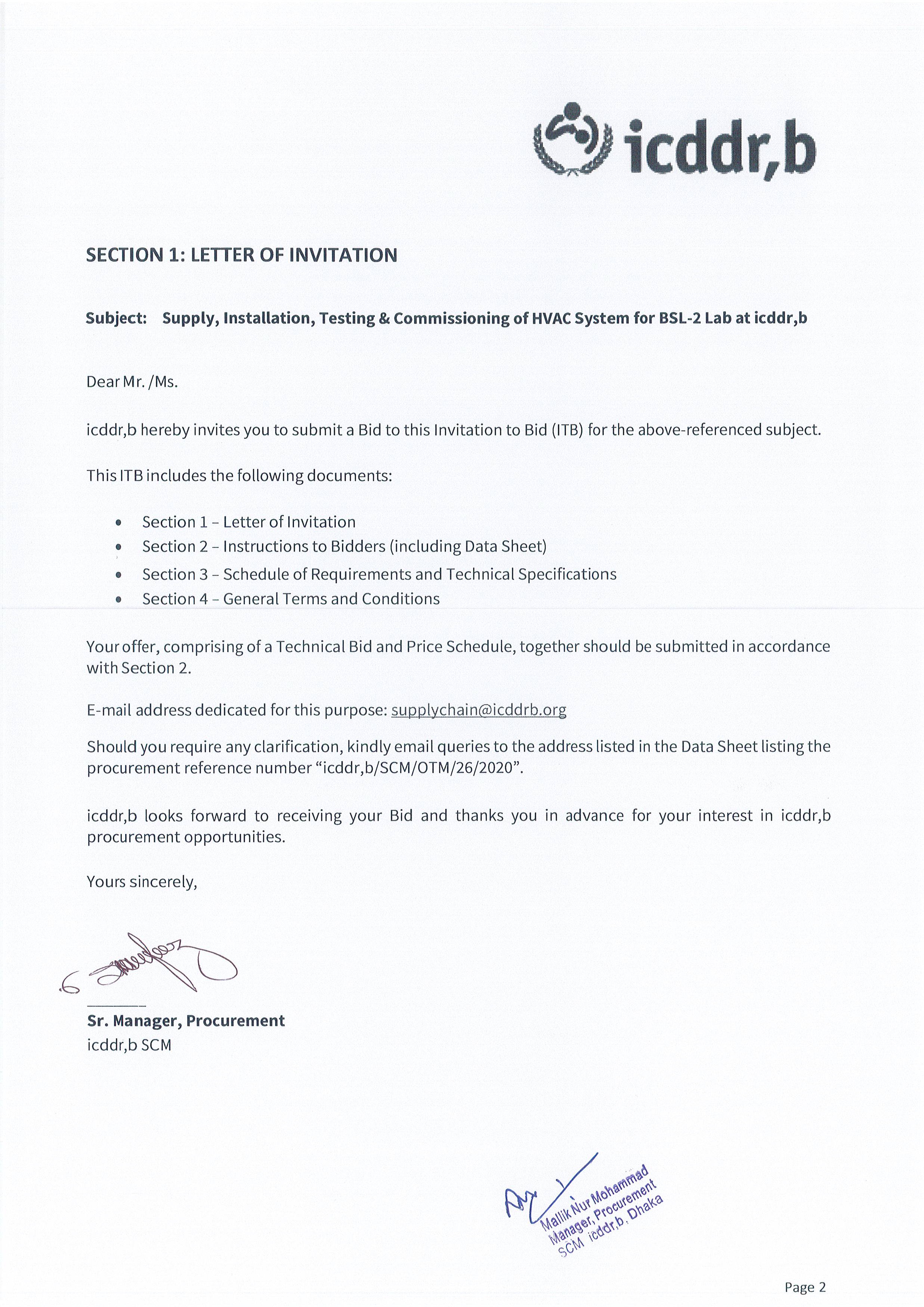
INVITATION TO BID (ITB)

[Open Tender Method]

**Supply, Installation, Testing&Commissioning of HVAC System for BSL-2 Lab at icddr,b**

**ITB Reference No.:icddr,b/SCM/OTM/26/2020**

**Date: 20th Aug 2020**



# SECTION 2: INSTRUCTION TO BIDDERS

**Definitions**

1. ***“Bid”*** refers to the Bidder’s response to the Invitation to Bid, including the Bid Submission Form, TechnicalBid and Price Schedule and all other documentation attached thereto as required by the ITB.
2. ***“Bidder”*** refers to any legal entity that may submit, or has submitted, a Bid for the supply of goods andprovision of related services requested by icddr,b.
3. ***“Contract”*** refers to the legal instrument that will be signed by and between the icddr,b and the successfulBidder, all the attached documents thereto, including the General Terms and Conditions (GTC) and the Appendices.
4. ***“Country”*** refers to the country indicated in the Data Sheet.
5. ***“Data Sheet”*** refers to such part of the Instructions to Bidders used to reflect conditions of the tenderingprocess that are specific for the requirements of the ITB.
6. ***“Day”*** refers to calendar day.
7. ***“Goods”*** refer to any tangible product, commodity, article, material, wares, equipment, assets ormerchandise that icddr,b requires under this ITB.
8. ***“Instructions to Bidders”*** refers to the complete set of documents which provides Bidders with all informationneeded and procedures to be followed in the course of preparing their Bid
9. ***“ITB”*** refers to the Invitation to Bid consisting of instructions and references prepared by icddr,b for purposesof selecting the best supplier or service provider to fulfil the requirement indicated in the Schedule of Requirements and Technical Specifications.
10. ***“LOI”*** (Section 1 of the ITB) refers to the Letter of Invitation sent by icddr,b to Bidders.
11. ***“Material Deviation”*** refers to any contents or characteristics of the bid that is significantly different from anessential aspect or requirement of the ITB, and (i) substantially alters the scope and quality of the requirements; (ii) limits the rights of icddr,b and/or the obligations of the offeror; and (iii) adversely impacts the fairness and principles of the procurement process, such as those that compromise the competitive position of other offerors.
12. ***“Schedule of Requirements and Technical Specifications”*** refers to the document included in this ITB asSection 3 which lists the goods required by icddr,b, their specifications, the related services, activities, tasks to be performed, and other information pertinent to icddr,b’s receipt and acceptance of the goods.
13. ***“Services”*** refers to the entire scope of tasks related or ancillary to the completion or delivery of the goodsrequired by icddr,b under the ITB.
14. ***“Supplemental Information to the ITB”*** refers to a written communication issued by icddr,b to prospectiveBidders containing clarifications, responses to queries received from prospective Bidders, or changes to be made in the ITB, at any time after the release of the ITB but before the deadline for the submission of Bid.

## GENERAL

* 1. icddr,b hereby solicits Bids as a response to this Invitation to Bid (ITB). Bidders must strictly adhere to all the requirements of this ITB. No changes, substitutions or other alterations to the rules and provisions stipulated in this ITB may be made or assumed unless it is instructed or approved in writing by icddr,b in the form of Supplemental Information to the ITB.
  2. Submission of a Bid shall be deemed as an acknowledgement by the Bidder that all obligations stipulated by this ITB will be met and, unless specified otherwise, the Bidder has read, understood and agreed to all the instructions in this ITB.
  3. Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of any Bid by icddr,b. icddr,b is under no obligation to award a contract to any Bidder as a result of this ITB.
  4. icddr,b implements a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical practices, and obstruction. icddr,b is committed to preventing, identifying and addressing all acts of fraud and corrupt practices against icddr,b as well as third parties involved in icddr,b activities.
  5. In responding to this ITB, icddr,b requires all Bidders to conduct themselves in a professional, objective and impartial manner, and they must at all times hold icddr,b’s interests paramount. Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. All Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:

5.1 Are, or have been associated in the past, with a firm or any of its affiliates which have been engaged icddr,b to provide services for the preparation of the design, Schedule of Requirements and Technical Specifications, cost analysis/estimation, and other documents to be used for the procurement of the goods and related services in this selection process;

5.2 Were involved in the preparation and/or design of the programme/project related to the goods and related services requested under this ITB; or

5.3 Are found to be in conflict for any other reason, as may be established by, or at the discretion of, icddr,b.

In the event of any uncertainty in the interpretation of what is potentially a conflict of interest, Bidders must disclose the condition to icddr,b and seek icddr,b’s confirmation on whether or not such conflict exists.

* 1. Similarly, the following must be disclosed in the Bid:

6.1 Bidders who are owners, part-owners, officers, directors, controlling shareholders, or key personnel who are family of icddr,b staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving the goods and related services under this ITB; and

6.2 Others that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. Failure of such disclosure may result in the rejection of the Bid.

* 1. All Bidders must adhere to the icddr,b Supplier Code of Conduct.

## CONTENTS OF BID

* 1. **Sections of Bid**

Bidders are required to complete, sign and submit the following documents:

8.1 Bid Submission Cover Letter;

8.2 Documents Establishing the Eligibility and Qualifications of the;

8.3 Technical Bid;

8.4 Price Schedule;

8.5 Bid Security, if applicable (if required and as stated in the DS nos. 9, 10 and 11, see prescribed Form by icddr,b);

8.6 Any attachments and/or appendices to the Bid (including all those specified under the Data Sheet)

* 1. **Clarification of Bid**

9.1 Bidders may request clarification of any of the ITB documents no later than the number of days indicated in the Data Sheet (DS no. 16) prior to the Bid submission date. Any request for clarification must be sent through electronic means to the icddr,b address indicated in the Data Sheet (DS no. 17). icddr,b response will be transmitted by electronic means and copies of the response (including an explanation of the query but without identifying the source of inquiry) will be transmitted to all Bidders who have provided confirmation of their intention to submit a Bid.

