

Request for Quotation (RFQ)

RFQ Title	Redesign and upgrade two existing government TB laboratories to BSL-2+ category
Date of Issue	July 3, 2020
Quotation Submission Deadline	July 30, 2020 at 5:00 PM Bangladesh Time
Offer Submission Requirement	Offer/Quotation to be submitted by email to sbiswas@fhi360.org
Questions Due Date	July 15, 2020; 5 PM Bangladesh Time. Submit questions to sbiswas@fhi360.org
Answers Due Date	July 20, 2020; Answers will be sent through email

A. Background

The Infectious Disease Detection and Surveillance (IDDS) project is funded by the United States Agency for International Development (USAID). In Bangladesh, the IDDS project is designed to increase detection of TB with focus on strengthening the TB laboratory network. IDDS is implemented by FHI 360 in Bangladesh in collaboration with the National TB Control Programme (NTP) and other local and international organizations.

The IDDS project invites quotations from competent design and engineering firms having sound technical knowledge and proven experience in designing and establishing laboratories with standard biosafety systems. The scope of work includes redesigning and renovating two existing government TB laboratories and upgrading them to Biosafety Level 2+ (BSL-2+) with directional airflow at a minimum and performing refurbishments to make them fit for purpose as required for conducting molecular diagnosis and conventional and liquid culture and Drug Susceptibility Testing (DST) for TB. Specific work includes planning, design, procurement and installation of Heating, Ventilation and Air Conditioning (HVAC) and associated systems, completing all refurbishment works, and commissioning, validating and certification of the laboratories. The laboratories selected for this work are Rajshahi Regional TB Reference Laboratory (RTRL) and the Shyamoli TB Hospital in Dhaka. The detailed specification of the work is given below.

The prospective Bidders are advised to read the Bid documents carefully and visit the sites, at their own cost, to understand and assess the work requirement and scope. The IDDS project will facilitate approval of NTP for the interested engineering firms to visit the sites for this purpose.

B. Technical Specifications

1. Scope of work

The overall scope of work is to redesign and upgrade the existing two government laboratories, Rajshahi RTRL and Shyamoli TB Hospital, as BSL-2+ laboratories including procurement and installation of biosafety equipment and systems and required refurbishments of the facilities on a Turnkey Basis. The contractor is required to complete all works in accordance with the World Health Organization (WHO) Guidelines and the Centers for Disease Control (CDC) and the National Institutes of Health (NIH) *Biosafety in Microbiological and Biomedical Laboratories Guidelines* (BMBL Level 3 Certification Requirements).

- a) Preparation of architectural layout plan preferably developed using CAD redesigning the existing two laboratories as BSL-2+ category laboratory to accommodate liquid culture and Line Probe Assay (LPA) facilities.
- b) Detailed design and engineering works, plumbing system, electrical system, HVAC system, Door Interlock and Access Control system, Building Management System (BMS) and other required and associated systems and services for the proposed 2 laboratories as per BSL-2+ standard.
- c) Finalize the layout based on the assessment and user's requirements and in consultation with IDDS.
- d) Procure and supply all the required equipment and materials to carry out HVAC works, electrical works, sanitary and plumbing works, BMS works, and other refurbishments as required for the proposed BSL 2+ laboratory.
- e) Installation of equipment and systems for the proposed BSL-2+ laboratories as per the final design and drawings.
- f) Testing and commissioning of various equipment, items, systems and services supplied and installed in the proposed BSL-2+ laboratory facility.
- g) Validation of complete BSL-2+ laboratory as per international guidelines (WHO/CDC) and country standards.
- h) Training of the laboratory staff on routine maintenance and operations as it pertains to use of the installed safety equipment and systems.
- i) Certification of the laboratory before handing over to the respective facilities including all documentation of the certification.

