



TENDER NO: 12/2024 Dated 02.09.2024

INVITATION OF TENDERS

for

**DEVELOPMENT OF CLEAN ROOM FOR VLSI NANOFAB LAB, INCLUDING
EQUIPMENTS, CONSUMABLES AND RELATED SERVICES ON EPC BASIS AT
INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY, DELHI AT OKHLA-III,
NEW DELHI-110020**

**PROJECT AND OPERATIONS DEPT.
IIIT DELHI**

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Indraprastha Institute of Information Technology, New Delhi (IIIT-Delhi)

DATED: 02.09.2024

TENDER NOTICE

1. Last Date & Time of issue of tender documents from 02.09.2024
2. Last Date & Time of receipt of tender 23.9.2024 upto 3.00 p.m.

Name of work: **Prequalification and Tender for Development, Design Execution and Maintenance of clean room for VLSI NanoFab Lab including equipment's, consumable and related services on EPC basis at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi-110020**

Estimated cost of work put to tender : Rs. 250 Lacs
Time of completion : 6 Months

Earnest Money Deposit: **Rs 5 lacs** is to be submitted with tender document as Earnest Money. The above payment shall be made in the shape of deposit at pay order/demand draft of a scheduled bank issued in favour of **IIIT Delhi Collection Account** payable at New Delhi. (except for those who are exempted by NSIC certifications (with Proof)) failing which tender shall be treated as invalid and shall be liable for rejection.

Tender documents can be downloaded from IIITD website (www.iiitd.ac.in) and submitted with nonrefundable DD of **Rs. 1180/-** in favour of **IIIT Delhi Collection** as cost of tender. (except for those who are exempted by NSIC certifications (with Proof)) failing which tender shall be treated as invalid and shall be liable for rejection.

- 1) The tenders are invited in **three bid system that** shall be placed in sealed envelopes with a name of work and due date written on the envelope and addressed to the REGISTRAR, IIITD. Complete tender documents shall be submitted by the eligible contractors in **three envelopes**. **1st envelope** shall contain the earnest money in the shape of Demand Draft / Pay Order of a scheduled Bank requisite shape as per condition & eligibility criteria and cost of tender as stated above in case of the downloaded version.
- 2) Only those agencies with experience of having executed **complete clean room including equipment's, consumable and related services on EPC basis** with relevant experience of having successfully completed similar works during last seven years ending on the **31/8/2024**. The similar works are defined as works of eligible contractors who have carried out similar works in IIT'S/IIIT'S/Govt Depts/PSU/Reputed Pvt sector /MNCs Educational/ Research are to submit the experience certificates for the works and registration certificates with Govt. Depts. if any. The said certificates along with the EMD be enclosed in **Envelope-1**.

Completion issued by the respective clients/organizations shall also be submitted along with the class 100 design concept including the achieved results test reports for clean rooms with the bid.

Copies of Purchase Orders (PO's)/ work orders regarding "similar work" executed by the party/firm with documents evidencing satisfactory completion issued by the respective clients/organizations shall be submitted along with the bid.

The value of executed works shall be brought to current costing levels by enhancing the actual value of work at simple rate of 7% per annum calculated from date of completion to last date of receipt of tenders.

Three similar works not less than 40% of est..cost	Rs 100 lacs each Or
Two similar works not less than 60% of est. cost	Rs 150 lacs each Or
One similar work not less than 80% of est. cost	Rs 200 lacs each

The firm/party may not associate with another firm/party (experienced in the relevant field, viz. cleanroom/HVAC/High purity utility distribution network), and in such cases, the combined experience of the consortium members will not be considered as "similar work" for determining the eligibility.

Parties/ firms should have successfully completed at least one similar work. "Similar Work" means "TURNKEY EPC PROJECT FOR SPECIALISED WORKS OF -Design, detailed engineering, supply, installation, testing, commissioning and validation of Clean Room facility (Class100/ISO5 or better, as per FED Std.209E/ISO14644) and associated utilities comprising of High Purity Gas Distribution system, HVAC works, Gas management (GM) System, Electricals, Fire, Detection AND Fire Fighting system etc. For semiconductor/Microelectronic/Nanofabrication/ MEMS facilities or any relevant industry required of class 100. Also, the party should have at least of two years of experience as a facilitator in a similar field.

- 1) The parties/firms participating in the tender should be technically competent and decent experience in having undertaken cleanroom projects for semiconductor/ MEMS/nano-fabrication facilities relevant class 100.
- 2) The applications not supported with requisite experience certificates, GST registration certificate, TIN no. and ITCC in **Envelope-1** shall not be entertained.
- 3) Average Annual Turnover for similar works should be at least Rs 500 lacs during immediate last 3 consecutive financial years ending **31st Mar 2024**.
- 4) Should not have incurred any loss in more than 2 years during the last (three) 3 financial years. The prospective firm/party shall provide a copy of audited annual accounts by a chartered accountant for the previous 3 (three) financial years.
- 5) Shall have a solvency of Rs. 100.00 Lakhs. The applicant shall submit the solvency certificate, not older than six months prior to 31st Aug 2024, issued by any scheduled bank, in original

- 6) Performance certificates must be submitted by the vendors for the works.
- 7) The applications not supported with requisite experience certificates, GST certificate, TIN no. and ITCC in Envelope-1 shall not be entertained.
- 8) Company should not have been barred / blacklisted for taking up similar work in any organization- A certification to this effect on the letter head of the bidder.
- 9) Evaluation Criteria for Technical Bid in Envelope A pertain to minimum eligibility criteria which if not fulfilled will not be considered for the next stage.

Max Marks : 50 marks

- 10) The 2nd Envelope shall contain the presentation with
 - A) Demonstrate existing class-100 experience from concept to commissioning level.
 - B) Presentation of EPC BOQ based on the drawing/requirements. The itemized details of each proposed item and quantities against each of the items in the Broad BOQ as proposed by each vendor based on the drawing & Technical requirements as proposed.
 - C) Detailed design, including design analysis and data for cleanrooms, HVAC systems, utility distribution, electrical systems and distribution, fire detection and suppression, LAN, etc., for all the works covered under the scope of work for the approval of IIIT Delhi.
 - D) Based on the same marking will be done according to the above-mentioned points.
- Max Marks: 50 marks
- Only those bidders shortlisted on basis of Technical bid and Presentation shall qualify for opening of Financial bids

- 11) The 3rd **Envelope** shall contain the financial bids including Priced Schedule of Quantities, Form of Tender, Conditions of Tender, Articles of Agreement, Brief Specifications, Condition of contract, Drawings all duly signed by the authorized signatory of the firms.
Maximum Marks: 100 marks

- 12) All these envelopes are to be put in a single envelope duly super-scribed the name of work, and addressed to Registrar, (IIITD) and with their address. In case the tenderer does not fulfill the laid down eligibility criteria or fails to deposit the earnest money in prescribed form, financial bid shall not be opened.

Tenderers shall seal the tender affix their initials and put stamp on each and every page of tender document before submission. The tender of the contractor, who submits in- complete tender document or submits more than one tender for one work, shall not be considered at all.

Tenders will be received by the Registrar up to 3.00 P.M on **23.09.2024** and will be opened by him/her or his authorized representative in the office of Registrar, IIITD on the same day at 3.30 P.M.

First the Technical Bids will be opened and screened. The bids shall be examined whether the EMD is in order and the bidder meets the minimum eligibility criteria specified above. Those bidders whose EMD is in order, meets the minimum eligibility criteria, has submitted all the required documents and meet the technical requirements shall be considered for opening of financial bid. Conditional tenders would not be accepted. Financial bids in respect of contractors who do not fulfill above criterion shall not be opened.

The Envelope II shall be submitted in hard copy in the main Envelope and presentation by the representative of the bidder will present the same before the Committee at designated location to be informed later.

Works to be completed in coordination with the other agencies/ contractors. No extra for non-availability of fronts or coordination with other agencies shall be payable on account of the same.

IIITD reserves the right to accept any bid on part or whole based on the process.

INFORMATION & INSTRUCTIONS FOR BIDDERS

Name of Work:	Tender for Preparation, Design Execution and Maintenance of clean room for VLSI Nano Fab Lab including equipment's, consumable and related services at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi.
Tender No	12/2024
Date of Start and downloading the tender (Tender document available from www.iiitd.ac.in)	2 nd Sept 2024
Technical Bid Submission end date (Last date and time) for receipt of bids	23 rd Sept 2024 at 1500 Hrs. (tender deposit in the Tender Box kept in 2 nd Floor of Academic Block of the Institute)
Date and time of bid opening of Technical Bids	23 rd Sept 2024 at 1530 Hrs
Physical Presentation by vendor before the Committee	Will be intimated separately to the shortlisted bidders
Financial bids of only those bidders, who qualify for bidding will be opened.	Only those tenderers who have submitted the required documents as prescribed in the tender document will be considered for opening of Financial Bid. The date and time for the same will be decided later.
Address for communication & submission of tender documents and opening of technical bid	Registrar, IIIT-DELHI, Okhla Industrial Area, Phase III, New Delhi- 110020
Pre-bid meeting	11 th Sept 2024 at 3.00 PM. Venue: 5th floor, Board Room, Academic Block, IIIT-Delhi – 110020.
Tender Fee/cost	Rs.1000/- + 18% GST /- = Rs.1180/- (Rupees One Thousand One Hundred Eighty only) in the form of a demand draft/ pay order in favor of IIIT- Delhi Collections which is non-refundable. NEFT Transfer A/c details are as under: Bank - HDFC Bank LTD, Okhla Industrial Area Phase –III New Delhi 110020 Beneficiary's Name - IIIT Delhi Collections Account No - 20741110000035 IFSC code- HDFC0002074 In case of on-line payment of Tender Fees - UTR No. (For Tender Fee)
Earnest Money Deposit (EMD)	Rs 5,00,000/- in the form of Demand Draft/ Pay Order/PBG in favour of "IIIT Delhi Collections" payable at New Delhi -110020 (except for those who are exempted by NSIC certifications (with Proof)) failing bid shall be treated as invalid and shall be liable for rejection.
Performance Guarantee	To be submitted by L1 bidder. The bidder whose bid is accepted will be required to furnish Performance Guarantee of 3% (Three percent) of the accepted tendered amount in addition to other deposits mentioned elsewhere in the contract for his

	<p>proper performance of the contract. This guarantee shall be in the form of DD / FDR in favour of IIIT Delhi Collections payable at New Delhi- 110020. BG Performa as appendix to tender from a scheduled Bank /FD providing such security shall be subject to the approval of the Owner of any scheduled bank drawn in favour of IIIT Delhi Collections.</p> <p>Contract value on award of works that will be extended till 6 months beyond the completion of works</p>
Date for start of works	Within Fifteen (15) days of the Award of Contract, as per scope of work.
Completion period of the Purchase Order	6 Months from the date of issue of Letter of Intent, supply to be made in parts or whole based on an agreed schedule.
Clarification/Queries, if any, can be addressed to	email ID: admin-project@iiitd.ac.in phone no- 01126907563/564/565, 011-71985363

CONDITIONS

1. The time allowed for carrying out the construction work will be 6 months from the 15th day after the date of written orders to commence the work.
2. The site for the work is available.
3. During execution of works, because of some unforeseen circumstances to enable him to complete the work as per terms of the contract, shall not relieve the contractor from any liability or obligations under the contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the contractor, his agents or workmen.
4. The Contractor shall be required to deposit an amount equal to 3% of the tendered value of the work as performance guarantee in the form of an irrevocable bank guarantee bond of any scheduled bank or State Bank of India in accordance with the form prescribed or in the form of fixed deposit receipt etc. within 4 days of the issue of letter of acceptance. The performance guarantee shall have the validity up to 31st March **2026**.
5. Tenderers are advised to inspect and examine the site and its surrounding at their own cost and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at own cost all materials, tools and 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 tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specification of the work to be done, local conditions and other factors having a bearing on the execution of the work.
6. The Accepting Authority (IIITD) does not bind himself to accept the lowest or any other tender and reserves to him/herself the authority to reject in whole or part, any or all of the tenders received without the assignment of any reason. All tenders in which any of the prescribed conditions are not fulfilled or for any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
7. Canvassing, whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractor who resort to canvassing will be liable to rejection.
8. The Accepting Authority reserves to himself the right of accepting the whole or any part of the tender and the tender shall be bound to perform the same at the rates

quoted.

9. Tenders shall remain open for acceptance for a period of 60 days from the date of opening of the tenders. If any tenderer withdraws his tender before the said period for issue of letter of acceptance, whichever is earlier or makes any modification in the terms and condition of the tender which are not acceptable to the IIITD, then IIITD shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money absolutely besides black listing of the tenderer.
10. The notice-inviting tender shall form a part of the contract document. The successful tenderer/contractor shall, sign the necessary contract documents consisting of the notice inviting tender, all the documents including additional conditions, specification and drawings, if any forming the tender as issued at the time of invitation of tender and acceptance thereof with any correspondence leading thereto within the time specified in the letter communicating the acceptance of the tender. In case of delay, the earnest money may be forfeited and the tender cancelled or the contract enforced as per the terms of the tender and the invitation to tender and the tenderer shall thus be bound by the condition of contract even though the formal agreement has not been executed and signed within the specified time by the tenderer.
11. The work shall be carried out as per general of conditions of contract for central PWD works 7/8 (Tender Contract) and form part of the agreement/document.
12. Contract is liable to be terminated by the IIITD without payment of any compensation, if subsequent to the acceptance of tender the contractor is black-listed by, or enters into partnership or employs any black listed contractor of the IIITD or any other department, or Govt. or its, undertakings.
13. Cost of Bidding
 - 13.1 The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.
14. Clarification of Bidding Documents
 - 14.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing/mail at the Employer's address indicated in the invitation to bid not later than 3 days before the Date of Submission of Tenders. Email- admin-project@iiitd.ac.in
15. Currencies of Bid and Payment
 - 15.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments will be invariably made in Indian Currency (Indian Rupees.)
16. PROTECTION OF ENVIRONMENT AND OTHER LAWS:

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or

others resulting from pollution, noise or other causes arising as a consequence of his methods of operation. During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and other local Acts/Laws/ rules made there under, regulations, notifications and bye-laws of local authorities or any other law, bye-laws, regulations that may be passed or notification that may be issued in this respect in future by the State/ Local authority.

For and on behalf of the
REGISTRAR
Indraprastha Institute of Information Technology, Delhi

TENDER

I/We have read and examined and understood the notice inviting tender, schedule, A, B, C, D, E & F, Specifications applicable, drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I / We hereby tender for the execution of the work specified for the IIITD within the time specified in Schedule ' F ', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule - 1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect in accordance with, such conditions so far as applicable.

We agree to keep the tender open for sixty (60) days from the due date of its opening and not to make any modifications in its terms and condition.

A sum of Rs..... Rupees () has been deposited in demand draft of a scheduled bank issued by a scheduled bank as earnest money. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said Director, IIITD or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / we fail to commence work as specified, I / we agree that Director, IIITD or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule ' F ' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

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 no 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.

Dated.

