



मूल कोशिका विज्ञान एवं पुनर्योजी औषधि संस्थान (डीबीटी-ईनस्टेम)
जैव प्रौद्योगिकी विभाग, भारत सरकार के अधीन स्वायत्त संस्थान
**Institute for Stem Cell Science and Regenerative
Medicine (DBT- inStem)**
AI under Department of Biotechnology, Govt. of India
जीकेवीके पोस्ट, बेल्लारी रोड, बैंगलोर 560065 -
GKVK Post, Bellary Road, Bangalore, 560065, India



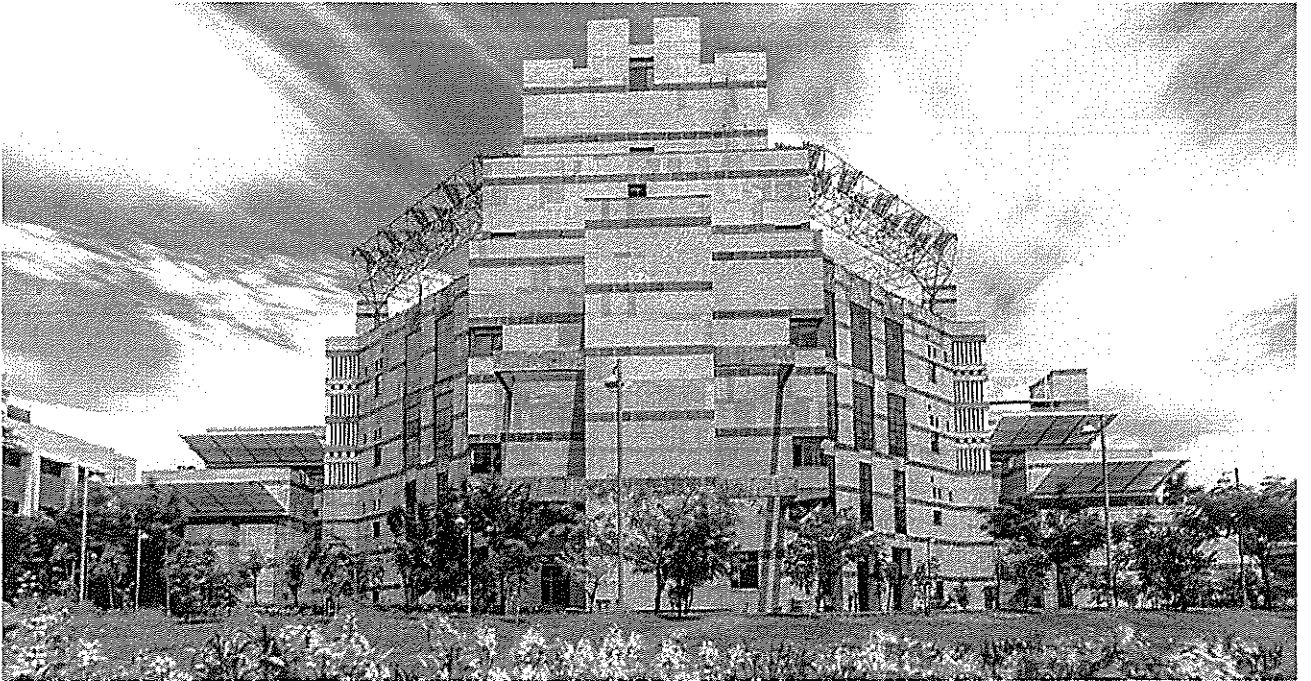
E-TENDER NOTICE

Tender Document- Volume -I

For

**“inStem – Proposed construction of the chemical hood
facility on the third floor of the laboratory building”**

inStem/Maint(Civil)/15021/3/NleT- 82/2024-25 DT. 12.02.2025.





Name of the work:- “inStem – Proposed construction of the chemical hood facility on the third floor of the laboratory building”.

TENDER NOTICE NO.: inStem/Maint(Civil)/15021/3/NleT- 82/2024-25 DT. 12.02.2025.

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|  | <p>मूल कोशिका विज्ञान एवं पुनर्योजी औषधि संस्थान (डीबीटी-ईनस्टेम) जैव प्रौद्योगिकी विभाग, भारत सरकार के अधीन स्वायत्त संस्थान Institute for Stem Cell Science and Regenerative Medicine (DBT- inStem) AI under Department of Biotechnology, Govt. of India जीकेवीके पोस्ट, बेल्लारी रोड, बैंगलोर 560065 - GKVK Post, Bellary Road, Bangalore, 560065, India</p> |  |
|---|---|---|

NOTICE INVITING E-TENDER

E-TENDER NOTICE NO.: inStem/Maint(Civil)/15021/3/NIE-T- 82/2024-25 DT. 12.02.2025..

E- tenders in a single stage two-cover system (Technical and price bid) are invited on behalf of The Director, inStem from the eligible contractors who have executed similar nature and magnitude of works, in respect of the work as detailed below up to 11:00 Hours on 26.02.2025.

A. Details of Tender:

1. **Website Url:** <https://dbt.ewizard.in> Bidders are advised to follow the instructions provided in the "Instructions to the participating bidders" in Section No. C of this NIE-T.
2. **Name of the work:** "inStem – Proposed construction of the chemical hood facility on the third floor of the laboratory building".

3. Brief details of Tender:

| | | |
|-----|------------------------------------|---|
| 1. | Estimated cost (ECPT) | Rs. 29,75,720.00 (including GST @ 18%) |
| 2. | Earnest Money Deposit | Rs. 59,514.00/- (Fifty-nine thousand five hundred and fourteen rupees only). <i>To be paid through E-payment/NEFT in the E-wizard portal or any other instrument indicated in part D of this NIT.</i> |
| 3. | Completion period | 60 days. |
| 4. | Tender fee | NIL |
| 5. | Tender processing fee | As per the charges mentioned on the e-tender portal |
| 6. | E-tender uploading date and time | 12.02.2025 @ 15:00Hrs |
| 7. | Date of Pre-Bid Meeting | NA |
| 8. | Date and time of tender closing | 26.02.2025 @ 11:00hrs |
| 9. | Date of opening of technical cover | 26.02.2025 at 15:30 hrs onwards |
| 10. | Opening of the Price bid cover | Will be communicated separately to qualified bidder |

4. The site of the work is located at inStem, GKVK Campus, Bellary road, Bengaluru, Karnataka.


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B. Eligibility, Evaluation and Award Criteria:

The Bidder shall meet the following eligibility criteria and submit the relevant documentary evidence. The bid received without documentary evidence shall summarily be rejected.

- i) Bidders should submit Copies of valid registration details under the civil works category with Government organizations / Semi-Government organizations of State or Central Government or Public sector undertakings or Autonomous bodies of State or Central Government.
- ii) Turnover: Average annual financial turnover should be at least 30% of the estimated cost put to tender during the immediate last three consecutive financial years. The value of annual turnover figures shall be brought to current value by enhancing the actual turnover figures at a simple rate of 7% per annum.
- iii) Profit/loss: The bidders should not have incurred any loss (profit after tax should be positive) in more than two years during available last five consecutive balance sheets (balance sheet in case of private/public limited company means its standalone
- iv) E-financial statement and consolidated financial statement both), duly audited and certified by the Chartered Accountant.
- v) Similar nature of work experience: The Bidders should have satisfactorily completed in the last seven years in his own/firm name at least one similar nature of work cost not less than of **Rs. 23.81 lacs** or two similar works of each cost not less than **Rs. 17.85 lacs** or three similar works costing not less than **11.90 lacs**.
- vi) Similar nature of work means: *The bidder should have satisfactorily carried out building civil Engineering works for Premier Research Institutes/ Universities/ Public Sector Undertakings (PSUs) institutes/ Multinational Companies (MNCs) etc.*
- vii) Certificate of Registration for Goods Services Tax (GST).
- viii) Banker's Certificate from a Commercial Bank or Net worth Certificate: Banker's Certificate of the amount equal to **Rs. 11.90 lacs**, or Net worth certificate of minimum **Rs. 2.97 lacs** issued by certified Chartered Accountant with UDIN.
- ix) Affidavit in the following format on the bidder's company letter head shall have to be uploaded in the technical cover:

"I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of the institute, then I/we shall be debarred for bidding in institute works in future forever. Also, if such a violation comes to the notice of the institute before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee".

(Note: Work executed as a sub-contract or joint venture will not be considered for eligibility/ evaluation.)

The Bidder should submit the details of such completed works, in support of having completed these works, the Bidder should submit copies of the completion certificates from the owner companies indicating the name of work, the description of work done by the Bidder, value of contract executed by the bidder, date of start, date of completion (contractual and actual), value of the material supplied by the client. **If required, the evaluation of technical offers opened will be done with inspection of works executed by the bidders by the inStem committee.**

Evaluation and award of work: The technical offer of all the participants will be evaluated initially and the price offer of those participants who secures minimum marks and gets eligibility (ref. annexure-1 for eligibility scoring matrix), will be considered for further evaluation. Finally, the work will be awarded to the bidder whose offer was found to be the lowest and responsive bid.



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C. INSTRUCTIONS TO THE PARTICIPATING BIDDERS

The intending bidders must read the terms and conditions of this NIT carefully. Bidder should only submit the bid if considers himself/herself eligible and is in possession of all the documents required.

The bid should be submitted through e-Wizard portal (<https://dbt.euniwizarde.com/>) only and in the standard formats uploaded in the portal. Any other form of submission and change in the departmental formats will not be acceptable and summarily rejected.

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids. A bidder shall be deemed to have full knowledge of the system whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. Submission of a bid by a bidder implies that he/she has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the contract.

The bidders are required to submit soft copies of their bid electronically on the e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the e-Wizard Portal. For more information, bidders may visit the Portal (<https://dbt.ewizard.in>)

1. REGISTRATION PROCESS ON ONLINE PORTAL

- a) Bidders to enroll on the e-Procurement module of the portal <https://dbt.ewizard.in> by clicking on the link "Bidder Enrolment".
- b) The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. This would be used for any communication from the e-Wizard Portal.
- c) Bidders to register upon enrolment, with their valid Digital Signature Certificate (Class III Certificates with signing and Encryption key) issued by any Certifying Authority recognized by CCA India with their profile.
- d) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- e) Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.

- f) After registration send mail to Helpdesk: helpdeskeuniwizarde@gmail.com for Account activation.
- g) As per portal norms Registration Fee will be applicable.

2. TENDER DOCUMENTS SEARCH

- a) Various built-in options are available in the e-Wizard Portal like Department name, Tender category, estimated value, Date, other keywords, etc. to search for a tender published on the Online Portal.
- b) Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'Interested tenders' folder.
- c) The bidder should make a note of the unique Tender No assigned to each tender; in case they want to obtain any clarification/help from the Helpdesk.

3. BID PREPARATION

- a) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- c) Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.
- d) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLSX/PNG, etc. formats.

4. BID SUBMISSION

- a) Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b) The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.

- c) Bidders to note that they should necessarily submit their financial bids in the prescribed format given by department and no other format is acceptable.
- d) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.
- e) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- f) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- g) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- h) The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.
- i) As per portal norms Tender Processing Fee will be applicable.

5. AMENDMENT OF BID DOCUMENT

At any time prior to the deadline for submission of proposals, the department reserve the right to add/modify/delete any portion of this document by the issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

6. ASSISTANCE TO BIDDERS

- a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- b) Any queries relating to the process of online bid submission or queries relating to e- Wizard Portal, in general, may be directed to the e-Wizard Helpdesk. The contact number for the helpdesk is 8448288994/86/87/89/88/81/90/92/82 011-49606060, 07903269552, 9355030608, 9055030613, 7903810198, 9355030606, 9315620706, 9355030623, 9355030628, 8800526452, 9205898228, 9122643040, eprochelpdesk.01@gmail.com, eprochelpdesk.44@gmail.com,

NIET-82

- c) The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bid(s).
 - d) All payments should be done through e-Wizard Payment gateway.
7. **Bid Validity:** The offer submitted shall be valid for minimum 75 days from the date of the submission of the tender.

