

Standard Bidding Document

Tender for Earthwork-Leveling of Land for Layout Plan of New Academic
Building at CUI (Abbottabad Dhamtore Campus)
(Works)

National

Single Stage-One Envelope



July 29, 2026

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REQUEST FOR BIDS

PROCUREMENT OF CIVIL WORKS

1. The **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad)** has reserved Funds for the procurement planned for FY **2026-27**. The **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad)** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the "**Tender for Earthwork-Leveling of Land for Layout Plan of New Academic Building at CUI (Abbottabad Dhamtore Campus)**" with the reference of "**P70499**".
2. The **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad)** invites electronic Bids from eligible Bidders for procurement of Works (**Tender for Earthwork-Leveling of Land for Layout Plan of New Academic Building at CUI (Abbottabad Dhamtore Campus)**) described in the bidding documents on **EPADS v2.0**.
3. **Single Stage-One Envelope** will be used by adopting **Least Cost Based Selection (LCBS)** Technique for the subject procurement, in line with the Public Procurement Rules, 2004 and any Regulations, Regulatory Guides, Procurement Guidelines or Instructions issued by the Authority from time to time.
4. All Bids must be accompanied by a Bid Security amounting described in Bid Security Section in Bidding Document in the form of **Call at Deposit**. Or all bids must be accompanied by bid securing declaration in the format specified in the Bidding documents
5. E-Bidding documents, containing detailed terms & conditions, specifications and requirements etc. are available on **e-Pak Acquisition and Disposal System (EPADS)** at **<https://epads.gov.pk/opportunities/federal/procurements/70499>** for all the interested bidders registered on **EPADS v2.0**. Bidders are required to get themselves registered on **EPADS v2.0** to participate in Bidding process.
6. The e-bids, prepared in accordance with the instructions in the e-Bidding documents, must be submitted through **EPADS v2.0** on or before **Thursday,**

August 20, 2026 11:00 AM. E-bids will be opened by using **EPADS v2.0** on the same day at **Thursday, August 20, 2026 11:30 AM.** Manual submission of Bids shall not be entertained. Those vendor who have not yet registered on the new version of **EPADS v2.0**, may register themselves on <https://pa.epads.gov.pk/>. A tutorial to explain the registration process is available at <https://www.youtube.com/watch?v=MNW6T38v7tc>.

In terms of Rules 48 of Public Procurement Rules, 2004 Grievance Redressal Committee (GRC) is notified for the subject procurement and notification copy is available on the procuring agency's website and on Authority's website at (www.ppra.org.pk).

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Instructions to Bidders

A. INTRODUCTION

1. Scope of Bid

1.1. The Procuring agency/Employer (PA), as indicated in the **Bid Data Sheet** (BDS) invites Bids for the execution of Works as specified in the BDS and **Section V- Works Requirements**. The name, identification, and number of lots (contracts) of this National/ International Competitive Bidding process are specified in the BDS.

2. Source of Funds

2.1. Source of funds as referred in Clause 2 of Bid Data Sheet.

3. Eligible Bidders

3.1. A bidder may be natural person, company or firm or public or semi-public agency of Pakistan or any foreign country, or any combination of them with a formal existing agreement (on Judicial Papers) in the form of a joint venture or consortium. In the case of a joint venture or consortium, all members shall be jointly and severally liable for the execution of the Contract in accordance with the terms and conditions of the Contract. The joint venture or consortium shall nominate a Lead Member as nominated in the BDS, who shall have the authority to conduct all business for and on behalf of any and all the members of the joint venture or consortium during the Bidding process, and in case of award of contract, during the execution of contract. Verifiable copy of the agreement that forms a joint venture, consortium or association shall be required to be submitted as part of the Bid.

Any bid submitted by the joint venture, consortium or association shall indicate the part of proposed contract to be performed by each party and each party shall be evaluated (or post qualified if required) with respect to its contribution only, and the responsibilities of each party shall not be substantially altered without prior written approval of the Procuring Agency and in line with any instructions issued by the Authority.