Witness:
Address:

Signatures of Contractor
Postal Address

Occupation:

LETTER OF SUBMISSION

The CE
Indraprastha Institute of Information Technology, Delhi
Okhla Phase-III
(Behind Govind Puri Metro Station)
New Delhi-110020.

I/We, the undersigned, have read and examined in detail, the specifications and all bidding documents and hereby declare that:

1. All the rates quoted in our proposal are in accordance with the terms and conditions as specified in the bid document. All the prices and other terms and conditions of this proposal are valid for a period of 60 calendar days from the date of opening of bid.
2. We do hereby confirm that our bid prices include all taxes/levies/GST indicated separately.
3. We hereby declare that if any tax law is altered, we shall pay the same.
4. The quoted rates are inclusive of ESI, PF and Green Tax no extra on such heads would be payable on such account.

Earnest Money

We have enclosed EMD in the form of demand draft no... ,
dated.....favoring IIIT, Delhi payable at New Delhi issued / drawn on Bank
for Rs._____-/- (Rupees_____Thousand only), as
desired. Deviations

We declare that all the works shall be performed strictly in accordance with the technical specifications and other tender conditions with no deviations.

Qualifying Data

We confirm that all information/data have been submitted as required in the tender document.

We hereby declare that our proposal is made in good faith, without collusion for fraud and the information contained in the proposal is true and correct to the best of our knowledge and belief. I/We agree that in case any information is found to be incorrect the tender is liable to be rejected at any point of the tendering process.

Bid submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.

We understand that you are not bound to accept the lowest or any bid you may receive.

Thanking you,
Yours faithfully,
(Signature and seal of Tenderer with name, designation and contact no.)

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of Registrar, IIITD for a sum of

Rs. _____ (Rupees _____ -)

The documents referred to below shall form part of this contract Agreement: -

- NIT
- Performa for Agreement
- Additional conditions.
- Special conditions
- Schedule of Quantities &
- General conditions of contract for CPWD Works-2020 with up to date correction slip

For & on behalf of
Registrar IIIT-
Delhi

Signature.

Dated.....

Designation.....

SCHEDULES

SCHEDULE 'A'

Schedule of quantities (Enclosed) : Enclosed

SCHEDULE 'B'

Schedule of materials to be issued to the contractor NIL

SCHEDULE 'C'

Tools and plants to be hired to the contractor NIL

SCHEDULE 'D'

Extra schedule for specific requirements/documents for the work, if any, NIL

SCHEDULE 'E'

Schedule of component of Cement, Steel, other materials, Labour etc. for price escalation. NIL

CLAUSE 10 CC

Component of Cement - expressed as percent of total value work, N/A

Component of Steel-expressed as percent of total work. N/A

Component of civil (except cement & steel) / Electrical construction Materials-expressed as percent of total value of work. N/A

Component of labour-expressed as per cent of total value of work. N/A

Component of P.O.L. - expressed as percent of total value work. N/A

SCHEDULE 'F'

Reference to General Conditions of contract.

Name of work: **Tender for Preparation, Design Execution and Maintenance of clean room for VLSI Nano Fab Lab including equipment's, consumable and related services at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi.**

- Estimated cost of work: Rs.250 lacs
- i. Earnest money: Rs. 5,00,000 /-
- ii. Performance Guarantee- The contractor, for due and faithful performance of the Contract, shall obtain and submit to the Owner such security of 3% of the Contract Value within 7 days after the receipt of the Letter of Acceptance, in the form of BG Performa as appendix to tender from a scheduled Bank /FD providing such security shall be subject to the approval of the Owner. The cost of complying with the requirement of this Clause shall be borne by the Contractor.

Period of Validity of performance Bond

The performance bond shall be valid as at Conditions Cl 4 and till the Contractor has executed and completed the Works in accordance with the Contract. This security shall be returned to the contractor within 14 days of the issue of the said Completion Certificate.

Claim under Performance Security

Prior to making a claim under the performance security the Owner shall, in every case, notify the Contractor stating the nature of the default in respect of which the claim is to be made.

Security Deposit / Retention money shall be Two and Half percent (2.5%) of the value of executed works and will be deducted from each and every payment made to the contractor against running account bill submitted for the work done at site. 50% shall be released after 1 year of completion and balance 50% on completion of 2 years of DLP.

- iii. Defect Liability period 24 months from date of completion.
- iv. Liquidated damages In case of delay on account of reasons attributable to the Contractor Liquidated Damages shall be levied. The amount of Liquidated Damages payable by the Contractor to the Employer would be 0.25% of the value of order for each calendar day of delay subject to a maximum of 5% of the value of order after which Employer reserves the right to terminate the contract without prejudice to the rights of the Employer.

General Rules & Direction:

Officer inviting tender: Registrar (IIITD)

Definitions

2(v) Engineer-in-Charge	CE
2(viii) Accepting Authority	Director, IIITD
2(x) Percentage on cost of materials and labour to cover all overheads and profits.	15%
2(xi) Standard Schedule of Rates (Civil)	DSR-2023
2(xii) Department	IIITD
9(ii) Standard CPWD contract Form	CPWD form 8 -2010 with up to date correction slips.
Clause 1	
(i) Time allowed for submission of Performance Guarantee From the date of issue of letter of acceptance	7 days
(ii) Maximum allowable extension beyond the period s (Provided in (I) above	7day
Clause 2	
Authority for fixing compensation under clause 2.	Director, IIITD
Clause 2A	
Whether clause 2A shall applicable	No
Clause 5	
Number of days from the date of issue of letter Acceptance for reckoning date of start	15 days
Time allowed for construction/maintenance	6 months/12 months
Clause 6, 6A	
Clause applicable - (6 or 6A)	Clause 6A
Clause 7	
Gross work to be done together with net payment /adjustment or advance for material collected, if any since the last such payment for being eligible to interim payment.	50 % of Contract Value

Clause 10A

List of testing equipment to be provided by the required contractor at site lab.	As
Clause 10 B (ii)	
Whether Clauses 10B (ii) (iv) shall be applicable	Yes
-----do-----10B(iii) -----	No
Clause 10CA Escalation	Not Applicable
Clause 10CC Escalation	Not applicable
Clause 11	
Specification to be followed for execution of work	CPWD Specifications 2019, Part I & II with Up-to-date correction slips
Clause 12	
Deviation limit beyond which clauses 12.2 & 12.3 shall Apply for building work	100%
Clause 16	
Competent Authority for deciding reduced rates.	Director, IIITD
Clause 17	
Contractor liable for Damages defects during Applicable DLP period	
Clause 18	
List of mandatory machinery, tools & plants to be requirement. deployed by the contractor at site	As per the site
Clause 36(i)	
Requirement of Technical Representative (s)	As per requirement.
Clause 25	
Arbitration Clause	As per special conditions

SPECIAL CONDITIONS

1. In the event of the tender being submitted by a firm, it must be signed by a person duly authorized through a power of attorney issued by all the partners and a certified copy of the power of attorney should be enclosed with the forwarding letter or separately by each member thereof, or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so and such power of attorney shall be produced with the tender and it must disclose that the firm is registered under the Indian partnership Act.

Each and every signature given shall be separately witnessed. A Contractor or a contractor who himself / themselves has/have tendered or who may tender for the work shall not witness the tender of another person for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tenders liable for summary rejection.

2. The conditions for item rate tender only will be applicable as given in general conditions of contract for central PWD works 2023. As mentioned there in also, in event no rate has been quoted for any items leaving space bolts in figure (s), word(s) and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other item(s) and rate for such items will be considered as zero and work will be required to be executed accordingly.
3. Rates quoted as percentage below/above in the tender will be summarily rejected.
4. It must be understood that the work has to be completed as per the time provided in the contract and as such time is the essence of the contract.
5. The quantities furnished in the bills of quantities are only probable quantities liable to alternation by omission, deduction or addition, and it would be clearly understood that the contract is **not a lump sum contract** and the IIITD do not, in any way, assure the tenderer or guarantee that the said probable quantities are correct or that the work would correspond thereto. Payments will be regulated on the actual quantities of work authorizedly done and measured at the accepted rates. No claims due to change in quantities (+ or -) will be entertained. The drawings, forming parts of complementary installations work specifications and the bills of quantities, of the contract, are explanatory of and are to one another, representing together the works / to be carried out. If neither the drawings nor the specifications nor the accepted bills of quantities include any part/parts the intention to include which is nevertheless clearly inferred and which are obviously necessary for the proper completion of the works/ installations, all such parts shall be supplied and executed by the contractor at no extra charge. Anything contained in one or another of (a) the drawings, (b) the specifications and (c) the accepted bills of quantities and not found in the others will be equally binding as if it were contained in each of them.
6. No alterations, which are made by the tenderer in the specifications, conditions or probable quantities accompanying this notice will be recognized and if any such alterations are made the tender, will be invalid. Conditional tenders will however

- be liable for rejection.
7. The tenderer must obtain for himself on his own responsibility and at his own expense all the information necessary, including risks, contingencies and other circumstances to enable him to make a proper tender and to enter into a contract with the IIITD. He must examine the drawings, specifications, conditions and so on and must inspect the site of work, examine the nature of the ground and the subsoil (so far as is practicable) and acquaint himself with local conditions, means of access to the work, storage facilities or areas for staff colony, the nature of the work, in fact all matters pertaining thereto before he submits his tender.
 8. The tenderer shall also bear all expenses in connection with the preparation and submission of his tender and attendance for subsequent negotiations/clarifications.
 - (I) Omission, neglect or failure on the part of the tenderer to obtain requisite and reliable information on any matter affecting his tender, the contract and the construction, completion, maintenance, (dismantling and disposal) of the work shall not relieve the tenderer whose tender is accepted from any liability in respect of the contract.
 - (II) The tenderer whose tender is accepted shall not be entitled to make any claim for increase in the rates quoted and accepted excepting in pursuance of any specific provision in the contract.
 9. The Contractor, upon award of work, shall furnish the following details for the approval of the Engineer in charge:
 - 9.1. The names of manufacturers of specialized items such as patented water proofing systems / materials, doors, flooring tiles, false ceilings, insulating materials, wind mill, cement, steel, glazing, and any other materials etc. which he proposes to use in the work.
 - 9.2. The makes and types of fittings, materials, subject to the makes and type stipulated in the specifications, which he proposes to use in the work.
 - 9.3. The details of licenses granted to him and/or to professional qualified and/or licensed technical personnel on his staff who will be engaged on the work (and submit, if called for, the licenses for inspection by the Officer in charge in consultation with Engineer in charge).
 - 9.4. Only approved agencies/ skilled workers shall be deployed to carry out requisite specialized items of work. The Officer/ Engineer in charge's decision in consultation with Architect's/ in this regard shall be binding to all the parties concerned.
 10. The rates quoted in the bills of quantities shall unless specified otherwise will be for all heights, depths deemed to be for finished work in-situ/ item by item as provided for, and shall include cost for all necessary material and labour, all necessary tools and plants and machinery, sheds, marking out, clearing site, etc. and for all taxes, octroi, excise, VAT works contract and any other tax or duty levied by Government, Central or Local, or Local Authority,/as subsumed and GST, if any as applicable.
 - 10.1. The rates shall be firm and not be subject to any variations in exchange rates,

- in taxes, duties etc. in railway freight and the like including labour conditions, etc. The rates are not subject to escalation.
11. It will be the sole responsibility of the contractor to procure all the equipments/ materials and other materials required for the work.
 12. The IIITD further reserves the right to delete or reduce at any time, any section of the bills of quantities without assigning any reasons whatsoever there for and no claim will be entertained in this regard.
 13. The tenderer whose tender is accepted is bound to execute formal agreement with the IIITD within one week of the date of intimation of award of work in accordance with the draft agreement which will include conditions of tender, form of tender (general conditions of contract for central PWD works 2023), Articles of Agreement, Bills of quantities, Conditions of contract, Special conditions if any, the drawings and specifications, but his liability under the contract shall commence from the date of written order to commence work whether the formal agreement is drawn or not.
 14. The Contractor shall bear all expenses in connection with the execution of the said agreement including fees for stamping and registration of documents as required.
 15. The Security Deposit will bear no interest what so ever until the date of release.
 16. a) The contractor, upon award of work, shall submit a memorandum of procedure giving the outline of his general scheme, programme and time table, in the form of a chart that shall be scrutinized and approved (with modifications as necessary), which shall become the approved programme for execution. The approved programme shall be the basis for assessment of comparative progress under the relevant conditions of contract.

(b). Over and above, the contractor has to supply programme chalked out showing important milestones to be achieved and the progress actually achieved compared with, the target of the same in the programme and shortfall, if any planned for being made up in the programme for next month.
 17. (a) The work in general shall conform to the CPWD Specifications 2019 with up to date correction slips & any other latest civil specification published by CPWD, New Delhi and the "Specifications for works".

(b) In case items not covered by the general specifications referred above, reference shall be made to the appropriate I.S. Code.

(c) Should there be any difference in the particular specifications of individual item of work and the description of item as given in the Schedule of quantity, the latter shall prevail, which will be as per the relevant drawing.

(d), In case of any work for which there is no specification in I.S. specifications or in the specifications forming part of tender documents or in case there is any variation, such work shall be carried out in all respects in accordance with the

instructions to be issued by the Engineer in charge.

18. On acceptance of the tender the Contractor shall in writing and at once inform the IITD and the Architects the name of his accredited representative(s) who will be responsible to take instructions from the Architects / Officer in Charge.
The work of any part of it shall not be transferred, assigned or sublet without the written consent of the IITD.
19. The Contractor shall be required to co-operate and work in co-ordination with and afford reasonable facilities for such other agencies / specialists / interior designers / consultants as may be employed by the Architects / Project Management Consultant/ Officer in Charge on other works / sub-works in connection with the project/scheme of which this work forms a part.
20. The Contractor shall get the necessary insurance done for their personal employed/ company insurance, third party insurance, marine insurance, all risk insurance or any other insurance as required.
21. The Contractor shall make arrangements of carrying water and electricity beyond one point where same shall be provided and recovery @1% of the cost of works shall be effected accordingly.
22. The agency will coordinate and liase with the laying of the PNG pipelines from nearest source approved by the IGL alongwith all test reports and approval documentation shall be submitted.
23. The Contractor is required to comply with all Acts of Government relating to labour, safety, environment and other Rules and Regulations made there under from time to time and to submit at the proper times all particulars and statements required to be furnished tothe appropriate Authorities.

24. Delay and extension of time

If in the opinion of the Architect/PMC/Owner the Work is 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 dispute with adjoining or neighboring owners or public authorities arising otherwise than through the Contractor's own default, or
- d) By the works or delays of other Contractor or tradesmen engaged or nominated by the Owner or the Architect/PMC and not referred to in the Schedule of Quantities and/or Specification, or
- e) By reason of Architect's/PMC/Owner Instructions to delay work, or

f) By reason of civil commotion, local combination of workmen or strike or lock-out affecting any of the building traders, or

g) In consequence of the Contractor not having received in due time necessary Instructions from the Architect/PMC/Owner for which he shall have specifically applied in writing,

Then the Architect/PMC/Owner shall make a fair and reasonable extension of time for completion of the Contract Work; in case of such strike or lock-out the Contractor shall, as soon as may be, give written notice thereof to the Architect/PMC/Owner, but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Architect to proceed with the work.

