



**SHAHEED MOHTARMA BENAZIR BHUTTO**  
**MEDICAL UNIVERSITY, LARKANA**



**ESTABLISHMENT OF CENTER FOR ADVANCED  
RESEARCH IN MOLECULAR, GENETIC AND  
PATHOLOGICAL LABS AT SMBB, MEDICAL  
UNIVERSITY, LARKANA**

**TENDER DOCUMENTS  
CONDITIONS OF CONTRACT**

**March 2026**

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These Tender/Bid Documents are issued to M/s \_\_\_\_\_

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for bidding purpose for the **“Establishment of Center for Advanced Research in Molecular, Genetic and Pathological Labs at SMBB, Medical University, Larkana”** as per Instructions to bidders, Conditions of Contract, Technical Specifications, Bill of Quantities, Drawings and Special Stipulations.

**Dated:-** \_\_\_\_\_

**Signed:-** \_\_\_\_\_

# **INVITATION FOR BID**

## NOTICE INVITING TENDER

Shaheed Mohtarma Benazir Bhutto Medical University, Larkana invites sealed tender/bids from all interested contractors/firms to participate through (E-PADS) for following works. The details are as under:

S.#	Name of Work	Tender Fee (Rs.)	Earnest Money	Completion Time
1.	Establishment of Center for Advanced Research in Molecular, Genetic and Pathological Labs at SMBB, Medical University, Larkana.	5,000	2%	24 Months

### Mandatory Eligibility:

- Contractors / Firms registered with Income Tax (who are Active on Taxpayers List & non defaulter of Federal Board of Revenue & Sindh Board of Revenue (SRB)).
  - Valid/active registration certificate of Pakistan Engineering Council (PEC) in the category C-2 or above and at least specialization in PEC, BC01 CE01, CE-10, EE02, EE04, EE06, EE11, ME01, ME02, ME06, is mandatory.
  - The firm shall have Minimum 05 years' experience.
  - Tax Returns for last 05 years.
  - At least one similar nature of work/Medical Labs Project completed successfully.
  - Contractors/Firms have not black listed currently (Affidavit/Certificate).
  - Average Annual turnover of Rs. 350 (M) for last 05 years (Bank Statement).
  - Having Valid/active Electric License is mandatory.
- i. Issuance: Documents will be issued from date of hoisting/publication i.e from **23-03-2026 to 07-04-2026 up to 10:30 am.**
  - ii. Submission: Last date will be **07-04-2026 at 11:00 am**
  - iii. Opening: will be opened on **07-04-2026 at 11:30 am**

### Method of Procurement: Open Tender (Single Stage One Envelope)

Terms & Conditions:

a. Under following conditions bid will be rejected: -

- i. Bids not accompanied by bid security and supporting documents.
  - ii. Bids received after specified date and time.
  - iii. If bidder not participated through online (E-PADS)
  - iv. Bids of currently black listed firms.
- b. Bid Validity Period: 90 Days.

c. Application should be accompanied with 2% earnest money of tender amount in favour of Project Director SMBB Medical University, Larkana and tender fee Rs: 5,000/- (Five Thousand) in shape of pay order in favour of Vice Chancellor SMBB medical University, Larkana through courier.

d. In case of firm, list of partners/partnership deed, giving full particulars of Director / Proprietor or other connected along with power of attorney or being sole proprietor such undertaking on affidavit is to be furnished.

*The Procuring Agency reserves the right to reject any or all bids subject to relevant provisions of*

*SPP Rules, 2010 (amended up to date) and may cancel the bidding process at any time prior to the acceptance of a bid or proposal under Rule-25" of said Rules.*

**(PROJECT DIRECTOR)**  
Administration Block  
at Shaheed Mohtarma Benazir Bhutto  
Medical University Larkana (Arija)  
Phone No. 074-9410911 Fax: 074-475234  
Email: [pd@smbbmuh.edu.pk](mailto:pd@smbbmuh.edu.pk)

## **INSTRUCTIONS TO BIDDERS (IB)**

## INSTRUCTIONS TO BIDDERS

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## INSTRUCTIONS TO BIDDERS

*[Mandatory Provisions not to be amended/substituted  
except as instructed by PEC in writing]*

### A. GENERAL

- |             |                         |     |  |
|-------------|-------------------------|-----|--|
| <b>IB.1</b> | <b>Scope of Bid</b>     | 1.1 | The Employer as defined in the <b>Bidding Data</b> hereinafter called “the Employer” wishes to receive bids for the construction and completion of works as described in these Bidding Documents, and summarized in the <b>Bidding Data</b> hereinafter referred to as the “Works”.  |
|             |                         | 1.2 | The successful Bidder will be expected to complete the Works within the time specified in the <b>Bidding Data</b> .  |
| <b>IB.2</b> | <b>Source of Funds</b>  | 2.1 | The Employer has applied for/received a funding from the source(s) in various currencies towards the cost of the project specified in the <b>Bidding Data</b> and it is intended that part of the proceeds of this funding will be applied to eligible payments under the Contract for which these Bidding Documents are issued.   |
| <b>IB.3</b> | <b>Eligible Bidders</b> | 3.1 | <p>This Invitation for Bids is open to all Bidders meeting the following requirements at the time of submission of Bids and thereafter:</p> <ul style="list-style-type: none"> <li>(a) Duly prequalified for this bidding process;</li> <li>(b) Duly licensed by the Pakistan Engineering Council (PEC) in the category relevant to the value of the Works in the relevant field of specialization.</li> </ul> <p>However, a Foreign Constructor can submit provisional license with its Bid but the Foreign Constructor will be required to submit standard licence after award of Contract and before start of work.</p> <p>Foreign Constructor shall not be eligible to participate in bidding individually. Foreign Constructor shall enter into joint venture with Pakistani Constructor registered with the Pakistan Engineering Council in equivalent/compatible category and submit the joint venture agreement to the Employer before participating in bidding in accordance with PEC Construction and Operation of Engineering Works Bye-laws, 1987;</p> <ul style="list-style-type: none"> <li>(c) Pakistani Constructor must be on Active Taxpayer List of the Federal Board of Revenue and provincial revenue authority/ board where applicable; and</li> <li>(d) All partners constituting the Bidder including proposed subcontractors do not appear in the list of debarred/blacklisted firms and individuals on the websites of PEC and Federal &amp; Provincial Procurement Regulatory Authorities and have not been declared debarred/blacklisted by foreign country, international organizations or other foreign institutions.</li> </ul> |

- IB.4 Eligible Materials, Equipment and Services**
- 4.1 All materials, equipment and services to be supplied under this Contract shall have their origin in eligible countries described under paragraph 4.4 hereunder.
- 4.2 For purpose of this Clause, “origin” means the place where the Goods are mined, grown or produced or from where the ancillary services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 4.3 The origin of Goods and Services is distinct from the nationality of the Bidder.
- 4.4 Eligible countries to participate in this bidding process are those which have been notified by Ministry of Interior, Government of Pakistan as Business Friendly Countries (BVL); information can be accessed through following link:  
<http://www.dgip.gov.pk/Files/Visa%20Categories.aspx#L>
- IB.5 One Bid per Bidder**
- 5.1 Each Bidder shall submit only one Bid either by himself, or as a partner in a joint venture. A Bidder who submits or participates in more than one Bid (other than alternatives pursuant to Clause IB.17) will be disqualified.
- IB.6 Site Visit**
- 6.1 The Bidders are advised to visit and examine the Site of Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. All cost in this respect shall be at the Bidder’s own expense.
- 6.2 The Bidders and any of their personnel or agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the Bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.
- B. BIDDING DOCUMENTS**
- IB.7 Contents of Bidding Documents**
- 7.1 The Bidding Documents, in addition to Invitation for Bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9:

1. Instructions to Bidders;
2. Bidding Data;
3. Evaluation Criteria and Qualification Updating Forms;
4. General Conditions (GC);
5. Particular Conditions (PC):
  - Part A - Contract Data;
  - Part B - Special Provisions;
6. Specifications (SP):
  - Part A - Specific Provisions;
  - Part B - Technical Provisions;
7. Letter of Bid;
8. Schedules to Bid;
9. Standard Forms:
  - (i) Form of Bid Security;
  - (ii) Letter of Acceptance;
  - (iii) Form of Contract Agreement;
  - (iv) Form of Performance Security;
  - (v) DAAB Agreement;
  - (vi) Form of Mobilization Advance Guarantee;
10. Drawings.

7.2 The Bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of Bid submission will be at the Bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

**IB.8 Clarification of Bidding Documents, Pre-Bid Meeting**

- 8.1 Any prospective Bidder requiring any clarification(s) in respect of the Bidding Documents may notify the Employer in writing at the Employer's address indicated in the Invitation for Bids. The Employer will respond to any request for clarification which he receives earlier than the period specified in the **Bidding Data**, prior to the deadline for submission of bids.
- 8.2 Copies of the Employer's response will be forwarded to all purchasers of the Bidding Documents, including a description of the enquiry but without identifying its source.
- 8.3 The Employer may, on his own or at the request of any prospective Bidder(s), hold a pre-bid meeting to clarify issues and to answer any questions on matters related to the Bidding Documents. The date, time and venue of pre-bid meeting, if convened, are as stipulated in the **Bidding Data**. All prospective Bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.
- 8.4 The Bidders are requested to submit questions, if any, in writing so as to reach the Employer not later than seven (7) days before the proposed pre-bid meeting.

- 8.5 Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all purchasers of the Bidding Documents. Any modification of the Bidding Documents listed in Sub- Clause IB.7.1 hereof which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause IB.9 and not through the minutes of the pre-bid meeting.
- 8.6 Absence at the pre-bid meeting will not be a cause for disqualification of a Bidder.

**IB.9 Amendment of Bidding Documents**

- 9.1 At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by issuing addendum.
- 9.2 Any addendum thus issued shall be part of the Bidding Documents listed in Sub-Clause IB.7.1 hereof and shall be communicated in writing to all purchasers of the Bidding Documents. Prospective Bidders shall acknowledge receipt of each addendum in writing to the Employer.
- 9.3 Such addendum shall be issued not later than number of days prior to the deadline for submission of bids, specified in the **Bidding Data**. To afford prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend the deadline for submission of bids in accordance with Clause IB.20.

**C. PREPARATION OF BIDS**

**IB.10 Cost of Bidding**

- 10.1 The Bidders shall bear all costs associated with the preparation and submission of their respective bids and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

**IB.11 Language of Bid**

- 11.1 The Bid and all correspondence and documents related to the Bid exchanged by a Bidder and the Employer shall be in the Bid language stipulated in the **Bidding Data** and Particular Conditions of Contract. Supporting documents and printed literature furnished by the Bidders may be in any other language provided the same are accompanied by duly certified translation of the relevant parts in the Bid language, in which case, for purposes of evaluation of the bid, the translation in Bid language shall prevail.

**IB.12 Documents Comprising the Bid**

- 12.1 Each Bidder shall:
  - (a) submit duly filled in, signed and stamped Letter of Bid and completed Schedules to Bid as required, including priced Bill of Quantities, in accordance with Clause IB.18 hereof;

- (b) submit Bid Security in accordance with Clause IB.16 hereof;
- (c) submit alternative proposal, if permissible in accordance with Clause IB.17;
- (d) submit a written power of attorney authorizing the signatory of the Bid to act for and on behalf of the Bidder. The name and position held by each person signing the authorization must be typed or printed below the signature;
- (e) submit the Qualification Updating Forms duly filled in, signed and stamped along with requisite attachments, to establish that the Bidder continues to meet the Eligibility and Qualification Criteria set out in the Pre-Qualification Documents and as provided in the Section "Evaluation Criteria and Qualification Updating Forms";
- (f) furnish a technical proposal taking into account the various Schedules to Bid, specially the following:
  - Schedule-C to Bid, Proposed Construction Schedule;
  - Schedule-D to Bid, Method of Performing the Work;
  - Schedule-E to Bid, List of Major Equipment;
  - Schedule-F to Bid, Organization Chart for Supervisory Staff;
 and other pertinent information, such as mobilization programme, etc.

12.2 Bids submitted by a joint venture of two (2) or more firms specified in **Bidding Data**, shall comply with the following requirements:

- (a) the bid, and in case of a successful bid, the Form of Contract Agreement shall be signed by all members so as to be legally binding on all partners;
- (b) one of the joint venture partners shall be nominated as being in-charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
- (c) the partner-in-charge shall always be duly authorized to deal with the Employer regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the Contract in accordance with the

Contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para(b) above as well as in the Letter of Bid and in the Form of Contract Agreement (in case of a successful bid); and

- (e) a copy of the agreement entered into by the joint venture partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation and corresponding duties & responsibilities of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. No amendments/ modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partners without prior written consent of the Employer.

12.3 Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the Bidders' proposals to meet the technical specifications and the completion time referred to in Sub-Clause IB.1.2 hereof.

**IB.13 Bid Prices**

- 13.1 The price and discount if any quoted by the Bidders in the Letter of Bid and in the Bill of Quantity shall conform to the requirement specified below:
- 13.2 The Bidder shall quote any discounts and the methodology for their application.
- 13.3 If bids are being invited for individual lots (contracts) or for any combination of lots, the Bidders can offer discounts for the individual lots (contracts) as well as for award of more than one Contract and shall specify in their bid.
- 13.4 Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in Sub-Clause IB.1.1 hereof, based on the unit rates and/or prices.
- 13.5 The Bidders shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by a Bidder will not be paid for by the Employer when executed and shall be deemed covered by rates and prices for other items in the Bill of Quantities.
- 13.6 All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to the deadline for submission of bids shall be included in the rates and prices and the total Bid Price submitted by a Bidder.

Additional/reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed/deducted as per Sub Clause 13.6 [*Adjustment for Changes in Laws*] of the Conditions of Contract.

13.7 The rates and prices quoted by the Bidders are subject to adjustment during the performance of the Contract in accordance with the provisions of Sub-Clause 13.7 [*Adjustments for Changes in Cost*] of the General Conditions of Contract. The Bidders shall furnish the prescribed information for the price adjustment formulae in Schedule-A to Bid, and shall submit with their bids such other requisite supporting information if required under the said Schedule.

**IB.14 Currencies of Bid and Payment**

14.1 The unit rates and the prices shall be quoted by the Bidder entirely PKR.

A Bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country (referred to as the "Foreign Currency Requirements") shall indicate in Table III of Schedule-A to Bid the proportion of the Bid Price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements; in such case the unit rates and the prices shall be quoted by the Bidder in Equivalent PKR.

14.2 The rates of exchange to be used by the Bidder for currency conversion shall be the TT Selling Rates published or authorized by the State Bank of Pakistan prevailing on the date twenty eight (28) days prior to the deadline for submission of bids. Such rates shall be notified by the Employer not later than fourteen (14) days prior to the deadline for submission of Bids.

For the purpose of payments, the exchange rates used in Bid preparation shall apply for the duration of the Contract.

**IB.15 Bid Validity**

15.1 Bids shall remain valid for the period stipulated in the **Bidding Data** after the date of Bid Opening specified in Clause IB.23.

15.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the Bidders extend the period of validity for a specified additional period which normally may not be more than the original bid validity period. The request and the responses thereto shall be made in writing. A Bidder may refuse the request without forfeiting his Bid Security. A Bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his Bid Security for the period of the extension, and in compliance with Clause IB.16 in all respects.

**IB.16 Bid Security**

16.1 Each Bidder shall furnish, as part of his bid, a Bid Security in original form in the amount stipulated in the **Bidding Data** in PKR or an equivalent amount in a freely convertible currency.

- 16.2 The Bid Security shall be, at the option of the Bidder, in the form of Call Deposit Receipt (CDR)/ Pay Order or a Security issued in the prescribed form included in the Bidding Documents, by (a) a Scheduled Bank in Pakistan or (b) a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan or (c) an Insurance Company listed in the **Bidding Data** and rated by PACRA/VIS of rating as provided in Table below in favour of the Employer valid for a period 14 days beyond the Bid Validity date. The Bid Security of Joint Venture shall be in the name of Joint Venture or Lead/either Firm of the JV or in ratio of shares of the individual JV partners, submitting the bid.
- 16.3 Any Bid not accompanied by an acceptable Bid Security shall be rejected by the Employer as non-responsive.
- 16.4 The Bid Securities of the Bidders except the lowest three will be returned by the Employer within twenty eight (28) days from the opening of Bids, provided a Bidder requests for the return of its Bid Security, or upon the expiry of original validity of Bid Security or as extended, whichever is earlier.
- 16.5 The Bid Security of the lowest three Bidders including the successful Bidder will be returned when the successful Bidder has furnished the required Performance Security.
- 16.6 The Bid Security may be forfeited:
- (a) if the Bidder withdraws his bid except as provided in Sub Clause IB.22.1;
  - (b) if the Bidder does not accept the correction of his Bid Price pursuant to Sub Clause IB.28.2 hereof; or
  - (c) in the case of successful Bidder, fails to furnish the required Performance Security.
- 16.7 In case of annulment, all Bids submitted and specially, Bid securities, shall be returned to the Bidders within 14 days of annulment.
- IB.17 Alternative Proposals by Bidder**
- 17.1 Unless otherwise specified in the **Bidding Data**, alternative proposal(s) shall not be considered.
- 17.2 Should any Bidder consider that he can offer any advantages to the Employer by a modification to the designs, specifications or other conditions, he may, in addition to his Bid to be submitted in strict compliance with the Bidding Documents, submit any alternative proposal(s) containing (a)

relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details/conditions, provided always that the total sum entered on the Letter of Bid shall be that which represents complete compliance with the Bidding Documents.

17.3 Alternative proposal(s), if any, of the Bidder having submitted most advantageous Bid only may be considered by the Employer as the basis for the award of Contract to such Bidder.

**IB.18 Format and Signing of Bid**

18.1 Bidders are particularly directed that the amount entered on the Letter of Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.

18.2 All Schedules to Bid are to be properly completed and signed.

18.3 No alteration is to be made in the Letter of Bid nor in the Schedules thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the Bid may be rejected.

18.4 Each Bidder shall prepare by filling in the forms completely and without alterations one (1) original and number of copies, specified in the **Bidding Data**, of the documents comprising the Bid as described in Clause IB.12 and clearly mark them "ORIGINAL" and "COPY" as appropriate. In the event of discrepancy between them, the original shall prevail.

The Bidder shall also provide complete searchable PDF versions as well as Word, Excel, etc., versions of the Bid if so required in the **Bidding Data**.

18.5 The original of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder pursuant to Sub-Clause IB.12.1(d) hereof. All pages of the Bid shall be initialled and stamped by the person or persons signing the bid.

18.6 The Bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the Employer, or as are necessary to correct errors made by the Bidder, in which case such corrections shall be initialled by the person or persons signing the Bid.

18.7 Bidders shall indicate in the space provided in the Letter of Bid their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the Contract is to be sent.

18.8 Bidders should retain a copy of the Bidding Documents and the Bid as their file copy.

18.9 All documents executed outside Pakistan required to be submitted with the Bid must be certified by Pakistani Embassy in the respective country(ies).

## D. SUBMISSION OF BIDS

### IB.19 Sealing and Marking of Bids

- 19.1 Each Bidder shall submit his Bid as under:
- (a) ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.
  - (b) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed / identified as given in Sub Clause IB.19.2 hereof.
- 19.2 The inner and outer envelopes shall:
- (a) be addressed to the Employer at the address provided in the **Bidding Data**;
  - (b) bear the specific identification of this bidding process as specified in the **Bidding Data**; and
  - (c) provide a warning not to open before the time and date for bid opening, as specified in the **Bidding Data**.
- 19.3 In addition to the identification required in Sub-Clause IB.19.2 hereof, the inner envelope shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared "late" pursuant to Clause IB.21.
- 19.4 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

### IB.20 Deadline for Submission of Bids

- 20.1
- (a) Bids must be received by the Employer at the address specified no later than the time and date stipulated in the **Bidding Data**.
  - (b) Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of Bids. No claims will be entertained for refund of such expenses.
  - (c) Where delivery of a Bid is by mail and the Bidder wishes to receive an acknowledgment of receipt of such Bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed Bid envelope.
  - (d) Upon request, acknowledgment of receipt of Bids will be provided to those making delivery in person or by messenger.
- 20.2 The Employer may, at his discretion, extend the deadline for submission of Bids by issuing an amendment in accordance with Clause IB.9, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

- IB.21 Late Bids**
- 21.1 (a) Any Bid received by the Employer after the deadline for submission of bids prescribed in Clause IB.20 shall be declared late, rejected and returned unopened to such Bidder.
- (b) Delays in the mail, delays of person in transit, or delivery of a Bid to the wrong office shall not be accepted as an excuse for failure to deliver a Bid at the proper place and time. It shall be the Bidder’s responsibility to determine the manner in which timely delivery of his Bid will be accomplished either in person, by messenger or by mail.

- IB.22 Modification, Substitution and Withdrawal of Bids**
- 22.1 Any Bidder may modify, substitute or withdraw his Bid after Bid submission provided that the modification, substitution or written notice of withdrawal is received by the Employer prior to the deadline for submission of bids.
- 22.2 The modification, substitution, or notice for withdrawal of any Bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked “MODIFICATION”, “SUBSTITUTION” or “WITHDRAWAL” as appropriate.
- 22.3 No Bid may be modified by a Bidder after the deadline for submission of Bids except in accordance with Sub Clauses IB.22.1 and 28.2.
- 22.4 Withdrawal of a Bid during the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified in the Letter of Bid may result in forfeiture of the Bid security in pursuance to Clause IB.16.

**E. BID OPENING AND EVALUATION**

- IB.23 Bid Opening**
- 23.1 The Employer will open the Bids including withdrawals, substitution and modifications made pursuant to Clause IB.22, in the presence of Bidders’ representatives who choose to attend, at the time, date and location stipulated in the **Bidding Data**. The Bidders’ representatives who are present shall sign a register evidencing their attendance.
- 23.2 Envelopes marked “MODIFICATION”, “SUBSTITUTION” or “WITHDRAWAL” shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause IB.22 shall not be opened. Only bids that are opened and read out at Bid opening shall be considered further.
- 23.3 The Bidder’s name, total Bid Price and price of any alternative proposal(s), any discounts, Bid modifications, substitution and withdrawals, the presence or absence of Bid security, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening of Bids. Only discounts and alternative proposals

read out at Bid opening shall be considered for evaluation. The Letter of Bid and the Summary Bill of Quantities are to be initialled by representative(s) of the Employer attending Bid opening. The Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with Sub-Clause IB 21.1).

- 23.4 The Employer shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with the Sub-Clause IB.23.3.
- IB.24 Process to be Confidential**
- 24.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of Contract shall not be disclosed to Bidders or any other person not officially concerned with such process before the announcement of the result of Bid evaluation in the form of final evaluation report giving justification for acceptance or rejection of Bids which shall be done at least fifteen (15) days prior to award of Contract. The announcement to all Bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the Bids evaluated. Any effort by a Bidder to influence the Employer's processing of Bids or Contract award decisions may result in the rejection of such Bidder's Bid. Whereas any Bidder feeling aggrieved may lodge a written complaint not later than five (5) days after the announcement of the final evaluation report.
- IB.25 Clarification of Bids**
- 25.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates and lump sum prices. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The request for clarification and the response shall be in writing. No change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause IB.28.
- 25.2 The Employer may, at his discretion, ask any Bidder for confirmation/submission of missing information to clarify its Bid. However, the Employer does not have an obligation to request any additional information or clarification with respect to missing or deficient information in a Bid. The Employer may reject any Bid as non-responsive if found materially incomplete, obscure, irregular or omitting any material information required to be submitted in accordance with the Bidding Documents.
- 25.3 If a Bidder does not provide clarifications of its Bid by the date and time set reasonably (not less than seven (7) days) in the Employer's request for clarification, the Employer may proceed with the evaluation based on the information submitted in the Bid without waiting for the Bidder's response.