(The limit on the number of members of JV or Consortium may be prescribed

in BDS, in accordance with the guidelines issued by the PPRA).

3.2. The invitation for bids is open to all prospective bidders subject to any provisions of incorporation or licensing by the respective national/international incorporating agency or statutory body established for that particular trade or business. Procuring agencies shall specify the registration/licensing requirements for the foreign bidder keeping in view the requirement of that business.

3.3. A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidders may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:

3.3.1. are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring agency/Employer to provide consulting services for the preparation of design or technical specifications of the works that are the subject of the bid; or

3.3.2. have controlling shareholders in common; or

3.3.3. receive or have received any direct or indirect subsidy from any of them; or

3.3.4. have the same legal representative for purposes of this Bid; or

3.3.5. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the Procuring agency/Employer regarding this Bidding process; or

3.3.6. Submit more than one bid in this bidding process.

3.4. A Bidder may be ineligible if –

3.4.1. he is declared bankrupt or, in the case of company or firm, insolvent;

3.4.2. payments in favor of the bidder is suspended in accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting (in accordance with the national laws) in the total or partial loss of the right to administer and dispose of its property;

3.4.3. the bidder is convicted, by a final judgment of a Court of Law or relevant Professional Statutory Body, of any offence involving professional conduct;

3.4.4. The bidder is debarred/ blacklisted by a national level Procuring agency/Employer and hence debarred due to involvement in corrupt and fraudulent practices, or performance failure or due to breach of bid securing declaration.

3.5. As and when required, bidders shall provide to the Procuring agency/Employer evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.

3.6. Bidders shall submit proposal relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract is envisaged.

4. Eligible Material and Equipment

4.1. All the material and equipment to be mobilized under the contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such materials and equipment. For this purpose, ineligible countries are stated in the section-IV titled as “Eligible Countries”.

B. BIDDING DOCUMENTS

5. Contents of Bidding Documents

5.1. The scope of Works, bidding procedures, and terms and conditions of the contract are prescribed in the bidding documents. In addition to the Invitation for Bids, the bidding documents which should be read in

conjunction with any addenda issued in accordance with ITB 7.1 include:

- i. Section I -Invitation for Bids
- ii. Section II Instructions to Bidders (ITBs)
- iii. Section III Bid Data Sheet (BDS)
- iv. Section IV Eligible Countries
- v. Section V Evaluation and Qualification Criteria
- vi. Section VI Works Requirements Technical Specifications & Schedule of Requirements
- vii. Section VII Standard Bidding Forms
- viii. Section VIII General Conditions of Contract (GCC)
- ix. Section IX Particular Conditions of Contract (PCC)
- x. Section X Contract Forms

5.2. The bidder is expected to examine all instructions, forms, specifications, terms and conditions prescribed in the bidding documents. Failure to furnish all the information required in the bidding documents will be at the bidder's risk and may result in the rejection of his bid.

6. Clarification of Bidding Document, Pre-bid Meeting

6.1. A prospective bidder requiring any clarification of the bidding document may notify the Procuring agency/Employer through **EPADS v2.0**.

6.2. The Procuring agency/Employer shall respond to the request for clarification in accordance with the Public Procurement Rules 2004, Rule No.31 i.e. **Clarification of bids**.

6.3. Should the Procuring Agency deem it necessary to amend the BIDDING document as a result of a clarification, it shall do so following the procedure under **ITB 7**.

6.4. If indicated in the **BDS**, the bidder's designated representative is invited at the bidder's cost to attend a pre-bid meeting at the place, date and time mentioned in the BDS. During this pre-bid meeting, prospective bidders may request clarification of the schedule of requirement, the evaluation criteria or any other aspects of the bidding documents.

