

**INSTITUTE WORKS DEPARTMENT
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

E-TENDER DOCUMENT

for

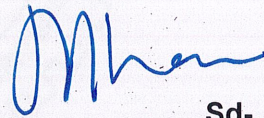
**“Additional Work for Precision Type AC System including civil work in
Quantum Optics Lab, Physics Department, IIT Roorkee”**



**Indian Institute of Technology Roorkee
Roorkee-247667, Tel. No. 01332-285747/285275**

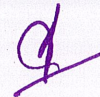
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Sd-

Institute Engineer
IWD, IIT Roorkee



(Neeraj)

PART-A

INSTITUTE WORKS DEPARTMENT
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

No. IWD/DI/ReTender/134

Dated: January 10, 2024

NOTICE INVITING TENDER (NIT)

On behalf of BOG, IIT Roorkee invites the composite online percentage rate tender in Two Bid system (1. Technical 2. financial) from eligible bidders having experience of working in Central/State Government, Public Sector undertaking/ Autonomous Organization of the Central/State Government, reputed private organizations and Working Contractors of IITR who fulfill the PQ criteria for the following works:

Name of the Work	Estimated Cost (Approx.) (Fig. in lacs)	Completion Period (Months)
Additional Work for Precision Type AC System including civil work in Quantum Optics Lab, Physics Department, IIT Roorkee	E&M works (Including CAMC): Rs 33,35,362.00	03 Months
	Civil works: Rs. 14,65,118.68	
	Total Rs. 48,00,480.68	




Critical Data Sheet

Sr. No.	Approximately Cost	Rs. 48.00 lakhs
1	Tender Type(Open / Limited / EOI / Auction / Single)	Open
2	Tender Category (Services/Goods/Works)	Works
3	Type/Form of Contract (Work/Supply/ Auction/Service/ Buy/ Empanelment/ Sell)	Work Contract
4	Product Category (Civil Works/Electrical Works / Fleet Management/ Computer Systems)	Civil Works, E&M Works (Composite Work)
5	Tender document publish date	10.01.2025 (17:30 Hrs)
	Tender Document available for sale on website	e-tendering website https://eprocure.gov.in/eprocure/app. Tender document can only be obtained after registration of tenderer on the website 10.01.2025 (17:30 Hrs) https://eprocure.gov.in/eprocure/app.
6	Start Date of Seeking Clarification	10.01.2025 (17:30 Hrs)
7	Last Date of Seeking Clarification	17.01.2025 (17:30 Hrs)
8	Pre Bid Meeting Date	N/A
9	Bid Submission Start Date (online)	24.01.2025 (12:30 Hrs)
10	Bid Submission End Date (online)	03.02.2025 (12:30 Hrs)
11	Date & time of opening of Tender (Technical Bid) (online)	04.02.2025 (12:30 Hrs)

12	Date & Time of opening of Financial Bid (online)	Will be informed later on after the evaluation of Technical Bids (Only to the bidders who will successfully qualify the Technical Evaluation).
13	Tender Fee	Tender fee of Rs. 1180.00 (Rs. 1000 Tender fee + Rs. 180 18% GST Extra) (Non-refundable), in the form of RTGS/NEFT transfer to IIT Roorkee Account No: 00000032685865515, Account Name – NON MHRD GOVERNMENT FUND IIT ROORKEE, State Bank of India, Branch, IIT Roorkee, IFSC Code: SBIN001069, MICR Code:247002094 and copy of the deposit receipt shall be uploaded on e-tender..
14	EMD	Rs. 96,000.00 (Ninety Six Thousand Only), Payment of EMD can be made by RTGS, NEFT in below mentioned account No. The bidders shall be required to upload the scanned copies of transaction of payment of tender EMD including e-receipt (clearly indicating UTR No. & Tender Reference i.e. NIT No. must be entered in the remark at the time of online transaction of payment, failing which payment may not be considered) at the time of online bid submission on e-tendering website. Tender fee /EMD may be submitted on line as per details given below. 1. Account Name- NON MHRD GOVERNMENT FUND IIT EXPENDITURE. 2. Address- IIT Roorkee, Haridwar. a. Account No.- 00000032685865515 4. Account Description- Regular SB Chq-Entities. 5. Branch- IIT Roorkee 6. CIF No- 86531323246 7. IFS Code- SBIN001069 8. MICR Code- 247002094
15	Performance Guarantee (5%)	5% of awarded value shall be submitted in the form of Bankers Cheque / DD / FDR / Bank Guarantee in the name of Institute Engineer, IIT Roorkee after issue of Letter of Acceptance (LOA).
16	Security Deposit (5%)	5% of awarded value shall be submitted in the form of Bankers Cheque / DD / FDR / Bank Guarantee in the name of Institute Engineer, IIT Roorkee after issue of Letter of Acceptance (LOA).
17	No. of Covers	02 (Cover-1 for Technical+ Cover-2 for Financial)
18	Bid Validity Days	90 days (from last date of opening of Financial Bid)
19	Documents to be uploaded on CPP Portal in cover-1 (http://eprocure.gov.in/eprocure/app) (related to eligibility criteria on or before due date of submission of tender).	For Prime bidder: a) Affidavit (on Rs.10 non-judicial stamp with notarized) regarding establishment of proprietorship firm / partnership deed / letter of incorporation for private ltd / ltd firm with written power of attorney (in case of bidder is owner, not required) of the authorized signatory. b) Self-certified copy of work completion certificate for similar works as per eligibility criteria c) Proof of online deposit of tender fee and EMD. Note: No exemption in tender fee and EMD shall be applicable for firms registered under MSE/NSIC/Udyog Adhaar. Therefore, all the bidders are required to submit the EMD and Tender fee as mentioned in Tender documents d) Notarized undertaking on Rs. 100 non-judicial stamp paper as per NIT, filled Annexure-A, Annexure-I & Annexure-II. e) The Average Annual Turnover CA Certificate preferably with UDIN should be at least 50% of estimated cost during the immediate last 3 consecutive Financial Years (2021-22, 2022-23, 2023-24).

		<p>f) Bank Solvency certificate: Bidder should have to submit valid solvency certificate of the amount at least 40% of the estimated cost of the work issued by a scheduled bank which is not more than one year old from the last date of tender submission (including extension time). Certified copy of original solvency certificate to be uploaded in cover-1.</p> <p>g) Project specific authorization from OEM of Precision AC (M/s Flaktgroup) mentioning full back support including spares during the usable life of the units.</p> <p>h) GST, PAN, ESI & EPF.</p> <p>i) Proposal for eligible associating agencies as per Form-G.</p> <p>For Associate Agency (for Civil Works):</p> <p>a) PAN Card & GST Registration</p> <p>b) Consent letter as per Form-H</p> <p>c) MoU as per Form-I</p> <p>d) Self-certified copy of work orders along with work completion certificate as per eligibility criteria. should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <p>Three similar completed works each of value not less than 40% of Estimated cost.</p> <p style="text-align: center;">or</p> <p>Two similar completed works each of value not less than 60% of Estimated cost.</p> <p style="text-align: center;">or</p> <p>One similar completed work each of value not less than 80% of Estimated cost.</p> <p>e) Similar work shall mean "Construction/ renovation of clean room facility"</p> <p>f) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of receipt of application for tenders.</p>
20	Cover – II, Price Bid	To be uploaded only on CPP Portal (http://eprocure.gov.in/eprocure/app) in excel sheet.
21	Address for submission of documents or other communication.	Institute Engineer, Institute Works Department, James Thomson Building, IIT Roorkee, Roorkee-247667 (India), Tel. No. 01332-285266/ 5275/ 5747
22	Email Address	deepak.ie@iitr.ac.in / nepalaad@iitr.ac.in / ee-electrical@iitr.ac.in

1. Institute reserves the right to cancel any or all tenders without assigning any reason.
2. Kindly note that no physical submission of documents is required at this stage and it is to be uploaded only on e-tendering website.


Institute Engineer
IWD, IIT Roorkee.



INSTRUCTIONS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online bidder Enrollment**” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) 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 DSC's to others which may lead to misuse.
- 6) 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.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) 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 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. 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 need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) 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 / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: *My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.*

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 6) 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, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener’s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), 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.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) 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.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

INFORMATION AND INSTRUCTIONS TO BIDDERS:

On behalf of BOG, IIT Roorkee invites the composite online percentage rate tender in Two Bid system (1. Technical 2. financial) from eligible bidders having experience of working in Central/State Government, Public Sector undertaking/ Autonomous Organization of the Central/State Government, reputed private organizations and Working Contractors of IITR who fulfill the PQ criteria for the following work:

“Additional Work for Precision Type AC System including civil work in Quantum Optics Lab, Physics Department, IIT Roorkee ”.

The work is estimated to cost **48,00,480.68/-** {Rs. 33,35,362.00/- (E&M component including CAMC), Rs. 14,65,118.68/- (Civil component)}. This estimate, however, is given merely as a rough guide.

1. Intending bidder is eligible to submit the bid provided, if he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:

1.1 Eligibility criteria for submission of bid documents (for prime bidder):

- (a) Intending bidder should not be a joint venture (Self Certified copy of relevant documents clearly establishing the status of bidder to be uploaded in Cover-1).
- (b) Similar work should have been successfully completed by the bidder during last seven years ending last day of the month previous to the one in which applications are invited. The works completed up to previous day of last date of submission of tenders shall also be considered.

Three similar completed works costing not less than the amount equal to 40% (19.20 lakhs) of the estimated cost put totender,

or

Two similar completed works costing not less than the amount equal to 60% (28.80 lakhs) of the estimated cost put to tender.

or

One similar completed work of aggregate cost not less than the amount equal to 80% (38.40 lakhs) of the estimated cost. (Self-Certified photocopy of work order along with work completion certificate to be uploaded as proof ofeligibility criteria in Cover-1)

Completion certificate issued by Competent Authority will only be considered. Competent Authority means officer of not below the rank of Executive Engineer/ Equivalent would be acceptable.

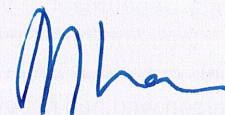
Explanation: The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of receipt of applications for this tender.

- (c) Similar work means **“SITC/ CAMC of Precision AC/ Clean Room”**.
 - (d) The Average Annual Turnover CA Certificate preferably with UDIN should be at least **50%** of estimated cost during theimmediate last 3 consecutive Financial Years (2021-22, 2022-23, 2023-24) –balance sheet duly audited by Chartered Accountant. (Scanned copy of Certificate from CA preferably with UDIN Number to be uploaded). The year in which no turnover is shown would also be considered for working out the average.
 - (e) Bank Solvency certificate: Bidder should have to submit valid solvency certificate of the amount at least 40% of the estimated cost of the work issued by a scheduled bank which is not more than one year old from the last date of tender submission (including extension time). Certified copy of original solvency certificate to be uploaded in cover-1.
2. Agreement shall be drawn with the successful bidder on prescribed format.
 3. No exemption in tender fee and EMD shall be applicable for firms registered under MSE/NSIC/Udyog Adhaar. Therefore, all the bidders are required to submit the EMD and Tender fee as mentioned in Tender documents
 4. The time allowed for carrying out the work will be as per the NIT from the date of start as defined in Award of Work or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in tender documents.
 5. The site for the work is available / shall be made available for start of the work.
 6. The Tender document consisting of plans, specifications, the schedule of quantities of various types of items to

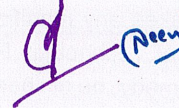
be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen / downloaded from IIT Roorkee website: <http://mm.iitr.ac.in/mmweb/tenders>) or from Central Public Procurement Portal (CPPP) <http://eprocure.gov.in/app>.

7. While submitting the bids, bidder can revise the rate, but before last date and time of submission of bids as notified. In this case, the last submitted bid before the last date and time will only be considered.
8. The scanned copies of documents as per critical data sheet shall be uploaded under Cover-1 on the e-tendering website.
9. Online Financial Bids submitted by intending bidders shall be opened only of those bidders, whose bid found technically qualified.
10. The bid submitted shall become invalid and cost of bid & tender processing fee shall not be refunded if: (i) the bidder is found ineligible. (ii) The bidder does not provide all the documents (including PAN No., GST registration etc.) as stipulated in the bid document.
11. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their Tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent upon any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a bidder implies that he 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 of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Institute and local conditions and other factors having a bearing on the execution of the work. Cost of site visit shall be borne by the bidder.
12. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the Tenders submitted by the bidders who resort to canvassing will be liable to rejection.
14. The bidder shall not be permitted to tender for works in the IWD, IIT Roorkee, if his near relative is posted as an officer in any capacity between the grades of Dean Infrastructure and Junior Engineer (both inclusive). Any breach of this condition by the bidder would render him liable to be removed from the Tendering process.
15. No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to act as a bidder within a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the bidder or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the bidder's service.
16. The bid for the works shall remain open for acceptance for a period of 90 days from the date of opening of financial bids. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the Indian Institute of Technology Roorkee, then Indian Institute of Technology Roorkee, without prejudice to any other right or remedy, be at liberty to forfeit of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the re-bidding process of the work.
17. The notice inviting bid shall form part of the contract document. The successful bidder, on acceptance of his bid by the Accepting Authority, have to sign the contract consisting of "The Notice Inviting bid, all the documents including Special Conditions, General Specifications/ Particular Specifications and drawings, if any, forming part of the bid as submitted at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto within 15 days from the stipulated date of start of the work.
- 18. Composite Tender**
 - 18.1 The competent authority is calling this bid for the composite work.

- 18.2 The eligible bidders have to quote rates for all items given in the schedule of quantity.
- 18.3 After acceptance of the bid by competent authority Institute Engineer, IIT Roorkee shall issue letter of Acceptance (LOA) on behalf of the Institute. After issue of LOA, the bidder will have to enter into one agreement with Institute Engineer, IIT Roorkee.
- 18.4 Entire work under the scope of composite tender including major and all minor components shall be executed under one agreement.
- 18.5 The bidder must associate agency(s) for minor component(s) conforming to eligibility criteria as defined in the tender document and has to submit detail of such agency(s) to Institute Engineer. Name of the agency(s) to be associated shall be approved by Institute Engineer. Before engaging such associate agencies bidder has to inform to Institute Engineer along with his past experience and all credential's and got the approval of the same from him.
- 18.6 In case the bidder intends to change any of the above agency/ agencies during the operation of the contract, he shall obtain prior approval of Institute Engineer. The new agency/ agencies shall also have to satisfy the laid down eligibility criteria. In case Institute Engineers not satisfied with the performance of any agency, he can direct the bidder to change the agency and this shall be binding on the bidder.
- 18.7 The main bidder has to enter into agreement with bidder(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to Institute Engineer. In case of change of associate bidder, the main bidder has to enter into agreement with the new bidder associated by him.
- 18.8 The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in charge of major component after record of completion certificate of all other components. Final bill of whole work shall be finalized by IWD, IIT Roorkee.
- 18.9 It will be obligatory on the part of the bidder to sign the contract documents for all components before the first payment is released.
- 18.10 It will be obligatory on the part of the bidder to sign the contract documents for all components before the first payment is released.
- 18.11 EE of major component will operate Part A and Part B of the agreement. EE of minor component(s) shall operate Part C along with Part A.
- 18.12 Running payment for the major component shall be made by EE of major discipline to the bidder. Running payment for minor components shall be made by the EE of the discipline of minor component directly to the bidder.



Institute Engineer
IWD, IIT Roorkee



A: GENERAL INSTRUCTIONS

1. Scope of Tender.

- 1.1 Indian Institute of Technology Roorkee (referred to as Owner in these documents) invites Tender as defined in these documents and referred to as “the works” detailed in the table given in the Notice Inviting Tenders (NIT).
- 1.2 The successful Bidder shall complete the works within the completion date specified in the Notice Inviting Tenders (NIT).

2. Non Association / Relation

- 2.1 All bidders will provide in the bid tender and Qualification Information, a statement that the Bidder is not associated, nor has been associated in the past, directly or indirectly, with the Indian Institute of Technology Roorkee or any other entity that has prepared the design, specifications, and other documents for the Project.

3. Qualification of the Bidder

- 3.1 All Bidders shall provide tender qualification information.
- 3.2 All Bidders shall include the following information by submitting relevant documents and certificate with their tenders: The Bidder must be registered with the GST Department and should submit the registration certificate of GST, ESI, PF, labour license(if applicable) etc.

4. Cost of tendering

- 4.1 The Bidder shall bear all costs associated with the preparation and submission of his tender, and the Owner will in no case be responsible and liable for those costs.
- 4.2 The Bidder, at its own responsibility and risk is encouraged to visit and examine the Site of Work and its surroundings and obtain all information that may be necessary for preparing the tender. The costs of visiting the Site shall be at the Bidder's own expense.

B: DOCUMENTS INVITING TENDERS

5. **Invitation:** Tenders are hereby invited on behalf of BOG Indian Institute of Technology Roorkee.

6. Contents of documents as mentioned in the relevant clauses mentioned:

The Bidder shall be deemed to have examined all instructions, forms, terms, and specifications in the Documents. Failure to furnish the information required in the Tender Document or submission of a Bid not substantially responsive to the Tender Documents in every respect will be at the Bidder's risk and may result in the rejection of the bid.

The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and Special Conditions in preference to General Conditions.

In case of any discrepancy between the Schedule of Quantities, the specifications and/ or the drawings, given in the tender document the following order of preference shall be observed:

1. Description of Schedule of Quantities.
2. Particular Specification and Special condition, if any.
3. Drawings.
4. C. P. W. D. specifications/ IWD, IIT ROORKEE specification.
5. Latest edition Indian Standard Specifications of B. I. S.