9.2 icddr,b shall endeavour to provide such responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of icddr,b to extend the submission date of the Bid, unless icddr,b deems that such an extension is justified and necessary.

* 1. **Amendment of Bid**

10.1 At any time prior to the deadline for submission of Bid, icddr,b may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of a Supplemental Information to the ITB. All prospective Bidders will be notified of all changes/amendments and additional instructions through Supplemental Information to the ITB which will be published in accordance with the method specified in the Data Sheet (DS No. 18).

10.2 In order to afford prospective Bidders reasonable time to consider the amendments in preparing their Bid, icddr,b may, at its discretion, extend the deadline for submission of Bid, if the nature of the amendment to the ITB justifies such an extension.

## PREPARATION OF BID

* 1. **Cost**

The Bidder shall bear any and all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid was selected or not. icddr,b shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.

* 1. **Language**

The Bid, as well as any and all related correspondence exchanged by the Bidder and icddr,b, shall be written in the language (s) specified in the Data Sheet (DS No. 4). Any printed literature furnished by the Bidder written in a language other than the language indicated in the Data Sheet, must be accompanied by a translation in the preferred language indicated in the Data Sheet. For purposes of interpretation of the Bid, and in the event of discrepancy or inconsistency in meaning, the version translated into the preferred language shall govern. Upon conclusion of a contract, the language of the contract shall govern the relationship between the contractor and icddr,b.

* 1. **Bid Submission Form**

The Bidder shall submit the Bid Submission Form using the form provided in Section 4 of this ITB.

* 1. **Technical Bid Format and Content**

Unless otherwise stated in the **Data Sheet** (DS no. 26), the Bidder shall structure the Technical Bid as follows:

14.1 Expertise of Firm/Organization – this section should provide details regarding management structure of the organization, organizational capability/resources, and experience of organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the ITB, manufacturing capacity of plant if Bidder is a manufacturer, authorization from the manufacturer of the goods if Bidder is not a manufacturer, and proof of financial stability and adequacy of resources to complete the delivery of goods and provision of related services required by the ITB (see ITB Clause 18 and DS No. 24 for further details). The same shall apply to any other entity participating in the ITB as a Joint Venture or Consortium.

14.2 Technical Specifications and Implementation Plan – this section should demonstrate the Bidder’s response to the Schedule of Requirements and Technical Specifications by identifying the specific components proposed; how each of the requirements shall be met point by point; providing a detailed specification and description of the goods required, plans and drawings where needed; the essential performance characteristics, identifying the works/portions of the work that will be subcontracted; a list of the major subcontractors, and demonstrating how the bid meets or exceeds the requirements, while ensuring appropriateness of the bid to the local conditions and the rest of the project operating environment during the entire life of the goods provided. Details of technical bid must be laid out and supported by an Implementation Timetable, including Transportation and Delivery Schedule where needed, that is within the duration of the contract as specified in the Data Sheet (DS nos. 27 and 28).

Bidders must be fully aware that the goods and related services that icddr,b require may be transferred, immediately or eventually, by icddr,b to the Government partners, or to an entity nominated by the latter, in accordance with icddr,b’s policies and procedures. All bidders are therefore required to submit the following in their bids:

1. A statement of whether any import or export licences are required in respect of the goods to be purchased or services to be rendered, including any restrictions in the Country of Origin (C/O), use or dual use nature of the goods or services, including any disposition to end users;
2. Confirmation that the Bidder has obtained license of this nature in the past, and have an expectation of obtaining all the necessary licenses, should their bid be rendered the most responsive; and
3. Complete documentation, information and declaration of any goods classified or may be classified as “Dangerous Goods”.

14.3 Management Structure and Key Personnel – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the technical bid, clearly defining their roles and responsibilities. CVs should establish competence and demonstrate qualifications in areas relevant to the requirements of this ITB.

In complying with this section, the Bidder assures and confirms to icddr,b that the personnel being nominated are available to fulfil the demands of the Contract during its stated full term. If any of the key personnel later becomes unavailable, except for unavoidable reasons such as death or medical incapacity, among other possibilities, icddr,b reserves the right to render the Bid non-responsive. Any deliberate substitution of personnel arising from unavoidable reasons, including delay in the implementation of the project of programme through no fault of the Bidder, shall be made only with icddr,b’s acceptance of the justification for substitution, and icddr,b’s approval of the qualification of the replacement who shall be either of equal or superior credentials as the one being replaced.

14.4 Where the Data Sheet requires the submission of the Bid Security, the Bid Security shall be included along with the Technical Bid. The Bid Security may be forfeited by icddr,b, and reject the Bid, in the event of any or any combination of the following conditions:

* + - 1. If the Bidder withdraws its offer during the period of the Bid Validity specified in the Data Sheet (DS no. 8), or;
      2. If the Bid Security amount is found to be less than what is required by icddr,b as indicated in the Data Sheet (DS no. 9), or;
      3. In the case the successful Bidder fails:
         1. to sign the Contract after icddr,b has awarded it;
         2. to comply with icddr,b’s variation of requirement, as per ITB Clause 35; or
         3. to furnish Performance Security, insurances, or other documents that icddr,b may require as a condition to rendering effective the contract that may be awarded to the Bidder.
  1. **Price Schedule**

The Price Schedule shall be prepared using the attached standard form (Section 7). It shall list all major cost components associated with the goods and related services, and the detailed breakdown of such costs. All goods and services described in the Technical Bid must be priced separately on a one-to-one correspondence. Any output and activities described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of the items or activities, as well as in the final total price of the bid.

* 1. **Currencies**

All prices shall be quoted in the currency indicated in the Data Sheet (DS no. 15). However, where Bids are quoted in different currencies, for the purposes of comparison of all Bid:

16.1 icddr,b will convert the currency quoted in the Bid into the icddr,b preferred currency, in accordance with the prevailing rate of exchange on the last day of submission of Bid; and

16.2 In the event that the Bid found to be the most responsive to the ITB requirement is quoted in another currency different from the preferred currency as per Data Sheet (DS no. 15), then icddr,b shall reserve the right to award the contract in the currency of icddr,b’s preference, using the conversion method specified above.

* 1. **Documents Establishing the Eligibility and Qualifications of the Bidder**

17.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the forms provided under Section 5, Bidder Information Forms. In order to award a contract to a Bidder, its qualifications must be documented to icddr,b’s satisfactions. These include, but are not limited to the following:

* + 1. That, in the case of a Bidder offering to supply goods under the Contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods’ manufacturer or producer to supply the goods in the country of final destination;
    2. That the Bidder has the financial, technical, and production capability necessary to perform the Contract; and

17.2 Bids submitted by two (2) or more Bidders shall all be rejected by icddr,b if they are found to have any of the following:

1. they have at least one controlling partner, director or shareholder in common; or
2. any one of them receive or have received any direct or indirect subsidy from the other/s; or
3. they have the same legal representative for purposes of this ITB; or

* + 1. they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this ITB process;
    2. they are subcontractors to each other’s bid, or a subcontractor to one bid also submits another Bid under its name as lead Bidder; or
    3. an expert proposed to be in the bid of one Bidder participates in more than one Bid received for this ITB process. This condition does not apply to subcontractors being included in more than one Bid.
  1. **Joint Venture, Consortium or Association**

If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), consortium or association at the time of the submission of the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a Lead Entity, duly vested with authority to legally bind the members of the Joint Venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between icddr,b and the designated Lead Entity, who shall be acting for and on behalf of all entities that comprise the Joint Venture.

After the bid has been submitted to icddr,b, the Lead Entity identified to represent the Joint Venture shall not be altered without the prior written consent of icddr,b. Furthermore, neither the Lead Entity nor the member entities of the Joint Venture can:

* 1. Submit another Bid, either in its own capacity; nor
  2. As a Lead Entity or a member entity for another Joint Venture submitting another Bid.

The description of the organization of the Joint Venture /consortium/association must clearly define the expected role of each of the entity in the Joint Venture in delivering the requirements of the ITB, both in the bid and in the Joint Venture Agreement. All entities that comprise the Joint Venture shall be subject to the eligibility and qualification assessment by icddr,b.

Where a Joint Venture is presenting its track record and experience in a similar undertaking as those required in the ITB, it should present such information in the following manner:

1. Those that were undertaken together by the Joint Venture; and
2. Those that were undertaken by the individual entities of the Joint Venture expected to be involved in the performance of the services defined in the ITB.

Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the Joint Venture or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.

If the Bid of a Joint Venture is determined by icddr,b as the most responsive Bid that offers the best value for money, icddr,b shall award the contract to the Joint Venture, in the name of its designated Lead Entity, who shall sign the contract for and on behalf of all the member entities.

* 1. **Alternative Bid**

Unless otherwise specified in the Data Sheet (DS no. 6), alternative bid shall not be considered. Where the conditions for its acceptance are met, or justifications are clearly established, icddr,b reserves the right to award a contract based on an alternative bid.

* 1. **Validity Period**

20.1 Bid shall remain valid for the period specified in the **Data Sheet** (DS no. 8), commencing on the submission deadline date also indicated in the **Data Sheet** (DS no. 21). A Bid valid for a shorter period shall be immediately rejected by icddr,b and rendered non-responsive.

20.2 In exceptional circumstances, prior to the expiration of the Bid validity period, icddr,b may request Bidders to extend the period of validity of their Bid. The request and the responses shall be made in writing, and shall be considered integral to the Bid.