25. Failure by Contractor to comply with Architect's Instructions

If the Contractor after receipt of written notice from the Architect requiring compliance fails within ten days to comply with such further drawings and/or Architect's Instructions the Owner with the consent of the Architect may employ and pay other persons to execute any such work whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the Contractor.

26. Termination or Abridgment of Contract by the Owner

- a) If the Contractor being an individual or a Firm commit any 'Act or Insolvency' or shall be adjudged an Insolvent or being an Incorporated Company or Society shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the Court and of the Official Assignee of the Liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Architect that he is able to carry out and fulfill the Contract, and to give security therefore, if so required by the Architect, or
- b) If the Contractor (whether an individual, Firm, Incorporated Company or Society) shall suffer execution to be issued, or
- c) Shall suffer any payment under this Contract to be attached by or on behalf of any or the creditors of the Contractor, or
- d) Shall assign or sublet this Contract without the consent in writing of the Architect/PMC first obtained, or
- e) Shall charge or encumber this Contract or any payments due or which may become due to the Contractor there under, or
- f) If the Architect/PMC shall certify in writing to the Owner that the Contractor:
 - i) Has abandoned the Contract, or
 - ii) Has failed to commence the works, or has without any lawful excuse under these Conditions suspended the progress of the works for 14 days after receiving from

the Architect/PMC/Owner written notice to proceed, or

iii) Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or

iv) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Architect written notice the said materials or work were condemned and rejected by the Architect under these conditions, or

v) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or

vi) Has to the detriment of good workmanship or in defiance of the Architect's/PMC Instructions to the contrary sub-let any part of the Contract,

27. Then and in any of the said cases the Owner with the written consent of the Architect/PMC may, notwithstanding any previous waiver, after giving seven days' notice in writing to the Contractor, determine the Contract, but without hereby affecting the powers of the Architect or the obligations and liabilities of the Contract the whole of which shall continue in force as fully as if the Contract had not been so determined and as if the works subsequently executed had been executed by or on behalf of the Contractor. The costs of these works are therefore recoverable from the Contractor. And further, the Owner under instructions of the Architect, by his Agents or servants may enter upon and take possession of the works and all plants, tools, scaffolding, sheds, machinery, steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor or other person or persons to complete the Work, and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the Work. When the Work shall be completed or as soon thereafter as convenient the Architect shall give a notice in writing to the Contractor to remove his surplus materials and plant, and should the Contractor fail to do so within a period of 14 days after receipt thereof by him, Owner shall sell the same, and shall give credit to the Contractor for the amount realized. The Architect shall thereafter ascertain and certify in writing what (if anything) shall be due or payable to or by the Owner for the value of the said plant and materials so taken possession of by the Owner and the expense or loss which the Owner shall have been put to in procuring the works to be completed, and the amount, if any, owing to the Contractor and the amount which shall be so certified shall thereupon be paid by the Owner to the Contractor or by the Contractor to the Owner, as the case may be, and the certificate of the Architect shall be final and conclusive between the parties.
28. If at any time after the commencement of the work the Owner shall for any reason whatsoever not require the whole thereof, as specified in the tender, to be carried out, but need to abridge the Contract, the Owner shall give notice in writing of the fact to the Contractor who shall have no claim to any payment or compensation which he might have derived from the execution of the work in full, but which he

did not derive in consequence of the whole amount of the work not having been carried out. The Contractor shall in this case, however, be entitled to payment for the work already executed by him in accordance with the agreed rates. The Owner shall also take over all building materials as might have been ordered for the work, but orders for which cannot be canceled, if delivered within a reasonable time, and shall pay for them at cost price.

The Contractor shall also be allowed to remove his tools and plants from the site.

29. Termination of Contract by Contractor

- a) If payment of the amount payable by the Owner under Certificate of the Architect /PMC/Client for beyond two months from date of issue of certificate due to reason not attributable to the contractor.
- b) The Owner commits any 'Act of Insolvency', or
- c) If the Owner (being an individual, or firm) shall be adjudged an Insolvent, or (being an Incorporated Company or Society) shall have an order made against him or pass an effective resolution for winding up, either compulsorily or subject to the supervision of the Court or voluntarily, or if the Official Assignee or the Owner shall repudiate the contract, or if the Official Assignee or the Liquidator in any such winding up shall be unable within fifteen days after notice to him requiring him so to do, to show to the reasonable satisfaction of the Contractor that he is able to carry out and fulfill the Contract and to make all payments due, and to become due there under and, if required by the Contractor, to give security of the same, or
- d) If the works be stopped for three months or more under a continuous spell under the order of the Architect /PMC or the Owner or by any injunction or other order of any Court of Law,

30. Then and in any of the above said (Clause 28) cases the Contractor shall be at liberty to determine the Contract by notice in writing to the Owner, through the Architect, and he shall be entitled to recover from the Owner payment for all works executed and cost of the material supplied and lying at site for the purpose of the Contract as on the said day of the termination. No other claim for idle labour, loss of overheads, profits shall be entertained nor shall any other claim on account of the delay in completion of the work
/availability of site/ unwarranted conditions whatsoever shall be tenable, even if it is caused by circumstances beyond the Contractor's control.

31. Procedure for Settlement of Disputes

30.1 Engineer's Decision

If a dispute of any kind whatsoever arises between IIIT-Delhi and the contractor in connection with, or arising out of, the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after any repudiation or other termination of the contract, including any dispute as to any opinion, instruction, determination, certificate or valuation of the

engineer, the matter in dispute shall, in the first place, be referred in writing to the engineer, with a copy to all parties. Such reference shall be made within one (1) month of arising of any such dispute and state that it is made pursuant to this clause. No later than one (1) month after the day on which he received such reference the engineer shall give notice of his decision to IIIT-Delhi and the contractor. Such decision shall state that it is made pursuant to the reference under this clause.

Unless the contract has already been repudiated or terminated, the contractor shall in every case, continue to proceed with the works with all due diligence and the contractor and IIIT- Delhi shall give effect forthwith to any / every such decision of the engineer unless and until the same shall be revised, as hereinafter provided, in an amicable settlement or an arbitral award. If either IIIT-Delhi or the contractor be dissatisfied with any decision of the engineer, or if the engineer fails to give notice of his decision on or before one (1) month after the day on which he received the reference, then either IIIT- Delhi or the contractor may within a further period of one (1) month from the day on which it / they receive(s) the notice of such decision, or on the day on which the said period of notice of / for decision expired, as the case may be, give notice to the other party, with copy for information to the engineer, of its / their intention to commence arbitration. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and no arbitration in respect thereof may be commenced unless such notice is given. If the engineer has given notice of his decision as to a matter in dispute to IIIT-Delhi and the contractor and no notification of intention to commence arbitration as to such dispute has been given by either IIIT-Delhi or the contractor as herein provided, the said decision shall become final and binding upon IIIT- Delhi and the contractor.

30.2. Amicable Settlement

Where notice of intention to commence arbitration as to a dispute has been given in accordance with sub-clause 22.1, arbitration of such dispute shall not be commenced unless an attempt has first been made by the parties to settle such dispute amicably. Provided that, unless the parties otherwise agree, arbitration may be commenced on or after one (1) month from the day on which notice of intention to commence arbitration of such dispute was given, whether or not any attempt at amicable settlement thereof has been made or result achieved.

30.3. Arbitration

Any dispute in respect of which:

- a) the decision, if any, of the engineer has not become final and binding pursuant to the first sub-clause above,
- b) amicable settlement has not been reached within the period stated in the second sub-clause above, shall be finally settled, unless otherwise specified in the contract, by arbitration to be held in New Delhi in English, under the provisions of the Arbitration and Conciliation Act 1996, including any statutory reenactment(s) / amendment(s) thereof and Rules made thereunder, by the arbitrator. The Director of the Institute shall appoint one person as the sole arbitrator. Either party shall be limited in the proceeding before such arbitrator

to evidence or arguments put before the engineer for the purposes of obtaining the said decision pursuant to the first sub-clause herein. No such decision shall disqualify the engineer from being called as a witness and giving evidence before the arbitrator on any matter whatsoever relevant to the dispute. Arbitration proceedings shall not be commenced prior to the completion of the works, unless any major pre-requisite criticality is discerned by the arbitrator, and the obligations of IIIT-Delhi, the engineer and the contractor shall not be altered by reason of the arbitration. The works shall not be stopped on account of the said process of arbitration and the contractor shall not be relieved of his responsibilities for the completion of the work under any circumstances whatsoever.

31.2. Contractor to provide everything necessary

The Contractor shall provide everything necessary for the proper execution of the Work according to the intent and meaning of the Drawings, 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, and if the Contractor finds any discrepancy in the Drawings or between the Drawings, Schedule of Quantities and Specification he shall immediately and in writing refer the same to the Architect who shall decide which is to be followed.

31.3. Materials and Workmanship to conform to Descriptions

All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or Specification and in accordance with the Architect's Instructions, and the Contractor shall upon the request of the Architect furnish him with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials which the Client may require.

31.4. Assignment and Sub-letting

The whole of the works included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the Contract or any part share thereof or interest therein without the written consent of the Client, and no undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the Work during its progress.

31.5. Removal of improper work

The Client shall, during the progress of the Work, have the power to order the removal, from the Site or works within such reasonable time or times as may be specified in the order, of any materials which in the opinion of the Architect are not in accordance with the Specification or the Instructions of the Architect, the substitution of proper materials, and the removal and proper re-execution of any works executed with materials workmanship not in accordance with the Drawings, Specifications or Instructions and the Contractor shall forthwith carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order, the Owner shall have the power to employ and pay other persons to carry out the same, and all expenses consumed thereon or incidental thereto as certified by the Architect shall be borne by the Contractor, or may be deducted by the Owner from any moneys due or that may become due to the Contractor.

ADDITIONAL CONDITIONS

1. General conditions of contract for Central PWD Works 7/8 (Tender of Form) shall be part of the agreement.
2. The work shall be carried out strictly as per CPWD specifications 2019, Part I & II with up to date correction slips. Wherever no specification is available in the above said document, drawings and specifications supplied with bill of quantities shall be applicable
3. The Contractor shall have to clear the site for the work of all overlying rubbish /garbage/dumped refuse material prior to commencement of the work in case required at no extra cost. The contractor shall take approval from the Engineer /Officer in Charge in writing for collection and stacking of materials.
4. The contractor must follow CPWD Safety Code as provided in general conditions of contract for CPWD Works.
5. Any damage done by the contractor or his workmen to any existing work during the course of execution of the work shall be made good by him at his own cost.
6. Contractor shall clear the site thoroughly of all rubbish etc. left out of his materials immediately on completion of the work and properly keep the site clean around the building to the satisfaction of the Engineer- in-Charge.
7. The preference of the codes will be IS codes.
8. The rates are inclusive of all staging, material and labour as required for the works. The items in the bill of quantities include all the materials, labour, and installation, complete as a finish items unless otherwise stated.
9. Unless specifically mentioned otherwise, quoted Rates shall be deemed to include work to be carried out at all curvatures, heights, depths, inclinations and locations, and in wet/foul locations, as and when they are encountered. The rates quoted for the various works as specified in the Priced Schedule of Quantities are work in all types of soils/rock and prevailing Site conditions including earth work, excavation, shoring, execution of various other items of work, i.e., laying of pipes, joining, concreting, masonry, plastering, etc. in and under water and dewatering as required. Nothing extra is payable on this account.
10. All security precautions shall be taken during dismantling work. The site shall be fenced /barricaded with suitable material during construction period . No payment shall be made for fencing/barricading work. Fencing/barricading shall be done immediately after possession of site and shall be removed after completion of construction period
11. No space on site/otherwise for labour huts shall be provided by IIITD, cost of same shall be borne by contractor.
12. The general condition of contract for Central P.W.D. Works has reference of various laws

/acts /rules. The settlement of any disputes and arbitration, only Indian arbitration and conciliation act 1996 shall be applicable.

13. In case any specific brand of material has been specified either the same brand or of approved make of same specifications shall be used. The contractor shall take approval in advance for all such materials.
14. Costs for all materials and labour for the preparation of samples, market research, etc. shall be borne by the Contractor within his quoted Rates and nothing extra shall be payable for this. The works shall not be proceeded with without approval of the sample. In case sample is rejected and works cannot be proceeded with the IIITD shall be at liberty to terminate the contract and the Contractor shall have no claim for the works under such circumstances whatsoever.
15. The contractor should take utmost care to avoid any damage to the existing flooring, electrical works/cables, telephone cables, false ceiling, sprinkler system, fire alarm etc. in place. In case of any damage, it would be the responsibility of the contractor to restore the same immediately.

CORRIGENDUM TO FORM 7/ 8 / 9 (CPWD) MUST BE READ ALONG WITH THE PAMPHLET

S.No	FOR	READ
1	Government of India/Owner	Indraprastha Institute of Information Technology Delhi
2	C.P.W.D. or Government or Department	Indraprastha Institute of Information Technology Delhi
3	CPWD -7/8/9	CPWD 7/8/9
4	President / President of India	Director ,IIITD
5	Chief-Engineer	CE, IIITD
6	Administration Head	Registrar ,IIITD
7	CPWD Code, Paragraph '90	Shall be applicable to IIITD works
8	DSR Latest	Shall be applicable to IIITD works
9	CPWD specifications 2019 part -I& II	Shall be applicable to IIITD works
10	DSR (Civil) 2023 and Electrical works 2022	Shall be applicable to IIITD works
11	CPWD specifications (Internal)2023 for Electrical works	Shall be applicable to IIITD works
12	DSR Civil 2023 Part I and II	Shall be applicable to IIITD works
13	Provision of Section 12 Sub-Section (i) of the works man compensation	Shall be applicable to IIITD works
14	CPWD safety Code framed from time to time	Shall be applicable to IIITD works
15	CPWD maternity benefits to labour	Shall be applicable to IIITD works
20	Model Rules of the protection of health and sanitary appointment for workers employed by CPWD	Shall be applicable to IIITD works
21	CPWD contractor labour Regulations	Shall be applicable to IIITD works

SPECIFICATIONS:

1. GENERAL:

- 1.1. Without forgoing the requirements of the conditions of Tender and the Conditions of Contract the works in general shall conform to the "Specifications 2019" published by CPWD, New Delhi and the "Specifications for works" stated in this tender. In case items not covered by the general specifications referred above, reference shall be made to the appropriate I.S. Codes. If there is any difference in the particular specifications of individual item of work and the description of item as given in the Schedule of quantity, the latter shall prevail. In case of any work for which there is no specification in I.S. specifications in the specifications forming part of tender documents or in case there is any variation, such work shall be carried out in all respects in accordance with the instructions to be issued by the Engineer-in-charge. The term Officer in Charge appearing in the specifications shall mean supervisor and be in Charge of the work or his authorized representative as the context may demand. All corrections to "Specifications 2007" or latest revisions of I.S. Code/ Specification shall be deemed to apply to this contract.
 - 1.1.1. Materials bearing ISI certification mark certification shall be given highest preference for use in the works. Where the Contractor is required to do, perform, execute (etc.) any work or service or the like, it shall be deemed to be at his own cost. Absence of terms providing, Supplying, installing, fixing, etc. shall not even remotely entitle the Contractor to any additional payment there for
 - 1.1.2. The rates accepted in the Schedule of Quantities apply to all floors, heights, depths, leads, lifts, spans, sizes, shapes, locations, etc. unless a distinction has been included in the very Schedule.
 - 1.1.3. The Specifications and the Schedules may have been divided into various sub- heads for convenience only. This does not limit applicability of one to the other nor does it absolve the Contractor of his responsibility to complete any trade / item of work as reasonably inferred from one or more of such sub-heads.
 - 1.1.4. The Schedule of Quantities is not necessarily based on "Schedule of Rates - Delhi 2021 or any of its later/ earlier versions. Hence the Schedule of Quantities shall be read and construed according to explanations given herein and intentions gathered there from. A mere parallel drawn from the said Schedule of Rates shall therefore not form a basis for a variation and, or additional payment.
 - 1.1.5. All work under this contract is deemed to be performed above subs soil water level. However, removal of water collected from rains and the like shall be treated as part of contractual risk/obligation.
 - 1.1.6. Screws, bolts, nuts, washers, hold fasts, lugs, anchors, clamps, plugs, suspenders, brackets, straps and fasteners of the like are deemed to be included in the rates of various items unless the Schedule of Quantities expressed a different intention.
 - 1.1.7. Resetting any displacements, making good holes/chases and such other incidental jobs are included in rates of respective items for which these are required.