For site visit and for any queries please contact Senior Technical Officer-inStem, Civil Engineering office, GKVK campus, Bellary Road, Bengaluru-560065.Ph:080-6194-8166/8167 Email : krakshith@instem.res.in , rajesh@instem.res.in



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D. INFORMATIONS TO THE PARTICIPATING BIDDERS

1. **Security Deposit:** 2.5% of total value of the work done will be withheld as security deposit. The recovery on this account will be made from each running bills and final bill. The security deposit recovered will be released after successful completion of the defects liability period.
2. **Performance Guarantee:** The successful Bidder has to submit the performance guarantee for an amount of 3% of his / their tendered amount in the standard form prescribed in tender document. This performance guarantee will be returned to the contractor after the due date from the satisfactory completion of the work, providing the work has been carried out in accordance with the agreement provision and the same is not forfeited for any reason.
Note: In the case of PG amount is less than or equal to Rs.50,000/-, it has to submitted in the form of FD/DD/TDR/Banker's cheque and PBG form is not acceptable.

In the case where PBG amount is more than Rs.50,000/- along with the above instrument, PBG form will also be accepted. In the case of PBG submission, it shall be in the format annexed along with this tender document. Further, the successful bidder shall have to ensure that PBG issuing bank sent an SFMS to the inStem institute bank and details of the SFMS sent should be recorded on the BG. The details of the inStem bank may be obtained with the office of civil engineering on receipt of the LOA.

3. **Defects Liability Period:** Twelve (12) months from the date of completion of work.
4. The Director, inStem does not bind herself/himself to accept the lowest or any other tender and reserves the authority to reject any or all tenders without assigning any reason. All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete, in any respect, are liable to be rejected.
5. This Notice Inviting Tender (NIE-T) along with its annexures such as information and instructions to the participating bidders shall form part of the agreement.
6. The Director, inStem reserves the right to postpone the tender issue date, submission /opening date and to accept or reject all your tenders without assigning any reason.
7. The successful Bidder on the acceptance of his tender by the inStem shall within Ten (10) days from the stipulated date of start of the work, sign the formal contract.
8. he Bidder should ensure that rates quoted should appear only in the price schedule document and nowhere else, otherwise, the tender is liable to be rejected.
9. The Director, inStem reserves the right of accepting the whole or part of any tender and Bidder shall be bound to perform the same at the rate or amount quoted.
10. The successful Bidder shall be required to execute an agreement with the inStem for carrying out the work as per the agreed conditions. The cost of stamp paper for the agreement shall be borne by the contractor as per the state stamp act

11. The General conditions of contract of CPWD - GCC 2023 (maintenance works) with all the latest amendments and schedule annexed with this tender shall be applicable and form part of this work agreement. The annexed schedule shall be read as part of the CPWD-GCC-2023 (maintenance works) . The CPWD-GCC can be found and available for download in the link below [https://cpwd.gov.in/Publication/GCC CON Misc 30 Construction Works 2023.pdf](https://cpwd.gov.in/Publication/GCC_CON_Misc_30_Construction_Works_2023.pdf)
12. The rates shall be quoted inclusive of all taxes, worker welfare cess, levies etc. except GST, which shall be indicated separately at the end of the offer and as such nothing extra shall be payable.
13. Applicable deductions towards Income tax, workers welfare cess shall be deducted as per rules in force in each bill.
14. **Earnest Money deposit**

It may be noted that, on confirmation of availability of the EMD in the technical bid stage as per prescribed form, shall only be considered for opening of the bid further and all others without EMD will be rejected.

16.1. **Mode of Deposit Earnest Money:**

The Earnest Money is accepted only in the following forms:

- I. Banker's Cheque of a Commercial Bank
- II. Account Payee Demand Draft of a Commercial Bank
- III. Fixed Deposit Receipt (FDR) of a Commercial Bank
- IV. Insurance Surety Bonds
- V. Bank Guarantee from a Commercial Bank.
- VI. E-payment at E-wizard portal

Note : In the case of EMD in the form of (I) to (V), the original instrument of the EMD shall be submitted to the office of Civil engineering, inStem on or before the due date and time of opening the tender. If valid EMD not received on or before the opening of tender, the tender will be summarily rejected.

- 16.1.1. The FDR is pledged in favour of The Director, inStem, Bengaluru. It is in the tenderer's own interest to keep the FDR valid as long as it is required.
- 16.1.2. If the banks are closed on the last date of submission of tenders, the date is postponed suitably.
- 16.1.3. The MSME firms registered in NSIC under PP policy are exempted from payment of EMD for supply of goods and services only. Bidder should submit valid MSME UDYOG AADHAR MEMRANDOM.
- 16.1.4. The Bank Guarantee including e- Bank Guarantee submitted as a part of Earnest Money is

valid for a period of 90 days for single bid works and 180 days for two bid systems or more from the date of submission of the tender.

16.2. Refund of Earnest Money:

The earnest money of all the tenderers except the lowest tenderer is refunded immediately in the same form as bidders submitted:

- (a) after the expiry of stipulated bid validity period or
- (b) immediately after acceptance of the successful bidder, whichever is earlier.

16.3. Forfeiture of Earnest Money:

1. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the institute within 7 days after last date of submission of bids, then the institute shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
2. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the institute after expiry of 7 days after last date of submission of bids, then the institute shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
3. If a contractor fails to furnish the prescribed performance guarantee within the prescribed period, the earnest money is absolutely forfeited to the institute automatically without any notice.
4. In case of forfeiture of earnest money as prescribed in Para (1) and (2) above, the bidder shall not be allowed to participate in the re-tendering process of the work.



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METHOD OF PERFORMANCE
EVALUATION OF THE BIDDERS AND
PROFORMA OF SCHEDULES

ANNEXURE-1
METHOD OF PERFORMANCE EVALUATION OF THE BIDDERS


Name of work: inStem – Proposed construction of the chemical hood facility on the third floor of the laboratory building ”

inStem/Maint(Civil)/15021/3/NleT- 82/2024-25 DT. 12.02.2025

ECPT: Rs. 29.75 Lakhs

| Attributes | | Evaluation | | | | | |
|------------|---|------------------------|--|--|------|------|-------|
| (i) | Financial Strength | (20 Marks) | | (i) 60% marks for minimum eligibility criteria | | | |
| | (a) Average annual turnover (last 3 years) | 16 Marks | | (ii) 100% marks for twice the minimum eligibility criteria or more In between (i) & II) - on pro -rata basis | | | |
| | (b) Bankers Certificate/Net-worth certificate | 4 Marks | | | | | |
| (ii) | Experience in similar class of works | (20 Marks) | | (i) 60% marks for minimum eligibility criteria | | | |
| | | | | (ii) 100% marks for twice the minimum eligibility criteria or more | | | |
| | | | | In between (i) & II) - on pro -rata basis | | | |
| (iii) | Performance on works | | | | | | |
| | Time over run | (20 marks) | | | | | |
| | Parameter | calculation for points | | | | | |
| | | If TOR = | | 1.00 | 2.00 | 3.00 | >3.50 |
| | (i) Without levy of compensation | | | 20 | 15 | 10 | 10 |
| | (ii) With levy of compensation | | | 20 | 5 | 0 | -5 |
| | (iii) Levy of compensation not decided | | | 20 | 10 | 0 | 0 |
| (iv) | Performance of works (Quality) | (40 Marks) | | | | | |
| | (i) Outstanding | | | 40 | | | |
| | (II) Very good | | | 30 | | | |
| | (III) Good | | | 20 | | | |
| | (iv) Poor | | | 0 | | | |

Note :- 1. Minimum Of 50% of marks in each attributes and aggregate marks of minimum 60% is required for qualification.


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Proforma of Schedules

| SCHEDULE 'A' | | | |
|---------------------|--|---|------|
| SN | TITLE | PARTICULARS | PAGE |
| 1 | Notice Inviting Tender (NIT) No. | inStem/Maint(Civil)/15021/3/NIE-T- 82/2024-25 DT. 12.02.2025 | |
| 3 | Notice Inviting Tender details | i) NIE-T as published in Web site ii) NIE-T as Logged on to Web Site | |
| 4 | Scope and location of the work: | Enclosed | |
| 5 | List of drawings | Enclosed | |
| 6 | Time Schedule for the work: | Enclosed | |
| 7 | List of changes if any in specifications: | | |
| | a) Civil work - | Changes indicated | |
| 8 | Schedule of Quantities (Enclosed) - | Please refer Financial Bid | |

| SCHEDULE 'B' | | | | |
|--|--------------------------------|----------|--|----------------|
| Schedule of materials to be issued to the contractor | | | | |
| Sl. No | Description of item | Quantity | Rates at which the Materials will be charged to the contractor | Place of issue |
| 1 | 2 | 3 | 4 | 5 |
| 1. | Cement in bags | | | |
| 2. | Re-Bars for RCC | | | |
| 3. | Water for const. purpose | | <i>Ref.as per clause 34 of SCC</i> | |
| 4. | Electricity for const. purpose | | <i>Ref.as per clause 34 of SCC</i> | |
| 5. | | | | |
| 6. | | | | |

| SCHEDULE 'C' | | | |
|---|--|--|----------------------|
| Land earmarked for temp. infrastructures and Tools & plants to be hired to the contractor | | | |
| Sl.No | Description | Hire charges | Place of issue |
| 1 | 2 | 3 | 4 |
| 1. | Area for storage / site office (SCC-8) | <i>As per Clause SCC-8</i> | <i>Site premises</i> |
| 2. | Temporary Buildings (SCC-8) | <i>As per Clause SCC-8</i> | <i>Site premises</i> |
| 3. | Labour hutments (SCC- 8) | <i>No labour hutment permitted at site</i> | |
| 4. | | | |

| SCHEDULE 'D' | |
|---|------------|
| Extra schedule for specific requirements / documents for the work, if any Particularly for Security guidelines, Gate pass, lift, tower crane etc. | <i>Nil</i> |

| SCHEDULE 'E' | |
|---|------------|
| Schedule of component of Cement, Steel, other Materials, Labour, POL etc. for price escalation. | <i>NIL</i> |

| SCHEDULE 'F' | | |
|---|-------------------------------|---------------|
| Reference to CPWD - General Conditions of contract – 2023 for Maintenance works | | |
| Name of work: inStem – Proposed construction of the chemical hood facility on the third floor of the laboratory building | | As per NIT |
| Estimated cost of work : | <i>Rs.29,75,720.00</i> | As per NIT |
| i) Earnest money | <i>Rs.59,514.00</i> | As per NIT |
| ii) Performance Guarantee | <i>3% of tendered value</i> | As per Tender |
| iii) Security Deposit | <i>2.5% of tendered value</i> | As per Tender |

| General Rules & Directions : | |
|---|---|
| Tender inviting authority | <i>I/C Senior Engineer on behalf of The Director/inStem</i> |
| Maximum percentage for quantity of Items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3. | 100% |

| Definitions: | | |
|---------------------|--|---|
| 2(v) | Engineer-in-charge | <i>Ref General definitions</i> |
| 2(viii) | Accepting Authority | <i>I/C Senior Engineer on behalf of The Director/inStem</i> |
| 2(x) | Percentage of cost of materials and labour to cover all overheads & profits | <i>15% (Fifteen percent)</i> |
| 2(xii) | Department | <i>Ref General definitions</i> |
| 9(ii) | Standard Contract Form GCC for Item rate tender as modified & corrected up to date | <i>CPWD- GCC-2023 for maintenance works</i> |
| | | |