* 1. **Bidder’s Conference**

If determined appropriate by icddr,b, a Bidder’s conference will be convened at the date, time and location specified in the Data Sheet (DS no. 7). All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder’s conference will be either posted on the icddr,b website, or disseminated to the individual firms who have registered or expressed interest with the contract, whether or not they attended the conference. No verbal statement made during the conference shall modify the terms and conditions of the ITB unless such statement is specifically written in the Minutes of the Conference, or issued/posted as an amendment in the form of a Supplemental Information to the ITB.

## **SUBMISSION OF BID**

* 1. **Submission**

The submission of bids should be on paper based printed version, as specified in the Data Sheet (DS no. 21 and 22).

* 1. **Deadline for Submission of Bid and Late Bids**

Bid must be received by icddr,b at the address and no later than the date and time specified in the Data Sheet (DS no. 20).

icddr,b shall not consider any Bid that arrives after the deadline for submission of Bid. Any Bid received by icddr,b after the deadline for submission of Bid shall be declared late, rejected, and returned unopened to the Bidder.

* 1. **Withdrawal, Substitution, and Modification of Bid**

24.1 Bidders are expected to have sole responsibility for taking steps to carefully examine in detail the full consistency of its Bid to the requirements of the ITB, keeping in mind that material deficiencies in providing information requested by icddr,b, or lack clarity in the description of goods and related services to be provided, may result in the rejection of the Bid. The Bidder shall assume any responsibility regarding erroneous interpretations or conclusions made by the Bidder in the course of understanding the ITB out of the set of information furnished by icddr,b.

24.2 A Bidder may withdraw, substitute or modify its Bid after it has been submitted by sending a written notice in accordance with ITB Clause 23, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be received by icddr,b prior to the deadline for submission and submitted in accordance with ITB Clause 23 (except that withdrawal notices do not require copies). The respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or MODIFICATION”.

24.3 Bid requested to be withdrawn shall be excluded from the evaluation process.

24.4 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bid and the expiration of the period of Bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.

* 1. **Bid Opening**

There will be no provision of electronic bid opening, neither the bid opening will be conducted as ‘Public Opening’. Icddr,b nominated sourcing evaluation committee will be acted as ‘Tender Opening Committee’. Three (3) person from SEC will perform the bid opening.

* 1. **Confidentiality**

Information relating to the examination, evaluation, and comparison of Bid, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.

Any effort by a Bidder to influence icddr,b in the examination, evaluation and comparison of the Bid or contract award decisions may, at icddr,b’s decision, result in the rejection of its Bid.

In the event that a Bidder is unsuccessful, the Bidder may seek a meeting with icddr,b for a debriefing. The purpose of the debriefing is discussing the strengths and weaknesses of the Bidder’s submission, in order to assist the Bidder in improving the bid presented to icddr,b. The content of other bids and how they compare to the Bidder’s submission shall not be discussed.

## EVALUATION OF BID

* 1. **Preliminary Examination of Bid**

icddr,b shall examine the Bid to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, whether or not the Bidder is in the icddr,b’s list of suspended and removed vendors, and whether the Bid are generally in order, among other indicators that may be used at this stage. icddr,b may reject any Bid at this stage.

* 1. **Evaluation of Bid**

28.1 icddr,b shall examine the Bid to confirm that all terms and conditions under the icddr,b General Terms and Conditions and Special Conditions have been accepted by the Bidder without any deviation or reservation.

28.2 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the Data Sheet (DS No. 23). Absolutely no changes may be made by icddr,b in the criteria after all Bids have been received.

28.3 icddr,b reserves the right to undertake a post-qualification exercise, aimed at determining, to its satisfaction the validity of the information provided by the Bidder. Such post-qualification shall be fully documented and, among those that may be listed in the Data Sheet (DS No.33), may include, but need not be limited to, all or any combination of the following :

1. Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted;
2. Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;
3. Inquiry and reference checking with Government entities with jurisdiction on the bidder, or any other entity that may have done business with the bidder;
4. Inquiry and reference checking with other previous clients on the quality of performance on on-going or previous contracts completed;
5. Physical inspection of the bidder’s plant, factory, branches or other places where business transpires, with or without notice to the bidder;
6. Testing and sampling of completed goods similar to the requirements of icddr,b, where available; and
7. Other means that icddr,b may deem appropriate, at any stage within the selection process, prior to awarding the contract.
   1. **Clarification of Bid**

To assist in the examination, evaluation and comparison of bids, icddr,b may, at its discretion, ask any Bidder to clarify its Bid.

icddr,b’s request for clarification and the Bidder’s response shall be in writing. Notwithstanding the written communication, no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by icddr,b in the evaluation of the Bid, in accordance with ITB Clause 35.

Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by icddr,b, shall not be considered during the review and evaluation of the Bid.

* 1. **Responsiveness of Bid**

icddr,b’s determination of a Bid’s responsiveness will be based on the contents of the Bid itself.

A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the ITB without material deviation, reservation, or omission.

If a Bid is not substantially responsive, it shall be rejected by icddr,b and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

* 1. **Nonconformities, Reparable Errors and Omissions**

31.1 Provided that a Bid is substantially responsive, icddr,b may waive any non-conformities or omissions in the Bid that, in the opinion of icddr,b, do not constitute a material deviation.

31.2 Provided that a Bid is substantially responsive, icddr,b may request the Bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

31.3 Provided that the Bid is substantially responsive, icddr,b shall correct arithmetical errors as follows:

1. if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of icddr,b there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
2. if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
3. if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to the above.

31.4 If the Bidder does not accept the correction of errors made by icddr,b, its Bid shall be rejected.

## AWARD OF CONTRACT

* 1. **Right to Accept, Reject, or Render Non-Responsive Any or All Bid**

icddr,b reserves the right to accept or reject any Bid, to render any or all of the Bids as non-responsive, and to reject all Bids at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for icddr,b’s action. Furthermore, icddr,b is not obligated to award the contract to the lowest price offer.

* 1. **Award Criteria**

Prior to expiration of the period of Bid validity, icddr,b shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price.

* 1. **Right to Vary Requirements at the Time of Award**

At the time of award of Contract, icddr,b reserves the right to vary the quantity of the goods and/or related services, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

* 1. **Contract Signature**

Within seven (7) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to icddr,b.

Failure of the successful Bidder to comply with the requirement of ITB Section F.3 and this provision shall constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security if any, and on which event, icddr,b may award the Contract to the Bidder with the second highest rated Bid, or call for new Bid.

* 1. **Performance Security**

A performance security, if required, shall be provided in the amount and form provided in Section 9 and by the deadline indicated in the Data Sheet (DS no. 14), as applicable. Where a Performance Security will be required, the submission of the said document, and the confirmation of its acceptance by icddr,b, shall be a condition for the effectivity of the Contract that will be signed by and between the successful Bidder and icddr,b.

* 1. **Bank Guarantee for Advanced Payment**

Except when the interests of icddr,b so require, it is the icddr,b’s preference to make no advanced payment(s) on contracts (i.e. payments without having received any outputs). In the event that the Bidder requires an advanced payment upon contract signature, and if such request is duly accepted by icddr,b, then the Bidder require to submit a Bank Guarantee in the same amount as the advanced payment.

# TENDER DATA SHEET

The following data for the supply of goods and related services shall complement / supplement the provisions in the Instruction to Bidders. In the case of a conflict between the Instruction to Bidders and the Data Sheet, the provisions in the Data Sheet shall prevail**.**