- IB.26 Examination of Bids and Determination of Responsiveness**
- 26.1 Prior to the comparison of Bids, the Employer will determine whether each Bid is substantially responsive to the requirements of the Bidding Documents.
- 26.2 The Employer’s determination of a Bid’s responsiveness is to be based on the contents of the Bid itself, as defined in Sub-Clause IB.12.
- 26.3 A substantially responsive Bid is one which meets the requirements of the Bidding Documents, without material deviation, reservation or omission. A material deviation, reservation or omission is one that,
- (a) if accepted, would:
    - (i) affect in any substantial way the scope, quality or performance of the Works; or
    - (ii) limit in any substantial way, inconsistent with the Bidding Documents, the Employer’s rights or the Bidder’s obligations under the proposed Contract; or
  - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
- 26.4 During the evaluation of Bids, the following definitions apply:
- (a) “Deviation” is a departure from the requirements specified in the Bidding Documents;
  - (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
  - (c) “Omission” is the failure to submit part or all of the information or documentation required in the Bidding Documents.
- 26.5 The Employer shall examine the technical aspects of the Bid submitted in accordance with Sub-Clause IB.12.1(f), in particular, to confirm that all requirements stated in Specifications have been met without any material deviation, reservation or omission.
- 26.6 If a Bid is not substantially responsive to the requirements of the Bidding Documents, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation, reservation or omission.
- IB.27 Nonmaterial Nonconformities**
- 27.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid.
- 27.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or

documentation on such nonconformities 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.

27.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component, by adding the average price of the item or component quoted by other lowest two evaluated substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use a suitable CSR, adjusted to the date 28 days earlier to the Bid submission date or its best assessment.

**IB.28 Correction of Arithmetic Errors**

28.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.
- (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.
- (c) 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.

28.2 The amount stated in the Letter of Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected Bid Price, his Bid will be rejected, and the Bid security shall be forfeited in accordance with Sub Clause IB.16.6(b) hereof.

**IB.29 Evaluation and Comparison of Bids**

29.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26. The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

29.2 In evaluating and comparing the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

- (a) making any correction for arithmetic errors pursuant to Clause IB.28;

- (b) price adjustment due to discounts offered in accordance with Sub-Clause IB.23.3;
- (c) excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced daywork;
- (d) making an appropriate price adjustment for any quantifiable nonmaterial nonconformities in accordance with Sub-Clause IB.27.3; and
- (e) the additional evaluation factors are specified in Section Evaluation Criteria and Qualification Updating Forms.

29.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bids' comparison.

**IB.30 Abnormally Low Bids**

30.1 If the Bid Price of the successful Bidder is more than 15% below the lower of the Employer's estimate of the cost of work to be performed under the Contract or average of other lowest two evaluated substantially responsive Bids, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require an additional Performance Security by 10% of the difference of the Bid Price as determined hereinabove upto issuance of Taking Over Certificate at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The Bids having Bid Price lower than 25% shall be liable to be rejected.

**IB.31 Unbalanced or Front Loaded Bids**

31.1 If the Bid of the successful Bidder is seriously unbalanced (Front Loaded) in relation to the average of other evaluated substantially responsive Bids, the Employer during execution of contract may pay against measured quantities of significantly higher quoted line item(s) rate(s) with respect to same line item(s) rate(s) determined from the average of other lowest two evaluated substantially responsive Bids as instructed by the Engineer. The balance line item(s) rate(s) may be paid against the same measured quantities at the time of issuance of Taking Over Certificate or as instructed by the Engineer.

**F. AWARD OF CONTRACT**

**IB.32 Award Criteria**

32.1 Subject to Clauses IB.33 and IB.39, the Employer will award the Contract to the Bidder whose Bid has been determined as most advantageous Bid (substantially responsive to requirements of the Bidding Documents with the lowest evaluated Bid Price).

- IB.33 Employer’s Right to Annul the Bidding Process**
- 33.1 Notwithstanding Clause IB.32, the Employer reserves the right to annul the bidding process and reject all Bids, at any time prior to award of Contract, without thereby incurring any liability to the affected Bidders or any obligation.
- The Employer shall upon request communicate to any Bidder who submitted a Bid, the grounds for its rejection of all Bids but is not required to justify those grounds. Rejection of all Bids shall be notified to all Bidders promptly.
- IB.34 Notification of Award**
- 34.1 Prior to expiration of the period of Bid validity prescribed by the Employer, the Employer will notify the successful Bidder in writing (“Letter of Acceptance”) that his Bid has been accepted. This letter shall name the sum which the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the “Accepted Contract Amount”).
- The Letter of Acceptance will also state the remedies with respect to Sub-Clauses IB.30 & IB.31 if applicable.
- 34.2 No negotiation with the Bidder having submitted most advantageous Bid or any other Bidder shall be permitted, however, Employer may have clarification meetings before issuing Letter of Acceptance to get clarified any item in the Bid evaluation report.
- 34.3 The Letter of Acceptance/ notification of award and its acknowledgement/acceptance by the Bidder will constitute the formation of the Contract, binding the Employer and the Bidder till signing of the formal Contract Agreement.
- 34.4 Upon furnishing by the successful Bidder of a Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful and return their Bid securities in accordance with Sub-Clause IB.16.5.
- IB.35 Performance Security**
- 35.1 The successful Bidder shall furnish to the Employer a Performance Security in the form and the amount stipulated in the Conditions of Contract and additional Performance Security if applicable under IB.30 as stated in the Letter of Acceptance, within a period of 28 days after the receipt of Letter of Acceptance.
- 35.2 Failure of the successful Bidder to comply with the requirements of Sub Clause IB.35.1 or Clauses IB.36 or IB.37 shall constitute sufficient grounds for the annulment of the award, forfeiture of the Bid security and to award the Contract to the Bidder having submitted next advantageous Bid.
- IB.36 Signing of Contract Agreement**
- 36.1 Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Employer will notify the successful Bidder to depute its representative with appropriate Power of Attorney to sign the Contract Agreement in the form provided in the Bidding Documents, incorporating all agreements between the parties.

- 36.2 The formal Agreement between the Employer and the successful Bidder shall be executed within 14 days of the receipt of the above stated notification by the successful Bidder from the Employer.
- IB.37 Integrity Pact** 37.1 The Bidder shall sign and stamp the Integrity Pact provided at Schedule-J to Bid in the Bidding Documents for all Federal Government procurement contracts exceeding PKR ten million. Failure to provide such Integrity Pact shall make the Bidder non-responsive.
- IB.38 Instructions not Part of Contract** 38.1 Bids shall be prepared and submitted in accordance with the Instructions to Bidders which are provided to assist the Bidders in preparing Bids but do not constitute part of the Contract.
- IB.39 Corrupt and Fraudulent Practices** 39.1 The Employer will reject a Bid if it determines that the Bidder recommended for award, or any of its personnel, or its agents, or its sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract under this bidding.
- 39.2 The Employer will blacklist and hence forthwith debar a Constructor or individual, at any time, in accordance with the prevailing Public Procurement Rules 2004.

## **BIDDING DATA (BD)**

**BIDDING DATA**

<b>IB Clause Reference</b>	<b>Bidding Data</b>
1.1	<p><b>Name and address of the Employer:</b> Shaheed Mohtarma Benazir Bhutto Medical University, Larkana</p> <p><b>Address:</b> Shaheed Mohtarma Benazir Bhutto Medical University, Arija Campus, Larkana.</p>
1.1	<p><b>Name of the Project:</b> “Establishment of Center for Advanced Research in Molecular, Genetic and Pathological Labs at SMBB, Medical University, Larkana”.</p>
1.2	<p><b>Time for Completion for the Works:</b> 24 months or as stated in Letter of Acceptance.</p>
2.1	<p><b>Name of the Borrower/Source of Funding:</b> PSDP Funded HEC Project.</p>
2.1	<p><b>Amount and type of Funding:</b> Public Federal Financing.</p>
3.1	<p><b>Eligible Bidders</b></p> <p><i>Delete the text of clause 3.1 and replace with the following:</i></p> <p>This Invitation for Bids is open to all bidders meeting the following requirements:</p> <ul style="list-style-type: none"> <li>• Contractors / Firms registered with Income Tax (who are Active on Taxpayers List &amp; non defaulter of Federal Board of Revenue &amp; Sindh Board of Revenue (SRB)).</li> <li>• Valid/active registration certificate of Pakistan Engineering Council (PEC) in the category C-2 or above and at least specialization in PEC, BC01 CE01, CE-10, EE02, EE04, EE06, EE11, ME01, ME02, ME06, is mandatory.</li> <li>• The firm shall have Minimum 05 years’ experience.</li> <li>• Tax Returns for last 05 years.</li> <li>• At least one similar nature of work/Medical Labs Project completed successfully.</li> <li>• Contractors/Firms have not black listed currently (Affidavit/Certificate).</li> <li>• Average Annual turnover of Rs. 350 (M) for last 05 years (Bank Statement).</li> <li>• Having Valid/active Electric License is mandatory.</li> </ul>
8.1	<p><b>Time limit for clarification:</b> 7 days before deadline of submission of bids.</p>
8.3	<p><b>Venue, time, and date of the pre-Bid meeting:</b> Pre-Bid Meeting will be held on <b>13.04.2026 11:30</b> Main Administration Block at SMBB Medical University, Larkana (Arija)</p>

IB Clause Reference	Bidding Data
11.1	<p><b>Bid language:</b> English.</p>
12.1	<p><b>Documents comprising the Bid:</b> <i>Delete the text of clause 12.1 (a) &amp; (f) and replace with the following:</i> The bid is being invited as per ‘<b>Single Stage-One Envelope</b>’ procedure as per SPRRA Rules. If the bidder fails to fulfill any of following mandatory requirements, his bid will be considered as nonresponsive and will be rejected.</p> <ol style="list-style-type: none"> <li>1. The bid shall comprise a single package containing one envelope.</li> <li>2. The envelopes shall be marked the name of work in bold and legible letters to avoid confusion.</li> <li>3. The ‘Proposal’ must contain the following as per the requirements of this document and criteria mentioned in clause 26.1(vi) of bidding data: <ol style="list-style-type: none"> <li>a. Name of firm/contractor with year of establishment along with Postal Address and telephone number.</li> <li>b. Partnership deed of the firm (if applicable)</li> <li>c. Registration/Clearance from FBR and SRB</li> <li>d. Detail of Court cases if any/arbitration cases etc.</li> <li>e. Enlistment with concerned Government Departments.</li> <li>f. Detail of financial soundness.</li> <li>g. Undertaking on judicial paper that the firm was never blacklisted by any Government, Semi Govt. Organization.</li> <li>h. Copy of Valid Registration with Pakistan Engineering Council. Any additional information with documents in addition to the above that the firm might like to furnish in support of their application.</li> <li>i. Appendix-C to Bid                      Proposed Construction Schedule</li> <li>j. Appendix-D to Bid                      Method of Performing the Work</li> <li>k. Appendix-I to Bid                      Construction camp and housing facilities</li> <li>l. Appendix-G to Bid                      List of Subcontractors</li> <li>m. Appendix-F to Bid                      Organization Chart of the Supervisory Staff and Labour</li> <li>n. Appendix-J to Bid                      Integrity Pact</li> </ol> </li> <li>4. The “Financial proposal” must contain following documents: <ol style="list-style-type: none"> <li>a. Priced BOQ Bid Security @ 2% of bid amount in the form of Bank Draft/Call Deposit/Pay Order from any scheduled bank of Pakistan in favour of Project Director Shaheed Mohtrama Benazir Bhutto Medical University Larkana.</li> </ol> </li> </ol>
12.2	<p><b>Joint Venture (JV):</b> <i>Delete the text of clause 12.2 and replace with the following:</i> No Joint Venture is applicable for the said Project.</p>

IB Clause Reference	Bidding Data
14.1	<p><b>Currencies of Bid and Payment:</b> Bidders to quote entirely in Pak. Rupees.</p>
15.1	<p><b>Period of Bid Validity:</b> 90 days.</p>
16.1	<p><b>Amount of Bid Security:</b> Bid Security @ 2% of bid amount in the form of Bank Draft/Call Deposit/Pay Order from any scheduled bank of Pakistan in favour of Project Director Shaheed Mohtarma Benazir Bhutto Medical University Larkana.</p>
17.1	Alternative Proposal(s) by the Bidder shall not be considered.
18.4	<p><b>Number of copies of the Bid to be completed and submitted:</b> One original and one copy.</p>
19.2(a)	<p><b>Employer's address for the purpose of Bid submission:</b> Shaheed Mohtarma Benazir Bhutto Medical University, Larkana <b>Address:</b> Shaheed Mohtarma Benazir Bhutto Medical University, Arija Campus, Larkana</p>
19.2(b)	<p><b>Name and Number of the Contract:</b> Establishment of Center for Advanced Research in Molecular, Genetic and Pathological Labs at SMBB, Medical University, Larkana”.</p>
20.1(a)	<p><b>Deadline for submission of Bids:</b> Bids will be received till <b>07-04-2026 11:00</b> hours in sealed envelope.</p>
23.1	<p><b>Venue, time, and date of Bid opening:</b> Bids will be opened on <b>07-04-2026</b> at 11:30 am on address (mentioned in advertisement).</p>
32.1	<p><b>Award of the Contract:</b> <i>Delete the text of clause 32.1 replace with the following:</i> Subject to Clause IB.33 and IB.39, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding Document, has met the technical requirement criteria as mentioned in clause 26.1(vi) and has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be eligible in accordance with the provisions of Clause IB.3.</p>
35.1	<p><b>Standard form and amount of Performance Security acceptable to the Employer:</b> Up to 5% of the contract amount against bank guarantee from any scheduled bank of Pakistan.</p>

# **EVALUATION CRITERIA AND QUALIFICATION UPDATING FORMS**

## **EVALUATION CRITERIA AND QUALIFICATION UPDATING FORMS**

### **1. General**

This Section contains Eligibility and Qualification Criteria that the Employer shall use to evaluate Bids and qualify Bidders in accordance with Clauses IB.26 of Instructions to Bidders. The Bidder shall provide all the information requested in the relevant forms contained in Bidder's Qualification Updating Forms provided herein.

The information provided in the forms shall be substantiated with valid documentary evidences otherwise the requirement will not be considered as complied.

Wherever a Bidder is required to state a monetary amount, Bidders shall indicate the PKR equivalent using the rate of exchange determined as follows:

- For financial data - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.

Exchange rates shall be taken from the publicly available source identified in the Sub-Clause IB.14.2. Any error in determining the exchange rates in the Bid may be corrected by the Employer.

### **2. Domestic Preference**

A margin of preference of 7.5% (seven and a half percent) shall be granted to domestic Bidders (in case of JV, all partners are Pakistani Constructors), in accordance with and subject to the following provisions:

- (a) The Bidders applying for such preference shall provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Employer, a Bidder qualifies for a domestic preference.
- (b) After Bids have been received and reviewed by the Employer, responsive Bids shall be classified into the following groups:
  - (i) Group A: Bids offered by domestic Bidders eligible for the preference.
  - (ii) Group B: Bids offered by other Bidders.

All evaluated Bids in each group shall, as a first evaluation step, be compared to determine the lowest Bid, and the lowest evaluated Bids in each group shall be further compared with each other. If, as a result of this comparison, a Bid from Group A is the lowest, it shall be selected for the award. If a Bid from Group B is the lowest, as a second evaluation step, all Bids from Group B shall then be further compared with the lowest evaluated Bid from Group A. For the purpose of this further comparison only, an amount equal to 7.5% (seven and a half percent) of the respective Bid Price corrected for arithmetical errors, including unconditional discounts and excluding Provisional Sums and the cost of dayworks, if any, shall be added to the evaluated price offered in each Bid from Group B. If the Bid from Group A is the lowest, it shall be selected for award. If not, the lowest evaluated Bid from Group B based on the first evaluation step shall be selected.

### **3. Evaluation (IB 29.2(e))**

In addition to the criteria listed in IB 29.2 (a) - (d) the following criteria shall apply:

#### **3.1 Assessment of adequacy of Technical Proposal with Requirements**

**3.2 Multiple Contracts**, if permitted under Sub-Clause 1.1 of Bidding Data, will be evaluated as follows:

Award Criteria for Multiple Contracts

Bidders have the option to Bid for any one or more lots. Bids will be evaluated lot-wise, taking into account discounts offered, if any, for combined lots. The contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined lots, subject to the selected Bidder(s) meeting the required qualification criteria for lot or combination of lots as the case may be.

Qualification Criteria for Multiple Contracts

This Section describes criteria for qualification for each lot (contract). For multiple lots (contracts) the criteria for qualification is aggregate minimum requirement for respective lots.

**3.3 Price Adjustments**, if permitted under IB.29.2(d), will be evaluated as follows:

(a) Price Adjustment for Completeness in Scope of Work

In case of omission in the scope of work of a quoted item, no price adjustment for the omitted item(s) shall be applied provided that the Bidder has mentioned in his Bid that the same is covered in any other item. Otherwise the adjustments will be applied for comparison purpose only, taking the average price quoted by other lowest two evaluated substantially responsive Bidders in their original Bids for corresponding item. In case of non-availability of price from other Bidders, the price will be estimated by the Employer from a suitable CSR, adjusted to the date 28 days earlier to the Bid submission date or the Employer shall use its best assessment.

The price adjustment shall not justify any additional payment by the Employer and the price(s) of omitted item(s) shall be deemed covered by other prices of the Bill of Quantities.

(b) Price Adjustment for Technical/ Commercial Non Compliance

The cost of making good any deficiency resulting from technical/commercial non-compliance will be added to the Corrected Total Bid Price for comparison purpose only.

The adjustments will be applied taking the average price quoted by other lowest two evaluated substantially responsive Bidders in their original Bids for corresponding item. In case of non-availability of price from other Bidders, the price will be estimated by the Employer in accordance with sub-para (a) hereof.

**4. Qualification (Updating of Pre-Qualification)**

Eligibility and Qualification information described here below must be met by the legal entity(ies) comprising the Bidder, and not the Bidder's/JV partner's sister or parent companies, subsidiaries or affiliates.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture			Submission Requirements
				All Partners Combined	Each Member	Lead Member	
<b>1. Eligibility</b>							
1.1	<b>PEC Licencing</b>	Licencing by Pakistan Engineering Council (PEC) in accordance with paragraph (b) of Sub-Clause IB.3.1.	must meet requirement	must meet requirement	must be PEC Licencee	N/A	Provisional/ Standard PEC Licence. Foreign Constructor must submit JV Agreement with Pakistani Constructor.
1.2	<b>Pakistani Constructor's Tax Registration</b>	Requirement of Pakistani Constructor on Active Taxpayer List (ATL) of FBR in accordance with paragraph (c) of Sub-Clause IB.3.1.	must meet requirement	N/A	must meet requirement	N/A	Extracts of ATL
1.3	<b>Debarment/Blacklisting</b>	Not having been debarred/blacklisted in accordance with paragraph (d) of Sub-Clause IB.3.1.	Must meet requirement	N/A	Must meet requirement	N/A	Undertaking in the Letter of Bid

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture			Submission Requirements
				All Partners Combined	Each Member	Lead Member	
<b>2. Pending Litigation</b>							
2.1	<b>Pending Litigation</b>	Bidder's financial position and prospective long term profitability sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 1
<b>3. Financial Situation and Performance [Employer to specify requirements for each lot as applicable as prescribed in the Pre-Qualification Documents]</b>							
3.1	<b>Financial Capabilities</b>	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Eq. PKR _____ for	Must meet requirement	Must meet requirement	N/A	N/A	Form FIN – 3.1, FIN – 3.2, FIN – 3.3, with attachments



### **Bidders Qualification Updating Forms**

To establish its qualifications to perform the contract in accordance with Section (Evaluation Criteria and Qualification Updating Forms) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

**Form ELI -1.1**

**Bidder Information Form**

Date: \_\_\_\_\_

Bid Reference No. (if any) and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's country of registration: <i>[indicate country of Constitution]</i>
Bidder's year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents, in case of JV, JV agreement, in accordance with Sub-Clause IB 3.1.

**Form ELI -1.2**

**Bidder's JV Information Form  
(to be completed for each member of Bidder's JV)**

Date: \_\_\_\_\_  
Bid Reference No. (if any) and title: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____

**Form CON – 1**

**Pending Litigation**

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

Bid Reference No. (if any) and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Pending Litigation, in accordance with Eligibility and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Eligibility and Qualification Criteria, Sub-Factor 2.1. <input type="checkbox"/> Pending litigation in accordance with Eligibility and Qualification Criteria, Sub-Factor 2.1 as indicated below.			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Eq. PKR (exchange rate)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: _____  Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	

**Form FIN – 3.1:  
Financial Situation and Performance**

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

Bid Reference No. (if any) and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

**1. Financial data**

Type of Financial information in (currency)	Historic information for last year, (amount in currency, currency, exchange rate*, Eq. PKR)
Statement of Financial Position (Information from Balance Sheet)	
Total Assets (TA)	
Total Liabilities (TL)	
Total Equity/Net Worth (NW)	
Current Assets (CA)	
Current Liabilities (CL)	
Working Capital (WC)	
Information from Income Statement	
Total Revenue (TR)	
Profits Before Taxes (PBT)	
Cash Flow Information	
Cash Flow from Operating Activities	

\*Refer to IB 14.2 for the exchange rate

**2. Financial documents**

The Bidder and its parties shall provide copies of financial statements for last year pursuant to Eligibility and Qualification Criteria, Sub-factor 3.1. The financial statements shall:

- (a) reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).
- (b) be independently audited or certified in accordance with local legislation.
- (c) be complete, including all notes to the financial statements.
- (d) correspond to accounting periods already completed and audited.

Attached are copies of financial statements<sup>1</sup> for the last year required above; and complying with the requirements

<sup>1</sup> If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

**Form FIN – 3.2:**

**Financial Resources**

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Eligibility and Qualification Criteria.