| | |
|---|----------------|
| Clause -1 | |
| i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance / WO. | <i>10 days</i> |
| ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above. | <i>10 days</i> |

| | |
|---|------------------------------|
| Clause -2 | |
| Authority for fixing compensation under clause 2. | <i>The Director / inStem</i> |

| | | | |
|--|--|--|--|
| Clause -5 | | | |
| Number of days from the date of issue of letter of acceptance/Work Order whichever is earlier for reckoning date of start. | <i>Immediate</i> | | |
| Mile stone(s) as per table given below: | | | |
| TABLE OF MILE STONE(S) | | | |
| Sl No. | Description of Milestone (Physical) | Time Allowed in days (from date of start) | Amount to be withheld in case of non-achievement of milestone |
| | | | |
| | | | |
| | | | |

| | |
|---|------------------------------|
| TIME ALLOWED FOR EXECUTION OF WORK | 60 days (as per NleT) |
|---|------------------------------|

| | | |
|--------------------------------------|--|-----------|
| Clause applicable – (6 or 6A) | Clause 6 for Manual Billing / Clause 6A for Computerized Billing | <i>6A</i> |
|--------------------------------------|--|-----------|

| | |
|---|---|
| Clause - 7 | |
| Gross work to be done together with net payment/ adjustment of advances for material collected, since the last such payment or being eligible to if any | <i>AS per Clause- 21 of SCC – Interim payment</i> |

| | | |
|---|---|--------------|
| Clause - 10A | | <i>.Nil.</i> |
| List of testing equipment to be provided by the contractor at the site lab. | | |
| 1 | 2 | 3 |
| 4 | 5 | 6 |

| | | |
|--|-----------------------|-------------------------------|
| Clause - 10B(ii) | | (Mobilisation Advance) |
| Whether Clause 10 B (ii) shall be applicable (If yes, Clause of Tender Condition to be followed) | NOT APPLICABLE | |

| | |
|---|-----------------------|
| Clause - 10C | |
| Component of labour expressed as percent of value of the work | NOT APPLICABLE |

| Clause - 10CA | | | | NOT APPLICABLE |
|----------------------|-------------------------------------|--|------------|-----------------------|
| S. No | Materials Covered under this Clause | Nearest Material for which All India Wholesale Price Index is to be followed | Basic Rate | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

Note: Base price for materials given above are only for regulating operation of clause 10-CA. The tenderers are requested to consider prevailing market rates while quoting the rates.

| | | |
|--|--|-----------------------|
| Clause - 10CC | | NOT APPLICABLE |
| Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column. | | 6 Months |

| | |
|--|-----------------------------|
| Clause - 11 | |
| Specifications to be followed for execution of this work | <i>a) Civil work : 2019</i> |

| | | |
|--------------------|---|--------------------------------|
| Clause - 12 | | |
| 12.2 & 12.3 | Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work | <i>As enclosed with Tender</i> |
| 12.5 | Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work | 100% |
| 12.5 | Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for maintenance work | 50% |

| | |
|---|------------------------------|
| Clause - 16 | |
| Competent Authority for deciding reduced rates. | <i>The Director / inStem</i> |

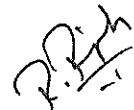
| | | | |
|---|---|---|--------------------------------------|
| Clause - 18 | | | <i>As necessitated for the work.</i> |
| List of mandatory machinery, tools & plants to be deployed by the contractor at site: | | | |
| 1 | 2 | 3 | |
| 4 | 5 | 6 | |

| Clause – 36(i) | | Requirement of Technical Representative(s) and recovery Rate | | | | |
|----------------|---|--|--|-------------------|-----|--|
| Sl. No. | Minimum Qualification of Technical Representative | Discipline | Designation (Principal Technical / Technical representative) | Min. Exp. In yrs. | No. | Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i). (Rupees in figures & words) |
| 1 | Diploma | Civil | Diploma Engineer | 5 | | Rs.15,000.00 |

Assistant Engineers / Scientific Officer- "C", retired from Govt. services that are holding Diploma, will be treated at par with Graduate Engineers.

| Clause - 42 | | |
|-------------|---|--|
| (i) | (a) Schedule / statement for determining theoretical quantity of cement on the basis of : | As per Civil Work Specifications of the Department |
| (ii) | Variations permissible on theoretical quantities. | |
| a | Cement | |
| | i) for works with estimated cost put to tender not more than Rs.5 Lakhs | 5% plus / minus |
| | ii) for works with estimated cost put to tender more than Rs.5 lakhs | 3% plus / minus |
| b | Bitumen for All works | 2.5% plus only & nil on minus side |
| c | Steel reinforcement and structural steel sections | (+) 5% for wastage, over and above (+) 5% / (-) 4% being variation in wastage. |
| d | All other materials. | Nil |

| RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION | | | |
|--|---------------------|--|---|
| S. No. | Description of Item | Rates in figures & words at which recovery shall be made from the Contractor | |
| | | Excess beyond permissible variation | Less use beyond the permissible variation |
| 1 | Cement | | |
| 2 | Steel reinforcement | | |
| 3 | Structural Sections | | |
| 4 | | | |



I/C Senior Engineer
iBRIC -inStem

GENERAL DEFINITIONS

GENERAL DEFINITIONS:

In the contract, the following expressions shall unless the context otherwise required have the meanings, hereby respectively assigned to them.

- i. The expression “works” or “work” shall unless there is something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional.
- ii. The “Site” shall mean the land / or other places on, into or through which work is to be executed under the contract, or any adjacent land, path or street which work is to be executed under the contract or any adjacent land, path or street through which may be allotted or used for the purpose of carrying out the contract.
- iii. The “Contractor or service provider” shall mean the individual or firm or company, whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignee of such individual or firm or firms or company.
- iv. “Department or institute” means the DBT-inStem which invites the tenders on behalf of The Director / inStem as specified in schedule ‘F’.
- v. The “Director” means the Director, inStem, Bangalore and his successors.
- vi. The “Engineer-In-Charge” or “Project Manager” means the Officer or the appropriate competent authority declared by the Director, inStem, and who shall supervise and be in charge of the work and who shall sign the contract on behalf of the Institute Director.
- vii. “inStem” shall mean the Institute for Stem-cell Science and Regenerative Medicine.
- viii. Accepting Authority shall mean the authority mentioned in Schedule – ‘F’
- ix. Excepted Risk means risks due to riots (other than those on account of contractor’s employees), war (whether declared or not), invasion, act of foreign enemies, hostilities, Civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightning and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting authority or causes solely due to user or occupation by inStem, the part of the works in respect of which a certificate of completion has been issued or a cause or a cause solely due to inStem faulty design of works.

- x. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard schedule of rates of the Government mentioned in Schedule – F' hereunder with the amendments thereto issued up to the date of receipt of the tender.
- xi. Tendered value means the value of the entire work as stipulated in the letter of award.
- xii. Date of commencement of work: The date of commencement of work shall be the date of start as specified in schedule 'F' or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.

GENERAL CONDITIONS OF
CONTRACT

GENERAL CONDITIONS OF CONTRACT

The General conditions of contract of CPWD (GCC 2023) for maintenance works with all the amendments and Performa schedule annexed with this tender shall be applicable and form part of agreement. The annexed schedule shall be read as part of the CPWD-GCC-2023. The CPWD-GCC can be found and available for download in the link below [https://cpwd.gov.in/Publication/GCC CON Misc 29 Maintenance Works 2023.pdf](https://cpwd.gov.in/Publication/GCC_CON_Misc_29_Maintenance_Works_2023.pdf)

To this extent an undertaking in the following format shall have to be provided by the bidders.

DECLARATION BY THE TENDERER

I hereby declare that I have gone through clearly and understood the General Conditions of Contract along with the schedules appended and other relevant formats available in the office of the Civil Engineering, DBT-inStem and in the CPWD website at [https://cpwd.gov.in/Publication/GCC CON Misc 29 Maintenance Works 2023.pdf](https://cpwd.gov.in/Publication/GCC_CON_Misc_29_Maintenance_Works_2023.pdf)

- 1) My offer submission for the tender, is after fully considering the above and also the other documents issued along with the tender.
- 2) I also confirm that the offer now submitted is totally in agreement with the General Conditions of Contract read in conjunction with the documents, drawings and specifications issued for this particular tender, except for commercial & technical deviation, if any, specifically brought out in my Techno-Commercial offer, submitted herewith.

Signature of the Bidder with seal

DETAILED TECHNICAL
SPECIFICATIONS

DETAILED TECHNICAL SPECIFICATIONS

The CPWD technical specifications-2019 (Vol.1 & 2) for Civil & PH works shall be applicable and form part of this agreement. Any discrepancies between the specifications in the schedule of quantities, particular specification given in the tender and in the CPWD technical specifications, the specifications in the schedule of quantities will prevail followed by particular specifications. However, such discrepancies shall have to be brought to the notice of the Engineer-in-Charge before execution and decision by the Engineer-in-Charge in this regard will be final and binding. The CPWD technical specifications-2019 (Vol.1 & 2) for Civil & PH works, available for download in the link below https://cpwd.gov.in/Documents/cpwd_publication.aspx

To this extent an undertaking in the following format shall have to be provided by the bidders.

DECLARATION BY THE TENDERER

- 1) I hereby declare that I have gone through clearly and understood the CPWD technical specifications-2019 (vol. 1& 2) available in the Office of the Civil engineering, DBT-inStem and in the CPWD website at https://cpwd.gov.in/Documents/cpwd_publication.aspx
- 2) My offer submission for the tender, is after fully considering the above and also the other documents issued along with the tender.
- 3) I also confirm that the offer now submitted is totally in agreement with the General Conditions of Contract read in conjunction with the documents, drawings and specifications issued for this particular tender, except for commercial & technical deviation, if any, specifically brought out in my Techno-Commercial offer, submitted herewith.

Signature of the Bidder with seal

SPECIAL CONDITIONS OF
CONTRACT

SPECIAL CONDITIONS OF CONTRACT

1. Before filling the tender, the tenderer shall check all the tender documents and will have to get immediate clarifications from the inStem on any point that he feels is vague or uncertain. No claim/damages or compensation will be entertained on this account.

2. **TENDERER TO VISIT SITE:**

Each tenderer must visit site before submitting his tender, visit the site of works, so as to ascertain the physical site conditions prices and availability and quality of materials according to specifications before submitting the quotations. No excuse regarding non-availability of any materials or changes in the price will not be entertained or extra allowed on that account.

The existing adjacent buildings belonging to Govt./private are in close proximity of the proposed construction, hence the contractor shall cater for all arrangements to carry out the work without causing any disturbance to the occupants by providing screens with bamboo matting or other suitable material approved by inStem. The contractor shall ensure that no dust or construction material falls near/around the existing buildings.

3. **EXECUTION OF WORK (PRICES TO INCLUDE):**

- i) The whole of the work as described in the Contract (including the Bill of Quantities, the specifications and all drawings pertaining thereto) and as advised by the institute from time to time is to be carried out and completed in all its parts to the entire satisfaction of the inStem. Any minor details of construction, which may not have been definitely referred to in this contract, but which are usual in sound building, road and all construction practice and essential to the work, are deemed to be included in this contract. Rates quoted in the Price bid document shall be inclusive of freights, taxes (GST shall be quoted separately) , such as octroi, Royalties, duties, excise, cess and seignories charges, turnover tax, etc., as well as transportation, so as to execute the contract as per the rules and regulations of Local Bodies, State Government and Government of India.