| **DS No.** | **Data** | **Specific Instructions / Requirements** |
| --- | --- | --- |
| 1 | Project Owner: | * Biosafety Office and High Containment Facility |
| 2 | Title of Goods/Services/  Work Required: | * Supply, Installation, Testing and Commissioning of HVAC System for BSL-2 Lab at icddr,b |
| 3 | Location: | * Hospital Building level-8; Mohakhali, Dhaka, Bangladesh |
| 4 | Minimum Qualifying Criteria for technical screening process | All items under this clause are required to be submitted by the bidders including:   * All quoted items must comply with the specification /standard describe in this ITB document. * Valid and updated legal document: eTIN, BIN and Trade document * Information regarding any litigation, current or during the last 5 (five) years, in which the Bidder was/is involved, the parties concerned, and the disputed amounts and awards thereof. Self-declaration regarding debarment/blacklisting from vendor is mandatory * List and value of projects performed for the last 5 (five) years with similar nature and complexity, plus client’s contact details who may be contacted for further information on those contracts. Minimum 3 (three) experiences proof which are more than BDT1.00 Crore within last 3 (three) years from the date of submission of this tender is mandatory. * The Bidder must be financially solvent, must not bankrupt, tax payment defaulter. Updated Tax certificate and Bank solvency report are required. Certificate evidencing the bidder has established credit facilities with any schedule bank. Certificate issued by the bank should within 90 days of bid submission. * Qualifications & Experiences:   + - Bidder must submit the experience profile of their appointed/selected Engineer for this project, the qualification of such appointed/selected engineer shall be minimum graduation in Mechanical Engineering/EEE or equivalent and shall have minimum experience in 3 (three) HVAC installation as project Engineer.     - Bidder must submit their Human Resource profile where there shall be at least 2 (two) diploma engineers in the relevant field as project ground/direct supervisors in at least 3 (three) installation projects of cost not below BDT 1.00 Crore each. * Bidder must submit MAF from the manufacturer to participate in this bidding process. * Experience with icddr,b : Satisfactory past-performance record will be an determining factor for eligibility screening. * Partial quote [only supply or only service] will not be accepted. |
| 4 | Language of the Bid: | * English |
| 5 | Conditions for Submitting Bid for  Parts or sub-parts of the Total  Requirements | * Bidders are not allowed to submit bid partially. Partial submission will be considered as non-responsive. |
| 6 | Conditions for Submitting Alternative Bid | * Shall not be considered |
| 7 | A Pre-Bid conference will be held on: | * Date: **26th Aug 2020; 2:30 PM** * Venue: SCFM Conferences Room, Chiller Building 3rd Floor, icddr,b * Instructions to join Pre-bid:   + Bidder must confirm his participation through email to [supplychain@icddrb.org](mailto:supplychain@icddrb.org) at least 24 hours prior to bid conference, with his individual details. Please mention ‘Pre-Bid Meeting for HVAC System for BSL-2 Lab’ in your email subject.   + Only one participant from each company can join in the event. The participant must carry his photo-ID with him.   + Bidder can also join through online meeting in the session. |
| 8 | Period of Bid Validity commencing on the submission date | * 180 days |
| 9 | Bid Security | * Not Required |
| 10 | Acceptable forms of Bid Security | * Not Applicable |
| 11 | Validity of Bid Security | * Not Applicable |
| 12 | Advanced Payment upon signing of contract | * Not allowed |
| 13 | Liquidated Damages | * Will be imposed under the following conditions:   + Percentage of contract price per day of delay: 0.5% Max. no. of days of delay: 30 (Thirty) Calendar Days   + Next course of action: Thereafter, the contract may be terminated |
| 14 | Performance Security | * Required Amount: **10% of total Contract Amount** * Period: Successful bidder will be required to furnish the Performance Security for One Year [Warranty period]from the date of accomplishment of the work and final acceptance and certification by icddr,b. [e.g. If the project requiressix months for supply, installation, testing and commissioning then the performance security should have the validity for next one yearie. six months plus one year] |
| 15 | Preferred Currency of Bid and Method for Currency conversion | * For supply of equipment and related accessories: in US$/GBP/EURO/JPY * For works and related service: in BDT * icddr,b will use itsinternal Currency Conversion Rate for comparison |
| 16 | Deadline for submitting requests for clarifications/ questions | * 5 (Five) days before the date of bid submission |
| 17 | Contact Details for submitting clarifications/ questions | * E-mail address dedicated for this purpose: [supplychain@icddrb.org](mailto:supplychain@icddrb.org) * Any delay in icddr,b’s response shall be not used as a reason for extending the deadline for submission, unless icddr,b determines that such an extension is necessary and communicates a new deadline to the bidders. |
| 18 | Manner of Disseminating  Supplemental Information to the ITB and responses/clarifications to queries | * Direct communication to prospective Bidders by email |
| 19 | No. of copies of Bid that must be submitted | * Original: 1 (One) * Technical & Financial proposal must separate into two different envelop. Unable to comply with this ITB component might lead you to disqualification. |
| 20 | Deadline of Bid Submission | * Date and Time: **6th September 2020; at 2:30PM** * Location: IPH Building Ground Floor * Time Zone: Bangladesh Standard Time Zone (GMT+6) |
| 21 | Manner of Submitting Bid | * Paper based printed version (Hard Copy) * Bid must be in sealed condition * **Technical & Financial proposal must be separated** |
| 22 | Conditions and Procedures for electronic submission and opening, if allowed | * Electronic submission: NOT ALLOWED   [unless agreed by icddr,b management due to COVID-19 pandemicwhere physical visit may increase medical risk for both party ]   * Electronic Opening session: NOT ALLOWED |
| 23 | Evaluation method to be used in selecting the most responsive Bid | * Non-Discretionary “Pass/Fail” Criteria on the Technical Requirements; * Lowest responsive bidder may be invited for negotiation * Successful negotiated bid will be awarded the contract |
| 24 | Required Documents that must be Submitted to Establish Qualification of Bidders (In “**Certified True Copy**” form only) | * Company Profile, which should **not exceed fifteen (15) pages**, including printed brochures and product catalogues relevant to the goods/services being procured * Updated eTIN, BIN and Trade License. Failure to submit updated certificate will leads to non-qualification for evaluation. * Official Letter of Appointment from OEM to its local representative, in the form of Manufacturing Authorization Form [MAF]. Technical proposal will not be evaluated if Manufacturer authorization is not accompanied with the bidding document. * Relevant Quality Certificate (As describe in the Schedule-A) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any. * Latest Audited Financial Statement (Income Statement and Balance Sheet), Credit facility and Bank Solvency report * Statement of Satisfactory Performance from the 3 (three) Clients in terms of Contract Value not less than BDT 1.00 Crore in the past 5 (five) years; including their contact information. * 3 (three) reference work orders/ purchase orders which shall certify that the bidder has completed at least 3 HVAC works each of which had cost not less than BDT1.00 Crore in past 5 (five) years. Performance will be verified from the previous works. * Human resource Profile:   + Experience profile of their appointed/selected Engineer for this project, the qualification of such appointed/selected engineer shall be minimum graduation in Mechanical Engineering/EEE or equivalent and shall have minimum experience in 3 (three) HVAC installation as project Engineer.   + Experience profile where there shall be at least 2 (two) diploma engineers in the relevant field as project ground/direct supervisors in at least 3 (three) installation projects of cost not below BDT 1Crore each.   + Technicians having minimum 5 (five) years of experience and are qualified to perform the works. * All information regarding any past and current litigation during the last 5 (five) years, in which the bidder is involved, indicating the parties concerned, the subject of the litigation, the amounts involved, and the final resolution if already concluded. If there is none, **self-declaration of non-debarment status** by any entity for past five years is required. |
| 25 | Other documents that may be Submitted to Establish Eligibility | * N/A |
| 26 | Structure of the Technical Bid and List of Documents to be Submitted | * As mentioned above [Clause 24, Tender Data Sheet] |
| 27 | LatestExpected date for commencement | * Immediately |
| 28 | Maximum Expected duration of HVAC works | * Six Months [including supply of equipment and related accessories] |
| 29 | icddr,b will award the contract to: | * Lowest responsive Bidder |
| 30 | Criteria for the Award and Evaluation of Bid | **Award Criteria**   * Non-discretionary “**Pass**” or “**Fail**” rating on the detailed contents of the Schedule of Requirements and Technical Specifications * Compliance on the following qualification requirements:**BidEvaluation Criteria**   + Minimum number of years of experience in similar contracts: 5 (Five) years;   + Minimum number of contracts over the past 5 (five) years: Three Contracts which are not less than BDT1.00 Crore   + Full compliance of Bid to the Technical Requirements;   + Quality Inspection and Testing Certificates for the equipment/goods to be supplied;   + Country of origin and manufacturer of the goods;   + Warranty/After-sales service of 1 (One) years; from the date of final acceptance of completion of worksby icddr,b;   + Suitability of the Incoterms/payment terms/Delivery Schedule;   + Appropriateness of the Implementation Timetable to Project Schedule;   + Qualification of the Team Leader/Project Engineer/Ground supervisor;   + Qualification against financial capability, debarment status, past performance status. |
| 31 | Post qualification Actions | * Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted; * Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team; * Inquiry and reference checking with appropriate entities with jurisdiction on the bidder, * Inquiry and reference checking with other previous clients on the quality of performance on ongoing or previous contracts completed; * Testing and sampling of completed works similar to the requirements of icddr,b, if required for past performance check. |
| 32 | Conditions for Determining Contract Effectivity | * Upon duly signed Contract Agreement by icddr,b and Prospect Supplier(s). |
| 33 | Other Information Related to the ITB | * Not Applicable |

*This contact person and address mentioned in this ITB is officially designated by icddr,b. If inquiries are sent to other person/s or address/es, even if they are icddr,b staff, icddr,b shall have no obligation to respond nor can icddr,b confirm that the query was officially received.*

# SECTION 3a:

**SCHEDULE OF REQUIREMENTS AND TECHNICAL SPECIFICATIONS**

## Background / Rationale

According to needs assessment of Biosafety Office, icddr,b, different research projects are involving zoonotic pathogens, highly pathogenic infectious agents, and pathogens from outbreak investigations of even unknown origins for research and diagnostics. As a result, there is a basic need of dedicated common core BSL-2 laboratory to implement enhanced biosafety and biosecurity practices in research and diagnostic activities with those high risk pathogens. With aims to ensure maximum safety of the workers and the environment maximum security of the infectious materials handballed at icddr,b, the BSL-2 laboratory under the High Containment Facility is planned to be developed with multiple procedure rooms to work with, human, animal and specimens from infectious diseases outbreaks.

## Project Scope

## As outlined in BOQ - Supply, Installation and Commissioning of HVAC System for BSL-2 Lab; which include:

* Supply of Plant and Associated equipment including Air conditioner control Panel (ACP) as per Schedule-A
* Installation, as per Schedule-B
* Supply, Installation of Air distribution & Hydronic System as per Schedule-C
* Installed equipment shall construct a separate HVAC system without chilled water source and this separate HVAC system shall be integrated with existing HVAC system for chilled water supply and water return.
* Integration and adjustment with the existing negative pressure system in BSL 2 procedure rooms.
* Testing commissioning and certification of the entire system.

Spaces for installation of equipment have been determined and need to be accommodated as per design/drawing.