2. SPECIFICATIONS, INTERPRETATIONS ETC.:

In general, drawings shall indicate the dimensions, positions and type of construction, the specifications shall stipulate the qualities and the methods and performance criteria, and the schedule of quantities shall indicate the provisional quantities and the rates for each item of work. However, the above documents being complementary, what is called for by any one shall be as binding as if called for by all. In case of contradictory requirements between specifications and schedule of quantities, the requirements given in the schedule of quantities shall prevail.

Special conditions being mainly an amplification of General Conditions, they shall be read in conjunction with each other.

Work indicated on the drawings and not mentioned in the schedule of quantities or specifications or vice versa, shall be deemed as though fully set forth in each. Work not specifically detailed, called for, marked or specified, shall be the same as similar parts that are detailed, marked or specified.

Special Note

Though every care is taken while preparing this document to cover all necessary matters, specifications, general conditions, special conditions, provisions for smooth and complete execution of work, however in case of any omission in the tender/ contract document, latest correction slips of General Conditions of Contract for CPWD Works will be the reference manual but not in supersession to aforesaid conditions.

The dismantled malba/rubbish should be disposed off outside the campus at a suitable at MCD authorized dumping ground at no extra cost.

Contractor should depute a qualified supervisor dedicated for this work, who will monitor and coordinate work from contractor's side and interact with the IIITD Engineers, responsible for supervision of work, on regular basis.

Contractor will take due permission for entry of all his workers in IIITD. No unauthorized person will be allowed to work inside. During execution of work, Engineer may make minor changes in the scope of work as per site conditions or other reasons. Contractor will have no extra claim in his rates for the same.

The workers shall be scanned for temperature before entry as per norms and actions per policy taken.

All are supposed to use identified utilities of the Institute only.

SAFETY CONDITON

The buildings are high rise buildings and all required scaffolding /cradles etc. as required for the works shall be provided by the Contractor and No extra shall be paid on account of the same. The Contractor shall be wholly responsible for the safety of their workers and shall make all necessary arrangements viz. safety belts, ropes, net etc. as required to ensure the same. Necessary Insurance cover and other safeguards shall be the responsibility of the Contractor. He shall indemnify the owners against any claims on such account and that the same shall entirely be the responsibility of contractor/s.

AGREEMENT

AN AGREEMENT is made this -----BETWEEN the Indraprastha Institute of Information Technology. A State University established by Govt Of NCT of Delhi ,and with its registered office at IIITD Campus , Okhla Phase III , New Delhi 110020, which expression shall include its successor, unless repugnant to or Excluded by the contract here of and assignees of and represented by its Registrar, IIITD the first party (hereinafter called the Authority) and by its sole proprietor/partners/Director.of M/s -----and having registered office at (which expression shall be including his / its successor's heirs, executors, representative and or assignees of the second party (hereinafter called the contractor}.

WHEREAS the Authority has, under tender Notification No. -----

WHEREAS the contractor has submitted tender for carrying out the work as above as per the tender document page ---- to ----- and has represented that in conformity with his / its obligation contained in the tender as modified by the correction slips and corrigendum contained he / it shall carryout the same truly, faithfully and honestly.

THE SAME has been accepted by both the parties on the terms and conditions, corrections, corrigendum contained in the tender as modified as well as the letter of acceptance Issued party No.1 annexed here to as.

The same shall be binding on both the parties.

IN WITNESS WHEREOF, the parties have signed the deed of agreement on the date, month and year referred to above.

Date:_____

At New Delhi.

Signed by _____

Party

No.1

Party

No.2

WITNESS

1. Party No.1

2. Party No.2

NON-BLACK LISTING DECLARATION

FORMAT OF UNDERTAKING, TO BE FURNISHED ON COMPANY LETTER HEAD
WITH REGARD TO BLACKLISTING/ NON- DEBARMENT, BY ORGANISATION

UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT

To, Registrar
IIITD Campus
Okhla Phase-III,
New Delhi-
110020

We hereby confirm and declare that we, M/s -----, is not
blacklisted/ De-registered/ debarred by any Government department/ Public Sector
Undertaking/ Private Sector/ or any other agency for which we have Executed/
Undertaken the works/ Services during the last 5 years.

Signature of Contractor
With stamp

Annexure - XX

GENERAL INSTRUCTIONS FOR SITE VISIT

I, _____, aged _____ years, son/daughter of _____, presently residing at _____ and authorized by (name of tenderer) (“Tenderer”) to solemn this affidavit on behalf of the Tenderer, solemnly affirm on oath as hereunder:

The Tenderer confirms that the Tenderer has duly undertaken the visit of the proposed project site of IIITD located at Okhla Phase III, New Delhi,

The Tenderer has inspected and examined its surroundings and has satisfied itself about the site conditions and site logistics. The Tenderer confirms that it is aware of the ground conditions and nature of the site, means of access to the site and the accommodation area required for establishing the labour camp. The Tenderer agrees and confirms it shall be solely responsible for arranging and maintaining the afore- mentioned at its own cost including 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.

The Tenderer confirms and agrees that the submission of the tender implies that the requisite site visit has already been undertaken and that the Tenderer has acquainted itself with the local conditions and other factors having a bearing on the execution of the Work.

DEPONENT VERIFICATION

I, _____, aged _____ years, son/daughter of _____, presently residing at _____ and authorized by Tenderer verify that the information mentioned above is true and correct to the best of my knowledge and belief.

DEPONENT

SCOPE OF WORK

NOTICE INVITING TENDERS

Subject: Tender for Development, Design Execution and Maintenance of clean room for VLSI Nano Fab Lab including equipment's, consumable and related services on EPC basis at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi.

Invitation for Tender Offers

IIITD invites online Bids (Technical bid and Commercial bid) from eligible and experienced vendors for setting up a cleanroom facility at IIIT Delhi. It is proposed to house the Lithography system and its accessories for the fabrication. The total space is divided into multiple areas: Lithography, Bay 1, Bay2, Characterization, PECVD and with multiple change rooms as per respective classes. The Lithography room will be ISO 5 in future, but it will be commissioned as ISO 6 in current phase (The Bidder must keep this under knowledge and have to make all considerations before making any bids).

TECHNICAL SPECIFICATIONS:

Scope of Supply	The vendor has to undertake the TURNKEY EPC- design + build clean room facility design (WITH PRIOR APPROVAL OF THE Committee) and detailed engineering, which includes supply, installation, commissioning, validation, operation and maintenance of the heating, ventilation and air conditioning (HVAC) systems, Gas and Compressed air distribution systems, Gas Exhaust, acid and normal drain systems, Electricals, Fire detection and protection & surveillance systems, Tool hook-up, process chiller units, etc. The specifications in this document are broad in nature, depending up on the final requirement; therefore, may not include minor details. The vendor will be responsible for any other minor items needed to realize the clean room facility.					
Layout	IIIT Delhi planned the broad layout of the clean room based on functional requirements, including equipment being procured and available spaces. Refer Annexures. The vendor shall further develop and detail this layout for IIIT Delhi approval.					
Cleanroom Specifications	Details	Lithography (ISO 6 compatible with iso 5)	Bay 1 (ISO 6)	Bay 2 (ISO 6)	Characterization & PeCVD (ISO 7)	Gowning Area, Change In, Airlock ((ISO 8)
	ISO Class of Room	1000 Current 100 (Future UPGRADE)	1000	1000	10,000	100,000
	Total approximate area (Sq ft)	130 Approx.	358	267	360	400
	Room Height (floor to ceiling) (ft)	9.84	9.84	9.84	9.84	9.84

	Room approx. volume (Cu. Ft.)	1268.48	3188	2627	3552	3936
	Flooring	Raised Floor	Anti-static	Anti-static	Anti-static	Anti-static
	Room Temperature (°C)	NMT*-24	NMT-24	NMT-24	NMT-24	NMT-24
	Room Relative Humidity**	NMT-55	NMT-60	NMT-60	NMT-60	NMT-60
	Room Positive Pressure with respect to Atmosphere (pa)	+25±5	+20±5	+20±5	+20±5	+10±5
	Air Flow pattern	Vertical Laminar (Unidirectional)	Vertical Flow	Vertical Flow	Vertical Flow	Vertical Flow
	Air Change Rate (per hour)	≥400	≥200	≥200	≥60	≥60
	Filter Coverage (%)	≥85	≥40	≥40	≥20	≥20
	Sound Pressure level (dB) [#]	≤60	≤50	≤50	≤60	≤60
	Light Intensity (LUX)	600	600	600	600	600
	Max occupancy (Person)	5	5	5	4	---
	Filters type	ULPA	HEPA	HEPA	HEPA	HEPA
	<p>* Not more than.</p> <p>** Adequate to offset exhaust and to maintain specified RH and Pressure in the clean room.</p> <p># The measurements are to be demonstrated at rest, i.e., keeping all process equipment in rest condition at any height.</p>					
Salient Features of Cleanrooms	Separate AHU for all Labs and Gowning areas,					
	The exposed surfaces of the plastered wall of cement concrete Blocks/ brick masonry and RCC WALLS/SLABS /beams and columns, soffits of RCC slab in the Cleanrooms, including service corridor, etc., shall be cladded with 50 mm thick PUF Panel with necessary accessories meeting smooth and dust-free finish.					
	A false ceiling suitable for supply and return air ducts in the service corridor (ISO 8) with HEPA filters and suitable lighting shall be considered.					
	<p>Class100 should have unidirectional laminar airflow to achieve such airflow, raised flooring is planned</p> <p>In class100.A raised floor of the required height is proposed in theClass100 area, where as an Antistatic floor is in all other labs. To have a common working level of complete fab, it is proposed to lower the concrete floor level by the required height in the class 100 lab area if required. All civil works to lowering of the required floor level height in the Class 100 area</p>					

		<p>THAT is provided to the vendor MUST BE INFORMED TO IIITD PRIOR TO COMMENCEMENT OF WORKS.</p>	
		<p>IIITD will provide only Raw/DG-backed electrical power at ONE POINT /the main electrical panel. Further electrical power distribution required to cleanroom internal process labs is under the vendor's scope.</p>	
		<p>It is proposed to complete HVAC system automation to communicate with the required parameters inside labs, i.e., temperature, humidity, and pressure specified in the technical details.</p>	
		<p>Necessary clean laboratory furniture required for the LAB Area, is also included in the vendor's scope. Further details will be provided during the time of execution, vendor have to CONSULT with end user for requirements.</p>	
Cleanroom Interiors		Features	The Clean Room Wall System shall be smooth, cleanable, non-contaminating, flexible, easily modifiable, modular, attractive and airtight.
		CLASS 100 walls (Lab 1)	50mm/80mm (nominal) thick, honeycomb or PUF filled with 40Kg/m ³ density, 3000 mm high studless epoxy polyester precoated /powder coated clean room wall system complete with all the hardware items, e.g. head track, floor track, vertical posts, wall ends batten strips white PVC gaskets, etc. required for installation all complete.
		CLASS 1000 walls (Lab 2,3, Gowning area)	50mm/80mm (nominal) thick, honeycomb or PUF filled with 40Kg/m ³ density, 3000mm high studless epoxy polyester precoated /powder coated clean room wall system complete with all the hardware items, e.g. head track, floor track, vertical posts, wall ends batten strips white PVC gaskets, etc. required for installation all complete.
		Dimensions	The vendor has to calculate the total dimensions of the walls as per the broad build plan shared under Annexures . SHOP DRAWING AT INITIAL STAGE FOR APPROVAL AND COMPLETION PLAN-AS BUILT DRAWINGS HAVE TO BE SUBMITTED BY VENDOR WITH OPERATION MAINTENANCE MANUALS, WARRANTY GUARANTEE CERTIFICATES, ALL MANUALS ,TEST CERTIFICATES AND DETAILS OF EQUIPMENT INSTALLED AS PART OF HANDOVER DOCUMENTS, SAFETY CERTIFICATES PRIOR TO SUBMISSION OF THE FINAL BILL.
		Type	Raised Floor System: Raised floor grill panel mounted on adjustable pedestals to provide an under-floor space to accommodate mechanical service line electrical conduits and serve as an airsupply and return plenum.

