AYUB MEDICAL TEACHING INSTITUTE (HOSPITAL) ABBOTTABAD



VOL-I: BIDDING DOCUMENTS

For:

CONSTRUCTION OF DRAINAGE SYSTEM COMPONENT IN MTI-ABBOTTABAD



EAST ASIAN CONSULTANTS

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PERFORMANCE SECURITY
CONTRACT AGREEMENT
MOBILIZATION ADVANCE GUARANTEE/BOND
TECHNICAL EVALUATION CRITERIA
DETAILED BILL OF QUANTITIES (BOQs)
SPECIFICATIONS – TECHNICAL PROVISIONS (Separate Vol-II)
SPECIFICATIONS – SPECIAL PROVISIONS (Separate Vol-II)

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

A. GENERAL

IB.1 Scope of Bid

- 1.1 The Employer as defined in the Bidding Data hereinafter called "the Employer" wishes to receive bids for the construction and completion of works as described in these Bidding Documents, and summarised in the Bidding Data hereinafter referred to as the "Works".
- 1.2 The successful bidder will be expected to complete the Works within the time specified in Appendix-A to Bid.

IB.2 Source of Funds

2.1 The project is Sponsored by Ayub Medical Teaching Institute/Hospital (AMTI) Abbottabad

IB.3 Eligible Bidders

3.1 This Invitation for Bids is open to all bidders meeting the following requirements: Details criteria is provide in the NIT

IB.4 One Bid per Bidder

4.1 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.16) will be disqualified.

IB.5 Cost of Bidding

5.1 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.

B.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. General Conditions of Contract, Part-I (GCC).
 - 4. Particular Conditions of Contract, Part-II (PCC).
 - 5. Specifications Special Provisions.
 - 6. Specifications Technical Provisions.
 - 7. Form of Bid & Appendices to Bid.
 - 8. Bill of Quantities (Appendix-D to Bid).

- 9. Form of Bid Security.
- 10. Form of Contract Agreement.
- 11. Forms of Performance Security and Mobilization Advance Guarantee/Bond.
- 12. 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

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 07 days prior to the deadline for submission of bids.

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.

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 pursuant to Sub--Clause 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 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 Language of Bid

10.1 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 an accurate 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.11 Documents Accompanying the Bid

- 11.1 Each bidder shall:
 - (a) submit a written power of attorney authorizing the signatory of the bid to act for and on behalf of the bidder;
 - (b) update the information indicated and listed in the Bidding Data and previously submitted with the application for prequalification, and continue to meet the minimum criteria set out in the prequalification documents which as a minimum, would include the following:
 - (i) Evidence of access to financial resources alongwith average annual construction turnover:
 - (ii) Financial predictions for the current year and the two following years including the effect of known commitments;
 - (iii) Work commitments since prequalification;

- (iv) Current litigation information; and
- (v) Availability of critical equipment and
- (c) furnish a technical proposal taking into account the various Appendices to Bid specially the following:

Appendix-E to Bid Proposed Construction Schedule Appendix-F to Bid Method of Performing the Work

Appendix-G to Bid List of Major Equipment

Appendix-K to Bid Organization Chart for Supervisory Staff and other pertinent information such as mobilization programme etc;

- 11.2 Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:
 - (a) the bid and in case of a successful bid, the Form of Contract Agreement shall be signed 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 Form 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 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 partner without prior written consent of the Employer / procuring entity.
- 11.3 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 1.2 hereof.

IB.12 Bid Prices

- 12.1 Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in Sub-Clause 1.1 hereof, based on the unit rates and / or prices submitted by the bidder.
- 12.2 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.

- 12.3 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 70.2 of the General Conditions of Contract Part-I.
- 12.4 The rates and prices quoted by the bidders are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 70 of the Conditions of Contract. The bidders shall furnish the prescribed information for the price adjustment formulae in Appendix-C to Bid, and shall submit with their bids such other supporting information as required under the said Clause.

IB.13 Currencies of Bid and Payment

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. 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 the same in Appendix-B to Bid. The proportion of the Bid Price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the Bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in his bid.
- The rates of exchange to be used by the bidder for currency conversion shall be the TT&OD Selling Rates published or authorized by the State Bank of Pakistan prevailing on the date 28 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.14 Bid Validity

- 14.1 Bids shall remain valid for the period stipulated in the Bidding Data after the Date of Bid Opening specified in Clause IB.23.
- 14.2 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 shall in no case 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.15 in all respects.

IB.15 Bid Security

Each bidder shall furnish, as part of his bid, a Bid Security in the amount stipulated in the Bidding Data in Pak Rupees or an equivalent amount in a freely convertible currency.

- 15.2 The Bid Security shall be, at the option of the bidder, in the form of Deposit at Call or a Bank Guarantee issued by a Scheduled Bank in Pakistan, in favour of the Employer valid for a period 28 days beyond the Bid Validity date.
- 15.3 Any bid not accompanied by an acceptable Bid Security shall be rejected by the Employer as non-responsive.
- 15.4 The bid securities of unsuccessful bidders will be returned as promptly as possible, but not later than 28 days after the expiration of the period of Bid Validity.
- 15.5 The bid security of the successful bidder be retained with the Procuring Entity till completion of the defect liability period and the amount of guarantee will be reduced by an equivalent amount.
- 15.6 The Bid Security may be forfeited:
 - (a) if the bidder withdraws his bid except as provided in Sub-Clause 22.1;
 - (b) if the bidder does not accept the correction of his Bid Price pursuant to Sub-Clause 27.2 hereof; or
 - (c) In the case of successful bidder, if he fails within the specified time limit to:
 - (i) furnish the required Performance Security; or
 - (ii) sign the Contract Agreement.

IB.16 Alternate Proposals by Bidder

- 16.1 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 Alternate 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 Form of Bid shall be that which represents complete compliance with the Bidding Documents.
- 16.2 Alternate Proposal(s), if any, of the lowest evaluated responsive bidder only may be considered by the Employer as the basis for the award of Contract to such bidder.

IB.17 Pre-Bid Meeting

- 17.1 The Employer may, on his own motion 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, is as stipulated in the Bidding Data. All prospective bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.
- 17.2 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.
- 17.3 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 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.

17.4 Absence at the pre-bid meeting will not be a cause for disqualification of a bidder.

IB.18 Format and Signing of Bid

- 18.1 Bidders are particularly directed that the amount entered on the Form of Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.
- 18.2 All appendices to Bid are to be properly completed and signed.
- 18.3 No alteration is to be made in the Form of Bid nor in the Appendices 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 out 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.7 and clearly mark them "ORIGINAL" and 'COPY" as appropriate. In the event of discrepancy between them, the original shall prevail.
- 18.5 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person or persons duly authorized to sign on behalf of the bidder pursuant to Sub- Clause 11.1(a) 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 Form 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 as their file copy.

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 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 name and identification number of the contract as defined 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 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) Complete Bids must be received by the Procuring Entity at the address specified no later than the time and date stipulated in the Bidding Data In the event of the specified date for the submission of bids declared a holiday for the Procuring Entity, the Bids will be received up to the appointed time on the next working day.
 - (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 package.
 - (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 will be 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

- 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.
- 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 22.1 and 27.2.
- 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 Form of Bid may result in forfeiture of the Bid Security in pursuance to Clause IB.15.

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.
- 23.3 The bidder's name, total Bid Price and price of any Alternate 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.
- 23.4 Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with the Sub-Clause 23.3.

IB.24 Process to be Confidential

24.1 Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of bid evaluation report which shall be done at least ten (10) days prior to issue of Letter of Acceptance. 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 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 fifteen (15) days after the announcement of the bid evaluation report; however mere fact of lodging a complaint shall not warrant suspension of the procurement process.

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. The request for clarification and the response shall be in writing but 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.

IB.26 Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the Employer will determine whether each bid is substantially responsive to the requirements of the Bidding Documents.
- A substantially responsive bid is one which (i) meets the eligibility criteria; (ii) has been properly signed; (iii) is accompanied by the required Bid Security; and (iv) conforms to all the terms, conditions and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one (i)

which affect in any substantial way the scope, quality or performance of the Works; (ii) which limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the bidder's obligations under the Contract; or (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

26.3 If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

IB.27 Correction of Errors

- 27.1 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; and
 - (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.
- 27.2 The amount stated in the Form 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 15.6(b) hereof.

IB.28 Evaluation and Comparison of Bids

- 28.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26.
- 28.2 In evaluating 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 errors pursuant to Clause IB.27;
 - (b) excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced Daywork; and
 - (c) making an appropriate adjustment for any other acceptable variation or deviation, including discounts or other price modification in the bids.
- 28.3 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 Bid evaluation.
- 28.4 If the Bid of the successful bidder is seriously unbalanced in relation to the Employer's estimate of the cost of work to be performed under the Contract, 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 that the amount of the Performance Security set forth in Clause IB.32 be increased 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.

F. AWARD OF CONTRACT

IB.29 Award

- 29.1 Subject to Clauses IB.30 and IB.34, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding Documents and who 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 and qualify pursuant to Sub-Clause IB 29.2.
- 29.2 The Employer, at any stage of the bid evaluation, having credible reasons for or prima facie evidence of any defect in supplier's or contractor's capacities, may require the suppliers or contractors to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not:

Provided that such qualification shall only be laid down after recording reasons therefor in writing. They shall form part of the records of that bid evaluation report.

IB.30 Employer's Right to Accept any Bid and to Reject any or all Bids

Notwithstanding Clause IB.29, the Employer reserves the right to accept or reject any Bid, and 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 except that the grounds for rejection of all bids shall upon request be communicated to any bidder who submitted a bid, without justification of grounds. Rejection of all bids shall be notified to all bidders promptly.

IB.31 Notification of Award

- 31.1 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 "Contract Price").
- 31.2 No Negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted, however, Employer may have clarification meetings to get clarify any item in the bid evaluation report.
- 31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Employer and the bidder till signing of the formal Contract Agreement.
- 31.4 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.

IB.32 Performance Security

- 32.1 The successful bidder shall furnish to the Employer a Performance Security in the form and the amount stipulated in the Bidding Data and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance.
- Failure of the successful bidder to comply with the requirements of Sub-Clause IB.32.1 or Clauses IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

IB.33 Signing of Contract Agreement

- Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Employer will send the successful bidder the Contract Agreement in the form provided in the Bidding Documents, incorporating all agreements between the parties.
- 33.2 The formal Agreement between the Employer and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the Employer.

IB.34 General Performance of the Bidders

The Employer reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts/works. The Employer may in case of consistent poor performance of any Bidder as reported by the employers of the previously awarded contracts, interalia, reject his bid and/or refer the case to the Pakistan Engineering Council (PEC). Upon such reference, PEC in accordance with its rules, procedures and relevant laws of the land take such action as may be deemed appropriate under the circumstances of the case including black listing of such Bidder and debarring him from participation in future bidding for similar works.

IB.35 Integrity Pact

The Bidder shall sign and stamp the Integrity Pact provided at Appendix-L to Bid in the Bidding Documents for all Federal Government procurement contracts exceeding Rupees ten million. Failure to provide such Integrity Pact shall make the bidder non-responsive.

IB.36 Instructions not Part of Contract

Bids shall be prepared and submitted in accordance with these Instructions which are provided to assist bidders in preparing their bids, and do not constitute part of the Bid or the Contract Documents.

BIDDING DATA

[NOTES ON BIDDING DATA]

This Section is intended to assist the Employer in providing the specific information in relation to corresponding clauses in Instructions to Bidders and should be prepared to suit each individual contract.

The Employer should provide in the Bidding Data information and requirements specific to the circumstances of the Employer, the processing of the Bid, the applicable rules regarding Bid Price and currency, and the Bid evaluation criteria that will apply to the Bids. In preparing this section, the following aspects should be checked:

- (a) Information that specifies and complements the provisions of section; Instruction to Bidders must be incorporated.
- (b) Amendments and/or supplements, if any, to the provisions of Instructions to Bidders, necessitated by the circumstances of each individual contract, can be introduced only in this section since Instructions to Bidders will remain unchanged.

BIDDING DATA

Instructions to Bidders Clause Reference

1.1 Name and address of the Employer:

Hospital Director

Ayub Medical Teaching Institute/Hospital (AMTI) Abbottabad

1.1 Name of the Project & Summary of the Works:

Name of the Project

Detailed Design & Construction supervision for new lines of water supply and sewerage system in MTI Abbottobad

Sub-Head: Provision of Drainage System Component

Summary of the Works

Detailed scope of work is provided in the Bill of Quantities, Specifications and Drawings.

2.1 Name of the Borrower/Source of Financing/Funding Agency:

The project is Sponsored by Ayub Medical Teaching Institute/Hospital (AMTI) Abbottabad

3.1 Eligible Bidder:

Duly licensed by the Pakistan Engineering Council (C-3 and above).

8.1 Time limit for clarification:

"07 days".

10.1 Bid language:

English

11.1 Document Accompanying the Bid:

- 11.1 Each bidder shall prepare and submit the following documents with its bid:
- (a) Dully filled-in signed and stumped form of Bid and following appendices to bid.
 - Appendix-A to Bid; Special Stipulations
 - Appendix-B to Bid; Foreign Currency Requirements
 - Appendix-C to Bid; Price Adjustment (Under Clause 70)
 - Appendix-D to Bid; Bill of Quantities
 - Appendix-E to Bid; Proposed Construction Schedule
 - Appendix-F to Bid; Method of Performing the Work
 - Appendix-G to Bid; List of Major Equipment Related Items
 - Appendix-H to Bid; Construction Camp and Housing Facilities
 - Appendix-I to Bid; List of Subcontractors
 - Appendix-J to Bid; Estimated Progress Payments
 - Appendix-K to Bid; Organization Chart of the Supervisory Staff and Labour
 - Appendix-L to Bid; Integrity Pact
 - Appendix-M to Bid; List of Recommended Manufacturers
- (b) Bid Secuirty
- (c) Name & Proof of owner ship of the company
- (d) Wirtten power of attorney authorizing the signatory of the bid to act for & on behalf of

the bidder:

- (e) Updated information including the following;
 - (i) Evidence of access to financial resources alongwith average annual Construction turnover:
 - (ii) Latest status of Financial resources & commitment for last two years (including the current year);
 - (iii) Work commitments since Pre-Qualification;
 - (iv) Avalibality of essential critical equipment;
 - (v) Information about litigation presently in process
- (f) Original Joint Venture agreement, in case bid is submitted by joint venture;
- (g) Any other document required to be submitted in accordance with these bidding documents.
- (h) Detail of similar works executed during the last (5) years

12.4 Discount offered by the Bidder

"In case of any discrepancy or difference in the rate or amount of discount mention on the form of bid (as dully filled – in and signed), and on the summary page of the priced BOQ, the discount shown on the summary page of priced BOQ shall prevail".

13.1 Currency of Bid & Payment:

"Bidders are required to quote entirely Pak Ruppes".

14.1 Period of Bid Validity:

Ninety (90) Days

15.1 Amount of Bid Security:

Bid security in the amount of not less than two percent (2%) of the total Contract Price. In case of bid/rate quoted by the bidder more than 10% below, the additional bid security shall be submitted with bid according to KPPRA Regulation No.IX, vide Notification No. KPPRA/M&E/Estt:/1-17/2019-20 Dated June 12, 2020.

15.2 Format of Bid Security:

"The bid security shall be, at the option of the bidder, in the form of call deposit or a Bank Guarantee issued by a scheduled Bank in Pakistan, or from a Foreign Bank duly counter Guaranteed by a Scheduled Bank in Pakistan in favour of the Employer valid for a period 90 days beyond the bid validity date"

17.1 Venue, time, and date of the pre-Bid meeting:

A per N.I.T.

18.1 Format and Signing of Bid:

Add word "Bid" before Amount in the first line.

18.4 Number of copies of the Bid to be completed and returned:

Each Bidder shall provide original & one copy of technical proposal and original of Financial proposal documents comprising the bid.

- 19 (a) Loose and Ring binding shall not be accepted. The bid will be reject on teching bids opening time.
 - (b) If the outer envelope is not sealed and marked as per IB-19, the bid will be reject on technical bids opening time.

19.2 (a) Employer's address for the purpose of Bid submission:

Hospital Director, Ayub Teaching Hospital Abbottabad.

19.2 (b) Name & Identification Number of the Contract:

Bid for Construction of Drainage system in MTI Abbottbad

19.2 (c) Warning:

Do not open before the time and date of Bid opening intimated through Invitation Letter / Notice.

20 (a) Deadline for submission of bids:

As per N.I.T.

(b) Submission Bids

All the bids will deliver to office mentioned above trhough register courier services. Delivering by person / messenger / hand will not be accepted.

22.3 Modification, Substitution and withdrawl of Bids:

In first line after modified delete the text 'by a bidder'. Withdrawal of bid after deadline for submission of bids, the bidder bid security will be forfeited and the bidder will be marked for blacklisting/debaring.

23.1 Venue, time, and date of Bid opening:

As per N.I.T.

23.2 **Bid Opening:**

The Technical Bids / Proposal will be opened on same day. After evaluation of technical proposal, the pre-qualified bidders will be informed for financial bids opening.

28.2 (b)Evaluation and comparision of Bids:

Delete the text; but including Priced day work.

32.1 Period, Form and amount of Performance Security acceptable to the Employer:

"The contractor shall provide Performance Secuirty valid till the end of Defect Liability Period, to the employer in the prescribed form. The said security shall be furnished or caused to be furnished by the contractor within Fourteen days after the receipt of the letter of Acceptance. The performance security shall be of an amount equal to 10% of the contract price stated in the letter of Acceptance. Such security shall, at the option of the bidder, be in the form of either (a) Bank guarantee from any scheduled bank in Pakistan or (b) bank guarantee from a bank located out side Pakistan duly counter – guaranteed by a scheduled Bank in Pakistan.

The cost of complying with requirements of this sub-clause shall be borne by the Contractor".

Period of Furnishing & Signing of Contract Agreement:

- 33.1 Within 07 days from the date of furnishing of acceptable Performance Secuirty under the the conditions of contract, the successful bidder shall submit the contract agreement in form provided in the Bidding Document, incorporating all agreements between the parties.
- 33.2 Delete the text '14 days of the receipt of the contract Agreement by the successfull bidder from the Employer' in the second line and replace "within following 07 days of receipt of the Contract Agreement by the Employer".

PART-II PARTICULAR CONDITIONS OF CONTRACT

PART II - PARTICULAR CONDITIONS OF CONTRACT

(Mandatory Provisions not to be Amended / Substituted except as instructed by PEC)

1.1 Definitions

In the Contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise requires:

(a) (i) The Employer is Hospital Director, Ayub Medical Teaching Institute / Hospital (AMTI) Abbottabad

"Employer Representative" is the **Director Maintenance**, **Ayub Medical Teaching Institute** / **Hospital (AMTI) Abbottabad** or any other person / Firm / Authority appointed by and be Responsible to the Employer and shall carry out such duties and exercise such authority as may be delegated to him by the Employer.

The Employer may from time to time delegate the Employers respresentative any of the duties and authorities vested in the Employer and he may at any time revoke such delegation.

Any communication given by the Employer Representative to the Engineer and the Contractor is accordance with such delegation shall have the same effect as though it had been given by the Employer.

(a) (iv) The Engineer is "**East Asian Consultants**, Flat 27-30, 3rd Floor, Spinzar Plaza, University Road Peshawar represented by any Engineer nominated by Chief Executive.

The following paragraph is added:

- (a)(vi) "Bidder or Tenderer" means any person or persons, company, corporation, firm or joint venture submitting a Bid or Tender.
- (b)(v) The following is added at the end of the paragraph:

The word "Tender" is synonymous with "Bid" and the word "Tender Documents" with "Bidding Documents".

The following paragraph is added:

(b)(viii) Amend the text to read as under:

"Appendices to tender" means appendices A through M annexed to the tender and forming part thereof.

The term 'Appendix to tender' wherever appeares in the text shall be replaced by the term "Appendices to Tender"

The following paragraph is added:

- (b)(ix) "Programme" means the programme to be submitted by the Contractor in accordance with Sub-Clause 14.1 and any approved revisions thereto.
- (e)(i) The text is deleted and substituted with the following:

"Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works subject to such additions thereto or deductions therefrom as may be made and remedying of any defects therein in accordance with the provisions of the Contract.

1.2 Headings and Marginal Notes

The headings and marginal notes in these Conditions shall not be deemed part thereof or be

taken into consideration in the interpretation or construction thereof or of the Contract.

1.3 Interpretation

Words importing persons or parties shall include firms and corporations and any organisation having legal capacity.

1.4 Singular and Plural

Words importing the singular only also include the Plural and vice versa where the context requires.

1.5 Notices, Consents, Approvals, Certificates and Determinations

Wherever in the Contract provision is made for the giving or issue of any notice, consent, approval, certificate or determination by any person, unless otherwise specified such notice, consent, approval, certificate or determination shall be in writing and the words "notify", "certify" or "determine" shall be construed accordingly. Any such consent, approval, certificate or determination shall not unreasonably be withheld or delayed.