No.	Source of financing	Amount (Eq. PKR)
1		
2		
3		

**Form FIN – 3.3:**

**Current Contract Commitments / Works in Progress**

Bidders and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

<b>Current Contract Commitments</b>					
<b>No.</b>	<b>Name of Contract</b>	<b>Employer’s Contact Address, Tel, Fax</b>	<b>Value of Outstanding Work [Current Eq. PKR]</b>	<b>Estimated Completion Date</b>	<b>Average Monthly Invoicing Over Last Six Months [Eq. PKR /month]</b>
1					
2					
3					
4					
5					

**LETTER OF BID  
AND  
SCHEDULES TO BID**

**LETTER OF BID**

Bid Reference No. \_\_\_\_\_  
*[Name of Contract/ Works]*

To: \_\_\_\_\_  
\_\_\_\_\_

Gentleman,

1. Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract, Specifications, Schedules to Bid including Bill of Quantities, Drawings and Addenda Nos. \_\_\_\_\_ for the execution of the above-named Works, we, the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the said Bidding Documents and Addenda for the sum of Equivalent PKR \_\_\_\_\_ (Eq. Pak Rupees \_\_\_\_\_) or such other sum as may be ascertained in accordance with the said conditions.
2. We meet the eligibility requirements in accordance with IB.3.
3. We, including any Subcontractors for any part of the Contract, are not debarred/ blacklisted by the Employer, any Government/Semi Government/Public Department in Pakistan or foreign country, international organizations or other foreign institutions.
4. Our subcontractors or suppliers for any part of the Contract, if any, shall have nationalities from eligible countries, in accordance with IB.4.4.
5. We understand that all the Schedules attached hereto form part of this Bid.
6. As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of PKR \_\_\_\_\_ (Pak. Rupees. \_\_\_\_\_) drawn in your favour or made payable to you and valid for a period of \_\_\_\_\_ days beginning from the date Bids are opened.
7. We undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in Contract Data.
8. We agree to abide by this Bid for the period of \_\_\_\_\_ days, inclusive of 14 days beyond Bid validity period (as mentioned at Sr. No. 6 above) and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
9. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
10. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other Bidder for the Works.
11. We understand that you are not bound to accept the lowest or any Bid you may receive.
12. We undertake that all the information and documents submitted with the Bid are genuine, and in case of incorrect information of fake documents we shall be liable for punitive action under the Applicable Law.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Signature: \_\_\_\_\_

in the capacity of \_\_\_\_\_ duly authorized to sign Bids for and on behalf of

---

*(Name of Bidder in Block Capitals)*  
*(Seal)*

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Witness:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Address. \_\_\_\_\_

\_\_\_\_\_

Occupation \_\_\_\_\_

## SCHEDULE OF ADJUSTMENT DATA

### Schedule of Cost Indexation

*[The Employer is to engage a professional with experience in construction costs and the inflationary effect on construction costs when preparing the contents of the Schedule of Cost Indexation. In the case of very large and/or complex works contracts, it may be necessary to specify several families of price adjustment formulae corresponding to the different works involved.]*

*[The formulae for price adjustment shall be of the following general type:]*

$$P_n = a + b \frac{L_n}{L_0} + c \frac{E_n}{E_0} + d \frac{M_n}{M_0} + \dots$$

where:

“P<sub>n</sub>” is the adjustment multiplier to be applied to the estimated Contract value in the relevant currency of the work carried out in period “n”, this period being a month;

“a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

“b”, “c”, “d”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;

“L<sub>n</sub>”, “E<sub>n</sub>”, “M<sub>n</sub>”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and

“L<sub>0</sub>”, “E<sub>0</sub>”, “M<sub>0</sub>”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

The weightings (coefficients) for each of the factors of cost stated in the following table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variation(s).

If the currency in which the Contract price is expressed is different from the currency of the country of origin of the indices, a correction factor will be applied to avoid incorrect adjustments of the Contract price. The correction factor shall be:  $Z_0 / Z_1$ , where,

$Z_0$  = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price on the Base date, and

$Z_1$  = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price on the Date of Adjustment.

**SCHEDULE OF ADJUSTMENT DATA**

Table I. Local Currency (LC) For Bill Nos. \_\_\_\_\_

Index code	Index description	Source of index		Bidder's related currency amount	Weighting	
(i)	Non-adjustable	—		—	A: _____	
(ii)					B: _____	
(iii)					C: _____	
(iv)	<i>[The Employer to select "elements of price adjustment using PEC Standard Procedure and Formula for Price Adjustment (Second Edition), May, 2022 as amended time to time.]</i>				D: _____	
(v)					E: _____	
(vi)					F: _____	
(vii)					G: _____	
<b>Total</b>					<b>1.00</b>	

**SCHEDULE OF ADJUSTMENT DATA**

**Table II. Foreign Currency (FC) For Bill Nos. \_\_\_\_\_**

*[In the Table below, the Bidder shall (a) indicate amount of foreign currency payment, (b) indicate the source and base values of indices for the different foreign currency elements of cost, (c) derive its proposed weightings of foreign currency payment, except the non-adjustable portion which will be filled in by the Employer.*

*If the Bidder wishes to incur in more than one foreign currency (up to two currencies permitted) then this table should be repeated for each foreign currency.]*

<b>Index code</b>	<b>Index description</b>	<b>Source of index</b>	<b>Base value and date</b>	<b>Bidder's related source currency in type/amount</b>	<b>Equivalent in FC1</b>	<b>Bidder's proposed weighting</b>
(i)	Non-adjustable	—	—	—		A: _____
(ii)						B: _____
(iii)						C: _____
(iv)						D: _____
(v)						E: _____
<b>Total</b>						<b>1.00</b>

**SCHEDULE OF ADJUSTMENT DATA****Table III. Foreign Currency Requirements**

[With reference to Sub Clause IB.14.1, the Bidder shall provide information below on the proportion of various currencies in which he requires payment to be made. The Bidders shall also indicate Factors (inputs) related to the requirement of respective currencies.]

<b>Sr. No</b>	<b>Currency (name)</b>	<b>Percentage payable in currency</b>	<b>Factors (inputs) to which the Requirements Refer</b>
1.	<b>LC</b> (Pak. Rs.)		* <i>General Expenses Manpower, Local Staff, Expatriate Staff, Spare Parts, Fuel &amp; Lubricants, Hydraulic Binder, Timber &amp; Plywood, Additives &amp; Protectives, Joints &amp; Waterstops, Explosives-Fuses-Detonators, Re-Steel &amp; Wire mesh, Metal Pipes &amp; Fittings, Structural Steel, Miscellaneous Metals, Concrete Pipes, PVC Pipes, Build Materials, Sub-Contractor, Drilling &amp; Grouting Sub-Contractor Third Party Supplies, Import Charges, General Expenses, Plants.</i>
2.	<b>FC1</b> (US \$ Dollar)		* <i>Expatriate Staff, Spare Parts, Hydraulic Binder, Timber &amp; Plywood, Additives &amp; Protectives, Drilling Materials, Miscellaneous, Sub-Contractor, Import Charges, General Expenses, Plants.</i>
3.	<b>FC2</b> (EUR € EURO)		* <i>Expatriate Staff, Spare Parts, Additives &amp; Protectives, Welding Materials, Miscellaneous, Electrical Sub-Contractor, Import Charges, General Expenses, Equipment, Plants.</i>
<b>TOTAL</b>		<b>100.00</b>	

[\*The above Factors (Inputs) related to the requirement of respective currencies, are for guidance only, and shall be indicated specific to the Contract.]

### SCHEDULE OF ADJUSTMENT DATA

**Table IV. Summary of Payment Currencies**

Name of payment currency	a Amount of currency	b Rate of exchange (local currency per unit of foreign)	c Local currency equivalent $c = a \times b$	d Percentage of Total Bid Price (TBP) $\frac{100xc}{TBP}$
Local currency (Pak. Rs)		1.00		
FC1				
FC2				
Total Bid Price				100.00
Provisional sums expressed in local currency	<i>[To be entered by the Employer]</i>		<i>[To be entered by the Employer]</i>	
<b>TOTAL BID PRICE</b> (including provisional sum)				

## BILL OF QUANTITIES

### A. Preamble:

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices as given in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.
3. The rates and prices as given in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works, or the same shall be determined by the Engineer in accordance with Clause 13, General Conditions.
6. General directions and description of work and materials are not necessarily repeated nor summarised in the Bill of Quantities. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the Bill of Quantities.
7. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub-Clause 13.4 of General Conditions of Contract.
8. The following abbreviations for units have been used in Bill of Quantities:

<b>Units</b>	<b>=</b>	<b>Abbreviations</b>
Cubic Meter	=	cum
Square Meter	=	sqm
Kilogram	=	kg
Provisional Sum	=	PS
Lump-Sum	=	LS

## **BILL OF QUANTITIES**

### **B. Work Items:**

1. The Bill of Quantities are attached at the end of this document.
2. Bidders shall price the Bill of Quantities in Pak. Rupees (PKR) only.

**CONSTRUCTION SCHEDULE**

Pursuant to Sub-Clause 8.3 of the General Conditions, the whole of the Works, and each Section (if any), shall be completed within the Time for Completion for the Works or Section (as the case may be) stated as hereunder and mentioned in Contract Data:

Description	Time for Completion (days)
a) Whole Works	
b) Section A	
c) Section B	
d) _____	
e) _____	

*[The Bidder shall provide, the Construction Schedule in the bar chart (CPM, PERT or any other to be specified herein) showing the sequence of work items and the period of time during which he proposes to complete each work item in such a manner that his proposed programme for completion of the whole of the Works and Sections of the Works may meet Employer’s completion targets in days noted above and counted from the Commencement Date (Attach sheets as required for the specified form of Construction Schedule)]*

## **METHOD OF PERFORMING THE WORK**

*[The Bidder is required to submit a narrative outlining the method of performing the Work. The narrative should indicate in detail and include but not be limited to:*

1. **Organization Chart:**

*Shall indicate head office and field office personnel involved in management and supervision, engineering, equipment maintenance and purchasing.*

2. **Mobilization:**

*In Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.*

3. **Method of executing the Works:**

*The procedures for installation of equipment and machinery and transportation of equipment and materials to the site.]*

### **LIST OF MAJOR EQUIPMENT**

*[The Bidder will provide on Sheet E-2 of this Schedule a list of all major equipment and related items, under separate heading for items owned, to be purchased or to be arranged on lease by him to carry out the Works. The information shall include make, type, capacity, and anticipated period of utilization for all equipment.]*

*The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Sheet E-3.]*

**LIST OF MAJOR EQUIPMENT**  
**Owned, Purchased or Leased**

Owned Purchased or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Condition	Present Location or Source	Date of Delivery at Site	Period of Work on Project
1	2	3	4	5	6	7
a. Owned						
b. To be Purchased						
c. To be arranged on Lease						

**LIST OF MAJOR EQUIPMENT**  
**Equipment details**

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	
The following information shall not be applicable for equipment owned by the Bidder		
Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

*[This Table shall be used for each item of Equipment separately]*

**ORGANIZATION CHART  
FOR THE  
SUPERVISORY STAFF AND LABOUR**

**LIST OF SUBCONTRACTORS**

I/ We intend to subcontract the following parts of the Work to subcontractors. In my/ our opinion, the subcontractors named hereunder are reliable and competent to perform that part of the work for which each is listed.

Enclosed are documentation outlining experience of subcontractors, the curriculum vitae and experience of their key personnel who will be assigned to the Contract, equipment to be supplied by them, size, location and type of contracts carried out in the past.

<b>Part of Works (Give Details)</b>	<b>Subcontractor (With Complete Address)</b>
<b>1</b>	<b>2</b>

**ESTIMATED PROGRESS PAYMENTS**

Bidder's estimate of the value of work which would be executed by him during each of the periods stated below, based on his Programme of the Works and the Rates in the Bill of Quantities, expressed in thousands of PKR:

Quarter	Amounts (1,000 PKR)
1	2
1 <sup>st</sup>	
2 <sup>nd</sup>	
3 <sup>rd</sup>	
4 <sup>th</sup>	
5 <sup>th</sup>	
6 <sup>th</sup>	
7 <sup>th</sup>	
8 <sup>th</sup>	
9 <sup>th</sup>	
<b>Bid Price</b>	

## CONSTRUCTION CAMP AND HOUSING FACILITIES

*The Bidder shall list or explain his plans for providing these facilities for the service of the Contract as follows:*

1. *Site Preparation (clearing, land preparation, etc.).*
2. *Provision of Services.*
  - a) *Electrical power (expected power load, etc.).*
  - b) *Water (required amount and system proposed).*
  - c) *Sanitation (sewage disposal system, etc.)*
3. *Construction of Facilities*
  - a) *Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).*
  - b) *Warehouses and Storage Areas (area required, type of construction and layout).*
  - c) *Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).*
4. *Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).*
5. *Other Items Proposed (Security services, etc.)]*

**Note:**

The Contractor shall be responsible for pumps, electrical power, water and electrical distribution systems, and sewerage system including all fittings, pipes and other items necessary for servicing the Contractor's construction camp.

**INTEGRITY PACT**

**DECLARATION OF FEES, COMMISSION AND BROKERAGE, ETC.**

**PAYABLE BY THE BIDDERS/CONTRACTORS OF GOODS, SERVICES & WORKS IN  
CONTRACTS WORTH PAK. RS. 10.00 MILLION OR MORE**

Contract No. \_\_\_\_\_

Dated \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Title: \_\_\_\_\_

..... [Name of Bidder/Contractor] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GoP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

Without limiting the generality of the foregoing, [Name of Bidder/ Contractor] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder’s fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Bidder/Contractor] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[Name of Bidder/Contractor] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [name of Bidder/Contractor] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder’s fee or kickback given by [name of Bidder/Contractor] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

Name of Employer: .....

Name of Bidder/Contractor: .....

Signature: .....

Signature: .....

[Seal]

[Seal]

# **STANDARD FORMS**

BS-1

**FORM OF BID SECURITY**

Security Executed on \_\_\_\_\_  
(Date)

Expiry on \_\_\_\_\_  
(Date)

Name of Surety with Address: \_\_\_\_\_

Name of Principal (Bidder) with Address \_\_\_\_\_

Penal Sum of Security PKR \_\_\_\_\_ (Pak Rupees \_\_\_\_\_)

Bid Reference No. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto \_\_\_\_\_ (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated \_\_\_\_\_ for \_\_\_\_\_ (Particulars of Bid) to the said Employer; and

- (1) WHEREAS, the Employer has required as a condition for considering said Bid that the Bidder furnishes a Bid Security in the above said sum to the Employer, conditioned as under: that the Bid Security shall remain in force for a period fourteen (14) days beyond the Bid Validity date i.e., upto \_\_\_\_\_.
- (2) that the Bid Securities of the Bidders except the lowest three will be returned by the Employer within twenty eight (28) days from the opening of Bids, provided a Bidder request for the return of its Bid Security, or on the expiry of original validity of Bid Security or as extended, whichever is earlier;
- (3) that the Bid Security of the lowest three Bidders comprising the successful Bidder will be returned when the successful Bidder has furnished the required Performance Security; and
- (4) that in the event of failure of the successful Bidder to furnish the required Performance Security, the entire said sum be paid immediately to the said Employer pursuant to IB.16 and IB.35 of the Instructions to Bidders for the successful Bidder's failure to perform.

NOW THEREFORE, if the successful Bidder shall, within the period specified therefor, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer in accordance with his Bid as accepted and furnish within twenty eight (28) days of his being requested to do so, a Performance Security with good and sufficient surety, as may be required, upon the form prescribed by the said Employer for the faithful performance and proper fulfilment of the said Contract or in the event of non-withdrawal of the said Bid within the time specified for its validity then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

**BS-2**

PROVIDED THAT the Surety shall forthwith pay the Employer the said sum upon first written demand of the Employer (without cavil or argument) and without requiring the Employer to prove or to show grounds or reasons for such demand, notice of which shall be sent by the Employer by registered post duly addressed to the Surety at its address given above.

PROVIDED ALSO THAT the Employer shall decide, whether the Principal (Bidder) has duly performed his obligations to sign the Contract Agreement and to furnish the requisite Performance Security within the time stated above, or has defaulted in fulfilling said requirements and the Surety shall pay without objection the said sum upon demand from the Employer forthwith and without any reference to the Principal (Bidder) or any other person.

IN WITNESS WHEREOF, the above bounden Surety has executed the instrument under its seal on the date indicated above, the name and seal of the Surety being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

SURETY  
(Schedule Bank/Insurance Company)

WITNESS:

Signature \_\_\_\_\_

1. \_\_\_\_\_  
\_\_\_\_\_  
Corporate Secretary (Seal)

Name \_\_\_\_\_

Title \_\_\_\_\_  
Corporate Guarantor (Seal)

2. \_\_\_\_\_  
\_\_\_\_\_  
Name, Title & Address

PS-1

**FORM OF PERFORMANCE SECURITY**

Guarantee No. \_\_\_\_\_

Executed on \_\_\_\_\_

Expiry date \_\_\_\_\_

[Letter by the Guarantor to the Employer]

Name of Guarantor with address: \_\_\_\_\_

\_\_\_\_\_

Name of Principal (Contractor) with address: \_\_\_\_\_

\_\_\_\_\_

Penal Sum of Security (*express in words and figures*) \_\_\_\_\_

\_\_\_\_\_

Letter of Acceptance No. \_\_\_\_\_ Dated \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the \_\_\_\_\_ (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the Employer's above said Letter of Acceptance for \_\_\_\_\_

\_\_\_\_\_ (*Name of Contract*) for the \_\_\_\_\_

\_\_\_\_\_ (*Name of Project*).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 11, Defects After Taking Over, of Conditions of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, \_\_\_\_\_ (the Guarantor), waiving all objections and defense under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments

and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number.

PROVIDED ALSO THAT the Employer shall decide, whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**Guarantor**  
(Schedule Bank/ Insurance Company)

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Corporate Guarantor (Seal)

WITNESS:

1. \_\_\_\_\_  
\_\_\_\_\_  
Corporate Secretary (Seal)

2. \_\_\_\_\_  
\_\_\_\_\_  
Name, Title & Address

## Letter of Acceptance

*[letterhead paper of the Employer]*

NAME OF CONTRACT: \_\_\_\_\_

CONTRACT NUMBER: \_\_\_\_\_

TO : \_\_\_\_\_

Date: \_\_\_\_\_

Your Reference: \_\_\_\_\_

Our Reference: \_\_\_\_\_

We thank you for your Bid dated \_\_\_\_\_ for the execution and completion of the Works comprising the above-named Contract and remedying of defects therein, all in conformity with the terms and conditions contained in the Contract.

We have pleasure in accepting your Bid for the Accepted Contract Amount of:

\_\_\_\_\_  
[currency and amount in figures]

\_\_\_\_\_  
[currency and amount in words]

In consideration of you properly and truly performing the Contract, we agree to pay you the Accepted Contract Amount or such other sums to which you may become entitled under the terms of the Contract, at such times and as prescribed by the Contract.

We acknowledge that this Letter of Acceptance creates a binding Contract between us, and we undertake to fulfil all our obligations and duties in accordance with the terms of this Contract.

Signature: \_\_\_\_\_

Signed by: \_\_\_\_\_

For and on behalf of: \_\_\_\_\_

Date: \_\_\_\_\_

## FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the \_\_\_\_\_ day of \_\_\_\_\_ (month) 20\_\_\_\_ between \_\_\_\_\_

\_\_\_\_\_ (hereinafter called the "Employer") of the one part and \_\_\_\_\_ (hereinafter called the "Contractor") of the other part.

WHEREAS the Employer is desirous that certain Works, viz., \_\_\_\_\_ should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnessed as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents, in the order of priority, after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement:
  - a) This Contract Agreement;
  - b) The Letter of Acceptance;
  - c) The Letter of Bid;
  - d) The Particular Conditions Part A - Contract Data;
  - e) The Particular Conditions Part B - Special Provisions;
  - f) The General Conditions;
  - g) The Specifications Part A - Specific Provisions;
  - h) The Specifications Part B - Technical Provisions;
  - i) The Drawings;
  - j) The Completed Schedules to Bid including Schedule of Prices;
  - k) the JV Undertaking (if the Contractor is a JV); and
  - l) [*Employer to insert any other documents forming part of the Contract*]

The addenda/corrigenda, if any, (Excluding part relating to Instructions to Bidders alongwith Bidding Data) shall be deemed to have been incorporated at the appropriate places in the "Documents forming the Contract".

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed on the day, month and year first before written in accordance with their respective laws.

\_\_\_\_\_  
Signature of Contactor

\_\_\_\_\_  
Signature of Employer

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

Signed, Sealed and Delivered in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

\_\_\_\_\_  
(Name, Title and Address)

\_\_\_\_\_  
(Name, Title and Address)

DAAB-1

## DAAB Agreement

Name and details of the Contract \_\_\_\_\_

This Agreement made the \_\_\_\_\_ day of \_\_\_\_\_ [month], \_\_\_\_\_ [year], between

Name and contact details of the Employer \_\_\_\_\_ (name)  
 \_\_\_\_\_ (address)  
 \_\_\_\_\_ (telephone)  
 \_\_\_\_\_ (email / other contact details);

Name and contact details of the Contractor \_\_\_\_\_ (name)  
 \_\_\_\_\_ (address)  
 \_\_\_\_\_ (telephone)  
 \_\_\_\_\_ (email / other contact details);

Name and contact details of the DAAB Member \_\_\_\_\_ (name)  
 \_\_\_\_\_ (address)  
 \_\_\_\_\_ (telephone)  
 \_\_\_\_\_ (email / other contact details);

**(“DAAB Agreement”)**

Whereas:

- A. the Employer and the Contractor have entered (or intend to enter) into the Contract;
- B. under the Contract, the “**DAAB**” or “**Dispute Avoidance/Adjudication Board**” means the sole member or three members (as stated in the Contract Data of the Contract) so named in the Contract, or appointed under Sub-Clause 21.1 [*Constitution of the DAAB*] or Sub-Clause 21.2 [*Failure to Appoint DAAB Members*] of the Conditions of Contract;
- C. the Employer and the Contractor desire jointly to appoint the above-named DAAB Member to act on the DAAB as:
  - a. the sole member of the DAAB, and where this is the case, all references to the “Other Members” do not apply; or
  - b. one of three members / chairman [*delete the one which is not applicable*] of the DAAB and, where this is the case, the other two persons are:

## DAAB-2

_____ (name)	_____ (name)
_____ (address)	_____ (address)
_____ (telephone)	_____ (telephone)
_____ (email/ other contact details)	_____ (email/ other contact details)

the “**Other Members**”; and

D. the DAAB Member accepts this appointment.

**The Employer, Contractor and DAAB Member jointly agree as follows:**

1. The conditions of this DAAB Agreement comprise:
  - (a) Clause 21 [*Disputes and Arbitration*] of the Conditions of Contract, and any other provisions of the Contract that are applicable to the DAAB’s Activities; and
  - (b) the “General Conditions of Dispute Avoidance/Adjudication Agreement”, which is appended to the General Conditions of the “Conditions of Contract for Construction” Second Edition 2017 published by FIDIC (“GCs”), as amended and/or added to by the following provisions.
2. [Details of amendments to the GCs, if any. For example:  
In the procedural rules annexed to the GCs, Rule \_ is deleted and replaced by: “ ... “]
3. The DAAB Member shall be paid in accordance with Clause 9 of the GCs. The currency of payment shall be \_\_\_\_\_.  
In respect of Sub-Clauses 9.1 and 9.2 of the GCs, the amounts of the DAAB Member’s monthly fee and daily fee shall be:  
monthly fee \_\_\_\_\_ per month, and  
daily fee of \_\_\_\_\_ per day  
(or as otherwise set under Sub-Clause 9.3 of the GCs).
4. In consideration of the above fees, and other payments to be made to the DAAB Member in accordance with the GCs, the DAAB Member undertakes to act as DAAB Member in accordance with the terms of this DAAB Agreement.
5. The Employer and the Contractor shall be jointly and severally liable for the DAAB Member’s fees and other payments to be made to the DAAB Member in accordance with the GCs.
6. This DAAB Agreement shall be governed by the law of \_\_\_\_\_ (if not stated, the law that governs the Contract under Sub-Clause 1.4 of the Conditions of Contract).