	<p>Material</p> <p>Floor tiles shall be laban false flooring with 33 mm thick ,grade FAF 800 with antistatic HPL/Vinyl, non-combustible chemical and abrasive resistant cover of minimum 2 mm thickness top super finish shade 8129 with ESRG under structure system</p>
	<p>Conductivity</p> <p>Floor tile system resistivity shall have a minimum value of 1.5×10^5 ohm and a maximum value of 2×10^7 ohm between the top structure of the tile and the under-structure.</p>
	<p>Load Capacity</p> <p>Pedestal assemblies shall be capable of supporting a 2250 Kg axial load without deformation.</p>
	<p>Dimensions</p> <p>As per the drawings given in Annexures.</p>
	<p>Type</p> <p>2 mm thick homogeneous flexible antistatic PVC flooring</p>
	<p>Resistance level</p> <p>1×10^6 ohms to 1×10^9 ohms</p>
	<p>load carrying capacity</p> <p>≥ 750 PSI</p>
	<p>Suitable copper strip (foil) grid of size 10' x 10' (approx.) as recommended by the manufacturer and connecting to the earthing as per SCL's requirement, preparing of the existing surface with plaster of paris so as to make the surface free from any undulations, fixing the PVC sheet/roll with conductive adhesive (Water based) of approved make, rolling with 100 lb roller.</p>
Grid Ceiling System	<p>The cleanroom ceiling shall be formed from a HEAVY-DUTY ALUMINIUM WALKABLE extruded T-Grid ceiling systems for all areas meeting more than 90 percent of HEPA filter ceiling coverage area. The ceiling grid colour should match the wall panel (Designer white shade). The ceiling grid shall be a heavy-duty, walkable inverted T-grid ceiling system of approx. 50 mm T width (gasket type ceiling) to be provided on atleast 600 mm x 1200 mm hanging configuration, the system shall include aluminium (approx. 50 mm wide) extrusions, aluminium extruded cross connector with hammer headbolt sandnuts, M8bolt and matching square hanger and other standard accessories.</p>
Doors	<p>The cleanroom single doors shall be of GPSP powder coated (RAL colours) construction, of appropriate sizes (or specified), flush configuration, swing type, double skin, aluminium frame and powder coated matching with the cleanroom wall system, with door closer, handles, lock sets with option of one or both side access, half glazed with 6 mm clear tempered glass on the top and 6 mm honey-comb panel on the bottom.</p> <p>The door locations are marked in Annexures,</p>

	Windows & Door Vision Panels	Windows and door vision panels shall be formed from double-glazed toughened glass composite modules. The proposed position of the vision panels can be taken from Annexure ; UV filtration film is to be applied to the ISO-5 Lab 1 (class 100) and Lab 3 windows and door vision panels.				
	Lighting	<table border="1"> <tr> <td data-bbox="457 344 662 426">Lithography</td> <td data-bbox="662 344 1513 426">Yellow LED lights (Temp 3000 K) and filters for <420nm wavelength light if necessary.</td> </tr> <tr> <td data-bbox="457 426 662 583">Other than lithography and gowning areas</td> <td data-bbox="662 426 1513 583">LED panels</td> </tr> </table>	Lithography	Yellow LED lights (Temp 3000 K) and filters for <420nm wavelength light if necessary.	Other than lithography and gowning areas	LED panels
Lithography	Yellow LED lights (Temp 3000 K) and filters for <420nm wavelength light if necessary.					
Other than lithography and gowning areas	LED panels					
	Emergency exit	Emergency crush panel of appropriate dimensions with a hammer				
	Planar grounding	All metallic components within the cleanroom fabric should have separate earth points outside the parent building and be connected to the main earthing line provided to the vendor.				
	Access control system	The vendor must install the access control system at the various entry points with a suitable door locking and unlocking mechanism.				
	FIRE ALARM AND FIRE FIGHTING SYSTEM, LIGHTING	The appropriate number of smoke detectors with control panels above and below the ceiling of all the Labs with hooters for alarms and a manual call point in each lab. Emergency lighting should be at least 100 lux. NECESSARY FIRE FIGHTING SYSTEM SHALL BE PART OF THE CONTRACT INCLUDING OBTAINING APPROVALS FROM ALL CONCERNED AUTHORITIES FOR OPERATION OF THE FACILITY				
	Dynamic pass box	NFLP Pass-box made of SS304, , smooth and powder free, fitted with door interlocks. The pass-box shall also be fitted with an appropriate dimension of viewing-glass made of tempered-glass supported by HEPA filter. Hinges and handles shall also be of SS304. The door shall have a release switch on either side of the pass box. Size: 600 mm x 600 mm x 600 mm (Approx.)				
	Surveillance and access control System	The vendor must install CCTV in cleanrooms and entry/exit for proper monitoring and surveillance with access control system at entry/exit points.				
		Suitable AHUs/MAUs are to be located outside/inside (Over the ceiling as per feasibility) of the fabrication (fab) area envelope in the utility area and fitted with cooling coils, dehumidifiers, stages of filters, etc., to maintain the required temperature and relative humidity (RH). The required quantity of dehumidified air should be delivered through suitably sized supply air ducts from where the air is supplied to the negative pressurised plenum. The scope includes the supply, installation, testing, and commissioning of an appropriate number of Air handling units as per the design to maintain the specified environmental conditions in the cleanrooms.				

	Framework	Extruded Aluminum/Stainless steel
	Joints	Moulded high tensile reinforced plastic.
	Section frame	Each section shall have its independent base and be mounted on 14G galvanised sheet steel and aluminium die-cast channels. Zinc deposition on the GI sheets shall be a minimum of 120 GSM.
	Body structure	Double skin with 43±2mm thick PUF insulation sandwiched panel 0.6 mm GI outer skin structured powder coated and 0.6 mm thick GPSP sheet inside. The density of PUF insulation shall be a minimum of 40Kg/m ³ .
	Sections joints	The framework for each section shall be joined together with a soft rubber gasket in between to make joints airtight.
	Doors	Suitable air-tight access doors with aluminium cast heavy-duty hinges and locks shall be provided for various sections.
	Cooling coils	Copper coils with anticorrosion-coated aluminium fins.
	Circulation fan motors	Adequately sized, TEFC Squirrel cage induction motor with VFD drive and suitable for 415V ± 10%, 3 phase, 50 Hz ± 5% AC power supply. The motor shall be of high-efficiency IE3 class as per IS 12615 – 2011-Non FLP.
	Fan blades	Made of aluminium alloy
	Heater	Strip/tubular heaters of sufficient capacity shall be selected in each AHU to Maintain the area temperature. The heaters shall have a mounting frame, thermostat, humidistat, and air-stat in redundant arrangement, along with all control devices that the thyristors will control.
	Filters	Pre-filters, micro-filters and fine-filters with efficiency of G4, M5, and F9 grades.

	Humidity control	The vendor should provide automated humidity control with respect to the Ambient temperature by any means, such as descent filters, strip heaters, etc. Also, for the winter season it can increase humidity to maintain in the RH by humidifier.
	HEPA filter efficiency	≥99.995% (H14)
	ULPA filter efficiency	≥99.9995% (U15)
	Prefilter assembly	A pre-filter of 10 microns is used at the inlet of the FFUs in order to protect the HEPA filters.
	Material of FFU	Galvanized PF anodized 690-alloy steel or Stainless steel or Powder coated Aluminium (min 300 GSM/m ²)
	Filters in ISO-5 Lab	ULPA Filters
	Servicing	The filter should be replaceable from beneath the ceiling.
	Blower assembly	The Blower shall be centrifugal type if required, Aluminium construction, dynamically and statically balanced, and suitable for a 220 V, 50Hz, single- phase power supply. Sound Level: 50 + 5 dB.
	Note:-Outside filter dimensions (mm), Nominal air volume (m ³ /hr.), Pressure drops at nominal air volume (Pa) and tolerance pressure drop (%) are to be submitted as part of the technical bid.	
Air Distribution	Air distribution shall be via GI fabricated rectangular ducts with zinc deposition of 270 gms/m ² , and all metal shall be used internally or externally for fixing, bracing, stiffening, etc Air distribution duct work shall be as per SMACNA standards. The duct shall be insulated using closed-cell nitrile rubber of sufficient thickness to avoid condensation.	
	Supply air duct	Insulated with 19 mm thick aluminium-faced Closed-cell nitrile rubber, Density 50 kg/m ³ .
	Return air duct	Insulated with 13 mm thick aluminium-faced Closed-cell nitrile rubber, Density 50kg/m ³ .
	Sound attenuators	Sound attenuators should be installed in the supply air duct to reduce the sound to 70 ± 2 dB wherever necessary
Note: - Detailed heat load calculations (considering the environmental conditions at Delhi and the Cleanroom layout/equipment @ <i>IIT Delhi</i>) along with the assumptions to be submitted with the technical bid.		

Electricals	All electrical equipment and accessories to be furnished, installed and commissioned under the scope Of the specifications shall be designed, manufactured, tested and installed in accordance with relevant Indian Standard Specifications IS 1554, Indian electricity rules and any other applicable regulations.		
	General configurations	Voltage Supply	415 V± 10%
		Frequency	50 Hz± 5%
		Fault level	As specified in the SLD
		No of Phase and grounding	3 Phase & solidly ground earth USING CHEMICAL EARTHING IN CASE OF ROCKY STRATA
		Power Distribution	A.C., 3 phase 4 wire for 3 phase system, 1 phase 3 wire system
	The incomer of Rated capacity power backed by IIIT Delhi DG SETS will be provided by IIIT Delhi. The vendor has to provide all the electrical SUB DB'S AND connections in the cleanroom as specified in Annexures . The vendor will provide the extra electrical connections required for HVAC, compressors, RO/DI plant, and Power backup system. The vendor should have calculated and considered the number of power switch sockets/lightingswitchsockets,3-phase power supply sockets, and single-phase high ampere supply sockets, as per the drawing mentioned in Annexures .		
	Panels/MCCs/MCB DBs: 415 V/240 V Lighting /Power Distribution Panel/Boards		
	Cables/wires: FRLS 1.1 KV grade XLPE cable for power and lighting distribution		
	G I Conduits, earthing materials, double/single compression brass cable glands, cable lugs (Al & Cu as required), cable ties, cable/wire identification tags required for the installation and maintenance of trouble-free operation of the downstream system and accessories covered under this specification.		
	Lighting fixtures complete with accessories, specifications and quantities specified in the BOQ, including the required accessories for installation in cleanrooms, grey-areas, etc.		
	Trunking and raceways for power and LAN cables, including the required accessories like bends, tee, etc., if required, shall be in the scope of the contractor.		
	Installation, testing & commissioning spares as required.		
	The party shall submit all relevant drawings, data, catalogues with instruction and troubleshooting manuals, and type test certificates.		
	Materials and accessories necessary or used for satisfactory and trouble-free operation and maintenance of the above equipment/material shall also be furnished.		
Lighting	Lithography	Yellow LED lights (Temp 3000K) and filters for <420nm wavelength light if necessary. Luminosity: 600 Lux.	
	Other than Lithography areas	LED panels (6500 K Temp), Luminosity:600 Lux	

	App Load	Labs	UPS Load (KW) .	LOAD (KW) Normal with DG Backup	
		Total	70KW	50KW	
The detailed specifications of cable, wire, conduits, switchboards, switches/sockets, MCCPanel, bushbar and bus taps, VFD, MCCB, contactors, cable terminations, cable termination, grounding, terminalboxes, painting, distribution box, surface wiring, switch sockets, cable tray are in Annex X					
Cleanroom Furniture (IF Reqd.)	All the furniture should be cleanroom environment compatible with material SS304 grade.				
	Item	Description			Quantity
	Chair	Seating area 400 mm x 400 mm Height 600 mm			20
	Table	Size: 1200 mm x 750 mm x 800 mm (L x B x H)			15
		Size: 900 mm x 800 mm x 800 mm (L x B x H)			2
	Storage racks	800 mm x 800 mm x 800 mm Separate 2 partitions			2
	Almirah	Size: 750 mm x 500 mm x 1500 mm			3
	Eye Washer	Clean room compatible Acid fume resistant			1
	Garment Cubical	HEPA filter H14-grade, Pre-filter G4-grade, non-woven CE certified blowers 1' UV light along with a digital hour meter 1' LED light Levelling jack - 4 No's Double skin doors with toughened view glass Exhaust grill - 1 Nos SS 304 Door handle - 2 No's SS hinges - 1 Set Size: 750 mm x 500 mm x 1500 mm			As per requirement in drgs
	Cross over benches	Size: 1500 mm x 500 mm x 300 mm			2
		Size: 2000 mm x 500 mm x 300 mm			2
	Ladder	6 Step aluminium /SS cleanroom-compatible ladder			2
Vendors to design, supply/construct, and install corrosion-resistant, soundproof and vibration-free (less than 70dB) systems for DRY & WET exhaust, meeting the local pollution control board norms. Process extract duct with proper exhaust work to be distributed through the supply plenums, connected to a suitable blower for all the equipment, HVAC, equipment in the cleanroom, etc., as per the requirements given in Annexures .					
After considering the total exhaust volumes provided in the utility matrix, 20% extra exhaust flow should be considered for selecting the capacity of the fans and scrubbers.					
The exhaust system comprising ducting, blowers, and casing is a corrosion-resistant material of construction (MOC) to handle the gases/fumes.					

	GI for solvent and heat exhaust, control dampers/Magnehelic gauges, and flexible ducting wherever required.
	Suitable exhaust fan to be provided for solvent and heat exhausts.
	Ducting exposed to ambient to be firmly supported with galvanized brackets & tie rods.
	Similar equipment exhaust is to be clubbed inside, dissimilar exhaust should be clubbed together outside the building.
	The system is to be soundproof in nature (< 60db) and vibration-free.
	Proper exhaust should be there for all cabinets, gas pods, pumps, scrubbers, etc. as per the requirements MUST BE PROVIDED TO DEAL WITH VARIOUS DELETERIOUS GASES AND RELEASED IN AIR AFTER TREATMENT ONLY
	The exhaust system should be elevated to the top floor of the building.
	A minimum of 4 No's Magnehelic gauges will be provided for exhaust monitoring in ISO-5 (Class 100) areas.
	Solvent bench-take-off point with proper scrubber system (activated carbon filter if required) provided near the wet bench tap-off.
	The tentative drain layout from various locations of a cleanroom is given in Annexures ; all the drain piping must be made of acid-proof PVC pipe; the vendor has to calculate the required piping and quote accordingly with all required accessories.
	The vendor has to dig an acid drain pit and connect it to the normal drain. ONE WORKING AND ONE STANDBY SUMP PUMPS ARE REQUIRED TO LIFT ACID DULY DILUTED TO NORMAL PH VALUE OF 7 TO BE RELEASED INTO DRAIN TO BE ABLE TO DEALT WITH BY STP OR PROVIDE INDEPENDENT ETP BEFORE DRAINOFF.
	Acceptance/completion shall be on successful installation, testing and commissioning of all the systems covered in the contract agreement and acceptance of work. Acceptance certificate shall be given by IIT Delhi on successful demonstration of all clean room parameters and other system parameters for a period of 4 weeks after commissioning. The following checklist should be performed before the handing over and commissioning.
1	Facility air supply should be balanced to ensure that the design supply air volume is achieved.
2	Positive differential pressure cascade should be commissioned with the extraction systems running, and doors closed.
3	The pressure cascade and extraction losses will dictate the fresh air volume of the system, with suitable ductwork leakage factors being taken into account during the detailed design stage.
4	Commissioned airflow volumes should be within 10% of design calculations. Remedial action should be required where measured rates are greater or less than 10% of the design.
5	Tests shall be performed in accordance with the testing procedure specified in ISO 14644
6	Validation by an independent agency experienced in validating cleanrooms is in the contractor's scope. The "independent" testing firm shall have experience of having conducted cleanroom testing/validation for certification of a minimum of 2(two) Class100 cleanrooms in the last 5 years.
7	As-built room particle counts (as per ISO-14644).
8	At-rest room particle counts (as per ISO-14644).
9	FFM air volumes should be measured with a barometer.
10	Temperature and relative humidity should be measured in each area.
11	Light levels should be measured at the working plane (at a height of 900mm from the floor).