## Scope of Works and Design: Important Documents

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BoQ Document** | **Design Document** | | | **Non-Discloser Agreement Form** |
|  |  |  |  |  |

## SUMMARY OF REQUIREMENTS

| **SCHEDULE - A: PLANT & ASSOCIATED WOKS (SUPPLY)** | | | |
| --- | --- | --- | --- |
| **Si. No.** | **Description of Item of Work** | **Qty** | **Unit** |
| **1.0** | **FAN FILTER UNIT (FFU)** |  |  |
|  | Supply of Fan Filter unit having characteristics as mentioned below. |  |  |
|  | The Fan Filter Unit shall be floor mount type with return air inlet section, filter section(s) with air filters (viz. primary filter, intermediate filter and final filter), fan section with centrifugal fan coupled with Variable Frequency Drive (VFD) compatible electric motor, plenum section with exhaust air outlet, fresh air inlet & supply air outlet. The box shall be fitted with exhaust air damper, fresh air damper & return air damper and air flow measurement devices. All these dampers shall be coupled with motorized dampers and linkage for modulating air flow including supply of all other necessary hardware etc. complete in all respect. The fan motor shall comply IE-3 efficiency standard. The fan speed shall not be more than 1,000 rpm at its rated capacity. The unit shall operate when supplied with 400V±10%-3Ph-50Hz power. |  |  |
|  | **Characteristic of air filters shall be as follows :** |  |  |
| (a) f | Primary Filter : **G4 Standard** *(in accordance with EN779 classification)* |  |  |
| (b) f | Intermediate Filter : **F7 Standard** *(in accordance with EN779 classification)* |  |  |
| (c) f | Final Filter : **H14 Standard** *(in accordance with EN1822 classification)* |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
|  |  |  |  |
| **1.1** | **FFU – 01** |  |  |
|  | Air Flow Capacity : **5,125 cfm** | 1 | Set |
|  | ESP : **0.75" WG** |  |  |
|  |  |  |  |
| **1.2** | **FFU – 02** |  |  |
|  | Air Flow Capacity : **4,075 cfm** | 1 | Set |
|  | ESP : **0.75" WG** |  |  |
|  |  |  |  |
| **1.3** | **FFU – 03** |  |  |
|  | Air Flow Capacity : **5,100 cfm** | 1 | Set |
|  | ESP : **0.75" WG** |  |  |
|  | [Without plenum section] |  |  |
|  |  |  |  |
| **2.0** | **Y-STRAINER** |  |  |
|  | Supply of Y-Strainers as per following sizes including supply of all required fittings & accessories viz. flanges, bolts, gaskets etc. complete in all respect. The supplied items shall comply requirement of the technical specification. The working pressure shall not be lower than 150 Psig. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 2.1 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **3.0** | **FLEXIBLE PIPE CONNECTOR** |  |  |
|  | Supply of Flexible Pipe Connector as per following sizes including supply of all required fittings & accessories viz. flanges, bolts, gaskets etc. complete in all respect. The supplied items shall comply requirement of the technical specification. The working pressure shall not be lower than 150 Psig. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 3.1 | Ø 2" | 4 | Nos. |
|  |  |  |  |
| **4.0** | **WATER VALVES** |  |  |
|  | Supply of steel/ cast iron Water Valves of different sizes for use in chilled water pipe lines. The valves shall be flanged type for sizes upto and above Ø 2". Valve sizes below Ø 2" shall be threaded type. The unit shall conform to the detail technical specification and shall be complete with all standard fittings and accessories viz. flanges, bolts, gaskets etc. The working pressure shall not be lower than 150 Psig. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| **4.1** | **Gate/ Butterfly Valves** |  |  |
| 4.1.1 | Ø 3" | 2 | Nos. |
| 4.1.2 | Ø 2.5" | 2 | Nos. |
| 4.1.3 | Ø 2" | 8 | Nos. |
|  |  |  |  |
| **4.2** | **Other Types** |  |  |
| 4.2.1 | Ø 0.5" Automatic Vent Valve | 2 | Nos. |
|  |  |  |  |
| **5.0** | **PRESSURE INDEPENDENT BALANCING AND CONTROL VALVES (PIBCV)** |  |  |
|  | Supply of Pressure Independent Balancing and Control Valves (PIBCV) as per following sizes including supply of all standard fittings and accessories viz. flanges, bolts, gaskets etc. complete in all respect. The unit shall conform to detail technical specification. The working pressure shall not be lower than 150 Psig. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 5.1 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **6.0** | **METERING DEVICES** |  |  |
|  | Supply of following Metering Devices as per following sizes including supply of all standard fittings and accessories viz. flanges, bolts, gaskets etc. complete in all respect. The unit shall conform to detail technical specification. The working pressure shall not be lower than 150 Psig. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 6.1 | Pipe Thermometer (0 ~ 65°C) | 8 | Nos. |
| 6.2 | Pressure Gauge (0 ~ 2,000 kPa) | 8 | Nos. |
| 6.3 | Water Flow Meter |  |  |
| 6.3.1 | Ø 3" | 1 | No. |
| 6.3.2 | Ø 2.5" | 1 | No. |
| 6.3.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **7.0** | **AIR TERMINALS** |  |  |
| **7.1** | **CEILING MOUNT SUPPLY AIR DIFFUSER (SD)** |  |  |
|  | Supply of Ceiling Mount Supply Air Diffusers made of extruded Aluminium with powder coat paint. Each diffuser shall contain neck damper and all other components and shall conform to detail technical specification. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 7.1.1 | 24" x 24" Neck Size (4-way type) | 5 | Nos. |
| 7.1.2 | 24" x 24" Neck Size (3-way type) | 1 | No. |
| 7.1.3 | 18" x 18" Neck Size (3-way type) | 1 | No. |
| 7.1.4 | 15" x 15" Neck Size (3-way type) | 2 | Nos. |
| 7.1.5 | 12" x 12" Neck Size (3-way type) | 1 | No. |
|  |  |  |  |
| **7.2** | **CEILING MOUNT RETURN AIR GRILLE (RG)** |  |  |
|  | Supply of Egg crate type Ceiling Mount Return Air Grilles made of extruded aluminium with powder coat paint. Each grille shall be complete with neck damper and all other components and shall conform to detail technical specification. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 7.2.1 | 24" x 24" (Face Size) | 8 | Nos. |
| 7.2.2 | 15" x 15" (Face Size) | 1 | No. |
| **8.0** | **PRE-INSULATED PIPES** |  |  |
|  | Supply of Pre-Insulated Black Steel Pipes for chilled water piping system including cutting, edges preparation, welding, hanging etc. complete in all respect. The pipe shall be 40 Schedule Black Steel pipe and the insulation material shall be fibre glass/ polystyrene/ polyurethane of appropriate thickness (as per relevant British Standard) and jacketed with galvanized steel having thickness of 36 SWG at least. |  |  |
|  | Area where two pipe ends are to be joined and elbows, tees, reducers etc. shall be insulated by pre-formed fibre glass/ polyurethane insulation material and then jacketed. Pipe hanger/ isolator boxes with spring isolators, hanger rods, steel supports, all other materials and consumable in this connection shall be supplied by the Contractor under this head. The work shall be as per technical specification and sample approved by the Engineer-in-Charge. |  |  |
|  | *(****Country of Manufacture of Pipe :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
|  | *(****Country of Manufacture of Insulation :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| 8.1 | Ø 4" | 260 | rft. |
|  |  |  |  |
| **9.0** | **CONTROL PANEL** |  |  |
|  | Supply of Control Panels having characteristics as mentioned below. |  |  |
|  | *(****Country of Origin :*** *USA, EU Countries, Japan, Malaysia, Singapore)* |  |  |
| **9.1** | **AIR CONDITIONING CONTROL PANEL (ACP)** |  |  |
|  | The ACP shall contain all the components to regulate & control the operations of four sets of equipment/ machinery as described below. The ACP may be single cabinet or multi-cabinet type. It shall control & regulate functions of VFDs & other power control devices located inside the Air Conditioning Power Panel (ACPP) and other devices installed in the FFUs & AHUs viz. motorized dampers, chilled water flow control devices etc. to achieve the desired goal. The control panel shall house control devices, monitors, AC to DC power converter, voltage transformer and all other hardware for controlling & regulating operations of all these sets. All sensors/ transmitters (temperature, humidity, differential pressure), actuator including all field control devices are to be supplied and installed under this scope. The unit shall have ports to connect to the Room Control Console (RCC). The unit shall operate when supplied with 220V/ 1Ph/ 50Hz power. | 1 | Set |
| (a) | Set # 01 : AHU - 01 & Fan Filter Unit - 01 to be operated as a set. |  |  |
| (b) | Set # 02 : AHU - 02 & Fan Filter Unit - 02 to be operated as a set. |  |  |
| (c) | Set # 03 : AHU - 03 & Fan Filter Unit - 03 to be operated as a set. |  |  |
| (d) | Set # 04 : AHU - 04 to be operated as a set. |  |  |
|  | [The control features and sequence shall be as per detail provided in **"ANNEXURE - A"**.] |  |  |
|  | | | |
| **9.2** | **ROOM CONTROL CONSOLE** |  |  |
|  | The RCC shall be wall mount, microprocessor based, digital touch screen type. It shall contain all the sensors/ transmitters, transducers etc. for recording of room parameters, process and communicate with the ACP for control of room air parameters. | 3 | Set |
| **(i)** | **The unit shall have the following controlling features :** |  |  |