2.1 Engineer's Duties and Authority

With reference to Sub-Clause 2.1(b), the following provisions shall also apply;

The Engineer shall obtain the specific approval of the Employer before carrying out his duties in accordance with the following Clauses:

- (i) Consenting to the sub-letting of any part of the Works under Sub-Clause 4.1 "Subcontracting".
- (ii) Certifying additional cost determined under Sub-Clause 12.2 "Not Foreseeable Physical Obstructions or Conditions".
- (iii) Any action under Clause 10 "Performance Security" and Clauses 21,23,24 & 25 "Insurance" of sorts.
- (iv) Any action under Clause 40 "Suspension".
- (v) Any action under Clause 44 "Extension of Time for Completion".
- (vi) Issuance of "Taking Over Certificate" under Clause 48.
- (vii) Issuing a Variation Order under Clause 51, except in an emergency situation, as stated in Appendix-A to Bid.
- (viii) Fixing rates or prices under Clause 52.
 - (ix) Extra payment as a result of Contractor's claims under Clause 53.
 - (x) Release of Retention Money to the Contractor under Sub-Clause 60.3 "Payment of Retention Money".
- (xi) Issuance of "Final Payment Certificate" under Sub-Clause 60.8.
- (xii) Issuance of "Defect Liability Certificate" under Sub-Clause 62.1.
- (xiii) Any change in the ratios of Contract currency proportions and payments thereof under Clause 72 "Currency and Rate of Exchange".
 - * (If in the opinion of the Engineer an emergency occurs affecting the safety of life or of the Works or of adjoining property, the Engineer may, without relieving the Contractor of any of his duties and responsibilities 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 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 52 and shall notify the Contractor accordingly, with a copy to the Employer.)

2.2 Engineer's Representative

The following paragraph is added:

The Employer shall ensure that the Engineer's Representative is a professional engineer as defined in the Pakistan Engineering Council Act 1975 (V of 1976)

The following Sub-Clauses 2.7 and 2.8 are added:

2.3 Engineer's Authority to Delegate

The Engineer may from time to time delegate to the Engineer's Representative any of the duties and authorities vested in the Engineer and he may at any time revoke such delegation. Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the Employer and the Contractor.

Any communication given by the Engineer's Representative to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Engineer. Provided that:

- (a) any failure of the Engineer's Representative to disapprove any work, materials or Plant shall not prejudice the authority of the Engineer to disapprove such work, materials or Plant and to give instructions for the rectification thereof;
- (b) if the Contractor questions any communication of the Engineer's Representative he may refer the matter to the Engineer who shall confirm, reverse or vary the contents of such communication.

2.4 Appointment of Assistants

The Engineer or the Engineer's Representative may appoint any number of persons to assist the Engineer's Representative in the carrying out of his duties under Sub-Clause 2.2. He shall notify to the Contractor the names, duties and scope of authority of such persons. Such assistants shall have no authority to issue any instructions to the Contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, Plant or workmanship as being in accordance with the Contract, and any instructions given by any of them for those purposes shall be deemed to have been given by the Engineer's Representative.

2.5 Instructions in Writing

Instructions given by the Engineer shall be in writing, provided that if for any reason the Engineer considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Engineer, whether before or after carrying out of the instruction shall be deemed to be an instruction within the meaning of this Sub-Clause. Provided further that if the Contractor, within 07 days, confirms in writing to the Engineer any oral instruction of the Engineer and such confirmation is not contradicted in writing within 07 days by the Engineer it shall be deemed to be an instruction of the Engineer.

The provisions of this Sub-Clause shall equally apply to instructions given by the Engineer's Representative and any assistants of the Engineer or the Engineer's Representative appointed pursuant to Sub-Clause 2.4.

2.6 Engineer to Act Impartially

Wherever, under the Contract, the Engineer is required to exercise his discretion by:

- (a) giving his decision, opinion or consent, or
- (b) expressing his satisfaction or approval, or
- (c) determining value, or
- (d) otherwise taking action which may affect the rights and obligations of the Employer or the Contractor

He shall exercise such discretion impartially within the terms of the Contract and having regard to all the circumstances. Any such decision, opinion, consent, expression of

satisfaction, or approval, determination of value or action may be opened up, reviewed or revised as provided in Clause 67.

2.7 Engineer Not Liable

Approval, reviews and inspection by the Engineer of any part of the Works does not relieve the Contractor from his sole responsibility and liability for the supply of materials, plant and equipment for construction of the Works and their parts in accordance with the Contract and neither the Engineer's authority to act nor any decision made by him in good faith as provided for under the Contract whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their representatives or employees or any other person performing any portion of the Works.

2.8 Replacement of the Engineer

"If the Employer intends to replace the Engineer, the Employer shall, not less than 14 days before the intended date of replacement, give notice to the Contractor, of the name, address and relevant experience of the intended replacement Engineer. The Employer shall not replace the Engineer with a person against whom the Contractor raises reasonable objection by notice to the Employer, with supporting particulars."

3.1 Assignment of Contract

The Contractor shall not, without the prior consent of the Employer (which consent, notwithstanding the provisions of Sub-Clause 1.5, shall be at the sole discretion of the Employer), assign the Contract or any part thereof, or any benefit or interest therein or thereunder, otherwise than by:

- (a) a charge in favour of the Contractor's bankers of any monies due or to become due under the Contract, or
- (b) assignment to Contractor's insurers (in cases where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief against any other party liable.

4.1 Subcontracting

The Contractor shall not subcontract the whole of the Works. Except where otherwise provided by the Contract, the Contractor shall not subcontract any part of the Works without the prior consent of the Engineer. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any Subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. At the site any issue or circumstances rise during execution, the man contractor will be holy soly responsible. Provided that the Contractor shall not be required to obtain such consent for:

- (a) the provision of labour, or
- (b) the purchase of materials which are in accordance with the standards specified in the Contract, or
- (c) the subcontracting of any part of the Works for which the Subcontractor is named in the Contract.

4.2 Assignment of Subcontractors' Obligations

In the event of a Subcontractor having undertaken towards the Contractor in respect of the work executed, or the goods, materials, Plant or services supplied by such Subcontractor, any continuing obligation extending for a period exceeding that of the Defects Liability Period under the Contract, the Contractor shall at any time, after the expiration of such Period, assign

to the Employer, at the Employer's request and cost, the benefit of such obligation for the unexpired duration thereof.

5.1 Language(s) and Law

- (a) The Contract Documents, shall be drawn up in the English language.
- (b) The Contract shall be subject to the Laws of Islamic Republic of Pakistan.

5.2 Priority of Contract Documents

The documents listed at (1) to (6) of the Sub-Clause are deleted and substituted with the following:

- (1) The Contract Agreement (if completed);
- (2) The Letter of Acceptance;
- (3) The completed Form of Bid including Appendices A to M except Appendix D to Bid (i.e. priced Bill of Quantities).
- (4) The Particular Conditions of Contract Part II
- (5) The General Conditions Part I
- (6) The Specifications
- (7) The Drawings
- (8) The Priced Bill of Quantities (Appendix D to Bid)

In case of discrepancies between drawings, those of larger scale shall govern unless they are superseded by a drawing of later date regardless of scale. All Drawings and Specifications shall be interpreted in conformity with the Contract and these Conditions. Addendum, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.

The following Sub-Clauses 6.6 and 6.7 are added:

6.1 Custody and Supply of Drawings and Documents

The Drawings shall remain in the sole custody of the Engineer, but two copies thereof shall be provided to the Contractor free of charge. The Contractor shall make at his own cost any further copies required by him. Unless it is strictly necessary for the purposes of the Contract, the Drawings, Specification and other documents provided by the Employer or the Engineer shall not, without the consent of the Engineer, be used or communicated to a third party by the Contractor. Upon issue of the Defects Liability Certificate, the Contractor shall return to the Engineer all Drawings, Specification and other documents provided under the Contract.

The Contractor shall supply to the Engineer four copies of all Drawings, Specification and other documents submitted by the Contractor and approved by the Engineer in accordance with Clause 7, together with a reproducible copy of any material which cannot be reproduced to an equal standard by photocopying. In addition the Contractor shall supply such further copies of such Drawings, Specification and other documents as the Engineer may request in writing for the use of the Employer, who shall pay the cost thereof.

6.2 One Copy of Drawings to be Kept on Site

One copy of the Drawings, provided to or supplied by the Contractor as aforesaid, shall be kept by the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Engineer and by any other person authorised by the Engineer in writing.

6.3 Disruption of Progress

The Contractor shall give notice to the Engineer, with a copy to the Employer, whenever planning or execution of the Works is likely to be delayed or disrupted unless any further

drawing or instruction is issued by the Engineer within a reasonable time. The notice shall include details of the drawing or instruction required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

6.4 Delays and Cost of Delay of Drawings

The Contractor shall submit to the Engineer for review 5 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 be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and that the Engineer's review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

6.5 Failure by Contractor to Submit Drawings

If the failure or inability of the Engineer to issue any drawings or instructions is caused in whole or in part by the failure of the Contractor to submit Drawings, Specification or other documents which he is required to submit under the Contract, the Engineer shall take such failure by the Contractor into account when making his determination pursuant to Sub-Clause 6.4.

6.6 Shop Drawings

The Contractor shall submit to the Engineer for review 5 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 be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and that the Engineer's review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

6.7 As-Built Drawings

At the completion of the Works under the Contract, the Contractor shall furnish to the Engineer 07 copies and one reproducible of all drawings amended to conform with the Works as built. The price of such Drawings shall be deemed to be included in the Contract Price.

7.1 Supplementary Drawings and Instructions

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall carry out and be bound by the same.

7.2 Permanent Works Designed by Contractor

Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall submit to the Engineer, for approval:

- a. such drawings, specifications, calculations and other information as shall be necessary to satisfy the Engineer as to the suitability and adequacy of that design, and
- b. operation and maintenance manuals together with drawings of the Permanent Works as completed, in sufficient detail to enable the Employer to operate, maintain, dismantle, reassemble and adjust the Permanent Works incorporating that design. The Works shall not be considered to be completed for the purposes of taking over in accordance with Clause 48 until such operation and maintenance manuals, together with drawings on completion, have been submitted to and approved by the Engineer.

7.3 Responsibility Unaffected by Approval

Approval by the Engineer, in accordance with Sub-Clause 7.2, shall not relieve the Contractor of any of his responsibilities under the Contract

8.1 Contractor's General Responsibilities

The Contractor shall, with due care and diligence, design (to the extent provided for by the Contract), execute and complete the Works and remedy any defects therein in accordance with the provisions of the Contract. The Contractor shall provide all superintendence, labour, materials, Plant, Contractor's Equipment and all other things, whether of a temporary or permanent nature, required in and for such design, execution, completion and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.

8.2 Site Operation and Methods of Construction

The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations and methods of construction. Provided that the Contractor shall not be responsible (except as stated hereunder or as may be otherwise agreed) for the design or specification of Permanent Works, or for the design or specification of any Temporary Works not prepared by the Contractor. Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall be fully responsible for that part of such Works, notwithstanding any approval by the Engineer.

9.1 Contract Agreement

The Contractor shall, if called upon so to do, enter into and execute the Contract Agreement, to be prepared and completed at the cost of the Employer, in the form annexed to these Conditions with such modifications as may be necessary.

10.1 Performance Security

The text is deleted and substituted with the following:

The Contractor shall provide Performance Security to the Employer in the prescribed form. The said Security shall be furnished or caused to be furnished by the Contractor within 28 days after the receipt of the Letter of Acceptance. The Performance Security shall be of an amount equal to 10% of the Contract Price stated in the Letter of Acceptance. Such Security shall, at the option of the bidder, be in the form of either (a) bank guarantee from any Scheduled Bank in Pakistan or (b) bank guarantee from a bank located outside Pakistan duly counter-guaranteed by a Scheduled Bank in Pakistan.

The cost of complying with requirements of this Sub-Clause shall be borne by the Contractor. The following Sub-Clause 10.4 is added:

10.2 Period of Validity of Performance Security

The performance security shall be valid until the Contractor has executed and completed the Works and remedied any defects therein in accordance with the Contract. No claim shall be made against such security after the issue of the Defects Liability Certificate in accordance with Sub-Clause 62.1 and such security shall be returned to the Contractor within 28 days of the issue of the said Defects Liability Certificate

10.3 Claims under Performance Security

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

10.4 Performance Security Binding on Variations and Changes

The Performance Security shall be binding irrespective of changes in the quantities or variations in the Works or extensions in Time for Completion of the Works which are granted or agreed upon under the provisions of the Contract.

11.1 Inspection of Site

The Employer shall have made available to the Contractor, before the submission by the Contractor of the Tender, such data on hydrological and sub-surface conditions as have been obtained by or on behalf of the Employer from investigations undertaken relevant to the Works but the Contractor shall be responsible for his own interpretation thereof.

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself (so far as is practicable, having regard to considerations of cost and time) before submitting his Tender, as to:

- (a) the form and nature thereof, including the sub-surface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works and the remedying of any defects therein, and

the means of access to the Site and the accommodation he may require and, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his Tender.

12.1 Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices stated in the Bill of Quantities, all of which shall, except insofar as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, Plant or services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the Works and the remedying of any defects therein.

12.2 Adverse Physical Obstructions or Conditions

If, however, during the execution of the Works the Contractor encounters physical obstructions or physical conditions, other than climatic conditions on the Site, which obstructions or conditions were, in his opinion, not foreseeable by an experienced contractor, the Contractor shall forthwith give notice thereof to the Engineer, with a copy to the Employer. On receipt of such notice, the Engineer shall, if in his opinion such obstructions or conditions could not have been reasonably foreseen by an experienced contractor, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44, and
- (b) the amount of any costs which may have been incurred by the Contractor by reason of such obnstructions or conditions having been encountered, which shall be added to the Contract Price,

and shall notify the Contractor accordingly, with a copy to the Employer. Such determination shall take account of any instruction which the Engineer may issue to the Contractor in connection therewith, and any proper and reasonable measures acceptable to the Engineer which the Contractor may take in the absence of specific instructions from the Engineer.

13.1 Work to be in Accordance with Contract

Unless it is legally or physically impossible, the Contractor shall execute and complete the Works and remedy any defects therein in strict accordance with the Contract to the satisfaction of the Engineer. The Contractor shall comply with and adhere strictly to the

Engineer's instructions on any matter, whether mentioned in the Contract or not, touching or concerning the Works. The Contractor shall take instructions only from the Engineer or, subject to the provisions of Clause 2, from the Engineer's Representative.

14.1 Programme to be Submitted

The programme / work schedule shall be submitted within 14 days from the date of receipt of Letter of Acceptance, which shall be in the form of a Bar Chart identifying the critical path / activities for individual facility / wing as well as for overall project using appropriate software.

14.2 Revised Programme

If at any time it should appear to the Engineer that the actual progress of the Works does not conform to the programme to which consent has been given under Sub-Clause 14.1, the Contractor shall produce, at the request of the Engineer, a revised programme showing the modifications to such programme necessary to ensure completion of the Works within the Time for Completion.

14.3 Cash Flow Estimate to be Submitted

The detailed Cash Flow Estimate shall be submitted within 21 days from the date of receipt of Letter of Acceptance

The following Sub-Clause 14.5 is added:

14.4 Contactor not Relieved of Duties or Reponsibilities

The submission to and consent by the Engineer of such programmes or the provision of such general descriptions or cash flow estimates shall not relieve the Contractor of any of his duties or responsibilities under the Contract

14.5 Detailed Programme and Monthly Progress Report

- a) For purposes of Sub-Clause 14.1, the Contractor shall submit to the Engineer detailed programme / work schedule / work plan for the following:
 - (1) Execution of Works;
 - (2) Labour Employment;
 - (3) Local Material Procurement;
 - (4) Material Imports, if any; and
 - (5) Other details as required by the Engineer.
- (b) During the period of the Contract, the Contractor shall submit to the Engineer not later than the 8th day of the following month, 05 copies each of Monthly Progress Reports covering:
 - (1) A Construction Schedule indicating the monthly progress in percentage;
 - (2) Description of all work carried out since the last report;
 - (3) Description of the work planned for the next 56 days sufficiently detailed to enable the Engineer to determine his programme of inspection and testing;
 - (4) Monthly summary of daily job record;
 - (5) Photographs to illustrate progress; and
 - (6) Information about problems and difficulties encountered, if any, and proposals to overcome the same.
- (c) During the period of the Contract, the Contractor shall keep a daily record of the work progress, which shall be made available to the Engineer as and when requested. The daily record shall include particulars of weather conditions, number of men working, deliveries of materials, quantity, location and assignment of Contractor's equipment.

The following Sub-Clauses 15.2 and 15.3 are added:

15.1 Contractor's Superintendence

The Contractor shall provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorised representative approved of by the Engineer, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the Works. Such authorised representative shall receive, on behalf of the Contractor, instructions from the Engineer or, subject to the provisions of Clause 2, the Engineer's Representative.

If approval of the representative is withdrawn by the Engineer, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving notice of such withdrawal, remove the representative from the Works and shall not thereafter employ him again on the Works in any capacity and shall replace him by another representative approved by the Engineer.

15.2 Language Ability of Contractor's Representative

The Contractor's authorised representative shall be fluent in the English language. Alternately an interpreter with ability of English language shall be provided by the Contractor on full time basis.

15.3 Contractor's Representative

The Contractor's authorised representative shall having 10 years experience in relevant field and his other professional engineers working at Site shall register themselves with the Pakistan Engineering Council.

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

The following Sub-Clauses 16.3 and 16.4 are added:

16.1 Contractor's Employees

The Contractor shall provide on the Site in connection with the execution and completion of the Works and the remedying of any defects therein

- (a) only such technical assistants as are skilled and experienced in their respective callings and such foremen and leading hands as are competent to give proper superintendence of the Works, and
- (b) such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely fulfilling of the Contractor's obligations under the Contract.

16.2 Engineer at Liberty to Object

The Engineer shall be at liberty to object and require the Contractor to remove forthwith from the Works any person provided by the Contractor who, in the opinion of the Engineer, misconducts himself, or is incompetent or negligent in the proper performance of his duties, or whose presence on Site is otherwise considered by the Engineer to be undesirable, and such person shall not be again allowed upon the Works without the consent of the Engineer. Any person so removed from the Works shall be replaced as soon as possible.

16.3 Language Ability of Superintending Staff of Contractor

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the English language. If the Contractor's superintending staff are not fluent in

English language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.

16.4 Employment of Local Personnel

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour from sources within Pakistan.

The following Sub-Clauses 19.3 and 19.4 are added:

17.1 Setting-out The Contractor shall be reponsible for

The Contractor shall be reponsible for:

the accurate setting-out of the Works in relation to original points, lines and levels of reference given by the Engineer in writing,

- (b) the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the Works, and
- (c) the provision of all necessary instruments, appliances and labour in connection with the foregoing reponsibilities.

If, at any time during the execution of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required so to do by the Engineer, shall, at his own cost, rectify such error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer, in which case the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.

The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the Works.

18.1 Boreholes and Exploratory Excavation

If, at any time during the execution of the Works, the Engineer requires the Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be the subject of an instruction in accordance with Clause 51, unless an item or a Provisional Sum in respect of such work is included in the Bill of Quantities.

19.1 Safety, Security and Protection of the Environment

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- (a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site (so far as the same is under his control) and the Works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons, and
- (b) provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Engineer or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others, and
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

19.2 Employer's Responsibilities

If under Clause 31 the Employer shall carry out work on the Site with his own workmen he shall, in respect of such work:

(a) have full regard to the safety of all persons entitled to be upon the Site, and

(b) keep the Site in an orderly state appropriate to the avoidance of danger to such persons. If under Clause 31 the Employer shall employ other contractors on the Site he shall require them to have the same regard for safety and avoidance of danger.

19.3 Safety Precautions

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 authorise 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 make, maintain and submit reports to the Engineer concerning safety, health and welfare of persons and damage to property, as the Engineer may from time to time prescribe.

19.4 Lighting Work at Night

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's Representative.

20.1 Care of Works

The Contractor shall take full responsibility for the care of the Works and materials and Plant for incorporation therein form the Commencement Date until the date of issue of the Taking-Over Certificate for the whole of the Works, when the responsibility for the said care shall pass to the Employer. Provided that:

- (a) if the Engineer issues a Taking-Over Certificate for any Section or part of the Permanent Works the Contractor shall cease to be liable for the care of that Section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that Section or part shall pass to the Employer, and
- (b) the Contractor shall take full responsibility for the care of any outstanding Works and materials and Plant for incorporation therein which he undertakes to finish during the Defects Liability Period until such outstanding Works have been completed pursuant to Clause 49.

20.2 Responsibility to Rectify Loss or Damage

If any loss or damage happens to the Works, or any part thereof, or materials or Plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the risks defined in Sub-Clause 20.4., the Contractor shall, at his own cost, rectify such loss or damage so that the Permanent Works conform in every respect with the provisions of the Contract to the satisfaction of the Engineer. The Contractor shall also be liable for any loss or damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49 and 50.

20.3 Loss or Damage Due to Employer's Risks

In the event of any such loss or damage happening from any of the risks defined in Sub-Clause 20.4, or in combination with other risks, the Contractor shall, if and to the extent required by the Engineer, rectify the loss or damage and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer. In the case of a combination of risks causing loss

or damage any such determination shall take into account the proportional responsibility of the Contractor and the Employer.