7. Amendment of Tendering Documents

- 7.1 Before the deadline for submission of bids, the Indian Institute of Technology Roorkee may modify the Tender documents by issuing addenda/corrigendum.
- 7.2 Any addendum thus issued shall be part of the Tendering documents and shall be uploaded on e-Tendering website www.eprocure.gov.in and Institute website www.iitr.ac.in.
- 7.3 To give prospective Bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bid, the IIT Roorkee may extend if necessary the deadline for submission of tenders.

C: PREPARATION OF DOCUMENT

8. **Tender fee:** Tender fee in favour of Registrar, Indian Institute of Technology Roorkee payable at Roorkee must be submitted as mentioned in critical data sheet. Bids not accompanying with Tender fee will be summarily rejected. Tender fee is nonrefundable

9. **Earnest Money Deposit (EMD):** EMD as per critical data sheet must be submitted. Bids not accompanying with EMD will be summarily rejected. The EMD of the unsuccessful bidders will be discharged/refunded within Thirty (30) days from the date of opening of the financial bids. The EMD of the successful Bidder shall be converted as Security deposit. The EMD may be forfeited and further the bidders shall not be allowed to participate in the re-bidding process of the work, if the Bidder withdraws his bid during bid validity period or in case of successful Bidder fails to sign the contract/ fails to deposit security amount and performance guarantee.
10. **Period of validity of bid:** The bids shall remain valid for a period of 90 days after the date of opening of bid. A bid valid for a shorter period shall be rejected by the Indian Institute of Technology Roorkee as non-responsive and the EMD paid along with it will be forfeited.
11. **Language of Bid:** The document shall be written in English/Hindi language. The total amount should be written in the same language.
12. **Document comprising the E-Tender:** No page of this tenders document shall be removed and the set must be submitted as it is. Each page of the tenders document form is to be signed by the Bidder and must bear the Seal of the Company/Firm.

The tender submitted by the Bidder shall comprise as mentioned above in relevant sections.

13. Tender Prices

- 13.1 The contract shall be for the whole works as described in priced Schedule of Quantities submitted by the Bidder.
- 13.2 The tender submitted on behalf of firm shall be signed by a person who has the proper legal authority on behalf of the firm to enter into the contract; otherwise, the bid is liable to be rejected. Each page of the tender document and each drawing accompanying is required to be signed by the authorized person submitting the bid, with the company seal as the token of their having examined and acquainted themselves with the General conditions of contract, drawings, specifications, special conditions of contract etc. The forms of tender are to be filled in completely. Any bid with any of the documents not signed is liable to be rejected.
- 13.3 The Bidder shall fill in the percentage rate/in rates for items of the Works described in the Schedule of Quantities along with total bidding price. In case if the rates are not filled for any of the Items of Schedule of Quantities, in such cases the tender shall be summarily rejected. Failure to comply with either of these conditions will make the bid liable for rejection.
- 13.4 The work shall be carried out by the Bidder in a manner complying in all respect with the requirement of relevant bye-laws/orders of the Local/Municipal bodies and pay all fees and charges which may be leviable at his own cost. The completion/ occupancy certificates including clearance from fire committee or any other statutory obligation shall be arranged by the bidder. Any official fees shall be paid by the Owner. All other cost of liasoning shall be borne by the bidder.
- 13.5 **Taxes:** All duties, taxes, and other levies payable by the Bidder under the contract, or for any other cause, shall be included in the rates, prices and total Bidding Price submitted by the Bidder. Bidders must include in their rates, the cost of transportation of materials to site, GST, labour cess as per Building & other construction workers cess act, excise duty, octroi, and any other tax and duty levied by the Central / State Government. None of the above taxes & levies will be entertained by the Owner and no tax exemption forms will be issued by the Owner.
- 13.6 **Labour Cess or BOCWW Cess:** Labour cess @1% shall be deducted from each bill
- 13.7 Bidder should also take a Group Insurance Policy for his Workmen, Supervisors and Engineers working on site for an adequate insurance cover. Indian Institute of Technology Roorkee shall not be responsible for any accident or happening of any untoward/unforeseen event involving workmen, labour, supervisor or engineer or any person directly or indirectly associated with the execution of work. The insurance policy to be obtained by the successful Bidder must be comprehensive and shall cover all associated risks (known and unknown).
- 13.8 The rates quoted in the tender shall include cost of electrical power supply, water supply, cost of all materials, labour, telephone, rent and call charges, water and meter rent charges, temporary electric wiring / lighting for execution of work at site, hire for any tools and plants, shed for materials, marking out and clearing of site, transportation complete in all respects. The rates quoted in the tender shall be treated as rate for finally completing the item of work.
- 13.9 The quantities furnished in the schedule of quantities are only probable quantities and are liable to alterations, by omission, deductions or additions to any extent at the discretion of Indian Institute of Technology Roorkee. Payments will be regulated on the actual quantities of work done at accepted rates.
- 13.10 Errors in the Schedule of Quantities shall be dealt with in the following manner:

- i. In the event of a discrepancy between the rates quoted in words and the rates in figures, rate quoted in words shall be considered to be correct.
 - ii. In the event of an error occurring on account of arithmetical calculations the same shall be corrected according to rates written in words and quantities in B.O.Q.
 - iii. All the errors in totaling in the amount column and in carrying forward the totals shall be corrected. The tender total shall be accordingly amended. If the bidder doesn't accept the corrected amount the tender will be rejected and EMD will be forfeited.
- 13.11 The calculations made by the bidder should be based upon quantities of the items of work which are furnished in the Schedule of Quantities, but it must be clearly understood that the contract is not a lump sum contract. The Owners do not in any way assure, represent or guarantee that the said probable quantities are correct or that the work would correspond thereto. The items of work irrespective of the quantities which may vary shall be carried out at the same accepted bidding e-tender rates and no escalation in the rates will be entertained whatsoever. Any item of work may be omitted from the schedule of quantities and may be awarded to another agency at any time / stage of the work.
- 13.12 The bidders must obtain for themselves on their own responsibility and their own expenses all the information which may be necessary, including risks, contingencies and other circumstances to enable them in making a proper bid and for entering into a contract, and must examine the drawings, specifications and conditions and inspect the site of the work, nature of the work, availability of power, water, shelter for workmen and all the matters pertaining thereto before submitting the bid. They can also get any clarifications required from the Owner, before tendering, by contacting them at their office during working hours.

14. Format and signing of Tender document

- 14.1 The bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the tender where entries or amendments have been made shall be initialed by the person or persons signing the tender.
- 14.2 The tender shall contain no alterations or additions, except those to comply with instructions issued by the Owner, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid. ANY CONDITIONAL BID WILL BE SUMMARILY REJECTED.

D: MODE OF SUBMISSION OF BID DOCUMENT

15. Sealing and marking of bids.

- 15.1 The entire document to be put in cover-1 should be scanned and uploaded under cover-1 on the e - tendering website.
- 15.2 Financial/price bid is to be uploaded online only & no hard copy to be submitted.

16. Deadline for submission of bid: - As per NIT.

E: TENDER OPENING AND EVALUATION

- 17. **Tender opening:** The tender will be opened on the date and the place specified in the critical data sheet. In case of any unavoidable circumstances or unforeseen event on the specified date and time of tender opening, the bids will be opened at the appointed time and location on the next working day.
- 18. **Clarification of Tenders:** To assist in the examination, evaluation and comparison of bids, the Owner may, at his discretion, ask any Bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by fax, but no change in the price or substance of the tendering shall be sought, offered or permitted.
- 19. **Examination of Bids and Determination of Responsiveness:**
 - 19.1 Prior to the detailed evaluation of bids, the Owner will determine whether each bid
 - a) Meets the eligibility criteria defined
 - b) Has been properly signed and meets the requirements mentioned
 - c) is accompanied by the required securities and;
 - d) is responsive to the requirements of the tendering documents.
 - 19.2 A responsive bid is one which conforms to all the terms, conditions and specifications of the tendering documents, without material deviation or reservation. A material deviation or reservation is one
 - a) Which affects in any substantial way the scope, quality, or performance of the works;
 - b) which limits in any substantial way, inconsistent with the tender documents, the Indian Institute of Technology Roorkee rights or the Bidders' obligations under the contract; or

- c) Whose rectification would affect unfairly the competitive position of other Bidders presenting responsive bids.
- 19.3 If a bid is not responsive, it will be rejected by the Indian Institute of Technology Roorkee, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.
- 20. Evaluation and Comparison of Bids:**
- 20.1 The Owner along will evaluate and compare only the bids determined to be substantially responsive.
- 20.2 In evaluating the bids, the Owner will determine for each bid the evaluated bids Price by adjusting the bid. Price as follows:
- Making any correction for errors; or
 - Making an appropriate adjustments for any other acceptable variations, deviations; and
 - Making appropriate adjustments to reflect discounts offered.
- 21. The Owner reserves the right to accept or reject any variation, deviation, or alternative offer and other factors which are in excess of the requirement of the tender.**
22. In Case any information furnished by the bidder is found to be false/forged/incorrect at any stage, their bid shall be rejected and the bidder shall not be allowed to participate in the re-bidding process of the work.
23. **Clarification of Bids/Shortfall Documents:** IIT Roorkee may, at its discretion, ask the bidder for clarifications/ shortfall documents related to his bid. The request for clarification shall be given in writing. Depending on the reply of the bidder, his bid shall be ignored or considered further

F: AWARD OF TENDER

- 24. Award criteria:**
- 24.1 The acceptance of bid will rest with the Owner, which does not bind itself to accept the lowest bid and reserves to itself the authority to reject completely / partially, any or all of the bid/s received without the assignment of a reason.
- 24.2 The owner reserves to itself the right of accepting the whole or any part of the Bid and the Bidder shall be bound to perform the same at the rate quoted.
- 24.3 The Owner reserves to itself the right of omission of any item of work from the awarded tender at any time / stage during the execution of work and awards the same to another agency / bidder.
- 25. Notification of award:** The successful Bidder will be issued a Letter of Acceptance (LOA) by the Owner. The issuance of LOA shall not constitute an award of work.
- 26. Security Deposit:** Within ten (10) days of LOA the successful Bidder shall furnish the security deposit @ 5% of value of work in the form of DD/FDR in the favour of Institute Engineer, IIT Roorkee payable at Roorkee from Scheduled bank. The security deposit shall be returned/refunded to the bidder on completion of the defect liability period of contract. In case the bidder fails to deposit the said security deposit within the period as indicated, the Earnest Money deposited by the bidder shall be forfeited automatically without any notice to the bidder
- 27. Performance Guarantee (PG):** Within ten (10) days of LOA the successful Bidder shall furnish the performance guarantee @ 5% of value of work in the form of DD/FDR/ Performance Bank Guarantee from Scheduled bank provided in the tender document. The PG must be valid two months beyond the work completion period. It may be further extended. The Performance guarantee shall be returned / refunded to the bidder on completion of the work and recording of the completion certificate. In case the bidder fails to deposit the said performance guarantee within the period as indicated, he shall be suspended for one year and shall not be eligible to bid for IIT Roorkee tenders from date of issue of suspension order.
- 28. Signing of contract form:** On the acceptance of LOA and Performance Bank Guarantee of the successful Bidder whose tender has been accepted in writing, the Indian Institute of Technology Roorkeewill sign an agreement. Article of agreement shall be as per IIT Roorkee.
- 29. Abnormally High and Low Bids :**
- Tender evaluation committee (TEC) will observe the rates and seek justifications if that are abnormally high/low. Threshold value over which the rates would be judged high/low shall be decided by the TEC looking into the nature of work and their specification on case to case basis
 - If required necessary for high bids negotiation will be done with the approval of the Competent Authority.

However, if the rates will be found abnormally low additional security shall be got deposited as per the following formula:

- i) Upto 30% less than the estimated cost : nil
- ii) Above 30% and less than upto 50% : 20%
- iii) Above 50% and less than upto 70% : 40%

G: DURING EXECUTION

30. During Execution: The Bidder shall carry out all the works strictly in accordance with the drawing, details and instructions of the Owner. If in the opinion of the Owner, changes have to be made in the design, and they desire the bidder to carry out the same, the Bidder shall be bound to comply. The Owner decisions in such cases shall be final.

The Bidder is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the schedule of quantities and rates. Schedule of instructions in respect of such additional items and their quantities with the prior consent from the Owner. Rates for such items of work will be approved by the Owner on the basis of Analysis of Rates which will be derived from actual prevailing market rates of similar item along with 15% as bidder's profit & overhead (or service charge as quoted by the bidder). The rates approved by the Owner in such cases will be final.

The Bidder shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the Owner or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

The Owner may instruct at any stage of execution for testing of samples of any material taken at random. The Owner will decide the testing laboratory / agency and the cost of testing including the expenses for sending the samples to the laboratory / agency and receipt of test reports shall be borne by the Bidder. The material shall be rejected in case the test reports are not within the permissible limits.

The Bidder shall have to present the invoice for purchased material from the manufacturer or from the dealer along with the certificate from the manufacturer. In case material is found to be of substandard quality, the same shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

The Bidder shall not be entitled to any compensation for the Loss suffered by him on account of delays in commencing or executing the work whatever the cause of delay may be, including delays arising out of modifications to the work entrusted to him or in any subcontracts connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such other works or in procuring Government controlled or other building materials for any other reasons whatsoever. The Owner shall not be liable for any sum besides the e-tender amount, subject to such variations as are provided for herein and as instructed by Owner. However, necessary time extension will be given if the delays are not attributed to the Bidder.

QUALIFYING INFORMATION**Annexure-A**

Please furnish the following information along with documentary evidence only in this format (as eligibility criteria)

1.	Name of the bidder		
2.	Legal Status of the bidder		
3.	Place of registration and registration of the bidder		
4.	Year of establishment of the firm.		
5.	Permanent Address		
6.	Email id		
7.	Contact Numbers		
8.	Principal place of the registration		
9.	PAN No.		
10.	GST No.		
11.	Valid EPFO		
12.	Valid ESIC		
13.	EMD details		
14.	Tender fee details		
15.	Solvency certificate details		

16. Average annual financial turnover during the last 3 years, ending 31st March of previous financial year, should not less than 50% of the estimated cost. CA certificate be enclosed as documentary proof. Copies of balance sheets duly certified by CA to be submitted.

Sl. No.	Financial Year	Amount (in Lakhs)
1	2023-2024	
2	2022-2023	
3	2021-2022	

17. PROFORMA FOR LIST OF WORKS EXECUTED BY THE BIDDER DURING THE LAST 7 YEARS.

Sl. No	Name of work/ project with address	Name & postal address of the owner & contact person	Contract Value	Date of Start	Date of Completion	Actual Date of Completion

Note:

1. Bidder may furnish the above information in separate sheet if the space is not sufficient.

18. PROFORMA FOR LIST OF WORKS IN HAND

Sl. No	Name of work/ project with address	Name & postal address of the owner & contact person	Published Value	Date of Start	Stipulated date of completion	Present Progress

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient

19. DETAILS OF KEY PERSONNEL

Sl. No	Name & Designation	Qualification	Experience	Nature of Works Handled	Date from which employed in your organization

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient.

20. List of equipments, tools and tackles (in applicable)

(to be submitted by the vendor/firm on its official letter head)

Self-Certificate for Local Content

Tender No:

Dated

We hereby certify that the items quoted by us against above mentioned tender no. has the local content as per below:

Local Content (in %):

Local Supplier Class:

The details of the Make in India items/parts used in the quoted products is/are as under:

- 1.
- 2.
- 3.

The details of the location(s) at which the local value addition made/manufactured is/are as under:

- 1.
- 2.
- 3.

We also understand, false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Signature:

Name:

Designation:

Seal of the Firm/Organization:

PERFORMA FOR DIRECT PAYMENT/ TRANSFER TO BANK ACCOUNT BY IIT ROORKEE

S. No.	Particulars	Information
1	Firm (Beneficiary) Name	
2	Address	
3	Complete Bank Account No. of the Firm (Beneficiary) (In case of change in Bank Account vendor write to Account Office)	
4	Bank Name	
5	Branch Address	
6	IFSC Code No.	
7	Permanent Account No.	
8	Mobile No. (for SMS)	
9	Email ID (For Information)	
10	Enrolment No. (for student)	

We undertake that all the information provided above is correct and IIT Roorkee will not be responsible in case of any error on the part of firm.

Verification by Bank (one time only) Information given at 1,4,5,6&7 verified by Bank Seal and Signature of the Bank	 Seal and Signature of the Firm
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GENERAL CONDITIONS OF CONTRACT(GCC)

A: GENERAL

1.0 Definitions :

1.1 In this contract, the following terms shall be interpreted as indicated:

- a. "The Contract" means the agreement entered into between the Owner and the Bidder, as recorded in the contract form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein.
- b. "The Contract Value" means the amount payable to the Bidder under the contract for the full and proper performance of its contractual obligations.
- c. "Contract Data" means any information provided in the tender document and agreed to by the Bidder.
- d. "The Work" means all labour, materials, tools and plant, equipment including government taxes and transport that may be required in preparation of and for and in the full and entire execution and completion of "the Work".
- e. "Services" means services ancillary to the execution of the work such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Bidder covered under the contract.
- f. "GCC" mean the General Conditions of Contract contained in this section.
- g. "SCC" means the Special Conditions of Contract.
- h. "The Owner" means the Indian Institute of Technology Roorkee or its representative.
- i. "The Owner" means the Owner/Project Management Consultant appointed by the Owner for preparing all the drawings, details and specifications of items required for the execution of the work and supervise and monitor the execution at site along with checking and verifying Bidder's bill. The Bidder shall offer the Engineer or any representative of Owner every facility and assistance for examining the works and materials. The Engineer or any representative of the Owner shall have power to give notice to the Bidder or to his staff, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Owner. Such examinations shall not in any way exonerate the bidder from the obligations to remedy any defects which may be found to exist at any stage of the work or after the same is completed.
- j. "The Bidder" means the individual or the firm executing the work.
- k. "The Project Site" where applicable, means the place or places named in SCC.
- l. "Day" means calendar day.
- m. "Engineer-in-charge (EIC)" means Executive Engineer (Electrical) – Major discipline.