| (a) | Room temperature set points. |  |  |
| (b) | Occupied/ un-occupied set point. |  |  |
| (c) | Set point for differential pressure between room and adjoining corridor. |  |  |
|  |  |  |  |
| **(ii)** | **It shall monitor the followings :** |  |  |
| (a) | Dry bulb temperature of room air. |  |  |
| (b) | Relative humidity of room air. |  |  |
| (c) | Room air pressure. |  |  |
| (d) | Differential pressure between room and adjacent corridor. |  |  |
| (e) | AHU fan status (ON/ OFF/ TRIP) |  |  |
| (f) | FFU fan status (ON/ OFF/ TRIP) |  |  |
| (g) | The Unit shall initiate visual alarm (flashing) in the event of clogged air filters and room pressurization. |  |  |
|  |  |  |  |
|  | **Total CFR price of above items :** |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **SCHEDULE OF WORKS FOR HVAC SYSTEM OF BSL-2 LAB** | |  |  |
|  |  |  |  |
| **SCH.- B: PLANT & ASSOCIATED WORKS (INSTALLATION, TESTING AND COMMISSIONING)** | | | |
| *[Items are either supplied vide Sch - A or will be provided by the Authority/ Client]* | | |  |
| **Si. No.** | **Description of Item of Work** | **Qty** | **Unit** |
| **1.0** | **AIR HANDLING UNIT (AHU) *[1]*** |  |  |
|  | Installation, testing & commissioning of Air Handling Units (AHU) having characteristics as mentioned below. The unit shall operate when supplied with 400V±10%/ 3Ph/ 50Hz power and compatible to run with VFD for air flow control. |  |  |
|  | The unit shall be installed on steel structural members designed for this purpose and installed on the roof of BSL-2 laboratory. Lifting, cleaning, installing, adjusting, testing & commissioning works also include within this head. Work of making steel frames shall be considered within this head including supply of vibration isolators, hangers, supports, all other materials and consumables etc. complete in all respect. The work shall be done as per instructions of Consultant/ Engineer-in-Charge. |  |  |
| **1.1** | **AHU – 01** |  |  |
|  | Air Flow Capacity : 5,500 cfm | 1 | Set |
|  | Fan ESP : 0.75" WG |  |  |
|  |  |  |  |
| **1.2** | **AHU – 02** |  |  |
|  | Air Flow Capacity : 5,000 cfm | 1 | Set |
|  | Fan ESP : 0.75" WG |  |  |
|  |  |  |  |
| **1.3** | **AHU – 03** |  |  |
|  | Air Flow Capacity : 6,000 cfm | 1 | Set |
|  | Fan ESP : 2.0" WG |  |  |
|  |  |  |  |
| **1.4** | **AHU – 04** |  |  |
|  | Air Flow Capacity : 3,000 cfm | 1 | Set |
|  | Fan ESP : 0.5" WG |  |  |
|  |  |  |  |
| **2.0** | **FAN FILTER UNIT *[2]*** |  |  |
|  | Installation, testing & commissioning of Fan Filter Unit having characteristics described in **Sch. -A**. |  |  |
|  | The unit shall be installed on steel structural members designed for this purpose and installed on the roof of BSL-2 laboratory. Lifting, cleaning, installing, adjusting, testing & commissioning works also include within this head. Work of making steel frames shall be considered within this head including supply of vibration isolators, hangers, supports, all other materials and consumables etc. complete in all respect. The work shall be done as per instructions of Consultant/ Engineer-in-Charge. |  |  |
| **2.1** | **FFU – 01** |  |  |
|  | Air Flow Capacity : **5,125 cfm** | 1 | Set |
|  |  |  |  |
| **2.2** | **FFU – 02** |  |  |
|  | Air Flow Capacity : **4,075 cfm** | 1 | Set |
|  |  |  |  |
| **2.3** | **FFU – 03** |  |  |
|  | Air Flow Capacity : **5,100 cfm** | 1 | Set |
|  |  |  |  |
| **3.0** | **EXHAUST AIR FANS (EAF) *[1]*** |  |  |
|  | Installation, testing and commissioning of Centrifugal type Exhaust Air Fans as per following capacities. The unit operates when supplied with 220V-1Ph-50Hz. |  |  |
|  | The unit shall be installed on steel structural members designed for this purpose and installed on the roof of BSL-2 laboratory. The work also includes lifting, cleaning, installing, adjusting, testing & commissioning etc. complete in all respect. Work of making steel frames shall be considered within this head including supply of hangers, supports, all other materials and consumables etc. complete in all respect. The work shall be done as per instructions of Consultant/ Engineer-in-Charge. |  |  |
| **3.1** | **EAF-01** |  |  |
|  | Fan Type : In-Line Ducted type |  |  |
|  | Air Flow Capacity : 553 cfm | 1 | Set |
|  | ESP : 0.32" WG |  |  |
|  |  |  |  |
| **4.0** | **Y-STRAINER *[1]+[2]*** |  |  |
|  | Installation and testing of Y-Strainers as per following sizes. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| 4.1 | Ø 3" | 1 | No. |
| 4.2 | Ø 2.5" | 1 | No. |
| 4.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **5.0** | **FLEXIBLE PIPE CONNECTOR*[1]+[2]*** |  |  |
|  | Installation and testing of Flexible Pipe Connector as per following sizes. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| 5.1 | Ø 3" | 2 | Nos. |
| 5.2 | Ø 2.5" | 2 | Nos. |
| 5.3 | Ø 2" | 4 | Nos. |
|  |  |  |  |
| **6.0** | **WATER VALVES*[1]+[2]*** |  |  |
|  | Installation and testing of Water Valves of different sizes for use in chilled water lines. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| **6.1** | **Gate/ Butterfly Valves** |  |  |
| 6.1.1 | Ø 3" | 4 | Nos. |
| 6.1.2 | Ø 2.5" | 4 | Nos. |
| 6.1.3 | Ø 2" | 8 | Nos. |
|  |  |  |  |
| **6.2** | **Other Types** |  |  |
| 6.2.1 | Ø 0.5" Automatic Vent Valve | 2 | Nos. |
| 6.2.2 | Ø 1" Drain Cock | 4 | Nos. |
|  |  |  |  |
| **7.0** | **PRESSURE INDEPENDENT BALANCING AND CONTROL VALVES (PIBCV)*[1]+[2]*** |  |  |
|  | Installation, testing and commissioning of Pressure Independent Balancing and Control Valves (PIBCV) as per following sizes. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| 7.1 | Ø 3" | 1 | No. |
| 7.2 | Ø 2.5" | 1 | No. |
| 7.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **8.0** | **METERING DEVICES*[2]*** |  |  |
|  | Installation, testing and commissioning of Metering Devices having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. |  |  |
| 8.1 | Pipe Thermometer (0 ~ 65°C) | 8 | Nos. |
| 8.2 | Pressure Gauge (0 ~ 2,000 kPa) | 8 | Nos. |
| **8.3** | **Water Flow Meter** |  |  |
| 8.3.1 | Ø 3" | 1 | No. |
| 8.3.2 | Ø 2.5" | 1 | No. |
| 8.3.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **9.0** | **AIR TERMINALS *[2]*** |  |  |
| **9.1** | **CEILING MOUNT SUPPLY AIR DIFFUSER (SD)** |  |  |
|  | Installation, testing and commissioning of Ceiling Mount Supply Air Diffusers having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. |  |  |
| 9.1.1 | 24" x 24" Neck Size (4-way type) | 5 | Nos. |
| 9.1.2 | 24" x 24" Neck Size (3-way type) | 1 | No. |
| 9.1.3 | 18" x 18" Neck Size (3-way type) | 1 | No. |
| 9.1.4 | 15" x 15" Neck Size (3-way type) | 2 | Nos. |
| 9.1.5 | 12" x 12" Neck Size (3-way type) | 1 | No. |
|  |  |  |  |
| **9.2** | **CEILING MOUNT RETURN AIR GRILLE (RG)** |  |  |
|  | Installation, testing and commissioning of Egg crate type Ceiling Mount Return Air Grilles having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. |  |  |
| 9.2.1 | 24" x 24" (Face Size) | 8 | Nos. |
| 9.2.2 | 15" x 15" (Face Size) | 1 | No. |
|  |  |  |  |
| **10.0** | **PRE-INSULATED PIPES*[1]+[2]*** |  |  |
|  | Cleaning, installing, laying, fitting, fixing & testing of chilled water pipes including supply of all ancillary materials and consumables. Installation of all necessary pipe fittings viz. elbows, tees, reducers, pipe hangers/ isolator boxes, support, hanger rods including cutting, edges preparation, welding etc. all are included within the head. The work shall be complete as per instruction of Engineer-in-Charge and sample shall be approved by the Consultant/ Engineer-in-Charge. |  |  |
| 10.1 | Ø 4" | 400 | rft. |
| 10.2 | Ø 3" | 50 | rft. |
| 10.3 | Ø 2.5" | 70 | rft. |
| 10.4 | Ø 2" | 100 | rft. |
|  |  |  |  |
| **11.0** | **CONTROL PANEL*[2]*** |  |  |
| **11.1** | **AIR CONDITIONING CONTROL PANEL (ACP)** |  |  |
|  | Installation, testing and commissioning of AHU Control Panel having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. | 1 | Set |
|  |  |  |  |
| **11.2** | **ROOM CONTROL CONSOLE (RCC)** |  |  |
|  | Installation, testing and commissioning of Room control Console having characteristics as described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. | 3 | Sets |
|  |  |  |  |
| **12.0** | **METAL DUCTING : FABRICATION, INSTALLATION & TESTING WORKS** |  |  |
|  | Fabrication, installation & testing of metal ducts of different sizes as per drawing including supply of duct hanger/ isolator boxes, hanger rods, steel supports, all other materials and consumables etc. complete in all respect except duct metal sheet which are already in site. The work shall be complete as per instruction of Engineer-in-Charge. |  |  |
| 12.1 | Ducts made of 22 ~ 24 SWG GP Sheets | 3,000 | sq.ft |
|  |  |  |  |
| **13.0** | **DUCT INSULATION (OUTSIDE) : FABRICATION & INSTALLATION WORKS** |  |  |
|  | Fabrication & installation of insulation on the outside surface of metal ducts as per drawing including supply of all relevant materials and consumables complete in all respect except insulation material which is already in site. The work shall be complete as per instruction of Engineer-in-Charge. |  |  |
| 13.1 | Insulation Material : Closed-Cell Elastomeric Nitrile Rubber |  |  |
|  | Insulation Thickness : 19 mm | 3,000 | sq.ft |
|  | **Total price of above items :** |  |  |
|  |  |  |  |
|  |  |  |  |
|  | **Notes** |  |  |