**DAAB-3**

SIGNED by: _____	SIGNED by: _____	SIGNED by: _____
Print name: _____	Print name: _____	DAAB Member
Title: _____	Title: _____	Title: _____
for and on behalf of the Employer	for and on behalf of the Contractor	
in the presence of	in the presence of	in the presence of
Witness: _____	Witness: _____	Witness: _____
Name: _____	Name: _____	Name: _____
Address: _____	Address: _____	Address: _____
_____	_____	_____
Date: _____	Date: _____	Date: _____

**FORM OF MOBILIZATION ADVANCE GUARANTEE/ BOND**

Guarantee No. \_\_\_\_\_ Date \_\_\_\_\_

WHEREAS \_\_\_\_\_ (hereinafter called the 'Employer')

has entered into a Contract for \_\_\_\_\_

(Particulars of Contract)

with \_\_\_\_\_ (hereinafter called the "Contractor").

AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Pak Rupees \_\_\_\_\_ (PKR \_\_\_\_\_) which amount shall be advanced to the Contractor as per provisions of the Contract.

AND WHEREAS, the Employer has asked the Contractor to furnish Guarantee to secure the mobilization advance for the performance of his obligations under the said Contract.

AND WHEREAS, \_\_\_\_\_

(hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.

NOW, THEREFORE, the Guarantor hereby guarantees that the Contractor shall use the advance for the purpose of above mentioned Contract and if he fails and commits default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount.

Notice in writing of any default, on the part of the Contractor, of which the Employer at his discretion of making decision, shall be given by the Employer to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection.

This Guarantee shall remain in force until the advance is fully adjusted against payments from the Interim Payment Certificates of the Contractor or until \_\_\_\_\_ whichever is earlier. (Date)

The Guarantor's liability under this Guarantee shall not in any case exceed the sum of PKR \_\_\_\_\_ (Pak Rupees \_\_\_\_\_).

This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against payments from Interim Payment Certificates of the Contractor provided that the Guarantor

**MG-2**

agrees that the aforesaid period of validity shall be deemed to be extended if on the above mentioned date the advance payment is not fully adjusted.

Guarantor  
*(Scheduled Bank/ Insurance Company)*

WITNESS:

1. \_\_\_\_\_  
\_\_\_\_\_  
Corporate Secretary (Seal)

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_  
Corporate Guarantor (Seal)

2. \_\_\_\_\_  
\_\_\_\_\_  
Name, Title & Address

# **CONDITIONS OF CONTRACT**

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## **CONDITIONS OF CONTRACT**

The Conditions of Contract comprise two parts:

- (a) General Conditions
- (b) Particular Conditions

### **General Conditions**

These Conditions are the “General Conditions” which form part of the “FIDIC Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer Second Edition (2017 Red book, Reprinted 2022 with amendments)” published by:

International Federation of Consulting Engineers  
(Fédération Internationale des Ingénieurs – Conseils) – (FIDIC)  
World Trade Center II - Geneva Airport  
P. O. Box 311  
CH-1215 Geneva 15  
Switzerland  
Email: [fidic@fidic.org](mailto:fidic@fidic.org), [fidic.pub@fidic.org](mailto:fidic.pub@fidic.org)  
Website: <https://fidic.org/bookshop>

The successful Bidder after award of Works shall have to provide two (02) copies of above said “General Conditions” for incorporation in the Contract.

## Particular Conditions

*(Mandatory Provisions not to be amended/substituted  
except as instructed/permitted by PEC in writing)*

The Particular Conditions (PC) complement the General Conditions (GC) to specify dates, contractual requirements, and special circumstances related to the Works. The PC consists of two parts, Part A - Contract Data and Part B - Special Provisions. The provisions to be found in the Special Provisions (Particular Conditions - Part B) take precedence over the equivalent provisions found under the same Sub-Clause number(s) in the General Conditions, and the provisions of the Contract Data (Particular Conditions - Part A) take precedence over the Special Provisions (Particular Conditions - Part B).

### Part A - Contract Data

Sub-Clause	Data to be Given	Data
1.1.27	Defects Notification Period (DNP):	365 days
1.1.31	Employer's name and address:	Shaheed Mohtarma Benazir Bhutto Medical University, Larkana <b>Address:</b> Shaheed Mohtarma Benazir Bhutto Medical University, Arija Campus, Larkana
1.1.35	Engineer's name and address:	Engr. Riaz Hussain Waggan Project Director <b>Address:</b> Main Administration Block Arija, Office of the Project Director, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana.
1.1.73	Sections:	"None"
1.1.84	Time for Completion:	24 months for whole of the Works
1.3(a)(ii)	agreed methods of electronic transmission:	E-mail
1.3(d)	address of Employer for communications:	Shaheed Mohtarma Benazir Bhutto Medical University, Arija Campus, Larkana
	address of Engineer for communications:	Main Administration Block Arija, Office of the Project Director, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana
	address of Contractor for communications:	_____ _____

Sub-Clause	Data to be Given	Data
1.4	Contract shall be governed by the law of: ruling language: language for communications:	Islamic Republic of Pakistan English English
1.8	number of additional paper copies of Contractor's Documents:	One
2.1	after receiving the Letter of Acceptance, the Contractor shall be given right of access to all or part of the Site within:	No later than the Commencement Date, except for the following parts: _____ days after Commencement  Date _____ [if applicable, include detailed description of parts concerned].
2.4	Employer's financial arrangements	PSDP Funded HEC Project
3.2 (e)(ii)	Engineer's Duties and Authority	Variation resulting in an increase of the Accepted Contract Amount in excess of one percent (1%) subject to accumulative Variations not exceeding five percent (5%) of the Accepted Contract Amount
4.2	Performance Security (as percentage of the Accepted Contract Amount in Currencies) percent: currency:	Five percent (5%) denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer
4.2.1	List of Insurance Companies	N/A
4.7.2	period for notification of errors in the items of reference	Twenty Eight (28) days
4.19	period of payment for temporary utilities	each month
4.20	number of additional paper copies of progress reports	01
5.1(a)	maximum allowable accumulated value of work subcontracted (as a percentage of the Accepted Contract Amount)	Fifteen percent (15%) [Employer may vary this percentage according to the nature and complexity of the Works]

Sub- Clause	Data to be Given	Data
5.1(b)	parts of the Works for which subcontracting is not permitted	_____ <i>[Employer to provide his requirement according to the nature and complexity of the Works or state "None"]</i>
6.5	Normal working hours on the Site	_____ <i>[insert eight (08) hours per day under normal circumstances]</i>
8.3	number of additional paper copies of programmes	_____ <i>[insert number of copies say three (03)]</i>
8.8 & 14.15(b)	Delay Damages payable for each day of delay	Pak. Rs. in % 0.5% of the Accepted Contract Amount for delay in completion of whole of the Works, not more 10% maximum.  <i>[If Sections are to be used, refer to Table: Summary of Sections below]</i>  <i>[Delay Damages should correspond to anticipated damages or max. amount of Delay Damages be achieved in one third of the Time for Completion]</i>
8.8	maximum amount of Delay Damages	Upto Ten percent (10%) of the Accepted Contract Amount
8.14	Applicability of Incentives for Early Completion	_____ <i>[insert "Yes" or "No"]</i>
12.3	Percentage profit	As per the quoted cost
13.4.( b)(ii)	percentage rate to be applied to Provisional Sums for overhead charges and profit	Twenty Five percent (25%)
14.2	Total Advance Payment	Ten percent (10%) of the Accepted Contract Amount excluding Provisional Sums payable in the currencies and proportions in which the Accepted Contract Amount is payable
14.2.1	List of Insurance Companies	1. _____ 2. _____ 3. _____  <i>[insert list of Insurance Companies acceptable to the Employer as per criteria given in PC 14.2.1]</i>

Sub-Clause	Data to be Given	Data
14.2.3	percentage deductions for the repayment of the Advance Payment	Deduction shall be made at the amortization rate of 17.5 % of the value of the Works executed of each IPC as provided in paragraph (i) of Sub-Clause GCC 14.3, starting from 2 <sup>nd</sup> IPC provided that the advance payment shall be completely repaid prior to the time when 90% of the Accepted Contract Amount less Provisional Sums has been certified for payment. It may be more than 17.5% in the last instalment to ensure full repayment.
14.3	period of payment	one month
14.3(b)	number of additional paper copies of Statements	_____ N/A
14.3(iii)	percentage of retention of running bill	Five percent (5%)
14.3(iii)	limit of Retention Money (as a percentage of the Contract Price)	Five percent (5%)
14.5(b)(i)	Plant and Materials for payment when shipped	Plant and Materials under Bill of “Imported Plant and Materials” or _____ [Employer shall list accordingly].
14.5(c)(i)	Plant and Materials for payment when delivered to the Site	Plant and Non Perishable Materials _____ [Employer shall list accordingly].
14.6.2	minimum amount of Interim Payment Certificate (IPC)	Rs. 36 million or less than that subject to approval of Project Director.
14.7(a)	period of payment of Advance Payment to the Contractor	14 days
14.7b(i)	period for the Employer to make interim payments to the Contractor under Sub-Clause 14.6 [Interim Payment]	28 days
14.7b(ii)	period for the Employer to make interim payments to the Contractor under Sub-Clause 14.13 (Final Payment)	28 days

Sub-Clause	Data to be Given	Data
14.7(c)	period for the Employer to make final payment to the Contractor	56 days
14.8	financing charges for delayed payment	KIBOR+3% per annum for local currency and SOFR (Secured Overnight Financing Rate) +1% per annum for foreign currency.
14.11.1(b)	number of additional paper copies of draft Final Statements	_____ <i>[insert number of copies say six (06)]</i>
14.15	currencies of payment of Contract Price	as stated in the Table III of Schedule A [ <i>Schedule of Adjustment Data</i> ]
14.15(a)(i)	Proportions or amounts of Local and Foreign currencies	as stated in the Table IV of Schedule A [ <i>Schedule of Adjustment Data</i> ]
14.15(c)	currencies and proportions for payment of Delay Damages	as stated in the Table IV of Schedule A [ <i>Schedule of Adjustment Data</i> ]
14.15(f)	rates of exchange	as stated in the Table IV of Schedule A [ <i>Schedule of Adjustment Data</i> ]
17.2(d)	forces of nature, the risks of which are allocated to the Contractor	Nil
19.1	permitted deductible limits: i) insurance required for the Works ii) insurance required for Goods iii) insurance required for liability for breach of professional duty iv) insurance required against liability for fitness for purpose (if any is required) v) insurance required for injury to persons and damage to property vi) insurance required for injury to employees vii) other insurances required by Laws and by local practice	i) Ten percent (10%) of loss amount on each & every loss ii) Nil iii) Nil iv) Nil v) Nil vi) Nil vii) Nil
19.1	Periods for submission of insurance: a) evidence of insurance b) relevant policies	Not later than the Commencement Date  Within twenty eight (28) day from the Commencement Date

Sub-Clause	Data to be Given	Data
19.2.1(b)	additional amount to be insured (as a percentage of the replacement value)	15% of the replacement value (Accepted Contract Amount)
19.2.2	extent of insurance required for Goods  amount of insurance required for Goods	from Ex-Works (i.e., works, factory, warehouse, etc) to delivery at the Site  Full replacement value
19.2.3 (a)	amount of insurance required for liability for breach of professional duty	Full replacement value of the Works to be designed by the Contractor
19.2.3(b)	insurance required against liability for fitness for purpose	Yes
19.2.3	period of insurance required for liability for breach of professional duty	Until the date of issuance of Performance Certificate
19.2.4	amount of insurance required for injury to persons and damage to property	Injury to person and Fatal case: in accordance with Workmen Compensation Act  Damage to Property:  [Employer to insert amount(s) as per his assessment of the adjoining property(ies) other than the Works]  without limit to the number of incidents
19.2.6	other insurances required by Laws and by local practice	All insurances as applicable, to the extent of execution of the project, under Federal and Provincial laws of Islamic Republic of Pakistan
21.1	time for appointment of the DAAB	Within 28 days from the Commencement Date.  In case the Accepted Contract Amount is lesser than PKR one (01) billion, appointment of the DAAB shall be made when Dispute arises between the Parties.

Sub- Clause	Data to be Given	Data
21.1	the DAAB shall comprise	<p>_____</p> <p><i>[insert either “a sole Member” or “Three Members”]</i></p> <p><i>[For a Contract estimated to cost above PKR 2.5 billion, the DAAB shall comprise of three members. For a Contract estimated to cost between PKR 1 billion and PKR 2.5 billion, the DAAB may comprise of three members or a sole member. For a Contract estimated to cost less than PKR 1 billion, a sole member is recommended.]</i></p>
21.1	<p>List of proposed members of DAAB</p> <p>- proposed by Employer</p> <p>- proposed by Contractor</p>	<p><i>[to be inserted at the time of signing of the Contract]</i></p> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p>
21.2	Appointing entity (official) for DAAB members	Chairman Pakistan Engineering Council (PEC) from the list of PEC approved arbitrators published at its website
21.6	Rules of Arbitration	<p>PEC Rules of Conciliation and Arbitration or Pakistan Arbitration Act of 1940, if the former is inactive.</p> <p>The place of Arbitration shall be in the Employer’s country:  <b>Larkana, Pakistan</b></p>

**Summary of Sections of the Works**

<b>Section Name/Description of parts of the Works that shall be designated a Section for the purposes of the Contract (Sub-Clause 1.1.73)</b>	<b>Value: Percentage* of Accepted Contract Amount (Sub-Clause 14.9)</b>	<b>Time for Completion (Sub-Clause 1.1.84)</b>	<b>Delay Damages (Sub-Clause 8.8)</b>
A			
B			
C			

\* These percentages shall also be applied to each half of the Retention Money under Sub-Clause 14.9.

<b>Section Name/Description (Sub-Clause 1.1.73)</b>	<b>Time for Completion (Sub-Clause 1.1.84)</b>	<b>Incentives for Early Completion (Sub-Clause 8.14)</b>
A		
B		
C		

## Particular Conditions

### Part B - Special Provisions

- 1.1 Definitions**      1.1.76 “Specification”  
 Following is added at the end:  
 “and consists of two parts i.e.,  
 i) “Part A - Specific Provisions”; and  
 ii) “Part B - Technical Provisions”.”
- 1.2 Interpretation**      “and” is deleted from the end of sub-paragraph (i) and added at the end of sub-paragraph (j).  
 Sub-paragraph (k) is added:  
 “(k) The word “tender” is synonymous with “bid” the word tenderer with “bidder”, the words “tender documents” with “bidding documents” and “Schedule of Prices” with “Bill of Quantities”, as applicable.”
- 1.5 Priority of Documents**      The documents listed at (a) through (k) of this Sub-Clause are deleted and substituted with the following:  
 (a) the Contract Agreement;  
 (b) the Letter of Acceptance;  
 (c) the Letter of Bid;  
 (d) the Particular Conditions Part A - Contract Data;  
 (e) the Particular Conditions Part B - Special Provisions;  
 (f) the General Conditions;  
 (g) the Specification Part A - Specific Provisions;  
 (h) the Specification Part B - Technical Provisions;  
 (i) the Drawings;  
 (j) the completed Schedules to Bid including Bill of Quantities;  
 (k) the JV Undertaking (if the Contractor is a JV); and  
 (l) any other documents forming part of the Contract.  
 The addenda/corrigenda, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.
- 1.6 Contract Agreement**      In the last line of the 1<sup>st</sup> paragraph the text “shall be borne by the Employer” is substituted by “shall be reimbursed by the Employer to the Contractor”.
- 3.1 The Engineer**      In sub-paragraph (a) the text “as defined in the Pakistan Engineering Council Act, 1975 (Act No. V of 1976)” are added after the words “professional engineer”.
- 3.2 Engineer’s Duties and Authority**      The Engineer shall obtain the consent in writing of the Employer before taking action under the following Sub-Clauses of these Conditions:  
 (a) Consenting to the subcontracting of any part of the Works

- under Sub-Clause 5.1 [Subcontractors]
- (b) Any action under Sub-Clauses 8.9 [Employer’s Suspension] and 8.12 [Prolonged Suspension]
- (c) Issuance of “Taking Over Certificate” under Sub-Clause 10.1 [Taking Over the Works and Sections].
- (d) Issuing the “Performance Certificate” under Sub-Clause 11.9 [Performance Certificate].
- (e) Sub-Clause 13.1 [Right to Vary]: instructing a Variation, except;
  - (i) in an emergency situation as determined by the Engineer, or
  - (ii) if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Contract Data.
- (f) Sub-Clause 13.3 [Variation Procedure]: approving a proposal for Variation submitted by the Contractor in accordance with Sub-Clause 13.3.2 [Variation by Request for Proposal] or 13.2 [Value Engineering].
- (g) Certifying release of second half of the Retention Money under Sub-Clause 14.9 [Release of Retention Money].
- (h) Issuing Final Payment Certificate under Sub-Clause 14.13 [Issue of FPC].
- (i) Sub-Clause \_\_\_\_\_\*
- (j) Sub-Clause \_\_\_\_\_\*

*\*[insert Sub-Clause number (not Sub-Clause 3.7 [Agreement or Determination])]*

Any such requirement shall not be applied to any action by the Engineer under Sub-Clause 3.7 [Agreement or Determination], as stated in Sub-Clause 3.2 [Engineer’s Duties and Authority] of the General Conditions.

Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.

Following is added after the words “the Employer’s consent is required” in 4<sup>th</sup> paragraph:

“stating that the Employer’s consent has been obtained for that specified authority”

**4.1 Performance Security**

**4.2.1 Contractor’s Obligations**

The entity issuing the Performance Security and its form shall be as under:

The Performance Security shall be, at the option of the Contractor, issued in the prescribed form included in the Bidding Documents, by (a) a Scheduled Bank in Pakistan or (b) a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan or (c) an Insurance Company listed in the Contract Data and rated by PACRA/VIS of rating as provided in Table below:

Accepted Contract Amount (In Eq. PKR million)	Minimum Rating of Insurance Companies
Up to 1000	A (+)
1001 to no limit	AA

In case of Joint Venture, the Performance Security shall be in the name of the Joint Venture or in the name of Lead/either firm of the JV or in ratio of shares of the individual JV partners.

Following paragraph is added at the end of this Sub-Clause:

“The amount of Performance Security shall be reduced to 50% following issue of the Taking-Over Certificate for the whole of the Works under Clause 10 of Conditions of Contract.”

**4.2 Contractor’s Representative**

In second paragraph the text “professional engineer as defined in the Pakistan Engineering Council Act, 1975 (Act No. V of 1976) (having temporary licence in case of foreign engineer under Section 12 of the Pakistan Engineering Council Act, 1975 (Act No. V of 1976)” are added after the words “qualified, experienced”.

In the 3<sup>rd</sup> paragraph the words “28 days” are substituted by “14 days”. In 2<sup>nd</sup> line of 4<sup>th</sup> paragraph the text “or appoint a replacement” is substituted by “except appointment of a suitable temporary replacement is deployed at the Site”

**4.3 Contractor’s Documents**

**4.4.2 As-Built Records**

First paragraph is deleted and the text in the last paragraph is substituted with the following:

“The Contractor shall furnish to the Engineer 6 copies, one reproducible and one electronic copy (provided the Engineer has made available to the Contractor editable form of the Drawings) of all Drawings amended to conform to the Works as built. In case the Engineer does not make available to the Contractor editable form of the Drawings, the Contractor shall furnish to the Engineer as-built data for incorporation in the Drawings. Upon receipt of PDF versions of the as-built drawings prepared by the Engineer, the Contractor shall furnish to the Engineer 6 copies and one reproducible of these Drawings.

The price of such Drawings shall be deemed to be included in the Contract Price.”

Following Sub-Clause is added:

4.4.4 Shop Drawings

The Contractor shall submit to the Engineer for review 3 copies of all shop and erection drawings applicable to this Contract as per provision of relevant Sub-Clause of the Contract.

Review and approval by the Engineer shall not exceed 21 days and be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and the Engineer’s review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

**4.8 Health and Safety Obligations**

The following text is added at the end of this Sub-Clause:

In the event of work being carried out outside the normal working hours and in the event of work being carried out at night, the Contractor shall at his own cost, provide and maintain such good and sufficient light as will enable the work to proceed satisfactorily and without danger. The approaches to the Site and the Works where the night work is being carried out shall be sufficiently lighted. All arrangement adopted for such lighting shall be to the satisfaction of the Engineer.

**4.20 Progress Reports**

At the end of sub-paragraph (g) the word “and” is deleted and at the end of sub-paragraph (h) the full stop (.) is replaced with “;”, and the following new sub-paragraphs are added as:

- (i) planned programme for the execution of the Works for next 56 days to enable the Engineer to determine its programme of inspection and testing;
- (j) monthly summery of daily job record indicating weather conditions, deployment of Contractor’s Equipment, labour employment, local material procurement and material import, if any; and
- (k) salient contractual and project information.

**5.1 Subcontractors**

Add the following text at the end of paragraph (ii):

“under Schedule to Bid”

The following is added at the end of the last paragraph of Sub-Clause 5.1:

“All subcontracts relating to the Works shall include provisions which entitle the Employer to require the subcontract to be assigned to the Employer under sub-paragraph (a) of Sub- Clause 15.2.3 [*After Termination*].

The Contractor shall give reasonable opportunity to contractors from Islamic Republic of Pakistan for subcontracts for the Works, and endeavour to employ such contractors as Subcontractors.”

**5.2 Nominated Subcontractors**

5.2.2 Objection to Nomination

In sub-paragraph (c), “and” is deleted from the end of (i);

“.” at the end of (ii) is replaced with: “, and”.

The following is then added as (iii):

“(iii) be paid only if and when the Contractor has received from the Employer payments for sums due under the Subcontract referred to under Sub-Clause 5.2.3 [*Payment to nominated Subcontractors*].”

**6.1 Engagement of Staff and Labour**

The following paragraph is added at the end of the Sub-Clause:

“The Contractor shall, to the extent practicable and reasonable, employ staff (not less than 50%) and labour (not less than 85%) with appropriate qualifications and experience from sources within the Islamic Republic of Pakistan.”

**6.7 Health and Safety of Personnel**

The existing text is substituted with the following:

“In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the Safety Requirements of the Government of Pakistan with such modifications thereto as the Engineer may authorize or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose. The Contractor shall also provide all other medical services and appoint a health and safety officer at Site if stated in the Specifications. In case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means.”

**6.8 Contractor’s Superintendence**

Insert at the end of sub-paragraph (a) of this Sub-Clause:

"or, if not, the Contractor shall make competent interpreters available during all working hours, in a number sufficient for those persons to properly perform their superintendence duties"

The following text is added at the end of this Sub-Clause:

“The Contractor’s authorized representative and his other engineers working at site shall possess valid registration with the Pakistan Engineering Council.