6.5. Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be uploaded on **EPADS v2.0**. Any modification to the bidding documents that may become necessary as a result of the pre-bid meeting shall be made by the Procuring agency/Employer exclusively through the use of an Addendum pursuant to **ITB 7**. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

6.6. The bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the bidder's own expense.

6.7. The bidder and any of its authorized personnel will be granted permission by the Procuring agency/Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the bidder and its personnel will release and indemnify the Procuring agency/Employer 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 the inspection.

7. Amendment of Bidding Documents

7.1. The procuring agency may issue notification of any change, addition, modification or deletion in accordance with the PP Rules 2004, rule no. 23 i.e. **Bidding Documents**.

7.2. To give prospective bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bids, the Procuring

agency/Employer may, at its discretion, extend the deadline for the submission of bids:

*Provided that the Procuring agency/Employer shall extend the deadline for submission of bid in pursuance of PP Rules 2004, rule no. 27 i.e. **Extension of time for submission of bids**, if such an addendum is issued within last three (03) days of the bid submission deadline.*

C. PREPARATION OF BIDS

8. Language of Bid

8.1. The bid prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and the Procuring agency/Employer shall be written in the English language unless specified in the **BDS**. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in the English language unless specified in the **BDS**, in which case, for purposes of interpretation of the bidder, the translation shall govern.

9. Documents Constituting the Bids

9.1. The Bids prepared by the Bidder shall constitute of all the documents required in the **BDS**.

10. Documents Establishing Eligibility of Material, Equipment and Works, their Conformity to Bidding Documents

10.1. The bid prepared by the bidder shall constitute the following components: -

10.1.1. Documentary evidence established in accordance with **ITB 10** that the material and equipment to be utilized by the Bidder for the executions of works are eligible material and equipment and conform to the Bidding Documents;

10.1.2. Documentary evidence established in accordance with **ITB 11** that the bidder has been authorized to carry out the Construction works;

10.1.3. Documentary evidence established in accordance with **ITB 11** that the bidder is eligible and/or qualified for the subject bidding process;

10.1.4. Form of Bid and Bid Prices completed in accordance with **ITB 12** and **13**;

10.1.5. Completed schedules as required, including priced Bill of Quantities in accordance with **ITB 13**.

10.1.6. Technical Proposal completed in all aspects in accordance with **ITB-15**.

10.1.7. Bid security or Bid Securing Declaration furnished in accordance with **ITB 17**;

10.1.8. Any other document required in the **BDS**.

10.2. In addition to the requirements, bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement.

10.3. The bidder shall furnish, as part of its bid, all those documents establishing the eligibility in conformity to the terms and conditions specified in the bidding documents for all material, equipment and works which the bidder proposes to execute.

10.4. The documentary evidence of conformity of the material, equipment and works to the Bidding Documents may be in the form of literature, drawings, and data, and shall consist of:

10.4.1. a detailed description of the work methodology, approach, schedule and resources to be mobilized at site;

10.4.2. an item-by-item commentary on the Procuring agency/Employer's Technical Specifications demonstrating substantial responsiveness of the material, equipment and works to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications;

10.4.3. any other procurement specific documentation requirement as stated in the **BDS**.

10.5. The required documents and other accompanying documents must be in English. In case any other language than English is used the pertinent translation into English shall be attached to the original version.

11. Documents Establishing Eligibility and Qualification of the Bidder

11.1. The bidder shall furnish, as part of its bid, all those documents establishing the bidder's eligibility to participate in the bidding process and/or its qualification to perform the contract if its bid is accepted.

11.2. The documentary evidence of the bidder's eligibility to bid shall establish to the satisfaction of the Procuring agency/Employer that the bidder, at the time of submission of its bid, is from an eligible country as defined in Section-IV titled as "Eligible Countries".