| **1** | **Main Items are to be provided by ICDDR,B and accessories need to provide by bidder.** | | |
| **2** | **Should the bidder feels that any essential work is missing in the BOQ, they will be add their discretion same and offer the cost as well.** | | |
|  |  |  |  |
|  |  | | |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **SCHEDULE OF WORKS FOR HVAC SYSTEM OF BSL-2 LAB** | |  |  |
|  |  |  |  |
| **Sch.- B: PLANT & ASSOCIATED WORKS (INSTALLATION, TESTING AND COMMISSIONING)** | | | |
| *[Items are either supplied vide Sch - A or will be provided by the Authority/ Client]* | | |  |
| **Si. No.** | **Description of Item of Work** | **Qty** | **Unit** |
| **1.0** | **AIR HANDLING UNIT (AHU) *[1]*** |  |  |
|  | Installation, testing & commissioning of Air Handling Units (AHU) having characteristics as mentioned below. The unit shall operate when supplied with 400V±10%/ 3Ph/ 50Hz power and compatible to run with VFD for air flow control. |  |  |
|  | The unit shall be installed on steel structural members designed for this purpose and installed on the roof of BSL-2 laboratory. Lifting, cleaning, installing, adjusting, testing & commissioning works also include within this head. Work of making steel frames shall be considered within this head including supply of vibration isolators, hangers, supports, all other materials and consumables etc. complete in all respect. The work shall be done as per instructions of Consultant/ Engineer-in-Charge. |  |  |
| **1.1** | **AHU - 01** |  |  |
|  | Air Flow Capacity : 5,500 cfm | 1 | Set |
|  | Fan ESP : 0.75" WG |  |  |
|  |  |  |  |
| **1.2** | **AHU - 02** |  |  |
|  | Air Flow Capacity : 5,000 cfm | 1 | Set |
|  | Fan ESP : 0.75" WG |  |  |
|  |  |  |  |
| **1.3** | **AHU - 03** |  |  |
|  | Air Flow Capacity : 6,000 cfm | 1 | Set |
|  | Fan ESP : 2.0" WG |  |  |
|  |  |  |  |
| **1.4** | **AHU - 04** |  |  |
|  | Air Flow Capacity : 3,000 cfm | 1 | Set |
|  | Fan ESP : 0.5" WG |  |  |
|  |  |  |  |
| **2.0** | **FAN FILTER UNIT *[2]*** |  |  |
|  | Installation, testing & commissioning of Fan Filter Unit having characteristics described in **Sch. -A**. |  |  |
|  | The unit shall be installed on steel structural members designed for this purpose and installed on the roof of BSL-2 laboratory. Lifting, cleaning, installing, adjusting, testing & commissioning works also include within this head. Work of making steel frames shall be considered within this head including supply of vibration isolators, hangers, supports, all other materials and consumables etc. complete in all respect. The work shall be done as per instructions of Consultant/ Engineer-in-Charge. |  |  |
| **2.1** | **FFU - 01** |  |  |
|  | Air Flow Capacity : **5,125 cfm** | 1 | Set |
|  |  |  |  |
| **2.2** | **FFU - 02** |  |  |
|  | Air Flow Capacity : **4,075 cfm** | 1 | Set |
|  |  |  |  |
| **2.3** | **FFU - 03** |  |  |
|  | Air Flow Capacity : **5,100 cfm** | 1 | Set |
|  |  |  |  |
| **3.0** | **EXHAUST AIR FANS (EAF) *[1]*** |  |  |
|  | Installation, testing and commissioning of Centrifugal type Exhaust Air Fans as per following capacities. The unit operates when supplied with 220V-1Ph-50Hz. |  |  |
|  | The unit shall be installed on steel structural members designed for this purpose and installed on the roof of BSL-2 laboratory. The work also includes lifting, cleaning, installing, adjusting, testing & commissioning etc. complete in all respect. Work of making steel frames shall be considered within this head including supply of hangers, supports, all other materials and consumables etc. complete in all respect. The work shall be done as per instructions of Consultant/ Engineer-in-Charge. |  |  |
| **3.1** | **EAF-01** |  |  |
|  | Fan Type : In-Line Ducted type |  |  |
|  | Air Flow Capacity : 553 cfm | 1 | Set |
|  | ESP : 0.32" WG |  |  |
|  |  |  |  |
| **4.0** | **Y-STRAINER *[1]+[2]*** |  |  |
|  | Installation and testing of Y-Strainers as per following sizes. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| 4.1 | Ø 3" | 1 | No. |
| 4.2 | Ø 2.5" | 1 | No. |
| 4.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **5.0** | **FLEXIBLE PIPE CONNECTOR*[1]+[2]*** |  |  |
|  | Installation and testing of Flexible Pipe Connector as per following sizes. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| 5.1 | Ø 3" | 2 | Nos. |
| 5.2 | Ø 2.5" | 2 | Nos. |
| 5.3 | Ø 2" | 4 | Nos. |
|  |  |  |  |
| **6.0** | **WATER VALVES*[1]+[2]*** |  |  |
|  | Installation and testing of Water Valves of different sizes for use in chilled water lines. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| **6.1** | **Gate/ Butterfly Valves** |  |  |
| 6.1.1 | Ø 3" | 4 | Nos. |
| 6.1.2 | Ø 2.5" | 4 | Nos. |
| 6.1.3 | Ø 2" | 8 | Nos. |
|  |  |  |  |
| **6.2** | **Other Types** |  |  |
| 6.2.1 | Ø 0.5" Automatic Vent Valve | 2 | Nos. |
| 6.2.2 | Ø 1" Drain Cock | 4 | Nos. |
|  |  |  |  |
| **7.0** | **PRESSURE INDEPENDENT BALANCING AND CONTROL VALVES (PIBCV)*[1]+[2]*** |  |  |
|  | Installation, testing and commissioning of Pressure Independent Balancing and Control Valves (PIBCV) as per following sizes. The work shall include lifting & cleaning works, supply of all relevant materials & consumables etc. complete in all respect and as per instruction of Consultant/ Engineer-in-Charge. |  |  |
| 7.1 | Ø 3" | 1 | No. |
| 7.2 | Ø 2.5" | 1 | No. |
| 7.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **8.0** | **METERING DEVICES*[2]*** |  |  |
|  | Installation, testing and commissioning of Metering Devices having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. |  |  |
| 8.1 | Pipe Thermometer (0 ~ 65°C) | 8 | Nos. |
| 8.2 | Pressure Gauge (0 ~ 2,000 kPa) | 8 | Nos. |
| **8.3** | **Water Flow Meter** |  |  |
| 8.3.1 | Ø 3" | 1 | No. |
| 8.3.2 | Ø 2.5" | 1 | No. |
| 8.3.3 | Ø 2" | 2 | Nos. |
|  |  |  |  |
| **9.0** | **AIR TERMINALS *[2]*** |  |  |
| **9.1** | **CEILING MOUNT SUPPLY AIR DIFFUSER (SD)** |  |  |
|  | Installation, testing and commissioning of Ceiling Mount Supply Air Diffusers having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. |  |  |
| 9.1.1 | 24" x 24" Neck Size (4-way type) | 5 | Nos. |
| 9.1.2 | 24" x 24" Neck Size (3-way type) | 1 | No. |
| 9.1.3 | 18" x 18" Neck Size (3-way type) | 1 | No. |
| 9.1.4 | 15" x 15" Neck Size (3-way type) | 2 | Nos. |
| 9.1.5 | 12" x 12" Neck Size (3-way type) | 1 | No. |
|  |  |  |  |
| **9.2** | **CEILING MOUNT RETURN AIR GRILLE (RG)** |  |  |
|  | Installation, testing and commissioning of Egg crate type Ceiling Mount Return Air Grilles having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. |  |  |
| 9.2.1 | 24" x 24" (Face Size) | 8 | Nos. |
| 9.2.2 | 15" x 15" (Face Size) | 1 | No. |
|  |  |  |  |
| **10.0** | **PRE-INSULATED PIPES*[1]+[2]*** |  |  |
|  | Cleaning, installing, laying, fitting, fixing & testing of chilled water pipes including supply of all ancillary materials and consumables. Installation of all necessary pipe fittings viz. elbows, tees, reducers, pipe hangers/ isolator boxes, support, hanger rods including cutting, edges preparation, welding etc. all are included within the head. The work shall be complete as per instruction of Engineer-in-Charge and sample shall be approved by the Consultant/ Engineer-in-Charge. |  |  |
| 10.1 | Ø 4" | 400 | rft. |
| 10.2 | Ø 3" | 50 | rft. |
| 10.3 | Ø 2.5" | 70 | rft. |
| 10.4 | Ø 2" | 100 | rft. |
|  |  |  |  |
| **11.0** | **CONTROL PANEL*[2]*** |  |  |
| **11.1** | **AIR CONDITIONING CONTROL PANEL (ACP)** |  |  |
|  | Installation, testing and commissioning of AHU Control Panel having characteristics described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. | 1 | Set |
|  |  |  |  |
| **11.2** | **ROOM CONTROL CONSOLE (RCC)** |  |  |
|  | Installation, testing and commissioning of Room control Console having characteristics as described in **Sch. - A** including supply of all relevant materials and consumables complete in all respect. | 3 | Sets |
|  |  |  |  |
| **12.0** | **METAL DUCTING : FABRICATION, INSTALLATION & TESTING WORKS** |  |  |
|  | Fabrication, installation & testing of metal ducts of different sizes as per drawing including supply of duct hanger/ isolator boxes, hanger rods, steel supports, all other materials and consumables etc. complete in all respect except duct metal sheet which are already in site. The work shall be complete as per instruction of Engineer-in-Charge. |  |  |
| 12.1 | Ducts made of 22 ~ 24 SWG GP Sheets | 3,000 | sq.ft |
|  |  |  |  |
| **13.0** | **DUCT INSULATION (OUTSIDE) : FABRICATION & INSTALLATION WORKS** |  |  |
|  | Fabrication & installation of insulation on the outside surface of metal ducts as per drawing including supply of all relevant materials and consumables complete in all respect except insulation material which is already in site. The work shall be complete as per instruction of Engineer-in-Charge. |  |  |
| 13.1 | Insulation Material : Closed-Cell Elastomeric Nitrile Rubber |  |  |
|  | Insulation Thickness : 19 mm | 3,000 | sq.ft |
|  | **Total price of above items :** |  |  |
|  |  |  |  |
|  |  |  |  |
|  | **Notes** |  |  |
| **1** | **Main Items are to be provided by ICDDR,B and accessories need to provide by bidder.** | | |
| **2** | **Should the bidder feels that any essential work is missing in the BOQ, they will be add their discretion same and offer the cost as well.** | | |
|  |  |  |  |
|  |  |  |  |

