We have been informed that _____ *[name of contractor]* (hereinafter called "the Contractor") has entered into Contract No. _____ *[reference number of the contract]* dated _____ with you, for the execution of _____ *[name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment, payment of _____ *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.

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 Rupees]* (_____) *[amount in words]*¹ upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract without cavil or argument.

It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Contractor on its account number _____ at _____ *[name and address of Bank]*.

This guarantee shall expire, at the latest, 21 days after the date when the Employer has received a copy of the Defects Liability Certificate issued by the Project Manager. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

[Signature(s)]

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

1. The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.