20.4 Employer's Risks

The Employer's risks are:

Delete the text and substitute with the following:

- (a) insofar as they directly affect the execution of the Works in Pakistan:
- (i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, revolution, insurrection, or military or usurped power, or civil war,
- (iii) ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
- (iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
- (v) riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works;
- (b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;
- (c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
- (d) any operation of the forces of nature (insofar as it occurs on the Site) which an experienced contractor:
- (i) could not have reasonably foreseen, or
- (ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
- (a) prevent loss or damage to physical property from occurring by taking appropriate measures, or
- (b) insure against.

21.1 Insurance of Works and Contractor's Equipment

Add the following para (d) at the end:

d) Automobile liability insurance of all licensed vehicles owned and operated on the contract for a sum sufficient to provide their replacement at the side.

21.2 Scope of Cover

The insurance in paragraphs (a) and (b) of Sub-Clause 21.1 shall be in the joint names of the Contractor and the Employer and shall cover:

- (a) the Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided in Sub-Clause 21.4, from the start of Work at the Site until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and
- (b) the Contractor for his liability:
- (i) during the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and
- (ii) for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49 and 50.

21.3 Responsibility for Amounts not Recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Employer or the Contractor in accordance with their responsibilities under Clause 20.

21.4 Exclusions

The text is deleted and substituted with the following:

There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by the risks listed under Sub-Clause 20.4 paras (a) (i) to (iv).

The following Sub-Clause 25.5 is added:

22.1 Damage to Persons and Property

The Contractor shall, except if and so far as the Contract provides otherwise, indemnify the Employer against all losses and claims in respect of:

- (a) death of or injury to any person, or
- (b) loss of or damage to any property (other than the Works), which may arise out of or in consequence of the execution and completion of the Works and the remedying of any defects therein, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Sub-Clause 22.2.

22.2 Exceptions

The "exceptions" referred to in Sub-Clause 22.1 are:

- (a) The permanent use or occupation of land by the Works or any part thereof,
- (b) The right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land,
- (c) Damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any defects therein, in accordance with the Contract,
- (d) Death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Employer, his agents, servants or other contractors, not being employed by the Contractor, or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or, where the injury or damage was contributed to by the Contractor, his servants or agents, such part of the said injury or damage as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the injury or damage.

22.3 Indemnity by Employer

The Employer shall indemnify the Contractor against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the exceptions defined in Sub-Clause 22.2.

23.1 Third Party Insurance (including Employer's Property)

The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 22, insure, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person (other than as provided in Clause 24) or loss of or damage to any property (other than the Works) arising out of the performance of the Contract, other than the exceptions defined in paragraphs(a), (b) and (c) of Sub-Clause 22.2.

23.2 Minimum Amount of Insurance

Such insurance shall be for at least the amount stated in Appendix A to Tender.

23.3 Cross Liabilities

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insureds

24.1 Accident or Injury to Workmen

The Employer shall not be liable for or in respect of any damages or compensation payable to

any workman or other person in the employment of the Contractor or any Subcontractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

24.2 Insurance Against Accident to Workmen

The Contractor shall insure against such liability and shall continue such insurance during the whole of the time that any persons are employed by him on the Works. Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy, but the Contractor shall require such Subcontractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.

25.1 Evidence and Terms of Insurances

The Contractor shall provide evidence to the Employer prior to the start of Work at the Site that the insurances required under the Contract have been effected and shall, within the time stated in Appendix A to Tender, provide the insurance policies to the Employer. When providing such evidence and such policies to the Employer, the Contractor shall notify the Engineer of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the Employer.

25.2 Adequacy of Insurances

The Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of the Contract and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premiums.

25.3 Remedy on Contractor's Failure to Insure

If the Contractor fails to effect and keep in force any of the insurances required under the Contract, or fails to provide the policies to the Employer within the period required by Sub-Clause 25.1, then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for the purpose and from time to time deduct the amount so paid from any monies due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

25.4 Compliance with Policy Conditions

In the event that the Contractor or the Employer fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, each shall indemnify the other against all losses and claims arising from such failure.

26.1 Compliance with Statutes, Regulations

The Contractor shall conform in all respects, including by the giving of all notices and the paying of all fees, with the provisions of:

(a) Any National or State Statute, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution and completion of the Works and the remedying of any defects therein, and

(b) The rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works, and the Contractor shall keep the Employer indemnified against all penalties and liability of every kind for breach of any such provisions. Provided always that the Employer shall be responsible for obtaining any planning, zoning or other similar permission required for the Works to proceed and shall indemnify the Contractor in accordance with Sub-Clause 22.3.

27.1 Fossils

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site shall, as between the Employer and the Contractor, be deemed to be the absolute property of the Employer. The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall, immediately upon discovery thereof and before removal, acquaint the Engineer of such discovery and carry out the Engineer's instructions for dealing with the same. If, by reason of such instructions, the Contractor suffers delay and/or incurs costs then the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44, and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer.

28.1 Patent Rights

The Contractor shall save harmless and indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, design trademark or name or other protected rights in respect of any Contractor's Equipment, materials or Plant used for or in connection with or for incorporation in the Works and from and against all damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, except where such infringement results from compliance with the design or Specification provided by the Engineer.

28.2 Royalties

Except where otherwise stated, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the Works.

29.1 Interference with Traffic and Adjoining Properties

All operations necessary for the execution and completion of the Works and the remedying of any defects therein shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with:

- (a) the convenience of the public, or
- (b) the access to, use and occupation of public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person.

The Contractor shall save harmless and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of, or in relation to, any such matters insofar as the Contractor is responsible therefor.

30.1 Avoidance of Damage to Roads

The Contractor shall use every reasonable means to prevent any of the roads or bridges communicating with or on the routes to the Site from being damaged or injured by any traffic of the Contractor or any of his Subcontractors and, in particular, shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will

inevitably arise from the moving of materials, Plant, Contractor's Equipment or Temporary Works from and to the Site shall be limited, as far as reasonably possible, and so that no unnecessary damage or injury may be occasioned to such roads and bridges.

30.2 Transport of Contractor's Equipment or Temporary Works

Save insofar as the Contract otherwise provides, the Contractor shall be responsible for and shall pay the cost of strengthening any bridges or altering or improving any road communicating with or on the routes to the Site to facilitate the movement of Contractor's Equipment or Temporary Works and the Contractor shall indemnify and keep indemnified the Employer against all claims for damage to any such road or bridge caused by such movement, including such claims as may be made directly against the Employer, and shall negotiate and pay all claims arising solely out of such damage.

30.3 Transport of Materials or Plant

If, not withstanding Sub-Clause 30.1, any damage occurs to any bridge or road communicating with or on the routes to the Site arising from the transport of materials or Plant, the Contractor shall notify the Engineer with a copy to the Employer, as soon as he becomes aware of such damage or as soon as he receives any claim from the authority entitled to make such claim. Where under any law or regulation the haulier of such materials or Plant is required to indemnify the road authority against damage the Employer shall not be liable for any costs, charges or expenses in respect thereof or in relation thereto. In other cases the Employer shall negotiate the settlement of and pay all sums due in respect of such claim and shall indemnify the Contractor in respect thereof and in respect of all claims, proceedings, damages, costs, charges and expenses in relation thereto. Provided that if and so far as any such claim or part thereof is, in the opinion of the Engineer, due to any failure on the part of the Contractor to observe and perform his obligation under Sub-Clause 30.1, then the amount, determined by the Engineer, after due consultation with the Employer and the Contractor to be due to such fauilure shall be recoverable from the Contractor by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Provided also that the Employer shall notify the Contractor whenever a settlement is to be negotiated and, where any amount may be due from the Contractor, the Employer shall consult with the Contractor before such settlement is agreed.

30.4 Waterborne Traffic

Where the nature of the Works is such as to require the use by the Contractor of waterborne transport the foregoing provisions of this Clause shall be construed as though "road" included a lock, dock, sea wall or other structure related to a waterway and "vehicle" included craft, and shall have effect accordingly.

31.1 Opportunities for Other Contractors

The Contractor shall, in accordance with the requirements of the Engineer, afford all reasonable opportunities for carrying out their work to:

- (a) any other contractors employed by the Employer and their workmen,
- (b) the workmen of the Employer, and
- the workmen of any duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the Contract or of any contract which the Employer may enter into in connection with or ancillary to the Works.

31.2 Facilities for Other Contractors

If, however, pursuant to Sub-Clause 31.1 the Contractor shall, on the written request of the

Engineer:

- (a) make available to any such other contractor, or to the Employer or any such authority, any roads or ways for the maintenance of which the Contractor is responsible, or
- (b) permit the use, by any such, of Temporary Works or Contractor's Equipment on the Site, or
- (c) provide any other service of whatsoever nature for any such, the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer

31.3 Co-operation with other Contractors

During the execution of the Works, the Contractor shall co-operate fully with other contractors working for the Employer at and in the vicinity of the Site and also shall provide adequate precautionary facilities not to make himself a nuisance to local residents and other contractors.

The following Sub-Clauses 34.2 to 34.12 are added:

32.1 Contractor to Keep Site Clear

During the execution of the Works the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment and surplus materials and clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

33.1 Clearance of Site on Completion

Upon the issue of any Taking-Over Certificate the Contractor shall clear away and remove from that part of the Site to which such Taking-Over Certificate relates all Contractor's Equipment, surplus material, rubbish and Temporary Works of every kind, and leave such part of the Site and Works clean and in a workmanlike condition to the satisfaction of the Engineer. Provided that the Contractor shall be entitled to retain on Site, until the end of the Defects Liability Period, such materials, Contractor's Equipment and Temporary Works as are required by him for the purpose of fulfilling his obligations during the Defects Liability Period.

34.1 Engagement of Staff and Labour

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

34.2 Rates of Wages and Conditions of Labour

The Contractor shall pay rates of wages and observe conditions of labour not less favourable than those established for the trade or industry where the work is carried out. In the absence of any rates of wages or conditions of labour so established, the Contractor shall pay rates of wages and observe conditions of labour which are not less favourable than the general level of wages and conditions observed by other employers whose general circumstances in the trade or in industry in which the Contractor is engaged are similar.

34.3 Employment of Persons in the Service of Others

The Contractor shall not recruit his staff and labour from amongst the persons in the services of the Employer or the Engineer; except with the prior written consent of the Employer or the Engineer, as the case may be.

34.4 Housing for Labour

Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such housing accommodation and amenities as he may consider necessary for all his

supervisory staff and labour, employed for the purposes of or in connection with the Contract including all fencing, electricity supply, sanitation, cookhouses, fire prevention, water supply and other requirements in connection with such housing accommodation or amenities. On completion of the Contract, these facilities shall be handed over to the Employer or if the Employer so desires, the temporary camps or housing provided by the Contractor shall be removed and the Site reinstated to its original condition, all to the approval of the Engineer.

34.5 Health and Safety

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of his staff and labour at all times throughout the period of the Contract. The Contractor shall further ensure that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

34.6 Epidemics

In the event of any outbreak of illness of an 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 purpose of dealing with and overcoming the same.

34.7 Supply of Water

The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer or his representative, adequate supply of drinking and other water for the use of his staff and labour.

34.8 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances and Government Regulations or Orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his Subcontractors, agents, staff or labour.

34.9 Arms and Ammunition

The Contractor shall not give, or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

34.10 Festivals and Religious Customs

The Contractor shall in all dealings with his staff and labour have due regard to all recognised festivals, days of rest and religious and other customs.

34.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst staff and labour and for the preservation of peace and protection of persons and property in the neighbourhood of the Works against the same.

34.12 Compliance by Subcontractors

The Contractor shall be responsible for compliance by his Subcontractors of the provisions of this Clause.

The following Sub-Clauses 35.2 and 35.3 are added:

35.1 Returns of Labour and Contractor's Equipment

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the

Site and such information respecting Contractor's Equipment as the Engineer may require.

35.2 Records of Safety and Health

The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe.

35.3 Reporting of Accidents

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means.

The following Sub-Clause 36.6 is added:

36.1 Quality of Materials, Plant and Workmanship

All materials, Plant and workmanship shall be

- (a) of the respective kinds described in the Contract and in accordance with the Engineer's instructions, and
- (b) subject from time to time to such tests as the Engineer may require at the place of manufacture, fabrication or preparation, or on the Site or at such other place or places as may be approved by the Engineer, or at all or any of such places.

The Contractor shall provide such assistance, labour, electricity, fuels, stores, apparatus and instruments as are normally required for examining, measuring and testing any materials or Plant and shall supply samples of materials, before incorporation in the Works, for testing as may be selected and required by the Engineer.

36.2 Cost of Samples

All samples shall be supplied by the Contractor at his own cost if the supply thereof is clearly intended by or provided for in the Contract.

36.3 Cost of Tests

The cost of making any test shall be borne by the Contractor if such test is

- (a) clearly intended by or provided for in the Contract, or
- (b) particularised in the Contract (in cases only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfil) in sufficient detail to enable the Contractor to price or allow for the same in his Tender.

36.4 Cost of Tests not Provided for

If any test required by the Engineer which is

- (a) not so intended by or provided for, or
- (b) (in the cases above mentioned) not so particularised, or
- (c) (though so intended or provided for) required by the Engineer to be carried out at any place other than the Site or the place of manufacture, fabrication or preparation of the materials or Plant tested, shows the materials, Plant or workmanship not to be in accordance with the provisions of the Contract to the satisfaction of the Engineer, then the cost of such tests shall be borne by the Contractor, but in any other case Sub-Clause 36.5 shall apply

36.5 Engineer's Determination where Tests not Provided for

Where, pursuant to Sub-Clause 36.4, this Sub-Clause applies the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44, and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer.

36.6 Use of Pakistani Materials and Services

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.

37.1 Inspection of Operations

The Engineer, and any person authorised by him, shall at all reasonable times have access to the Site and to all workshops and places where materials or Plant are being manufactured, fabricated or prepared for the Works and the Contractor shall afford every facility for and every assistance in obtaining the right to such access.

37.2 Inspection and Testing

The Engineer shall be entitled, during manufacture, fabrication or preparation to inspect and test the materials and Plant to be supplied under the Contract. If materials or Plant are being manufactured, fabricated or prepared in workshops or places other than those of the Contractor, the Contractor shall obtain permission for the Engineer to carry out such inspection and testing in those workshops or places. Such inspection or testing shall not release the Contractor from any obligation under the Contract.

37.3 Dates for Inspection and Testing

The Contractor shall agree with the Engineer on the time and place for the inspection or testing of any materials or Plant as provided in the Contract. The Engineer shall give the Contractor not less than 24 hours notice of his intention to carry out the inspection or to attend the tests. If the Engineer, or his duly authorised representative, does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Engineer, proceed with tests, which shall be deemed to have been made in the presence of the Engineer. The Contractor shall forthwith forward to the Engineer duly certified copies of the test readings. If the Engineer has not attended to tests, he shall accept the said readings as accurate.

37.4 Rejection

If, at the time and place agreed in accordance with Sub-Clause 37.3, the materials or Plant are not ready for inspection or testing or if, as a result of the inspection or testing referred to in this Clause, the Engineer determines that the materials or Plant are defective or otherwise not in accordance with the Contract, he may reject the materials or Plant and shall notify the Contractor thereof immediately. The notice shall state the Engineer's objections with reasons. The Contractor shall then promptly make good the defect or ensure that rejected materials or Plant comply with the Contract. If the Engineer so requests, the tests of rejected materials or Plant shall be made or repeated under the same terms and conditions. All costs incurred by the Employer by the repetition of the tests shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer and may be deducted from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

37.5 Independent Inspection

The Engineer may delegate inspection and testing of materials or Plant to an independent

inspector. Any such delegation shall be effected in accordance with Sub-Clause 2.4 and for the purpose such independent inspector shall be considered as an assistant of the Engineer. Notice of such appointment (not being less than 14 days) shall be given by the Engineer to the Contractor.

38.1 Examination of Work before Covering up

No part of the Works shall be covered up or put out of view without the approval of the Engineer and the Contractor shall afford full opportunity for the Engineer to examine and measure any such part of the Works which is about to be covered up or put out of view and to examine foundations before any part of the Works is placed thereon. The Contractor shall give notice to the Engineer whenever any such part of the Works or foundations is or are ready or about to be ready for examination and the Engineer shall, without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such part of the Works or of examining such foundations.

38.2 Uncovering and Making Openings

The Contractor shall uncover any part of the Works or make openings in or through the same as the Engineer may from time to time instruct and shall reinstate and make good such part. If any such part has been covered up or put out of view after compliance with the requirement of Sub-Clause 38.1 and is found to be executed in accordance with the Contract, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of the Contractor's costs in respect of such of uncovering, making openings in or through, reinstating and making good the same, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer. In any other case all costs shall be borne by the Contractor.

39.1 Removal of Improper Work, Materials or Plant

The Engineer shall have authority to issue instructions from time to time, for:

- (a) the removal from the Site, within such time or times as may be specified in the instruction, of any materials or Plant which, in the opinion of the Engineer, are not in accordance with the Contract,
- (b) the substitution of proper and suitable materials or Plant, and
- (c) the removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefor, of any work which, in respect of
 - (i) materials, Plant or workmanship, or
- (ii) design by the Contractor or for which he is responsible, is not, in the opinion of the Engineer, in accordance with the Contract.

39.2 Default of Contractor in Compliance

In case of default on the part of the Contractor in carrying out such instruction within the time specified therein or, if none, within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

40.1 Suspension of Work

The Contractor shall, on the instructions of the Engineer, suspend the progress of the Works or any part thereof for such time and in such manner as the Engineer may consider necessary

and shall, during such suspension, properly protect and secure the Works or such part thereof so far as is necessary in the opinion of the Engineer. Unless such suspension is

- (a) otherwise provided for in the Contract, or
- (b) neessary by reason of some default of or breach of Contract by the Contractor or for which he is responsible, or
- (c) necessary by reason of climatic conditions on the Site, or
- (d) neessary for the proper execution of the Works for the safety of the Works or any part thereof (save to the extent that such necessity arises from any act or default by the Engineer or the Employer or from any of the risks defined in Sub-Clause 20.4) Sub-Clause 40.2 shall apply.

40.2 Engineer's Determination following Suspension

Where, pursuant to Sub-Clause 40.1, this Sub-Clause applies the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44, and
- (b) the amount, which shall be added to the Contract Price, in respect of the Cost incurred by the Contractor by reason of such suspension, and shall notify the Contractor accordingly, with a copy to the Employer.

40.3 Suspension lasting more than 84 Days

If the progress of the Works or any part thereof is suspended on the written instructions of the Engineer and if permission to resume work is not given by the Engineer within a period of 84 days from the date of suspension then, unless such suspension is within paragraph (a), (b), (c) or (d) of Sub-Clause 40.1, the Contractor may give notice to the Engineer requiring permission, within 28 days from the receipt thereof, to proceed with the Works or that part thereof in regard to which progress is suspended. If, within the said time, such permission is not granted, the Contractor may, but is not bound to, elect to treat the suspension, where it affects part only of the Works, as an omission of such part under Clause 51 by giving a further notice to the Engineer to that effect, or, where it affects the whole of the Works, treat the suspension as an event of default by the Employer and terminate his employment under the Contract in accordance with the provisions of Sub-Clause 69.1, whereupon the provision of Sub-Clause 69.2 and 69.3 shall apply

41.1 Commencement of Works

The text is deleted and substituted with the following:

The Contractor shall commence the Works on Site within the period named in Appendix-A to Bid from the date of receipt by him from the Engineer of a written Notice to Commence. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

The following Sub-Clause 47.3 is added:

42.1 Possession of Site and Access Thereto

Save insofar as the Contract may prescribe:

- (a) the extent of portions of the Site of which the Contractor is to be given possession from time to time, and
- (b) the order in which such portions shall be made available to the Contractor and subject to any requirement in the Contract as to the order in which the Works shall be executed, the Employer will, with the Engineer's/Employer's notice to commence the Works, give to the Contractor possession of
- (c) so much of the Site, and
- (d) such access as, in accordance with the Contract, is to be provided by the Employer.

as may be required to enable the Contractor to commence and proceed with the execution of the Works in accordance with the programme referred to in Clause 14, if any, and otherwise in accordance with such reasonable proposals as the Contractor shall, by notice to the Engineer with a copy to the Employer, make. The Employer will, from time to time as the Works proceed, give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the execution of the Works with due dispatch in accordance with such programme or proposals, as the case may be:

42.2 Failure to Give Possession

If the Contractor suffers delay and/or incurs costs from failure on the part of the Employer to give possession in accordance with the terms of Sub-Clause 42.1, the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44, and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer

42.3 Wayleaves and Facilities

The Contractor shall bear all costs and charges for special or temporary wayleaves required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for the purposes of the Works.

43.1 Time for Completion

The whole of the Works and, if applicable, any Section required to be completed within a particular time as stated in the Appendix to Tender, shall be completed, in accordance with the provisions of Clause 48, within the time stated in the Appendix to Tender for the whole of the Works or the Section (as the case may be), calculated from the Commencement Date, or such extended time as may be allowed under Clause 44.