2.0 Interpretation and Application

- 2.1** These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.
- 2.2** In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Owner will provide instructions clarifying queries about the Conditions of Contract.
- 2.3** If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended completion date are for the whole of the Works.

3.0 Standards

- 3.1** The works executed by the Bidder should be carried out in most professional manner, both as regards material and otherwise, in every respect, in strict accordance with the Technical Specifications. All materials and workmanship shall so far as procurable be of the respective kinds described in the priced schedule of quantities and/ or specifications and in accordance with the Owner' instructions, and the Bidder shall upon the request of the Owner, furnish them with all invoices, accounts; receipts and other vouchers to prove that the material procured complies therewith. When no applicable standard is mentioned, the work shall be carried out as per the directions of the Owner. The Bidder shall at his own cost arrange for and/or carry out any test of materials which the Owner may require. In case of discrepancies in tender wording as

regards the specifications of materials, workmanship etc., written instructions will supersede the tender wording unless otherwise mentioned.

3.2 The Owner in their absolute discretion from time to time shall issue further drawings and/ or written instructions, details, directions and explanations which are hereafter collectively referred to as “the Owner’s instructions” in regard to: -

- a. The variation or modification of the design quality or quantity of works or the addition or omission or submission on any work.
- b. Any discrepancy in the drawings or between the schedule of quantities and / or drawings and /or specifications/ dimensions etc.
- c. The removal and / or re-execution of any works executed by the Bidder.
- d. The removal from the site of any materials brought thereon by the Bidder and the substitution of any other materials therefore / or rejection of the material brought on site.

4.0 Use of Contract Documents and Information

4.1 The Bidder shall not, without the Owners’ prior written consent, disclose the contract or any provision thereof, or any specifications, plan, drawing, pattern, sample or information furnished by or on behalf of the Owner in connection therewith, to any person other than a person employed by the Bidder in performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

4.2 The Bidder shall not, without the Owner’s prior written consent make use of any document or information enumerated in Para 4.1 except for the purposes of performing the contract.

4.3 All documents included but not limited to contract agreement shall remain the property of the Owner and shall be returned (in all copies) to the Owner on completion of the Bidder’s performance under the contract, if so required by the Owner.

5.0 Owner’s Decisions: Except where otherwise specifically stated, the Owner will decide contractual matters between the Owner and the Bidder, in the role of representing the Owner.

6.0 Performance Guarantee: The proceeds of the performance guarantee shall be payable to the Owner as compensation for any loss or dues resulting from the Bidder’s failure to complete its obligations under the contract.

7.0 Program and Reporting (For New Construction work)

7.1 The bidder shall furnish to the Indian Institute of Technology Roorkee a bar chart laying down weekly financial and physical targets to complete the project within stipulated time for approval within fifteen days from the date of receipt of notification of award. Weekly progress report shall be furnished to the owner showing the progress.

7.2 The bidder must submit every week the following information to the Owner in writing:

- i. Number of men employed, trade wise;
- ii. Progress achieved;
- iii. Expected dates for completion of work;
- iv. Any actual or potential delay in completion schedule.

8.0 Assignment and Sub-contracting

8.1 The whole of the works included in the Contract shall be executed by the bidder and the bidder shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein without the written consent of the Owner.

8.2 No sub-contracting shall relieve the Bidder from the full and entire responsibility of the Contract or from the active superintendence of the work during their progress.

9.0 Bidder to provide everything necessary for proper execution of work

9.1 The Bidder shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, priced schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from. If the Bidder finds any discrepancy therein he shall immediately and in writing refer

the same to the Owner whose decision shall be final and binding. Further, if any sample(s) of material (s), fittings, fixtures or finished item(s), to be used in the construction work, has/have been called for from the bidder, no work related to it/these shall be executed unless the same has/ have been approved by the Owner failing which no payment shall be made to the bidder on this account. Any sample, duly approved by the Owner shall become part of the supply to be used in "the works".

- 9.2** The Bidder shall arrange for water & power supply at site at his cost for the entire work. The water to be used for construction shall be free from excessive salts and minerals that are harmful to the construction work. Making arrangement of water good for construction either through external supply or through treatment at site shall be entirely the responsibility of the Bidder. The Bidder shall on demand of the Owner / PMC get any random water samples tested at the approved testing laboratories. No extra payment shall be made for arranging water good for construction under any circumstances. No excuse for / of Municipal water / electric supply shall be entertained. The bidder shall ensure provision of electricity by generator and water by tanker transport if necessary. No claim shall be entertained on this account. In case the same will be provided by the Owner at any stage, then water/electricity charges shall be deducted from the Bidders running bills as per actual metered consumption.
- 9.3** The Bidder shall supply fix and maintain at his cost, during the execution of any works, all the necessary power supply, water supply, centering, scaffolding, watching and lighting by night as well as by day, required not only for the proper execution but also for protection of the public and the safety of any adjacent roads, streets, pavements, walls houses, building and other erections, matters or things. The Bidder shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring pumping, fencing, hoarding, watching and lighting by night as well as by day, required not only for the proper execution but also for protection of the public and the safety of any adjacent roads, streets, pavements, walls houses, building and other erections matters or things. The bidder shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring etc. as occasion shall require or when ordered so to do so and shall fully reinstate and make good all matters and things disturbed during the execution of the works, to the satisfaction of the Owner.
- 9.4** Throughout the execution of the work, the Bidder or his representative duly authorized and fully responsible and technically conversant with the work under this agreement, acting on his behalf shall be available at the site for supervising the work. The Bidder shall make adequate arrangements for watchmen to guard the materials brought by them to the site and shall ensure the safety, breakage and any theft of materials fixed or unfixed by him. Any material, T & P brought to the site for bonafide use of the Project shall not be removed/ shifted from the site without the prior written permission of the Engineer/Owner.
- 9.5** The bidder has to provide at his cost leveling pipe, steel/ metallic tapes etc. required by the supervising staff of the Owner's/Owner' representative during execution of the work.
- 9.6** Whenever required by the Owner, the Bidder shall provide shop drawings / details before execution of work and get them approved by the Owner.
- 9.7** Wherever the specification of any item indicates the usage of approved equivalent of any material, the Bidder shall get the sample of the equivalent material approved from the Owner before execution. The approval of the equivalent material is entirely at the discretion of the Owner.
- 9.8** Institute reserve all rights to execute fully or partially or any additional items and quantities as mentioned in BOQ. The contractor has to execute all additional items as directed by the Engineer in charge at the quoted price only

10.0 Infrastructure (For New Construction Works) : For storage of materials, bidder has to provide at his own cost sufficient fenced and covered appropriate area on site for storage of above materials with lock and key arrangement. For arranging meetings suitable sized table and chairs shall be provided by Bidder. Temporary space shall be provided to the Bidder for construction of stores for storage of materials /site office/ labour hutments for the project period.

11.0 Site Establishment: The bidder shall provide all stores, workmen and materials. All materials likely to deteriorate in the open shall be stored under suitable cover. The security of the bidder's equipment and materials is his own responsibility. The Owner accepts no liability for loss or damage to the bidder's plant tools or materials. The materials issued to the bidder by the Owner will remain under the custody of bidder as a trustee. However, title on the same will remain with the Owner. The bidder will be responsible for loss or damage to such materials and shall preserve them in good working conditions as required for the contract and good construction practices till such time that they are incorporated in the works and erected, aligned and fully installed in position and handed over to the Owner. In case the Owner feels that arrangements made by the bidder are not adequate he shall so advice the bidder and the bidder shall promptly take corrective action. In case the bidder fails to take corrective action, Owner shall take such corrective actions and recover the cost

thereof from the bidder's bills. Accounts of such material on completion of work shall be rendered and surplus material returned to the Owner as per instructions of Owner. The bidder shall clear away periodically or as instructed by Owner any rubbish, scrap materials, etc. and dump the same in the authorized dump sites notified by local authority/area indicated by the Owner. All construction materials shall be neatly stacked in an orderly manner as directed by the Owner and care shall be taken to allow proper access to workmen and easy movement of men, vehicles, cranes and materials. The bidder shall maintain all the drawings carefully mounted on the board of appropriate size and well protected from the ravages of weather, termites and other insects. The bidder shall not permit the entry to the site of any person not directly connected/concerned with the work without first having obtained the written permission of Owner. The bidder shall submit a list of plants, equipments, tools, tackles, etc. which he will use, to perform the work. These tools, etc. shall not be removed from the site till the completion of job. A gate pass must be obtained from the Indian Institute of Technology Roorkee, chief proctor office, in order to remove from site any plant equipment, tools and materials. All items such as instructions and other pertinent data regarding erection/commissioning and maintenance should be typed and classified for transmittal in a manner approved by the Owner. For all employees of Owner, the bidder shall conform for no misconduct from any of his workforce; failure of this will be sufficient cause for removal of such person from the site.

12.0 Messing & Accommodation: The bidder will make his own arrangements for messing and accommodation. No accommodation and messing shall be provided by the Owner.

13.0 Procurement, Consumption and Storage of Materials:

- 13.1** The bidder shall at his own expenses, provide all materials including cement & steel required for the works. Adequate stocks of all materials required for the work are to be maintained at site. No material (unless as provided elsewhere in this document) shall be supplied by the Owner.
- 13.2** All materials to be provided by the bidder shall be in conformity with the detailed specifications laid down in the contract and the bidder have to prove that the materials conform to the laid down specifications, if requested by the Indian Institute of Technology Roorkee.
- 13.3** All materials required for execution of work must be got approved by the site representative of the Owner before they are actually put to use. All facilities for prior inspection of materials and subsequent inspection of work by the Site Engineer must be made available.
- 13.4** The bidder shall, at his own expenses and without delay, supply to the Owner samples of materials proposed to be used in the work. The Owner shall within seven days of supply of samples, or within such further period as Owner may require and intimate the bidder in writing, whether samples are approved by Owner, or not. If samples are not approved, the bidder shall forthwith arrange to supply, for their approval, fresh samples complying with the specification laid down in the contract.
- 13.5** The Owner shall have full powers to require removal of any or all the materials brought to site by the bidder which are not in accordance with the contract specifications or do not conform in character or quality to the samples approved Owner. In case of default on the part of the bidder in removing rejected materials, the Owner shall be at liberty to have them removed by other means. The Owner shall have full powers to direct other proper materials to be substituted for rejected materials and in the event of the bidder refusing to comply. Owner may cause the same to be supplied by other means. All risks and costs which may attend upon such removal and/or substitution shall be borne by the bidder.
- 13.6** Bidder shall be responsible for procurement of all materials/equipments etc. No delay due to non-availability of any material equipment will be entertained by Owner.

14.0 Method of storing the materials

- 14.1** The bidder shall at his own cost, provide for all necessary storage on the site in specified areas for all materials such as steel, cement and such other materials which are likely to deteriorate by the action of sun, wind, rain, dampness or other natural causes due to exposure in the compounds or in stores in such a manner that all materials, tool etc. shall be duly protected from damage by weather or any other cause.
- 14.2** Materials required for the works, by the bidder be stored by the bidder only at places approved by the Owner. Storage and safe custody of materials shall be the responsibility of the bidder. All the materials including bidder's Tools & Plants brought by the bidder to the site shall become and remain the property of the Owner and shall not be removed off the site without prior written approval of the Owner/Owner. But whenever the works are finally completed and advances, if any, in respect of such materials are fully recovered, the bidder shall at own expenses forthwith remove from the site all surplus materials supplied

by him and upon such removal, the same shall revert in and become the property of the bidder.

15.0 Shuttering and Scaffolding Materials: It shall be desirable to have adequate amount of shuttering and scaffolding materials to complete the work speedily and Owner decision so as to the quantum of these desirable/ resources of the site shall be final and binding.

16.0 Completion of Work: Before finally leaving site, all the Bidders stores, plant, tools and rubbish shall be removed and the site left clean and tidy. The space allocated by Owner shall be vacated and handed over to the Owner.

17.0 Water and Electricity for Construction work :Water & Electricity as per relevant section's mentioned above

18.0 Employment of Labour

18.1 The bidder shall comply with the requirement of statutory provisions and shall be solely responsible for fulfillment of all legal obligations under Contract Labour (R&A) Act, Inter State Migrant Workmen (Registration of Employment and condition of Service Act, Payment of Wages Act., Minimum Wages Act, Workmen's Compensation Act, Factories Act, Employee's Provident Fund & Miscellaneous Provisions Act, Payment of Bonus Act, Payment of Gratuity Act, Industrial Disputes Act and all other Industrial/Labour enactments and Rules made there under as applicable from time to time. In case Owner incurs any liability towards payment of any dues, compensation, cost of any other liability of any kind whatsoever, due to non-fulfillment of statutory provisions under any industrial/labour laws by the bidder, the same shall be made good by the bidder and Owner shall have full right to recover and claim the same against the bidder from his outstanding bills or otherwise. No Labour to stay at site.

18.2 The bidder will be expected to employ on the work only his regular skilled employees with experience of this particular work. The permission of the Owner must be obtained before tradesman is recruited locally for the work. This rule does not apply to unskilled labour. No female labour shall be employed in dark hours i.e. hours prohibited under the applicable law. No person below the age of eighteen years shall be employed at any point of time. The bidder shall pay, to each person, the wages as per minimum Wages Act of the State Government.

18.3 All traveling expenses including provision of all necessary transport to and from site, lodging allowances and other payments to the bidder's employees are his own responsibility. The hours of work on the site shall be decided by the Owner and bidder shall adhere to the same. All bidders employees shall wear safety helmet and such identifications marks as may be provided by bidder on work site and duly approved by Owner. All notices displayed on the site and any instructions issued by the Owner shall be strictly adhered to by the Bidder's and/or his sub-bidders employees. The bidder shall be required to maintain employment records as covered in relevant Acts and produce documentary evidence to the effect that he has discharged his obligations under the Employees Provident Fund Act 1952, and ESI Act, 1948 Group Insurance and other Acts for the workmen working at site.

18.4 The bidder shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Dean Infrastructure/Executive Engineer may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The bidder shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

19.0 Working and Safety Regulations: The bidder shall observe all statutory safety and legal requirements regulations issued by Central and State Governments applicable to the work as well as any local regulations applicable to the site issued by the Owner or any other authority.

20.0 Particular attention is drawn to the following: In case of accident, the Owner shall be informed in writing forthwith and First-Aid, Hospitalization shall be provided by the Bidder. The bidder shall strictly follow regulations laid down by Govt. and State authorities in this regard and all cases are to be defended by the bidder. The Owner shall not refund any insurance claims. Bidder shall fence his plant, platforms, excavations etc. Compliance with all electricity regulations. Compliance with statutory requirements for inspection and test of all lifting appliances and auxiliary lifting gear. Staircase, doors or gangways shall not be obstructed in any way that will interfere with means of access of escape. Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosive, the bidder shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulation laid down in Petroleum Act 1934. Explosive Act

1948 and Petroleum and Carbide of Calcium Manual Published by the Chief Inspector of Explosive of India. All such storage shall have prior approvals of the Owner. In case any approval or clearance from Chief Inspector of Explosive or any statutory authorities is required, the bidder shall be responsible for obtaining the same.

The bidder shall have his own Fire Fighting Extinguishers and Equipment. The bidder shall be responsible for the provision of all safety notices safety equipments including the safety gadgets for his workmen required by both the relevant legislation and such as the Owner may deem necessary. While working at heights, safety belts and safety helmets shall necessarily be used.

21.0 Owner's and Bidder's Risks: The Owner carries the risks, which this Contract states are The Owner risks, and the Bidder carries the risk, which this Contract states are The Bidder's risks.

21.1 Owner's Risks: The Owner is responsible for the accepted risks which are :

- a. Insofar as they directly affect the execution of the Works. These include war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection of military or usurped power, civil war, riot commotion or disorder (unless restricted to the Bidder's Employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or
- b. A cause due solely to the design of the Works, other than the Bidder's design.

21.2 Bidder's Risks: All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the accepted risks of the owner.

21.3 The Bidder shall be responsible for all injury to persons, animals or things, and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-bidder or of any of his or sub-bidder's employees whether such injury or damage arises from carelessness accident or any other causes whatsoever in any way connected with the carrying out to the Contract. This clause shall be held to include interlaid any damage to buildings, whether immediately adjacent or otherwise and any damage to roads, footpaths, or ways as well as all damage caused to the buildings and the work forming the subject to this Contract by frost, rain or other inclemency of the weather. The Bidder shall indemnify the Owner and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of an award of compensation or damages consequent upon such claim. The bidder shall make good all damages of every sort mentioned in the Clause, as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

22.0 Insurance

22.1 The Bidder shall provide, in the joint names of the Owner and the Bidder, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contracted Data for the following events which are due to the Bidder's risks and shall be covered under respective policies as under :

- a. Workmen Compensation Policy;
- b. Bidder All Risk Policy
- c. Third Party Insurance.

22.2 Policies and certificates for insurance shall be delivered by the Bidder to the Owner for the approval before the Date of Start of work i.e. dates of execution of the contract. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

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

22.4 Alterations to the terms of the insurance shall not be made without the approval of the Owner.

22.5 Both parties shall comply with the conditions in the insurance policy.

23.0 Setting out Works: The bidder shall set out the works and responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof, if at any time any error shall appear during the progress of any part of works the bidder shall at his own expenses rectify such error, if called upon to the satisfaction of the Owner.