The rates quoted in the tender should also include all charges for:

- Labour
- Carrying
- Hauling
- Fixing
- Cleaning
- Making good and
- Maintenance etc.

- a) The contractor should arrange timely at his cost for all required.
 - i) Plant, machinery, scaffolding, formwork, ladders, ropes, nails, spikes, shuttering, temporary supports, platforms, tools, all materials etc., required for executing the work, and protecting them from weather and other normal/natural causes.
 - ii) Covering/protecting for the walling and other works, during inclement weather, strikes etc., as and when necessary and or as directed.
 - iii) All temporary canvas covers/covering, lights, tarpaulin, barricades, water shoots etc.
 - iv) All stairs and steps, thresholds and any other requisite protection for the works.
 - v) All required temporary weather-proof sheds at such places and in a manner approved by the inStem/for the storage and protection of materials, against the effects of sun and rain.
 - vi) All required temporary fences, lighting/sign-boards etc., guards, approaches and roads as may be necessary for execution of the contract works and for safe guarding the facilities/Users.

- b) The Engineer-in-charge, inStem will be the sole judge in deciding as to the suitability or otherwise of the tools/formwork/machinery or plant that may be brought to the work site by the contractor for the proper execution of the work.

- c) The rates quoted by the tenderer in the Bill of Quantities items of work will be deemed to be for the finished work.

4. SCHEDULE OF QUANTITIES (PRICE BID DOCUMENT):

The Schedule of Quantities forms part of the contract, but the Employer reserves the right to modify the same or any part thereof. The contractor shall not be allowed any compensation or damages for the work which is so omitted or cancelled or added or substituted by the Center.

5. ACCESS OF INSPECTION:

The contractor is to provide at all times, during the progress of the works and the maintenance period, means of access with ladders, gangways etc., and the necessary attendants to move and adopt the same as directed for the inspection or measurement of the work by the inStem or any other agency employed by the Employer.

6. DIMENSIONS:

In all cases figured dimensions are to be accepted in preference to scaled sizes. Large

scale details shall take precedence over small scale details/drawings. In case of any discrepancy, the contractor shall ask for a clarification, before proceeding with the work. Accordingly, if any work is executed without prior clarification, it is liable to be rejected and shall not be paid for,

7. PROGRAMME OF WORKS:

The contractor on starting the work shall furnish to the Engineer-in-charge a PERT / CPM programme, for carrying out the work stage by stage in the stipulated time, for the approval of inStem , and follow strictly the approved time schedule by incorporating changes, if any, so authorized by the inStem, to ensure the completion of construction work in stipulated time. A graph or chart on individual item/group of items/trades of work shall be maintained, showing the progress both in terms of quantities and value, week by week. The contractor shall submit to the inStem a weekly progress report stating the number of skilled and unskilled laborers employed on the work, working hours done, quantity of cement, steel and other major items of materials (quantity and value wise) used and corresponding place, type and quantity of work done during the period.

The contractor must inform the center, 3 days in advance of requirement of respective drawings and details by him, from time to time. The contractor shall strictly adhere to the approved programme and arrange for the materials and labour etc., accordingly.

Despite repeated instructions, if the contractor fails to show satisfactory progress of the work, the Center /may take suitable action as deemed fit, including levying of liquidated damages as per relevant clause of CPWD – GCC-2023 for maintenance works .

8. OFFICES, STORES, SHEDS ETC., ON THE SITE:

- a. The contractor shall erect and maintain entirely at his own expense properly lighted, ventilated waterproof and lockable offices for his own staff on such parts as the inStem shall indicate. Necessary permission from various authorities will be obtained by the contractor and necessary fees shall be paid by the contractor prior to constructing such offices, and as well for stores, huts for labourers or any other temporary structures required for the due execution of work. Any penalty levied by local authorities, for not following their bye-laws/regulations etc., in the matter, will be borne by the contractor. The contractor shall pay for the electricity and water charges consumed. All these offices shall be demolished and the materials shall be taken away from site and ground left in good and proper order on completion of work, as required and directed.
- b. The contractor shall provide for all necessary storage on the site, in a specified area for all materials, in such a manner that all such materials, tools etc., shall be duly protected from damages by weather or any other cause.

Stores for storage of cement shall have all weather proof floors,walls and roof and have proper locking arrangements and must be secure. All these must be maintained till the work is completed and so certified by the Center. Necessary and adequate watch and ward forall such accommodations and stores shall be provided for by the contractor at his cost and same included in the rates/amounts quoted byhim. All such stores shall be cleared away and the ground left in good and proper order on completion of this contract unless otherwise expressly mentioned herein.

- c. All materials which are stored on the site such as Aluminum sections, PUF panels, cement, brick, metal sand etc., shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials and prevent deteriorationin quality due to water etc.

9. PROCUREMENT OF MATERIALS:

Contractor shall procure all the materials including Aluminium section required for the work from the open market. Time is the essence of the contract. Acceptance of the completion date by the contractor shall mean that he has taken into consideration the availability of all materials of approved make and quality in sufficient quantities at respective markets/sources, to enable him to complete the entire work in the stipulated period.

Contractor will get samples of all materials approved by the Institute, before placing order/purchase/procurement in bulk. They shall conform to relevant B.I.S. codes and or tender specifications as applicable.

For all materials, the contractor shall quote for the best quality of the materialsof best make/source or supply and they should be got approved by the Center,before procurement.

In case sufficient quantities of approved quality materials from approvedsources are not available in time, contractor may have to procure the same from neighboring areas even with longer leads, as required and directed, at noextra cost. The materials will be, however as per relevant B.I.S. specifications as and wherever applicable.

10. TESTING:

The contractor shall, as and when directed by the Engincer-in-Charge, inStem, arrange to test materials and/or portions of the work at site in any approved laboratory at his own cost in accordance with the relevant specifications and BIS code of practice. The contractor shall transport all the materials from site to the approved laboratory at his own cost. The contractor shall carryout all the mandatory tests as per BIS relevant codes at the frequencies stated therein. Even after such tests, any materials brought to site or incorporated in the worksare found to be defective or

unsound or not as per approved samples, the contractor shall remove the same and re-erect at his own cost and without any additional time/period for the same, with reference to the date fixed for completing the work. In case these tests are not carried out at the frequencies stated, then proportionate costs of materials not so tested, including cost of testing and quantities of items of work executed with such materials, if otherwise accepted for retention in the work, will be deducted from the dues to the contractor. The deductions will be worked out by the Engineer-in-Charge and shall be final and binding on him.

Tolerance on various material and items of work shall be allowed laid down in the documents below and the order of precedence shall be:

- a) Relevant BIS Specifications.
- b) CPWD norms.
- c) Manufacturer's Specifications.

In absence of above Engineer-in-Charge, in stem decision basing on the general practice being following shall be final.

11. SITE MEETINGS:

A senior representative of the contractor shall attend weekly meetings at works site and in additions, meetings as and when arranged by the Center to discuss the progress of the work and sort out problems, if any, and ensure that the work is completed in the stipulated time.

12. CUSTODY AND SECURITY OF MATERIALS:

The contractor shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman/watchmen to look after his materials, stores, equipment's etc., including cement and steel at site and ensure that at no time unauthorized persons gains any access at works site.

13. MEASUREMENT TO BE RECORDED BEFORE WORK IS COVERED UP:

The contractor shall take joint measurements with the Engineer-in-Charge or his representative before covering up hidden measurement or otherwise placing beyond the reach of measurement any item of work. Should the contractor neglect to do so, the same shall be uncovered at the contractor's expense or in default thereof, no payment or allowance shall be made for such work or the materials with which the same was executed.

14. ACTION WHERE THERE IS NO SPECIFICATION:

In case of any item/class of work, for which there is no specification mentioned (either in part or full), the same will be carried out in accordance with the relevant CPWD specifications (only for the specifications missing in the contract) and if not available even there (either in part or full) in, relevant standards of BIS shall be followed (only for the portions of specifications missing in the contract specifications and CPWD specifications). Bureau of Indian standard specifications, subject to the approval of the InStem.

15. CLEARING THE SITE ON COMPLETION / DETERMINATION OF WORKS:

The contractor shall clear the site of works as per the instructions of the Engineer-in-Charge. The site of works shall be cleared of all men, materials, sheds, huts etc., belonging to the contractor. The site shall be delivered in a clean and neat condition, as required by Engineer-in-Charge/within a period one week after the job is completed. In case of failure by the contractor, the Engineer-in-Charge under advice to the Center/have the right to get the site cleared to his satisfaction at the risk and cost of the contractor.

16. POSSESSION OF BUILDINGS/WORK COMPLETED:

The contractor shall hand over to the Engineer-in-Charge possession of the completed works in stages as and when required, and as directed by the Engineer-in-Charge.

The Engineer-in-Charge will take over the possession of completed works in stages and defects liability period will commence only from the date of handing over of all the completed works as stipulated in the price bid document.

17. TYPOGRAPHIC, CLERICAL AND OTHER ERRORS:

The Center clarification regarding partially omitted particulars or typographical, clerical and other errors shall be final and binding on the contractors.

18. BENCH MARKS:

The contractor shall construct and maintain proper bench marks at different places at site as required and directed by the Engineer-in-Charge, so that levels can be checked accurately at all times during the progress of work. In case benches are disturbed for any reason whatsoever, necessary rectification shall be carried out by the contractor at his cost as directed by the Engineer-in-Charge.

19. FORCE MAJEURE:

Neither inStem nor contractor shall be considered in default in performance of the obligations under this order if such performance is prevented or delayed by events

such as but not limited to war hostilities, revolution, riots, civil commotion, strike, lock outs, conflagration, epidemics, accidents, fire, wind, floods, droughts, earthquakes or ordinances or any act of God, or for any other cause beyond the reasonable control of the party affected or prevented or delayed, is given within 30 (Thirty) days from the happening of the event and in case it is not possible to serve the notice within the shortest possible period without delay.

As soon as the cause of force majeure has been removed the party whose ability to perform its obligations has been affected shall notify, the actual delay incurred in such affected activity adding necessary evidence in support thereof. From the date of occurrence of a case of Force Majeure, obligations of the party affected shall be suspended during the continuance of any inability so caused with the cause itself and the inability resulting therefrom have been removed and the agreed time of completion of the respective obligations under this agreement shall stand extended by a period agreed to the period of delay occasioned by such events.

Should one or both parties be prevented from fulfilling the contractual obligations by a state of Force majeure lasting for a period of six months or more, the two parties shall consult each other and decide regarding the future execution of this agreement.

20. COMPLETION OF WORK:

The work shall be completed in **60 days** from the date of issue of Letter of Acceptance of tender / Work order.

21. BILLS OF PAYMENTS:

The minimum value of work for interim payments shall be 3.0 lakhs. The contractor shall submit interim bills, on the basis of joint measurements recorded at site by the contractor's and InStem representatives. All such interim payments shall not be considered as an admission of the due performance of the contract or any part thereof in any respect and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected at contractor's cost, all as per InStem instructions, and directions. However, the Engineer-in-charge may accept bills of lesser value at his discretion.

22. WORKMANSHIP

Quality of materials and workmanship shall conform strictly to specifications given/stipulated in the tender/contract, and contractor will ensure that the best quality of work will be done to the satisfaction of the InStem, with strict control on the materials, workmanship and supervision.

23. Technical specification:

The work shall have to be executed as per the specifications in the schedule of quantities. In the absence of some details in the item specifications or need of detailed specification, then CPWD detailed technical specifications-2019 will have to be referred for the civil works relevant items. The CPWD specification -2019 -vol-1 & 2 may be downloaded from the following web address.

https://cpwd.gov.in/Documents/cpwd_publication.aspx

24. QUANTITIES:

Quantities mentioned in the Bill of Quantities, included in the contract, are approximate and are subjected to variations as per actual site conditions & requirements and as directed by the Engineer-in-Charge. The work shall be executed and completed accordingly.