The Contractor’s authorized representative at Site shall be authorized to exercise adequate administrative and financial powers on behalf of the Contractor so as to achieve completion of the Works as per the Contract.”

**6.12 Key Personnel**

The following is inserted at the end of the last paragraph:

“If any of the Key Personnel are not fluent in this language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.”

The following Sub-Clauses 6.13 to 6.26 are added at the end of Sub-Clause 6.12:

**6.13 Foreign Personnel**

The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required

residence visas and work permits. The Employer will, if requested by the Contractor, use all reasonable endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.

The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

- 6.14 Supply of Foodstuffs** The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.
- 6.15 Supply of Water** The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.
- 6.16 Measures against Insect and Pest Nuisance** The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
- 6.17 Alcoholic Liquor or Drugs** The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.
- 6.18 Arms and Ammunition** The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
- 6.19 Festivals and Religious Customs** The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.
- 6.20 Funeral Arrangements** The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.
- 6.21 Forced Labour** The Contractor, including its Subcontractors, shall not employ or engage forced labour which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.
- 6.22 Child Labour** The Contractor, including its Subcontractors, shall not employ or engage child labour in accordance with relevant law(s) in force in Islamic Republic of Pakistan.

- 6.23 Employment Records of Workers** The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [*Contractor's Records*].
- 6.24 Workers' Organizations** The Contractor shall comply with the relevant labour laws of Pakistan which recognize workers' rights to form and to join workers' organizations/Trade Union of their choosing and to bargain collectively without interference.
- 6.25 Non-Discrimination and Equal Opportunity** The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.
- Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure nondiscrimination and equal opportunity, including for specific groups such as women, persons with disabilities, migrant workers and children (of working age in accordance with Sub-Clause 6.22).
- 6.26 Epidemics** In the event of any out-break of illness of epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of overcoming the same.
- 7.7 Ownership of Plant and Materials** The following is added before the first paragraph:  
 "Except as otherwise provided in the Contract,"  
 The following is added at the end of the Sub-Clause:  
 "No Plant and/or Materials that is the property of the Employer shall be removed from the Site. If it becomes necessary to:  
 (i) remove any item of such Plant from the Site for the purposes of repair, the Contractor shall give a Notice, with reasons, to the Engineer requesting consent to remove the defective or damaged item off the Site. This Notice shall clearly identify the item of defective or damaged Plant, and shall give details of: the defect or damage to be repaired; the place to which defective or damaged item of Plant is to be taken for repair; the transportation to be used (and insurance cover for such transportation); the proposed

inspections and testing off the Site; and the planned duration required before the repaired item of Plant shall be returned to the Site. The Contractor shall also provide any further details that the Employer may reasonably require; or

- (ii) replace any item(s) of such Plant and/or Materials, the Contractor shall give a Notice, with reasons, to the Engineer clearly identifying the item(s) of Plant and/or Materials to be replaced, and giving details of the due date of delivery to the Site of the replacement item(s).

Where any item of Plant and/or Materials has become the property of the Employer under this Sub-Clause before it has been delivered to the Site, the Contractor shall ensure that such an item is not moved except for its delivery to the Site.

The Contractor shall indemnify and hold the Employer harmless against and from the consequences of any defect in title or encumbrance or charge (except any reasonable restriction arising from the intellectual property rights of the manufacturer or producer) on any item of Plant and/or Materials that has become the property of the Employer under this Sub-Clause."

The following Sub-Clause 7.9 is added after Sub Clause 7.8:

- |  |  |
|--|--|
| <b>7.9 Use of Pakistani Materials and Services</b> | The Contractor shall, so far as may be consistent with the Contract, make the maximum use of materials, supplies, plant and equipment indigenous to or produced or fabricated in Pakistan and services available in Pakistan provided such materials, supplies, plant, equipment and services shall be of required standard. |
| <b>8.1 Commencement of Works</b>                   | The following is added before the first paragraph:<br>"After signing of the Contract Agreement by both Parties," and thereafter the word "The" is replaced with the word "the".  |
| <b>8.5 Extension of Time for Completion</b>        | The following is added after paragraph (c):<br>"for last five years".  |

The following Sub-Clause 8.14 is added after Sub-Clause 8.13:

- |   |   |
|---|---|
| <b>8.14 Incentives For Early Completion</b> | <p>If Contract Data does not state applicability of incentives for early completion, this Sub-Clause shall not apply.</p> <p>The Contractor shall be entitled subject to Sub-Clause 20.2 [<i>Claims for Payment and/or EOT</i>] to bonus payment if the Works and/or each Section is completed earlier than the Time for Completion for the Works or Section (as the case may be). The amount of bonus for early completion of the Works and/or each Section shall be upto a limit and at a rate to 50% of the relevant limit and rate of delay damages prescribed in Contract Data and shall be paid for every day which shall elapse between the relevant Date of Completion of the Works or Section and the relevant Time for Completion.</p> <p>For the purposes of calculating any bonus payment, the applicable Time for Completion stated in the Contract Data is fixed and no adjustments of this time by reason of granting an</p> |
|---|---|

EOT will be allowed.

The following Sub-Clause 11.12 is added after Sub-Clause 11.11:

- |  |  |
|--|--|
| <b>11.12 Supervisory Assistance During DNP</b> | If provided under the Schedule of Prices, the Contractor shall provide supervisory assistance to the Employer during the DNP for the Works. Such supervisory assistance shall be as described in the Specification for the purpose of supporting the Employer's operation and maintenance of the Plant for the period specified in the Schedule of Prices after the Date of Completion.  |
| <b>12.2 Method of Measurement</b>              | The following paragraph is added at the end of the Sub-Clause:<br>“Summary of measured quantity for payment shall be delineated item-wise under four heads namely; “Schedule of Prices Quantity”, “Quantity Executed To-date”, “Quantity Certified Previously” and “Net Quantity Executed under this Certificate”.   |
| <b>12.3 Valuation of the Works</b>             | The following text is added at the end of fifth paragraph of the Sub-Clause:<br>“Sum of overhead charges and profit for sub-paragraph (a) shall be Twenty Five percent (25%)”.   |
| <b>13.4 Provisional Sums</b>                   | The following paragraph is inserted as the penultimate paragraph:<br>“The Provisional Sum shall be used to cover the Employer’s share of the DAAB members’ fees and expenses, in accordance with Clause 21. No prior instruction of the Engineer shall be required with respect to the work of the DAAB. The Contractor shall submit the DAAB members’ invoices and the satisfactory evidence of having paid 100% of such invoices as part of the substantiation of those Statements submitted under Sub-Clause 14.3.  |
| <b>13.6 Adjustments for Changes in Laws</b>    | The following paragraphs are added at the end of the Sub- Clause:<br>“Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the Table of Adjustment Data in accordance with the provisions of Sub-Clause 13.7 [ <i>Adjustments for Changes in Cost</i> ].”   |
| <b>14.1 The Contract Price</b>                 | The following is added at the end of the Sub-Clause:<br>“Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry an approved re-export bond or bank guarantee, valid until the Time for Completion plus six months, in an amount equal to the full import duties and taxes which would be payable on the |

assessed imported value of such Contractor's Equipment and spare parts, and callable in the event the Contractor's Equipment is not re-exported from the Country on completion of the Contract. A copy of the bond or bank guarantee endorsed by the customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon re-export of individual items of Contractor's Equipment or spare parts, or upon the completion of the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's Equipment and spare part to be re-exported, based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable Laws. Import duties and taxes shall be due and payable to the customs authorities by the Contractor on (a) the difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to re-exported; and (b) on the initial imported value of the Contractor's Equipment and spare parts remaining in the Country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining.”

*[The Employer may change or delete this Sub-Clause as per Project requirements]*

**14.2 Advance Payment**

**14.2.1 Advance Payment Guarantee**

The entity issuing the Advance Payment Guarantee and its form shall be as under:

The Advance Payment Guarantee shall be in the form of Guarantee issued by (a) a Scheduled Bank in Pakistan or (b) a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan or (c) an Insurance Company listed in the Contract Data and rated by PACRA/VIS of rating as provided in Table below:

Accepted Contract Amount (In Eq. million PKR)	Minimum Rating of Insurance Companies
Up to 1000	A (+)
1001 to no limit	AA

In case of Joint Venture, the Advance Payment Guarantee(s) shall be in the name of the Joint Venture or in the name of Lead/either firm of the JV or in ratio of shares of the individual JV partners.

**14.6 Issue of IPC**

**14.6.1 The IPC**

In the first line of the 1<sup>st</sup> paragraph the words “28 days” are substituted by “14 days”.

**14.7 Payment**

The words “or through crossed cheque in favour of the Contractor or JV partners. The Payment to JV partners shall be made at the request of the Joint Ventures in the ratio of their

- shares specified by them” are added at the end of the Sub-Clause.
- 14.8 Delayed Payment** In the first paragraph, third line, the words “compounded monthly” are deleted.
- The text of 2nd paragraph is deleted and substituted with the following:
- “The Employer shall pay to the Contractor compensation at the rate stated in the Contract Data.”
- 15.2 Termination for Contractor’s Default** 15.2.1 Notice
- Following text is added at the end of sub-paragraph (h) of this Sub-Clause:
- “For the purposes of this Contract, corrupt and fraudulent practices have been defined in Public Procurement Rules 2004.”
- 15.2.3 After Termination
- The word “and” at the end of sub-paragraph (ii) of paragraph (b) is deleted the following paragraph is added after sub-paragraph (iii):
- “(iv) all Employer-Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [*Employer-Supplied Materials and Employer's Equipment*], and”
- 15.4 Payment after Termination** The following text is added at the end of this Sub-Clause:
- “The Employer shall be entitled to sell any of the Contractor’s Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any debt due from the Contractor to the Employer under this Clause including any outstanding payments to the Subcontractors.
- 16.2 Termination by Contractor** 16.2.1 Notice
- The sub-paragraph (j) is deleted in its entirety.
- At the end of sub-paragraph (i) “; or” is replaced with “.” and at the end of sub-paragraph (h) “;” is replaced with “; or”.
- In sub-paragraph (f) “84 days” are replaced with “180 days” and text “for reasons not attributable to the Contractor” is added at the end.
- 16.3 Contractor’s Obligations After Termination** Sub-paragraph (c) is deleted and replaced with:
- “(c) deliver to the Engineer all Employer-Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [*Employer-Supplied Materials and Employer's Equipment*]; and
- (d) remove all other Goods from the Site, except as necessary for safety, and leave the Site.”
- 17.1 Responsibility for Care of the Works** After the two instances of “Goods” in the last paragraph, the words “Employer-Supplied Materials and/or Employer's Equipment” are added.

The following Sub-Clause 17.7 is added after Sub-Clause 17.6:

- 17.7 Use of Employer’s Accommodation/ Facilities** The Contractor shall take full responsibility for the care of the items of the Employer’s facilities and/or accommodation, if any, as detailed in the Specification, from the date of use and/or occupation by the Contractor until the date on which such use and/or occupation is re-vested in the Employer.
- If any loss or damage happens to any of the above items during a time while the Contractor is responsible for its care, arising from any cause other than a cause for which the Employer is responsible or liable, the Contractor shall promptly rectify the loss or damage at the Contractor’s risk and cost.
- 18.1 Exceptional Events** The words “or disorder” are replaced with “disorder or sabotage” in sub-paragraph (c) of the Clause.
- 18.4 Consequences of an Exceptional Event** The following is added at the end of sub-paragraph (b) after deleting the “.”:
- “, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Exceptional Events, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 19.2 [*Insurance to be provided by the Contractor*].”
- 18.5 Optional Termination** In sub-paragraph (c), the words “and necessarily” are added after the words “was reasonably”.
- 19.1 General Requirements** Following text is added at the end of first paragraph:
- “The Contractor shall immediately after the date of the Letter of Acceptance submit the draft of insurance policies for the Employer’s consent.”
- Following text is added at the end of third paragraph:
- “The Contractor shall, within the respective periods stated in the Contract Data submit to the Engineer and the Employer a) evidence that the insurances described in this Clause have been effected, and b) copies of policies of the insurances described in Sub-Clauses 19.2.1, 19.2.4 and 19.2.5.”
- 19.2 Insurance to be provided by the Contractor** 19.2.5 Injury to employees
- The words “sickness, disease” are deleted in the third line of first paragraph.
- The following Sub-Clause is added after Sub-Clause 19.2.6:
- 19.2.7 Insurance Company
- “The Contractor shall be obliged to place all insurances described in this Clause with insurers listed in the Contract Data and rated by PACRA/VIS of rating as provided in Table below:

Accepted Contract Amount (In Eq. million PKR)	Minimum Rating of Insurance Companies
Up to 1000	A (+)
1001 to no limit	AA

- 21.6 Arbitration** The word “international” is deleted in the sixth line of first paragraph. The text of sub-paragraph (a) is substituted with the following:  
 “the Dispute shall be finally settled under the Rules of Arbitration, specified in the Contract Data;”

The following Clauses are added after Clause 21

- 22 Custom Duty** [*Employer may incorporate provisions where applicable. However, in order to make the bid more balanced, the payment of Customs Duties should be the responsibility of the Employer.*]

- 23 Taxes** The Contractor, Subcontractors and their employees shall be liable to pay income tax, withholding tax, super tax and other taxes on income arising out of the Contract. The rates and prices as stated in the contract shall be deemed to cover all such taxes.

- 24 Integrity Part** If it is found and established at any stage that the Contractor or any of his Subcontractors, agents or servants have violated or involved in violation of the Integrity Pact signed by the Contractor then the Employer shall be entitled to :

- (a) recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder’s fee or kickback given by the Contractor or any of his Subcontractors, agent or servants;
- (b) terminate the Contract; and
- (c) recover from the Contractor any loss or damage to the Employer as a result of such termination or of any other corrupt business practices of the Contractor or any of his Subcontractors, agent or servants.

The termination under sub-paragraph (b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clause 15.1 to 15.4 and the payment under Sub-Clause 15.4 shall be made after having deducted the amounts due to the Employer under sub-paragraph (a) and (c) of this Sub-Clause.

**SPECIFICATIONS**  
**PART A - SPECIFIC PROVISIONS**

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SP-5	Care and Handling of Water
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Sp. No.	Description
SP-25	Unit Price Breakdown
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SP-29	Any Other Provision
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**[Note:**

*The above Sections of Specifications, are for guidance only, and shall be indicated appropriate to the work/project.*

*The Employer may adopt the above format. However, if any section is not applicable, it may be mentioned as “Not Used”. ]*

**SPECIFICATIONS**  
**PART B - TECHNICAL PROVISIONS**



SHAHEED MOHTARMA BENAZIR BHUTTO MEDICAL UNIVERSITY, LARKANA



ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN  
MOLECULAR, GENETIC AND PATHOLOGICAL LAB AT SMBB, MEDICAL  
UNIVERSITY, LARKANA (COVERED AREA = 52,784 SFT)

BILL OF QUANTITIES  
**MARCH, 2026**

**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR, GENETIC AND PATHOLOGICAL LAB AT  
SMBB, MEDICAL UNIVERSITY, LARKANA  
(COVERED AREA = 52,784 Sft)**

**BILL OF QUANTITIES**

Rates Based on Composite Schedule of Rate (GENERAL-2024) Sindh

Sr. No.	DESCRIPTION	AMOUNT
1.	<b>CIVIL WORKS</b>	
a	Cost of Schedule Items	448,896,467
b	Add/ Deduct Premium Above/ Below +/- ____% on Total of SOR ITEMS	
c	Cost of Non-Schedule Items	
	<b>TOTAL OF CIVIL WORKS</b>	
2.	<b>PUBLIC HEALTH WORKS</b>	
a	Cost of Schedule Items	3,537,139
b	Add/ Deduct Premium Above/ Below +/- ____% on Total of SOR ITEMS	
c	Cost of Non-Schedule Items	
	<b>TOTAL OF PHE WORKS</b>	
3.	<b>ELECTRICAL WORKS</b>	
a	Cost of Schedule Items	10,799,356
b	Add/ Deduct Premium Above/ Below +/- ____% on Total of SOR ITEMS	
b	Cost of Non-Schedule Items	
	<b>TOTAL OF ELECTRICAL WORKS</b>	
	(Main Building)	<b>1-SUB-TOTAL (A+B+C)</b>
4.	<b>HVAC SPLIT UNIT</b>	
	<b>GRAND TOTAL WITHOUT SST</b>	
	<b>5% SST</b>	
	<b>GRAND TOTAL WITH SST</b>	
	<b>GRAND TOTAL WITH SST (In Millions)</b>	

Amount in Words:



**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR, GENETIC AND PATHOLOGICAL  
LAB AT SMBB, MEDICAL UNIVERSITY, LARKANA  
(COVERED AREA = 52,784 Sft)**

**BILL OF QUANTITIES**

**CIVIL WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2024) Sindh

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavation in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structure with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	P.Cft	152271.40	11.88	1,808,984
2	C-18/92-A	Providing Anti -termite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre -construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	71133.88	11.46	815,194
3	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:4:8)	P.Cft	8989.91	348.83	3,135,951
4	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Foundation)	P.Cft	75326.61	717.59	54,053,624
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Ground Floor)	P.Cft	20099.52	717.59	14,423,217
6	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (First Floor)	P.Cft	20058.40	767.50	15,394,819
7	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Second Floor)	P.Cft	3142.86	817.41	2,569,006
8	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) UPL	P.Cft	3518.80	787.71	2,771,790
9	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) G.F	P.Cft	5698.44	787.71	4,488,716
10	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) F.F	P.Cft	5159.56	837.62	4,321,750
11	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) S.F	P.Cft	982.48	887.53	871,977



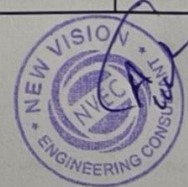
Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
12	C-4/8 a-i	Fabrication of deformed steel reinforcement for cement concrete including cutting, bending, laying in position, making joints and fastenings including cost of binding wire (also includes removal of rust from bars.	P.CWT	11229.31	18934.02	212,616,055
13	C-5/4-(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	P.Cft	17736.82	359.20	6,371,067
14	C-1/21	Filling, watering and ramming earth in floors with surplus earth from foundation lead upto one chain and lift upto 5 feet.	P.Cft	50757.13	6.50	329,921
15	C-1/22	Filling, watering and ramming earth under floor with new earth (Excavated from outside) lead upto one chain (No Extra Lead will be Paid) and lift upto 5 feet.	P.Cft	170404.41	19.01	3,239,388
16	C-5/5-(d)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:5	P.Cft	13942.45	388.34	5,414,410
17	C-5/5-(c)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:4	P.Cft	1956.08	397.85	778,226
18	C-5/5-(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	P.Cft	11068.02	405.57	4,488,856
19	C-5/5-(c) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:4	P.Cft	3946.97	415.08	1,638,307
20	C-5/5-(d) + 6	Pacca brick work in Second Floor cement, sand mortar Ratio 1:5	P.Cft	1815.98	436.96	793,511
21	C-5/5-(c) + 6	Pacca brick work in Second Floor cement, sand mortar Ratio 1:4	P.Cft	27583.90	448.24	12,364,209
22	C-5/5-(d) + 6	Pacca brick work in Third Floor cement, sand mortar Ratio 1:5	P.Cft	22437.49	38.75	869,453
23	C-9/12(b)	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Ground Floor	P.Sft	1393.84	43.90	61,190
24	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) First Floor	P.Sft	25554.77	49.05	1,253,462
25	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Second Floor	P.Sft	20261.05	2819.47	571,254
26	C-9/11(c)	Cement plaster 1:4 Ground Floor upto 12' height:- c) ¼" (20 mm) thick. (External)	P.Sft	11651.66	53.82	627,092
27	C-9/11(c)+29	Cement plaster 1:4 First Floor upto 12' height:- c) ¼" (20 mm) thick. (External)	P.Sft	8941.87	58.97	527,302
28	C-9/11(c)+29	Cement plaster 1:4 Second Floor upto 12' height:- c) ¼" (20 mm) thick. (External)	P.Sft	10916.21	64.12	699,948
29	C-9/10(a)	Cement plaster 1:3 upto 12' height (a) 3/8" thick (Slab Soffit) G.F	P.Sft	3623.28	38.61	139,895
30	C-9/10(a)+29	Cement plaster 1:3 upto 12' height (a) 3/8" thick (Slab Soffit) F.F	P.Sft	3578.74	43.76	156,606
31	C-9/10(a)+29	Cement plaster 1:3 upto 12' height (a) 3/8" thick (Slab Soffit) S.F	P.Sft	1131.91	48.91	55,362
32	C-9/40.A + 40-B	Preparing the surface and painting with plastic emulsion paint of approved make l/c rubbing the surface with sand Paper, filling the voids with chalk / plaster of paris and then painting etc. complete. Three Coats	P.Sft	105564.98	84.03	8,870,626
33	C-9/(38.A+38.B)	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick / sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make.- three coats	P.Sft	16996.50	86.58	1,471,557



Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
34	C-18/108	Stone cladding of required size on wall facing of approved design shape and pattern set in cement sand mortar ratio 1:2 in gray cement 3/4" thick in/c washing of joints with net white cement salary and pigment in desire shape in/c cutting and dressing the stone tile to proper profile in/c labour etc complete as per specification as directed by the Engineer / Incharge.	P.Sft	14211.25	541.93	7,701,503
35	C-5/29	Supplying and filling sand under floor and plugging in walls.	P.Cft	8961.73	57.52	515,479
36	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	P.Cft	8961.73	104.97	940,713
37	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:2:4)	P.Cft	8828.97	443.54	3,916,000
38	C-8/28-v-a	Laying Super Botisina, Crème,Badal or Black Marble 12"x12" / 12"x24" fine dressed on the surface without winding set in lime mortar 1:2 including rubbing and polishing of the joints. (a) 3/4" thick marble.	P.Sft	25008.00	337.90	8,450,203
39	C-8/28-xi	Providing & Laying Full Body Porcelain Tile in Flooring or Facing of Approved Design Set in Gry Cement Motor 1:2 or of 3/4" Thickness I/C Washing & Joints With White Cement Slurry Using Colour Pigment for matching complete as per Spacification. 24"x48"x5/16" (Flooring)	P.Sft	45079.76	651.48	29,368,561
40	C-8/28-xi	Providing & Laying Full Body Porcelain Tile in Flooring or Facing of Approved Design Set in Gry Cement Motor 1:2 or of 3/4" Thickness I/C Washing & Joints With White Cement Slurry Using Colour Pigment for matching complete as per Spacification. 24"x48"x5/16" (Flooring)	P.Sft	2419.92	651.48	1,576,530
41	C-8/16-c	Providing and laying 2" thick topping cement concrete (1:2:4 ) including Surface finishing and dividiing into panels:	P.Sft	2219.63	108.75	241,385
42	C-8/71	Providing & fixing glass strips 4 mm for flooring upto 1" depth I/c fixing in flooring with cement in specified pattern & design.	P.Rft	2219.63	7.34	16,292
43	C-7/18	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	26.00	1001.84	26,048
44	C-10/59	First class Sheesham wood wrought framed and fixed in place including chowkhats hold fasts, tower bolts, chocks, cleats, handles card with hooks and cost of nails and screws, etc. panelled or panelled and glazed or fully glazed 1-1/2" thick.	P.Sft	2019.01	3326.99	6,717,226
45	C-10/19-(A)-ii	Providing and fixing sliding bolt to doors.Iron sliding bolt 12" long.(a) Panelled or panelled and glazed or fully glazed 2" thick.	Each	69.00	2121.57	146,388
46	C-10/21	Providing and fixing, approved quality mortice lock.	Each	69.00	1039.05	71,694
47	C-17/26	Supplying & fixing in position iron/steel grill of 3/4" x 1/4" size flat iron of approved design including painting 3 coats etc. complete (weight not to be less than 3.7 Lbs./Sq . Foot of finished grill).	P.Sft	35.00	1124.10	39,344
48	C-17/33	Providing & fixing G.I sheet roling shutter using 2 gauge G.I sheet for shutter, side iron channel of 12 gauge for rolling on 2" dia C.I pipe I/c bracket of 20 gauge, springs of requisite size and rolling pulley, necessary hold fasts, nuts bolts, welding, greasing, all carriage, T&P required fior making and fixing in masonry bor.	P.Sft	112.50	742.64	83,547
49	C-11/5-(c)	Preparing surface and painting of doors and windows any type, (including edges).Three Coats.	P.Sft	4900.75	25.52	125,067
50	C-18/69(a)	Damp Proof course with cement sand Ratio (1: 2) mixed with dampo b) 1-1/2" thick	P.Sft	898.76	73.47	66,032



Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
51	C-11/9	Bitumen coating to plastered or cement concrete surface. (Two Coat)	P.Sft	2207.63	21.83	48,193
52	C-7/38	Providing and laying single per layer of polythene sheet 0.13 mm thick for water proffing as per specification and instructions of Engineer incharge.	P.Sft	27215.63	24.01	653,447
53	C-8/22	1 1/2" thick mosaic flooring consisting of 1/2" mosaic topping of one part of grey cement to two part of marble chips laid over 1" thick flooring of 1:2:4 cement concrete including rubbing and polishing complete.	P.Sft	527.94	268.32	141,657
54	C-8/38(b)	Mosaic dado or skirting one part of grey cement and 2 parts of marble chips laid over 1/2" thick cement plaster 1:3 complete with finishing.	P.Sft	452.60	261.65	118,422
55	SOR (PHE works) Part-B (II) R(B)-1	Providing "expansion joint" in concrete work of 9" wide corrugated PVC (with bulb) i.c soldering and providing wooden key of partial wood i/c cutting of planks to the exact shape of structure and cost of the material and labour etc complete.	P.Rft	96.92	1792.18	173,691
56	C-Public Health Part B/J/Page-35	Providing C.I Manhole Cover & Frame i/c cost of Material etc.	P.Kg	30.00	764.04	22,921
57	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in concrete mix for increasing durability, to be used in concreting, flooring, block/ brick/ stone masonry or plastering as % by weight of cement.	P.Kg	3781.00	500.00	1,890,500
58	C-17/2 + 3	Fabrication of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, revitting, handling, assembling and fixing, including erection in position. (Emergency Steel Stairs)	P.Cwt	806.17	21191.30	17,083,694
59	C-11/5-d (i+ ii)	Painting new surface:- (d) Preparing surface and painting guard bars, gates of iron bars, gratings, railings (including standards braces, etc). And similar open work. - 3 coats (Emergency Steel Stairs)	P.Sft	32050.29	24.00	769,207
<b>Total of SOR ITEMS</b>						<b>448,896,467</b>



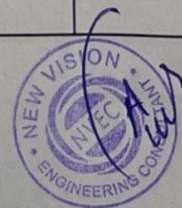
**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR, GENETIC AND PATHOLOGICAL  
LAB AT SMBB, MEDICAL UNIVERSITY, LARKANA  
(COVERED AREA = 52,784 Sft)**

**BILL OF QUANTITIES**

**CIVIL WORKS**

**Non-Scheduled Items**

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	NSI	Excavation in foundation of building, bridges and other structures, including dag belling, dressing refilling around structure with excavated earth, watering and ramming, lead upto one chain (30 metre) and lift 5 ft. to 10 ft:- In ordinary soil.	%0Cft	153011.86		
2	NSI	Providing and fixing 2 mm thick Double glazed aluminium windows of anodize / powder coated partly fixed and party sliding using deluxe section of 100mm x 40mm x2 mm using frame (70501) at bottom, (70502) at Top & Side made of Pakistan Cables/Alcop having Leaf Frame size 31mm x 60mm x2 mm (70506) at Top & Bottom, 35mm x 60mm x2 mm (70505) at center and 35mm x 60mm x2 mm(70503) at sides , fixing 8 mm thick imported tinted double glass and air tight using double tape, chemical strips, Silicon using approved latches, wheels for channel, stopper, brush channel angle joint and hardware etc.( excluding the cost of Fly Proofing). Complete in all respect as approved and directed by the Engineer Incharge.	P.Sft	3651.16		
3	NSI	Providing and laying structural pad for foundation made of selected granular fill material (Mixture of 70% gravel and 30% sand of approved quality and grade) including placing, mixing, spreading and compaction of sub-base material to required depth, grade to achieve 95% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as approved by the Engineer incharge.(Provisional).	P.Cft	96451.01		
4	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for flooring size 12"x18"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Shabbir Tile, Master or Equivalent)	P.Sft	2301.94		
5	NSI	Providing and laying Ceramic Tiles Texture Light color for skirting / dado size 12"x18"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Shabbir Tiles, Master or Equivalent)	P.Sft	7850.40		
6	NSI	Providing and fixing 3/4" thick pre-polished Black Granite full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment, making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.(Stairs,Podium and Vanity)	P.Sft	2873.75		



Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
7	NSI	Providing and fixing PVC Doors 38mm thickness i/c deluex matching color PVC frame matt or glossy finish having color (white-Gray-Marble Gray-Oak Wood- Dard Oak Wood, Coffee Wood Honey Pine Wood-Mahagony-Marry Gold-Chocolate Brown-Honey Dew) i/c all accessories i/c mortice locks complete in all respect as approval by the Engineer Incharge.	P.Sft	684.74		
8	NSI	Supplying and installation of Mineral Fibre acousitic ceiling (non-directional) perforated pattern size 2'-0"x2'-0"-1/2" thick and imported Aluminium extruded section in natural anodized finish 10-12 microns coating comprising of main tee runner and edges trim.Suspension shall be made by mean of adjustable suspender of 8 SWG galvanized steel wire and cadmium plated spring clip supported at 4'-0" center to center, suspender shall by fixed to the slab, beam soffits with nylon anchors 1 1/2 No. 12 round headed steel screws and washer.	P.Sft	39982.35		
9	NSI	Providing and fixing Steel Sheet (Jisti) hollow press frame of doors, etc. (Chowkhat only) of 16 SWG welded with M.S. flat 6"x1 1/2"x1/8" (150x40x3mm) M.S. hold fast 9"x1"x1/8" (225x25x3mm) welded/ screwed 4" (100mm) long iron hinges including fitting chowkhat with cement sand mortar 1:8 and embedding hold fast in cement concrete 1:2., Single Rebate, 10" wide, complete in all respect as per direction of Engineer in-charge.	P.Sft	36.75		
10	NSI	Providing and fixing 2'-9" high stair railing comprising of non magnetic (304) Stain less steel 2" dia pipe railing of 18 SWG welded with vertical posts of 2" dia stainless steel round/ Squar pipe/ Tong (chimta) @ 2-ft c/c fixed on alternate steps with 3" long steel screws and brass rawal plugs , 3-Nos diagonal stainless steel pipes of 1/2" dia passes through goties fixed on vertical post, i/c stainles steel welding, fixing & polishing complete in all respects as approved and directed by the Engineer Incharge	P.Rft	396.33		
11	NSI	Providing and fixing steel Fire Rated Emergency Exit Door ,Door manufactured as per NFPA 252 & UL 10C standards Steel Door (MS) Size: 60" x 98" Double Leaf door, Filled with fire-rated material With Inner Steel Stiffeners for reinforcement.Door Leaf 1.2-1.5mm, Door Frame 1.5- 2.0mm, Accessories: Hinges, Panic Bar On single Leaf, SS Handle, Glass 12x24 ft, and Door closer on single Leaf. complete in all respect as approved & directed by the Engineer/ Incharge. (TECHNO (PVT) LTD or Equivalent)	Each	4.00		
12	NSI	Providing and fixing 2' deep,with back, Vin board cabinet 3/4" thick with drawers 3"deep in 'Kitchen including termite proofing and polishing with synthetic enamel as specified, with handles hinges,screws etc., complete in all respects	P.Sft	103.49		
13	NSI	Providing and Applying water proofing by Chemseal – 105 N Fiber-reinforced, Polymer-modified Cementitious Elastomeric Waterproofing Compound complete in all respect as per approval of engineer incharge. "Imporient Chemicals" or equivalent.	P.Sft	8830.94		
14	NSI	Providing and fixing Stainless Steel (24 SWG) Letters with CNC laser cutting i/c all hardware required complete in all respect as per drawings and direction of Engineer In-charge.	Each	20.00		
15	NSI	Providing and fixing Picture Theme on Front Elevation of SMBB.	Each	1.00		



Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
16	NSI	Providing and fixing Stainless Steel Logo with colour print including the cost of fitting accessories complete in all respect as per drawings and approval of Engineer Incharge.	Each	1.00		
17	NSI	Providing and fixing stainless steel mesh of 16 guage fixed with nails for concrete and bricks joint complete in all respect and as approved and directed by the Engineer Incharge.	P.Sft	9500.00		
<b>Total of Non SOR ITEMS</b>						



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**BILL OF QUANTITIES**

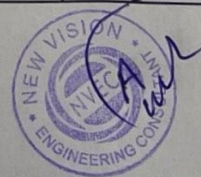
**PUBLIC HEALTH WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2024) Sindh

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
<b>SANITARY FIXTURES AND FITTINGS</b>						
1	SOR(Water supply & Sewerage (Ch 1/5)	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with and l/c the cost of white/black plastic seat (Best quality) and lid with C.P.brass hineges and buffers, 3 gallons white glazed earthen ware low level foushing cistern with siphon fitting 1-1/2" dia white porcelain enamelled flush bend 3/4" dia and making requiste number of holes in walls, plinth and floor for pipe connections and making good in cement concrete 1:2:4. (ICL or Equivalent)	Each	29.00	42,354.59	1,228,283.11
2	SOR(Water supply & Sewerage (Ch 1/2-A ii)	Providing and Fixing squatting type white glazed earthen ware w.c pan with front fresh inlet & complete with including the cost of flushing cistern with internal fitting and flush pipe with bend and making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2:4. (A) W.C pan 23" & low level earthen ware flush tank 3 gallons. (ii) with 4" dia white glazed earthen ware trap and plastic thumble. (Foriegn Quality)	Each	13.00	13,655.06	177,515.78
3	SOR(Water supply & Sewerage (Ch 1/19-c)	Providing and fixing steel sinks stainless local make complete with cast iron or wrought iron brackets 6 inches built in wall, 1-1/2" c.p bubber plug chrome plated brass chain, 1-1/2" c.p brass waste, with 1-1/2" P.V.C. waste pipe & making requiste number of holes in wall, plinth & floor for pipe connection & making good in cement concrete 1:2:4. (c) Steel sink stainless sized 33" x 18" local make (Standard pattern) (Master or Equivalent)	Each	2.00	10,215.27	20,430.54
4	SOR(Water supply & Sewerage (Ch 6/19 (a)	Providing and fixing CP Muslim shower with double bib cock & ring pipe etc complete.	Each	48.00	5,475.60	262,828.80
5	SOR(Water supply & Sewerage (Ch 2/5)	Providing and fixing soap tray earthen ware with c.p screws etc.complete.	Each	48.00	585.00	28,080.00
6	SOR(Water supply & Sewerage (Ch 2/1 (iii-b)	Providing and fixing chrome plated brass towel rail complete with brackets fixing with 1" long c.p brass screws. (iii) Towel Rail 24" long (b) 3/4" dia round or square (Superior Quality)	Each	18.00	2,349.07	42,283.26
7	SOR(Water supply & Sewerage (Ch 2/2 (b)	Providing and fixing c.p brass toilet paper holder of standard size with chrome plated brass brackets complete (Similar to twyford's design No 1108) (b) Superior Quality	Each	48.00	1,170.00	56,160.00
8	SOR(Water supply & Sewerage (Ch 1/22)	Providing and fixing (1/2") dia, lead connection complete with a (1/2") dia brass stop cock, two brass nuts & lining jointed to lead pipe with plumber wiped solder joints (1/2" lead pipe to be of not less than 4lbs per lineal yard.	Each	149.00	760.50	113,314.50
9	SOR(Water supply & Sewerage (Ch 10/1 -a-(i)	Providing and fixing 6" x 4" C.C gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2" thick cement plaster (1:3) to the karb. C.I grating 6" x 6' C.I cover and frame 12" x 12" (inside) etc complete. Earthan ware glazed Gully trap 6" x 6" x 4" with C.I cover & Frame.	Each	6.00	3,037.32	18,223.92



SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
10	SOR (PHE works) Part-B (II) A-2	Providing and laying R.C.C. pipe & collors of class "B" and fixing in trench i/c cutting,fitting and jointing with maxphalt composition and cement mortar (1:1) i/e. testing with water to a head of 22.5 meter or 75 ft. (e) 300mm (12") i/d	P.Rft	420.00	543.75	228,375.00
11	SOR (PHE works) Part-B (III) A-1	Excavation for pipeline in trechches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joint and holes and disposal of surplus earth within a one chain as directed by engineer incharge.Providing fence guards, lights, flags and temporeary crossings for non-vehicular traffic where ever required lift upto 5ft. (1.52 m) and lead upto one chain (30.5 m).	1000 Cft	3,780.00	18,288.00	69,128.64
12	Ch/1/13 (d)	Earth work compaction (Soft, ordinary or hard soil). (d) Ramming earth work (All types of soil).	1000 Cft	3,780.00	1.74	6.58
13	Ch/1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a = Shovel.	1000 Cft	3,780.00	3.33	12.59
14	SOR(Water supply & Sewerage (Ch 6/4-A (d)	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(d) 1-1/4" (Light pattern)	Each	8.00	2,024.10	16,192.80
15	SOR(Water supply & Sewerage (Ch 6/4-A (a)	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(a) 1-1/2" (Light pattern)	Each	6.00	1,380.60	8,283.60
<b>MANHOLE</b>						
16	SOR (PHE works) P-1	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" (1067 mm) depth waith walls of BB in cement sand mortar 1:3 cement plastered 1:3, 1/2" thick. Inside of walls and 1" (25 mm) thick over benching and channel i/c fixing C.I manhole cover with frame of clear opening 1-1/2' x 1-1/2' (457 x 457mm) of 1.75 cwt. (88.9 Kg) embaded in plain C.C 1:2:4 and fixing 1"(25mm) dia MS steps 6" (150 mm) wide projecting 4" (102mm) from the face of wall at 12" (305mm) C/C duly painted etc. Complete as per Standard specification and drawing.	P.Job	14.00	55,584.18	778,178.52
<b>VALVES</b>						
17	SOR (Water supply & Sanitary works) Ch 6-5	Providing and fixing handle valves (China) 16bars or equivalent complete in all respects as approved by the engineer incharge.				
	a	1/2 inch	Each	10.00	2,098.98	20,989.80
	b	3/4 inch	Each	14.00	2,403.18	33,644.52
<b>1 NO. BORE FOR TUBEWELL</b>						
18	SOR (PHE works) Part-B (II) (O-1 (a))	Boring for tubewell in all water bearing soils from ground level upto 100 ft. (30.5 m) depth, including sinking and with drawing of casing pipe:- 4" (80 mm)	Rft	170.00	1,783.41	303,179.36
19	SOR (PHE works) Part-B (II) (O-9 (a))	Providing and installing P.V.C. strainers 'B' class of approved design quality and make including necessary sockets and solvent, etc. complete: 4" (80 mm)	Rft	100.00	582.34	58,233.50
20	SOR (PHE works) Part-B (II) (O-8 (b))	Supplying & fixing M.S bail plug.	Each	4.00	18,448.56	73,794.24
<b>TOTAL OF SOR ITEMS</b>						<b>3,537,139.05</b>



**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR, GENETIC AND PATHOLOGICAL  
LAB AT SMBB, MEDICAL UNIVERSITY, LARKANA  
(COVERED AREA = 52,784 Sft)**

**BILL OF QUANTITIES**

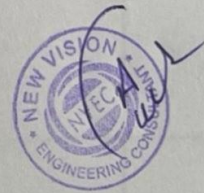
**PUBLIC HEALTH WORKS**

**Rates Based on Composite Schedule of Rate (GENERAL-2024) Sindh**

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
1	NSI	Providing and fixing Basin BOWL White ,Master (HD-1), sonex or equivalent complete in all respects as approved by the Engineer incharge.	Each	34.00		
2	NSI	Providing and fixing, chromium plated mixing valve, for wash hand basin mixer ,master (3048 CP), sonex or equivalent .complete with respect as per engineer incharge.	Each	40.00		
3	NSI	UPVC Multi Floor Trap (110x75mm) including strainer; making required number of connections; breaking concrete or masonry work & then making it good; etc. of approved make.	Each	11.00		
4	NSI	Providing, Fixing Dadex Class D or equivalent UPVC clean out with cover making requisite number of holes in walls, plinth or floor for pipe connection and making good the same as necessary to the structure complete including, rubber gasket and clamp.	Each	6.00		
5	NSI	Providing and fixing, floor trap of PVC, including concrete chamber all round, and C.I. grating:- (Master,sonex or Equivalent)	Each	82.00		
6	NSI	Providing and fitting "P" trap:ii) 10 cm (4") glazed.	Each	54.00		
7	NSI	Providing and fixing looking glass 6 mm thick size as per requirment/ drawings and direction of engineer incharge complete in all respect. (Ghani Glass or Equivalent)	P.Sft	288.00		
8	NSI	Providing and fixing Wall Shower complete in all respects as approved by the Engineer incharge. (Master, Sonex, or Equivalent)	Each	1.00		
<b>WATER SUPPLY PIPES AND FITTINGS</b>						
9	NSI	P/F Polypropylene Randam copolymer (PPRC) PN-20 pipe with fusion / threaded joints including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular /Beta or equivalent) complete in all respect.				
	i	1 1/2" (40 mm) dia.	Rft	340.00		
	ii	1" (25 mm) dia.	Rft	490.00		
	iii	2" (50 mm) dia.	Rft	300.00		
	iv	3/4" (20 mm) dia.	Rft	610.00		
10	<b>SOIL, WASTE, VENTILATING PIPES &amp; FITTINGS</b>					
	NSI	Providing , fixing and testing UPVC Nikasi type "B" with solution of same quality make including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular/Beta or equivalent) complete in all respect.				
	NSI	100 mm (4") dia.	Rft	580.00		
	NSI	80 mm (3") dia.	Rft	520.00		



SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
	iii	50 mm (2") dia.	Rft	170.00		



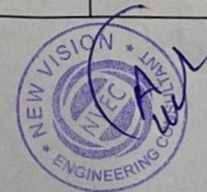
SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		<b>GAS GESYER</b>				
11	NSI	Providing and Fixing Dual Geyser comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 24-SWG covering with proper foot rests dully enamel painted, 1" thick heigh density glass wool insulation with proper warranty with fully automatic thermostat temperature gauge including fixing and making connection at site etc.With Safty Wall Brass Cock (High Quality) complete in all respects as approved by the Engineer Incharge. (Nasgas Or Equivalent) 50/55 Gallons	Each	2.00		
12	NSI	Providing and Fixing Dual Geyser comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 24-SWG covering with proper foot rests dully enamel painted, 1" thick heigh density glass wool insulation with proper warranty with fully automatic thermostat temperature gauge including fixing and making connection at site etc.With Safty Wall Brass Cock (High Quality) complete in all respects as approved by the Engineer Incharge. (Nasgas Or Equivalent) 35 Gallons	Each	1.00		
13	NSI	Providing and fixing Gate valve 1 bars, RUV(itly) or equivalent complete in all respects as approved by the Engineer incharge.	Each	2.00		
14	NSI	Providing and fixing Gate valve 2 bars, RUV(itly) or equivalent complete in all respects as approved by the Engineer incharge.	Each	2.00		
15	NSI	Providing, fixing and testing PPRC ball valve 32mm , Dadex, Beta or Tetraplast make as approved by the Engineer Incharge complete in all respects to their entire satisfaction including all accessories and jointing material complete in all respects.	Each	2.00		
16	NSI	Providing, fixing and testing PPRC ball valve 40mm , Dadex, Beta or Tetraplast make as approved by the Engineer Incharge complete in all respects to their entire satisfaction including all accessories and jointing material complete in all respects.	Each	2.00		
		<b>WATER COOLER</b>				
17	NSI	Providing and fixing Domestic type electric water cooler of 85 ltrs cap body SS Pressure type Canon (DWC-85) or equivalent complete in all respects as approved by the Engineer incharge.	Each	6.00		
		<b>FIRE FIGHTING</b>				
18	NSI	Providing, laying, fixing, cutting & welding of 6" dia M.S Seamless pipe A-106 Gr-B, SCH-40, including all specials required complete in all respect as approved & directed by the Engineer/ Incharge. (Huffaz Corporation or vallourec)	Rft	320.00		
19	NSI	Supply & installation of dry chemical, powder type Fire-Extingusher 6-Kg capacity stored pressure with nozel, wall hook complete in all respects as per instruction of Engineer Incharge. Fire Chief M-EXT017 or equivalent made.	Each	6.00		
20	NSI	Supply & installation of Hose Reel 1x100ft, with cabinet HR-102-G Glass Front, wall hook complete in all respects as per instruction of Engineer Incharge. Fire Chief M-FHR007 or equivalent made.	Each	3.00		
21	NSI	Supply, Installation, Testing and Commissioning of 750 GPM Fire Pump @ 8 bar pressure: 3 Electric, Diesel & Jockey Pump set complete in all respects as per instruction of Engineer Incharge. (Chinease Diesel Engine Common Brand) Complete in all respects as approved and directed by the Engineer Incharge	Each	1.00		



SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		<b>1 NO. BORE</b>				
22	NSI	Providing and installing P.V.C. blind pipe, B.S.S. Class'D', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete.				
	i	1½" i/d (30 mm) 1 x 70	Rft	270.00		
	ii	1½" i/d (40 mm) 1 x 40	Rft	270.00		
	iii	2" i/d (50 mm) 1 x 50	Rft	270.00		
		<b>PIPE FOR SUPPLY</b>				
23	NSI	P/F Polypropylene Random copolymer (PPRC) pipe with fusion / threaded joints made (Dadex /Beeta/BBJ or equivalent) including the cost of all specials complete in all respect. i/d 50mm	Rft	365.00		
24	NSI	Supply and fixig, Pressure Booster Pump 0.5 Hp Shahzad company or Equivalent complete in all respects as approved by the Engineer Incharge.	Each	2.00		
25	NSI	Providing and fixing of Pedrollo F 32/200C 5.5 HP Centrifugal motor pump or Equivalent having 50mm suction and 100m head (non-automatic) from approved manufacturer complete in all respect as per approval of Engineer Incharge.	Each	2.00		
<b>TOTAL OF NON-SOR ITEMS</b>						