2. Proposed and desired areas in the laboratories

The proposed BSL-2+ Laboratory facility shall be planned to have the following areas and facilities:

- Entry Air-Lock
- Change Room (entry and exit)
- Pass through box
- Steam pressure sterilizer
- Designated space for liquid culture and LPA
- Adequate separation of rooms intended for LPA testing

- Adequate negative pressure in the rooms to ensure no accidental release of pathogens with systems to continually monitor air pressure in the rooms
- Adequate inward air flow to prevent release of pathogens and filtering before release to the external atmosphere
- Ergonomically planned and designed work stations and storage areas
- Sufficient hand washing sinks with elbow operated taps
- Space for donning/doffing of personal protective equipment
- Emergency hand and eye wash station (soap dispenser, hands-free tap, paper towel dispenser, hooks for holding gowns, waste bin, etc.)
- Emergency exit
- Access point for biological samples to be dropped off for testing and exit point for infectious biological waste to be collected for disposal
- Documentation room
- Toilet

3. Facility planning, design and engineering

The laboratory area shall be planned and designed as per the above stated requirement and in accordance with the international guidelines.

4. Refurbishment work

- a. Complete all refurbishment works for the ceiling, walls and floors as required for redesigning and upgrading the facilities to BSL-2+ standard and suitable for liquid culture, DST and molecular LPA.
- b. All works related to internal partitions, ceiling, floor, and associated support areas shall be carried out seamlessly with standard materials as recommended for BSL-2+ category laboratory.
- c. Wall to wall, wall to floor and wall to ceiling corners shall be provided with covering of appropriate thickness as per standard.
- d. The wall and ceiling surface shall be finished with Epoxy or similar paint to provide impervious, monolithic, chemical resistant (organic solvents, acids and alkalis), antibacterial and antifungal finish and allow use of wide range of chemicals for fumigation of laboratory space.
- e. The flooring shall be done in 3 mm thick Self Leveling Epoxy.
- f. All the penetrations/cutouts/openings made in the walls and ceilings shall be sealed with epoxy sealant.
- g. Emergency hand and eye wash station shall be provided. Hand wash stations shall be provided with hands free taps.
- h. Emergency exit shall be provided for safe exit from the laboratory.
- i. Replace/repair windows with standard glass panels. Windows shall be properly sealed and not able to be opened.

- j. The doors shall be made with standard materials as appropriate for BSL+2 laboratory and complete with door closer, handle and lock, etc. The Door Interlock system shall be complete with door electromagnets, door release push buttons, control and power wiring and cabling and other required accessories and hardware.

5. Heating, Ventilation and Air-conditioning (HVAC) system and Building Management system works

The HVAC system shall be designed and installed to maintain the approved inside conditions of temperature, humidity, air-change rate (ACPH), air filtration through HEPA filters, room/zone differential pressure gradient and conditions. The HVAC System shall be designed based on the actual needs and provided to maintain, but not limited to, the following conditions:

Inside Temperature: $22^{\circ} \pm 1^{\circ}$

RH: $55 \pm 5 \%$

Ventilation Requirement: HEPA recirculation of air

The HVAC system shall include the following items of works, complete in all respect, as required and approved:

Refrigeration Unit: The unit shall be complete with Compressors, Air Cooled Condensers, interconnecting control and power wiring, refrigerant charge etc. complete in all respect. The system shall be designed to cater to varying operating conditions and fluctuating cooling load requirements.

Air Handling Units: The Air Handling units shall be designed and provided to supply conditioned air to the Laboratory and support areas. The Air Handling Units shall be complete with blower, motor, drive set, DX cooling, pre-filter, drain tray etc. complete in all respect. The system shall be designed to cater to varying operating conditions and fluctuating cooling load requirements.

Exhaust Air to Fresh Air Heat Recovery Unit/s: A cost effective Air to Air Heat Recovery unit/s should be supplied to recover cooling effect from the exhaust air to precool the fresh air in order to reduce the cooling load and the operating cost of HVAC system. Heat recovery unit should be of the type that ensures no cross contamination between the two air streams.

Exhaust Blowers: A separate dedicated Exhaust Blower shall be designed and provided for Exhaust from the BSL-2+ Laboratory area.

HEPA Filters: Three stage air filtration shall be provided for supply air. The first stage shall be for 5 micron particulate size. The second stage shall be for 0.5 micron particulate size. The third stage shall be for 0.3 micron particulate size HEPA Filter.

Supply and Exhaust/Return Air Ducting: The supply and return air ducting shall be carried out with materials as per standard and include appropriate filters to prevent pathogens being released into the atmosphere either internally or externally.