25. SITE SUPERVISION:

The contractor shall appoint at his own cost competent and adequate number of qualified Engineers at site, for

- a) joint measurements and preparations of bills.
- b) For testing materials at site and in outside laboratory.
- c) For concreting and reinforcement work.
- d) For other general supervision. Their appointment shall be approved by the inStem. The site engineers shall not be removed from the site without the written consent of the Engineer-in-Charge.

26. INCOME TAX AND GOODS AND SERVICES TAX (GST):

Income tax and other statutory shall be deducted at source as applicable by from the contractor's interim and final bill payments as required by law. The contractor shall submit the GST paid invoice to the Center as proof of payment.

27. WORKER WELFARE CESS:

Cess at the rate of 1% shall be deducted at source as applicable by from the contractor's interim and final bill payments as required by law

28. EXTRA/SUBSTITUTED ITEM RATES:

Such items shall be executed as per directions/instructions of the Engineer-in-Charge, inStem.

The work on extra/substituted items shall be started only after the receipt of written order from Engineer-in-charge. However, rates for additional/extra or substituted

(altered) items of work, which are not covered in the contract shall be derived based on the relevant clauses of CPWD-GCC-2023-maintenance works, the finalization of which shall not hold up the execution of such additional/extra items in any manner.

29. SERVICES DRAWINGS

The contractor shall furnish completion drawings of all services in triplicate, showing the work as actually executed, along with levels. Costs of all these are deemed to have been included in the respective item rates quoted by the contractor and nothing extra shall be paid on account of any of these requirements/acts.

30. AGREEMENT:

The successful contractor shall be required to enter into an agreement within 10 days (Ten) from the date of issue of letter of acceptance. The contractor shall pay for all stamps and legal expenses incidental thereto. However, the written acceptance of the tender by the InStem, will constitute as a binding contract between the InStem and contractor, whose tender has been accepted, whether such formal agreement is or is not subsequently executed. The standard CPWD-GCC-2023-maintenance works shall be part of the agreement.

31. INSURANCE:

The contractor shall provide insurance in respect of damage to persons and property and fire insurance as per relevant clause of General conditions of contract. In addition, he will also insure against riots and civil commotion. The insurance shall also cover third party and all the persons working at site and visitors including contractors, workers, InStem personnel, other contractor's workers etc. The contractor shall indemnify the Center against any claim or compensation or mishaps of whatsoever nature at site during the progress of work.

The contractor shall prove to the Center from time to time that he/they have taken out all the insurance policies as required and directed and has paid the necessary premium for keeping the policies valid as per relevant clause of the General Conditions of Contract.

In case of failure by the Contractor or sub-contractor to effect and keep in force the insurance policies, then the client, without being bound to, may pay such premiums as may be necessary and deduct the same from any money due or which may become due to the contractor or recover the same as a debt due from the contractor.

32. INSPECTION BY THE CHIEF TECHNICAL EXAMINERS (VIGILANCE):

The proposed work covered under this tender, during the progress and or after completion, can also be inspected by the Chief Technical Examiner/ Technical Examiner or Officers of the Central Vigilance Commission, Government of India,

on behalf of the Institute to ascertain that the execution of the work has been done with materials and workmanship all as stipulated in the contract and as directed. Contractor shall afford all reasonable facilities to the above vigilance staff and also provide them with ladders, tapes, plumb bob, level etc., as required and directed and also necessary labourers skilled/unskilled to enable them to complete their inspection/study/technical scrutiny and no extra shall be admissible to the contractor on this account.

33. DEFECTS LIABILITY PERIOD:

Defects Liability period shall be 6 (six) Months from the date of completion of work in all respects.

34. WATER AND POWER SUPPLY:

One power point will be made available by the institute to the contractor for his use on normal terms of payment and as per tariff as applicable. The contractor responsibility to arrange the required cables, metering board, Panel board at his own cost to reach the power near the workplace.

The institute will indicate the nearest available water point from there contractor shall make suitable connections to reach to the work space. If on the opinion of institute, water demand is high the same will be supplied at the prevalent BWSSB unit charge for the instiute.

35. PRIORITY OF CONSTRUCTION:

The Contractor has to execute such items/works on priority basis, as may be decided by the client. The work programme is to be approved in writing before execution. Client reserves right to alter the priority as the case may be.

36. SETTLEMENTS OF DISPUTES AND ARBITRATION:

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned here-in after.

(i) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly

within 15 days request the Engineer-in-Charge in writing for written instruction or decision. Thereupon, the Engineer-in-Charge shall give his written instructions or decision within a period of one month from the receipt of the contractor's letter.

If the Engineer-in-Charge fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Engineer-in-Charge, the contractor may, within 15 days of the receipt of Engineer-in-Charge's decision, appeal to The Director, inStem, who shall afford an opportunity to the contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Director, inStem shall give his decision within 30 days of receipt of contractor's appeal.

If the contractor is dissatisfied with his decision, the contractor shall within a period of 30 days from receipt of the decision, give notice to the Director, inStem for appointment of arbitrator, failing which the said decision shall be final, binding and conclusive and not referable to adjudication by the arbitrator.

(ii) Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by the Director, inStem in respect of the contracts entered into by any sub-ordinate authority under him. However, if the contract is entered into by the Director, the arbitrator shall be appointed by the inStem.

If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along-with the notice for appointment of arbitrator and giving reference to the rejection by the Director of the appeal.

It is also a term of this contract that no person other than a person appointed by such Director, as aforesaid should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

It is also a term of this contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from the Engineer-in-charge that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Government/institute shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is also a term of this contract that the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and, in all cases, where the total amount of the claims by any party exceeds Rs.1,00,000/-, the arbitrator shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties.

The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

37. QUALITY OF TENDERER'S SUPPLY ITEMS:

All materials, fittings, fixtures shall be of heavy and high quality within the scope of specifications. Samples of materials should be got approved within a week from the award of tender by the contractor from the Engineer-in-charge.

38. MODE OF MEASUREMENT:

The mode of measurement will be as per CPWD standard specifications or IS 1200 for all items. There shall be no disputes in this regards.

39. GENERAL:

In the contract, the following expressions shall unless the context otherwise required have the meanings, hereby respectively assigned to them.

xiii. The expression "works" or "work" shall unless there is something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional.

xiv. The "Site" shall mean the land / or other places on, into or through which work is to be executed under the contract, or any adjacent land, path or street which work is to be executed under the contract or any adjacent land, path or street through which may be allotted or used for the purpose of carrying out the contract.

- xv. The “Contractor/service provider” shall mean the individual or firm or company, whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignee of such individual or firm or firms or company.
- xvi. “Department/institute” means inStem which invites tenders on behalf of The Director / inStem as specified in schedule ‘F’.
- xvii. The “Director” means the Director, inStem, Bangalore and his successors.
- xviii. The “Engineer-In-Charge”/ Project Manager means the Officer or the appropriate competent authority declared by the Director, inStem, and who shall supervise and be in charge of the work and who shall sign the contract on behalf of the Institute Director.
- xix. “inStem” shall mean the institute for stem-cell science and regenerative medicine.
- xx. Accepting Authority shall mean the authority mentioned in Schedule – ‘F’
- xxi. Excepted Risk means risks due to riots (other than those on account of contractor’s employees), war (whether declared or not), invasion, act of foreign enemies, hostilities, Civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting authority or causes solely due to user or occupation by inStem, the part of the works in respect of which a certificate of completion has been issued or a cause or a cause solely due to inStem faulty design of works.
- xxii. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard schedule of rates of the Government mentioned in Schedule – F’ hereunder with the amendments thereto issued up to the date of receipt of the tender.
- xxiii. Tendered value means the value of the entire work as stipulated in the letter of award.
- xxiv. Date of commencement of work: The date of commencement of work shall be the date of start as specified in schedule ‘F’ or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.

40. INTERPRETATION:

These Special Conditions of Contract shall be read in conjunction with the General Conditions of Contract, (CPWD) Technical Specifications (CPWD) and Technical Specifications Electrical and air-conditioning works. Drawings and any other documents forming part of this contract wherever the context so requires.

The Notice Inviting Tender, General Conditions of Contract (CPWD), Drawings & the bidding documents comprising of Special Conditions of Contract, Price Bid Document & Telegram of Intent/Letter of Intent shall form part and parcel of the Agreement.

Notwithstanding, the sub-division of the documents into these separate sections and volumes, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the contract so far as it may be practicable to do so.

Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, then, unless a different intention appears, the provisions of the Special Conditions of Contract shall be deemed to override the provisions of the General Conditions of Contract and shall to the extent of such repugnancy or variations prevail.

39. OBSERVANCE OF LABOUR LAWS & PRINCIPAL EMPLOYER

Observance of labour laws shall be as per the clause No.19 of General Conditions of Contract. Principal Employer's certificate will be issued by the inStem.

40. RATES ARE FIRM AND NO ESCALATION IS ALLOWED

The Rates quoted by Contractor are firm and no escalation will be allowed on account of price increase of materials, fuel, labour etc. The clause 10CA,10C and clause 10CC of General Conditions of Contract are not applicable to this contract.

TECHNICAL SPECIFICATION FOR EXTERIOR PUF ROOFING SHEET

Material Specifications of Exterior-Grade UV-Resistant PUF Trapezoidal Profile Roofing Sheet.

- **Panel Thickness:** 50 mm overall.
- **Sheet Material:** Powder-coated sheets on both sides, 0.5 mm thick (204 MPa PPGI).
- **Galvanization:** Hot-dip galvanized with zinc coating of 180 GSM.
- **Facing Material Coating:**
 - 20 microns DFT RMP/PVDF over a 5-micron thick primer.
 - Color to be approved by the department.
- **Panel length and width:** - Panel shall be supplied up to 1-meter effective width and in single length upto 12 mtr without any joints depending onsite requirement

Insulation Core:

- **Material:** Polyurethane Foam (PUF).
- **Density:** Not less than $40 \pm 2 \text{ kg/m}^3$.
- **Fire Rating:** Class O.

Coating & Protection:

- **Powder Coating:** 60-80 microns thickness.
- **End Flashing:** Proper weatherproof flashing to cover the PUF from external exposure.

Installation & Fixing:

- Panels shall be fixed on to the purlin/grit wit hot dipped galvanized imported self-drilling fasteners with EPDM washers and with necessary overlap as per manufacturer's specification
- Pre-cut openings for light fixtures and terminal filters, as per design requirements.
- All necessary hardware, accessories, fittings, and scaffolding to be included.
- Installation shall comply with technical specifications, approved drawings, manufacturer guidelines, and instructions from the Engineer-in-Charge.
- The contractor must ensure a **watertight and leak-proof roofing system**.
- The PUF Panel shall be fixed to the existing structures/elements, it shall be responsibility of contractor not to damage the structural elements during the work and any such damage shall have to be made good at own cost and risk.
- All exposed areas of PUF shall be covered with the powder coated PPGI Flashing.
- Panel shall be installed to the perfect level and slope.

Drainage System: Gutter: 0.45 mm thick galvanized iron sheet.

- **Placement:** At the sloping end to collect rainwater.
- **Supports:** To be provided as per standard installation guidelines.

Warranty & Compliance:

- **Minimum Warranty:** 18 months for both material and installation.
- **Documentation:** Manufacturer warranty and installation certificate to be submitted.