24.0 Bidder to remove all offensive matter, non-suitable material etc immediately.

24.1 All debris, excavated soil, filth or other matter or an offensive nature taken out of any trench, sewer, drain cesspool or other place shall not be deposited on the surface but shall be at once carted away by the bidder out of the premises/ site under intimation to concerned authorities.

24.2 Any material brought on site if found unsuitable shall be removed from site at once by the Bidder under intimation to the concerned authorities.

25.0 Inspections by Owner

25.1 The representative of the Owner at all times have free access to the works and /or to the workshops, factories or other places where materials are being prepared or constructed for the Contract and also to any place where materials are lying or from which they are being obtained. No person except the representatives of Public authorities shall be allowed on the work at any time without the written permission of the Owner. If any work is to be done at a place other than the site of the works, the Bidder shall obtain written permission of the Owner for doing so.

25.2 The Owner and their representatives shall have the right to test and/ or inspect the works to confirm their conformity to the contract, at all times, whenever in progress either on the site on the Bidder's premises wherever situated or any firm or company where work in connection with this contract may be in hand. All records, registers or documents relating to the works including materials used on works shall be kept open to the inspection of the Owner or his Authorized representative when so called for in writing.

25.3 The Bidder shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the Owner or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

25.4 The inspections and tests may be conducted on the premises of the Bidder or at the Project site. When carried out on the premises of the Bidder or its sub-Bidder(s), all reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspectors at no charge to the Owner.

25.5 Should any inspected items of work fail to conform to the specifications, the Owner shall communicate them and the Bidder shall either replace them or make all alterations necessary to meet specification requirements free of cost to the Owner.

25.6 The Bidder shall permit the Owner/Architect to inspect the Bidder's accounts and records relating to the performance of the Bidder and to have them audited by auditors appointed by the Owner, if so required.

26.0 Covering Up/Uncovering of Works

26.1 No part of the works shall be covered up without the approval of Owner and the Bidder shall afford full opportunity for examination and inspection by the Owner. The bidder shall give due notice to the EIC about the work to be covered up for its measurements and examination. The EIC shall within a reasonable time attend for the purpose of examining such work, unless the EIC specifically advises the Bidder in writing of his unwillingness not to attend for such examination in which case the Bidder may proceed further with the Contract work.

26.2 Should the Owner consider it necessary in order to satisfy himself as to the quality of the work, the Bidder shall at any time during the continuance of the contract pull down or cut into any part of the work and make such opening into and to such an extent through the same, as the Engineer may direct and the Bidder shall make good the whole to the satisfaction of the Engineer, should the work prove to be faulty or in any respect not in accordance with the terms of the contract documents, the Engineer shall be at liberty to order such further removal as he may consider necessary and the whole of the expenses incurred shall be borne by the bidder. If however, the work proves to be sound and in accordance with the contract document, the

actual expenses incurred in such examination will be borne by the Owner.

- 26.3 Rates charged by the Bidder for works performed under the contract shall not vary from the rates quoted by the Bidder in its bid, with the exception of any price adjustments authorized in SCC or in the Owner's request for bid validity extension, as the case may be.
- 26.4 If requested by the Owner, the Bidder shall provide the Owner with a detailed cost breakdown of any rate in the Schedule of Quantities.
- 26.5 The Owner may at any time / stage of execution demand for the Analysis of Rates for any item / items of work which in their opinion is / are abnormally high / low rates or required for the Analysis of Rates of other Publish / extra item / items. The Bidder is bound to present the same and if the Bidder is unable to present a justified Analysis of Rates for any item / items, the rate / rates for such item may be adjusted accordingly and the decision of the Owner in such cases shall be final.

27.0 Change in the order/ Extra items of work

- 27.1 The Owner may at any time, by written order given to the Bidder, make alterations in, omissions from, additions to, or substitutions for, in drawings, designs or specifications or quantities of the items of work
- 27.2 Owner reserves to itself the right of omission of any item of work from the awarded Publish at any time / stage during the execution of work and award the same to another agency / bidder.
- 27.3 The Owner may at any time, by written order given to the Bidder, increase the scope of work or include any new item of work. The Bidder shall be bound to carry out such works, the rates for which shall be arrived after the approval of competent authority as below-
 - a) In the case of Extra item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate (at the time of tender) plus/Minus percentage above/below quoted contract amount. Payment of extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.
 - b) In the case of substitute items(s) being the schedule items (Delhi schedule of rates items). These shall be paid as per the schedule rate (at the time of tender) plus/minus percentage above/below quoted contract amount. Payment of substitute in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.

28.0 Payment

- 28.1 The method and conditions of payment to be made to the Bidder under the contract shall be specified in SCC.
- 28.2 Payment shall be made promptly by the Owner within thirty (30) days of certification of the bill by the Owner.
- 28.3 All intermediate running payments to the bidder shall be regarded as payments by way of advance against the final payment and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to be removed, taken away and reconstructed or re-erected.

29.0 Variations and Provisional Cost (If applicable):

- 29.1 Where work cannot be measured and valued properly, the Bidder shall be allowed day work rates on the prices prevailing when such work is carried out (unless otherwise provided in the contract): a. At the rates if any inserted by the Bidder in the priced Schedule of Quantities or b. If no such rates have been inserted then at the rates prevailing in the market for material and labour and at the control rates for the controlled materials including in all cases the rate for delivery of the material at the work.
- 29.2 Provided that in any case voucher specifying the time daily spent upon the work (and if required by the Owner the workman's names) and the materials used shall be delivered for verification to the Owner, or his authorized representative not later than the end of the week following that in which the work has been executed. Effect shall be given to the measurement and valuation of variations in interim Certificates and by adjustment of the total Contract Value.

30.0 Claims for Extra or for Deductions

- 30.1 The Owner shall not be responsible for the payment of any claim for extra work not included in the contract nor the Bidder shall be entitled to claim any addition to the contract sum in respect of any changes or alterations in the materials used unless the same shall have been ordered or sanctioned, as the case may be, in writing by the Owner.
- 30.2 The Bidder has to submit a monthly return by 10th of the ensuing month for any extra work which in his opinion is not covered by the contract agreement through the Owner's/ Owner's representatives and obtain

a receipt from the authorized signatory of the Owner. Failing this, he shall have no right to any such claim, whatsoever may be the circumstances, later on.

- 30.3** In the event of any dispute arising either as to validity of the claim or as to the account to be paid or allowed in respect thereof, the decision of the Owner shall be final and binding on the bidder. In the meantime, the Bidder may either proceed with the work in question or suspend the same as may be determined by the Owner.
- 30.4** All extra works (those permitted by Owner) of every description shall be executed by bidder on site of work in pursuance of any of the provision of the contract, shall be measured up, and shall be paid according to actual quantities ascertained by such measurements and the prices as finalized by the Owner based on the priced schedule of quantities so that such priced schedule of quantities shall include all such operations and accessories as appear in the said schedule of prices or specification to be or shall in the opinion of the Owner the contingencies upon the works mentioned in such schedule of prices or required to make such works perfect and fit for use.
- 30.5** Provided also that if any work shall be ordered by the Owner and executed by the Bidder for the payment of which no provision in the opinion of the Owner have been made in the priced schedule of quantities or the specifications, the Owner shall fix and determine such prices for the same based on the prices appearing in the priced schedule of quantities, such allowance being made as may seem to the Owner sufficient for any difference in the character of conditions of the work. However rates for extra items shall be fixed on the basis of actual rate analysis.
- 30.6** If, it shall appear that the work has been executed with unsound, imperfect or unskilled workmanship, or with material of any imperfect or any inferior quantity or otherwise not in accordance with the contract documents the Bidder shall at his own cost rectify, reform, remove, or reconstruct the same, wither in the whole or in part, as may be directed by the EIC, whether or not the value of any such work or materials shall have been included in any payment made to the Bidder.
- 30.7** The Bidder shall remove all malba etc., wash and clean the floors and hand over the site quite clean on the completion of the work.

31.0 Delay in the Bidder's performance:

- 31.1** Execution of the work and performance of the services shall be done by the Bidder in accordance with the time schedule specified by the Owner in the Notice inviting tender.
- 31.2** If, at any time during performance of the contract, the Bidder should encounter conditions impeding timely execution of the works and performance of services, the Bidder shall promptly notify the Owner in writing of the fact of the delay, it's likely duration and its cause(s). As soon as possible, after receipt of the Bidder's notice, the Owner shall evaluate the situation and may, entirely at its discretion, extend the Bidder's time for performance with or without liquidated damages

32.0 Liquidated Damages: If the Bidder fails to execute any or all of the works or to perform the services within the period(s) specified in the contract, the Owner shall deduct from the contract value, as liquidated damages, a sum specified in the SCC for each week or part thereof delay until actual completion or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Owner may consider termination of the contract.

33.0 When Contract can be Determined: Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to any other rights or remedy against the contractor in respect of any delay, not following safety norms inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.

- iii) If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date, on or before such date of completion; and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer-in-Charge the contractor will be unable to complete the same or does not complete the same within the period specified.
- iv) If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- v) If the contractor shall offer or give or agree to give to any person in Government service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Government.
- vi) If the contractor shall enter into a contract with Government in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.
- vii) If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.
- viii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- xi) If the contractor assigns (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in- Charge on behalf of the BOG IIT Roorkee shall have powers:
 - A. To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, Security Deposit already recovered, Security Deposit, payable, Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government
 - B. After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work. In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.
- xii) The owner may terminate the contract bond without prejudice due to financial malpractice/ misbehavior /verbal or physical assault /poor quality of work etc. Further to this the bidder shall be debarred for two years for participating in any tender of IIT Roorkee

34.0 Force Majeure

- 34.1** The Bidder shall not be liable for forfeiture of its performance guarantee, liquidated damages or termination by default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

- 34.2** For purposes of this clause, "Force Majeure" means an unforeseeable event beyond the control of the Bidder and is not because of the Bidder's fault or negligence. Such events may include acts of the Owner either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics.
- 34.3** If a Force Majeure situation arises, the Bidder shall promptly notify the Owner in writing of such conditions and the cause thereof. Unless otherwise directed by the Owner in writing, the Bidder shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 35.0 Termination for Insolvency:** The Owner may at any time terminate the contract by giving written notice to the Bidder, if the Bidder becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Bidder, provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Owner.
- 36.0 Termination for Convenience:** The Owner, by written 30 days prior notice sent to the Bidder may terminate the contract, in whole or in part, at any time for its convenience. The notice shall specify that the termination is for Owner's convenience, the extent to which performance of the Bidder under the contract is terminated, and the date upon which such termination becomes effective. The items of work that are complete and ready within (1) month after the Bidder's receipt of notice of termination shall be accepted by the Owner at the contract terms and values. For the remaining works, the Owner may elect;
- a) to have any portion completed at the contract terms and value and/or
 - b) to cancel the remainder and pay to the Bidder an amount, finalized by the Owner, for partially completed works and for materials and parts previously procured by the Bidder.
- 37.0 Resolution of Disputes**
- 37.1** The Owner and the Bidder shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract. If, after thirty (30) days from the commencement of such informal negotiations, the Owner and the Bidder have been unable to resolve amicably a contract dispute, either party may require that the dispute be referred for resolutions to the formal mechanisms specified in the SCC. These mechanisms may include but are not limited to, Arbitration in accordance with rules of Arbitration Act and award made in pursuance thereof shall be binding on both the parties.
- 37.2** All disputes should be under the Jurisdiction of civil court Roorkee.
- 38.0 Governing language:** The contract shall be written in Hindi or English language. All correspondence and other documents pertaining to the contract that are exchanged by the parties shall be written in the same language.
- 39.0 Governing law:** The contract shall be governed by the laws of The Union of India for the time being in force. All disputes are subject to jurisdiction of courts at Roorkee or Honorable High Court Uttarakhand at Nainital.
- 40.0 Notices:** Any notice given by one party to the other pursuant to this contract shall be sent to other party in writing by e-mail or letter and confirmed in writing to the other party's address specified in SCC. A notice shall be effective on the date on which it is delivered, or on the notice's effective date, whichever is later.
- 41.0 Discoveries:** Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Owner. The Bidder is to notify the Owner of such discoveries and carry out the Owner's instructions for dealing with them.
- 42.0 Dismissals of workmen:** The bidder on request from the Owner, immediately dismiss from the works any person employed by him who may be found in the opinion of the client to be unsuitable or incompetent or who has shown misconduct.
- 43.0 Working Hours:** Normal working hours shall be from 08:45 a.m. to 05:30 p.m. No construction work of important structural nature shall be carried out on Sundays, Holidays and during nights. However, permission to work beyond normal working hours can be granted by the Owner in exceptional circumstances to achieve the target schedule of completion.

B. TIME CONTROL (NEW CONSTRUCTION WORK)

44.0 Program

44.1 Within the time stated in the Contract Data the Bidder shall submit to the Owner for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the works, along with weekly cash flow forecast.

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

44.2 The Bidder shall submit to the Owner, for approval, an updated Program at intervals no longer than the period as stated in the clause no. 7.1. If the Bidder does not submit an updated Program within this period, the Owner may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.

44.3 The Owner's/Owner's approval of the Program shall not alter the Bidder's obligations. The Bidder may revise the Program and submit it to the Owner again at any time. A revised Program is to show the effect of Variations at any stage of work, Owner award any item/part of item of work to bidder's workman/ external agency, if in their opinion, the progress of work is suffering because of that. The work done will be added to the Bidder's bill and the amount paid for the job will be deducted from the Bidder's account.

45.0 Delay and Extension of time

If in the opinion of the Owner the work be delayed

- a) by force majeure or
- b) by reason of any exceptionally inclement weather or
- c) by reason of proceedings taken or threatened by or disputes with adjoining or neighboring owners or public authorities or
- d) by delays of other bidder or Tradesmen engaged by the Owner or the Owner and the works not referred to in the Schedule of Quantities and/or specification or
- e) by reasons of Owner's instruction or
- f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or
- g) in consequence of the bidder not having received in due time necessary instructions from the Owner for which he shall have specially applied in writing or
- h) from other cause which the Owner may certify as beyond the control of the bidder or
- i) by reason of nonpayment of interim certificate at specified time, the Owner shall grant for approval by the Owner a fair and reasonable extension of time for completion of the Contract. In case of strike or lockout the bidder shall as soon as may be given written notice thereof to the Owner, but the bidder shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of Owner to proceed with the work.

C. QUALITY CONTROL

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

47.0 Correction of Defects

47.1 The Owner shall give notice to the Bidder of any Defects before the end of Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability period shall be extended for as long as Defects remain to be corrected.

47.2 Every time notice of Defect is given, the Bidder shall correct the notified Defect within the length of time specified by the Owner' notice.

48.0 Uncorrected Defects: If the Bidder has not corrected a Defect within the time specified in the Owner' notice, the Owner will assess the cost of having the Defect corrected, and the Bidder will pay this amount.

D. COST CONTROL

49.0 Schedule of Quantities

- 49.1 The Schedule of Quantities shall contain items for the construction work, installation, testing, and commissioning work to be done by the Bidder.
- 49.2 The Schedule of Quantities is used to calculate the Contract Price. The Bidder is paid for the quantity of the work done at the rate in the priced Schedule of Quantities for each item.

50.0 Variations: All variations in the program pursuant to clause no. 7.0 of GCC shall be included in the updated program produced by the Bidder.

51.0 Payments for Variations

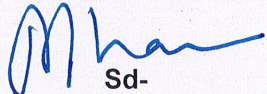
- 51.1 The Bidder shall provide the Owner with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Owner. The Owner shall assess and finalize the quotation, which shall be given within seven days of the request or within any longer period stated by the Owner and before the Variation is ordered.
- 51.2 If the Bidder's quotation is unreasonable, the Owner may order the Variation and make a change to the Contract Price which shall be based on Owner's own forecast of the effects of the Variation on the Bidder's costs.
- 51.3 If the Owner decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and shall be treated as a Variation.
- 51.4 The Bidder shall not be entitled to additional payment for costs, which could have been avoided by giving early warning.

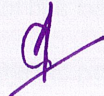
E: FINISHING THE CONTRACT

52.0 Completion Certificate: The Bidder shall request the Owner to issue a Certificate of Completion of the Works will do so upon deciding that the Work is completed.

53.0 Taking Over: The Owner shall take over the Site and the Works within seven days of the Owner issuing a certificate of Completion. Before handing over the site, the bidder must obtain a site clearance certificate from the Owner.

54.0 Final Account: The Bidder shall supply to the Owner a detailed account of the total amount that the Bidder considers payable under the Contract before the end of the Defects Liability Period. The owner shall issue a Defect Liability Certificate and certify any final payment that is due to the Bidder within 5-6 days of receiving the Bidder's account if it is correct and complete. If it is not, the Owner shall issue within 5-6 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Owner shall decide on the amount payable to the Bidder and issue a payment certificate within 5-6 days of receiving the Bidder's revised account.


Sd-
Institute Engineer
IWD, IIT Roorkee

 (New)

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract are supplementary, to the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions of Contract is indicated in parentheses.

1. Definition (GCC clause 1.0)

- a) Owner means: IIT Roorkee.
- b) Site means the project site situated in IIT Roorkee Main Campus.

2. Security Deposit:

- 1) Total Security Deposit The (Earnest Money Deposit) EMD of the successful Bidder shall form a part of the Total Security Deposit and to be deposited as per critical data sheet.
- 2) Release of Security Deposit: Security Deposit will be refunded by the Owner after completion of Defect Liability Period i.e. **12 months** from date of completion. This security shall be applicable for the work which is executed under this tender only.