Building Management System and Controls: A customized Building Management System shall be designed and provided to control the operation of HVAC system and to monitor the laboratory operating parameters in the BSL-2+ laboratory. The BMS Control System shall be complete with all components to provide control and monitoring of the BSL-2+ Laboratory operating conditions.

6. Bio-Safety Cabinets

The vendor will supply and install two Biosafety Cabinets - (TYPE A2 CLASS II) in each laboratory following the standards (thimble or hard ducted). Class 2 BSCs will draw around 70% of purified air from the HEPA filter above the work area and around 30% air through the front grille. A qualified engineer must assess the BSC using an accepted national or international standard. It is the responsibility of the engineer to decontaminate the BSC before inspection. Certification must be displayed on the BSC. The BSC must have minimum 2 years warranty.

7. Electrical system and works

The contractor shall design and provide the complete electrical power distribution system scheme for the proposed BSL-2+ Laboratory. The electrical distribution system shall be designed and installed as per the Bangladesh Electricity Rules and other relevant Standards and Guidelines.

Power Distribution system: The contractor shall design and provide the main power distribution panel, sub-distribution boards and panels complete with required switchgears, breakers, circuit breakers, power and control wiring etc. complete as required and approved, for power distribution system for the proposed BSL-2+ Laboratory.

The scope of work shall include internal lighting and power, cabling/wiring for HVAC System, Bio-safety cabinets, door interlocks and BMS etc. complete in all respect.

Backup Power System: A dedicated UPS with Batteries shall be provided for providing Un-interrupted power supply to the BMS and Door Interlock System. The UPS shall be capable to give approx. 10-15 minutes of power backup, in case of mains power failure.

Internal Light Points, Fittings and Fixtures: The electrical fittings and fixtures in the BSL-2+ laboratory area shall be sealed type, leak proof and capable to withstand chemical exposures during laboratory fumigation. All the light points, power points, light and power sockets shall be fully wired with switches, sockets, connections complete in all respect as per approved designs and drawings.

Fire Detection and Alarm System: Fire Detection and Alarm System shall be designed and provided for the proposed BSL-2 Laboratory. The FDA system shall be designed as per the relevant standards and guidelines.

Waste management: Following the national and international standards.

8. Laboratory Work stations

The laboratory rooms shall be provided with work stations. The work stations shall be planned and provided for most optimum utilization of laboratory space and shall be provided with adequate under-counter and overhead storage space. The chair shall be in non-leather and non-fabric finish, easy to clean with adjustable height and without wheels.

9. Commissioning and certification

- a. Biocontainment engineering
- b. Biosafety management
- c. Biosecurity

10. Deliverables

- a. Submission of individual laboratory designs and drawings for all works with detailed costing and timeline specified under the technical specifications above for Rajshahi Regional TB Reference Laboratory (RTRL) and the Shyamoli TB Hospital.
- b. Completion of all refurbishment works including plumbing, electrical, flooring, HVAC system, safety equipment and TB Laboratory meets international BSL-2+ or similar standards which is fit for purpose for TB culture, DST and Molecular testing like LPA.
- c. Laboratory validation, Testing for BSL-2+ lab. (Pressure Balancing, Air Balance and ACPH Check, HEPA leak test), certification and handing over the facilities.

11. Period of Performance

The contractor shall complete all works as mentioned in the technical specifications including completion and certification of the two laboratories within 6 (six) months from the date of the award. The contractor is invited to propose a shorter time frame for completion of the work and an earlier completion is preferable and will be taken into consideration when bids are reviewed.

12. Maintenance and service warranty

The contractor shall provide warranty for one year of complete service and maintenance including free replacement of any broken item unless such break is as a result of misuse. The bidder shall also submit an annual maintenance cost estimate per year after the completion of the first year of warranty/maintenance.

C. Competency and expertise requirement

The offeror shall meet the following requirements:

- a. Shall have previous experience in design and construction of BSL-2+ laboratory or of similar category. Shall submit at least two references and contact information of the client for whom the offeror has completed similar projects in the past.
- b. Be able to maintain strong ethical standards in specified work;
- c. Shall, at the request of the organization, and for the duration of the contract, be expected always to be available to FHI 360;
- d. Indicate readiness to deliver as per the required timeframe;
- e. Be cost effective in the approach to this work.