COMPILANCE TO LABOUR
LAWS & APPRENTICE ACT

COMPLIANCE TO LABOUR LAWS & APPRENTICE ACT

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act, 1970, and rules and orders framed there under and other labour laws affecting contract labour and Apprentice Act, 1961 and the rules and orders framed there under that may be in force or brought into force from time to time. Contractor shall obtain a valid license under Contract Labour (R&A) Act 1970 and Contract Labour (R&A) Central Rules 1971 before commencing work and which should be valid till the completion.

ANNEXURES

Annexure - II
FORWARDING LETTER

To

The Director,
inStem
GKVK Campus, Bellary
road
Bengaluru – 560065
(Hereinafter referred to as Institute)

Dear Sir/Madam

I/We have read and examined the following documents relating to the work “**inStem – Proposed construction of the chemical hood facility on the third floor of the laboratory building**”

- (a) Notice Inviting Tender
- (b) Proforma of schedules
- (c) Special Conditions of Contract
- (d) CPWD-GCC-2023 for maintenance works
- (e) List of recommended makes
- (f) Safety observations and commitment from the contractor’s
- (g) Tender Drawings
- (h) Bill of Quantity

Upon reading the terms and conditions contained or referred to therein and in accordance in all respect with the specifications design, drawings and other relevant details at the rates, I/We hereby tender for the execution of the works referred to in the aforesaid documents.

A Bid Declaration form is submitted along with this tender. If I / We fail to keep the tender open for a period of 75 days, validity after opening the tender(s) or make any modifications in the terms and conditions of the tender, which are not acceptable to the Institute, I/We agree that the Institute shall, without prejudice to any other right or remedy, be at liberty to initiate the action as per bid declaration form absolutely. Should this tender be accepted, I/We hereby, agree to abide by and fulfill all the terms, conditions and provisions of the aforesaid documents.

If, after the tender accepted, I/We fail to commence the execution of the works as provided in the conditions, I/We agree that the Institute shall without prejudice to any of their right or remedy, to initiate the action as per bid declaration form absolutely.

In the event of this Tender being accepted I/We agree to enter into an agreement as and when required and execute the contract according to your form of Agreement, within a Ten (10) days of receipt of work order, in default thereof, I/We do hereby bind my- self/ourselves to forfeit the aforesaid initial security deposit.

I/We further agree to complete the work covered in the said schedule of quantities within 75

(Seventy-five) days reckoned from the issue of LOI/LOA/work order whichever is earlier.

I/We agree to pay the Government, GST (State and Central), Excise and Octroi duties, Insurance, Seigniorage charges and all other taxes etc., at the rates prevailing from time to time as per the Act, as amended and rates quoted by me/us are inclusive of the same.

I/We agree to pay Income tax, to be deducted at source on the Gross value of the workdone, and the rates quoted by me/we are inclusive of same.

I/We agree to get the work & workers to be engaged on the work at site and all materials and machinery collected and kept/operated at site for execution of the work. In case part work is taken over by the Employer before final completion of the whole work, such parts may not be covered by the insurance from the date of taking over that part of work by the Employer. All the rates quoted by me/ us are inclusive of the same in full and nothing extra shall be claimed anytime on account of any of these.

Yours faithfully,

Contractor's Signature

Address:

Date:

.....

.....

.....

.....

.....

Annexure-III
TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date:

To:

The Director,
Institute for stem cell science and regenerative medicine
GKVK campus
Bellary Road
Bangalore – 65

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of the work: -

Dear Madam/Sir,

1. I/ We have obtained the tender document(s) for the above mentioned 'Tender/Work' from the office namely:

as per your advertisement, given in the above-mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by our Firm is true & correct and, in the event, that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Annexure-IV

ARTICLES OF AGREEMENT

This Contract Agreement made the day of 2025 between
.....
.....

.....(herein after called the "Employer") on the one
part and

..... (hereinafter called "The Contractor") on the other part, where as the
Employer is desirous of getting the work
of ".....

......" executed and has
caused drawings, conditions of contract, specifications and schedule of quantities
etc.,describing the works.

AND WHEREAS the SAID DRAWINGS numbered as per list attached inclusive
of and the conditions of contract, specifications and schedule of quantities etc.,
have been signed by or on behalf of the parties hereto.

AND WHEREAS THE CONTRACTOR has agreed to execute upon and subject
to the conditions set forth in the Schedule hereto (hereinafter referred to as "Said
Conditions") the works shown upon the said drawings and described in the same
specifications and included in the said schedule of quantities for such sum as may
be ascertained to be payable in terms of the Bills of Quantities, and which sum is
estimated to be Rs.....
(Rupees.....
.....) (hereinafter referred to as "Said Contract Amount").

NOW IT IS HEREBY AGREED AS FOLLOWS:

2. In consideration of the said sum to be paid at the times and in the manner set forth in the said conditions, the contractor shall upon and subject to the said conditions, execute and complete the work shown in the said drawings and described in the said specifications.
3. The Employer shall pay the contractor the said sum or such sums as shall become payable hereunder at the times and in the manner specified in the said conditions.
4. Tender documents containing Notice to the Contractor, Conditions of Contract, Appendix thereto, Special Conditions of Contract, Specifications

and Schedule of Quantities with the rates entered therein, shall be read and studied as forming part of this agreement and the parties hereto shall respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their part respectively in such conditions contained.

- 5. The contract is neither a fixed lumpsum contract or a piece work contract, but is a contract to carry out work in respect of the entire works to be paid for according to actual measured quantities, including from BOQ at the rates contained in the Schedule of rates and Probable bill of quantities or as provided in the said conditions
- 6. The Employer reserves to himself the right of altering the drawings and natures of the work, of adding/substitution to or omitting any items of work or having portions of the same carried out through alternate agencies without prejudice to this contract.
- 7. Time shall be considered as the essence of this agreement and the contractor here by agrees to commence the work immediately from the date of issue of Letter of Intent/Letter of acceptance/work order to execute the work, as provided for in the said conditions and complete the entire work in subject to nevertheless to the provisions for extension of time.
- 8. This agreement and contract shall be deemed to have been made in Bengaluru and any questions or dispute rising out of or in any way connected with this Agreement and Contract shall be deemed to have arisen in Bengaluru and only the courts in Bengaluru shall have jurisdiction to determine the same.

AS WITNESS our hand this day of 2025.

Signed by the said in the presence of:

EMPLOYER

CONTRACTOR

WITNESS :

WITNESS :

NAME :

NAME :

ADDRESS :

ADDRESS :

LIST OF RECOMMENDED MAKES

LIST OF RECOMMENDED MAKES**GENERAL NOTES:**

1. Products with relevant I.S. markings from the B. I.S. Licensed manufacturers, who are in the market for the last three years with valid I.S. License, shall be considered for approval.
2. In case of items where I.S. marked material is not available, the contractor shall procure the same from the following list, subject to prior approval of Engineer-in-charge. Periodic tests shall be carried out as per contract / specifications at contractor's own cost.
3. In case of any new brand other than BIS certified or from departmental list of manufacturers is proposed, adequate information about the product and manufacturer, shall be provided at the tender stage.
4. Department reserves the right to accept / reject any new brand(s) proposed by the tenderer.
5. Samples of all materials, fittings etc. to be incorporated in the work shall be submitted by the contractor and got it approved from the Engineer-in-Charge, before supply in bulk at site of work. Wherever particular make or its equivalent is mentioned in the item schedule, the decision of the Engineer-in-Charge in selection of particular make or its equivalent shall be final and binding on the contractor. The approved samples will be kept in custody of the Engineer-in-Charge till completion of the work. Materials not conforming strictly to the approved samples will be rejected.

| S.N | DESCRIPTION | MANUFACTURERS |
|-----|---|---|
| 01 | Cement | M/s Ultratech, M/s ACC, M/s Lafarge, M/s Ambuja, M/s RAMCO Cement, M/s Binani, M/s Rajshree, M/s Birla Cement, M/s Zuari or equivalent |
| 02 | Ready Mix concrete plant | M/s Ultratech, M/s ACC, M/s Lafarge, M/s. Ready mix India Ltd, M/s.Godrej or Nearby RMC plant Subject to approval of the plant by the Department. |
| 03 | Reinforcement Steel | M/s TISCO, M/s SAIL, M/s RINL, M/s Kamdhenu or Equivalent |
| 04 | Structural Steel Section | M/s TATA, M/s SAIL, M/s RINL, equivalent approved Structural Steel Section Manufacturers. (In case of non-availability of structural sections with primary manufacturers) |
| 05 | Precast Concrete Products | Siporex Ind.; B.G. Shirke & Co.; Supreme Concrete(Minato Blocks)-Kolhapur, KK-Nasik |
| 06 | (a) Anti-termite Treatment chemical (b) Agency | (a) Central Insecticide Board approved (ISI Marked) Chemical (b) Specialized agency shall be a Member of IPCA (Indian Pest Control Association) |
| 07 | Modular Wall Panel/ Ceiling Panel/Doors | FABTECH/I-CLEAN/GMP/SYNERGY/ NICOMAC /AIRTECH |
| 08 | Concrete Paver Block | M/s Super Tile, M/s Supreme Concrete, M/s Minato Blocks (Kolhapur.), M/s Basant Betons, M/s Gico Tiles (Bhubaneshwar), M/s Multiwyn |
| 09 | Ceramic / Glazed/ Vitreous Tiles | M/s Regency Ceramics, M/s Kajaria Ceramics, M/s H. R. Johnson (I), M/s Bell, M/s Somani Tile |
| 10 | PU Floors | ARDEX ENDURA (India) Pvt. Ltd or Equivalent |

| | | |
|----|---|---|
| 11 | Epoxy Flooring | ARDEX ENDURA (India) Pvt. Ltd or Equivalent |
| 12 | Pressed Steel Door Frames | M/s Sen Harvic, M/s Welcome Door, M/s AGEW, M/s Multiwyn,) M/s Anjali Enterprises, M/s Shakti Met-dor Limited, M/s Behar Bobbin Engineering Works, Katihar, M/s Nishan Solid door frames (Solidor), M/s B A Enterprise, Kolkata. |
| 13 | a) Steel Doors, Windows | M/s Sen Harvic; M/s Welcome Door; M/s Multiwyn, M/s Shakti Met-dor Limited, M/s. AGEW, M/s. Abaqs, M/s. Techome; M/s. Windoors, M/s R L Vala & Sons M/s B A Enterprise, Kolkata. M/s Maxo Metal Enterprises, Kolkata |
| | b) M.S. Fire rated door | M/s Shakti Met-dor Limited, M/s. Abaqs, M/s. Godrej |
| 14 | PVC/FRP Doors & Frames | M/s Deep Doors, M/s Fibroplast |
| 15 | PVC Integral Foam Doors | M/s Jain Irrigation System (Excel Plastic Sheet) |
| 16 | a) Aluminium Sections For Doors, Windows & Wall Spans, structural glazing works | M/s Jindal; M/s Hindalco, M/s ALOM Extrusion; |
| | b) Aluminium Hardware | M/s Metco, M/s Allen, M/s Crown, M/s Ebco, M/s. Alans; M/s. Al-Alfa; |
| 17 | a) Plain Glass | M/s Modi Guard; M/s Saint Gobain, M/s Indo-Asahi Glass, |
| | b) Reflective Glass | M/s Saint Gobain, M/s Indo-Asahi Glass |
| | c) Toughened, Laminated, Insulated glass, DGU | Saint-Gobain Glass India Ltd., Gold Plus Toughened glass Ltd., GSC Toughened Glass Pvt. Ltd. |
| | d) High Performance Glazing | Glaverbel, Emirates, Saint -Gobain Glass. |
| 18 | Flush door Shutter | M/s Kalpatru, M/s Kutty Flush Door, M/s Century, M/s Kit-ply, M/s Sylvan Ply, Kolkata; M/s. Shreeji, M/s Jawahar Saw Mills |
| 19 | Ply-wood | M/s Century, M/s Kitply, M/s India Plywood, M/s Green Ply, M/s Sylvan Ply, Kolkata |
| 20 | Plain/Pre-laminated Phenol bonded MDF Board | M/s Novopan, M/s Nuwood, M/s Bhutan Board, M/s Green Ply |
| 21 | Veneers | M/s Century, M/s Kitply, M/s India Plywood, M/s Green Ply ,M/s Timex, M/s Merino |
| 22 | Decorative Laminates | M/s Formica, M/s Greenlam, M/s Century Ply, M/s Merino, M/s Timex |
| 23 | a) Doors Fittings & Fixtures (MS, Al, SS, Brass) | M/s Shalimar, M/s Saifee, M/s Garg, M/s Alans, Kolkata; M/s. AL-Alfa |
| | b) Decorative High SS Finish Fittings and Fixtures | M/s Guardian, M/s Hafele, M/s Hettich, M/s Ozone, M/s Dorma. |
| | c) Mortise Locks, Night latch | M/s Godrej , M/s Guardian |
| | d) Door Closer | M/s Everite, M/s Hardwyn, M/s Godrej, M/s Hyper, M/s. Garnish. M/s Dorma |
| | e) Floor Spring | M/s Everite, M/s Hardwyn, M/s Godrej, M/s Hyper, M/s Dorma, M/s Hafele, M/s. Garnish. |