11.3. The documentary evidence of the bidder's qualification to perform the contract if its bid is accepted shall establish to the satisfaction of Procuring agency/Employer that:

11.3.1. The bidder has the financial and technical capability necessary to perform the Contract, meets the qualification criteria specified in Section-V, Evaluation and Qualification Criteria and **BDS**.

11.3.2. In the case of a bidder not doing business within Pakistan, the bidder is or will be (if awarded the contract) represented by a local bidder (Joint Venture) in accordance with the PEC works bylaws, and in case of award of works such foreign firm is required to participate in the execution of works to carry out its obligations as prescribed in the Conditions of Contract and /or Technical Specifications.

11.3.3. That the bidder meets the qualification criteria listed in Section-V, Evaluation and Qualification Criteria and **BDS**.

12. **Forms of Bid**

12.1. The Bidder shall fill the Form of Bids furnished in the bidding documents. The Bids Form must be completed without any alterations to its format and no substitute shall be accepted.

13. **Bid Prices**

13.1. The bid prices quoted by the bidder in the Standard bid Forms, Bill of Quantities and in the Price Schedules shall conform to the requirements specified below or exclusively mentioned hereafter in the bidding documents.

13.2. The bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. If a Price Schedule shows items listed but not priced, their prices shall be construed to be included in the prices of other items in the Bill of Quantities and will not be paid for separately by the Procuring agency/Employer.

13.3. Items not listed in the Price Schedule shall be assumed not to be included in the bid, and provided that the bid is still substantially responsive in their absence or due to their nominal nature, the corresponding average price of the respective item(s) of the remaining substantially responsive bidder(s) shall be construed to be the price of those missing item(s):

Provided that:

13.3.1. where there is only one (substantially) responsive bidder, or

13.3.2. where there is provision for alternate proposals and the respective items are not listed in the other bids,

The Procuring agency/Employer may fix the price of missing items in accordance with market survey, and the same shall be considered as final price.

13.4. The Bid price to be quoted in the Form of Bid in accordance with ITB 12 shall be the total price of the bid.

13.5. Unless otherwise specified in the **BDS** and the Contract, the rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract.

13.6. If so specified in ITB 1.1, bids may be invited for individual lots (contracts) or for any combination of lots (packages).

13.7. Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and shall be rejected, pursuant to **ITB 27**, unless otherwise price adjustment is permissible under Conditions of the Contract.

13.8. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date twenty-eight (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 the bidder.

14. Currencies of Bid and Payment

14.1. Prices shall be quoted in Pakistani Rupees unless otherwise specified in the **BDS**. Comparison of bids and tie of bid shall be treated in accordance with the PP rules 2004, rule no. 30.

15. Documents Comprising the Technical Proposal

15.1. The bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section VII - Standard Bid Forms, in sufficient detail to demonstrate the adequacy of the bidder's proposal to meet the work requirements and the completion time.

16. Bid Validity Period

16.1. Bids shall remain valid for the period specified in the BDS after the bid submission deadline prescribed by the Procuring agency/Employer. A bid valid for a shorter period shall be rejected by the Procuring agency/Employer as non-responsive. The period of bid validity will be determined from the complementary bid securing instrument i.e. the expiry period of bid security or bid securing declaration as the case may be.

16.2. Under exceptional circumstances, prior to the expiration of the initial Bids/Bid validity period, the Procuring Agency may request the Bidders' consent to an extension of the period of validity of their Bids/Bid. Such request for extension of the period of bid validity shall be carried out in accordance with the PP rules 2004, rule no. 26 i.e. Bid Validity.

17. Bid Security or Bid Securing Declaration

17.1. Pursuant to ITB 11.1 unless otherwise specified in the BDS, the bidder shall furnish as part of its bid, a Bid Security in accordance with the PP Rules 2004, rule no. 25 in the amount and currency specified in the BDS or Bid Securing Declaration as specified in the BDS in the format provided in Section VII (Standard Bidding Forms).