		ALL WORKS EXECUTED BY THE VENDOR SHALL BE COVERED BY TWO YEAR DEFECT LIABILITY PERIOD WITH NO CHARGES FOR ANY FAILURE/DAMAGES/DEFECTS ARISING IN THE SYSTEMS PROVIDED BY THE VENDOR. The Vendor should appoint a team of one people (1 technician) for two year to operate and maintain the facility 24X7. The facility will always be operational on working days with office hours. The two year of operation and maintenance will be counted after the successful handover of the facility to the IIIT Delhi, the major roles of the person appointed by the vendor are as follows.
Maintenance and operation	1	To monitor the facility on CCTV and instruct the students and other staff members on do's and don'ts in the clean room. It is the responsibility of the person to maintain discipline in the cleanroom for the efficient and fluent use of the facility,
	2	To maintain the log of the persons who are entering and leaving the facility,
	3	Washing of cleanroom gowns whenever required or at regular intervals,
	4	It is the sole responsibility of the person to maintain the cleanroom facility,
	5	They should know how to operate the facility control and monitoring system,
	6	Provide consumable items for the gowning or keep a record of usage of such items (The consumables will be provided by IIIT Delhi),
	7	They should know how to troubleshoot small failures or coordinate with the manufacturer of the clean room to rectify the problems.
	8	The facility will be on standby mode during non-operation hours and the person responsible for putting it on standby.
		Note: After the completion of two years, IIIT Delhi will decide on the operation and maintenance contract of the facility on a yearly basis.
Warranty	1	The Vendor shall provide at least 1) Two-year on-site comprehensive warranties for the Installation and Non Procured items. The warranty shall be for 2 years of manufacturing warranty acceptance on successful commissioning.
	2	During the warranty period vendor shall carry out preventive maintenance once every quarter at his own cost. Further, the vendor shall attend to a breakdown in any installations performed under the PO/Contract at his own cost within 48 hours of intimation from IIIT.
	3	The vendor should provide the validation certificate to certify the ISO Class of the facility at least twice a year.
	1	The vendor should seek approval for the material made during and before the execution from the IIIT Delhi Concerned user,
	2	Vendor to provide test and quality certificates from the OEM of all the materials and equipment supplied with all relevant details.
	3	All industrial safety practices to be followed during the implementation.
	4	Appropriate training to be provided to IIIT Delhi staff employed for the facility, with respect to the operation and first-level maintenance and monitoring. The vendor should also train the staff to perform routine measurements of all utility parameters. The vendor must also provide a set of documents detailing all protocols. The person should also be trained for purging and changing inert gas cylinders.

<p>5</p>	<p>The following drawing /documents shall be submitted at the time of acceptance of the system.</p> <p>a) Electrical single line diagrams for the complete electrical system starting from electrical panel power and lighting DBs, including an Illumination system, Power distribution system, Fire detection system, network system, and telephone and paging system.</p> <p>b) Foundation drawing of all floor-mounted equipment (Electrical panels, Network Racks, etc.), ceiling mounting details for lighting fixture/speakers/detector, etc. and any other relevant drawing required for repair and maintenance.</p> <p>c) Layout drawing with dimensions of all electrical equipment under the bidder' scope.</p> <p>d) Make, type and catalogue of lighting fixtures, raceways, Trunking and related accessories along with technical leaflets, datasheets, polar curves, etc. to be provided by the vendor. The contractor shall offer recommended makes mentioned in this document.</p> <p>e) Equipment data sheets furnishing guaranteed performance figures for each type of equipment.</p> <p>f) Checks list and test to be conducted during erection, testing & commissioning of the individual equipment.</p> <p>g) Wiring diagram for lighting, power, fire detection system and LAN.</p>
<p>6</p>	<p>The vendor shall ensure adherence to safe construction practices, which shall inter-alia include the use of Personnel Protection Equipment (PPE) by their workmen, supervisors, etc., deployed on the work. PPE, viz., safety helmets, safety shoes, harnesses, safety glasses, gloves, etc., shall be provided by the vendor for the safety of all the personnel at the work site. The vendor shall take adequate measures to ensure that no damage or loss is caused to IIIT's buildings, equipment and personnel due to any activity carried out by the vendor relating to the performance of the Contract. The vendor shall be liable to make good the loss/damage, including any consequential damage caused by them, and in case of failure to do so, IIIT shall affect financial recovery for the same from the vendor.</p>
<p>7</p>	<p>Electricity required for installation shall be provided by IIIT at 1% charge basis to the vendor. For this, an electricity connection will be provided at a single point, and further distribution shall be the vendor's responsibility. The vendor shall provide the wattage of all the electrical loads required for installation and install all safety and protection devices, viz., MCB/MCCB/ELCB/RCCB, etc., as per the applicable electricity rules.</p>
<p>8</p>	<p>The vendor shall follow the security procedures in vogue at IIIT Delhi to move the vendor's personnel, materials, etc., into/from the IIIT campus.</p>
<p>9</p>	<p>The vendor shall be permitted to construct a temporary site office near the site office for their staff. The vendor shall also make a temporary storage shed for the materials brought to the site by them for incorporation in the work at their cost close to the site of work.</p>

	10	The vendor may inspect the site on a working day and during working hours up to the last date of uploading the bids to get acquainted with the site conditions. The vendor has to contact 2 days prior to A-202 Academic Block , IIIT- Delhi (Contact Number – 9773793610) before the inspection.
	11	No labour hutment shall be allowed inside IIIT Delhi premises. The vendor shall make necessary arrangements for the accommodation of their labour/workmen to be deployed by them for project execution at their own cost.
	12	After initial inspection (wherever specified) & delivery at site in good condition on pro rata basis- 70 % , On completion of pro rata basis- 30% , and Formal Supplementary Service Level Agreements shall be executed in this regard subsequently after expiry of two year of defect liability period from the successful commissioning and handing over of the above works as required based on above.
	The following submittals should be provided in technical details along with other documents mentioned in (ANNEXURE)	
	1	Concept design and as-built drawing showing the layout of the cleanroom area, HVAC blocks, Gas yard and gas hook-up (if any), scrubber (if any), other facility and utility services blocks, etc.
	2	PERT/Gantt chart for the overall deliverables must be submitted in 15 days of issue of workorder.
	3	The vendors shall present their Techno-commercial offer/bid to IIIT Delhi technical team. If the bid /offer does not meet the technical requirements as spelt out in this document, the same shall be rejected by IIIT Delhi. Also, if the vendor is absent from making the presentation to the IIIT Delhi Technical team, their bid/offer shall be rejected.
	4	Detailed cleanroom layout drawings, facilities layout drawings, ducting layouts, utilities distribution layouts, cut sections of the facility at critical locations, gas pad layout, Gas cabinets/VMBs layout, MCCs layout, BMS configuration, control room layout, lighting layout, cleanroom layout with services and utility distribution network marked on the drawing, Plant Room concept design drawing. etc. Vendor to submit details like detailed design data/details and detailed engineering, P&I diagram for all services and utilities, etc. Detailed un-priced Bill of Quantity/Materials envisaged for the tender, Make/Brands of all the equipment/materials conforming to the specifications in this document, etc. along with technical part of the bid. No pricing information is to be submitted in the technical bid.
	5	An item-wise compliance statement indicating any deviations, if any, from specifications, recommended makes, etc. To support compliance with the specifications, the vendor shall submit all required documents mentioning the Annexure's number. If the offer deviates from the specifications and is not acceptable to the IIT Delhi technical committee, the vendor is bound to change the materials per the IIIT Delhi official's recommendations. Otherwise, the bid shall not be considered for further processing.

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Evaluation Criteria for Technical Bid in Envelope A

Sl. No.	Description	Submission	Points Allotted	Remarks
A1	Gross total turnover in each of the last three financial year i.e. 2021-22, 2022-23 and 2023-24	>10 Cr	20Pts.	Financial Statement of concerned year to be provided
		7.5 Cr to 10 Cr.	15Pts.	
		5 Cr.to 7.5 Cr.	10Pts.	
A2	The similar works are defined as works of eligible contractors who have carried out similar works in IIT's/ IIIT's/Govt. Depts./PSU/Reputed Pvt sector /MNCs/Educational /Engineering /Industries / pharmaceutical Over last seven financial years (Minimum work order value, including extended contract value of Rs. 2 Crores will count towards experience)	If work experience in Two	20Pts.	Experience certificates to be provided
		If work experience in One	10 Pts.	
A3	Nos of Technical Personnel in Company	>20 Nos	10Pts.	HR Declaration required on Letter head to be provided
		10 to 20 Nos	5 Pts.	
		Technical Person - 5 to 10 Nos	3 Pts.	
B	Presentation on Demonstrate existing class-100 experience from concept to commissioning level	The technically qualified bidders will be asked for presentation – As per tender (Page no-4)	50 points.	Will be asked from those bidders who obtain 30 marks or above out of 50 from the above- mentioned criteria (column Sl. No. A1 to A3).

Signature of Authorized Signatory

Date:

Full Name:

Place

Company's Seal

A. Technical Evaluation of documents in Envelope A

The technical committee will evaluate the proposals on various parameters as detailed in this document. Bidders meeting the bidder's minimum eligibility criteria and scoring a minimum of 30 marks in aggregate (out of 50) will be qualified for presentation.

The evaluation of the Technical committee will be final and binding.

B. Presentation documents in Envelope B and physical presentation

All technically qualified bidders will have to present about their experience and previous performance and proposal for IIITD works before the Technical Committee, IIITD. The presentation will be of 30 minutes. The presentation will be evaluated for maximum 50 marks and qualifying marks will be 30 marks.

- A. Demonstrate existing class-100 experience from concept to commissioning level.
- B. Presentation of EPC BOQ based on the drawing/requirements. The itemized details of each proposed item and quantities against each of the items in the Broad BOQ as proposed by each vendor based on the drawing & Technical requirements as proposed.
- C. Detailed design, including design analysis and data for cleanrooms, HVAC systems, utility distribution, electrical systems and distribution, fire detection and suppression, LAN, etc., for all the works covered under the scope of work for the approval of IIIT Delhi.
- D. Based on the same marking will be done according to the above-mentioned points.

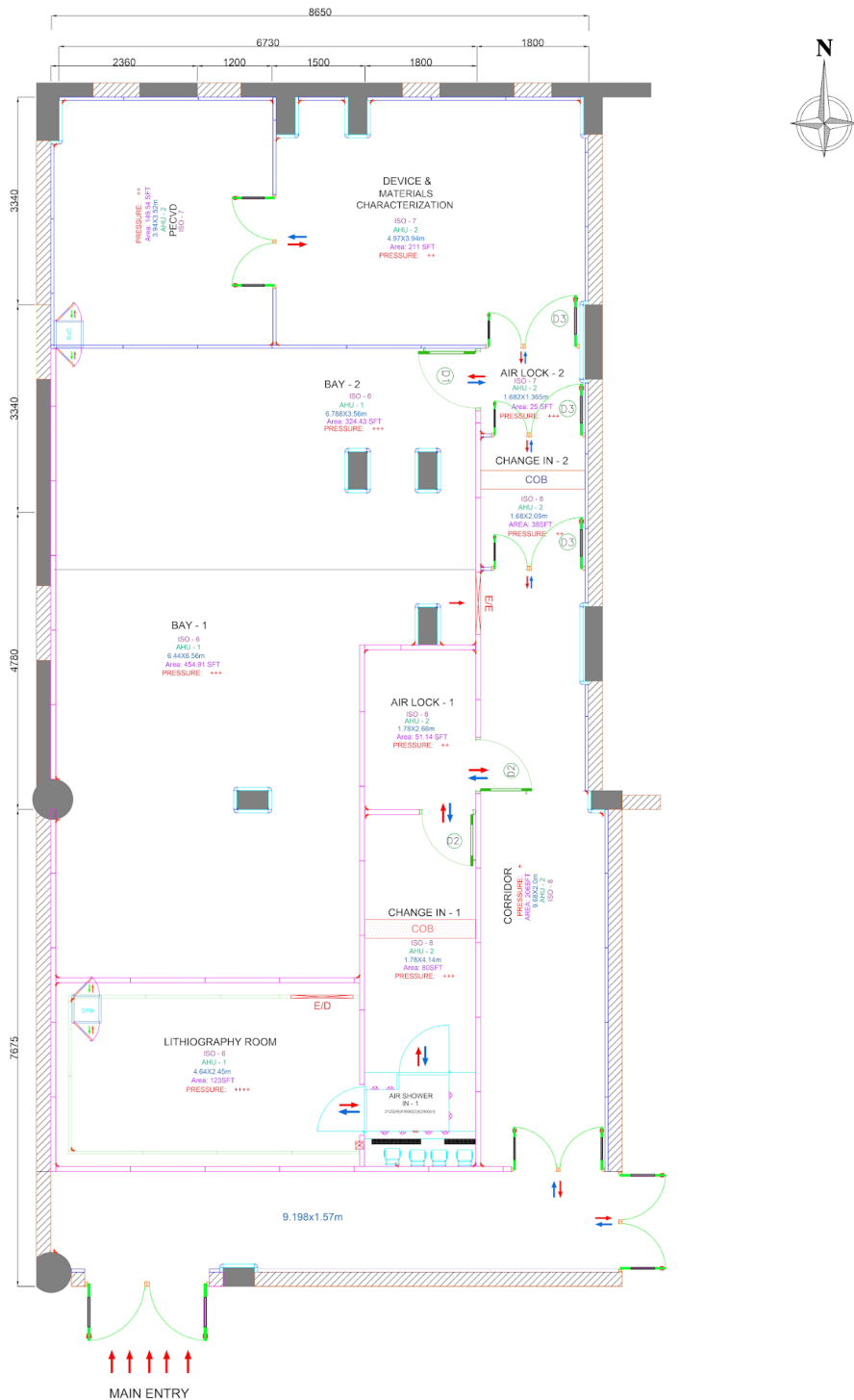
C. Financial Evaluation

Financial Bids of only those bidders will be opened who are declared qualified in both stages i.e. in technical evaluation (A) stage and in presentation stage (B) and who are having a total of 60 marks or above out of maximum 100 marks as per marking scheme given in this tender document will be shortlisted.

Financial bids will be evaluated based on the lowest price. However, the Institute reserves the right to reject any financial bid on the basis of abnormally low and/or high prices quoted in comparison to the prevailing market price (s) of any item and/or all items based on the technical bid. The Institute's decision shall be final and binding in this regard.