3. A. Performance Security Within Ten days (10) after the Bidder's receipt of Notification of Award, the Bidder shall furnish Performance Security to the Owner for an amount of 5% of the accepted bid Value in the form of Cash or Bank Guarantee from Nationalized /Scheduled Bank to the Owner. The Performance security shall be refunded/returned to the bidder on completion of work and recording of the completion certificate

4. Payment against Running Bills:

The Bidder shall be paid for the work done against running bills to be raised not more than monthly. The Final bill will be certified within 60 days from the date of submission. The following payment will be recovered from the bills: Statutory deductions like income Tax, Cess under Building and Other Construction Workers Welfare Cess Act, 1996 etc. as applicable. Any other recovery if becomes due.

4.1 Payment shall be made as

- a) No advance payment shall be made.
- b) **For BoQ-1 (Part-I) and BoQ-2 (Part-III):** Approximately 70% on successful delivery of material at site in good condition, approximately 20% on installation and approximately 10% after testing & commissioning.
- c) **For BoQ-1 (Part-II):** Payment shall be made quarterly, after successful completion of each quarter service.
- d) Part of the payment can be withheld by the department.

4.2 Payment shall not be released against 1st R/A bill until submission of following documents by bidder to the owner:

- a) Attendance of deployed manpower (for outsourcing services).
- b) Measurement Book (MB).
- e) GST Invoice with revenue stamp.
- f) EPF & ESI deposit proof (of one month prior to the month of invoice).
- g) Attendance and salary deposit proof of deployed manpower (for outsourcing services).
- h) Insurance – Bidder's All Risk (CAR) Policy, Workmen compensation policy and Third-Party Liability Insurance.

4.1.1 Basis of Payment in RA bills

Payment in RA bills shall be based on quantity of work executed at site (as per the item of work) & verified by Owner as per the item rate in work orders. Owner is authorized to allow part rate/reduced rate for any item of work.

4.1.2 Disallowance of payment

If payment has been made in RA bill for any item of work but later on some defect is noticed, Owner/Architect is authorized to disallow the payment in the subsequent bills till rectification of the work.

4.2 Final bill

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished recorded by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within three months.

5. Liquidated Damages

0.5% per week of balance/unattended work subject to a maximum of 5% (Five percent) of the Contract value from the stipulated date of completion.

6. Resolution of Disputes

In case the parties don't agree to the advice of owner, then the Director, IIT Roorkee shall appoint a sole arbitrator within 30 days of receipt of request forthwith. The arbitration shall be governed by Arbitration and Reconciliation Act 1956.

7. Notices

For the purpose of all notices, the following shall be the address of the Owner and the Bidder.

Owner: Dean Infrastructure,
Institute Works Department,
Indian Institute of Technology
Roorkee

Bidder: _____
(To be filled in at the time of Signing of the Contract)

8. Resolution of Disputes & Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, 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, terminations, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

If the bidder considers any work demanded of him to be outside the requirements of the contract or disputes any drawings, record or decision given in writing in connection with or arising out of the contract or carrying out of the work, he shall promptly within 15 days request the Owner in writing for written instruction or decision.

If the Bidder is dissatisfied with this decision, the Bidder shall within a period of 30 days from receipt of the decision, give written notice to the IIT Roorkee for appointment of Arbitrator failing which the said decision shall be final binding and conclusive and not referable to adjudication by the Arbitrator.

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, IIT Roorkee. If 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 terms of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator. It is also a term of this contract that no person other than a person appointed by such IIT Roorkee 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 30 days of receiving the intimation from the Owner that the final bill is ready for payment, the claim of the bidder shall be deemed to have been waived and absolutely barred and IIT Roorkee 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 reenactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause.

"If any dispute which may arise with respect to any term and condition or with respect to the interpretation of any term and condition of the Purchase Order/Work order, which may be issued to the qualified and successful tendered subsequently, the same shall be settled strictly in accordance with and in compliance of the Arbitration procedure which is mentioned descriptively in the Purchase Order/Work Order."

For Purchase Order-

"If any dispute arises out of the interpretation of any clause of this purchase Order/Work Order or with respect to any other mater connected with or arising out of any work/service to be done or completed pursuant to this Purchase order/Work order, the aggrieved party shall first serve the Statement of its Grievances to the other party in which the complete details and description of tis grievance should be mentioned descriptively. The true copies of all the relevant documents shall be filed with this statement by the aggrieved party. Both the parties shall then make utmost endeavor to settle the disputes amicably amongst themselves.

In the case the parties fail to settle their disputes amicably amongst themselves or if any dispute remains unsettled while other disputes are settled, the aggrieved party shall serve a Notice to the other party and to the Director of the Indian Institute of Technology Roorkee, Intimating its desire To invoke the Arbitration for the settlement of the said disputes or any of the unsettled dispute. Such Notice invoking Arbitration shall strictly be given in compliance of the provisions of the Arbitration & Conciliation Act, 1996 or any other statute in force and ruling the law of Arbitration at that time. Such notice shall grant the time not less than 30 days to other party for the appointment of the Arbitrator. The aggrieved party shall specifically and in very clear terms mention the points of Reference desired to be referred to the Arbitrator, give out the details and description of the dispute which it tends to get settled by the process of the Arbitration. The Notice invoking Arbitration shall contain the true copies of all the relevant documents on which the aggrieved party shall put reliance in support of its claim.

After service of the Notice invoking Arbitration, the Director of the Indian institute of Technology, Roorkee shall appoint the Sole Arbitrator for resolution of the dispute/s or any of the unsettled dispute/s within a period of thirty clear days from the date of receipt of the Notice invoking Arbitration from the aggrieved party. The Arbitration proceedings shall be commenced strictly in compliance of the provisions of the arbitration a& Conciliation Act, 1996 or any other statute in force and ruling the law of Arbitration at that time. The language of Arbitration proceedings shall English. The venue of Arbitration will be the premises of the Indian Institute of Technology Roorkee.

For the purpose of the provisions of the Arbitration & Conciliation Act, 1996 or any other statute in force and ruling the law of Arbitration at that time and for any legal action with regard to this Arbitration and for the purpose of any matter arising out of Arbitration proceedings under this Purchase Order/ Work Order, the courts situate at Roorkee shall only have the jurisdiction to try the legal Action. In this regard, the Commercial Courts having jurisdiction over Roorkee in the matters pertaining to commercial disputes or action arising out of any Arbitral Award passes during the course of the arbitral proceedings held and commenced in Roorkee (currently the commercial Courts located at Dehradun have jurisdiction over the Commercial disputes and the Arbitral Award passed during the course of the Arbitral proceedings held and commenced in Roorkee) shall only have the jurisdiction to try Such legal action. All the legal proceedings shall be subject to the territorial and geographical jurisdiction of Hon'ble High Court of Uttarakhand.”

9. Protection of environment

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

9.2 During continuance of the contract, the Bidder and his sub-bidders shall at all times abide by all existing enactment on environmental protection and rules made there under, regulations, notifications and bye-law of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

9.3 Salient features of some of the major laws that are applicable are given below:

The Water (Prevention and Control of Pollution) Act, 1974 this provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

The Air (Prevention and Control of Pollution) Act, 1981, This provides for prevention, control and abatement of air pollution, 'Air Pollution' means the presence in the atmosphere of any air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. The Environment (Prevention and Control of Pollution) Act, 1986 this provides for the protection and improvement of environment and for matters connected to herewith, and the prevention of hazards to human beings. Other living creatures, plants and property, 'Environment' includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

The Public Liability Insurance Act 1991. This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

10. Specification to be followed for execution for execution of works are:

For Civil Works:

CPWD Specifications 2019 Vol. 1 and Vol. 2 with correction slips up to the last date of submission of bid.

For E & M Works:

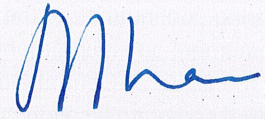
- CPWD General Specifications for Electrical Works Part-I (Internal) – 2023 with correction slips upto the last date of submission of bid.
- CPWD General Specifications for Electrical Works Part-II (External)-2023 with correction slips upto the last date of submission of bid.
- CPWD General Specifications for Electrical Works Part IV (Sub-station), 2013 with correction slips upto the last date of submission of bid.
- NBC 2016 Part-4 and relevant CPWD specifications for fire and safety works

11. If the bidder wants to offer any unconditional rebates on their offer that should be clearly mentioned.

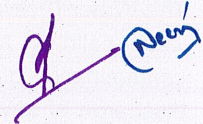
12. In case any information furnished by the bidder is found to be false / forged / incorrect at any stage, their bid

shall be rejected, and the bidder shall not be allowed to participate in the re-bidding process of the work.

- 13. Clarification of Bids/ Shortfall Documents:** IIT Roorkee may, at its discretion, ask the bidder for clarifications / shortfall documents related to his bid. The request for clarification shall be given in writing. Depending on the reply of the bidder, his bid shall be ignored or considered further.
- 14.** Tender will be awarded on overall L1 basis (including BoQ1, BoQ2, BoQ3 etc.).
- 15.** Only 'Class-I local supplier' and 'Class-II local supplier', as defined in the Public Procurement (Preference to Make in India), Order 2017 shall be eligible to bid in the tender. For more details please refer: Order No.: P-45021/2/2017-PP (BE-II), DPIIT, Ministry of Commerce and Industry issued Dated: 16th Sept. 2020. Self-certificate has to be provided in this regard that the item offered meets the local content requirement for 'Class-I local supplier' & 'Class-II local supplier' (as per Annexure-I).
- 16.** Estimate is based on DSR-2022 (E&M) + Non-scheduled rates with 18% GST and 1% BOCWW Cess.
- 17.** In case the GST rate is changed by the GOI then the item rate in the estimate shall be changed on pro-rata basis.



Institute Engineer
IWD, IIT Roorkee



Undertaking

(Notarized on Non Judicial stamp paper of Rs. 100/-)

Name of the address of the bidder:.....

NIT No.....

Name of the work:.....

Due Date:.....

I/We have read and examined the Tender document for the work. I/We hereby submit bid for the execution of the work specified for the Institute within the time specified in NIT of quantities and in accordance with the specifications, designs, drawing and instructions in writing referred to the conditions of contract and with such materials as are provided for, by, and in respect of accordance with such conditions so far as applicable.

I/We agree to keep the Bid open for ninety (90) days from the due date of its opening and not to make any modification in its terms and conditions.

Earnest Money as mentioned in the critical data sheet is hereby forwarded in Bankers' Cheque / Demand Draft/ Fixed Deposit Receipt issued by scheduled bank. If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the Institute has to right to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that the Institute has to right to forfeit the said performance guarantee absolutely. The said performance guarantee shall be a guarantee to execute all the works referred to in the Tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in NIT. Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-Tendering process of the work.

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

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

I/We hereby declare that I/We have no near relative connection by marriage to any staff of the Institute.

The information given in the tender form is correct and best of my knowledge.

Date:

Signature of Bidder

Witness:

Postal Address

Occupation:

PERFORMANCE GUARANTEE BOND

In consideration of the Indian Institute of Technology Roorkee having agreed under the terms and conditions of agreement No..... dated..... made between
..... And

.....(hereinafter called "the bidder(s)")..... for the work.....(hereinafter called "the said agreement") having agreed to production of a irrevocable Bank Guarantee for..... (Rupees..... only) as a security/guarantee from the bidder(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement,

1. We.....(hereinafter referred to as "the Bank") hereby undertake to pay to IIT Roorkee (Indicate the name of the bank) an amount not exceeding Rs..... (..... only) on demand by the Indian Institute of Technology Roorkee.

2. Wedo hereby undertake to pay the amounts due..... and payable (Indicate the name of the Bank) under this Guarantee without any demur, merely on a demand from the Indian Institute of Technology Roorkee stating that the amount claimed is required to meet the recoveries due or likely to be due from the said bidder(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding (Rupees..... only).

3. We, the said bank further undertake to pay to the Institute any money so demanded notwithstanding any dispute or disputes raised by the bidder(s) in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the bidder(s) shall have no claim against us for making such payment.

4. Wefurther agree that the guarantee herein contained shall (Indicate the name of the Bank) remain in full force and effect during the period that would be taken for performance of the said agreement, and it shall continue to be enforceable till all the dues of the Indian Institute of Technology Roorkee under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-charge on behalf of the Institute certified that the terms and conditions of the said agreement have been fully and properly carried out by the said bidder(s) and accordingly discharges this guarantee.

5. We(indicate the name of bank) further agree with the Indian Institute of Technology Roorkee that Indian Institute of Technology Roorkee shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said bidder(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Indian Institute of Technology Roorkee against the said bidder(s) and to forebear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said bidder(s) or for any forbearance, act of omission on the part of the Institute or any indulgence by the Indian Institute of Technology Roorkee to the said bidder(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the bidder(s).

7. We..... (Indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Indian Institute of Technology Roorkee in writing.

8. This guarantee shall be valid up to unless extended on demand by Indian Institute of Technology Roorkee. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to(Rupees..... only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged. Dated the..... day of..... for..... (Indicate the name of the Bank)

Part B

**General / Specific Conditions, Specifications and
Schedule of Quantities, Approved Make Applicable to
Major (E&M) Component of the Works**

BILL OF QUANTITIES FOR E&M WORKS

Name of work: Additional Work for Precision Type AC System in Quantum Optics Lab, Physics Department, IIT Roorkee.

BOQ-1

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Estimated Rate with GST@18% and 1% cess in Rs. P	Quoted Currency in INR / Other Currency	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
1	2	4	5	6	12	54	55
2	PART I (Supply Installation Testing and Commissioning of Air Handling Unit)						
3	SITC of double skin air handling units with 2 mm thick thermal break aluminium profile, 43+-2 thick Puf panel having a density not less than 38 kg/m. Panel shall have 0.6mm pre-coated G.I sheet as outer skin and 0.6mm thick plane GI inner skin. The Unit shall be suitable for clean room applications with coving inside. The AHU shall consist of return air mixing chamber, EU4 filter and EU7 filter, HEPA Filter, fan section with DIDW centrifugal backward curved fan with TEFC squirrel cage induction motor. AHU shall be complete with fresh air, supply air dampers. Fan section & filter section shall have service door of not less than 500 mm width. The AHUs will have fresh air module with 10 micron filter & Aluminium low leakage damper of required capacities. AHU : 2000 cfm @ 125mm WC SP	1.00	No.	191579.00	INR	191579.00	INR One Lakh Ninety One Thousand Five Hundred & Seventy Nine Only
4	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required. Thickness 0.63 mm sheet	50.00	Sq.M	1136.00	INR	56800.00	INR Fifty Six Thousand Eight Hundred Only
5	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc, as per specifications.	1.00	Sq.M	7567.00	INR	7567.00	INR Seven Thousand Five Hundred & Sixty Seven Only
6	Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	6.00	Sqm	13085.00	INR	78510.00	INR Seventy Eight Thousand Five Hundred & Ten Only
7	Supply and fixing of 19 MM Thick XLPE Rubber insulation on supply & return air ducts with adhesive and tape -	500.00	Sft	161.00	INR	80500.00	INR Eighty Thousand Five Hundred Only
8	SITC of Variable frequency drives independently with bypass starter panel and also differential pressure near with cabling from the sensor located on the duct to the the VFD for air handling units of following capacity motors including necessary fittings and fixing accessories etc. complete FOR AHU: 1.1-1.5 KW for AHU	1.00	Nos	41181.00	INR	41181.00	INR Forty One Thousand One Hundred & Eighty One Only
9	Velocity sensor / DP sensor for VFD	1.00	Nos	28090.00	INR	28090.00	INR Twenty Eight Thousand & Ninety Only
10	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	500.00	Kg	133.70	INR	66850.00	INR Sixty Six Thousand Eight Hundred & Fifty Only
11	MCC panel for HVAC EQUIPMENTS						