In case Procuring agency/Employer is inviting bids in lots / packages, the bidder shall be required to submit his bid security against the respective lot/package for which he is submitting his bid.

Until the development of functionality of auto verification of financial instrument in **EPADS v2.0**, the scanned copy of bid security or bid securing declaration, as the case may be, shall be uploaded on **EPADS v2.0** whereas the original instrument to be submitted to the procuring agency before closing of bid submission deadline,

17.2. The Bid Security shall be denominated in the local currency or in another freely convertible currency, and it shall be in the form specified in the BDS which shall be in any of the following:

17.2.1. A bank guarantee, an irrevocable letter of credit issued by a Scheduled bank in the form provided in the Bidding Documents or another form acceptable to the Procuring agency/Employer and valid for twenty-

eight (28) days beyond the end of the validity of the Bid. This shall also apply if the period for Bid Validity is extended. In either case, the form must include the complete name of the bidder;

17.2.2. A cashier's or certified cheque; or

17.2.3. Another security as indicated in the **BDS**.

17.3. The Bid Security or Bid Securing Declaration shall be in accordance with the Form of the Bid Security or Bid Securing Declaration included in Section VII (Standard Bidding Forms) or another form approved by the Procuring agency/Employer prior to the bid submission.

17.4. The Bid Security shall be payable promptly upon written demand by the Procuring agency/Employer in case any of the conditions listed in **ITB 17.9** are invoked.

17.5. Any bid not accompanied by a Bid Security or Bid Securing Declaration in accordance with **ITB 17.1 or 17.3** shall be rejected by the Procuring agency/Employer and shall be declared as non-responsive bid, pursuant to **ITB 27**.

17.6. Unsuccessful bidders' Bid Security will be discharged or returned as promptly as possible, however in no case later than thirty (30) days after the expiration of the period of Bid Validity prescribed by the Procuring agency/Employer pursuant to **ITB 16**. The Procuring agency/Employer shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, after whichever of the following that occurs earliest:

17.6.1. The expiry of the Bid Security;

17.6.2. The entry into force of a procurement contract and the provision of a performance security (or guarantee), for the performance of the contract if such a security (or guarantee), is required by the Bidding documents;

17.6.3. The rejection by the Procuring agency/Employer of all Bids;

17.6.4. The withdrawal of the bid prior to the deadline for the submission of bids, unless the bidding documents stipulate that no such withdrawal is permitted.

17.7. The successful bidder's Bid Security will be discharged upon the bidder signing the contract pursuant to **ITB 40**, or furnishing the performance security (or guarantee), pursuant to **ITB 41**.

17.8. The Bid Security may be forfeited or the Bid Securing Declaration executed:

if a Bidder:

17.8.1. Withdraws its Bid during the period of Bid Validity as specified by the Procuring agency/Employer, and referred by the bidder on the Form of Bid except as provided for in ITB 16.2; or

17.8.2. In the case of a successful bidder, if the bidder fails:

17.8.2.1. to sign the contract in accordance with ITB 40; or

17.8.2.2. to furnish performance security (or guarantee) in accordance with ITB 41.

17.9. In case of Bid Security issued by the foreign bank is allowed by the Procuring agency/Employer, the same should be counter guaranteed by a corresponding bank in Pakistan. Furthermore, in case of joint venture, it should be in the name of Joint venture to ensure joint responsibility. In case the JV is not legally constituted at the time of bid submission, the bid security or bid securing declaration shall be in the names of all future members as named in the letter of bid.

18. Withdrawal of Bids

18.1. Before bid submission deadline, any bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and the corresponding must accompany the respective written notice.

19. Format and Signing of Bid

19.1. The Bidder shall prepare and submit Bids through EPADS with due diligence after carefully reading all the terms and condition before bid submission deadline.

D. SUBMISSION OF BIDS

20. Submission of Bids

20.1. All bids shall be submitted through **EPADS v2.0**.

21. Deadline for Submission of Bids

21.1. All bids shall be received through **EPADS v2.0** not later than bid submission deadline as specified in the **BDS**.