D. Contracting Mechanism

A fixed price purchase order will be awarded to the selected firm whose quote will be determined to be the most competitive and acceptable. If additional services are added to the contract after the purchase order has been signed by the vendor, FHI360 will modify the purchase order.

E. Conflict of Interest

The offeror must disclose any past, present or future relationship with any persons associated with the review, issuance or management of this solicitation and anticipated award. Failure to provide full and open disclosure may result in disqualification of the offeror or re-evaluation of the selection of the potential offeror.

F. Submission of quotation

The quotation along with the supporting documents shall be submitted either through email to sbiswas@fhi360.org or by hand to the FHI 360 office address mentioned above. The applicant shall

use its company letterhead/template in responding to this RFQ. Technical and cost proposals should be provided in separate sealed envelopes or zipped files.

G. Criteria for Evaluation

FHI 360 will review quotations and award points based on the following criteria:

S. No.	Criteria	Weight (%)
1	Competitive cost	35%
2	Technical Specifications	30%
3	Overall experience in similar work, Organization Profile Client List and Customer Reference	15%
4	Delivery time	10%
5	Guarantee, warranty, replacement facility	10%
	Total	100%

For verification purposes, additional documentation may be requested to confirm proof of the past work.

Only offers/responses meeting the minimum technical specification requirements of the RFQ will be evaluated.

FHI 360 will keep confidential all offers/bids received and will not disclose them to any third-party without written permission of the submitting party.

H. Key Points in Evaluation of Responses

1. To assist in the evaluation of responses, the selection committee may, at its discretion, ask any organization to provide additional information/evidence supporting information provided by the organization. Any request for additional information/evidence shall be in writing. If the organization does not provide clarifications of the information requested by the date and time set in by FHI 360's request for clarification, its response may be awarded zero marks in evaluation.
2. To assist in the evaluation of responses, the selection committee may, at its discretion, ask any organization for a clarification of its response which shall be submitted within a stated reasonable period of time. Any request for clarification and all clarifications shall be in writing. If the applicant does not provide clarifications of the information requested by the date and time set in FHI 360's request for clarification, its response may be rejected. FHI 360 reserves the right to perform check on any documentation provided as a response to this solicitation.
3. This RFQ provides guidance to offerors concerning the documentation necessary to conduct an informed evaluation of each RFQ. The offerors must furnish adequate and specific information in the responses. A response may be eliminated from further consideration before a detailed

evaluation is performed if the response is considered obviously deficient as to be totally unacceptable on its face or which prices are inordinately high or unrealistically low.

4. FHI 360 shall use all the factors, methods and criteria defined in the evaluation criteria to evaluate the RFQs of the offerors and any specialist subcontractors. FHI 360 reserves the right to waive minor deviations in the evaluation criteria if they do not materially affect the capability of an offeror to perform the contract.
5. The selection committee reserves the right to make an award under this RFQ on the basis of initial offers without discussions. Similarly, the committee also reserves the right to accept or reject one or all responses received against this RFQ.
6. Eligibility check and site visit will be performed on all the responses received. Evaluation will be performed only of those responses that have passed the eligibility check.
7. FHI 360 requires that FHI 360 vendors observe the highest standard of ethics during the procurement and execution of such awards. In pursuit of this policy FHI 360:
 - a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in an award execution; and
 - ii. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of an award to the detriment of the Borrower, and includes collusive practices among offeror (prior to or after RFQ submission) designed to establish RFQ prices/ response at artificial, non-competitive levels and to deprive the borrower of the benefits of free and open competition;
 - b. Will reject a RFQ response for award if it determines that the offeror recommended for an award has engaged in corrupt or fraudulent practices in competing for the award; and
 - c. Will declare an organization and/or an individual ineligible, either indefinitely or for a stated period of time, to be awarded any FHI 360 award if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a FHI 360 funded award.
8. Any attempt by an offeror to collude with other offers or to influence FHI 360 representatives in the evaluation of the RFQs or while making award decisions may result in the rejection of its offer/response.
9. This solicitation and any resulting contract shall be interpreted in accordance with the laws of Bangladesh or as otherwise agreed to.

FHI 360 may contact offerors to confirm contact person, address, validity of the offer and to confirm that the offer was submitted for this solicitation, or any relevant information to this solicitation.