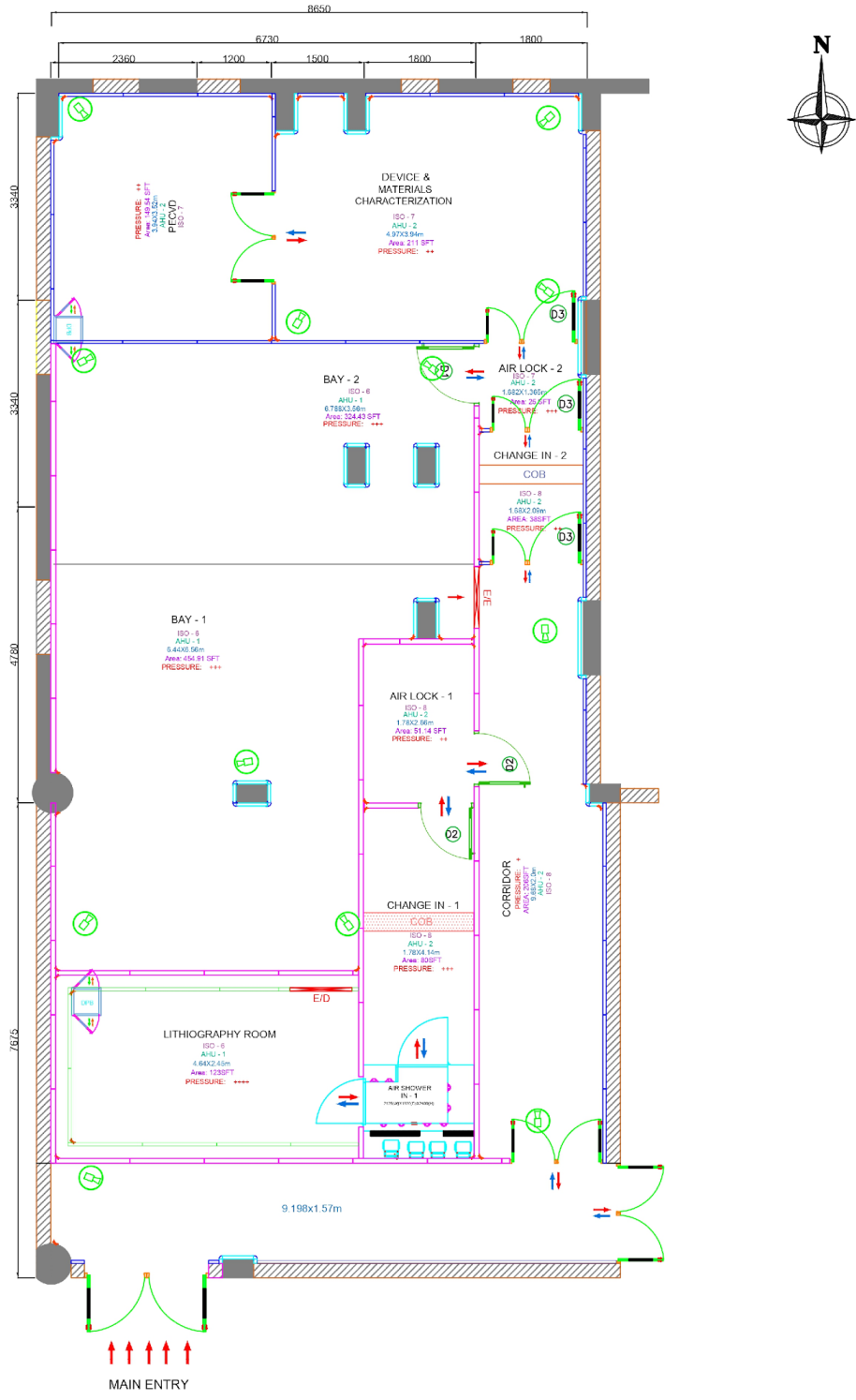
The substantial responsive Bidder/Company/Firm will be declared finally successful for award of contract after financial evaluation based on Lowest Price basis.

Layout Plan



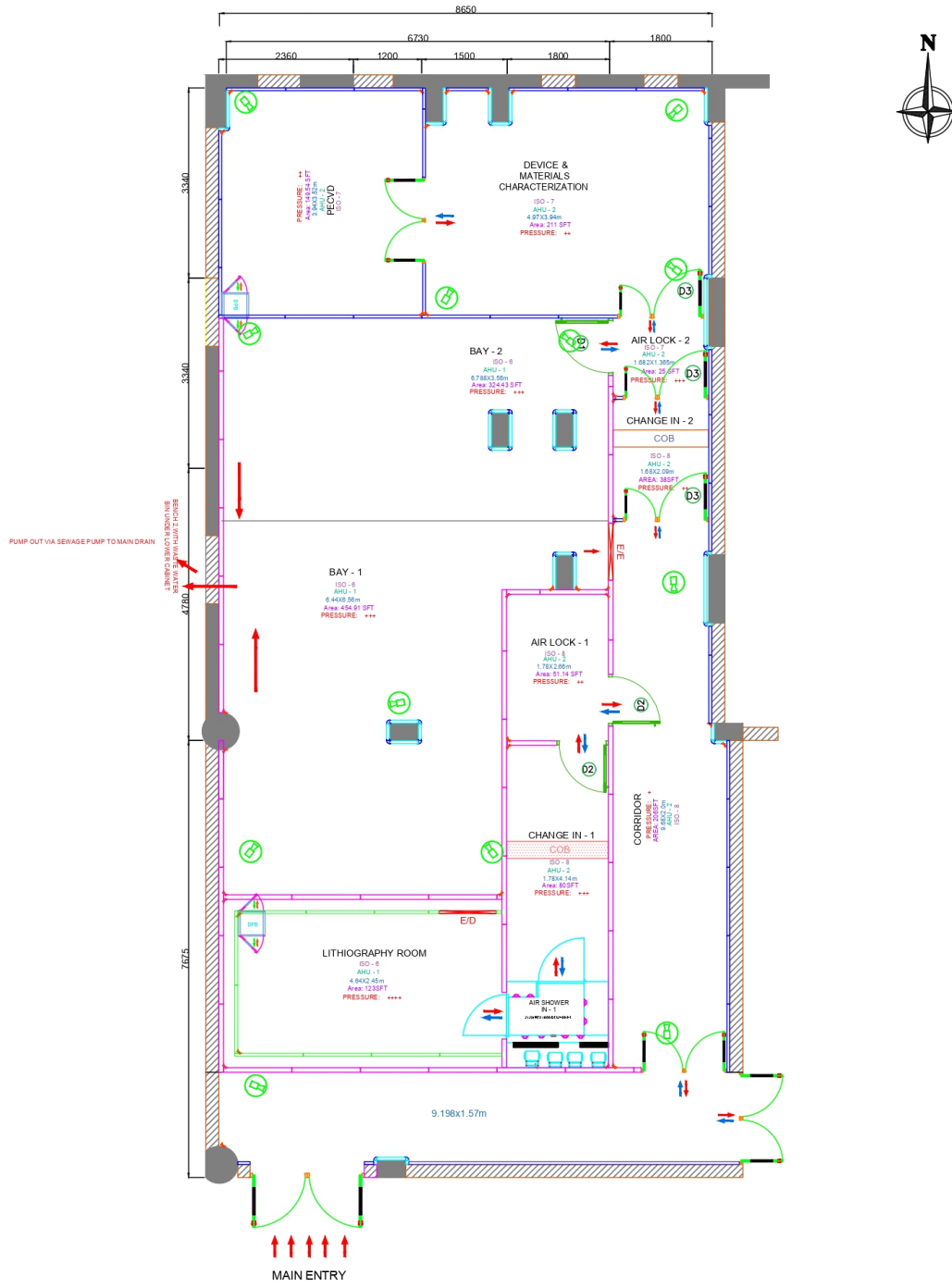
LEGEND		
SYMBOL	DESCRIPTION	QTY
	1000X2100MM - SINGLE LEAF DOOR	1 No's
	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1500X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	--
	80MM THICKNESS WALL PANEL	--
	1500X2400 - UNEQUAL DOOR	2 No's

Drawing of CCTV System



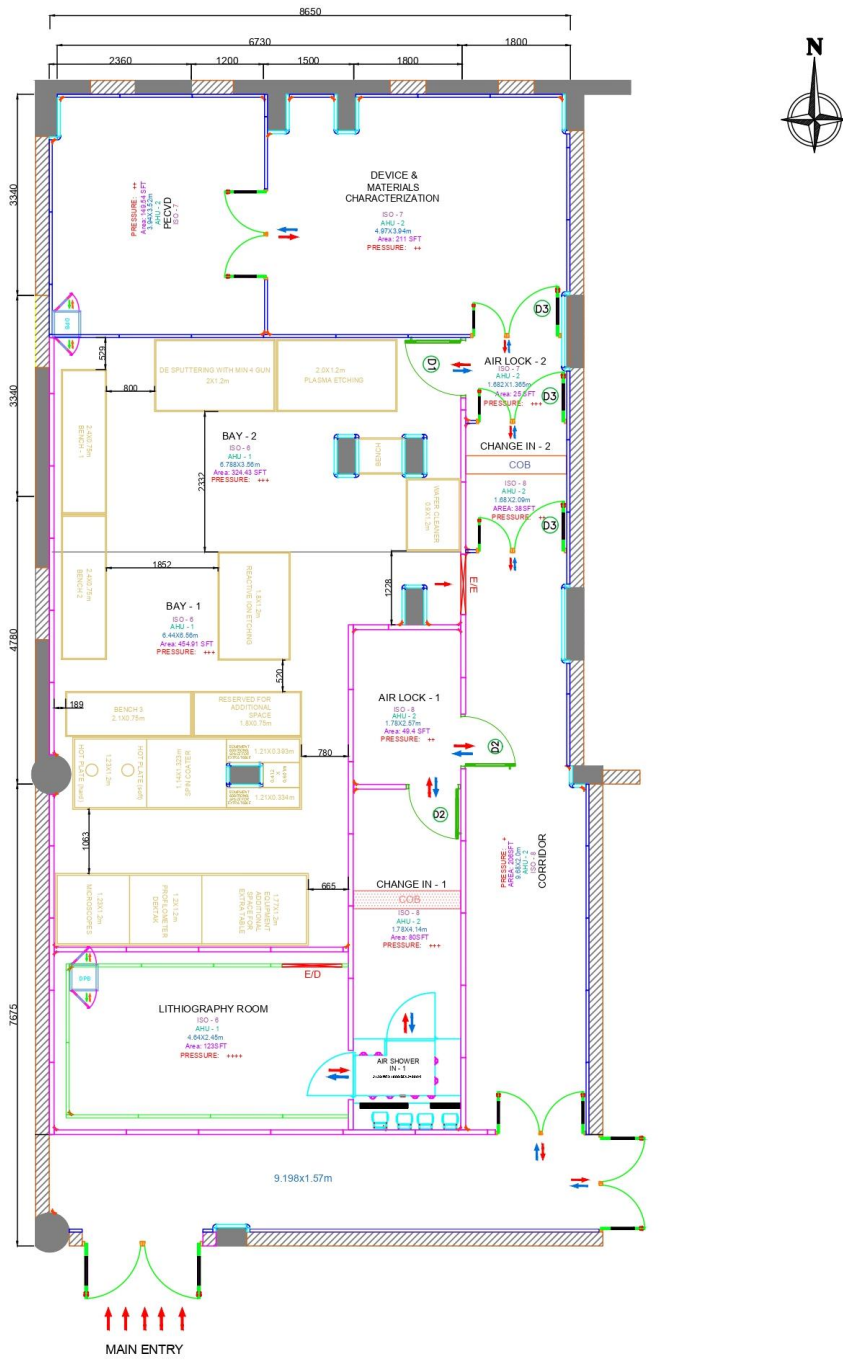
LEGEND		
SYMBOL	DESCRIPTION	QTY
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	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1500X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	--
	80MM THICKNESS WALL PANEL	--
	1500X2400 - UNEQUAL DOOR	2 No's

Drawing of Drain System



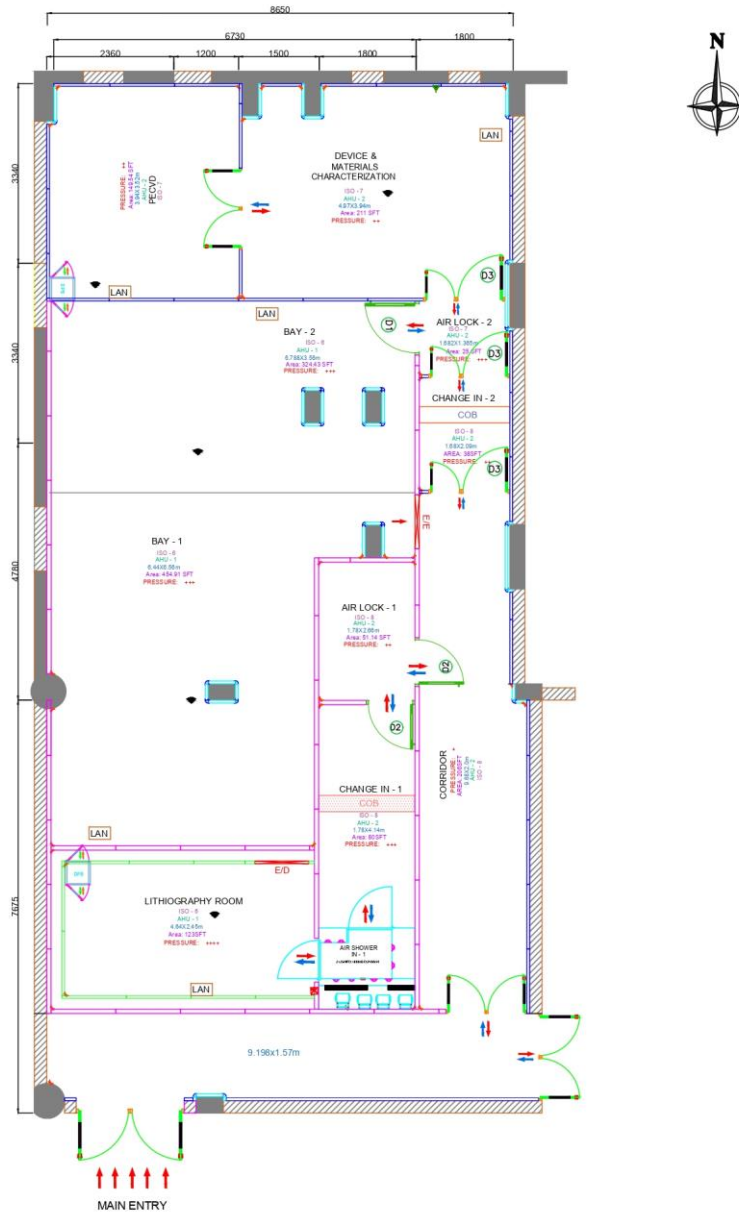
LEGEND		
SYMBOL	DESCRIPTION	QTY
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	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No
	2000X2400MM - DOUBLE LEAF DOOR	1 No
	1500X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	--
	80MM THICKNESS WALL PANEL	--
	1500X2400 - UNEQUAL DOOR	2 No's