CONSTRUCTION OF PATHOLOGY LAB AT SMBBMU, LARKANA SINDH (COVERED AREA = 58,832 Sft)						
BILL OF QUANTITIES						
ELECTRICAL WORKS						
Rates Based on Composite Schedule of Rate (GENERAL-2024) Sindh						
Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
1		<b>DISTRIBUTION BOARDS</b>				
		(General Description) Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent as per instructions by engineer incharge				
		(General Description) All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. Item should be of ABB, Schneider or equivalent as per instructions by engineer incharge				
i)		<b>Main Distribution Board</b>				
		<b>INCOMMING</b>				
a	ELECT SH-C(228)	Providing and fixing of current transformer of ration 300/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	7415.83	22,247
b	ELECT SH-B(240)	Providing & fixing voltmeter size 96/96mm 500volt as required & as per instruction of EI	Per No.	3	4186.5	12,560
c		<b>OUTGOING</b>				
	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	12	28736.16	344,834
d	ELECT SH-M(182)	Providing and fixing circuit breaker 125,150,200 & 225 amps TP(XS-225NS) on prepared board as required.	Per No.	1	43010.16	43,010
e	ELECT SH-M(185)	Providing and fixing circuit breaker 400amp TP setting 250-400amp (XS-400CJ) on prepared board as required.	Per No.	2	272032.77	544,066
ii)		<b>DB-GF LIGHTING 01</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	3	28736.16	86,208
b	ELECT SH-C(224)	Providing and fixing of current transformer of ration 60/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	9	6295.56	56,660
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	9	4186.5	37,679
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	14	2504.12	35,058
iii)		<b>DB-GF LIGHTING 02</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	3	28736.16	86,208
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	9	6295.56	56,660
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	9	4186.5	37,679
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	9	2504.12	22,537
iv)		<b>DB-FF LIGHTING 01</b>				



Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	28736.16	28,736
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(183)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	15	28736.16	431,042
v)		<b>DB-FF LIGHTING 02</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(181)	Providing and fixing circuit breaker 15,20,30,40,50, & 60 amps TP(XE-100CS(CB)) on prepared board as required.	Per No.	1	26103.18	26,103
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	16	2504.12	40,066
vi)		<b>DB-POWER-GF 01</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	28736.16	28,736
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	22	2504.12	55,091
vii)		<b>DB-POWER-GF 02</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	28736.16	28,736
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	15	2504.12	37,562
viii)		<b>DB-POWER-FF 01</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	28736.16	28,736
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	25	2504.12	62,603
ix)		<b>DB-POWER-FF 02</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	28736.16	28,736
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	25	2504.12	62,603
x)		<b>DB-POWER-FF 03</b>				
		<b>INCOMMING</b>				
a	ELECT SH-M(183)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	28736.16	28,736
b	ELECT SH-C(225)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	6295.56	18,887



Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
c	ELECT SH-B(240)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of El.	Per No.	3	4186.5	12,560
		<b>OUTGOING</b>				
d	ELECT SH-M(178)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	20	2504.12	50,082
2		<b>WIRING IN CONCEALED CONDUITS</b>				
i)		<b>Switch to light point</b>				
		(General Description) Wiring from switch to light or fan point with 3 nos. single core 1.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
a	ELECT N/102	Wiring of Light and fan point with 3.29 Pvc insulated wire in 20mm (3/4") dia PVC conduit recessed in the wall or column as required.	Per/Point	928	6,573.50	6,100,208
3		<b>MISCELLANEOUS FITTINGS</b>				
	ELECT SH-C(195)	Providing and fixing brass Ceiling fan 56" (good quality)	Per No.	145	14,869.31	2,156,050
<b>Total of SOR Items</b>						<b>10,799,356</b>



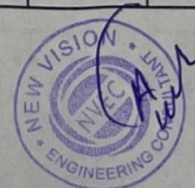
**CONSTRUCTION OF PATHOLOGY LAB AT SMBBMU, LARKANA SINDH  
(COVERED AREA = 58,832 Sft)**

**BILL OF QUANTITIES**

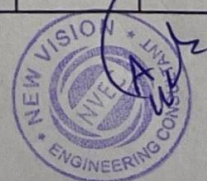
**ELECTRICAL WORKS**

**Non-Scheduled Items**

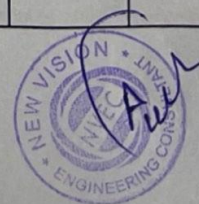
Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
1		<b>DISTRIBUTION BOARDS</b>				
		<b>(General Description)</b> Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineeering or equivalent as per instructions by engineer inchar				
		<b>(General Description)</b> All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent as per instructions by engineer incharge				
i)		<b>Main Distribution Board</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 1200 Ampere,three phase,Earth and Natural for distrubitions with appropriate size DB BOX				
		02 Nos Phase Rotation/failure, (adjustable under/over voltage threshold),50/60Hz, 0.1~10 Sec Delay, 380~500V				
	NSI	02 No Thermostatically controlled 230 Volts robust exhaust fans 6"/8" dia. to be installed on front of MDB for hot air exhaust including cost of thermostat ON-OFF switches wire mesh and all necessary accessories / wiring, complete in all respects.	Job	1		
ii)		<b>DB- Lighting GF-FF 01-02</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				



	NSI	05 Nos.copper bus bars 40Ampere,three phase,Earth and Neutral for distributions with appropriate size DB BOX	Job	1		
		Each Bus bar is 300*12*2 mm.				
iii)		<b>DB-Power GF-FF- 01-02-03</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
	NSI	05 Nos.copper bus bars 100Ampere,three phase,Earth and Neutral for distributions with appropriate size DB BOX	Job	5		
		<b>Main DB Breaker</b>				
		Supplying,Installation and commissioning of MCCB (Moulded Case Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY / TERASAKI JAPAN/ABB SWITZERL(with adjustable Thermal-Magnetic Trip ) in prelaid DBs and Panels i/c the cost of screws, necessary wire complete in all respect as approved and directed by the Engineer Incharge. Triple Pole With Adjustable Thermal-Magnetic Trip /Electronic Trip (60-100%) 800-1250 Amp(70 KA)	Each	1		
2		<b>LIGHT FIXTURES</b>				
		<b>(General Description)</b> Supply, installation, testing and commissioning of following light fittings, ceiling, recessed,wall mounted as per specified fixture. Complete with internal wiring, Grounding terminal , driver complete in all respects. Lights should be of Phillips, ledvance or equivalent				
i)	NSI	2*2 Panel Light 36 W	No.	507		
iii)	NSI	15 Watt (White) LED Light Fixture surface/recessed mounted, IP-22 rated	No.	308		
iv)	NSI	10 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	93		
3		<b>MISCELLANEOUS FITTINGS</b>				
		<b>(General Description)</b> Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as per instructions by the Engineer. make GFC, Pak Fan, Royal Fan or approved equivalent.				
i)	NSI	12 " outer dia exhaust fan with plastic body,fan blades and louvers	No.	20		
4		<b>WIRING IN CONCEALED CONDUITS</b>				
i)		<b>Distribution board to Switch</b>				
		<b>(General Description)</b> Wiring of light circuit from Distribution Board to switch,with Three nos. single core 2.5 Sqmm PVC insulated 450/750 volts grade stranded copper conductor cables in concealed PVC conduits (conduits partly shared) including PVC conduit, and conduit accessories etc. Cable should be of Newage, Fast cable, Universal cables or equivalent and conduit should be of Dadex, Turkplast, Easyfit or equivalent as per instructions by engineer incharge				
a	NSI	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	6552		
ii)		<b>Point to point wiring</b>				



b	NSI	Providing and laying (main or Sub Main Pvc insulated with 3-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	4640		
iii)		<b>Switch to Switch</b>				
		<b>(General Description)</b> Wiring from switch to switch with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
a	NSI	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	1184		
iv)		<b>Distribution board to General Purpose ( 5A/13A) socket</b>				
		<b>(General Description)</b> Wiring of circuit from Distribution Board to 5A/13A ,230Volts with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts graded , 2&3 pin switched socket, stranded copper conductor cables in concealed PVC conduit, including conduit accessories, etc(conduit partly shared)				
a	NSI	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	6552		
v)		<b>Socket to Socket</b>				
		<b>(General Description)</b> Wiring from 5 Amps, 2&3 pin socket to socket with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade solid or stanerd copper conductor cables in concealed PVC conduit including PVC conduit,Conduit accessories, etc complete. (conduit partly shared)				
a	NSI	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	2310		
vi)		<b>Distribution board to 20Amps socket</b>				
		<b>(General Description)</b> Wiring of circuit from distribution board to 20A, 230Volts, DP switch with 3 or 5 nos. single core 6 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc (conduit partly shared for A/Cs)				
a	NSI	Providing and laying (main or Sub Main Pvc insulated with 3-7.44 copper conductor in 1" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	469		
b	NSI	Providing and laying (main or Sub Main Pvc insulated with 4-7.44 copper conductor in 1-1/2" dia PVC conduit recessed in the wall or column as required.Complete in all respects and directed by the engineer Incharge	Rmtr	152		
5		<b>LT Cables</b>				
a	NSI	Providing and Laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 16 mm2 Complete in all respects and directed by the engineer Incharge	Rmtr	240		
b	NSI	Providing and Laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 35 mm2 Complete in all respects and directed by the engineer Incharge	Rmtr	300		



c	NSI	Providing and Laying (MAIN or SUB MAIN) PVC insulated & PVC sheathed with 4 core Armoured copper conductor 600/1000 volts size 240 mm <sup>2</sup> Complete in all respects and directed by the engineer Incharge	Rmtr	320		
6		<b>WIRING ACCESSORIES</b>				
		(General Description) Supply at site, installation, testing and commissioning of the following wiring accessories, complete in all respects. Made of TJ, Legrand or approved equivalent.				
i)	NSI	10 Amps, 250Volts one way, One gang light control switches including appropriate size concealed Plastic back box.	No.	13		
ii)	NSI	10 Amps, 250Volts one way, Two gang light control switches including appropriate size concealed Plastic back box.	No.	18		
iii)	NSI	10 Amps, 250Volts one way, Three gang light control switches including appropriate size concealed Plastic back box.	No.	17		
iv)	NSI	10 Amps, 250Volts one way, Four gang light control switches including appropriate size concealed Plastic back box.	No.	18		
iv)	NSI	10 Amps, 250Volts one way, Five gang light control switches including appropriate size concealed Plastic back box.	No.	17		
v)	NSI	10 Amps, 250Volts one way, Six gang light control switches including appropriate size concealed Plastic back box.	No.	29		
vi)	NSI	10 Amps, 250Volts one way, Eight gang light control switches including appropriate size concealed Plastic back box.	No.	26		
vii)	NSI	10 Amps, 250Volts one way, Ten gang light control switches including appropriate size concealed Plastic back box.	No.	15		
viii)	NSI	15 Amps, 250Volts, universal 5 in 1 switched socket unit including appropriate size Plastic back box.	No.	385		
ix)	NSI	Fan Dimmer 250 watt with switch including appropriate size Plastic back box. with all associated accessories.	No.	145		
x)	NSI	Appropriate size of plastic body fan box and ceiling fan rod 24" in length	Nos	145		
xi)	NSI	MS BAR for hanging Ceiling fan	Nos	145		
7		<b>Conduit</b>				
		Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-				
i)	NSI	25 mm	Per Metre	50		
ii)	NSI	50 mm	Per Metre	50		
iii)	NSI	80 mm	Per Metre	50		
iv)	NSI	100 mm	Per Metre	150		
8		<b>GROUNDING SYSTEM</b>				
i)		<b>GROUNDING cable</b>				
a	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 6 mm sq (7/0.044")	rmtr	510		
b	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 16 mm sq (7/0.064")	rmtr	310		



c	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 240 mm sq (7/0.064")	rmtr	110		
ii)		<b>Plate type earthing</b>				
	NSI	Providing & fixing of Plate type Earthing compressed with excecuted hole 6"up 63 feet,GI pipe 2"(50mm)with Tees , Sockets , Endcap of 60 (RFT) Copper Plate of 1/2"x 2"x 48", 2x 70mmsq S/Core copper bare conductor 125 (Rft) Earth Connection Point of 1200 x 50 x 50mm (L x W x T) Inspection Pit of 300 x 300 x 450 mm (L x W x D) completed with all respect	No.	1		
iii)		<b>Grounding Connection Point</b>				
	NSI	Supply of Grounding connecting points consisting of copper plate 300mm long x50mm wide x 6mm thick to be installed, complete with fixing arrangement, brass nuts bolts, washers, lugs, 12.5mm dia. holes to facilitate connections of Incoming copper strips / copper conductors.	Nos.	1		
iv)		<b>Testing and commissiiong</b>				
	NSI	Testing and commissioning of the earthing system in the presence of site engineer with electronic devices such as megger etc, making so report with after approximating 3 time testing and the grounding ohm must be less than or upto 3 ohms	Nos.	1		
9		<b>CIVIL WORKS</b>				
i)		<b>Trench ( for LT Cable )</b>				
	NSI	Labour for excavation and refilling of trench 12" wide, 24" deep 9" sand compaction below and above in preinstalled PVC pipes, ramming watering all necessary material, labour etc, complete in all respect. Actual length of the trench shall be as per site condition and paid accordingly however approximate length of trench is given.	R.Mtr	150		
ii)		<b>Manhole For LT Cable Pulling ( If Required)</b>				
	NSI	Construction of manholes to facilitate pulling of cables in trench or conduit as shown on drawing, manholes shall be of the size 24" x 24" x 30" deep with 9" thick wall with cement mortar, internal plaster 1:4, 100mm thick RCC cover for manhole, including cost of all accessories / materials, complete in all respects. (Tentative number of manholes have been provided, however payment shall be made as per actual and as per quantity requirement)	Nos.	1		
10		<b>Sound System Installation</b>				
		Supply, Install, Connect and commissioning,conduits wiring testing complete job, sound system (PA) complete,with wires, conduits, boxes and all accessories needed as shown on drawings and specifications .The input ressistance of shunt speakers must be in the range(4-8Ω) the work consist: OR approved as per instructions by Engineer Incharge.				
i)		<b>Amplifier</b>				
	NSI	Supply, installation, testing and commissioning of TOA Mixing Amplifier(120 Watts) Model:-A-2120 complete in all respect or approved equivalent as per instructions by engineer incharge.	No	1		
ii)		<b>Speaker</b>				
	NSI	Supply, installation, testing and commissioning ofTOA Box Speaker(30 Watts) Model:-BS-1030W complete in all respect or approved equivalent as per instructions by engineer incharge	No	13		
iii)		<b>Handheld Microphone</b>				



	NSI	Supply, installation, testing and commissioning of TOA Handheld Microphone China Model:-DM1200 complete in all respect or approved equivalent as per instructions by engineer incharge	No	1		
11		<b>Fire Alarm System</b>				
		(General Description) Supply, installation, testing and commissioning of following items as per drawings, specifications, & instructions of the Engineer, complete in all respect, all item should be of Gent by honeywell, ETON uk or approved equivalent as per instructions by the Engineer as required.				
i)		<b>Manual Call Point</b>				
	NSI	Supply, install testing and commsiong of manual call point RESET type with allied components with full functionality as per specification of manufacturer / drawing with proper staff and tools and plants etc.Input Source Zone signal Address Coding dip switch Operating Voltage 26V DC Alarm Current 6mA Quiescent Current 850µA Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	6		
ii)		<b>Smoke Detector</b>				
	NSI	Supply, install testing and commsiong of Addressable Optical Smoke Detectors incorporating a with in the housing of the detector. Sensing of the detector shall be adjustable via software between 0-90 seconds.Address Coding Binary Alarm Current DC26V 6mA Standby Current DC26V 850µA Sensitivity Setting Comply to EN54 Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	116		
iii)		<b>Sounder</b>				



	NSI	Supply, install testing and commsiong of Intelligent analogue addressable Loop powered sounder with flasher and red body and wall mounting base.Input Source Zone signal Address Coding Binary dip switch Operating Voltage 26.5V DC Standby Current Under 850µA Alarm Current Under 8mA Sound Output 90 ±4dB at 1 meter Sounder Output 2.3~3.4KHz Ingress Protection IP65 Ambient Temperature -20°C ~ +50°C Ambient Humidity 10% ~ 95% Material Fire-proof plastic	Each	7		
iv)		<b>FACP</b>				
	NSI	Supply, install, testing and commsiong of Addressable FACP. Each loop can connect up to 250 addressable devices. Maximum networking are 32 loops and total addressable points are 8000. Large LCD screen (40 x 15 lines) allows more events to be displayed on the same screen. Power 220V AC 50/60Hz *Others also available Battery Capacity 24V DC 4Ah Charging Voltage, Current 26V DC 100~400mA *With auto adjustment function Zone Voltage, Current 26.5V DC 340mA System Capacity 250 devices/1 loop *Expandable for site requirement Exterior Resistance Round-trip under 40Ω Transmitting Method Digital series transmitting Accumulation Time 0~40 seconds Main Sound 85dB @1M Material 1.6mm steel plate	Each	1		
v)		<b>Cable</b>				
	NSI	Supply, install testing and commsiong of 2 x 2.5 mmsq shielded drain wire, 30 minutes fire resistance,red, LPCB approved, BS 7629-1/2008, BS 5839-1 standard in 25 mm dia pvc conduit complete in all respects including cost of conduit and its accesories installing arrangment, making jurries in wall and repairment of wall .(Newage, Pakistan Cable, Fast or approved equivalent). conduit should be of Dadex, Turkplast, Easyfit or equivalent as per instructions by engineer incharge.	Rmtr	800		
vi)		<b>Programming, Testing and Commissioning</b>				
	NSI	Programming, Testing and Commissioning of Complete system by authorized certified company complete in all respects as per instructions of the Engineer.	Job	1		
vii)		<b>Fire Extinguishers</b>				
	NSI	Supply & installation of 1 x 6kg DCP CO2 Fire Extinguishers installed as per instructions of Cleint, complete with wall hanging and mounting arrangement complete in all respects. Complete in all respect as per instructions by site engineer	Nos.	2		
12		<b>Door Access System</b>				



		Supply & Installation, testing and commissioning of following items for LED & DOOR ACCESS including all material, labour, tools, accessories etc. Complete in all respects. Quantities for cables shown in BOQ are estimated and taken from drawings. Contractor is advised to take measurement at site before commencement of works.				
i)	NSI	Access Control System with Door Lock, Card reader for security	No	2		
ii)	NSI	Ticket Counter Touch Display	No	1		
iii)	NSI	Biometric Fingerprint Time Attendance Machine	No	1		
iv)	NSI	Programming, testing and commissioning of complete system including on site demonstration and training of client's representative upto the entire satisfaction of consultant/client	Job	1		
<b>Total of Non-SOR Items</b>						



**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR,  
GENETIC AND PATHOLOGICAL LAB AT SMBB, MEDICAL UNIVERSITY,  
LARKANA  
(COVERED AREA = 52,784 Sft)**

**BILL OF QUANTITIES**

**HVAC SPLIT UNIT**

Sr. No.	DESCRIPTION	AMOUNT
1.	HVAC	
2.	BMS	
3.	KILL TANK	
4.	BSL 3 LAB FINISHES	
5.	FLECTRICAL FOR HVAC	
	<b>TOTAL AMOUNT OF HVAC SPLIT UNIT</b>	



**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR, GENETIC AND PATHOLOGICAL  
LAB AT SMBB, MEDICAL UNIVERSITY, LARKANA  
(COVERED AREA = 52,784 Sft)**

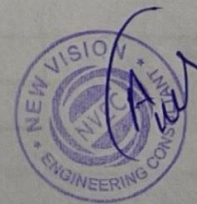
**BILL OF QUANTITIES**

**HVAC WORKS**

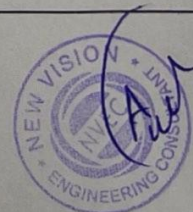
ITEM NO.	DESCRIPTION	QTY.	UNIT	MATERIAL+INSTALL. / LABOUR	
				UNIT RATE (Rs.)	AMOUNT (Rs.)
<b>SECTION I : HVAC EQUIPMENTS</b>					
1	FCU (6.0 RT, 0.75 InWg)	2	Nos.		
1	FCU (4.0 RT, 0.75 InWg)	1	Nos.		
2	Supply and Installation of Floor/Ceiling Suspended air handling units for BSL Labs with double skin construction complete with G-4, F7 & F9 filters section with filters, multi row chilled water coils, fan section with backward curved plug type/ belt driven drive motor, canvas, supports, commissioning filters, vibration isolators and outlet damper, as per equipment schedules & specifications or approved by the Engineer. Note:- For details see Sheet # LK1-M-016-SCH-RA				
a	AHU-1 (1F-AHU-BSL-3A) 2500 CFM @ 1.0 In Wg (Non-Inverter Unit)	1	No.		
b	AHU-2 (1F-AHU-BSL-2A) 2800 CFM @ 1.0 In Wg (Non-Inverter Unit)	1	No.		
c	AHU-3 (1F-AHU-Shower) 1250 CFM @ 1.0 In Wg (Non-Inverter Unit)	1	No.		
3	Supply and Installation of Cabinet Type Air Filtration Units for Exhaust of BSL Labs with double skin construction complete with H-13 filter section with filters, along with mounting Steel bracket Bolt, nut and frame, Power Cables, complete in term of Operation, Specification or approved by the Architect/Engineer. Note:- For details see Sheet # LK1-M-018-SCH-RA				
a	AFU-1 to AFU-2 (5000 CFM @ 1.5 In Wg)	2	Nos.		
b	AFU-3 to AFU-4 (2400 CFM @ 1.5 In Wg)	2	Nos.		
4	Supply and Installation of In Line Exhaust Fans with Pre filters, along with mounting Steel bracket Bolt, nut and frame, Power Cables, complete in term of Operation, Specification or approved by the Architect/Engineer. Note:- For details see Sheet # LK1-M-018-SCH-RA				
a	G-Ex-3 ( 500 CFM @ 1.0 in.wg )	1	No		
b	G-Ex-2 ( 450 CFM @ 1.0 in.wg )	2	No		
c	G-Ex-1 ( 300 CFM @ 1.0 in.wg )	2	No		
d	1F-Ex-1 ( 200 CFM @ 1.0 in.wg )	1	No		
5	Supply & installation, testing, and commissioning of UPVL. Class B Condensate Drain Piping with supports, hanger complete with closed cell foam insulation, jacketing and (cladding if required in exposed areas) complete in all respect as described in specifications, schedule and drawings and as approved by the Engineer.				
a	Dia 3/4"	2500	Rft		
b	Dia 1"	300	Rft		
c	Dia 1 1/4"	300	Rft		
6	Drain Piping from FCU to nearest Drain Point as per Plumbing Layout	3	Nos.		