21.2. The Procuring agency/Employer may, under exceptional circumstances and at its discretion, extend the deadline for the submission of bids, pursuant to PP Rules 2025, rule no.39 Extension of Time for submission of bid, by amending the Bidding Documents in accordance with ITB 7, in which case all rights and obligations of the Procuring agency/Employer and bidders previously subject to the deadline will thereafter be subject to the new deadline.

22. Substitution and Modification of bids

22.1. A bidder may substitute or modify his bid after it has been submitted, provided that written notice of the substitution or modification of the bid, is received by the Procuring agency/Employer prior to the deadline for submission of bids.

22.2. Revised bid may be submitted after the substitution or modification made in the original bid in accordance with the provisions referred in ITB 18.

E. OPENING AND EVALUATION OF BIDS

23. Opening of Bids

23.1. The Procuring Agency will open bids in accordance with the PP rules 2004, rule no 28 and as specified in the **BDS**.

24. Confidentiality

24.1. Information relating to the examination, clarification, evaluation and comparison of bids and recommendation of contract award shall not be disclosed to bidders or any other persons not officially concerned with such process until the time of the announcement of the respective evaluation report.

25. Clarification of Bids

25.1. Clarification of Bidding Documents shall be carried out in accordance with the PP Rules 2025, rule no 38 i.e. Clarifications.

25.2. The alteration or modification in the bid which in any case affect the following parameters will be considered as a change in the substance of a bid:

- 25.2.1. evaluation & qualification criteria;
- 25.2.2. required scope of work;
- 25.2.3. contract price;
- 25.2.4. all securities requirements;
- 25.2.5. tax requirements;
- 25.2.6. terms and conditions of bidding documents.
- 25.2.7. change in the ranking of the bidder

26. Preliminary Examination of Bids

26.1. Prior to the detailed evaluation of bids, the Procuring agency/Employer will determine whether each bid:

26.1.1. meets the eligibility criteria defined in ITB 3 and ITB 4;

26.1.2. has been prepared as per the format and contents defined by the Procuring agency/Employer in the bidding documents;

26.1.3. has been properly signed;

26.1.4. is accompanied by the required securities; and

26.1.5. is substantially responsive to the requirements of the bidding documents.

The Procuring agency/Employer's determination of a bid's substantial responsiveness will be based on the contents of the bid itself.

26.2. A substantially responsive Bid is one which conforms to all the terms, conditions, and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one that: -

26.2.1. affects in any substantial way the scope, quality, or performance of the Works;

26.2.2. limits in any substantial way, inconsistent with the bidding documents, the Procuring agency/Employer's rights or the bidders' obligations under the Contract; or

26.2.3. if rectified, would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

26.3. The Procuring agency/Employer will confirm that the documents and information specified under ITB 9, 10 and 11 have been provided in the bid. If any of these documents or information is missing, or is not provided in accordance with the Instructions to Bidders, the bid shall be rejected.

26.4. The Procuring agency/Employer may waive-off any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

Explanation: A minor informality, non-conformity or irregularity is one that is merely a matter of form and not of substance. It also pertains to some

immaterial defect in a Bid or variation of a bid from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other bidders. The defect or variation is immaterial when the effect on quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the works. The Procuring agency/Employer either shall give the bidder an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid or waive the deficiency, whichever is advantageous to the Procuring agency/Employer. Examples of minor informalities or irregularities include failure of a bidder to –

26.4.1. Submit the number of copies of signed bids required by the invitation;

26.4.2. Furnish required information concerning the number of its employees;

26.4.3. the firm submitting a bid has formally adopted or authorized, before the date set for opening of bids, the execution of documents by typewritten, printed, or stamped signature and submits evidence of such authorization and the bid carries such a signature.