Drawing of Equipment's



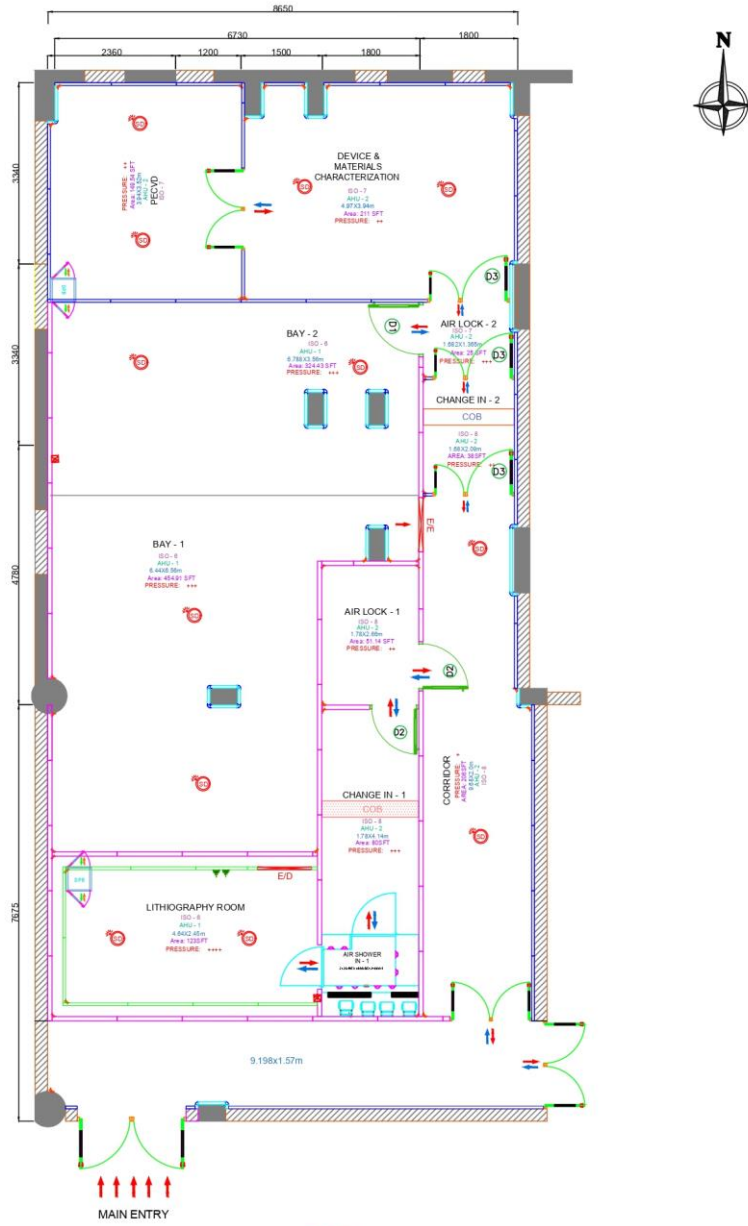
LEGEND		
SYMBOL	DESCRIPTION	QTY
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	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1500X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	--
	80MM THICKNESS WALL PANEL	--
	1500X2400 - UNEQUAL DOOR	2 No's

Drawing of LAN



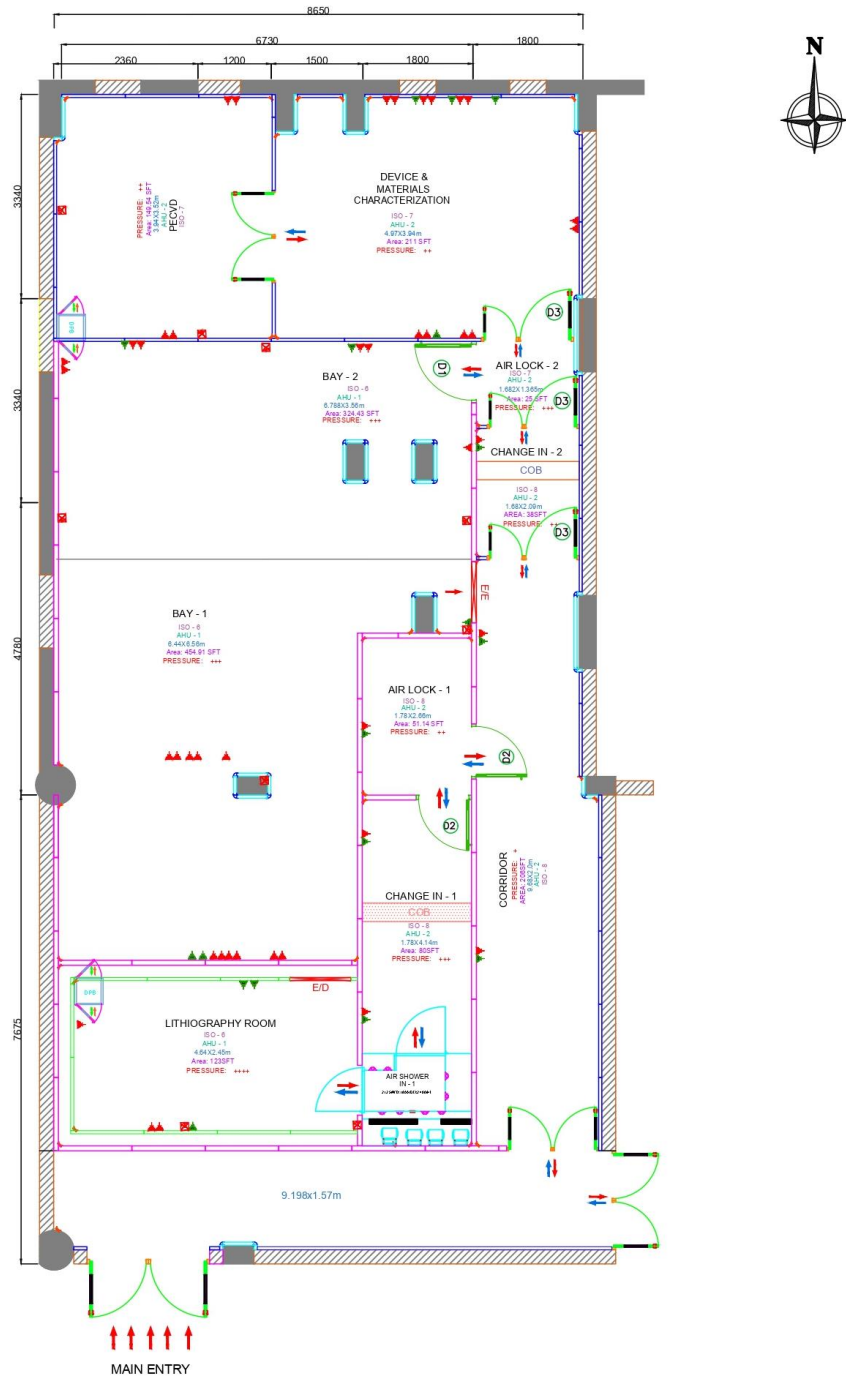
LEGEND		
SYMBOL	DESCRIPTION	QTY
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	900X2100MM - SINGLE LEAF DOOR	2 No.
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1500X2400MM - DOUBLE LEAF DOOR	2 No.
	1000X2400MM - DOUBLE LEAF DOOR	2 No.
	400X400MM - DYNAMIC PASS BOX	2 No.
	50MM THICKNESS WALL PANEL	-
	80MM THICKNESS WALL PANEL	-
	1500X2400 - UNEQUAL DOOR	2 No.

Drawing of Fire System



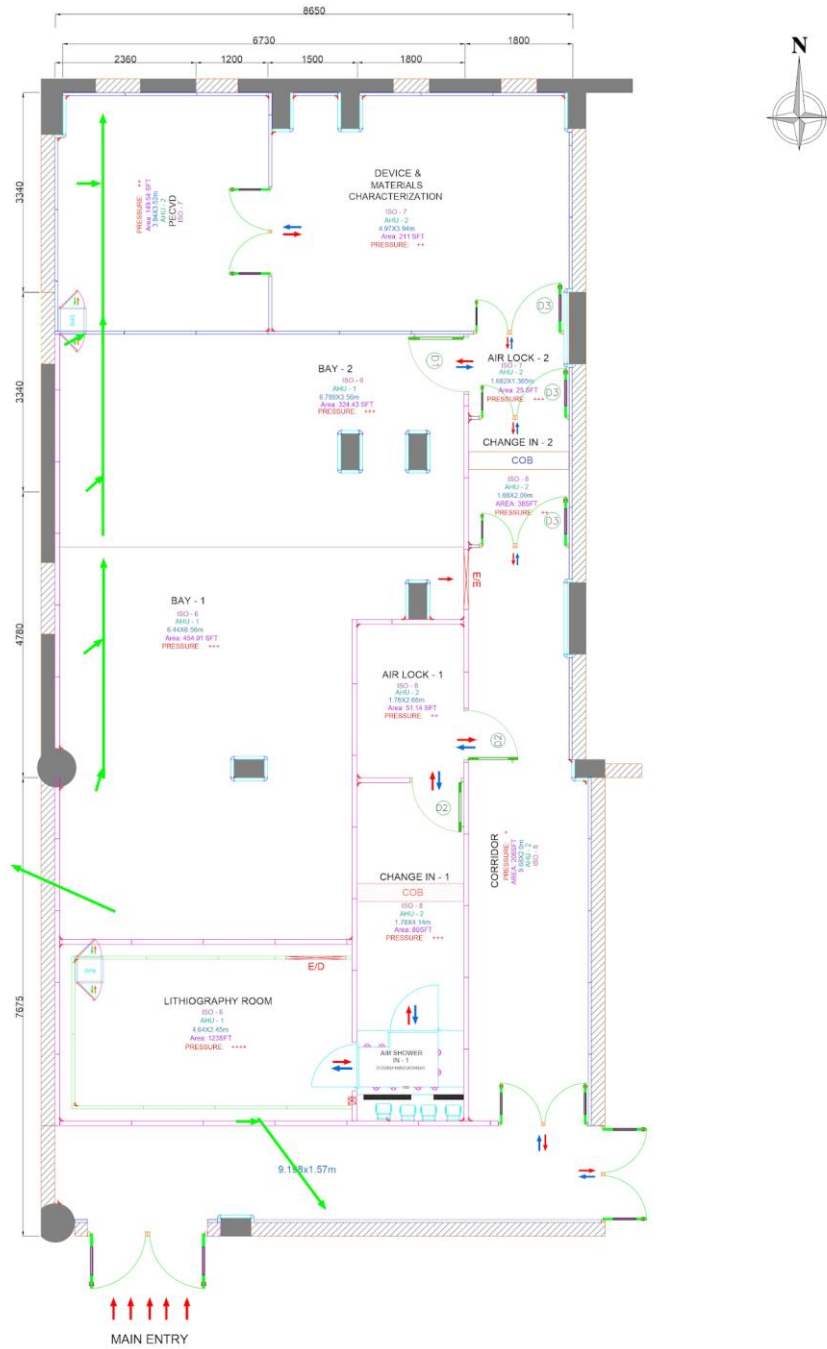
LEGEND		
SYMBOL	DESCRIPTION	QTY
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	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1800X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	-
	80MM THICKNESS WALL PANEL	-
	1500X2400 - UNEQUAL DOOR	2 No's

Drawing of Electrical – Switch



LEGEND		
SYMBOL	DESCRIPTION	QTY
	1000X2100MM - SINGLE LEAF DOOR	1 No's
	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1500X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	-
	80MM THICKNESS WALL PANEL	-
	1500X2400 - UNEQUAL DOOR	2 No's

Drawing of Exhaust System



LEGEND		
SYMBOL	DESCRIPTION	QTY
	1000X2100MM - SINGLE LEAF DOOR	1 No's
	900X2100MM - SINGLE LEAF DOOR	2 No's
	1600X2400MM - DOUBLE LEAF DOOR	1 No.
	2000X2400MM - DOUBLE LEAF DOOR	1 No.
	1500X2400MM - DOUBLE LEAF DOOR	2 No's
	1000X2400MM - DOUBLE LEAF DOOR	2 No's
	400X400MM - DYNAMIC PASS BOX	2 No's
	50MM THICKNESS WALL PANEL	---
	80MM THICKNESS WALL PANEL	---
	1500X2400 - UNEQUAL DOOR	2 No's

Bill of Quantities

S.No	Broad Description of Work / Item(s)	Qty	Units	Rate	Amount
Main Item					
1	Clean Room supplies installation testing and commissioning of Lithography, Bay 1 , Bay 2 ,Characterization, Pecvd with Gowning, airlock, change in and out which includes:- Cleanroom wall panels, Cleanroom ceiling panels, CLASS 100 ceiling grid (if reqd), covings, In-built return air risers, Double Glazed view panels, Return Air Raiser Grills & Filters, Clean Room Scientific Doors, Anti Static Vinyle Laminated Raiser Floor for Class 100(if reqd), Clean Room LED Lights, Anti Static Vinyl Flooring for Class 1000 area, Surveillance and access control System, Fire alarm and detection system including central control unit smoke detectors, fault isolators, loop cards and wiring, Electrical wiring including DB's, MCB's, Switch/sockets, 3P Sockets, 1P Sockets as per drawing attached.	1.0 0	Nos		
2	Supply ,installation and commissioning of HVAC (Heating and Ventilation Air Conditioner) for Lithography,Bay 1 , Bay 2 ,Characterization ,Pecvd with Gowning, airlock, change in and out which includes:- Air Handling Unit, Air Distribution (GI Ducting), Insulation, Fire Damper, Volume Control Damper, Hooded Type HEPA Filters for Class 100, HEPA Modules, HEPA Filters for Class 1000, Supply Air Grills, Condensing Units, Duct Mounted Heaters, Electrical Control Panels, Magnehelic Gauges as per drawing attached.	1.0 0	Nos		
3	Exhaust and drainage system for,Bay 1 , Bay 2 ,Characterization ,Pecvd, and where it required as per end requirements- which includes:- Supply and installation of exhaust system including chemical resistant piping, water sprinkler system Supply and installation of chemical and normal drainage systems for cleanroom equipment (if reqd).	1.0 0	Nos		
4	Gas distribution system for, Bay 1, Bay 2 ,Characterization ,Pecvd, which includes:- Supply and installation of SS piping from Nitrogen and CDA bank to the point of use for cleanroom equipment Supply and installation of DI/RO water line supply from plant to point of use also .	1.0 0	Nos		
5	Supply and installation of water line drainage system from mentioned points as per the drawings attached.	1	Nos		
7	Supply , Installation, Commissioning, Validation & Documentation of Lithography, Bay 1, Bay 2 ,Characterization ,Pecvd with Gowning, airlock, change in and out .	1	Nos		
Supply and installation of Clean Room Furnitures					
1	Tables	15	Nos		
2	Chairs	20	Nos		
3	Fumehood	1	Nos		
Supply and installation of Clean Room Utilities					
1	Dynamic Pass Box	2	Nos		

2	Air Shower	1	Nos		
3	Garment Cubical Cabinets	2	Nos		
4	Cross Over Bench	2	Nos		
5	Wet Bench	3	Nos		
	Total Amount				
	GST				
	Total Amount with GST				
II	Optional CAMC with operations				
a	Including operations assistant, after 2 years of DLP, including providing one operation in charge Diploma Engineer in Electrical/Electronic with 3 years or I.T.I. with 5 years' experience per shift per day during from date of commissioning onwards with biometric attendance on all days including holidays/as directed.				
b	Same as above for 1 st year period after DLP	1	Annual		
c	Same as above for 2nd year period after DLP	1	Annual		
d	Same as above for 3rd year period after DLP	1	Annual		
e	Same as above for 4th year period after DLP	1	Annual		
	Total Amount				
	GST				
	Total Amount with GST				

Note:

- All rate to be inclusive cost of Transportation, Labour, Materials, cartage for site etc. as required for satisfactory completion
- On completion of the cleanroom, the vendor shall submit 'As Built Drawings' in CAD format, PDF and a hard copy (three sets) of each drawing.
- Operating and maintenance manuals in hard copy and electronic format. handover and operator instruction.
- Rates also include Dismantling of existing panel, partitions, or any other civil structure, AHU's installed at purposed locations and handing over safely to IIITD
- Pre-Flooring preparations for Lithography with anti-vibrations measures and for Other mentioned areas, the vendor has guide and supervise The IIITD team as per their design considerations for the flooring setup before any executions of cleanroom work
- Reconditioning of walls as per the design recommended by the vendor to IIITD
- The drawings attached are tentative design and have some scope of modifications during the executions of works.