I. False statement in offer

Offerors must provide full, accurate and complete information as required by this solicitation and its attachments.

J. Instructions to Offerors

a. General

The offerors will NOT be reimbursed for any cost, liabilities or loss incurred in connection with the preparation and submission of their offers. FHI 360 is looking forward to making an award to the most responsive offer. Due to shortage of processing and implementation time, only shortlisted offerors will be contacted for final selection. Individual enquiries will not be entertained for determination of the status of the applications.

b. Preparation of offers

All offers must be submitted in English language, single spaced and numbered consecutively. All offers must be signed by individual authorized to commit the offer on behalf of the applicant. The completed forms shall have no erasures except those necessary to correct errors made by the offeror, in which case such corrections shall be initialed by the person(s) signing the offer.

c. The offer

Only offers submitted in accordance with this RFQ will be eligible for evaluation. The submission package shall comprise the following documentations:

Technical Proposal

- Cover letter
- Copy of Trade License
- TIN Certificate
- VAT Registration
- Bank Account Certificate
- List of two references and certificates/documents showing past experience
- Client list and any other relevant documents under the terms and conditions mentioned above.
- CV of project engineer(s)
- Proposed timelines for completion of all works separately for the Rajshahi RTRL and Shyamoli TB Hospital

Cost Proposal

The offeror shall submit detail cost estimates separately for each laboratory. All prices shall be quoted in Bangladesh Taka.

d. Validity of Bid

The bid shall remain valid and open for acceptance for a period of **90 days** from the date of submission of Bid.

K. Payment Schedule

Time	% of total contract amount
On submission of designs and drawing for the two laboratories	20%
On completion of procurement and supply of HVAC and other major equipment and supplies	30%
On completion of installation of HVAC system and refurbishment works	25%
On completion of validation and testing	15%
On completion of certification and handover	10%

L. Disclaimer

- FHI 360 may cancel the solicitation and not award.
- FHI 360 may reject any or all responses received.
- Issuance of solicitation does not constitute award commitment by FHI 360.
- FHI 360 reserves the right to disqualify any offer based on initial evaluation of offers without further discussion.
- FHI 360 may choose to award the contract for one laboratory, or part of the activities in the solicitation, or issue multiple awards based on the solicitation activities.
- FHI 360 reserves the right to waive minor proposal deficiencies that can be corrected prior to award determination to promote competition.
- FHI 360 will be contacting offerors to confirm contact person, address and that bid was submitted for this solicitation.
- FHI360 will not reimburse the applicant/s for preparation and/or submission of their responses/applications to the solicitation.
- For verification purposes, additional documentation may be requested to confirm proof of past work.

M. Reserved Rights

All responses become the property of FHI 360, who reserves the right in its sole discretion:

- To disqualify any offer based on offeror failure to follow solicitation instructions.
- To waive any deviations by offerors from the requirements of this solicitation that in FHI 360's opinion are considered not to be material defects requiring rejection or disqualification; or where such a waiver will promote increased competition.
- To extend the time for submission of all RFQ responses after notification to all offerors.
- To terminate or modify the RFQ process at any time and re-issue the RFQ to whomever FHI 360 deems appropriate.
- To issue an award based on the initial evaluation of offers without discussion.
- To increase or decrease quantities by 10%.
- To award only part of the activities in the solicitation or issue multiple awards based on solicitation activities.

- To award a purchase order to more than one vendor for specific parts of the activities in the RFQ.
- FHI 360 will not compensate vendors for preparation of their response to this RFQ.
- Issuing this RFQ is not a guarantee that FHI 360 will award a purchase order.

N. General Terms and conditions to work with FHI 360

- If awarded through competitive process, payment shall be made in BDT through crossed cheque/bank transfer in favor of your organization
- Payments will be made within Thirty (30) days of invoice receipt after successful delivery of work and certified by FHI 360 concerned employee
- The invoices should be certified by the respective FHI 360 personnel
- Vat and Tax: Price is inclusive of Vat and TAX
- VAT and tax will be deducted as per Govt. laws. VAT coupon will be issued and tax will be deposited to Govt. treasury
- No advance will be issued for this category of work
- Any other based on specific assignment