| | | |
|----|---|--|
| | f) Glass Patch Fittings | M/s Dorma, M/s Ozone, |
| 24 | a) Bitumen impregnated Fibreboard & Tarfelt Waterproofing | M/s Tikki Tar Industries, M/s STP Ltd., (Shalimar Tar Products); |
| | b) Expansion joint filler Board (HD-100) | M/s Supreme Industries. |
| | c) APP modified waterproofing membrane | M/s Dr. Fixit, M/s STP Ltd. |
| 25 | Integral Water Proofing Compound (Polymers, Sealants) | M/s Cico, M/s Pidilite; M/s Roff.; M/s Mc-Bouchmie; M/s Fosroc, M/s Sunanda Chemicals, M/s. BASF, M/s. Sika, |
| 26 | Polymers/ Chemicals for Structural Repair | M/s Pidilite; M/s Roff.; Mc-Bouchmie; M/s Fosroc, M/s Sunanda Chemicals, M/s Sika. |
| 27 | False Ceiling | |
| | a) Gypsum based | M/s Saint Gobain Gyproc India Ltd. |
| | b) Calcium silicate Based | M/s Ramco Industries (Hilux), M/s Aerolite. |
| | c) Mineral Fiber Board | M/s Armstrong. |
| | d) Metal False Ceiling | M/s Hunter & Douglas*, M/s Interarch Building Products, M/s Supersil M/s Armstrong |
| | | |
| 28 | a) Thermal Insulation Fiber-glass wool / rockwool | M/s Twiga Insul. |
| | b) Thermal Insulation Phenolic Foam Phenotherm board | M/s Bakelite Hylam. |
| 29 | Wall care Putty | M/s Birla White, M/s. Walplast, M/s J K White. |
| 30 | a) Interior & Exterior Paints | M/s Asian Paints, M/s Nerolac, M/s ICI Dulux Paints, M/s Jenson Nicholson, M/s Berger Paints; M/s Pidilite, M/s Jotun, M/s Snowcem (Super Snowce, Sandtex Matt), M/s Nitco Paints (M/s Sherwin Williams), M/s Jotun Paints |
| | b) Fire Retardant Paints | M/s Noble Paints |
| | c) Wood Polish Finishes (Lacquer, Varnish, Polyurethane) | M/s Asian Paints, M/s ICI Dulux Paints |
| 31 | Epoxy Paint | ARDEX ENDURA (India) Pvt. Ltd, Fosroc |
| 32 | PU Paint | ARDEX ENDURA (India) Pvt. Ltd, Fosroc |
| 33 | MISCELLANEOUS | |
| a | Adhesive | Fevicol (Pidilite Ind. Ltd), Vamicol, Century SH, |

| | | |
|---|---------------------------------------|--|
| | | Araldite, Mansonite. |
| | PUF Sheet roofing | LLYOD/FABTECH/I-CLEAN/GMP/SYNERGY/ NICOMAC /AIRTECH |
| b | Pigments | Tata chemicals, Sudershan Chemical Industries. |
| c | PVC dividing strips. | Fixopan or approved equivalent. |
| d | Anti-termite. | Indo Gulf Pest Control, Montari Industries. |
| e | Pavers & Kerb Stone | UniStone Product (India) Pvt Ltd., Modern Tiles Group of Industries, Nitco Marble & Granite Pvt Ltd. |
| f | PVC Doors and Windows. | Sintex, Finnesta Building System, Accura (Vijay Doors). |
| g | Shuttering | Cuplock type |
| h | R.C.C PIPE | IHP |
| i | Shuttering Oil | Fosroc. |
| j | Pest control | Indian Pest Control, Intimate Pest Control |
| k | Restroom Cubicles | Merino. |
| l | Epoxy Adhesive | Fevicol (Pidilite Ind. Ltd). |
| m | Sil Fil (Armour Board) | Supreme Industries Ltd. or equivalent |
| n | Polythene sheet | Supreme Industries Ltd. or equivalent |
| o | Protection Board (Drentex protect 80) | Texsa or equivalent |
| p | Acrylic resin sealer | MYK or equivalent |
| q | Sil Fil (Armour Board) | Supreme Industries Ltd. or equivalent |
| r | Sun control non reflective film | 3M |
| s | Silicon sealant | Dow Corning, GE, Wacker or equivalent |

| | | |
|-----------|-------------------|---|
| t | S.S. Railing | Kich / Jindal Arch |
| u | Restroom Cubicles | Merino. |
| 34 | STONES | |
| | Granite | First Quality as per approved sample/ approved quarries |
| | Marble | First Quality as per approved sample/ approved quarries |
| | Kotah Stone | First Quality as per approved sample/ approved quarries |
| | Black Cuddapah | First Quality as per approved sample/ approved quarries |
| | Jaiselmer Stone | First Quality as per approved sample/ approved quarries |
| | | |

CONTRACTOR COMMITMENT TO
SAFETY

Contractor's commitment to safety:

The commitment of the contractor's management to safety is critical because each contractor is in the best position to know how to attain improved safety performance. The contractor's management needs to ensure the following:

- To implement safe methods and practices, deploy appropriate machinery, tools & tackles, experienced supervisory personnel and skilled workforce etc. required for execution.
- To ensure that the only Indian nationals are employed for the work and employees deployed are physically and mentally fit. Such employees should possess requisite skill, qualification, experience etc.
- To ensure that the background of the individual employee is verified before employing them.
- To deploy qualified & trained safety supervisor / safety engineers / safety manager reporting to the site in charge, for supervision, co-ordination and liaison for the implementation of the safety plan.
- To ensure that its employees have completed appropriate health and safety training as required. The documentation of such training imparted to all its employees should be maintained and produced for verification as required.
- To obtain all necessary licenses, permits, insurance policy of his employees and / or approvals before performing any work. A copy of the same shall be submitted to Department.
- To ensure that all the employees and those of sub-contractors have sufficient information, instruction, training and competence to enable them to carry out safely the work specified in the contract.
- To comply with all the security arrangements of Department.
- To ensure that the plant and equipment used on-site by him / his employees is correctly registered, controlled and maintained in sound working condition. To ensure that all incidents including near misses are reported to all concerned immediately.
- To provide personal protective equipment's required for the job and first-aid kits at work.
- To provide uniform safety gadgets for employees, whenever work is carried out in existing facility for easy identification.
- To maintain appropriate records of his employees deployed to carry-out the job. To ensure that all incidents including near misses are reported to all concerned immediately.
- To provide personal protective equipment's required for the job and first-aid kits at work.

- To provide uniform safety gadgets for employees, whenever work is carried out in existing facility for easy identification.
- To maintain appropriate records of his employees deployed to carryout the job.

Contractor's Safety Officer / Job Supervisor:

The duties & responsibilities of the Contractor's Safety Officer/ job supervisor shall include the following:

- To assess the hazards associated with jobs in consultation with all concerned and establish safe working procedure.
- To establish a written record of factors which can cause injuries and illness.
- To ensure strict compliance with work permit system by carrying out work only with appropriate work permits and after ensuring that all safety precautions / conditions in the permit are complied with and closing the same after the completion of the contract.
- To undertake routine / surprise inspections of all work sites and identify and correct unsafe conditions & practices, if any.
- To check whether the proposed working arrangements are safe and satisfactory, particularly at the interface between contractor's planned work and Department's existing facilities.
- To ensure that required guards and protective equipment are provided, used, and properly maintained.
- To ensure that the workers understand the work to be done, the hazards that may be encountered, and the proper precautions/procedure for carrying out the work safely.
- To take immediate action to correct any violation of safety rules observed or reported.
- To ensure that the workers likely to be exposed to hazardous chemicals/materials have access to appropriate Material Safety Data Sheets (MSDS), wherever applicable, and provide necessary mitigation measures.
- To ensure that appropriate warning signboards or tags are displayed.
- To ensure that workers have proper training for their job assignments, including use of appropriate PPE.
- To report each incident and/or injury in accordance with established procedures and assist in investigation.

- To conduct daily inspections to ensure compliance with safety standards, codes, regulations, rules and orders applicable to the work concerned.
- To arrange tool box meeting periodically (preferably daily) and shall continue this process to make workmen safety conscious.
- To keep a constant liaison with Engineer-in-charge / Department's representative on safety issues.
- To maintain accident and near miss record in a register.

Contractor's employees

The duties & responsibilities of the contractor's employee should include the following

- To perform work safely as per the job requirement and instructions.
- To inform all concerned regarding unsafe conditions/acts.
- To wear PPE as stipulated and necessary for the job.
- To inform promptly to their supervisor regarding all work related incidents
- resulting in personal injury, illness and/or property damage.
- To take all necessary and appropriate safety precautions to protect themselves, other personnel and the environment.

Specific safety provisions to be observed by the contractors

A.1 Scaffolding Accidents are also caused by the ladders falling or the climber losing his balance or failure of scaffolds. As such, utmost care should be taken as ladder and scaffolding are extensively used for maintenance and construction purpose. Some of the safe practices as listed below are to be observed before commencement of work.

A.1.1 Adequate and safe means of access and exit shall be provided for all work places, at all elevations. Using of scaffolding members (avoiding a ladder) for approach to high elevations shall not be permitted.

A.1.2 Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short duration work as can be done safely from ladders. Ladder shall be of rigid construction having sufficient strength for the intended loads and made either of good quality wood or metal and all ladders shall be maintained well for safe working condition.

A.1.3 Short ladder must not be tied together to give greater lengths. All ladders of 6 m or above should be tied to the structure on which they are resting to prevent from slipping. An extra worker shall be engaged for holding the ladder if ladder is not securely fixed. If the ladder is used for carrying materials, suitable foot holds and handholds shall be provided on the ladder. The ladder shall be given an inclination not steeper than 1 in 4 (1 horizontal and 4 vertical). Ladders shall not be used for climbing carrying materials in hands. While climbing both the hands shall not be free.

A.1.4 The free length must extend by 1.5 meters above the point of landing but should not be more than 1/4th of the ladder length. No portable single ladder shall be over 9 meter in length. Metal ladders may not be used for electrical work.