44.1 Extension of Time for Completion

In the event of

- (a) the amount or nature of extra or additional work, or
- (b) any cause of delay referred to in these Conditions, or
- (c) exceptionally adverse climatic conditions, or
- (d) any delay, impediment or prevention by the Employer, or
- (e) other special circumstances which may occur, other than through a default of or breach of Contract by the Contractor or for which he is responsible, being such as fairly to entitle the Contractor to an extension of the Time for Completion of the Works, or any Section or part thereof, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of such extension and shall notify the Contractor accordingly, with a copy to the Employer

44.2 Contractor to Provide Notification and Detailed Particulars

Provided that the Engineer is not bound to make any determination unless the Contractor has

- (a) within 28 days after such event has first arisen notified the Engineer with a copy to the Employer, and
- (b) within 28 days, or such other reasonable time as may be agreed by the Engineer, after such notification submitted to the Engineer detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

44.3 Interim Determination of Extension

Provided also that where an event has a continuing effect such that it is not practicable for the

Contractor to submit detailed particulars within the period of 28 days referred to in Sub-Clause 44.2(b), he shall nevertheless be entitled to an extension of time provided that he has submitted to the Engineer interim particulars at intervals of not more than 28 days and final particulars within 28 days of the end of the effect resulting from the event. On receipt of such interim particulars, the Engineer shall, without undue delay, make an interim determination of extension of time and, on receipt of the final particulars, the Engineer shall review all the circumstances and shall determine an overall extension of time in regard to the event. In both such cases the Engineer shall make his determination after due consultation with the Employer and the Contractor and shall notify the Contractor of the determination, with a copy to the Employer. No final review shall result in a decrease of any extension of time already determined by the Engineer.

45.1 Restriction on Working Hours

Subject to any provision to the contrary contained in the Contract, none of the Works shall, save as hereinafter provided, be carried on during the night or on locally recognised days of rest without the consent of the Engineer, except when work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer. Provided that the provisions of this Clause shall not be applicable in the case of any work which it is customary to carry out by multiple shifts.

46.1 Rate of Progress

If for any reason, which does not entitle the Contractor to an extension of time, the rate of progress of the Works or any Section is at any time, in the opinion of the Engineer, too slow to comply with the Time for Completion, the Engineer shall so notify the Contractor who shall thereupon take such steps as are necessary, subject to the consent of the Engineer, to expedite progress so as to comply with the Time for Completion. The Contractor shall not be entitled to any additional payment for taking such steps. If, as a result of any notice given by the Engineer under this Clause, the Contractor considers that it is necessary to do any work at night or on locally recognised days of rest, he shall be entitled to seek the consent of the Engineer so to do. Provided that if any steps, taken by the Contractor in meeting his obligations under this Clause, involve the Employer in additional supervision costs, such cost shall, after due consultation with the Employer and the Contractor be determined by the Engineer and shall be recoverable from the Contractor by the Employer and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

47.1 Liquidated Damages for Delay

If the Contractor fails to comply with the Time for Completion in accordance with Clause 48, for the whole of the Works or, if applicable, any Section within the relevant time prescribed by Clause 43, then the Contractor shall pay to the Employer the relevant sum stated in the Appendix to Tender as liquidated damages for such default and the liquidated damages for each day of delay in completion of the whole of the Works, or if applicable any Section, shall be as given in Appendix to Tender, subject to a maximum limit stated in Appendix to Tender of the Contract Price stated in the Letter of Acceptance (which sum shall be the only monies due from the Contractor for such default) for every day or part of a day which shall elapse between the relevant Time for Completion and the date stated in a Taking-Over Certificate of the whole of the Works or the relevant Section, subject to the applicable limit stated in the Appendix to Tender. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under

the Contract.

47.2 Reduction of Liquidated Damages

If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking-Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

47.3 Interm Liquidated Damages

If the Contractor is found to be lagging behind the required rate of progress as per approved programme of works as per Clause 14.1, an interm liquidated damages shall be deducted @ 0.1% per day delay upto a maximum of 10% of the contract price. In case the contractor makes up the progress as per approved schedule, these interm liquidated damages shall be reimbursed.

48.1 Taking-Over Certificate

When the whole of the Works have been substantially completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer, with a copy to the Employer, accompanied by a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. Such notice and undertaking shall be deemed to be a request by the Contractor for the Engineer to issue a Taking-Over Certificate in respect of the Works. The Engineer shall, within 56 days of the date of delivery of such notice, either issue to the Contractor, with a copy to the Employer, a Taking-Over Certificate, stating the date on which, in his opinion, the Works were substantially completed in accordance with the Contract, or give instructions in writing to the Contractor specifying all the work which, in the Engineer's opinion, is required to be done by the Contractor before the issue of such Certificate. The Engineer shall also notify the Contractor of any defects in the Works affecting substantial completion that may appear after such instructions and before completion of the Works specified therein. The Contractor shall be entitled to receive such Taking-Over Certificate within 56 days of completion, to the satisfaction of the Engineer, of the Works so specified and remedying any defects so notified.

48.2 Taking Over of Sections or Parts

For the purposes of para (a) of this Sub-Clause, separate Times for Completion shall be provided in the Appendix-A to Bid "Special Stipulations".

48.3 Substantial Completion of Parts

If any part of the Permanent Works has been substantially completed and has satisfactorily passed any Tests on Completion prescribed by the Contract, the Engineer may issue a Taking-Over Certificate in respect of that part of the Permanent Works before completion of the whole of the Works and, upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the Permanent Works during the Defects Liability Period.

48.4 Surfaces Requiring Reinstatement

Provided that a Taking-Over Certificate given in respect of any Section or part of the

Permanent Works before completion of the whole of the Works shall not be deemed to certify completion of any ground or surfaces requiring reinstatement, unless such Taking-Over Certificate shall expressly so state.

49.1 Defects Liability Period

In these Conditions the expression "Defects Liability Period" shall mean the defects liability period named in the Appendix to Tender, calculated from:

- (a) the date of completion of the Works certified by the Engineer in accordance with Clause 48, or
- (b) in the event of more than one certificate having been issued by the Engineer under Clause 48, the respective dates so certified and in relation to the Defects Liability Period the expression "the Works" shall be construed accordingly.

49.2 Completion of Outstanding Work and Remedying Defects

To the intent that the Works shall, at or as soon as practicable after the expiration of the Defects Liability Period, be delivered to the Employer in the condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall:

- (a) complete the work, if any, outstanding on the date stated in the Taking-Over Certificate as soon as practicable after such date and
- (b) execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.

49.3 Cost of Remedying Defects

All work referred to in Sub-Clause 49.2(b) shall be executed by the Contractor at his own cost if the necessity thereof is, in the opinion of the Engineer, due to:

- (a) the use of materials, Plant or workmanship not in accordance with the Contract, or
- (b) where the Contractor is responsible for the design of part of the Permanent Works, any fault in such design, or
- (c) the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract.
 - If, in the opinion of the Engineer, such necessity is due to any other cause, he shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.

49.4 Contractor's Failure to Carry Out Instructions

In case of defult on the part of the Contractor in carrying out such instruction within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and if such work is work which, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

50.1 Contractor to Search

If any defect, shrinkage or other fault in the Works appears at any time prior to the end of the Defects Liability Period, the Engineer may instruct the Contractor, with copy to the Employer, to search under the directions of the Engineer for the cause thereof. Unless such defect, shrinkage or other fault is one for which the Contractor is liable under the Contract,

the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount in respect of the costs of such search incurred by the Contractor, which shall be added to the Contract Price and shall notify the Contractor accordingly, with a copy to the Employer. If such defect, shrinkage or other fault is one for which the Contractor is liable, the cost of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own cost in accordance with the provisions of Clause 49.

51.1 Variations

The Engineer shall make any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion, be appropriate, he shall have the authority to instruct the Contractor to do and the Contractor shall do any of the following:

- (a) increase or decrease the quantity of any work included in the Contract,
- (b) omit any such work (but not if the omitted work is to be carried out by the Employer or by another contractor),
- (c) change the character or quality or kind of any such work,
- (d) change the levels, lines, position and dimensions of any part of the Works,
- (e) execute additional work of any kind necessary for the completion of the Works,
- (f) change any specified sequence or timing of construction of any part of the Works. No such variation shall in any way vitiate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with Clause 52. Provided that where the issue of an instruction to vary the Works is necessitated by some default of or breach of Contract by the Contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the Contractor.

51.2 Instructions for Variations

The Contractor shall not make any such variation without an instruction of the Engineer in writing. Provided that no instruction shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an instruction given under this Clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities.

52.1 Valuation of Variations

All variations referred to in Clause 51 and any additions to the Contract Price which are required to be determined in accordance with Clause 52 (for the purposes of this Clause referred to as "varied work"), shall be valued at the rates and prices set out in the Contract if, in the opinion of the Engineer, the same shall be applicable. If the Contract does not contain any rates or prices applicable to the varied work, the rates and prices in the Contract shall be used as the basis for valuation so far as may be reasonable, failing which, after due consultation by the Engineer with the Employer and the Contractor, suitable rates or prices shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer, within a period not exceeding one-eighth of the completion time subject to a minimum of 56 days from the date of disagreement whichever is later, shall fix such rates or prices as are, in his opinion, appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with Clause 60.

52.4 Daywork

The Engineer may, if in his opinion it is necessary or desirable, issue an instruction that any varied work shall be executed on a daywork basis. The Contractor shall then be paid for such

varied work under the terms set out in the daywork schedule included in the Contract and at the rates and prices affixed thereto by him in the Tender.

The Contractor shall furnish to the Engineer such receipts or other vouchers as may be necessary to prove the amounts paid and, before ordering materials, shall submit to the Engineer quotations for the same for his approval.

In respect of such of the Works executed on a daywork basis, the Contractor shall, during the continuance of such work, deliver each day to the Engineer an exact list in duplicate of the names, occupation and time of all workmen employed on such work and a statement, also in duplicate, showing the description and quantity of all materials and Contractor's Equipment used thereon or therefor other than Contractor's Equipment which is included in the percentage addition in accordance with such daywork schedule. One copy of each list and statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor.

At the end of each month the Contractor shall deliver to the Engineer a priced statement of the labour, materials and Contractor's Equipment, except as aforesaid, used and the Contractor shall not be entitled to any payment unless such lists and statements have been fully and punctually rendered. Provided always that if the Engineer considers that for any reason the sending of such lists or statements by the Contractor, in accordance with the foregoing provision, was impracticable he shall nevertheless be entitled to authorise payment for such work, either as daywork, on being satisfied as to the time employed and the labour, materials and Contractor's Equipment used on such work, or at such value therefor as shall, in his opinion, be fair and reasonable.

53.1 Notice of Claims

Not with standing any other provision of the Contract, if the Contractor intends to claim any additional payment pursuant to any Clause of these Conditions or otherwise, he shall give notice of his intention to the Engineer, with a copy to the Employer, within 28 days after the event giving rise to the claim has first arisen.

53.2 Contemporary Records

Upon the happening of the event referred to in Sub-Clause 53.1, the Contractor shall keep such contemporary records as may reasonably be necessary to support any claim he may subsequently wish to make. Without necessarily admitting the Employer's liability, the Engineer shall, on receipt of a notice under Sub-Clause 53.1, inspect such contemporary records and may instruct the Contractor to keep any further contemporary records as are reasonable and may be material to the claim of which notice has been given. The Contractor shall permit the Engineer to inspect all records kept pursuant to this Sub-Clause and shall supply him with copies thereof as and when the Engineer so instructs

53.3 Substantiation of Claims

Within 28 days, or such other reasonable time as may be agreed by the Engineer, of giving notice under Sub-Clause 53.1, the Contractor shall send to the Engineer an account giving detailed particulars of the amount claimed and the grounds upon which the claim is based. Where the event giving rise to the claim has a continuing effect, such account shall be considered to be an interim account and the Contractor shall, at such intervals as the Engineer may reasonably require, send further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. In cases where interim accounts are sent to the Engineer, the Contractor shall send a final account within 28 days of the end of the effects resulting from the event. The Contractor shall, if required by the Engineer so to do, copy to the Employer all accounts sent to the Engineer pursuant to this Sub-Clause.

53.4 Failure to Comply

If the Contractor fails to comply with any of the provisions of this Clause in respect of any claim which he seeks to make, his entitlement to payment in respect thereof shall not exceed such amount as Employer or any arbitrator or arbitrators appointed pursuant to Sub-Clause 67.3 assessing the Claim considers to be verified by contemporary records (whther or not such records were brought to the Engineer's notice as required under Sub-Clauses 53.2 and 53.3).

53.5 Payment of Claims

The Contractor shall be entitled to have included in any interim payment certified by the Engineer pursuant to Clause 60 such amount in respect of any claim as the Engineer, after due consultation with the Employer and the Contractor, may consider due to the Contractor provided that the Contractor has supplied sufficient particulars to enable the Engineer to determine the amount due. If such particulars are insufficient to substantiate the whole of the claim, the Contractor shall be entitled to payment in respect of such part of the claim as such particulars may substantiate to the satisfaction of the Engineer. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer.

54.1 Contractor's Equipment, Temporary Works and Materials; Exclusive Use for the Works

All Contractor's Equipment, Temporary Works and materials provided by the Contractor shall, when brought on to the Site, be deemed to be exclusively intended for the execution of the Works and the Contractor shall not remove the same or any part thereof, except for the purpose of moving it from one part of the Site to another, without the consent of the Engineer. Provided that consent shall not be required for vehicles engaged in transporting any staff, labour, Contractor's Equipment, Temporary Works, Plant or materials to or from the Site.

54.2 Employer not Liable for Damage

The Employer shall not at any time be liable, save as mentioned in Clauses 20 and 65, for the loss of or damage to any of the said Contractor's Equipment, Temporary Works or materials.

54.3 Customs Clearance

Add the following at the end, before the full stop:

"but shall not be liable to the contractor for any loss resulting from clearance being delayed or refused".

54.4 Re-export of Contractor's Equipment

In respect of any Contractor's Equipment which the Contractor has imported for the purposes of the Works, the Employer will use his best endeavours to assist the Contractor, where required, in procuring any necessary Government consent to the re-export of such Contractor's Equipment by the Contractor upon the removal thereof pursuant to the terms of the Contract.

54.5 Conditions of Hire of Contractor's Equipment

The following paragraph is added:

The Contractor shall, upon request by the Engineer at any time in relation to any item of hired Contractor's Equipment, forthwith notify the Engineer in writing the name and address of the Owner of the equipment and shall certify that the agreement for the hire thereof contains a provision in accordance with the requirements set forth above.

54.6 Costs for the Purpose of Clause 63

In the event of the Employer entering into any agreement for the hire of Contractor's Equipment pursuant to Sub-Clause 54.5, all sums properly paid by the Employer under the provisions of any such agreement and all costs incurred by him (including stamp duties) in entering into such agreement shall be deemed, for the purpose of Clause 63, to be part of the cost of executing and completing the Works and the remedying of any defects therein.

54.7 Incorporation of Clause in Subcontracts

The Contractor shall, where entering into any subcontract for the execution of any part of the Works, incorporate in such subcontract (by reference or otherwise) the provisions of this Clause in relation to Contractor's Equipment, Temporary Works or materials brought on to the Site by the Subcontractor.

54.8 Approval of Materials not Implied

The operation of this Clause shall not be deemed to imply any approval by the Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any time by the Engineer.

55.1 Quantities

The quantities set out in the Bill of Quantities are the estimated quantities for the Works, and they are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfilment of his obligations under the Contract.

56.1 Works to be Measured

The Engineer shall, except as otherwise stated, ascertain and determine by measurement the value of the Works in accordance with the Contract and the Contractor shall be paid that value in accordance with Clause 60. The Engineer shall, when he requires any part of the Works to be measured, give reasonable notice to the Contractor's authorised agent, who shall:

- (a) forthwith attend or send a qualified representative to assist the Engineer in making such measurement, and
- (b) supply all particulars required by the Engineer.

Should the Contractor not attend, or neglect or omit to send such representative, then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of such part of the Works. For the purpose of measuring such Permanent Works as are to be measured by records and drawings, the Engineer shall prepare records and drawings as the work proceeds and the Contractor, as and when called upon to do so in writing, shall, within 14 days, attend to examine and agree such records and drawings with the Engineer and shall sign the same when so agreed. If the Contractor does not attend to examine and agree such records and drawings, they shall be taken to be correct. If, after examination of such records and drawings, the Contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor, within 14 days of such examination, lodges with the Engineer notice of the respects in which such records and drawings are claimed by him to be incorrect. On receipt of such notice, the Engineer shall review the records and drawings and either confirm or vary them.

57.1 Method of Measurement

The Works shall be measured net, notwithstanding any general or local custom, except where otherwise provided for in the Contract.

57.2 Breakdown of Lump Sum Items

For the purposes of statements submitted in accordance with Sub-Clause 60.1, the Contractor shall submit to the Engineer, within 28 days after the receipt of the Letter of Acceptance, a

breakdown for each of the lump sum items contained in the Tender. Such breakdowns shall be subject to the approval of the Engineer.

58.1 Definition of "Provisional Sum"

"Provisional Sum" means a sum included in the Contract and so designated in the Bill of Quantities for the execution of any part of the Works or for the supply of goods, materials, Plant or services, or for contingencies, which sum may be used, in whole or in part, or not at all, on the instructions of the Engineer. The Contractor shall be entitled to only such amounts in respect of the work, supply or contingencies to which such Provisional Sums relate as the Engineer shall determine in accordance with this Clause. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer.

58.2 Use of Provisional Sums

In respect of every Provisional Sum the Engineer shall have authority to issue instructions for the execution of work or for the supply of goods, materials, Plant or services by:

- (a) the Contractor, in which case the Contractor shall be entitled to an amount equal to the value thereof determined in accordance with Clause 52,
- (b) a nominated Subcontractor, as hereinafter defined, in which case the sum to be paid to the Contractor therefor shall be determined and paid in accordance with Sub-Clause 59.4.

58.3 Production of Vouchers

The Contractor shall produce to the Engineer all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of Provisional Sums, except where work is valued in accordance with rates or prices set out in the Tender.

59.1 Definition of "Nominated Subcontractors"

Delete Clause 59 in its entirely

60.1 Monthly Statements

In the first line after the word "shall", the following is added:

"on the basis of the joint measurement of work done under Clause 56.1,"

In Para (c) the words "the Appendix to Tender" are deleted and substituted with the words "Sub-Cause 60.11 (a)(6) hereof".

(in case Clause 60.11 is applicable)

60.2 Monthly Payments

The Engineer shall, within 28 days of receiving such statement, certify to the Employer the amount of payment to the Contractor which he considers due and payable in respect thereof, subject:

- (a) firstly, to the retention of the amount calculated by applying the Percentage of Retention stated in Appendix A to Tender, to the amount to which the Contractor is entitled under paragraphs (a), (b), (c) and (e) of Sub-Clause 60.1 until the amount so retained reaches the Limit of Retention Money stated in Appendix A to Tender, and
- (b) secondly, to the deduction, other than pursuant to Clause 47, of any sums which may have become due and payable by the Contractor to the Employer.

Provided that the Engineer shall not be bound to certify any payment under this Sub-Clause if the net amount thereof, after all retentions and deductions, would be less than the Minimum Amount of Interim Certificates stated in Appendix A to Tender.

Notwithstanding the terms of this Clause or any other Clause of the Contract no amount will be certified by the Engineer for payment until the performance security, if required under the Contract, has been provided by the Contractor and approved by the Employer.

60.3 Payment of Retention Money

- (a) Upon the issue of the Taking-Over Certificate with respect to the whole of the Works, one half of the Retention Money, or upon the issue of a Taking-Over Certificate with respect to a Section or part of the Permanent Works only such proportion thereof as the Engineer determines having regard to the relative value of such Section or part of the Permanent Works, shall be certified by the Engineer for payment to the Contractor.
- (b) Upon the expiration of the Defects Liability Period for the Works the other half of the Retention Money shall be certified by the Engineer for payment to the Contractor. Provided that, in the event of different Defects Liability Periods having become applicable to different Sections or parts of the Permanent Works pursuant to Clause 48, the expression "expiration of the Defects Liability Period" shall, for the purposes of this Sub-Clause, be deemed to mean the expiration of the latest of such periods. Provided also that if at such time, there shall remain to be executed by the Contractor any work ordered, pursuant to Clauses 49 and 50, in respect of the Works, the Engineer shall be entitled to withhold certification until completion of such work of so much of the balance of the Retention Money as shall, in the opinion of the Engineer, represent the cost of the work remaining to be executed.

60.4 Correction of Certificates

The Engineer may by any interim certificate make any correction or modification in any previous certificate which shall have been issued by him and shall have authority, if any work is not being carried out to his satisfaction, to omit or reduce the value of such work in any interim certificate.

60.5 Statement at Completion

Not later than 56 days after the issue of the Taking-Over Certificate in respect of the whole of the Works, the Contractor shall submit to the Engineer a Statement at Completion with supporting documents showing in detail, in the form approved by the Engineer,

- (a) the final value of all work done in accordance with the Contract up to the date stated in such Taking-Over Certificate
- (b) any further sums which the Contractor considers to be due and
- (c) an estimate of amounts which the Contractor considers will become due to him under the Contract.

The estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with Sub-Clause 60.2

60.6 Final Statement

Not later than 56 days after the issue of the Defects Liability Certificate pursuant to Sub-Clause 62.1, the Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail, in the form approved by the Engineer,

- (a) the value of all work done in accordance with the Contract and
- (b) any further sums which the Contractor considers to be due to him under the Contract. If the Engineer, disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these Conditions referred to as the "Final Statement").

60.7 Discharge

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a

copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Certificate issued pursuant to Sub-Clause 60.8 has been made and the performance security referred to in Sub-Clause 10.1, if any, has been returned to the Contractor.

60.8 Final Certificate

Within 56 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the Employer (with a copy to the Contractor) a Final Certificate stating

- (a) the amount which, in the opinion of the Engineer, is finally due under the Contract, and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled under the Contract, other than Clause 47, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

60.9 Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing arising out of or in connection with the Contract or execution of the Works, unless the Contractor shall have included a claim in respect thereof in his Final Statement and (except in respect of matters or things arising after the issue of the Taking-Over Certificate in respect of the whole of the Works) in the Statement at Completion referred to in Sub-Clause 60.5.

60.10 Time for Payment

The text is deleted and substituted with the following:

"The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other terms of the Contract, shall, subject to Clause 47, be paid by the Employer to the Contractor within 28 days after such Interim Payment Certificate has been jointly verified by Employer and Contractor, or, in the case of the Final Certificate referred to in Sub Clause 60.8, within 56 days after such Final Payment Certificate has been delivered to the Employer, provided that the Interim Payment shall be caused in 56 days and Final Payment in 84 days in case of foreign funded project.

60.11 Secured Advance on Materials

This clause is deleted and remains not applicable for this project.

60.12 Financial Assistance to Contractor

This clause is deleted and remains not applicable for this project.

61.1 Approval only by Defects Liability Certificate

Only the Defects Liability Certificate, referred to in Clause 62, shall be deemed to constitute approval of the Works.

62.1 Defects Liability Certificate

The Contract shall not be considered as completed until a Defects Liability Certificate shall have been signed by the Engineer and delivered to the Employer, with a copy to the Contractor, stating the date on which the Contractor shall have completed his obligations to execute and complete the Works and remedy any defects therein to the Engineer's satisfaction. The Defects Liability Certificate shall be given by the Engineer within 28 days after the expiration of the Defects Liability Period, or, if different defects liability periods shall become applicable to different Sections or parts of the Permanent Works, the expiration

of the latest such period, or as soon thereafter as any works instructed, pursuant to Clauses 49 and 50, have been completed to the satisfaction of the Engineer. Provided that the issue of the Defects Liability Certificate shall not be a condition precedent to payment to the Contractor of the second portion of the Retention Money in accordance with the conditions set out in Sub-Clause 60.3

62.2 Unfulfilled Obligations

Notwithstanding the issue of the Defects Liability Certificate the Contractor and the Employer shall remain liable for the fulfilment of any obligation incurred under the provisions of the Contract prior to the issue of the Defects Liability Certificate which remains unperformed at the time such Defects Liability Certificate is issued and, for the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the parties to the Contract.

63.1 Default of Contractor

Delete this Sub-Clause in its entirety and replace with the following

If the contractor is deemed by law unable to pay his debts as they fall due, or enters into voluntary or in voluntary bankruptcy, liquidation or dissolution (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or becomes in solvent, or makes and arrangement with, or assignments in fovour of, his creditor, or agree to carryout the contract under a committee of inspection of his creditors, or if a receiver, administrator, trustee or liquidator is appointed over any substantial part of his assests, or if, under any law or regulation relating to reorganization, arrangements or readjustment of debts, procedding or commenced against the contractor or resolution passed in connection with dissolution or liquidation or if any steps or taken to enforce any security interest over a substantial part of the assests of the contractor, or if any act is done or event occurs with respect to the contractor or his assests which, under any applicable law has a substantially similar effect to any of the foregoing acts or events, or if the contractor has contravened sub-clause 3.1, or has an execution levied on his goods, or contract, if the Engineer certifies to the Employer, with a copy to the contractor, that, in his opinion, the contractor:

- (a) Has repudiated the contract, or
- (b) Without reasonable excuse has failed
- (i) To commence the works in accordance with sub-clause 41.1,
- (ii) To proceed with the works, or any section thereof, within 14 days after receiving notice pursuant to the sub-clause 46.1,
- (c) Has failed to comply with a notice issued pursuant to sub-clause 37.4 or any instructions issued pursuant to sub-clause 39.1 within 14 days after having received it.
- (d) Despite previous warning from the Engineer, in writing, is otherwise persistently or flagrantly neglecting to comply with any office obligations under the contract, or
- (e) Has contravened sub-clause 4.1,
 - Then the Employer may, after giving 14 days notice to the contractor, enter upon the site and the work and terminate the employment of the contractor without thereby releasing the contractor from any office obligations or liabilities under the contract, or affecting the rights and authorities conferred on the Employer or the Engineer by the contract, and may himself complete the work or may Employ any other contractor to completer the works. The Employer or such other contractor may used for such completion so much of the contractor's equipment, temporary works and material as he or they may think proper

Provided further that in addition to the action taken by the Employer against the Contractor under this Clause, the Employer may also refer the case of default of the Contractor to Pakistan Engineering Council for punitive action under the Construction and Operation of Engineering Works Bye-Laws 1987, as amended from time to time.

63.2 Valuation at Date of Termination

The Engineer shall, as soon as may be practicable after any such entry and termination by the Employer, fix and determine ex parte, or by or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute, and shall certify:

- (a) what amount (if any) had, at the time of such entry and termination, been reasonably earned or would reasonably accrue to the Contractor in respect of work then actually done by him under the Contract, and
- (b) the value of any of the said unused or partially used materials, any Contractor's Equipment and any Temporary Works

63.3 Payment after Termination

If the Employer terminates the Contractor's employment under this Clause, he shall not be liable to pay to the Contractor any further amount (including damages) in respect of the Contract until the expiration of the Defects Liability Period and thereafter until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any) and all other expenses incurred by the Employer have been ascertained and the amount thereof certified by the Engineer. The Contractor shall then be entitled to receive only such sum (if any) as the Engineer may certify would have been payable to him upon due completion by him after deducting the said amount. If such amount exceeds the sum which would have been payable to the Contractor on due completion by him, then the Contractor shall, upon demand, pay to the Employer the amount of such excess and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly.

63.4 Assignment of Benefit of Agreement

Unless prohibited by law, the Contractor shall, if so instructed by the Engineer within 14 days of such entry and termination referred to in Sub-Clause 63.1, assign to the Employer the benefit of any agreement for the supply of any goods or materials or services and/or for the execution of any work for the purposes of the Contract, which the Contractor may have entered into.

64.1 Urgent Remedial Work

If, by reason of any accident, or failure, or other event occurring to, in, or in connection with the Works, or any part thereof, either during the execution of the Works, or during the Defects Liability Period, any remedial or other work is, in the opinion of the Engineer, urgently necessary for the safety of the Works and the Contractor is unable or unwilling at once to do such work, the Employer shall be entitled to employ and pay other persons to carry out such work as the Engineer may consider necessary. If the work or repair so done by the Employer is work which, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer, from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Provided that the Engineer shall, as soon after the occurrence of any such emergency as may be reasonably practicable, notify the Contractor thereof.

65.1 No Liability for Special Risks

The Contractor shall be under no liability whatsoever in consequence of any of the special risks referred to in Sub-Clause 65.2, whether by way of indemnity or otherwise, for or in respect of:

- (a) destruction of or damage to the Works, save to work condemned under the provisions of Clause 39 prior to the occurrence of any of the said special risks, or
- (b) destruction of or damage to property, whether of the Employer or third parties, or
- (c) injury or loss of life

65.2 Special Risks

The text is deleted and substituted with the following:

The Special Risks are the risks defined under Sub-Clause 20.4 sub paragraphs (a) (i) to (a) (v).

65.3 Damage to Works by Special Risks

If the Works or any materials or Plant on or near or in transit to the Site, or any or the Contractor's Equipment, sustain destruction or damage by reason of any of the said special risks, the Contractor shall be entitled to payment in accordance with the Contract for any Permanent Works duly executed and for any materials or Plant so destroyed or damaged and, so far as may be required by the Engineer or as may be necessary for the completion of the Works, to payment for:

- (a) rectifying any such destruction or damage to the Works, and
- (b) replacing or rectifying such materials or Contractor's Equipment and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 (which shall in the case of the cost of replacement of Contractor's Equipment include the fair market value thereof as determined by the Engineer) and shall notify the Contractor accordingly, with a copy to the Employer.

65.4 Projectile, Missile

Destruction, damage, injury or loss of life caused by the explosion or impact, whenever and wherever occurring, of any mine, bomb, shell, grenade, or other projectile, missile, munition, or explosive of war, shall be deemed to be a consequence of the said special risks:

65.5 Increased Costs arising from Special Risks

Save to the extent that the Contractor is entitled to payment under any other provision of the Contract, the Employer shall repay to the Contractor any costs of the execution of the Works (other than such as may be attributable to the cost of reconstructing work condemned under the provisions of Clause 39 prior to the occurrence of any special risk) which are howsoever attributable to or consequent on or the result of or in any way whatsoever connected with the said special risks, subject however to the provisions in this clause hereinafter contained in regard to outbreak of war, but the Contractor shall, as soon as any such cost comes to his knowledge, forthwith notify the Engineer thereof. The Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of the Contractor's costs in respect thereof which shall be added to the Contract Price and shall notify the Contractor accordingly, with a copy to the Employer.

65.7 Removal of Contractor's Equipment on Termination

If the Contract is terminated under the provisions of Sub-Clause 65.6, the Contractor shall, with all reasonable dispatch, remove from the Site all Contractor's Equipment and shall give similar facilities to his Subcontractors to do so.

65.8 Payment if Contract Terminated

If the Contract is terminated as aforesaid, the Contractor shall be paid by the Employer, insofar as such amounts or items have not already been covered by payments on account made to the Contractor, for all work executed prior to the date of termination at the rates and

- price provided in the Contract and in addition:
- (a) The amounts payable in respect of any preliminary items referred to in the Bill of Quantities, so far as the work or service comprised therein has been carried out or performed, and a proper proportion of any such items which have been partially carried out or performed.
- (b) The cost of materials, Plant or goods reasonably ordered for the Works which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery, such materials, Plant or goods becoming the property of the Employer upon such payments being made by him.
- (c) A sum being the amount of any expenditure reasonably incurred by the Contractor in the expectation of completing the whole of the Works insofar as such expenditure has not been covered by any other payments referred to in this Sub-Clause.
- (d) Any additional sum payable under the provisions of Sub-Clauses 65.3 and 65.5.
- (e) Such proportion of the cost as may be reasonable, taking into account payments made or to be made for work executed, of removal of Contractor's Equipment under Sub-Clause 65.7 and, if required by the Contractor, return thereof to the Contractor's main plant yard in his country of registration or to other destination, at no greater cost.
- (f) The reasonable cost of repatriation of all the Contractor's staff and workmen employed on or in connection with the Works at the time of such termination.

Provided that against any payment due from the Employer under this Sub-Clause, the Employer shall be entitled to be credited with any outstanding balances due from the Contractor for advances in respect of Contractor's Equipment, materials and Plant and any other sums which, at the date of termination, were recoverable by the Employer from the Contractor under the terms of the Contract. Any sums payable under this Sub-Clause shall, after due consultation with the Employer and the Contractor, be determined by the Engineer who shall notify the Contractor accordingly, with a copy to the Employer.

65.9 Outbreak of War

If, during the currency of the Contract, there is an outbreak of war, whether war is declared or not, in any part of the world which, whether financially or otherwise, materially affects the execution of the Works, the Contractor shall, unless and until the Contract is terminated under the provisions of this Clause, continue to use his best endeavours to complete the execution of the Works. Provided that the Employer shall be entitled, at any time after such outbreak of war, to terminate the Contract by giving notice to the Contractor and, upon such notice being given, the Contract shall, except as to the rights of the parties under this Clause and to the operation of Clause 67, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.

66.1 Payment in Event of Release from Performance

If any circumstance outside the control of both parties arises after the issue of the Letter of Acceptance which renders it impossible or unlawful for either party to fulfil his contractual obligations, or under the law governing the Contract the parties are released from further performance, then the sum payable by the Employer to the Contractor in respect of the work executed shall be the same as that which would have been payable under Clause 65 if the Contract had been terminated under the provisions of Clause 65.

67.1 Engineer's Decision

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with, or arising out of, the Contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after repudiation or other termination of the Contract, including any dispute as to any opinion, instruction,

determination, certificate or valuation of the Engineer, the matter in dispute shall, in the first place, be referred in writing to the Engineer, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. No later than the eighty-fourth day after the day on which he received such reference the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to this Clause. Unless the Contract has already been repudiated or terminated, the Contractor shall, in every case, continue to proceed with the Works with all due diligence and the Contractor and the Employer shall give effect forthwith to every such decision of the Engineer unless and until the same shall be revised, as hereinafter provided, in an amicable settlement or an arbitral award.

If either the Employer or the Contractor be dissatisfied with any decision of the Engineer, or if the Engineer fails to give notice of his decision on or before the eighty-fourth day after the day on which he received the reference, then either the Employer or the Contractor may, on or before the seventieth day after the day on which he received notice of such decision, or on or before the seventieth day after the day on which the said period of 84 days expired, as the case may be, give notice to the other party, with a copy for information to the Engineer, of his intention to commence arbitration, as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and, subject to Sub-Clause 67.4, no arbitration in respect thereof may be commenced unless such notice is given.

If the Engineer has given notice of his decision as to a matter in dispute to the Employer and the Contractor and no notice of intention to commence arbitration as to such dispute has been given by either the Employer or the Contractor on or before the seventieth day after the day on which the parties received notice as to such decision from the Engineer, the said decision shall become final and binding upon the Employer and the Contractor.

67.1 Amicable Settlement

Where notice of intention to commence arbitration as to a dispute has been given in accordance with Sub-Clause 67.1, arbitration of such dispute shall not be commenced unless an attempt has first been made by the parties to settle such dispute amicably. Provided that, unless the parties otherwise agree, arbitration may be commenced on or after the fifty-sixth day after the day on which notice of intention to commence arbitration of such dispute was given, whether or not any attempt at amicable settlement thereof has been made.

67.3 Arbitration

In the sixth to eight lines, the words "shall be finally settled appointed under such Rules" are deleted and substituted with the following:

"shall be finally settled under the provisions of the Arbitration Act, 1940 as amended or any statutory modification or re-enactment thereof for the time being in force"

The following paragraph is added:

The place of arbitration shall be Peshawar, Pakistan.

67. 4 Failure to Comply with Engineer's Decision

Where neither the Employer nor the Contractor has given notice of intention to commence arbitration of a dispute within the period stated in Sub-Clause 67.1 and the related decision has become final and binding, either party may, if the other party fails to comply with such decision, and without prejudice to any other rights it may have, refer the failure to arbitration in accordance with Sub-Clause 67.3. The provisions of Sub-Clauses 67.1 and 67.2 shall not apply to any such reference.

68.1 Notice to Contractor

The following paragraph is added:

For the purposes of this Sub-Clause, the Contractor shall, immediately after receipt of Letter of Acceptance, intimate in writing to the Employer and the Engineer by registered post, the address of his principal place of business or any change in such address during the period of the Contract.

68.2 Notice to Employer and Engineer

For the purposes of this Sub-Clause, the respective address are:

a) The Employer:

Hospital Director, Ayub Teaching Hospital, Abbottabad.

Employer Representative:

Director Maintenance, Ayub Teaching Hospital, Abbottabad

b) The Engineer:

M/S East Asian Consultants.

Flat # 27-31, 3rd Floor, Spinzar Plaza, University Road Peshawar.

Ph # 091-7086429, Cell # 0300-9593170

Or any Person / Firm / Authority replaced by the Employer as per Clause 2.8

68.3 Change of Address

Either party may change a nominated address to another address in the country where the Works are being executed by prior notice to the other party, with a copy to the Engineer, and the Engineer may do so by prior notice to both parties.

69.1 Default of Employer

In the event of the Employer:

- (a) failing to pay to the Contractor the amount due under any certificate of the Engineer within 28 days after the expiry of the time stated in Appendix A to Tender within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, or
- (b) interfering with or obstructing or refusing any required approval to the issue of any such certificate, or
- (c) becoming bankrupt or, being a company, going into liquidation, other than for the purpose of a scheme of reconstruction or amalgamation, or
- (d) giving notice to the Contractor that for unforeseen reasons, due to economic dislocation, it is impossible for him to continue to meet his contractual obligations
 - The Contractor shall be entitled to terminate his employment under the Contract by giving notice to the Employer, with a copy to the Engineer. Such termination shall take effect 14 days after the giving of the notice.

69.2 Removal of Contractor's Equipment

Upon the expiry of the 14 days' notice referred to in Sub-Clause 69.1, the Contractor shall, notwithstanding the provisions of Sub-Clause 54.1, with all reasonable despatch, remove from the Site all Contractor's Equipment brought by him thereon.

69.3 Payment on Termination

In the event of such termination the Employer shall be under the same obligations to the Contractor in regard to payment as if the Contract had been terminated under the provisions of Clause 65, but, in addition to the payments specified in Sub-Clause 65.8, the Employer shall pay to the Contractor the amount of any loss or damage to the Contractor arising out of

or in connection with or by consequence of such termination.

69.4 Contractor's Entitlement to Suspend Work

Without prejudice to the Contractor's entitlement to interest under Sub-Clause 60.10 and to terminate under Sub-Clause 69.1, the Contractor may, if the Employer fails to pay the Contractor the amount due under any certificate of the Engineer within 56 days after the expiry of the time stated in Appendix A to Tender within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, after giving 56 days' prior notice to the Employer, with a copy to the Engineer, suspend work or reduce the rate of work.

If the Contractor suspends work or reduces the rate of work in accordance with the provisions of this Sub-Clause and thereby suffers delay or incurs cost the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44, and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer.

69.5 Resumption of Work

Where the Contractor suspends work or reduces the rate of work, having given notice in accordance with Sub-Clause 69.4, and the Employer subsequently pays the amount due, including interest pursuant to Sub-Clause 60.10, the Contractor's entitlement under Sub-Clause 69.1 shall, if notice of termination has not been given, lapse and the Contractor shall resume normal working as soon as is reasonably possible.

70.1 Increase or Decrease of Cost

Sub-Clause 70.1 is deleted in its entirety, and substituted with to remains not applicable for this project:

70.2 Subsequent Legislation

If, after the date 28 days prior to the latest date for submission of tenders for the contract there occure in the country in which the works are being or are to be executed changes to any National or State Statute, Ordinance, Decree or other Law or any regulation or bye-law of any local or other duly constituted authority or the introduction of any such state statute. Ordinance, Decree, Law regulation or bye-law which causes additional or reduced cost to the contractor, other than under Sub-Clause 70.1, in the execution of the contract, such additional or reduced cost shall, after due consultation with employer and the contractor, be determined by the Engineer and shall be added to or deducted from the Contract Price and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

71.1 Currency Restrictions

If, after the date 28 days prior to the latest date for submission of tenders for the Contract, the Government or authorized agency of the Government of the country in which the Works are being or are to be executed imposes currency restrictions and/or transfer of currency restrictions in relation to the currency or currencies in which the Contract Price is to be paid, the Employer shall reimburse any loss or damage to the Contractor arising therefrom, without prejudice to the right of the Contractor to exercise any other rights or remedies to which he is entitled in such event.

72.1 Rates of Exchange

Where the Contract provides for payment in whole or in part to be made to the Contractor in foreign currency or currencies, such payment shall not be subject to variations in the rate or

rates of exchange between such specified foreign currency or currencies and the currency of the country in which the Works are to be executed.

72.2 Currency Proportions

Where the Employer has required the Tender to be expressed in a single currency but with payment to be made in more than one currency and the Contractor has stated the proportions or amounts of other currency or currencies in which he requires payment to be made, the rate or rates of exchange applicable for calculating the payment of such proportions or amounts shall, unless otherwise stated in Part-II of these Conditions, be those prevaliling, as determined by the Central Bank of the country in which the Works are to be executed, on the date 28 days prior to the latest date for the submission of tenders for the Contract, as has been notified to the Contractor by the Employer prior to the submission of tenders or as provided for in the Tender.

72.3 Currency Proportions

Where the Contract provides for payment in more than one currency, the proportions or amounts to be paid in foreign currencies in respect of Provisional Sums shall be determined in accordance with the principles set forth in Sub-Clauses 71.1 and 71.2 as and when these sums are utilised in whole or in part in accordance with the provisions of Clauses 58 and 59.

73.1 Payment of Income Tax

The Contractor, Subcontractors and their employees shall be responsible for payment of all their income tax, super tax and other taxes on income arising out of the Contract and the rates and prices stated in the Contract shall be deemed to cover all such taxes.

73.2 Customs Duty & Taxes

The contractor shall pay all customs duty and taxes payable by him under the contract. Such duties and taxes shall be deemed included in the rates and prices in the Bill of Quantities.

74.1 Integrity Pact

If the Contractor or any of his Subcontractors, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Contractor as Appendix-L to his Bid, 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, agents 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, agents or servants.

The termination under Sub-Para (b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clauses 63.1 to 63.4 and the payment under Sub-Clause 63.3 shall be made after having deducted the amounts due to the Employer under Sub-Para (a) and (c) of this Sub-Clause.