7	Drain Piping from AHU to nearest Drain Point as per Plumbing Layout	6	Nos.		
8	Supply & Installation of Pipe Supports / Hangers with "C" channel, Angle Iron & Threaded Rod, hanging from wall / Ceiling, complete in all respect for ducts, pipes, fcus, drain pipes etc.	2000	Kg		
<b>SECTION III : AIR DISTRIBUTION SYSTEM</b>					
9	Supply, Fabrication, Jointing and Installation of sheet metal duct work as per SMACNA/ASHRAE standard for supply and return air ducting, plenums, fresh and exhaust air duct etc. making connection, hot dipped galvanized support / hangers turning vanes, elbow tees etc. with volume control dampers and duct test holes at adequate location for proper balancing of the air side system and other necessary fittings / accessories complete in all respect as described in specification, schedule and drawings and as approved by the Engineer. Note:- For details see Sheet # LK1-M-005-GF-DU-RA, LK1-M-006-1F-DU-RA, LK1-M-007-2F-DU-RA, LK1-M-008-3F-DU-RA, LK1-M-009-GF-DU-RA, LK1-M-010-1F-DU-RA, LK1-M-011-2F-DU-RA, LK1-M-012-3F-DU-RA, LK1-M-013-4F-DU-RA				
a	G.I Ducting 22g	6300	Sft		
b	SS-304 Ducting 22g	1800	Sft		
10	Supply and Fixing of Euro foam XLPE Insulation Cross-linked closed cell polyolefin foam with density of 25 ±3 kg/m3 (foam core only) and Gray colour. Self-adhesive coating: Pressure sensitive adhesive coating (Flexible cross-linked closed cell thermal insulation foam with factory applied aluminium foil for mechanical protection, mainly designed to control condensation and energy losses) as shown on the drawings and including all labour, material and accessories required for insulation work, complete in all respect and to the satisfaction and as per direction of the Engineer in charge				
a	20mm Thick 25 ±3 kg/m3 density	8100	Sft		
11	Supply and installation of rubber impregnated canvas Pre-assembled Flexible Duct Connector (DURO DYNE) between FCU's, AHU's, Fans and Duct Work as shown on the drawings including all labour, material, accessories, complete in all respect and to the satisfaction and as per direction of the Engineer in charge	250	Rft		
12	Supply and installation of sheet metal cladding over all exposed ducting, as shown on the drawings, including all labour, material and accessories, complete in all respect and to the satisfaction and as per direction of the Engineer in charge Note:- For details see Sheet # LK1-M-013-4F-DU-RA				
a	26 - Gauge	1200	Sft		
<b>SECTION IV : AIR DEVICE</b>					



13	Supply and Installation of heavy gauge G.I. sheet metal gear operated, aerofoil blade volume control damper with adequate numbers duct test holes, complete in all respect and as required by the independent testing and balancing agency and to the satisfaction of the Engineer. Note:- For details see Sheet # LK1-M-006-GF-DU-RA, LK1-M-007-1F-DU-RA, LK1-M-008-2F-DU-RA, LK1-M-009-3F-DU-RA, LK1-M-011-GF-DU-RA, LK1-M-012-1F-DU-RA, LK1-M-013-2F-DU-RA, LK1-M-014-3F-DU-RA,	32	Sft		
14	Supply & Installation of Fresh Air Intake & Exhaust Air Louver, including hangers. Complete in all respect and as approved by the Engineer	16	Sft		
15	Supply & Installation of Aluminium Filter of thickness 01 inch (25mm) for Fresh Air intake Louver, including hangers. Complete in all respect and as approved by the Engineer	8	Sft		
	Supply, Installation and fixing of following type air devices extruded aluminium and powder coated colour (approved by the Architect) including connections with air ducts and support arrangements as described in specifications, drawings complete in all respect and as approved by the Engineer. Note:- For details see Sheet # LK1-M-001-GF-AT-RA, LK1-M-002-1F-AT-RA, LK1-M-003-2F-AT-RA, LK1-M-004-3F-AT-RA				
16	Supply/Return Air Square Diffuser (Similar to T&B Model AME 4-Way) with VCD				
a	8" X 8"	15	Nos.		
b	10" X 10"	29	Nos.		
c	15" X 15"	6	Nos.		
17	Exhaust/Return Air Rectangular Grille (Similar to T&B Model AME 4-Way) with VCD				
a	6" X 6"	44	Nos.		
b	10" X 6"	1	Nos.		
c	10" X 8"	3	Nos.		
d	12" X 10"	1	Nos.		
e	16" X 10"	2	Nos.		
f	22" X 10"	3	Nos.		
g	22" X 12"	1	Nos.		
h	34" X 14"	2	Nos.		
i	Thimble connection for Biosafety cabinet	3	Nos.		
<b>SECTION V : Split-Unit Air Conditioners</b>					
18	Supply and Installation of Industrial Grade Split-Unit Airconditioners for ground and First floor. Condenser designed for 45°C ambient air.				
a	1 Ton (Non-inverter)	2	Nos.		
b	1.5 Ton (Non-inverter)	3	Nos.		
c	2 Ton (Non-inverter)	9	Nos.		
d	3 Ton (Inverter Unit)	18	Nos.		
e	4 Ton (Inverter Unit)	16	Nos.		
f	5 Ton (Inverter Unit)	7	Nos.		



19	Supply and installation of DX copper piping with Aeroflex insulation for split-unit Air Conditioners				
a	1/4" (22 gauge pipe, Brand: Muller USA or equivalent)	200	Rft		
b	3/8" (22 gauge pipe, Brand: Muller USA or equivalent)	2200	Rft		
c	1/2" (22 gauge pipe, Brand: Muller USA or equivalent)	1000	Rft		
d	5/8" (22 gauge pipe, Brand: Muller USA or equivalent)	200	Rft		
e	3/4" (22 gauge pipe, Brand: Muller USA or equivalent)	1600	Rft		
f	7/8" (20 gauge pipe, Brand: Muller USA or equivalent)	2100	Rft		
g	1 1/4" (20 gauge pipe, Brand: Muller USA or equivalent)	50	Rft		
h	1 1/2" (20 gauge pipe, Brand: Muller USA or equivalent)	50	Rft		
<b>SECTION VI : MISCELLANEOUS ITEMS</b>					
20	Supply & Installation of 8 core control cable from indoor to outdoor unit	2300	Rm.		
21	Supply & charging of R410 refrigerant	50	Jugs		
22	Supply & charging of R22 refrigerant	7	Jugs		
23	Providing of the AutoCAD (latest version) as-built drawings and 03 number of sets and soft copies on CD's as specified, complete in all respect and to the satisfaction of the Engineer.	1	Job		
24	Cost of two months test run each in the peak summer and winter season as required by the Consultant / Engineer	1	Job		
27	Tenderer to specify any other work not mentioned above but necessary to complete Air Conditioning Works as a whole as described in the Specifications and Drawings and to make the system completely operational. (Tenderer to include the details of such works, (if any).	1	Job		
<b>TOTAL AMOUNT OF HVAC WORKS</b>					

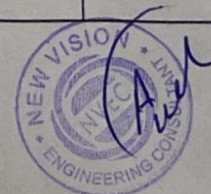


**ESTABLISHMENT OF CENTER FOR ADVANCED RESEARCH IN MOLECULAR, GENETIC AND PATHOLOGICAL  
LAB AT SMBB, MEDICAL UNIVERSITY, LARKANA  
(COVERED AREA = 52,784 Sft)**

**BILL OF QUANTITIES**

**BMS WORKS**

ITEM NO.	DESCRIPTION	QTY.	UNIT	MATERIAL+INSTALL. / LABOUR	
				UNIT RATE	AMOUNT
				(Rs.)	(Rs.)
<b>1</b>	<b>PLC Panel 1 (2F-BSL-BMS Panel) (See Sheet # LK1-I-001-CT-RA)</b>				
	Supply, installation, testing & commissioning of Floor / Wall / Flush mounted PLC Control Panel, dust protected, vermin proof housing coated with approved color including all inter panel wiring as per specification & drawing, with exhaust fan for cooling, complete in all respect, and as directed by the engineer incharge.				
i	2F-BSL-BMS Panel Board Enclosure (Size: 6' x 5')	1	No.		
ii	Supply, Installation of Power Supply (20 Amps) for PLC Panel	1	No.		
<b>2</b>	<b>Programmable Logic Controllers</b>				
	Supply, installation, testing & commissioning of PLCs/DDC as per specification & drawing, complete in all respect, and as directed by the engineer incharge.				
i	2F-BSL-BMS-Panel PLC (33 DI, 44 DO, 13 AI, 17 AO)	1	No.		
ii	PLC Programming to control and monitor log HVAC system and parameters	1	No.		
<b>3</b>	<b>HVAC Instruments</b>				
	Supply, installation, testing & commissioning of HVAC Instruments including all mounting accessories as per specification & drawing, complete in all respect, and as directed by the engineer incharge.				
i	Supply, Installation of Push Button	1	No.		
ii	Supply, Installation of 2 way rotary switches	8	No.		
iii	Supply, Installation of DP Switch for AHUs, AFUs (size: 20-200Pa)	7	Nos.		
iv	Supply, Installation of Duct Temperature & RH Transmitter (0 - 50 °C) (0-100%RH)	2	Nos.		
vi	Supply, Installation of SSR Relay 24 Vdc Coil, 5Amp Contacts	8	Nos.		
vii	Supply, Installation of SSR Relay 220 V Coil, 5Amp Contacts	3	Nos.		
viii	Supply, Installation of Room Differential Pressure Transmitter for BSL3 Rooms (-60 to +60 Pa)	1	Nos.		
ix	Supply, Installation of Differential Pressure Transmitter for AFU HEPA Filters (0 - 5 inwc)	4	Nos.		
x	Supply, Installation of BSL3 In Use Light Display at ANTEROOM Door	1	Nos.		
xi	Supply, Installation of Buzzer with Red Light in BSL3 for Alarm	1	Nos.		
xii	Supply, Installation of Red Leds at Panel Door	7	Nos.		
xiii	Supply, Installation of Green Leds at Panel Door	7	Nos.		
xiv	Supply, Installation of 2hp VFD for Shower area AFUs	2	Nos.		
xv	Supply, Installation of 5hp VFD for BSL3 AFUs	2	Nos.		
<b>4</b>	<b>Cable Laying &amp; Wire Terminations for PLC 1 (2nd Floor) 2F-BSL-BMS Panel</b>				
i	Supply, Installation of 2 Core 0.75 mm2 cable from 2F-BSL-BMS Panel to BSL AHUs, including wire terminations for DP Switch	60	RM		
ii	Supply, Installation of 3 Core Shielded cable from 2F-BSL-BMS Panel to 2F-FAU Cooling Coil Temperature Transmitter	10	RM		
v	Supply, Installation of 2 core 0.75 mm2 cable from 2F-BSL-BMS Panel to 2F-HVAC Panel for AHU contactors	180	RM		
vi	Supply, Installation of 2 core 0.75mm2 cable for AHU On LED Indication	10	RM		
vii	Supply, Installation of 2 core 0.75mm2 cable for AHU Alarm LED Indication	10	RM		



viii	Supply, Installation of 2 core 0.75mm <sup>2</sup> cable for Shower AFU On/Off Switch	9	RM		
ix	Supply, Installation of 2 core 0.75mm <sup>2</sup> cable for AFU Duty Cycle rotary switch	9	RM		
x	Supply, Installation of 2 core 0.75mm <sup>2</sup> cable for AFU VFD On/Off	260	RM		



xi	Supply, Installation of 3 core shielded cable for AFU VFD Speed Control	260	RM		
xii	Supply, Installation of 2 core 0.75mm2 cable for AFU DP Switch	160	RM		
xiii	Supply, Installation of 2 core 0.75mm2 cable for AFU On LED Indication	9	RM		
xiv	Supply, Installation of 2 core 0.75mm2 cable for AFU Alarm LED Indication	9	RM		
xv	Supply, Installation of 3 core shielded cable for Room DPT	32	RM		
xvi	Supply, Installation of 2 core 0.75mm2 cable for BSL3 Lab In Use Indication	38	RM		
xvii	Supply, Installation of 2 core 0.75mm2 cable for BSL3 Buzzer Light	35	RM		
xviii	Supply, Installation of 3 core shielded cable for Room Duct Temperature & RH Transmitter	98	RM		
xx	Supply, Installation of 2 core 0.75mm2 cable for BSL3 Door Input	35	RM		
xxi	Supply, Installation of 2 core 0.75mm2 cable for Master Switch	3	RM		
xxii	Supply, Installation of 2 core 0.75mm2 cable for Push Button	3	RM		
xxiii	Supply, Installation of 2 core 0.75mm2 cable for BSL3, BSL2, Shower AHU On Light	10	RM		
xxiv	Supply, Installation of 2 core 0.75mm2 cable for BSL3, BSL2, Shower AHU Alarm Light	10	RM		
xxv	Supply, Installation of 4 core 0.75mm2 cable to 2F-HVAC Panel	32	RM		
xxvi	Supply, Installation of complete cable connections within 2F-BSL-BMS-Panel	1	Lot		
<b>5</b>	<b>PLC Panel 2 (Kill Tank Panel) (See Sheet # LK1-I-001-CT-RA)</b>				
	Supply, installation, testing & commissioning of Floor / Wall / Flush mounted PLC Control Panel, dust protected, vermin proof housing coated with approved color including all inter panel wiring as per specification & drawing, with exhaust fan for cooling, complete in all respect, and as directed by the engineer incharge.				
i	Kill Tank Panel Board Enclosure (Size: 4' x 7') Floor Mounted	1	No.		
ii	Supply, Installation of Power Supply (10 Amps) for PLC Panel	1	No.		
<b>6</b>	<b>Programmable Logic Controllers</b>				
	Supply, installation, testing & commissioning of PLCs/DDC as per specification & drawing, complete in all respect, and as directed by the engineer incharge.				
i	Kill Tank Panel PLC (16 DI, 14 DO, 4 AI, 0 AO)	1	No.		
ii	PLC Programming to control and monitor log HVAC system and parameters	1	No.		
<b>7</b>	<b>Instruments for Kill Tank</b>				
	Supply, installation, testing & commissioning of HVAC Instruments including all mounting accessories as per specification & drawing, complete in all respect, and as directed by the engineer incharge.				
i	Supply, Installation of Push Button	1	No.		
ii	Supply, Installation of 2 way rotary switches	1	No.		
iii	Supply, Installation of 15 Amp Auto/Manual Switch	1	Nos.		
iv	Supply, Installation of pH Transmitter (0-14 pH)	2	Nos.		
v	Supply, Installation of Ultrasonic Level Transmitter (0 - 10 ft)	2	Nos.		
vi	Supply & Installation of Agitator Motor (1 HP)	2	Nos.		
vii	Supply & Installation of VFD (1 HP) for Agitator Motor	2	Nos.		
viii	Supply, Installation of Chemical Transfer Magnet Pump for Drain (2 HP)	1	Nos.		
ix	Supply, Installation of Motorized CPVC B/F Valve with Status Signal (Size: 3/4") for HYPO Addition	2	Nos.		
x	Supply, Installation of Motorized CPVC B/F Valve with Status Signal (As per Drain Size, preferably 3") for Kill Tank Drain and Inlet	4	Nos.		
xi	Supply, Installation of 14 pin inverting Relay 24 Vdc Coil, 5Amp Contacts	9	Nos.		
xii	Supply, Installation of 14 pin inverting Relay 220V Coil, 5Amp Contacts	13	Nos.		
xiii	Supply, Installation of Pump DOL with 12A contactor and overload relay with both Auto/Manual Option	1	Nos.		



xiv	Supply, Installation of Green Leds at Panel Door	2	Nos.		
xv	Supply, Installation of Red Leds at Panel Door	2	Nos.		
xvi	Supply, Installation of Buzzer Leds at Panel Door	1	Nos.		
8	<b>Cable Laying &amp; Wire Terminations for PLC 2 (Ground Floor) Kill Tank Panel</b>				
i	Supply, Installation of 6 Core 0.75 mm <sup>2</sup> cable from Kill Tank Panel to Kill Tank Motorized Valves, including wire terminations	366	RM		
ii	Supply, Installation of 3 Core Shielded cable from Kill Tank Panel to pH transmitters	122	RM		
iii	Supply, Installation of 3 Core Shielded cable from Kill Tank Panel to ultrasonic level transmitters	122	RM		
iv	Supply, Installation of 3 Core Shielded cable from Kill tank Panel to Agitator Motor VFDs	6	RM		
v	Supply, Installation of 3 Core 1.5mm <sup>2</sup> Power Cable from Kill tank Panel to Agitator Motors	122	RM		
vi	Supply, Installation of 3 Core 1.5mm <sup>2</sup> Power Cable from Kill tank Panel to Discharge Pump	61	RM		
vii	Supply, Installation of complete cable connections within Kill Tank Panel	1	Lot		
<b>TOTAL AMOUNT OF BMS WORKS</b>					



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**BILL OF QUANTITIES**

**KILL TANK WORKS**

ITEM NO.	DESCRIPTION	QTY	UNIT	MATERIAL+INSTALL. / LABOUR	
				UNIT RATE	AMOUNT
				(Rs.)	(Rs.)
	<b>SECTION I : HVAC EQUIPMENTS</b>				
1	<p><b><u>WASTE WATER TREATMENT SYSTEM FOR LABORATORY WASTE WITH DUAL TANK CAPACITY 750 L/DAY</u></b>                      Supply &amp; Installation of hospital waste water treatment solution in the shape of a standalone unit. There is provision of dual waste water treatment tank (750L/Day each). The volume of tanks depends on the estimated quantity of waste water to be treated and number of cycles of waste water to be treated per day.  <b>Control system:</b>                      UES-HW is fully PLC controlled unit having inbuilt pH &amp; level sensors to control and performed its cyclic duties independently even without attendant. All flow Valves for chemical dosing &amp; treated water drainage are UPVC B/Fly Motorise controlled. Real time data is accessible through HMI for observation or resetting.  <b>Material of Construction:</b>                      All tanks including waste water treatment units &amp; treatment chemicals storage are made of highly resistant polymeric reinforced composite materials to survive for decades. Our fabricated structures for such applications are insured more than 20 years' service.</p>	1	No.		
<b>TOTAL AMOUNT OF KILL TANK WORKS</b>					



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**BILL OF QUANTITIES**

**BSL3 LAB FINISHES WORKS**

ITEM NO.	DESCRIPTION	QTY.	UNIT	MATERIAL+INSTALL. / LABOUR	
				UNIT RATE	AMOUNT
				(Rs.)	(Rs.)
1	Supply and Installation of Lab working bench with SS-304, 2"x 2" 16gage Pipe with 12mm thick Corian top for 2nd Floor BSL3, BSL2	180	Sqft		
2	Supply and Application of Epoxy Floor in 3mm thick layer for 2nd floor, BSL3, BSL2 and Shower Area	2000	Sqft		
3	Supply and Installation of Monolithic Fiber Cement Board Ceiling for 2nd floor, BSL3, BSL2 and Shower Area	2000	Sqft		
4	Supply and Application of Antifungal Paint with under coat filling for BSL2, BSL3, and Shower areas Walls for 2nd floor	3720	Sqft		
5	Supply and Installation of SS Door with Frame in SS-304 for BSL3, BSL2 2nd Floor, Door Size 5'x7' x 1 1/2" (Qty. 06#)	105	Sqft		
6	Supply and Installation of SS Door with Frame in SS-304 for Shower area 2nd Floor, Door Size 2.5'x7' x 1 1/2" (Qty. 07#)	122.5	Sqft		
<b>TOTAL AMOUNT OF BSL3 LAB FINISHES WORKS</b>					



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**BILL OF QUANTITIES**

**HVAC ELECTRICAL WORKS**

ITEM NO.	DESCRIPTION	QTY.	UNIT	MATERIAL+INSTALL. / LABOUR	
				UNIT RATE	AMOUNT
				(Rs.)	(Rs.)
1	<b>L.V. DISTRIBUTION PANEL / BOARDS</b>				
	Supply, installation, testing & commissioning of Floor / Wall / Flush mounted Main Distribution Panel (MDP) with Rain Protection, Canopy and Multi Distribution Panel's (DP) as per single line diagram, dust protected, vermin proof housing coated with approved color including all mounting accessories as per specification & drawing, complete in all respect, and as directed by the engineer incharge.				
i	Split-AC-Panel-GF	1	No.		
ii	Split-AC-Panel-1F	1	No.		
iii	AFU-Panel-1F	1	No.		
2	<b>LOW VOLTAGE POWER CABLES AND WIRES AT GROUND FLOOR Split AC Panel</b>				
	Supply, installation, testing and commissioning of following size of multi core / single core, PVC insulated, PVC sheathed unarmoured, 0.6 kV/1 kV, 300/500V or 350/750V voltage grade copper cable in cable tray, raceways or in trench including all accessories lugs, cable gland, wire termination etc.as per drawings and specification, complete in all respect, and as directed by the engineer incharge.				
i	3.5core, 240 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core 35 Sq.mm <sup>2</sup> as ECC from Main Distribution Panel at Ground floor to Split-AC-Panel-GF	4	RM		
ii	3core, 2.5 Sq.mm <sup>2</sup> Cu/PVC/PVCfrom Split-AC-Panel-GF to single phase split units (1, 1.5, 2.0 ton)	950	RM		
iii	4core, 2.5 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core, 2.5 Sq.mm <sup>2</sup> as ECC from Split-AC-Panel-GF to 3Phase split units (3.0. 4.0 and 5.0 tons)	1130	RM		
3	<b>LOW VOLTAGE POWER CABLES AND WIRES AT FIRST FLOOR &amp; Rooftop</b>				
	Supply, installation, testing and commissioning of following size of multi core / single core, PVC insulated, PVC sheathed unarmoured, 0.6 kV/1 kV, 300/500V or 350/750V voltage grade copper cable in cable tray, raceways or in trench including all accessories lugs, cable gland, wire termination etc.as per drawings and specification, complete in all respect, and as directed by the engineer incharge.				
i	3.5core, 240 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core 35 Sq.mm <sup>2</sup> as ECC from Main Distribution Panel at Ground floor to Split-AC-Panel-1F	8	RM		
ii	3core, 2.5 Sq.mm <sup>2</sup> Cu/PVC/PVCfrom Split-AC-Panel-1F to single phase split units (1, 2.0 ton)	250	RM		
iii	4core, 2.5 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core, 2.5 Sq.mm <sup>2</sup> as ECC from Split-AC-Panel-1F to 3Phase split units (3.0. 4.0 and 6.0 tons)	1200	RM		
iv	4core, 6 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core, 4 Sq.mm <sup>2</sup> as ECC from Split-AC-1F to BSL2 and Shower AHUs	48	RM		
v	4core, 25 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core, 10 Sq.mm <sup>2</sup> as ECC from Split-AC-1F to BSL3 AHU	24	RM		
vi	4core, 2.5 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core, 2.5 Sq.mm <sup>2</sup> as ECC from AFU-Panel-1F to 3Phase AFUs on rooftop	55	RM		
vii	4core, 4.0 Sq.mm <sup>2</sup> Cu/PVC/PVC with 1core, 2.5 Sq.mm <sup>2</sup> as ECC from Split-AC-1F Panel to UPS and from UPS to AFU-Panel-1F	10	RM		
4	<b>UPS (Uninterruptible Power Supply)</b>				
i	Supply & Installation of 15kVA 3-Phase UPS for BSL3 BMS Panel & AFUs	1	No.		
<b>TOTAL AMOUNT OF HVAC ELECTRICAL WORKS</b>					