A.1.5 Scaffolding or staging more than 3.5 m above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a standard guard rail properly attached, bolted, braced or otherwise secured at least 1.0 m high above the floor or platform of such scaffolding or staging. The guard rail shall extend along the entire exposed length of the scaffolding with only such opening as may be necessary for the delivery of materials. Standard railing shall have posts not more than 2 m apart and an intermediate rail halfway between the floor or platform of the scaffolding and the top rail. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure. Scaffolding and ladder shall conform to relevant IS specification (IS: 3696). Timber/Bamboo scaffolding shall not be used.

A.1.6 Working platforms of scaffolds shall have toe boards at least 15 cm in height to prevent materials from falling down.

A.1.7 Every member of scaffolding must be of sound construction. Steel planks used in scaffolds should be carefully inspected and should be tied on both sides with suitable fixing arrangements to the pipes. Scaffolding must not be overloaded.

A.1.8 The Steel pipe & clamp to be used must be of good quality. The spacing between the vertical & horizontal members of the scaffolding should not be more than 1.5m and 1 meter respectively. The scaffolding should be further strengthened with cross bracing and stays.

A.1.9 The scaffolds should be provided with short climbs ladders for safe ascending / descending of workmen in the job. Only those workmen who are well trained / experienced in erecting scaffolding should be engaged for scaffolding work. The men working in the actual erection / dismantling of the scaffolding and all persons using the scaffolding must use suitable PPEs.

A.1.10 A sketch of the scaffolding proposed to be used shall be prepared and approved by the Engineer-in charge, prior to start of erection of scaffolding. All scaffolds shall be examined by Engineer-In-Charge before use.

A.1.11 Working platform, gangways and stairways shall be so constructed that they shall not sag unduly or unequally and if the height of the platform or gangway or stairway is more than 3.5 m above ground level or floor level, they shall be closely boarded, shall have adequate width for easy movement of persons and materials and shall be suitably guarded.

A.1.12 The planks used for working platform shall not project beyond the end supports to a distance exceeding four times the thickness of the planks used. The planks shall be rigidly tied at both ends to prevent sliding and slippage. The thickness of the planks shall be adequate to take load of men and materials and shall not collapse.

A.1.13 Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing.

A.1.14 Safe means of access shall be provided to all working platforms and other elevated working places. Every ladder shall be securely fixed. No single portable ladder shall be over 9 m in length. For ladders up to 3m in length the width between side rails in the ladder shall in no case be less than 300 mm. For longer ladders this width shall be increased by at least 20 mm for each additional meter of length. Step spacing shall be uniform and shall not exceed 300 mm.

A.1.15 Adequate precautions shall be taken to prevent danger from electrical lines and equipment. No scaffolding, ladder, working platform, gangway runs, etc. shall exist within 3 meters of any uninsulated electric wire. Whenever electric power and lighting cables are required to run through (pass on) the scaffolding or electrical equipments are used, such scaffolding structures shall have minimum two earth connections with earth continuity conforming to IS Code of Practice.

A.2 Demolition

Before any demolition work is commenced and also during the progress of the work:

A.2.1 All roads and open area adjacent to the work site shall either be closed or suitably protected. Appropriate warning signs shall be displayed for cautioning approaching persons.

A.4.2 Before demolition operations begin, the Contractor shall ensure that the power on all electric service lines is shut off and the lines cut or disconnected at or outside the demolition site. If it is necessary to maintain electric power during demolition operation, the required service lines shall be adequately protected against damage. Persons handling heavy materials /equipments shall wear safety shoes.

A.4.3 No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.

A.4.4 Entries to the demolition area shall be restricted to authorised persons only.

B. Welding and Gas Cutting

- Welding and gas cutting operations shall be done only by qualified and authorised persons and as per IS specifications and Code of Practice.

- Welding and gas cutting shall not be carried out in places where flammable or combustible materials are kept and where there is danger of explosion due to presence of gaseous mixtures.
- Welding and gas cutting equipment including hoses and cables shall be maintained in good condition.
- Barriers shall be erected to protect other persons from harmful rays from the work. When welding or gas cutting is in elevated positions, precautions shall be taken to prevent sparks or hot metal falling on persons or flammable materials. Adequate ventilation shall be provided while welding in confined space.
- Suitable type of protective clothing consisting of fire-resistant gauntlet gloves, leggings, boots and aprons shall be provided to workers as protection from heat and hot metal splashes. Welding shields with filter glasses of appropriate shade shall be worn as face protection.
- Welding and gas cutting shall not be done on drums, barrels, tanks or other containers unless they have been emptied, cleaned thoroughly and it is made certain that no flammable material is present.
- Fire extinguisher shall be available near the location of welding operations. Fire Safety Permit shall be obtained for working at vulnerable areas and operating areas before flame cutting/welding is taken up.
- Tarpaulin, if used should be of fire retardant.

For electric (Arc) welding the following additional safety precautions shall be taken:

- When electrical welding is undertaken near pipe lines carrying flammables, such pipe lines shall not be used as part of earth conductor but a separate earth conductor shall be connected to the machine directly from the job.
- Personnel contact with the electrode or other live parts of electric welding equipment shall be avoided.
- Extreme caution shall be exercised to prevent accidental contact of electrodes with ground.
- The cylinders containing poisonous / toxic or inflammable / explosive gas like Oxygen, Acetylene, Hydrogen, Ammonia, Chlorine, CO₂ etc shall be handled safely taking due cares. To handle / shift such cylinders a special trolley / cage meant for it must be used but in no case it should be rolled.
- No domestic LPG cylinder is allowed for Hot Work such as Gas Welding / Gas Cutting.
- A person must remain in the area for a minimum period of 30 minutes after hot work is completed to ensure the site is safe. Welding machine shall be switched off after the completion of work

C. Grinding

- All portable grinders shall be used only with their wheel guards in position to reduce the danger from flying fragments should the wheel break during the use.
- Grinding wheels of specified diameter only shall be used on a grinder- portable or pedestal - in order not to exceed the prescribed peripheral speed.
- Goggles shall be used during grinding operation.

D. Painting

- The Contractor shall not employ women on the work of painting with products containing lead in any form. Only men above the age of 18 years shall be employed on the work with lead paint.
- Smoking, open flames or sources of ignition shall not be allowed in places where paints and other flammable substances are stored, mixed or used. A caution board, with the instructions written in national/regional language, "SMOKING – STRICTLY PROHIBITED" shall be displayed in the vicinity where painting is in progress or where paints are stored.
- When painting work is done in a closed room or in a confined space, adequate ventilation shall be provided. If adequate ventilation cannot be provided, workers shall wear suitable respirators.
- Epoxy resins and their formulations used for painting shall not be allowed to come in contact with the skin. The workers shall use plastic gloves and/or suitable barrier creams.
- Workers shall thoroughly wash hands and feet before leaving the work. Work clothes shall be changed

E. Work related to maintenance of Machine

Disconnect the electrical power before starting the mechanical maintenance of the

- machine.
- During the maintenance of machine, it should be doubly ensured that the machine
- does not move unexpectedly causing injury to the person involved.
- Foolproof lockout system or power lock off system should be followed. Power lock
- off system shall include the electrical power, energy stored in springs, suspended parts or any other potential power sources.

- A highly legible information plate should be kept near the machine under maintenance giving the details of work being carried-out, warning instructions etc., to enable the workers, supervisors or any visitors to keep away.
- Removal of such plates immediately after the maintenance, repair etc., shall be ensured.
- Instructions from the machine manufacturers service/installation book should be followed during maintenance of the equipment.
- Only trained personnel should be employed for carrying out maintenance, repair, adjustment etc.
- Identified tools should be used to carry out such works.
- Guards should be replaced immediately after the maintenance work.
- After mechanical maintenance, machine should be tested at no load condition only.
- Chips and debris must be swept up and properly disposed.

F. Electricity

The following are provided for general guidance of the Contractor and shall be read as specific requirement, in addition to complying with Indian Electricity Act, Indian Electricity Rules and IS Specifications.

- Only qualified electricians familiar with code requirements are allowed to perform electrical work.
- Employees are not permitted to work near an unprotected electrical power circuit unless they are protected against electrical shock by de-energizing the circuit and grounding it, or are protected by effective insulation or other means, and are wearing required personal protective equipment.
- For purposes of electrical load and power planning, the contractor shall furnish, the estimated load requirement of electric power for the execution of the contract works in terms of maximum Kilo Watt or KVA demand during various periods/months along with the details of the electrical equipment/machinery with their individual load details and location/locations of power supply required for availing temporary electric power supply in the standard format.
- The electric power supply will be generally made available at one point in the works site of the contractor by the Department.
- All three phase equipment shall be provided with double earthing. All light fixtures and portable equipment shall be effectively earthed to main earthing.
- All earth terminals shall be visible. No gas pipes and water pipes shall be used for earth connection. Neutral conductor shall not be treated as earth wire.

- The Contractor shall not connect any additional load without prior permission of Department.
- Joints in earthing conductors shall be avoided. Loop earthing of equipment shall not be allowed. However, tappings from an earth bus may be done.
- Electrical equipment and installations shall be installed and maintained as to prevent danger from contact with live conductors and to prevent fires originating from electrical causes like short circuits, overheating etc. Installation shall not cause any hindrance to movement of men and materials.
- Materials for all electrical equipment shall be selected with regard to working voltage, load and working environment. Such equipment shall conform to the relevant standards.
- Electric fuses and/or circuit breakers installed in equipment circuits for short circuit protection shall be of proper rating. It is also recommended that high rupturing capacity (HRC) fuses be used in all circuits. For load of 5 KW or more earth leakage circuit breaker of proper rating shall be provided in the circuits.
- Wires and cables shall be properly supported and approved method of fixing shall be adopted. Cables shall not be left on floor/ground. Loose hanging of wires & cables shall be avoided. Lightning and power circuits shall be kept distinct and separate.
- Reinforcement rods or any metallic part of structure shall not be used for supporting wires and cables, fixtures, equipment, earthing etc.
- All cables and wires shall be adequately protected mechanically against damages. In case, the cable required to be laid underground, it shall be adequately protected by covering the same with bricks, Plain Cement Concrete (PCC), tile or any other approved means.
- All armoured cables shall be properly terminated by using suitable cable glands. Multi-stranded conductor cables shall be connected by using cable lugs/ sockets. Cable lugs shall preferably be crimped. They shall be of proper size and shall correspond to the current rating and size of the cable. Twisted connections will not be allowed.
- All the Distribution Boards, Switch Fuse units, Bus bar chambers, ducts, cubicles etc. shall have MS enclosures and shall be dust, vermin and waterproof. The Distribution Boards, switches etc. shall be so fixed that they shall be easily accessible.
- The Contractor shall provide proper enclosures/covers of approved size and shape for protection of all switch boards, equipment etc. against rain.
- Isolating switches shall be provided close to equipment for easy disconnection of electrical equipment or conductors from the source of supply, when repair or maintenance work has to be done.

- Adequate working space shall be provided around electrical equipment, which requires adjustment or examination during operation.
- All connections to lighting fixtures, starters or other power supplies shall be provided with PVC insulated, PVC sheathed twin/three/four core wires to have better mechanical protection for preventing possible damage to equipment or injury to personnel. Taped joints shall not be allowed and the connections may be made in looping system. Electric starter of motors, Switches shall not be mounted on wooden boards. Only sheet steel mounting or iron framework shall be used.
- Only PVC insulated and PVC sheathed wires or armoured PVC insulated and sheathed cables shall be used for external power supply connections of temporary nature. Weatherproof rubber wires shall not be used for any temporary power supply connections. Taped joints in the wires shall not be used.
- Contractor shall ensure that power factor for their loads shall be maintained at 0.85. In case the power factor falls below 0.85, necessary capacitor units shall be provided by the contractor.
- All portable appliances shall be provided with three-core cable and three-pin plug. The third pin of the plug shall invariably be earthed. It shall be ensured that the metal part of the equipment shall be effectively earthed.