74.2 Bribery and Collusion

(1) The Employer shall be entitled to terminate the Contract and recover from the Contractor the amount of any loss resulting from such termination if the Contractor shall have offered or given to any person any gift or consideration of any kind as an inducement or reward for doing, or forbearing to do, any action in relation to obtaining, or in the execution of the Contract or any other contract with the Employer, or for showing favour to any person in relation to the Contract or any other contract with the Employer, or if any of the like acts shall

have been done by any person employed by the Contractor or acting on his behalf (whether with or without the knowledge of the Contractor) or if the Contractor shall have come to any agreement with another contractor or number of contractors whereby an agreed quotation or estimate shall be offered as a bid to the Employer by one or more Contractors.

- (2) In the event of such termination, the Contractor shall
- (a) proceed as provided in Sub-Clause 65.7 hereof; and
- (b) be paid by the Employer as provided in Sub-Clause 65.8 hereof, provided that any loss referred to in Sub-Clause (1) of this Sub-Clause shall first be deducted.

75.1 Termination of Contract for Employer's Convenience

The Employer shall be entitled to terminate the Contract at any time for the Employer's convenience after giving 56 days prior notice to the Contractor, with a copy to the Engineer. In the event of such termination, the Contractor:

- (a) shall proceed as provided in Sub-Clause 65.7 hereof; and
- (b) shall be paid by the Employer as provided in Sub-Clause 65.8 hereof.

76.1 Liability of Contractor

The Contractor or his Subcontractors or assigns shall follow strictly, all relevant labour laws including the Workmen's Compensation Act and the Employer shall be fully indemnified for all claims, damages etc. arising out of any dispute between the Contractor, his Subcontractors or assigns and the labour employed by them.

76.2 Joint and Several Liability

If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfillment of the terms of the Contract and shall designate one of such persons to act as leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.

76.3 Details to be confidential

The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the Employer or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract, the same shall be referred to the decision of the Employer whose award shall be final.

77.1 Joint and Several Liability

If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfilment of the terms of the Contract and shall designate one of such persons to act as leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.

78.1 Details to be Confidential

The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the Employer or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract, the same shall be referred to the decision of the Engineer whose award shall be final.

79.1 Management Meetings

The Engineer may require the Contractor to attend a management meeting in order to review the arrangement for future work. The presence of the Employer or his Representative is mandatory in this meeting. The Engineer shall record the business of Management meeting and supply copies of the record to those attending the meeting and to the Employer. In the record, responsibilities of any actions to be taken shall be in accordance with the contract.

79.2 Appointment of Suppervisory Staff

Contractor will appoint on the recommendation of the employer, One graduate Civil Engineer with 15 years experience and two Associate-Engineers (Diploma in Civil Technolog), to maintan quality of work. Salary of such staff shall be paid by the contractor on verification and recommendation of the Project Engineer. No separate payment shall be paid to the contractor to this affect.

80.1 Protection of the Environment

The Contractor shall meet atleast the minimum requirements for environmental management as per the guidelines of Pakistan Environmental Protection Agency or as directed by the Engineer, In respect of safety, security and protection of the Environment.

The contractor shall be responsible for ensuring that all subcontractor's and contractor personnel also under stand and operate in accordance with the requirements mentioned hereinabove.

80.2 Engineer's Office for Consultant

The Contractor shall construct, provide and maintain Engineer's and Employer's representative site office as per requirements provided in this tender and contract documents along with stabilized access road.

The site office shall be furnished and equipped with adequate new and unused furniture and brand new equipment including, a Core i7 laptop (10th Generation) / Desk top Computer with 1000 G.B hard disk, 16-GB Ram, 32-GB USB, 17-inch LED Screen including stabilizer etc. and A-4 size laser / inkjet printer, Fax machine & a separate telephone STD telephone connection for the exclusive use of the Engineer / Employer and pay telephone/Internet bill upto Rs. 3,000/- per month. If any equipment, furniture and installations become unserviceable for any reason whatsoever, the contractor shall promptly replace the same as and when directed by the Engineer. The Contractor shall provide stationery and other related items upto a maximum limit of Rs. 10,000/- per month and also provide 1600cc latest model vehicle (not more than 05 years old) with driver & Fuel.

The site office shall be connected to the electrical system, Sui Gas system, potable water supply system and sewage disposal system.

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FORM OF BID AND APPENDICES TO BID

FORM OF BID

Bid Reference No.

CONSTRCUTION OF DRAINAGE / STROM WATER DISPOSE SYSTEM IN MTI ABBOTTBAD

To:				
Gentle	eman,			
1.	Having examined the Bid Conditions of Contract. S	pecifications, Drawin	•	es and Addenda Nos.
	the undersigned, offer to e conformity with the Cond	xecute and complete sitions of Contract. Sp	such Works and remedy ecifications, Drawings,	any defects therein in
	Addenda for the sum of (Rupees) or such
	other sum as may be ascer	tained in accordance v	with the said conditions.	j oi sucii
2.	We understand that all the	Appendices attached	hereto form part of this	Bid.
3.	As security for due perfor herewith a Bid Security in	the amount of Rupees	S	
	(Rsday	drawn in your ys beginning from the	favour or made payable date Bids are opened.	to you and valid for a
4.	We undertake, if our Bid the Works comprised in the	- (1/		*
5.	We agree to abide by this leads the same and it shall remain expiration of that period.			
6.	Unless and until a formal written acceptance thereof			
7.	We do hereby declare tha arrangement with any other		•	nparison of figures or
8.	We understand that you ar	e not bound to accept	the lowest or any Bid yo	ou may receive.
	Dated thisda	ay of	20	
	Signature:			
	in the capacity of	duly authorized to sig	n Bids for and on behalf	fof
(Seal)	(Name of Bidder in Block			

Address:	 	
Vitness:		
ignature:		
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Occupation		
occupation		

SPECIAL STIPULATIONS Clause

Conditions of Contract

	Conuntion	15 01 00	
1.	Engineer's Authority to issue Variation in emergency	2.1	As per client approval
2.	Amount of Performance Security	10.1	10% of Contract Price stated in the Letter of Acceptance.
3.	Time for Furnishing Programme	14.1	Within 14 days from the date of recepit of Letter of Acceptance.
4.	Minimum amount of Third Party Insurance	23.2	Rs.500,000 per occurrence with number of occurrences unlimited.
5.	Time for Commencement	41.1	Within 14 days from the date of receipt of Engineer's Notice to Commence which shall be issued within Seven (07) days after signing of Contract Agreement.
6.	Time for Completion	43.1, 48.2	12-Months
7.	a) Amount of Liquidated Damages	47.1	Rs. 0.1% for each day of delay in completion of the Works subject to a maximum of 10% of Contract Price stated in the Letter of Acceptance.
8.	Defects Liability Period	49.1	365 days from the effective date of taking Over Certificate.
9.	Percentage of Retention Money	60.2	10 % of the amount of Interim Payment Certificate.
10.	Limit of Retention Money	60.2	10 % of Contract Price stated in the Letter of Acceptance.
11.	Minimum amount of Interim Payment Certificates (Running Bills)	60.2	20 Million
12	Time of Payment from delivery of Engineer's Interim Payment Certificate to the Employer.	60.10	56 days
13	Mobilization Advance * (Interest Free)	60.11	Not allowed.
14	Price adjustment (escalation / de-escalation)	60.12	Not allowed.

FOREIGN CURRENCY REQUIREMENTS

1.	The Bidder may indicate here in below his requirements of foreign currency (if any), wi	tŀ
	reference to various inputs to the Works.	

2.	Foreign Currency	Requirement	as percentage of	the Bid Price	excluding	Provisional	Sums
	%.						

Table of Exchange Rates	
Unit of Currency	Equivalent in Pak. Rupees
Australian Dollar Euro Japanese Yen	
U.K. Pound U.S. Dollars	

PRICE ADJUSTMENT UNDER CLAUSE 70 OF CONDITIONS OF CONTRACT

The source of indices and the weightages or coefficients for use in the adjustment formula under Clause 70 shall be as follows:

(To be filled by the Employer)

Cost Element	Description	Weightages	Applicable index
1	2	3	4
(i)	Fixed Portion	a= _3	
(ii)	Local Labour (Unskilled), pet day [Labourer (unskilled) per day shall be taken as representative of all types of labour]	68/	Gavern ant of Pakistan (GP) Tede of Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(iii)	Cement (OPC) — in bags, per log (OPC) per bag shall be taken as representative of all types of cement and at say]	lin	
(iv)	Reinforcing Steel Bart IV Ton Iron bar 22 round (M.V) bars her to ne bar be taken representative or all these and liameters of steel nunforcement.		
(v)	High Special Desel (HSB), Liter		Pakistan State Oil
(vi)	Bricks		Not Applicable
	Total	1.000	

Notes:

- Indices for "(ii)" to "(vii)" are taken from the Government of Pakistan Federal Bureau of Statistics, Monthly Statistical Bulletin. The base cost indices or prices shall be those applying 28 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
- 2) Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.
- 3) Fixed portion shown here is for typical road project, Procuring Entity to determine the weightage of Fixed Portion considering only those cost elements having cost impact of seven (7) percent or more on his specific project

Authorized Signature.

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 entered 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 entered 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, are be included in the rates and prices.
- 4. 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.
- 5. Complete description of items of works in the Bill of Quantitites, general directions, conditions and limitations of works, location and place of works, applicable methods, means to be adopted, type and quality of materials, use of tools, plant and machinery are not necessarily repeated nor summarized in the Bill of Quantities. Reference to the relevant Section of the Technical specifications and Drawings shall be made before entering prices against each item in the priced Bill of Quantities.
- 6. 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 58.2 of Part I, General Conditions of Contract.
- 7. The "Ref Specs" mentioned in the Bill of Quantities indicates the Technical Specifications section number (s) which are not to be followed during execution of item of work in accordance with the applicable drawings.
- 8. Not withstanding provisions of clause 51 of Part-I, General Conditions, no claim for extra payment will be admissible on account of anticipated profit or variation in overheads enpenditure for the works not actually performed nor will any adjustment in the unit rate set forth in the Bill of Quantities be made because of any increase or decrease in the quantities indicated therein.
- 9. Unless other wise stated in the text of the Priced Bill of Quantities, the quantities have to be measured and paid in accordance with the measurement and payment clause given in the relevant Technical Specifications or in accordance with implied meaning of the

specifications. Any special method of measurement stated in the text of priced Bill of Quantities is limited to the concerned items only.

The following abbreviations for the Units have been used in the Bill of Quantities.

Abbrevuation
Rft / Ft
M
Sft
Cft
m2
m3
M.Ton
No. / Each
Job
Kg

PROPOSED CONSTRUCTION SCHEDULE

Pursuant to Sub-Clause 43.1 of the General Conditions of Contract, the Works shall be completed on or before the date stated in Appendix-A to Bid. The Bidder shall take in to consideration the following mandatory sections of works while preparing the schedule;

Section of Works

<u>Time for Completion from the receipt of Engineer's Notice to Commence</u>

The Bidder provide as Appendix-E to Bid his Construction Schedule in the bar chart from 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 any section of the Works meets the Employer's completion targets in Months noted below and counted from the date of issue of Engineer's Notice to Commence (Bidder to attach sheets as required for the specified form of Construction Schedule):

<u>Description</u> <u>Time for Completion</u>

Whole Works 12 Months

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 indicating 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. The method of executing the Works, the procedures for installation of equipment and machinery and transportation of equipment and materials to the site and providing all services including but not limited to supply of power, water, maintanace of facilities, safety and security and all what is required for completion works in accordance with the contract.
- 4. Quality control / Quality assurance measures to be adopted.
- 5. The bidder while preparing his methodology for performing and executing the works shall also consider the following:
 - a. The timely completion of the project as per the time provided in Appendix-A to this bid.
 - b. The contractor may carryout construction work at site in multiple shifts. If the contractor opts to schedule his work program in more than single shift then he shall take into consideration that all costs releated to the superintendence to be provided by the Engineer and his staff during any such additional shift(s) shall be borne by the contractor.
 - c. The contractor shall also elaborate the harnessing of additional resources in case of delay in completion / meeting the scheduled progress of work as per approved Program.

LIST OF MAJOR EQUIPMENT – RELATED ITEMS

The Bidder will provide on Sheet 2 of this Appendix 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 which shall be in sufficient detail to demonstrate fully that the equipment will meet all requirements of the Specifications.



LIST OF MAJOR EQUIPMENT

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

Note: Data provided hereunder will be scrutinized for general conformity with requirements of Bidding Documents. Acceptance of bid will not mean acceptance of these data. The Bidder will have to submit detailed equipment submittals for approval of the Engineer in accordance with the particulars of items specification later after award of Contract. Failure to complete these forms may make the bid non-responsive.

Typewritten technical data on loose sheets if submitted by the Bidder will not be considered and will he simply ignored.

Technical catalogues are required only to substantiate the data provided in these forms. Catalogues of equipment not listed in these forms shall not be submitted and if submitted, will be ignored. Acceptance of Bid will not mean the acceptance of information given in those catalogues.

1.	Make
2.	Country of manufacture

CONSTRUCTION CAMP AND HOUSING FACILITIES

The Contractor in accordance with Clause 34 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.

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.

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) 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.).

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.

Part of Works (Give Details)	Subcontractor (With Complete Address)
1	2

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 Pakistani Rupees:

Quarter/ Year/ Period	Amounts (1,000 Rs.)
1	2
1 st Month	
2 nd Month	No. 00
3 rd Month	
4 th Month	
5 th Month	
6 th Month	
7 th Month	
8 th Month	
n- Month	
Bid Price	

ORGANIZATION CHART FOR THE SUPERVISORY STAFF AND LABOUR



(INTEGRITY PACT)

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS. 10.00 MILLION OR MORE

Contract No	Dated	
Contract Value:		
Contract Title:		
induced the procurement Government of Pakista	t of any contract, right, i	olier] hereby declares that it has not obtained or nterest, privilege or other obligation or benefit from trative subdivision or agency thereof or any other orrupt business practice.
has fully declared the b agreed to give and shall or indirectly through an consultant, director, pro- bribe, finder's fee or kic obtaining or inducing the	rokerage, commission, for not give or agree to give y natural or juridical per omoter, shareholder, spot ekback, whether described ne procurement of a contraction	, [name of Supplier] represents and warrants that it ees etc. paid or payable to anyone and not given or to anyone within or outside Pakistan either directly rson, including its affiliate, agent, associate, broker, onsor or subsidiary, any commission, gratification, d as consultation fee or otherwise, with the object of tract, right, interest, privilege or other obligation or that which has been expressly declared pursuant
arrangements with all p	ersons in respect of or re	nd will make full disclosure of all agreements and clated to the transaction with GoP and has not taken ent the above declaration, representation or warranty.
making full disclosure, a declaration, representati obligation or benefit obt	misrepresenting facts or to on and warranty. It agree ained or procured as afor	I strict liability for making any false declaration, not taking any action likely to defeat the purpose of this es that any contract, right, interest, privilege or other resaid shall, without prejudice to any other rights and act or other instrument, be voidable at the option of
to indemnify GoP for an and further pay compens gratification, bribe, find	ny loss or damage incurr sation to GoP in an amous er's fee or kickback gives to the procurement of any	ed by GoP in this regard, [name of Supplier] agrees ed by it on account of its corrupt business practices nt equivalent to ten time the sum of any commission, n by [name of Supplier] as aforesaid for the purpose contract, right, interest, privilege or other obligation
		Bidder / Contractor:e:

LIST OF RECOMMENDED MANUFACTURERS

The manufacturer references provided here below are indicative of minimum quality and specifications 'required for such materials. Any other manufacturer items having at least the same quality and specifications are acceptable subject to the approval of the Employer/Engineer).

The Contractor should note that only material from those manufacturers specified in the list of recommended manufacturers shall bet allowed to be used on this Project. The Contractor shall submit literature/catalogue/saluples etc. of all the items from each of the specified manufacturer to the Engineer who shall then decide and approve the sample and the manufacturer. Where the item involves any finishes such as paints, external coatings, etc. The Contractor shall erect mock-up samples of the specified manufacturers for the selection and approval of the Engineer.

The responsibility lies with the Contractor for establishing the genuineness of any material/product/items for its make and origin as specified below or any other specified by C&W/PHED/Irrigation Standarization Committee:

CIVIL V	WORKS		
S.No	Item		Manufacturer(s) / Supplier(s)
1.	Sand, Chrushed stone Aggregate	i. ii. iii.	Margalla Lawrencepur Khanpur
2.	Steel Reinforcement	i. ii. iii. iv. v.	Nomi Islamabad FF Lahore Zia Or any other soure Approved by C&W Dept.
3.	Cement	i. ii. iii. iv.	Cherat Cement Askari Cement Kohat Cement Lakki or any other soure Approved by C&W Dept
8.	Concrete Pavers	i. ii. iii.	Primecrete Tuff Pavers Envicrete Or Approved equivalent
9.	Concrete Blocks / Tuff Tiles	i. ii. iii. iv.	Bannu Mukhtar Primecrete Pever Craft Supercrete Or approved equivalent
PIPE W	ORKS (If any)		
1.	High Density Polyethylene (HDPE) Pipes	i. ii. iii. iv. v.	Dadex Or equivalent approved by PHED
2.	Fittings		As recommended by the manufacturer
3.	G.I Pipes	i. ii. iii.	IIL Jamal Bashir or equivalent approved by PHED
4.	PPRC Pipes and Fittings if specified	i.	Dadex (Polydex)

	in BOQ.	ii.	Alpho
	ш вод.		Alpha Polo
		111.	
		1V	Pak Light
		v.	Papular
		V1.	Plasco
		vii.	Care Pipe Or equivalent approved by PHED
		i.	SCON
_	Coto Waleson and Chaire Waleson	ii.	KITZ
5.	Gate Valves and Sluice Valves	iii.	TOYO
			Or equivalent approved by PHED
		i.	
		11.	
_		111.	Dadex or
6.	uPVC Pipes and Fittings	iv	Or equivalent approved by PHED
		v.	or equivalent approved by TTEE
		vi.	
		vii.	
		i.	Tepu
		ii.	Master Key Engineering Works
7.	CI Pipes and Fittings	iii.	KSA & Sons
		iv.	Alpine
		v.	CME Or approved equivalent
		i.	SCON
8.	CI Gate Valves	ii.	NIKO
		iii.	KITZ (Japan) Or approved equivalent
		i.	Shalimar OR
9.	RCC Pipes		As per technical specifications and as
			approved by the Engineer
		i.	NAFFCO (UAE)
10.	Fire Extinguishers	ii.	SFFECO (UAE)
		iii.	Fesco Or approved equivalent
		i.	Porta (China)
		ii.	ICL (China)
11.	Sanitary Fixtures	iii.	Bosch
11.	Zumung I municip	iv.	Master
		v.	IFO Or approved equivalent
		i.	Sonex
12.	Sanitary Fitting	ii.	Master
12.	Samtary 1 Itting	iii.	Faisal
		i.	KSB
12	Dumns	ii.	HMA
13.	Pumps	11.	
			Or equivalent approved by PHED
14.	Stain less Steel sink	i.	Atlas
		11.	Super Asia Or approved equivalent

NOTE: The bidder should note that only equipment/materials from the above approved manufacturers or approved equal shall be allowed to be used on this project provided their products meet the specified requirements. All equipment/materials must be supplied from authorized/sole distributors. Manufacturer's authorization certificate in original must be provided.

Authorized Signature and official Seal:	
Name:	

Date:

FORMS BID SECURITY PERFORMANCE SECURITY CONTRACT AGREEMENT MOBILIZATION ADVANCE GUARANTEE

BID SECURITY (Bank Guarantee)

Security Executed on		
	(Date)	
Name of Surety (Bank) with Address:		
	(Scheduled Bank in Pakis	
Name of Principal (Bidder) with Address		
Penal Sum of Security Rupees	(Rs	
Bid Reference No.		
KNOW ALL MEN BY THESE PRESENT	ΓS, that in pursuance of the terms of	of the Bid and at the
request of the said Principal (Bidder) we, the	ne Surety above named, are held an	nd firmly bound unto
(hereinafter called the 'Employer') in the surtruly to be made, we bind ourselves, our heiseverally, firmly by these presents.		
THE CONDITION OF THIS OBLIGATION accompanying Bid dated for Bid N		
Employer; and		,
WHEREAS, the Employer has required as	s a condition for considering said	Bid that the Bidder
furnishes a Bid Security in the above said subank duly counter-guaranteed by a Schedul	um from a Scheduled Bank in Pakis	tan or from a foreign
under:		
(1) that the Bid Security shall remain in	n force up to and including the da	ate 28 days after the

- (1) that the Bid Security shall remain in force up to and including the date 28 days after the deadline for validity of bids as stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Surety is hereby waived;
- (2) that the Bid Security of unsuccessful Bidders will be returned by the Employer after expiry of its validity or upon signing of the Contract Agreement; and
- (3) that in the event of failure of the successful Bidder to execute the proposed Contract Agreement for such work and furnish the required Performance Security, the entire said sum be paid immediately to the said Employer pursuant to Clause 15.6 of the Instruction 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.