12	Self standing electrical panel constructed out of 16 G CRCA sheet duly powder coated with suitable capacity of main incoming MCCB, bus bar, metering panel consisting of voltmeter, ammeter and outgoing feeders consisting of MCCB/ MPCB, contractors, relays, single phase prevetor for ahus motors, LDB & PDBs complete with on/off trip indication lamps etc.						
13	Panel for AHU, Pan Humidifier and interconnection with PACs. PACs will have separate control panel.	1.00	Sets	237761.00	INR	237761.00	INR Two Lakh Thirty Seven Thousand Seven Hundred & Sixty One Only
14	Supply and laying of 4 X 6 Sqmm Copper conductor, XLPE insulated, armoured, PVC sheathed cable, 1100V grade, on existing cable tray with M.S. clamps etc. of suitable size or as directed by the Engineer-In-charge, complete in all respects. The armouring of the cable shall be properly connected with the earth conductor as required etc.	30.00	Rmt	591.00	INR	17730.00	INR Seventeen Thousand Seven Hundred & Thirty Only
15	Supply and fixing of surface mounted LED light fixtures 2' x 2' 24 watt rating	12.00	Nos	3979.00	INR	47748.00	INR Forty Seven Thousand Seven Hundred & Forty Eight Only
16	Supply and fixing of Pan-humidifier: SS 304 TANK with outlet steam pipe perforated inside AHU, inlet water connection with float valve, overflow and drain with drain valve, CPVC pipes, valves, electrical heater all complete. 1. 1" dia CPVC pipe approx -10 mtr length 2. PVC valves, float valves – 2 sets	1.00	Nos	141009.00	INR	141009.00	INR One Lakh Forty One Thousand & Nine Only
17	Make UP tank Supplying and installation of elevation moulded cylindrical vertical syntax water storage tanks at required height of approved make of 500 litre capacities with suitable S.M.C. cover at top. The tank should have inlet, outlet, drain and overflow, providing and fixing necessary GI nipples ranging from 15mm to 50mm NB. of average 150mm length with double check nuts, washers etc.	1.00	Nos	12338.00	INR	12338.00	INR Twelve Thousand Three Hundred & Thirty Eight Only
18	SITC of Temp & RH Sensor with digital indication inside room	1.00	Nos	21269.00	INR	21269.00	INR Twenty One Thousand Two Hundred & Sixty Nine Only
19	SITC of DP Sensor cum transmitter with digital indication. Sensor shall be provided DC power through SMPS	1.00	Nos	29925.00	INR	29925.00	INR Twenty Nine Thousand Nine Hundred & Twenty Five Only
20	SITC of Air Shower, Single entry type, CRCA Powder coated, complete with HEPA filter, blower assembly, air flow nozzles, door interlock all complete.	1.00	Nos	685976.00	INR	685976.00	INR Six Lakh Eighty Five Thousand Nine Hundred & Seventy Six Only
21	Supplying and fixing of 25 MM medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	250.00	Rmt	156.00	INR	39000.00	INR Thirty Nine Thousand Only
22	Supply and fixing of Riser Grill SS with capsule perforations, SS dome bolts and slot for filter	4.00	Nos	3579.00	INR	14316.00	INR Fourteen Thousand Three Hundred & Sixteen Only
23	Supply and fixing of Riser Damper to be operated from within the riser from cleanroom	4.00	Nos	3046.00	INR	12184.00	INR Twelve Thousand One Hundred & Eighty Four Only
24	Supply and fixing of Riser Pre-filter	4.00	Nos	2741.00	INR	10964.00	INR Ten Thousand Nine Hundred & Sixty Four Only
25	PART-II Comprehensive Annual Maintenance Contract of precision AC and allied units (E&M component) after commissioning and handing over at Quantum Optics Lab., Physics Dept., IIT Roorkee including replacement of spares.						
25.1	First Year CAMC	1.00	Job	248000.00	INR	248000.00	INR Two Lakh Forty Eight Thousand Only
25.2	Second Year CAMC	1.00	Job	272800.00	INR	272800.00	INR Two Lakh Seventy Two Thousand Eight Hundred Only

25.3	Third Year CAMC	1.00	Job	300080.00	INR	300080.00	INR Three Lakh & Eighty Only
25.4	Fourth Year CAMC	1.00	Job	330088.00	INR	330088.00	INR Three Lakh Thirty Thousand & Eighty Eight Only
25.5	Fifth Year CAMC	1.00	Job	363097.00	INR	363097.00	INR Three Lakh Sixty Three Thousand & Ninety Seven Only
Total in Figures	(PART-I + PART-II)					3335362.00	INR Thirty Three Lakh Thirty Five Thousand Three Hundred & Sixty Two Only
Quoted Rate in Figures	(PART-I + PART-II)		Select			0.00	INR Zero Only
Quoted Rate in Words	(PART-I + PART-II)	INR Zero Only					

Note:

1. In case the actual applicable GST rate in the BoQ is different from 18% then payment shall be made on the actual applicable GST rate while keeping the basic rate same. Vendor will arrange safety gears such as safety shoes, safety helmets, gloves etc. for the manpower deployed at his own cost. If the manpower is found not wearing safety gears, a penalty of Rs. 200 per violation will be imposed by the EIC.
2. Bidder or their representative (with notarized power of attorney) is bound to attend the meeting (as and when called by EIC) for contract management (or any other issue related to contract) at IIT Roorkee. Penalty @ Rs. 5000/- per non-compliance shall be deducted from the bidder's bill or from the Performance Guarantee. In case the representative does not possess an adequate position or is unable to conclude meeting with logical end then the bidder is bound to attend such meetings.
3. A certificate shall be provided by the OEM that the units has been installed correctly and the location is correct from maintenance point of view.
4. Work order will first be issued for Part-I. Order for Part-II will be issued after commissioning and handing over of the system on yearly basis (depending on the performance of the bidder).
5. The installation of precision ACs shall not be in the scope of this tender.

Comprehensive Annual Operation and Maintenance Contract

A. Scope of Work:

1. CAMC will start after commissioning and handing over of the system.
2. This contract covers attending any number of breakdown calls during normal working hours except for all National / Public holidays.
3. A quarterly preventive maintenance service as per OEM norms must be carried out during the tenure of the contract. Also, major overhauling of the system shall be in the scope of bidder and shall be carried out as per OEM norms and EIC instruction as and when required.
4. All parts including compressor, PWB, Sensor, electricity distribution boards, MCCB/ MCB/ ELCB, ancillary work such as ducting which requires repair / replacement due to normal wear and tear during the contract shall be replaced free of cost.
5. This contract does not cover shifting of units in part or as a whole.
6. In case need any anti-corrosive coating same shall be provided/arranged by customer.
7. **Bidder shall depute only authorized service team of PAC equipment from OEM (M/s Flaktgroup).**
8. Bidder will be fully responsible for trouble free and smooth operation of PAC during the period.
9. On breakdown of any machine, call should be attended within 24 Hours after registering the complaint through email/ telephone failing which Rs. 1000/- will be deducted from the bill for each defaulted day.
10. Faulty compressor will be replaced within 7 days failing which Rs. 1000/- will be deducted from the bill for each defaulted day.
11. In case it is felt by the department that undue delay is being caused by the bidder in doing the rectification work, the same will be got done by the department at the risk and cost of the bidder. The decision of Dean Infrastructure in this regard shall be final.
12. In case of continued non-performance and inability to meet service requirements, this office shall reserve the right to terminate the contract after giving 15 days' notice in writing. Also, the agency is liable to be blacklisted in such cases.

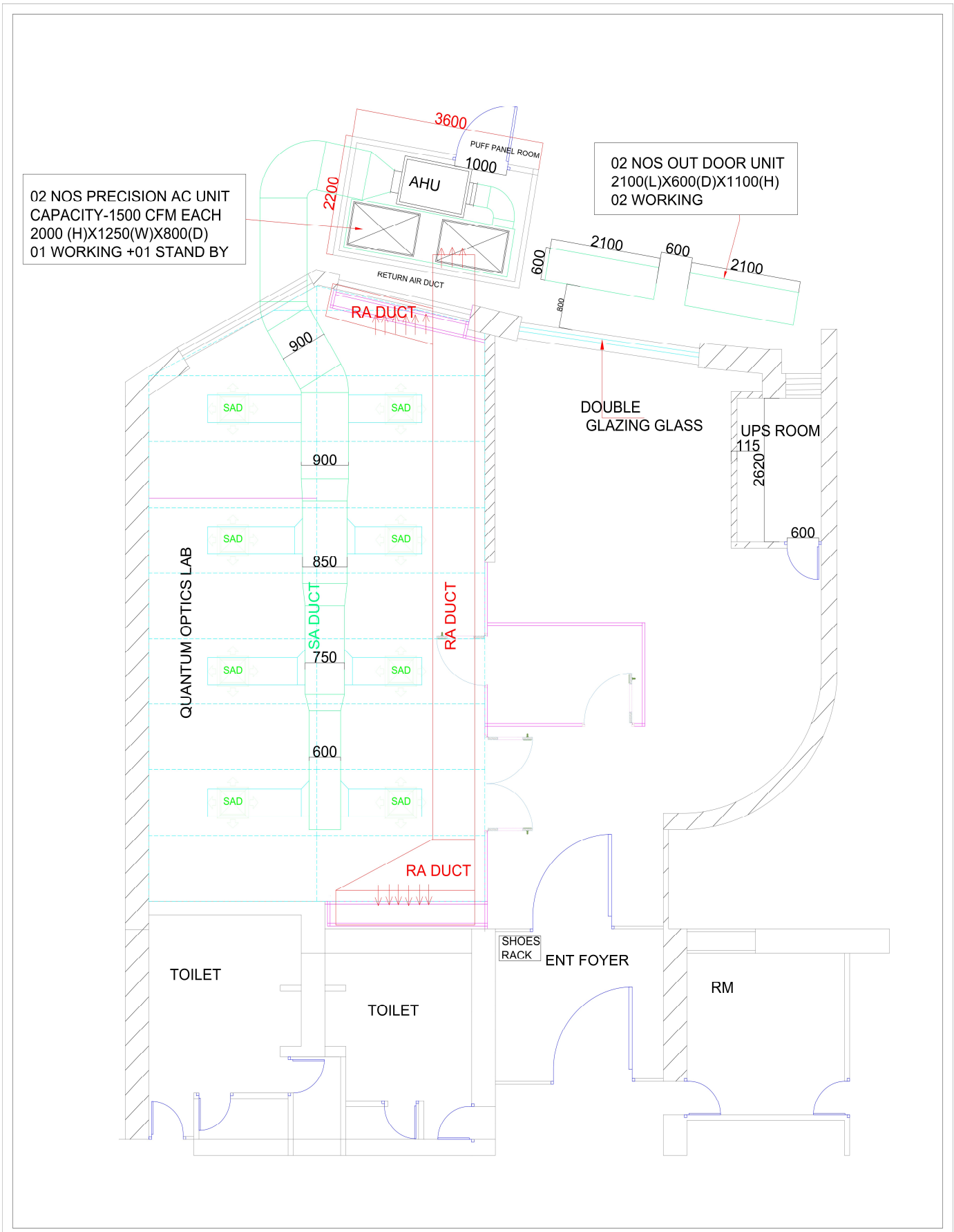
Technical Specifications for Laboratory

1. Temperature range shall be 20 - 25°C.
2. Room temperature shall be reasonably stable and should not exceed $\pm 0.5^{\circ}\text{C}$ in 24 hours duration.
3. Cleanroom condition ISO class 8 to ensure minimum dust particles inside the lab. Air supply through HEPA filter EU 13 and EU4 filter and EU7 filter.
4. Low sound level (preferably within 60-64 dBA).
5. Low air velocity inside the lab not to disturb optics instruments/ probes.
6. Positive pressure inside lab (5-10 pascal minimum) to ensure no ingress of contaminants from outside.
7. Double door entry with door interlocks.
8. Ceiling and walls shall be metallic PUF panel, corners with coving.
9. Flooring shall be monolithic either vinyl flooring fusion welded at all joints or epoxy with self levelling.

Special instructions to the bidders:

1. 02 no. 08 TR precision AC manufactured by M/s Flakt Group India Pvt. Ltd., model no. DMA030 have already been delivered at site. These ACs will be installed and commissioned by the contractor already engaged by IIT Roorkee.
2. Comprehensive annual maintenance contract (CAMC) of the precision ACs and allied units (E&M components) after commissioning and handing over is part of this tender.

Layout of proposed AC system



List of Approved Makes of Electrical & Mechanical (E&M) Materials		
S.No.	Materials/ Equipments	Manufacturer/ Make
A	I.E.I., MCBDB & MCB, Cables & Wires	
1	MCB, Isolator, Industrial Plug Socket, RCCB, RCBO'S	Schneider Electric / Legrand / L&T / ABB / Siemens
2	MCBDB & Loose Wire Box	Legrand/ L&T/ Schneider / ABB / Siemens
3	Change Over Switches	Asco/ Russel/ Socomac/ ABB/ L&T/ Schneider / Havells
4	Automatic Transfer Switch (ATS)	Asco/ Russel/ Socomac/ ABB/ L&T/ Schneider / Havells
5	FRLS PVC insulated copper conductor single core cable for wiring . (ISI marked)	Finolex/ RR Kabel/ KEI/ Havells/ Polycab
6	MS Conduit (ISI marked) with heavy duty MS Conduit pipe accessories	BEC/ NIC/ AKG/ RMCON / MK(Honeywell) (Note: The make of accessories will be same that of conduit pipe & will comply to IS:4768 part 2 2003)
7	PVC Conduit/ Batten (ISI marked) with heavy duty PVC conduit pipe accessories	AKG/ BEC/ Precision/ MK(Honeywell)
8	Modular Switch, Socket/ Telephone Socket/ Cable TV Socket/ Data Outlet Socket/ Fan Regulator/ G.I. Boxes Etc. (Wiring accessories)/ Regulator etc.	Havells (Murano)/ Legrand (Arteor)/ Schindler Electric (Zencelo)/ Honeywell-MK (Blenzeplus)/ ABB (Tvisha)
9	Selector Switch & Toggle Switch	Salzer (Larsen & Toubro)/ Siemens/ Kaycee
10	PVC Trunking	Legrand/ schneider/ MK(Honeywell)/ AKG/ Precision
11	G.I. Pipe	Tata/ Jindal (Hissar)/ Prakash Surya
12	Paints	Asian/ Berger/ Dulux/ Narolac
13	Terminals Blocks and Connectors	Elmax/ Wago/ Hensel/ Connectwell
14	Phenolic Laminated Sheet/ Bakelite Sheet	Hylam/ Formica/ (P-I Grade)/ Mylam/ Greenlam
15	Piano Type Switch/ Socket	Anchor/ Kinjal/ Cona
16	Ceiling Rose/ Holder/ Call Bell/ Buzzer etc.	Anchor/ Kinjal/ Cona
B	Fans & Fitting	
1	LED Fittings	Wipro/ Phillips/ Crompton Greaves/ Havells
2	Exhaust Fan	Havells/ Crompton Greaves/ Usha/ Almonard/ Orient / Atomberg
3	Ceiling Fan	Havells/ Crompton Greaves/ Usha/ Almonard/ Orient / Atomberg
4	Geysers	Racold/ CG/ Havells/ Usha/ Jaquar
5	Sensor based LED Light Fittings	OCTIOT/Wipro/ Phillips/ Crompton Greaves/ Havells
C	Street Lighting	
1	Ornamental G.I. pole (Factory Finish)	Phillips/ Crompton Greaves/ Wipro/ Bajaj
2	Hot Dipped Galvanized Octogonal Pole (Factory Finish)	Crompton Greaves/ Phillips/ Bajaj/ Wipro
3	Polycarbonate Junction Box/ Enclosure	Hensel/ Spelsberg/ Neptune- Bals/ Cape Electric
4	XLPE insulated PVC Sheathed Alum./ Copper conductor Armoured cable of 1.1KV Grade	Finolex/ Universal/ Polycab/ RPG Cable/ KEI/ Havells/ Grandley/ Gemscap

D	Sub Station Equipments	
1	LT Panel/ Meter Panel Board/ Outdoor Feeder Pillar/ APFC Panel (less than 200 kVAR)	Tricolite/Electrical Industries/ Control & Switchgears Pvt. Ltd./ Sterling & Wilson/ Milestone/ Adlec Control System Pvt. Ltd./ Advance Panels & Switchgears Pvt. Ltd./ S.S. Enterprises/ A.R. Engineers / Shalabh Industries
2	Air Insulated Rising Main	C&S/ L&T/ Schneider/ Legrand
3	Sandwich type Bus Trunking	C&S/ L&T/ Schneider/ Legrand
4	Moulded Case Circuit Breaker (MCCB) Thermal Release/ Microprocessor Based (Ics=Icu=100%)	Schneider Electric (NSx Series)/ Siemens (VL Series)/ L&T (D-Shine)/ Legrand (DPX3)/ ABB (Tmax)/ C & S (Winbreak-1/2)
5	Power/ Aux. Contactor 3/4 pole	Schneider Electric/ L&T/ Siemens/ Legrand/ ABB/ C&S
6	Potential Transformer/ Current Transformer	Automatic Electric/ Gilbert & Maxwell/ Matrix/ Precise/ L&T/ Kappa/ Rishabh / CGL
7	LED type indicating lamps/ Push Button	Schneider Electric/ L&T/ Siemens/ C&S/ GE
8	Overload relays with built in Single Phase Preventer	Schneider Electric/ L&T/ Siemens/ C&S/ ABB
9	Conventional/ Electronic Digital Meters (A/V/PF/Hz/KW/KWH)	Conzerv/ Larsen & Toubro/ Secure/ AE/ C&S/ Siemens/ Schneider/ ABB/ Rishabh
10	Timer	Siemens/ L&T/ Legrand/ ABB/ Schneider Electric/ C&S
11	Fasteners/ G.I. Clamps	Hilti/ Fischer/ Chilli/ GMGR
12	D.W Corrugated HDPE Pipe (ISI marked)	REX/ Dura plast/ Zenduct/ Triputi/ Duraline
13	Transformer (Oil/ Dry type)	Crompton/ ABB/ Schneider/ Voltamp/ Kirloskar (only oil type)
14	HT Panel/ Ring Main Unit	Siemens/ ABB/ L&T/ Schneider
15	H.T Cable (ISI marked)	CCI/ Polycab/ Universal/ KEI/ Havells/ RPG Cables
16	HT End Termination Cable Joint Kit	Reychem/ Cab Seal/ 3M
17	ACBs (with display)	Siemens/ L&T/ ABB (Emax)/ C&S / Legrand/ Schneider
18	Rubber Mat	Jyoti/ Deep Jyoti/ Premier (duly ISI marked)
19	Fire Extinguishers	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
20	Capacitors & Reactors/ APFC Relay	EPCOS/ L&T/ ABB/ Siemens/ Schneider
21	APFC Panel (200 KVAR & Above) (Accessories make will be as per manufacture's standards)	L&T/ Schneider/ ABB/ Siemens/ Legrand/ C&S
22	Cable Glands Double Compression with earthing links	Comet/ Cosmos/ Dowells/ Gripwell/ Jainson / Hax Brass (Copper Alloy India)
23	Bimetallic Cable Lugs	Comet/ Dowells (Biller India)/ Hax Brass (Copper Alloy India)/ Jainson/ Action
24	MS / GI Cable Tray	Pilco/ Slotco/ Pasco/ MEM/ BEC/ Steelways/ Legrand
25	Programmable Logic Controller (PLC)	Siemens / Woodward/ Allen Bradley / Delta / Mitsubishi
E	DG Sets	
1	Diesel operated power Generating Engine	Cummins India/ Caterpillar/ Ashok Leyland/ Kirloskar/ Mahindra/ Perkins
2	Alternator	Stamford/ Lerroy Sommer/ Kirloskar Electric Caterpillar/ Crompton Greaves/ Toyo Denki
3	DG Set Canopy/ Enclosure & AMF Panel	As per OEM/ OEA of respective DG Set Manufacturer
4	Alarm Annunciator	As per OEM/ OEA of respective DG Set Manufacturer
F	Fire Fighting Equipments	
1	MS Pipe	Tata/ Jindal(Hisar)/ Prakash Surya
2	GI Pipe	Tata/ Jindal(Hisar)/ Prakash Surya