# **SECTION 3b**:

**RELATED SERVICES**

Further to the Schedule of Requirements in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfilment of the requirements:

| **No.** | **Related Services** | **Terms / Responsibilities** |
| --- | --- | --- |
| 1 | Delivery Terms  [INCOTERMS 2010] | * For Supply of items : CFR CTG * For Works : DDP Mohakhali, Dhaka |
| 2 | Exact Address of Delivery/Installation Location | * icddr,b   68 Shaheed Tahuddin Ahmed Sharani  Mohakhali, Dhaka 1212 |
| 3 | Mode of Transport Preferred | * As applicable by delivery terms |
| 4 | Icddr,b Preferred Freight Forwarder, if any | * N/A |
| 5 | Distribution of shipping documents ***(if using freight forwarder)*** | * For Supply: Three (3) Original Manufacturer Invoices, Bill of Lading (B/L), Three (3) Original Packing List, Two (2) Original Certificate of Country of Origin(C/O), Other documents as per LC terms * For works : Three (3) Original copy of Bill, Three (3) Original copy of Challan, VAT Challan |
| 6 | Delivery Date | * As per agreed delivery terms |
| 7 | Customs, if needed, clearing shall be done by: | * Consignee : icddr,b * Clearing job: will be done by icddr,b nominated C&F agent |
| 8 | Ex-factory / Pre-shipment inspection | * N/A |
| 9 | Inspection upon delivery | * Joint inspection by icddr,b personnel, icddr,b appointed technical expert and the supplier. |
| 10 | Installation Requirements | * As per icddr,b terms |
| 11 | Testing Requirements | * As per icddr,b terms |
| 12 | Scope of Training on Operation and Maintenance | * N/A |
| 13 | Commissioning | * In responsibility of the Supplier |
| 14 | Technical Support Requirements | * The Supplier will ensure provision of technical support via telephone, electronic mail or any other appropriate means of communication for a period not less than five (5) years after installation and final commissioning. |
| 15 | Payment Terms | * For Supply of equipment and related accessories: Letter of Credit * For works and related services: Through BEFTN * 50% payment will be processed upon completion of works as per   as per Schedule-A and B   * + The rest 50% payment will be processed within 30 days upon final acceptance and certification of the goods delivered, installed, commissioned and work accomplished as specified in the BoQ and scope of works. |
| 16 | Conditions for Release of Payment | * Supply of Items * Inspection and testing * Commissioning and certification * Acceptance of the entire system meeting ITB requirements |
| 17 | After-sale services required | * Warranty 01(one) year;after successful accomplishment of works by the contractor and subsequent acceptance and certificationby icddr,b * Maintenance, Technical Support and Operational Training |
| 18 | All documentations, including catalogs, instructions and operating manuals, shall be in this language | * English |

# SECTION 4: GENERAL TERMS AND CONDITIONS FOR GOODS

### ACCEPTANCE OF THE PURCHASE ORDER

This Purchase Order may only be accepted by the Supplier's signing and returning an acknowledgement copy of it or by timely delivery of the goods in accordance with the terms of this Purchase Order, as herein specified. Acceptance of this Purchase Order shall effect a contract between the Parties under which the rights and obligations of the Parties shall be governed solely by the terms and conditions of this Purchase Order, including these General Conditions. No additional or inconsistent provisions proposed by the Supplier shall bind icddr,b unless agreed to in writing by a duly authorized official of icddr,b.

### PAYMENT

2.1.1 icddr,b shall, on fulfilment of the Delivery Terms, unless otherwise provided in this Purchase Order/Contract, make payment within 30 days of receipt of the Supplier's invoice certified by icddr,b for the goods, works and related services are supplied.

2.1.3 Unless authorized by icddr,b, the Supplier shall submit Three invoices in respect of the Purchase Order, and such invoices must indicate the Purchase Order's identification number.

2.1.4 The prices shown in this Purchase Order may not be increased except by express written agreement of icddr,b.

### RISK OF LOSS

Risk of loss, damage to or destruction of the goods shall be governed in accordance with Incoterms 2010, unless otherwise agreed upon by the Parties on the front side of this Purchase Order.

### EXPORT LICENCES

Notwithstanding any INCOTERM 2010 used in this Purchase Order, the Supplier shall obtain any import/export licences required for the goods.

### FITNESS OF GOODS/PACKAGING

The Supplier warrants that the goods, including packaging, conform to the specifications for the goods ordered under this Purchase Order and are fit for the purposes for which such goods are ordinarily used and for purposes expressly made known to the Supplier by icddr,b, and are free from defects in workmanship and materials. The Supplier also warrants that the goods are contained or packaged adequately to protect the goods.

### INSPECTION

* 1. icddr,b shall have a reasonable time after delivery of the goods to inspect them and to reject and refuse acceptance of goods not conforming to this Purchase Order; payment for goods pursuant to this Purchase Order shall not be deemed an acceptance of the goods.
  2. Inspection prior to shipment does not relieve the Supplier from any of its contractual obligations.

### INTELLECTUAL PROPERTY INFRINGEMENT

The Supplier warrants that the use or supply by icddr,b of the goods sold under this Purchase Order does not infringe any patent, design, trade-name or trade-mark. In addition, the Supplier shall, pursuant to this warranty, indemnify, defend and hold icddr,b and icddr,b harmless from any actions or claims brought against icddr,b or icddr,b pertaining to the alleged infringement of a patent, design, trade-name or trade-mark arising in connection with the goods sold under this Purchase Order.

### RIGHTS OF icddr,b

In case of failure by the Supplier to fulfil its obligations under the terms and conditions of this Purchase Order, including but not limited to failure to obtain necessary export licences, or to make delivery of all or part of the goods by the agreed delivery date or dates, icddr,b may, after giving the Supplier reasonable notice to perform and without prejudice to any other rights or remedies, exercise one or more of the following rights:

* 1. Procure all or part of the goods from other sources, in which event icddr,b may hold the Supplier responsible for any excess cost occasioned thereby.
  2. Refuse to accept delivery of all or part of the goods.
  3. Cancel this Purchase Order without any liability for termination charges or any other liability of any kind of icddr,b.

### LATE DELIVERY

Without limiting any other rights or obligations of the parties hereunder, if the Supplier will be unable to deliver the goods by the delivery date(s) stipulated in this Purchase Order, the Supplier shall (i) immediately consult with icddr,b to determine the most expeditious means for delivering the goods and (ii) use an expedited means of delivery, at the Supplier's cost (unless the delay is due to Force Majeure), if reasonably so requested by icddr,b.

### WARRANTY AND GUARANTEE

The Supplier shall guarantee the workmanship of the work completed under this contract for a one year period from the date icddr,b accepts the work as completed. During the guarantee period, the Service provider shall correct and/or repair, at no cost to icddr,b, any damages and/or deficiencies that may be attributed to the materials and workmanship provided by the Supplier under this contract. The Supplier shall provide all labour, materials, equipment, at their own expense, to perform the repair and/or correction.

### ASSIGNMENT AND INSOLVENCY

* 1. The Supplier shall not, except after obtaining the written consent of icddr,b, assign, transfer, pledge or make other disposition of this Purchase Order, or any part thereof, or any of the Supplier's rights or obligations under this Purchase Order.
  2. Should the Supplier become insolvent or should control of the Supplier change by virtue of insolvency, icddr,b may, without prejudice to any other rights or remedies, immediately terminate this Contract/Purchase Order by giving the Supplier written notice of termination.

### USE OF icddr,b NAME OR EMBLEM

The Supplier shall not use the name, emblem or official seal of icddr,b for any purpose.

### PROHIBITION ON ADVERTISING

The Supplier shall not advertise or otherwise make public that it is furnishing goods or services to icddr,b without specific permission of icddr,b in each instance.

### CHILD LABOUR

The Supplier represents and warrants that neither it nor any of its affiliates is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

Any breach of this representation and warranty shall entitle icddr,b to terminate this Purchase Order immediately upon notice to the Supplier, without any liability for termination charges or any other liability of any kind of icddr,b.

### OFFICIALS NOT TO BENEFIT:

The Contractor warrants that no official of icddr,b has received or will be offered by the Contractor any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of this Contract.