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 be the sole and final judge for deciding 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 (Bank)
WITNESS:	Signature
1	 Name
	 Title
Corporate Secretary (Seal)	Corporate Guarantor (Seal)
2.	
Name, Title & Address	

FORM OF PERFORMANCE SECURITY / BOND (Bank Guarantee)

	Guarantee No
	Executed on
[Letter by the Guarantor to the Employer]	Expiry date
[Letter by the Guarantor to the Employer]	
Name of Guarantor (Bank) with address:	
	(Scheduled Bank in Pakistan)
Name of Principal (Contractor) with address:	
Penal Sum of Security (express in words and figure	es)
Letter of Acceptance No.	Dated
Documents and above said Letter of Acceptance	that in pursuance of the terms of the Bidding te (hereinafter called the Documents) and at the above named, are held and firmly bound unto the (hereinafter called the Employer) in
•	payment of which sum well and truly to be made to xecutors, administrators and successors, jointly and
Employer's above said Letter of Acceptance for	SUCH, that whereas the Principal has accepted the
(Name of Contract) for the	(Name of
Project).	
undertakings, covenants, terms and conditions of t said Documents and any extensions thereof that a notice to the Guarantor, which notice is, hereby, fulfill all the undertakings, covenants terms and modifications of said Documents that may hereaf	r) shall well and truly perform and fulfill all the he said Documents during the original terms of the may be granted by the Employer, with or without waived and shall also well and truly perform and d conditions of the Contract and of any and all ter be made, notice of which modifications to the on to be void; otherwise to remain in full force and iability, of Conditions of Contract are fulfilled.
liability attaching to us under this Guarantee t	to the sum stated above and it is a condition of any that the claim for payment in writing shall be Guarantee, failing which we shall be discharged of
We,	(the Guarantor), waiving all objections and
Employer without delay upon the Employer's first without requiring the Employer to prove or to sho sums up to the amount stated above, against the E	ably and independently guarantee to pay to the st written demand without cavil or arguments and w grounds or reasons for such demand any sum or imployer's written declaration that the Principal has the Contract which payment will be effected by the
PROVIDED ALSO THAT the Employer shall be	the sole and final judge for deciding 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.

Witness:		Guarantor (Bank)
1	_	Signature
Corporate Secretary (Seal)		Name
2	-//	
Name, Title & Address		Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

THIS	CONTRACT	AGREEMENT day		called the(month)	"Agreement") 20	made on the between (hereafter
		') of the one part '') of the other part				•
by the	Contractor and	oyer is desirous th has accepted a Bi ring of any defects	d by the Cont	orks, viz ractor for the	execution and co	ould be executed empletion of such
NOW	this Agreement	witnesseth as follo	ows:			
1.	_	nent words and ex m in the Condition	•		_	s are respectively
2.		documents after Bidders shall be				
	(b) The L (c) The co (d) Specia (e) The P (f) The G (g) The p (h) The co (i) The D	contract Agreement etter of Acceptant ompleted Form of al Stipulations (Aparticular Conditions in General Conditions ompleted Appenditude of	ce; Bid; ppendix-A to l ns of Contract s – Part I; tities (Appendices to Bid (B.	t – Part II; lix-D to Bid);		
3.	mentioned, the	n of the payments Contractor hereb nedy defects there	y covenants v	vith the Emp	loyer to execute	and complete the
4.	completion of sum as may b	hereby covenants the Works as per ecome payable un bed by the Contra	provisions of or the prov	the Contract	, the Contract Pr	rice or such other
		EOF the parties he efore written in ac		_		uted on the day,
Signat	ture of the Conta	ctor	Signature	e of Employer	ŗ	
(Seal)			(Seal)			

Signed, Sealed and Delivered in the pro-	esence of:	
Witness:	Witness:	
(Name, Title and Address)	(Name, Title and Address)	

MOBILIZATION ADVANCE GUARANTEE

Guarantee No	Date	e				
WHEREAS	(hereinafter called	the 'Emplo	yer') has	entered i	nto a Contra	ct for
with	(Particulars of the "	,				
	ne Employer has agreed to adveestractor as per provisions of the				Contractor's re h amount sha	
mobilization advance	the Employer has asked the e for the performance of his of	e Controcto ligations ur	t la fun la er la e	nsh Guara aid Contra	ntee to secur	re the
AND WHEREAS, (Scheood (Sc	duled Bank in Pakis Cor insulation (Guarastor") of the requestor make the above idvance	no Company ext of the Cont	acceptable contractor, h	ole to the En r and in co as agreed	nployer) onsideration of to furnish the	of the
the purpose of a over his obligations for a	Et the Gurranton hereby gurranton hereby gurranton hereby gurranton and if he herby he advance payment is reeding the aforementioned amore the second the aforementioned amore second the aforementioned amore second the aforementioned amore second the aforementioned amore second to the second the aforementioned amore second to the second the	e fails and on the fails and on the fails and on the fails and the fails	commits	default in f	fulfilment of a	any of
of the Contractor, shapayment shall be made	any default, of which the Empall be given by the Employer ade by the Guarantor of all tractor and without any object.	to the Guara	ntor, and	l on such fi	irst written der	mand,
	remain in force until the adent Certificates c	of the hichever is	C earlier.	_		
The Guarantor's liab	oility under this Guarantee s		=			upees
aforesaid date or ear from Interim Payme	I remain valid up to the afortier if the advance made to ent Certificates of the Contravalidity shall be deemed to not fully adjusted.	the Contractor provid	tor is fu ed that	lly adjusted the Guaran	d against pay ntor agrees the	ments at the
	1. 2. 3.	GUARAN Signature Name Title				

Corporate Secretary (Seal)	
Name Title & Address)	Corporate Guarantor(Seal)

TECHNICAL EVALUATION CRITERIA

TECHNICAL EVALUATION CRITERIA

S.No	Description	Maximum Marks
1	EXPERIENCE	30
i)	Incorporation of the Company and address of the Registered Office.	5
ii)	Executed Projects Similar nature upto 200 (M) in last 5 years (03 marks Per Project)	15
iii)	Similar nature Present Work Load upto 200 (M) (2.5 marks per Project)	10
2	FINANCIAL STATUS	10
i)	Currently dated Credit Facility offered by the Bank, 2 marks for each 300 Million.	4
ii)	Income Tax Return for the last 3 years including the most recent submission (no mark will be given if missing one ore more)	3
iii)	Audited reports with Annual Turnover for the last 3 years (equal or more than 500 M) no mark will be given if missing one ore more	3
3	EQUIPMENTS	16
i)	Dumper Trucks / trolly = 03	1
ii)	Concrete Mixer Machine = 04	1
iii)	Hand Roller / Compactor = 03	1
iv)	Water Boozers = 03	1
v)	Pipe leakages testing machine = 03	2
vi)	Excavator = 03	1
vii)	Concrete Hoist/Lift machine	1
viii)	Road/Pavement Cutter machine = 3	1
ix)	Butt Fusion/HDPE pipe jointing machine = 1	2
x)	Personal Protective Equipment sets = 10	1
xi)	Concrete Vibrator = 04	1
xii)	Survey Equipment = 03	1
xiii)	Formwork = 15,000 Sft	1
xv)	Diesel Generator = 03	1

S.No	Description	Maximum Marks
4	PERSONNEL	20
i)	Organization Chart	1
ii)	Project Manager, BE Civil (PEC Registered) with 15 Years Experience	3
iii)	HSE Manager, 10 years Experience with HSE Certificate (if BE, 08 Years Experience)	3
iv)	Planning Engineer, BE Civil (PEC Registered) with 10 years Experience	2
v)	Site Engineers, 3 Nos. BE Civil (PEC Registered) with 05 years / Associate Eng. with 10 years' Experience	2
vi)	QA/QC Engineer 3 Nos, BE Civil (PEC Registered) with 08 years / Associate Eng. with 15 years' Experience	2
vii)	3 Nos. Surveyor, Associate Eng. with 05 years' Experience	2
viii)	Quantity Surveyor 2 Nos, Associate Eng. with 05 years' Experience	2
ix)	Materials Engineer 3 Nos, BE Civil with 05 years'/Associate Eng. With 10 years' experience.	2
x)	Accountant	1
5	OTHERS	24
i)	Proposed Methodology	8
ii)	Proposed Work Schedule (for 12 Months time period) prepare by primavera	6
iii)	QA/QC Manual	5
iv)	HSE Manual	5
Total	Marks	100

• For each bidder, it is essential to obtain minimum 70% total marks and manimum 50% marks in each category of the criteria, points to be technically qualified and eligible for opening of his financial proposal.

Mandatory Requirement:

- The Contractor must clearly mention the "NAME OF WORK" against which he applies.
- Each page of the post-qualification Documents (clear & readable) of the Applicant must be signed and stamped by the duly authorized representative of the Applicant.
- Valid registration with Pakistan Engineering Council (PEC) with relevant codes of specialization and in relevant category (C-3 and above) with valid certificate for year 2024-25
- Enlistment Renewal with Public Health Engineering (PHE) and Irrigation Departments, Khyber Pakhtunkhwa.
- Registered with KPRA

- Affidavit of "Non-blacklisting" on stamp paper prepared within the current month for submission of prequalification documents
- The contractor should provide proof of non-involvement in any Court case with the Department.
- The Contractor should provide the ownership documents of the fleet (Vehicles & Machinery)/stamp paper.
- In case of a Joint Venture, a Joint Venture agreement on the stamp paper has to be signed by the Joint Venture Firms / partners and each of whom will be jointly and severally liable to the Client for all the Consultant's obligations under the Contract. Further the JV shall nominate a Representative by submitting power of Attorney signed by legally authorized signatories of all the joint venture partners who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the contract, during contract execution. Also all members of Jv must be registered with PEC and renewed upto June 2025.
- The proposal shall be in book binding form, properly page numbered (Loose, Ring and Spring binding not acceptable).

Note: The Documents provided by the contractor will be thoroughly checked and the Firm providing fake documents shall be recommended for blacklisting under relevant clause of KPPRA / PEC. For each bidder, it is essential to complete the mandatory requirments, otherwise incompletion of mandatory requirement must be clearly considered non-responsive and will not be eligible for evaluation.

BILL OF QUANTITIES (BOQs)

BILL OF QUANTITY						
N/	NAME OF PROJECT : CONSTRUCTION OF NEW LINES OF WATER SUPPLY AND SEWERAGE SYSTEM IN MTI-ABBOTTABAD					
	DRAINAGE SYSTEM					
	GENERAL AB	STRACT OF BID COST				
S.No	Descriptions	BOQ Cost Rs.	Remarks			
1	Schedule Item (MRS-2022-bi)	148,136,135.837				
2	Non-Schedule Item	0.000				
	GRAND TOTAL COST 148,136,135.837					
	Add:	% Above/Below (in Words)				
	Add :% Above/Below (in Figure)					
Total Bid Amount in Words:						
Sign & Seal of the Bidder:						



01- Drain Summary Cost Page 1 of 20

NAME OF PROJECT : CONSTRUCTION OF NEW LINES OF WATER SUPPLY AND SEWERAGE SYSTEM IN MTI-ABBOTTABAD

Drain Summary of Cost			
S.No.	Descriptions	No	MRS 2022 Bi
1	Drain	1	42,508,804.877
2	R.C.C Culvert	1	4,556,612.490
3	R.C.C Slab For Open Drain	1	1,708,876.002
4	Dismentling Of Under Size drain	1	3,821,180.000
5	Dismentling Of Footh Path	1	1,286,870.585
6	Out Fall Structure Works	1	2,348,708.270
7	R.C.C Retaining Wall	1	55,571,944.020
8	Drain Crossing Of Road	1	402,105.000
9	Dressing Slops Of Drains	1	791,000.000
10	Extra Excavation And P.C.C (1:3:6) Retaining wall For Drain	1	7,960,527.335
11	Diversion Of Existing Flow	1	2,889,739.000
12	Cleaning of outside Drain/ Rehabilitation of Culvert	1	2,928,161.836
13	Small Bore Hole (6 Nos) / Under Ground Tank (6 Nos)	1	5,996,621.760
14	Grouting In Main Entrance	1	370,728.280
	COST Rs. (A)	Rs.	133,141,879.454
	COST FACTOR 3%	Rs.	3,994,256.384
	TOTAL COST Rs. (A)	Rs.	137,136,135.837
Reallocation of Utilities (B)			5000000.000
Restoration of Road /Streets (C)			6000000.000
GRAND TOTAL AMOUNT (A+B+C)			148136135.84
IN MILLION			148.14



NAME OF PROJECT: CONSTRUCTION OF NEW LINES OF WATER SUPPLY AND SEWERAGE SYSTEM IN **MTI-ABBOTTABAD Drain Detail** 1. Type Drain IV **Node No** Length Rate Quantity Unit **Amount in Rs** 12-13 200 200 Rft 75 75 Rft Total= 275.00 Rft <u>275</u> Or= Meter <u>83.816</u> Rate= 1213.53 Meter 101713.121 83.816 2. Type Drain V **Node No** Unit Length Rate Quantity 21-22 300 300 Rft 28-29 150 150 Rft 39-40 320 320 Rft 40-42 200 200 Rft 42-44 150 150 Rft 53-54 150 150 Rft 55-54 75 75 Rft Rft 54-56 40 40 57-56 Rft 225 225 72-71 115 115 Rft 110-109 525 525 Rft 112-111 415 415 Rft Total= 2,665.00 2,665.00 Rft Or= Meter 812.252 Rate= 3386.85 812.252 Meter 2750976.913 3. Type Drain VI **Node No** Quantity Unit Length Rate Rft 2-2 265 265 Rft 12-14 115 115 29-31 Rft 50 50 31-33 40 40 Rft 37-37 340 Rft 340 50-48 415 415 Rft Total= 1,225.00 1,225.00 Rft

373.362

Meter

Or =

	Rate=	-	4015.65	<u>373.362</u>	Meter	1499290.232
4. Type Drain VII						
	Node No	Length	Rate	Quantity	Unit	
	18-20	225	-	225	Rft	
	84'-83'	1200	-	1200	Rft	
	74-73	245	-	245	Rft	
	Total=	1,670.00	-	1,670.00	Rft	
	Or =	-	-	<u>508.991</u>	Meter	
	Rate=	-	<u>4020.4</u>	<u>508.991</u>	Meter	2046348.065
5. Type Drain VIII						
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Node No	Length	Rate	Quantity	Unit	
	14-10	260	-	260	Rft	
	41-69	300	-	300	Rft	
	Total=	560.00	-	560.00	Rft	
	Or =	-	-	<u>170.680</u>	Meter	
	Rate=	-	<u>5002.91</u>	<u>170.680</u>	Meter	<u>853895.032</u>
6. Type Drain IX						
	Node No	Length	Rate	Quantity	Unit	
	20-16	675	-	675	Rft	
	33-35	150	-	150	Rft	
	56-58	170	-	170	Rft	
	58-52	225	-	225	Rft	
	44-46	825	-	825	Rft	
	Total=	2,045.00	-	2,045.00	Rft	
	Or =	-	-	623.286	Meter	
	Rate=	-	<u>5688.48</u>	623.286	Meter	3545547.577
7. Type Drain X						
	Node No	Length	Rate	Quantity	Unit	
	35-37	450	-	450	Rft	
	37-27	225	-	225	Rft	
	115-113	225	-	225	Rft	
	Total=	900.00	- -	900.00	Rft	
	Or =	-	_	274.307	Meter	
	Rate=	-	<u>6262.33</u>	<u>274.307</u>	Meter	<u>1717798.537</u>
8. Type Drain XI						
o. Type Diam Al	Node No	Length	Rate	Quantity	Unit	
	52-46	Lengtn 115	nate	Quantity 115	Rft	
	46-38	115	<u>-</u>	115	Rft	
	46-38 103-122	750	<u>-</u>	750	Rft	
	Total=					
		980.00	-	980.00	Rft	
	Or =	-	-	<u>298.689</u>	Meter	2467265 422
	Rate=	-	<u>7256.25</u>	<u>298.689</u>	Meter	<u>2167365.133</u>



	Node No	Length	Rate	Quantity	Unit	
	2-2"	225	Rate	225	Rft	
			-			
	89-93	340	-	340	Rft	
	95-97	575		575	Rft	
	Total=	1,140.00	-	1,140.00	Rft	
	Or =	-	-	<u>347.455</u>	Meter	
	Rate=	-	<u>7964.80</u>	<u>347.455</u>	Meter	2767409.93
0. Type Drain XIV						
	Node No	Length	Rate	Quantity	Unit	
	10-2"	420		420	Rft	
	122-120	75		75	Rft	
	Total=	495.00		495.00	Rft	
	Or =	_	_	<u>150.869</u>	Meter	
			0470 20			4.420760.24
	Rate=	-	<u>9470.28</u>	<u>150.869</u>	Meter	1428768.24
1. Type Drain B						
	Node No	Length	Rate	Quantity	Unit	
	2"-2""	225		225	Rft	
	Total=	225.00	-	225.00	Rft	
	Or =	-	-	<u>68.577</u>	Meter	
	Rate=	-	<u>11721.61</u>	<u>68.577</u>	Meter	803828.787
2. Type Drain D						
	Node No	Length	Rate	Quantity	Unit	
	16-22	170		170	Cft	
	22-24	190		190	Cft	
	24-26	150		150	Cft	
	26-27	170		170	Cft	
	27-38	525		525	Cft	
	38-124	80		80	Cft	
	120-124	375		375	Cft	
	65'-80	150		150	Cft	
	80-81'	190		190	Cft	
	81'-82'	40		40	Cft	
	82'-83'	210		210	Cft	
	113-118	225		225	Cft	
	118-120	425		425	Cft	
	_	1195		1195		
	Total=	4,095.00	-	4,095.00	Cft	
	Or =	-	-	<u>1248.095</u>	Meter	
	Rate=	-	<u>13830.30</u>	<u>1248.095</u>	Meter	17261529.50
3. Type Drain G						
<u>,, </u>	Node No	Length	Rate	Quantity	Unit	
	124-O/F	450		450	Cft	
	83'-O/F	650		650	- • -	
	Total=	1,100.00		1,100.00	Cft	
	Or =	-,	_	<u>335.264</u>	Meter	
	Rate=	-	16596.89	335.264	Meter	5564333.74
				\sqrt{I}		
				EN CONSULTANTS	G.Total In Million	42508804.8 42.509
				SUBMENO ARCH LECTS I DESIGN ENGINEERS		
				STRUCTU ENCINEERS LIDWN PLANNERS		

R.C.C CULVERTS

	N.O.O COLVENTO									
S.No.	Descriptions	Unit	Qty:	Rate	Amount					
1	Culverts on Type V Drain	No.	2	59177.33	118354.66					
2	Culverts on Type VII Drain	No.	1	67851.34	67851.34					
3	Culverts on Type VIII Drain	No.	1	75585.87	75585.87					
4	Culverts on Type IX Drain	No.	2	78838.31	157676.62					
5	Culverts on Type X Drain	No.	1	85918.09	85918.09					
6	Culverts on Type XII Drain	No.	1	94740.88	94740.88					
7	Culverts on Type XIII Drain	No.	1	107272.08	107272.08					
8	Culverts on Type XIV Drain	No.	2	124181.13	248362.26					
9	Culverts on Type B Drain	No.	1	160078.51	160078.51					
10	Culverts on Type D Drain	No.	14	204167.53	2858345.42					
11	Culverts on Type G Drain	No.	2	291213.38	582426.76					
	-			TOTAL	4,556,612.49					
	In Million 4.5566									



	QUANTITY OF R.C.C SLABS OVER DRAIN										
S.No.	TYPE OF DRAIN	TOTAL LENGTH OF DRAIN	NO. OF SLABS REQUIRED LENGTH X 25%	LENGTH OF SLAB	WIDTH	THICKNESS	QTY: OF R.C.C				
1	IV	83.82	21.00	1.098	0.640	0.114	1.68				
2	V	812.25	203.00	1.272	0.640	0.114	18.84				
3	VI	373.36	93.00	1.358	0.640	0.114	9.91				
							30.44				
							М3				

S.No.	SCH: NO.	ITEM	UNIT	SCH: RATE	QTY:	COST
1	06-07-b-03	R.C.C (1:2:4)	M3	14,653.95	33.44	490028.09
2	06-08-c	Mild steel Reinforcement 125 kg per M3 of RCC Qty:	TON	291,590.41	4.18	1218847.91
					Total	<u>1708876.00</u>
					Sy in Million	<u>1.709</u>