3	Forged Steel Fitting/ Flanges	Johnson Industries/ VS Forge/ JK Forging/ Trueforge
4	Forged Steel Fitting & Flanges (for welding joints)	VS Forge/ Rohini/ Kanwal Forge/ Johnson/ Trueforge
5	Pipe Hangers	Chilli/ Hilti/ GMGR/ Fischer
6	Gun Metal/ Brass Valve (ISI marked) (Full way Globe valve/ Non Return Valve)	Sant/ Leader/ Advance/ Zoloto/ Kirlosker
7	Butterfly/ Sluice Valve (ISI marked)	Audco/ Advance/ Kirloskar/ Sant/ Leader/ Zoloto
8	Check Valve (ISI marked)	Sant/ Leader/ Advance/ Audco/ Zoloto/ Kirlosker
9	Foot Valve (Cast Iron/ Gun Metal)	Sant/ Leader/ Advance/ Audco/ Zoloto/ Kirlosker
10	Y-type Strainer	Sant / Audco / Kirloskar / Leader / Zoloto
11	Fire/ Sprinkler Pump/ Terrace Fire Pump	Kirloskar/ KSB/ Grundfos/ Mather & Platt/ Wilo
12	Electrical Motor	ABB/ Siemens/ Kirloskar/ Grundfos/ Crompton/ NGEF
13	Diesel Engine for Fire Pump	Kirloskar/ Ashok Leyland/ Cummins
14	Coupling (Tyre-Type)	Lovejoy/ Fenner/ Dunlop
15	Anti Vibration Mountings	Kanwal Industrial Corporation/ Dunlop/ Resistoflex
16	Pressure Switch (ISI marked)	System Sensor/ Indfoss/ Danfoss/ Switzer
17	Pressure Gauge (ISI marked)	H Guru/ Fiebig/ Dwyer
18	Double/ Single Headed Landing Valve (ISI marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
19	Male Female Fire House Coupling (SS 304) (ISI Marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
20	First Aid House Drum/ Fire Hose Reels/ Shut off Nozzle (Gunmetal/ ABS) (ISI marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
21	SS 304/ Gun metal Branch Pipe & Nozzle (ISI Marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
22	Fireman Axe	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
23	Water Flow Switch (FM/ UL listed)	System Sensor/ Switzer/ Potter/ Siemens/ Honeywell
24	Rust preventive polymeric 4mm thick tape for pipes directly buried in ground Pipe Protection Wrapping (ISI marked)	Pypcoat/ Makphalt/ Rustech/ Safex
25	Level Controller & Indicator (Water)	Auto Pump/ Cirrus Engineering/ Techtrol/ L&T/ Entes
26	Fire Brigade Inlet Connection (ISI marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
27	Thermoplastic pipe for First Aid Hose Reel (ISI marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
28	Fire Sealant	Promat/ Birla 3 M/ Hilti
29	Overload relays with built-in Single-Phase Preventer	Schneider Electric/ L&T/ Siemens/ ABB/ C&S
30	Power/ Aux. Contactor 3 / 4 Pole	Schneider Electric/ Larsen & Toubro/ BCH/ Siemens/ Legrand/ ABB/ C&S
31	LED type indicating lamps/ Push Button	Schneider Electric/ L&T/ Siemens/ C&S
32	LT Jointing Kit/ Termination	Raychem/ Cab Seal/ 3M
33	RRL Hose Pipe (ISI marked)	Minimax/ New Age/ Safex/ Ansul/ Ceasefire/ Amerex
34	Dry Battery	Exide/ Standard/ Amar Raja/ Rocket/ HBL/ Pulse/ Amco
35	Battery Charger	Statcon/ Amarraja/ CDC/ AE/ Expofyn/ Thycon India
36	Epoxy Paint	Dulux/ Berger/ Asian/ Nerolac
37	Air Release Valve	Rb/ Tbs/ Cimbrio/ Zoloto
38	Analogue/ Digital Measuring Instruments (Voltmeter/ Ammeter/ Energy)	AE/ Rishab/ L&T/ C&S/ Conzerve/ Secure

39	Aluminium/ Copper power cable / Control Cable (Armoured/ Unarmoured)	Finolex/ Universal/ Polycab/ RPG Cables/ KEI/ Havells
40	Cable Glands & Lugs	Comet/ Dowells/ Jainson/ Cosmos/ Gripwell
41	Solenoid Valve/ Spray Nozzle	Parker/ HD Fire Protect/ Tyco/ Emersion
42	Sprinkler	HD Fire Protect/ Tyco/ Reliable/ Wormald/ Viking
43	Sprinkler Heads/ Water Curtain Nozzle	Tyco/ Viking/ Omex/ Newage
44	Steel Flexible Extension	Omex/ Newage/ Tyco
45	Vibration Eliminator	Resistoflex/ D warden/ Kanwal
46	Welding Electrodes	Advani/ ESAB/ L&T
47	Deluge Valve	Tyco/ Viking/ HD
48	Cast Iron Valve	Kirloskar/ Kartar/ Kalpana
G	Fire Alarm System	
1	Addressable manual call box	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
2	Addressable type fault isolator	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
3	Strobe lights cum hooter	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
4	Addressable control modules for hooter	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
5	Addressable monitor module for flow switch	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
6	Addressable type fire alarm control panel	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
7	Network repeater panel	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
8	Addressable multi sensing fire detector (Combination of optical type smoke detector and ROR type heat detector)	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
9	Response Indicator (Addressable)	Notifier(Honeywell)/ Johnson Control(Simplex)/ Siemens/ Bosch/Edwards/Advanced/Apollo
H	Water Supply System	
1	Mono Submersible pump Set	KSB/ CG/ Kirloskar/ Grundfos/ Amrut
2	Submersible Pump Set	KSB/ CG/ Kirloskar/ Grundfos/ Amrut
3	G.I. Pipe	Tata / Jindal Hisar (ISI mark) / Prakash Surya
4	Sluice Valve/ Check Valve/ Butterfly Valve/ Non Return Valve etc.	Zoloto/ Bharat/ Kalpana/ Kirloskar/ Sant/ KSB
5	Submersible Cable	Finolex/ Polycab/ Havells/ KEI
6	G.I. Fittings (e.g. union, plug, elbow, tee, socket etc.)	Unik/ AVR/ Zoloto/ Eye/ HB/ KKR/ Prakash Surya (ISI mark)
7	PPR/ CPVC/ UPVC Pipe and Fittings	Astral/ Supreme/ Ashirwad/ Finolex/ Ajay Flow Guard/ Prince/ SFMC (ISI mark)/KPT
8	Starter and Motor Controller	L&T/ ABB/ Siemens
9	Water Flow Meter	ABB/ L&T/ Siemens/ Supreme Technology
I	Air Conditioner & Water Purifier	
1	Split/Window/Cassette Air Conditioner	Mitshubshi Electric/ Mitshubshi Heavy Industries/ Toshiba/ O-General/ Daikin/Carrier/Hitachi

2	R.O./ Water Purifier	Kent/ Ion Exchange/ Aquaguard/Blue Star
3	Drinking Water Cooler/Dispenser	Voltas/ Blue Star/ Usha/ Climatrol (Sidwal)/Eureka Forbes
J	Solar Water Heating System	
1	Solar Water Heating System	Racold/ Electrotherm/ V-Guard/ Bosch/EMVEE/Photon energy /

K	Lift	
1	Lift	OTIS/ KONE/ Mitsubishi/ Schindler/ECE
L	Uninterrupted Power Supply (UPS)	
1	Online/ Offline UPS	Numeric/ Eaton/ APC/ Vertiv/ Peagusus
M	Solar Power Generation System	
1	Solar PV Module	Waaree/ Vikram/ Adani/Tata Solar Power
2	Junction Box	As per OEM of SPV Modules
3	SPV Inverter	Delta/ SMA/ Solaredge/ Fronius
4	Module Mounting Structure	As per MNRE/ Manufactures Standards
5	Solar Cable XLPO Insulated (DC)	RR Kabel/ Polycab/ Havells/ Finolex
N	a. VRV / VRF AC & TFA	
1	Variable Refrigerant Volume System	O-General/ Toshiba/ DAIKIN/ Mitsubishi Electric/ Mitsubishi Heavy Industry/Hitachi
2	TFA Unit	Zeco/ Edgetech/ Bryair/ Nichotra/ Krugger or OEM of VRF/ VRV
	b. Ducting & Grilles	
1	Grilles/ Diffusers	Airflow/ Systemair Company/ Mapro/ Tristar/ Servex/ Dynacraft
2	Fire Dampers	Airflow/ Systemair Company/ Mapro/ Tristar/ Servex/ Dynacraft
3	Fire Dampers motors	Belimo/ Siemens/ Honeywell
4	G.I. Sheet Metal for duct	Jindal/ Tata/ SAIL
5	Factory fabricated duct (TDC)	
5.1	Rectangular	Rolastar/ Techno Aircon/ Ductofab/ RSP Air/Zeco
5.2	Round	GP Spiro/ Atco/ Zeco
6	Self Adhesive Sealing Gasket for Ducts	Prima Seal/ Air Flow/ Trocellen
7	Stick Pins	Prima Seal/ Air Flow/ Trocellen
8	VCD/ Gravity louvers/ Exhaust & fresh air louvers	Air Flow/ Airflow/ Ravistar
9	Electronic controller/ actuator for smoke exhaust fan	Belimo/ Siemens/ Honeywell

10	Smoke detector	Apollo/ System sensor/ Edward/ Siemens
11	Round Flexible Duct	Atco/ UP Twiga/ Carryaire
c. Pipes & Fittings		
1	PVC Drain Pipe	Supreme/ Finolex/ Astral/ Polycab
2	Refrigerant Copper Pipe	Rajco Metal/ Mandev/ Maxflow / Uniflow
3	Copper Fittings(Y-Joints)	AS per OEM of VRF/ VRV
d. Insulation		
1	Expanded Polystyrene (TF Quality) (Pre-moulded pipe section / slab)	Beard Sell / Armacell/ K-flex/ Kaimann
2	Cross Linked Polyethylene (Fire resistant quality)	Trocelene/ Supreme/ Paramount / K flex/Kaimann/ Aerolam
3	Glass Wool	Owens Corning/ U.P. Twiga/ Lloyd insulation
4	Closed Cell Elastomeric Thermal Insulation (Nitrile rubber)	Beard Sell / Armaflex/ K-flex/ Kaimann
5	Pre-moulded PUF section for pipe & pipe supports	Epack/ Lloyd / Kingspan Jindal
6	Aluminium Tape	Johnson/ Hindalco/ 3M
7	Protective Coating over Closed Cell Elastomeric – Fiber glass Woven cloth	Polybond/ UP Twiga/ Owens Corning
e. Accessories/ Controls		
1	Filters	Airtech/ Purolater/ Spectrum/ Thermodyne
2	Pressure Gauges	H.Guru/ Dwyer/ Emerald
3	Thermometers (with brass encasing)	Emerald/ Taylor/ Japsin
4	Room Thermostat/ AHU& FCU Thermostat	Honeywell/ Siemens/ Danfoss
5	Humidistat	Honeywell/ Siemens/ Danfoss
6	VFD with sensors	ABB/ DANFOSS/ Siemens
f. Fans		
1	Inline Fans	Systemair/ Nicotra/ Kruger/ Greenheck/ Airflow/Caryaire
2	Propeller	Alstom/ Khaitan/ Crompton Greaves/ Nicotra/Kruger/ Caryaire/ GE

Specific Make List

S. No.	Particulars	Make
1	Air Handling Units	Zeco/ Climcone/ Systemair
2	Ducting	Tata/ Jindal/ Bhushan/ Sail
3	GI volume control damper/ Diffuser	Flowair/ Systemair/ Airflow
4	Duct Insulation	Supreme/ Aramount, A flex
5	Variable frequency drives.	Danfoss/ ABB/ Siemens
6	Velocity sensor / DP sensor for VFD	Siemens/ Honeywell/ JCI
7	Structural Steel	SAIL/ TATA Steel/ Rashtriya Ispat Nigam (RINL)/ JSW steel ltd./ JSPL/ Galwalia Ispat (GIUPL) (conforming to relevant I.S. Codes with latest amendments conforming to relevant IS Codes with latest amendments)
8	MCC panel	Intracool/ KEPL/ CPRI approved
9	XLPE insulated PVC Sheated Alum./ Copper conductor Armoured cable of 1.1KV Grade	Finolex/ Universal/ Polycab/ RPG Cable/ KEI/ Havells/ Grandley/ Gemscab
10	LED Fittings	Wipro/ Phillips/ Crompton Greaves/ Havells
11	Pan-humidifier	Intracool/ KEPL/ Daspas
12	Temp & RH Sensor with digital indication inside room	Siemens/ Honeywell/ JCI
13	DP Sensor cum transmitter with digital indication.	Siemens/ Honeywell/ JCI
14	Air Shower	Thermadyne/ Allegro/ Iclean
15	Conduit PVC	
16	Riser Grill SS	Flowair/ Mechmaark/ Thermadyne
17	Riser Damper	Flowair/ Systemair/ Airflow
18	Riser Pre-filter	Mechmaark/ Thermadyne/ Climcone
19	Make-up tank	Sintex/ Everest/ ISI marked
20	Vinyl flooring	Armstrong/ Gerflor/ Forbo
21	Wall Panel Puff infill	Beardsell/ Iclean/ GMP
22	Ceiling Panel Puff infill	Beardsell/ Iclean/ GMP
23	Cleanroom compatible Door	Beardsell/ Iclean/ GMP
24	Double glazing	Beardsell/ Iclean/ GMP
25	PU Paint	Asian/ Berger/ J&N

Note:

1. Due to compatibility of items, for replacement purpose existing brand shall be considered subject to availability.
2. Specific make list on this page (Sno.1 to 25) will supersede the make of items already mentioned in the tender document.

Part- C

General / specific conditions, specifications and schedule of quantities, approved make list applicable to minor component of the work (Civil)

BILL OF QUANTITIES FOR CIVIL WORKS

Name of work: Additional Work for Precision Type AC System in Quantum Optics Lab, Physics Department, IIT Roorkee.

BoQ-2

<u>PRICE SCHEDULE</u>							
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)							
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Estimated Rate with GST@18% and 1% cess in Rs. P	Quoted Currency in INR / Other Currency	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
1	2	4	5	6	12	54	55
2	PART-III (Civil work for clean room of Optics Lab, IIT Roorkee)						
3	Make UP tank Supplying and installation of elevation moulded cylindrical vertical syntax water storage tanks at required height of approved make of 500 litre capacities with suitable S.M.C. cover at top. The tank should have inlet, outlet, drain and overflow, providing and fixing necessary GI nipples ranging from 15mm to 50mm NB. of average 150mm length with double check nuts, washers etc.	1.00	Nos	12215.36	INR	12215.36	INR Twelve Thousand Two Hundred & Fifteen and Paise Thirty Six Only
4	CLEANROOM FLOORING(VINYLE FLOORING)						
5	Cleanroom Vinyl flooring ESD 2 mm thick with all joints fusion welded	74.00	sqm	3760.66	INR	278288.84	INR Two Lakh Seventy Eight Thousand Two Hundred & Eighty Eight and Paise Eighty Four Only
6	Floor coving R 15	38.00	Rmt	756.38	INR	28742.44	INR Twenty Eight Thousand Seven Hundred & Forty Two and Paise Forty Four Only
7	Self leveling compound 3 mm thick	74.00	sqm	1047.84	INR	77540.16	INR Seventy Seven Thousand Five Hundred & Forty and Paise Sixteen Only
8	CLEANROOM INTERIORS AS DETAILED BELOW						
9	Wall Panel 50mm Thick PUFF infill panel made of 0.6 mm thick PPGI sheets of Beardsell make or equivalent	15.00	sqm	4790.80	INR	71862.00	INR Seventy One Thousand Eight Hundred & Sixty Two Only
10	Ceiling Panel 50mm Thick PUFF infill panel made of 0.6 mm thick PPGI sheets of Beardsell make or equivalent	74.00	sqm	4952.46	INR	366482.04	INR Three Lakh Sixty Six Thousand Four Hundred & Eighty Two and Paise Four Only
11	Clean room compatible Door, Powder coated blue colour, with automatic door seal at bottom, door closure, D Handle, Lock. Double door shall have tower bolt on one leaf. Single leaf Door 900mmx2100mm (Outer dimensions).	2.00	Nos	42792.70	INR	85585.40	INR Eighty Five Thousand Five Hundred & Eighty Five and Paise Forty Only
12	Clean room compatible Door, Powder coated blue colour, with automatic door seal at bottom, door closure, D Handle, Lock. Double door shall have tower bolt on one leaf. Double leaf Door of Size 1500mmx2100mm (outer dimensions).	1.00	Nos	65405.04	INR	65405.04	INR Sixty Five Thousand Four Hundred & Five and Paise Four Only
13	Clean room compatible Door, Powder coated blue colour, with automatic door seal at bottom, door closure, D Handle, Lock. Double door shall have tower bolt on one leaf. Emergency Door with panic bar Door 900mmx2100mm.	2.00	Nos	64394.96	INR	128789.92	INR One Lakh Twenty Eight Thousand Seven Hundred & Eighty Nine and Paise Ninety Two Only