Dismentling	٥f	under	Size	drain
DISHICHLING	vı	ulluel	3120	uranı

MRS No.	Discription	Node No.	Length	W/B	H/D	Qty:	Unit	Rate	Amount
		11-12				200	Sft	3,869.08	
		13-12				75	Sft	3,869.09	
		12-14				115	Sft	3,869.10	
		15-14				40	Sft	3,869.11	
		14-10				260	Sft	3,869.12	
		2"-16				5355	Sft	3,869.13	
		18-20				450	Sft	3,869.14	
		21-20				600	Sft	3,869.15	
		20-16				1350	Sft	3,869.16	
		16-22				2380	Sft	3,869.17	
		22-24				2660	Sft	3,869.18	
		24-26				2100	Sft	3,869.19	
		26-27				2380	Sft	3,869.20	
		28-29				225	Sft	3,869.21	
		29-31				75	Sft	3,869.22	
		31-33				40	Sft	3,869.23	
	4:	33-35				1050	Sft	3,869.24	
	7.	35-37				3150	Sft	3,869.25	
	Dismantling : Plain Cement Concrete 1:2:4	37-37				340	Sft	3,869.26	
	ouc	37-27				1800	Sft	3,869.27	
	č	39-40				480	Sft	3,869.28	
ų	nen	50-48				621	Sft	3,869.29	
04-19-с	Cer	53-54				225	Sft	3,869.30	
ŏ	äi	55-54				114	Sft	3,869.31	
	<u></u>	54-56				100	Sft	3,869.32	
	ug	57-56				225	Sft	3,869.33	
	풀	56-58				425	Sft	3,869.34	
	em.	58-52				565	Sft	3,869.35	
	Ď.	72-71				174	Sft	3,869.36	
		71-69				1350	Sft	3,869.37	
		74-73				490	Sft	3,869.38	
		80-81				1500	Sft	3,869.39	
		81-79				850	Sft	3,869.40	
		89-93				3060	Sft	3,869.41	
		95-97				5166	Sft	3,869.42	
		110-109				1050	Sft	3,869.43	
		109-111				400	Sft	3,869.44	
		112-111				830	Sft	3,869.45	
		111-113				2100	Sft	3,869.46	
		115-113				339	Sft	3,869.47	
		113-118				2260	Sft	3,869.48	
		118-120				4250	Sft	3,869.49	
		123-122				750	Sft	3,869.50	
		122-120				75	Sft	3,869.51	
		120-124				3760	Sft	3,869.52	



 27902
 0.50
 13951
 Cft
 3,869.08

 27902
 0.75
 20926.5
 Cft
 3,869.08

 Total = 34877.5
 Cft

Or = 987.619 M3 3,869.08 3821177.663

Say = 3821180

In Million = 3.82118

	Dismentling of footh path (PCC 1:2:4)										
MRS No.	Discription	Length	W/B	H/D	Qty:	Unit	Rate	Amount			
04-19-c	Dismantling : Plain Cement Concrete 1:2:4				2,400.00	Cft	3869.08				
		Total =			2400	Cft					
				Or =	67.950	М3	3869.08	262904.6433			

	<u> </u>	Re-Construction of Footh P	ath_			Re-Construction of Footh Path									
06-05-f	Plain Cement Concrete including placing, compacting, finishing &		1,584.00	Cft	12745.86										
	curing (Ratio 1:2:4)	Total =	1584	Cft											
		Or =	44.85	М3	12745.86	571615.0125									
10-49-с	Providing and Fixing Precast Concrete 7000 psi TUFF Tiles 60mm thick over bed of 2\" thick sand		4,800.00	Sft	1014.02										
		Total =	4800	Sft											
		Or =	446.10	M2	1014.02	452350.9294									

Total = _ ^{1,286,870.59}

Say = 1,286,870.59

In Million = 1.287



SUB HEAD: CONSTRUCTION OF HOSPITAL MAIN BUILDING

ENGINEER'S COST ESTIMATE

06: OUT FALL STRUCTURE WORKS

		00.0011ALL 3110	01011L	***************************************		
S.No	MRS 2022 bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)
		SCHEDULE	ITEMS			
1	03-25-b	Excavation in foundation of building, bridges etc complete : in ordinary soil	m3	50.96	312.82	15,941.31
2	03-24	Dressing of earthwork (done by machinery or otherwise & left undressed) to designed section	m2	27.88	14.47	403.42
3	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	35.67	105.24	3,753.91
4	03-67-d	tructural Backfill using Granular Material m3 56.63			1,249.28	70,746.73
5	07-30	Supplying and filling sand under floor or plugging in wells	m3	268.97	1,571.12	422,584.15
6	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	4.25	9,237.44	39,259.12
7	06-07-b-03	RCC in raft foundation slab, base slab of column & ret. wall etc, not including in 06-06. (1:2:4)	m3	64.06	14,653.95	938,732.04
8	06-08-b	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	Tonne	1.26	303,740.41	382,712.92
9	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8), (Sub Floor)	m3	15.10	9,237.44	139,485.34
10	04-19-b	Dismantling : Plain Cement Concrete 1:3:6	m3	3.62	3,165.61	11,459.51
11	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4), (Under Floor)		1.54	12,745.86	19,628.62
12	10-47-c	Providing and Fixing marble strip 1.5 inch wide 3/8 inch thick for dividing the floor into panels	m	121.95	100.75	12,286.46
13	10-41-b-02	Mosaic dado or skirting complete as per specs Using white cement : 1/2" thick including grinding and polishing	m2	195.17	1,494.67	291,714.74
			В ТОТА	L OF (S.I)	= Rs.	2,348,708.27
				in Million	= Rs.	2.349



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RCC RETAINING WALL

S.No	MRS 2022 Bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)
		SCHEDULE	ITEMS			
1	03-25-b	Excavation in foundation of building, bridges etc complete : in ordinary soil	m3	815.40	312.82	255,073.43
2	03-19-a x 17 + 03-20- a+bx2	Transportation of earth all types for every 15 m extra lead or part thereof beyond 255 m and upto 1500 m.	m3	244.62	428.77	104,885.72
3	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	570.78	105.24	60,068.89
4	07-30	Supplying and filling sand under floor or plugging in wells	m3	135.90	1,571.12	213,515.21
5	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	135.90	9,237.44	1,255,368.10
6	06-07-b-03	RCC in raft foundation slab, base slab of column & ret. wall etc, not including in 06-06. (1:2:4)	m3	271.80	14,653.95	3,982,943.61
7	06-07-a-02	RCC in roof slab, beam, column & other structural members, insitu or precast. (1:1.5:3)	m3	339.75	16,726.29	5,682,757.03
8	06-08-b	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	tonne	144.07	303,740.41	43,758,464.15
9	06-46-b	Erecting & removing formwork to concrete in any shape / position (Vertical)	m2	228.84	710.56	162,602.57
10	03-31	Extra for slush or daldal including dewatering	m3	312.57	307.98	96,265.31
		Total	55,571,944.02			
					Say	55,571,944.02
					in Million	55.572



N	AME OF PROJI	ECT : CONSTRUC	TION OF NEW LI	NES OF WA		PPLY AND SI	EWERAGE SYS	TEM IN MTI-
				rossing Of				
Disr	nentling of Road	d (04-44)						
					=	183.924	M2	
	183.924	M2 @ Rs	1406.07	P.M2			= Rs	258610.36
3 No	os Crossing of R	<u>oad</u>						
1)	Common Back	fill (03-68-b)						
					=	27.589	M3	
	27.589	M3 @ Rs	238.53	P.M3			= Rs	6580.72
2)	Granular Sub	Base Course using	Pit Run Gravel (1	<u>6-04-a)</u>				
					=	27.589	M3	
	27.589	M3 @ Rs	1704.76	P.M3			= Rs	47032.00
3)	Water Bound I	Macadam Base Co	ourse (16-05-b)					
					=	27.589	M3	
	27.589	M3 @ Rs	3257.94	P.M3			= Rs	89882.12
							Tota = Rs	402105.20
							Say = Rs	402105.00
						Say In M	Iillion = Rs	0.402



Dressing Slopes of Drains

MRS No.	Discription	Type of Drain	Length	W/B	H/D	Qty:	Unit	Rate	Amount
	s etc.	IV				19.89	P.M3	196.97	
	ind roo	V				322.56	P.M3	196.98	
	veeds a	VI				165.1	P.M3	196.99	
	ing of v 5m	VII				298.64	P.M3	196.100	
	removi vithin 1	VIII				164.73	P.M3	196.101	
_	sing slopes of drains including removing Excavated material undressed within 15m	IX				452.93	P.M3	196.102	
03-04-a		х				228.41	P.M3	196.103	
		XI				277.9	P.M3	196.104	
	g slope avated	XIII				419.83	P.M3	196.105	
	Bed clearance and dressing slopes of drains including removing of weeds and roots etc. Excavated material undressed within 15m	XIV				184.48	P.M3	196.106	
		В				183.69	P.M3	196.107	
		D				916.96	P.M3	196.108	
	Bed c	G				379.38	P.M3	196.109	

Total = 4014.5 P.M3 196.97 **790736.07**

G.Total= 790736.07

Say = 791000

In Million = 0.791



Calculation for Extra Excavation & PCC 1:3:6 Retaining Wall (DS Ayub Medical Teaching Hospital)

Salculation for Extra Excavation & 1 55 1.5						T		
S#	Node no. of Drain	Length in meter	Proposed Drain Type/ Sewer size	Extra cutting in m	Width in m	Extra Excavation in m ³	Retaining wall of PCC 1:3:6	
1	7 - 6	57.3	III	0.1000	0.58	3.323	1.31	
2	6 - 8	12.19	III	0.0790	0.58	0.559	0.22	
3	9 - 8	51.82	III	0.0333	0.64	1.104	0.39	
4	4 - 10	60.95999805	XIII	0.3360	1.45	29.700	4.68	
5	11 - 12	60.95999805	IV	0.1100	0.64	4.292	1.53	
6	13 - 12	22.85999927	IV	0.0110	0.64	0.161	0.06	
7	12 - 14	35.05199888	VI	0.1340	0.9	4.227	1.07	
8	15 - 14	12.19199961	IV	0.0410	0.64	0.320	0.11	
9	14 - 10	79.24799746	VIII	0.3950	0.99	30.990	7.16	
10	10 - 2"	128.0159959	XIV	0.4390	1.5	84.299	12.85	
11	2" - 2""	68.57999781	В	0.5190	2.04	72.610	8.14	
12	2''' - 16	103.6319967	D	0.7120	2.16	159.378	16.87	
13	17 - 18	68.57999781	III	0.5770	0.58	22.951	9.05	
14	19 - 18	28.95599907	III	0.1330	0.58	2.234	0.88	
15	18 - 20	68.57999781	VII	0.5930	0.92	37.415	9.30	
16	21 - 20	91.43999707	V	0.3010	0.814	22.404	6.29	
17	20 - 16	205.7399934	IX	0.4160	1.042	89.183	19.57	
18	16 - 22	51.81599834	D	0.7710	2.16	86.292	9.13	
19	23 - 22	251.46	VII	0.1190	0.902	26.991	6.84	
20	22 - 24	57.91199815	D	0.7490	2.16	93.692	9.92	
21	24 - 26	45.71999854	D	0.6050	2.16	59.747	6.32	
22	26 - 27'	51.816	D	0.2730	2.16	30.555	3.23	
23	29 - 31	15.23999951	VI	0.0030	0.9	0.041	0.01	
24	36 - 35	68.57999781	IV	0.5020	0.64	22.033	7.87	
25	35 - 37	137.1599956	Х	0.3190	1.12	49.005	10.00	
26	37' - 37	103.6319967	VI	0.0770	0.9	7.182	1.82	
27	27' - 38	160.0199949	D	1.2200	2.16	421.685	44.63	
28	39 - 40	97.53599688	V	0.2130	0.814	16.911	4.75	
29	41 - 40	45.71999854	III	0.1830	0.58	4.853	1.91	
30	40 - 42	60.95999805	V	0.3720	0.814	18.459	5.18	
31	43 - 42	30.47999902	III	0.3240	0.58	5.728	2.26	
32	47 - 48	18.28799941	III	0.1410	0.58	1.496	0.59	
33	51 - 50	22.85999927	III	0.0070	0.58	0.093	0.04	
34	50 - 48	126.491996	VI	0.0350	0.9	3.984	1.01	
35	48 - 52	79.85759744	VIII	0.3140	0.99	24.825	5.73	
36	55 - 54	22.85999927	V	0.0160	0.814	0.298	0.08	
37	57 - 56	68.57999781	V	0.0320	0.814	1.786	0.50	
38	56 - 58	51.81599834	IX	0.0300	1.042	/ /1.620	0.36	
39	58 - 52	68.57999781	IX	0.1140	1.042	8.146	1.79	

S#	Node no. of Drain	Length in meter	Proposed Drain Type/ Sewer size	Extra cutting in m	Width in m	Extra Excavation in m ³	Retaining wall of PCC 1:3:6
40	52 - 46	35.05199888	XII	0.4530	1.35	21.436	3.63
41	46 - 38	35.05199888	XII	0.2980	1.35	14.101	2.39
42	60 - 61	149.3519952	XII	0.5340	1.35	107.668	18.23
43	61 - 63	83.81999732	XIII	0.5690	1.45	69.156	10.90
44	64 - 63	68.57999781	III	0.0860	0.58	3.421	1.35
45	63 - 65	35.05199888	XIII	0.5820	1.45	29.580	4.66
46	67 - 65	182.88	D	0.2010	2.16	79.399	8.40
47	72 - 71	35.05199888	V	0.1780	0.814	5.079	1.43
48	71 - 69	91.43999707	VIII	0.2220	0.99	20.097	4.64
49	74 - 73	74.67599761	VII	0.2450	0.902	16.503	4.18
50	76 - 75	45.71999854	V	0.2330	0.814	8.671	2.44
51	77 - 78	22.85999927	D	0.0220	2.16	1.086	0.11
52	78 - 79	22.85999927	D	0.0320	2.16	1.580	0.17
53	81 - 79	103.6319967	VIII	0.0570	0.99	5.848	1.35
54	83 - 89	103.6319967	Х	0.4950	1.12	57.454	11.73
55	92 - 91	68.57999781	V	0.1080	0.814	6.029	1.69
56	89 - 93	103.6319967	XII	0.5450	1.35	76.247	12.91
57	89 - 93	18.288	XII	0.4710	1.35	11.628	1.97
58	103 - 105	18.28799941	III	0.2210	1.042	4.211	0.92
59	106' - 107	22.85999927	V	0.0030	0.814	0.056	0.02
60	108 - 107	114.2999963	VI	0.0530	0.9	5.452	1.38
61	109 - 111	12.19199961	XII	6.0800	1.35	100.072	16.95
62	112 - 111	126.491996	V	6.0340	0.814	621.288	174.48
63	111 - 113	64.008	XII	0.0460	1.35	3.975	0.67
64	114 - 115	68.57999781	VIII	0.0150	0.99	1.018	0.24
65	113 - 118	68.57999781	XIII	0.3320	1.45	33.014	5.20
66	118 - 120	129.5399959	XIV	0.1400	1.5	27.203	4.15
67	122 - 120	22.85999927	XIII	0.2570	1.45	8.519	1.34
68	120 - 124	114.2999963	D	0.4510	2.16	111.346	11.78
	Total						532.775

1) Excavation (03-10-b) = 2901.708 M3

2) Extra BB work in (1:6) = 532.775 M3

(07-04-a-05) @ Rs. @ Rs. 12,982.95 P.M3 6,916,986

Total 7,960,527

Say in Million 7.961



<u>Diversion of existing flow</u>								
MRS No.	Discription	Length	W/B	H/D	Qty:	Unit	Rate	Amount
03-09-b	Earth excavation in open cut upto 1.5m depth for drains				104250.0	Cft	359.63	
	etc & disposal : in Hard Soil			Total =	104250	Cft		
				Or =	2952.026	М3	359.63	1061637.25
03-20-a	Transportation of earth all types beyond 250 m and upto 500 m.				104250.0	Cft	249.73	
				Total =	104250	Cft		
				Or =	2952.026	М3	249.73	737209.55
03-20-b	Transportation of earth all types for every 100m extra lead beyond 500m upto 1.5 km.				104250.0	Cft	38.69	
				Total =	104250	Cft		
				Or =	2952.026	М3	38.69	114213.90
03-07-b	Earth fill in lawns including dressing & compaction with				104250.0	Cft	330.85	
	suitable earth borrowed.			Total =	104250	Cft		
				Or =	2952.026	M3	330.85	976677.93

G.Total = 2889738.64

Say = 2889739.0

In Million = 2.890



Cleaning of outside Drain/ Rehabilitation of Culvert									
MRS No.	Discription	Length	W/B	H/D	Qty:	Unit	Rate	Amount	
03-09-b	Earth excavation in open cut upto 1.5m depth for drains				66000	Cft	359.63		
	etc & disposal : in Hard Soil			Total =	66000	Cft			
				Or =	1868.630	М3	359.63	672015.29	
03-20-a	Transportation of earth all types beyond 250 m and				66000	Cft	249.73		
	upto 500 m.			Total =	66000	Cft			
				Or =	1868.909	М3	249.73	466722.59	
03-20-b	Transportation of earth all types for every 100m extra lead beyond 500m upto 1.5				66000	Cft	38.69		
	km.			Total =	66000	Cft			
				Or =	1868.909	М3	38.69	72308.08	
03-31	Extra for slush or daldal including dewatering				66000	Cft	307.98		
	melading dewatering			Total =	66000	Cft			
				Or =	1868.909	М3	307.98	575586.53	
Details Attached	Culverts Type G				5	No	223486		
Attaclied				Total =	5	No			
				Or =	5	No	223486	1117430.00	
04-19-c	Dismantling : Plain Cement Concrete 1:2:4				220	Cft	3869.08		
	CONCICION 1.2.4			Total =	220	Cft			
				Or =	6.2287	No	3869.08	24099.34	

G.Total = 2928161.84

Say = $^{2928161.84}$

In Million = 2.928

ENGINEER'S COST ESTIMATE

13 A- SMALL BORE HOLE / UNDER GROUND TANK

	13 A- SMALL BOILL HOLL / GROUND TARK									
S.No	MRS 2022 Bi Item No.	Description of Items	Description of Items Units Quantity Item Rate (Rs)		Total Amount (Rs)					
	A- SMALL BORE HOLE									
1	24-01-c	Mobilization of equipment for drilling of small bore upto 8" dia	Job	1.00	12,083.17	12,083.17				
2	24-02-a-04	Drilling of Bore holes for tube well in all types of522soil and soft rock except hard rock from groundlevel upto 328 ft depth (0m to 100m), includingsinking, collection of 100 % corings and withdrawing of pipe, complete as per specifications.: Dia of Bore 6" (150 mm) i/d	m	22.01	2,244.82	49,401.10				
3	24-12-a-01	Providing and installing PVC blind pipe BSS522Class "B" in Tube Well Bore Hole includingSockets and Solvents and jointing with straineretc. complete : 6" Nominal Pipe Size (NPS) (150	m	22.01	1,739.54	38,280.49				
4	24-50-c-02	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 3x16 mm2	m	25.01	1,155.90	28,906.31				
5	15-02-a-06	Supply and Erection PVC pipe for wiring purpose complete On surface including clamps etc: 2" i/d	m	30.01	192.29	5,770.46				
6	15-05-c	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.029"	m	30.01	135.21	4,057.54				
7	15-10-c	Supply and Erection Sahl wood board, 1.75" deep: 7"x4"	Each	1.00	130.41	130.41				
8	15-11-a-01	Supply and Erection of iron/aluminium clad, 500V main switch Double pole : 15/20 Amp.	Each	1.00	679.95	679.95				
9	24-76-d	Providing and Fixing of Submerssible pump with motor for pressure pump 2 HP	Each	1.00	46,812.45	46,812.45				
		SUB TOTA	No (S.I)	= Rs.	186,121.88					
			n Million	= Rs.	0.186					
		TOTAL COST FOR 6	Million	= Rs.	1.117					



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ENGINEER'S COST ESTIMATE

13 B- SMALL BORE HOLE / UNDER GROUND TANK

S.No	MRS 2022 Bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)			
	B- UNDER GROUND TANK								
1	03-10-d	Earth excavation in open cut 1.5m - 3m depth for drains etc & disposal : in Gravel & shingle	m3	41.22	441.04	18,177.92			
2	06-07-a-03	RCC in roof slab, beam, column & other structural members, insitu or precast. (1:2:4)	m3	12.60	14,653.95	184,574.63			
3	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	1.98	291,590.41	577,349.01			
4	24-64	Supply and Fixing of Man Hole cover made of Angle iron fram 2'x2' size.	Each	1.00	2,295.45	2,295.45			
5	14-28-d	Providing and fixing gun metal peet / gate valve (screwed) 50 mm & 63 mm (2") dia of approved quality.	Each	1.00	7,277.52	7,277.52			
6	14-35-e	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962,PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: 2" i/d	m	30.01	746.28	22,395.23			
7	24-36-с	Supplying and Fixing MS cap of 3/8" thick sheet : 6" i/d	Each	1.00	1,245.32	1,245.32			
SUB TOTAL OF 1 No (S.I)					= Rs.	813,315.08			
in Million					= Rs.	0.813			
TOTAL COST FOR 6 Nos In Million					= Rs.	4.880			



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N.A	NAME OF PROJECT : CONSTRUCTION OF NEW LINES OF WATER SUPPLY AND SEWERAGE SYSTEM IN MTI-ABBOTTABAD							
		ENGINEER'S COS	ST ESTI	MATE				
	14- GROUTING MAIN ENTRANCE							
S.No	MRS 2022 Bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)		
		SCHEDULE	ITEMS					
1	25-32	Providing and fixing grating in opening including fixing at site with flat iron 2" x 3/8" and 3/4"round bars at 4" center to center.	m2	34.85	10,637.43	370,728.28		
		SUB	OF (S.I)	= Rs.	370,728.28			
in Million = Rs.						0.371		



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