14	Double glazing with 5 mm thick toughen glass on both sides. Space between two glasses shall have silica gel to prevent moisture ingress. Cleanroom compatible of Beardsell make or equivalent	6.00	sqm	15253.86	INR	91523.16	INR Ninety One Thousand Five Hundred & Twenty Three and Paise Sixteen Only
15	Cutouts In ceiling Panel	139.00	Nos	756.38	INR	105136.82	INR One Lakh Five Thousand One Hundred & Thirty Six and Paise Eighty Two Only
16	PU Paint for Brick Wall inside lab upto false ceiling. Work shall include corner coving at wall corners	125.00	sqm	1228.38	INR	153547.50	INR One Lakh Fifty Three Thousand Five Hundred & Forty Seven and Paise Fifty Only
Total in Figures						1465118.68	INR Fourteen Lakh Sixty Five Thousand One Hundred & Eighteen and Paise Sixty Eight Only
Quoted Rate in Figures			Select			0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only					

Signature of Contractor

List of Approved Makes of Civil & Sanitary Materials

S.No.	Materials	Manufacturer/ Make
1	(i) Ordinary Portland Cement/ Portland Pozzolana Cement/ Portland Slag Cement.	Lafarge, Ultratech, ACC, Ambuja cement, J.K. Cement, Jaypee Cement (conforming to relevant I.S. Codes with latest amendments)
	(ii) White Cement	Birla White, J.K. White, Lafarge
2	Reinforcement Steel	SAIL, TATA Tiscon Steel, RINL Vizag TMT, JSW-Neosteel, JSPL- Jindal Panther, Electrosteel V-XEGA, Kamdhenu, Galwalia Ispat-Indostar (conforming to relevant I.S. Codes with latest amendments conforming to relevant IS Codes with latest amendments)
3	Water Proofing Compound	FOSROC, CICO, BASF, SIKA, Pidilite (Dr. Fixit), ARDEX ENDURA, MC-Bauchemie, STP
4	Crystalline water proofing compound	FOSROC, CICO, BASF, Xypex, Monoroof, ARDEX ENDURA
5	Grouts/ Tile Adhesives	Latecrete, BASF, Ferrous Crete, ARDEX ENDURA, Weber (Saint Gobain), Pidilite, Thermoshield
6	Structural Steel	SAIL, TATA Steel, Rashtriya Ispat Nigam (RINL), JSW Steel Ltd., JSPL, Galwalia Ispat (GIUPL) (conforming to relevant I.S. Codes with latest amendments conforming to relevant IS Codes with latest amendments)
7	Polycarbonate Sheet	GE Plastic, Danpalon, Bayer, Macrolux
8	Profile steel sheet (Precoated)	Ezydeck of TATA, Lloyd Superdeck, JSW, JSPL
9	Particle Board	Kitply, Action TESA, Greenlam, Merino
10	Laminated Particle Board/ Laminates	Kitply, Action TESA, Greenlam, Centuryply, Merino
11	Flush Door Shutters/ Block board	Kitply industries (Swastik), Centuryply, Durian, Greenply, Archid
12	Fire Rated Doors	I clean, Shakti Hormann, Navair
13	False Ceiling system	Armstrong, Hunter Douglas, USG Boral, Saint Gobain, Aerolite, Gypsum India, Anutone, Grid Square
14	Plywood/ Veneer	Greenply, Centuryply, duro, Kitply
15	Melamine Polish	Asian Paints- Melamine Gold, Wudfin of Pidilite, Timertone of ICI Dulux, Berger
16	Floor Spring & Door Closure	Godrej, Dorma, Dorset, Kich, Hafele
17	(a) Aluminium Section	Hindalco, Jindal, Indalco
	(b) Anodised Aluminium Hardware (Heavy Duty)	Kilong, Alualpha, Classic, Ebco
18	Clear/ Float/ Frosted/ Refractive/ Coated Glass	Saint Gobain, Modiguard, Asahi (AIS), Pilkington
19	Stainless Steel Railing, Accessories etc.	Dorma, Kich, GEZE, Hettich
20	Stainless Steel Door & window fittings	Dorma, Kich, Dorset, Godrej, Hettich
21	Silicon based water repellent/ Weather sealant	G.E. Plastics, Dow Corning, Wacker, BASF, Pidilite (Dr.Fixit/Roff)
22	Poly-Sulphide Seal	FOSROC, Pidilite (Dr. Fixit/Roff), Sika, BASF, Perma, Tuffseal

23	Mosaic tiles/ Chequered Tiles/ Tactiles	Ultra Tiles, NITCO, Hyper (Mayur), Pavcon, Duracrete, Eurocon, Unistone
24	Ceramic Tiles	Kajaria, NITCO, Orient, Somany, Rak Ceramics
25	Vitrified Tiles (Anti-skid/ Matt/ Glazed)	Kajaria, NITCO, Orient, Somany, Johnson, Rak Ceramics
26	Dash/ Anchoring Fasteners	HILTI, Fischer, Bosch, Wurth
27	Cement Based Wall Putty	Birla wall care, JK White, Berger, Asian Paints
28	Oil Bound Washable Distemper/ Dry Distemper	Asian Paints (Profesional Acrylic Distemper), Nerolac (Beauty Acrylic Distemper), Berger (Bison Acrylic Distemper), ICI Dulux (Maxilite)
29	1 st Quality Acrylic Distemper (washable/ Ready mix/ Low VOC)	Asian Paints (Tractor Aqua Lock Paint), Berger (Commando or equivalent paints of Nerolac or ICI Dulux)
30	Acrylic Emulsion Paints	Asian Paints (Professional Premium Interior Emulsion Paint), Nerolac (Beauty Gold), Berger (Rangoli Total Care), ICI Dulux (Super Cover)
31	Plastic Emulsion Paints	Asian Paints (Apolite Heavy Duty Premium Emulsion Paint), Nerolac (Impression), Berger (Easy clean)
32	Premium Acrylic Emulsion Paints (Interior)	Asian Paints (Royale Luxury Emulsion), Nerolac (Impression), Berger (Silk) ICI Dulux (Velvet touch)
33	Textured Exterior Paint	Asian Paints, Nerolac, Berger Paints, Nerolac Paints, Luxture
34	Acrylic smooth exterior paint	Asian Paints (Apex/Professional Premium Exterior Emulsion), Nerolac (XL), Berger (Weather coat) ICI Dulux (Weather Shield)
35	Premium Acrylic smooth exterior paints with Silicon additives	Asian Paints (Apex Ultima), Nerolac (XL Total), Brger (Weather coat all guard), ICI Dulux (Weather Shield max)
36	Synthetic Enamel paint	Asian Paints (Apolite Premium gloss enamel), Nerolac (Synthetic Hi-gloss), Berger (Luxol Hi-gloss), ICI Dulux (Gloss Synthetic enamel)
37	Cement Primer	Nerolac, Berger (BP White Primer-WT), Asian (Decoprime- WT), ICI Dulux
38	Steel Primer (Red-Oxide Zinc Chromate Primer)	Asian Paints, Nerolac, Berger, ICI Dulux
39	Wood Primer	Asian Paints (Wood Primer- White/ Pink) Berger, ICI Dulux, Nerolac
40	Epoxy Paint	Asian Paints, Nerolac, Berger, ICI Dulux, Pidilite, Tuffcoat, Dubond

41	Fire Paint	Asian Paints, Akzo Nobel coatings India Ltd., PROMAT, Jotun
42	G.I./ M.S. Pipe	TATA, Jindal (Hisar), Jindal (Ghaziabad), Prakash Surya, Swastik, Zenith
43	G.I. Fittings	Unik, AVR, Zoloto, TATA, Zenith
44	HDPE Pipe	Reliance, ORIPLAST, Supreme, Vectus
45	D.I. Pipes	Electrosteel, Jindal, TATA Ductura, Kapilangle, Kesoram
46	D.I. Fittings	Electrosteel, Jindal, TATA Ductura, Kapilangle, Kesoram
47	UPVC/SWR Pipe and Fittings	Astral, Supreme, Ashirwad, Finolex, Vectus, Prince
48	Centrifugally Cast (spum) Iron Pipes & Fittings.	NECO, Kapilansh, Electrosteel, SKF, HEPCO
49	C.I. Manhole covers, frames & G.I. gratings	NECO, RAJ Iron Foundry Agra, BIC, SKF, Kapilansh, HEPCO
50	SFRC Manhole covers & gratings	KK, Jain, Pragati
51	C.P. Brass Fittings	Jaquar, Grohe, Roca, Hindware, Parryware
52	Stainless steel pipes & fittings	TATA, Jindal, Viega, Hindware
53	Sanitary ware, Fittings & accessories	Kohler, Roca, Hindware, Parryware, Jaquar
54	Mirror Glass	Atul, Modi Guard, Golden Fish
55	CPVC Pipe & Fitting	Astral, Supreme, Ashirwad
56	Stainless Steel Sink	Neelkanth, Nirali, Hindware, Jayna, Franke
57	RCC Pipes (NP-2)	Lakshmi, Sood & Sood, Jain & Co., Diwan Spun Pipe, ACS, Kisan Industries, Sai Concrete
58	UPVC Doors & Windows (Profile makers & their authorized Fabricators only)	Fenesta, KOEMMERLING, REHAU, Aluplast, Wintech
59	Extruded polystyrene Insulation Board	Dow Corning, Supreme, Texas, Analco
60	Heat Resistant Tiles	Swastik, Thermatek, Rocotile
61	Gypsum Plaster	Ferrous Crete, Gyproc- Saint Gobain, Ultratech
62	Floor Hardner	Ironite, Ferrok, Hardonate
63	Modular Expansion Joint	Herculus, Sanfield India Ltd., Vexcolt
64	Glass Wool	Dow Corning, U.P. Twiga, Isover
65	UPVC door and window hardwares	Rotto, Dorset, Kinglong
66	AAC Blocks	Ultratech, Instablock, Biltech, JK Smartblox, Shree Cement Ltd., Aerocon, Siporex, Ecolite
67	AAC Block Adhesive	Ultratech, ARDEX ENDURA, Ferrous Crete
68	Locks in cabinets and furniture	Hettich, Blum, Hafele, Godrej, Dorset, Dorma, Kich
69	EPDM Gasket	As approved by EIC
70	Water proofing Cement Paint	Snowcem (Super Snowcem), Acrocem, Birla Cem
71	Aluminium Composite Panel (ACP)	Alpolic, Aluco Bond, Reyno Bond, Euro Bond, Alstrong
72	Anti-termite chemical & wood preservatives	Thiodon, De-NOCIL, Bayer, Vam organic, NOCIL, Hindustan Insecticides, Roffe
73	POP (Plaster of Paris)	JK Lakshmi, Shriram Nirman, Sakarni

Note: Deviation in the approved make(s) may be obtained with due approval of the competent authority with due justification.

SPECIAL CONDITIONS (FOR CIVIL WORKS)

The bidder should either himself meet the eligibility conditions for the respective Civil components or otherwise he will have to associate other agencies, fulfilling the eligibility requirements. If the bidder wants to associate other agencies, a consent letter from at least one eligible Associate Agency of the respective components of Civil work shall also be submitted along with bid as per attached formats.

In case the bidder is himself eligible (as per eligibility criteria) for executing any specific minor component and intends doing the job himself, he may not be required to associate with another agency for that minor component of work. In such cases the main bidder also has to submit the documents as per eligibility criteria mentioned for associated agency of individual Civil components.

The bidder has to submit the following documents for association of Civil contractor along with the bid:

1. In support of the eligibility conditions of the proposed associated Civil contractor, copy of work completion certificate(s), Electrical Contractor's License, PAN Card, GST Registration duly attested by the applicant (the bidder).
2. Proposal for associating agency for minor components of work shall be submitted as per Form-H of this tender document from each associate agency for all Civil components.
3. The bidder shall submit an MOU signed with eligible associated Civil contractor as per Form-I. The MOU in the enclosed form shall be signed by both the parties i.e. as 1st party and associated Civil contractor as 2nd party independently for all Civil components.

In the event of the concerned Civil agency not performing satisfactorily or failure of associate contractor to complete the Civil work, the bidder on written directions of EIC, shall remove the Associate Contractor deployed on the work and shall submit name of new associate who fulfills the conditions mentioned in NIT to execute the left over work without any loss of time or variation in cost to the IIT Roorkee. Such associates shall also give an undertaking along with the bidder that both of them shall stand guarantee for the equipments already supplied for which payment has been released by the IIT Roorkee in part. If any equipment supplied for the work, during the currency of the earlier Associate contractor and paid partly by the IIT Roorkee, becomes redundant /not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of Civil work, the bidder shall be liable for replacement of the equipment(s) at no cost to Department. No change of Civil Contractor will be allowed without prior approval of the Engineer-in-charge of the work.

Work completion certificate may be issued in the name of Associated Civil contractor/agency for the Civil Work as per rule.

Tender accepting authority may approve change of agency in case it is required during the currency of contract.

In respect of all works the materials shall be procured only from the original equipment manufacturers (OEM) / authorized dealers of OEM. The contractor shall submit all documentary details in fulfillment of this conditions regarding procurement of materials including relevant test certificates.

Executive Engineer (Civil) shall be the Engineer-in-charge as far as Civil works are concerned.

The bidder shall be responsible and liable for proper and complete execution of the Civil work and ensure coordination and completion of both civil and electrical work.

The associate contractor shall attend the inspection of the work by the Engineer-in-Charge of Civil works as and when required.

For Civil works and the eligibility criteria will be as detailed below:

Sl. No	Component	Estimated cost in Rs.	Eligibility
(Part-B) SH-I	Civil Works	Rs.1465118.68	<p>Eligibility condition for bidder/Associated Civil Contractor for execution of Civil works.</p> <p>They should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <p>Three similar completed works each of value not less than 40% of Estimated cost.</p> <p align="center">Or</p> <p>Two similar completed works each of value not less than 60% of Estimated cost.</p> <p align="center">Or</p> <p>One similar completed work each of value not less than 80% of Estimated cost.</p> <p>Similar work shall mean “Construction/ renovation of clean room facility”.</p> <p>The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of receipt of application for tenders.</p>

Note:

1. Completion certificate issued by Competent Authority will only be considered. Competent Authority means officer of not below the rank of Executive Engineer/ Equivalent would be acceptable.
2. Experience of working in Central / State Government, Public Sector Undertaking / Autonomous Organization of Central / State Government shall only be considered.

FORM-G

PROPOSAL FOR ELIGIBLE ASSOCIATED CIVIL CONTRACTORS FOR MINOR COMPONENTS OF WORK

I/we hereby propose the following agencies as per mentioned against each for executing corresponding minor components of work. Their consent letter is also attached

Sl. No	Name of Associated CIVIL Contractor	Completion Certificates attached (Yes/No)	GST and PAN attached (Yes/No)	MOU attached (Yes/No)	Consent letter attached (Yes/No)
1					

Signature of Bidder.

FORM – H

CONSENT LETTER FROM ELIGIBLE ASSOCIATED CIVIL CONTRACTOR OF MINOR COMPONENT OF WORK (to be submitted for each and every Civil component)

NAME OF WORK:..... at IIT Roorkee,
Roorkee, Uttarakhand.

I / We hereby give my consent to associate with M/s, for executing the minor component of work of (Mention category).

I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer-in-Charge for the corresponding minor work till the completion of the work. I have also read the complete tender conditions and I am aware that PART-A of the tender document is applicable to me also.

I / We will employ full time technically qualified engineer / supervisor for the work(s). I will attend inspection of officers of the department as and when required.

“I/We undertake and confirm that eligible similar work(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 Department, then I/We shall be debarred for tendering in IIT Roorkee in future forever.”

I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.

I / We am / are not debarred from any organization as on the date of publication of the tender.

Signature of bidder (Main) with date	Signature with date of Associated CIVIL Contractor
Bidder's Name & Address	Associated CIVIL Contractor's Name & Address
Witness with address (bidder side)	Witness with address (From Associated CIVIL Contractor's side)

FORM - I

MEMORANDUM OF UNDERSTANDING (MOU) (to be submitted for each and every Civil component)

1] M/S [Name of the firm with full address][Henceforth called the Bidder]

and

2] M/S [Name of the firm with full address]

Henceforth called Associated Civil Contractor or Civil Contractor]

For the execution of Work – “at IIT Roorkee, Roorkee, Uttarakhand. (SH-I /II / III.....)”as per schedule, specifications, terms and conditions of the tender.

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended upto date) and the IIT Roorkee can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits.

We have agreed as under:

The Civil contractor will execute all Civil works in the wholesome manner as per terms and conditions of the agreement.

The Civil contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal actions as per agreement.

All the machinery and equipment, tools and tackles required for execution of the Civil works, as per agreement, shall be the responsibility of the Civil contractor.

The site staff required for the Civil work shall be arranged by the Civil contractor as per terms and conditions of the agreement.

Site order book maintained for the said work shall be signed by the Bidder as well as by the Engineer of the Association Contractor and by Associated Contractor himself.

All the correspondence regarding execution of the Civil work shall be done by the department with the Associated Contractor with a copy to the Bidder. In case of non-compliance of the provisions of agreement, the Bidder, as well as the associated contractor shall be responsible.

Signature of Bidder

Signature of Associated Civil Contractor

Date:

Date:

Place:

Place:

Witness with address

Witness with address

(From Bidder's side)

(From Associated Civil Contractor's side)