26.5. Provided that a Technical Bid is substantially responsive, the Procuring agency/Employer may request the bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any such aspect of the technical Proposal linked with the ranking of the bidders. Failure of the bidder to comply with the request may result in the rejection of its bid.

26.6. Provided that a Technical Bid is substantially responsive, the Procuring agency/Employer shall rectify quantifiable nonmaterial nonconformities or omissions related to the Financial Proposal. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of the missing or nonconforming item or component.

26.7. If a bid is not substantially responsive, it will be rejected by the Procuring agency/Employer and may not subsequently be evaluated for

complete technical responsiveness.

27. Examination of Terms and Conditions; Technical Evaluation

27.1. The Procuring agency/Employer shall examine the bid to confirm that all terms and conditions specified in the GCC and the PCC have been accepted by the bidder without any material deviation or reservation.

For this purpose:

“Deviation” means departure from the requirements specified in the Bidding Document.

“Reservation” means setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document.

27.2. The Procuring agency/Employer shall evaluate the technical aspects of the bid submitted in accordance with ITB 30, to confirm that all requirements specified in Section VI – Works Requirement, Technical Specifications of the Bidding Documents have been met without material deviation or reservation.

27.3. If after the examination of the terms and conditions and the technical evaluation, the Procuring agency/Employer determines that the bid is not substantially responsive in accordance with ITB 27, it shall reject the bid.

28. Correction of Arithmetic Errors

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

28.1.1. if there is a discrepancy between unit prices and the sub-total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the sub-total price shall be corrected, unless in the opinion of the Procuring agency/Employer there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;

28.1.2. if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail, and the total shall be corrected; and

28.1.3. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.

28.1.4. Where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

28.2. The amount stated in the Bid will, be rectified by the Procuring agency/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 amount, its bid shall be rejected after forfeiture of Bid Security or execution of the Bid Securing Declaration, as the case may be, in accordance with ITB 41.3.

29. Conversion to Single Currency

29.1. 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 from outside the Procuring agency/Employer's country (referred to as the "Foreign Currency Requirements") shall indicate the same in the letter of bid-financial proposal. 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. Comparison of bids quoted in different currencies and conversion of bids into a single currency shall be carried out in accordance with the PP Rule 2004, rule no. 30 (2).

30. Evaluation of Bids

30.1. The Procuring agency/Employer shall evaluate and compare only the bids determined to be substantially responsive, pursuant to ITB 27.

30.2. In evaluating the Technical Proposal of each Bid, the Procuring agency/Employer shall use the criteria and methodologies listed in the BDS and in terms of works requirement. No other evaluation criteria or methodologies shall be permitted.

30.3. The Procuring agency/Employer's evaluation of a bid will take into account:

30.3.1. the bid price, excluding provisional sums and the provision, if any, for contingencies in the summary bill of quantities, but including day work items, where priced competitively;

30.3.2. converting the amount resulting from applying above, if relevant, to a single currency in accordance with ITB 29;

30.4. 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.

30.5. If these bidding documents allow bidders to quote separate prices for different lots, and the award to a single bidder of multiple lots, the methodology of evaluation to determine the lowest evaluated lot combinations in the Form of Bid, is specified in the BDS.

30.6. If the bid, which results in the Evaluated Bid Price (Successful Bid), is seriously unbalanced or front loaded in the opinion of the Employer, 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, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

Explanation:

“Unbalanced” or “front-loaded” bids consist of deliberately submitting bids with artificially high prices or unit rates for the early stages of a construction project, offset by artificially low prices or unit rates for the later stages of the project, to improve the contractor’s cash flow.

31. Domestic Preference

31.1. If the BDS so specifies, the Procuring agency/Employer will grant a margin of preference to the domestic contractor in line with the rules, regulations, regulatory guides or instructions issued by the Authority from time to time.

32. Determination of Successful Bid

32.1. The Procuring agency/Employer shall compare the evaluated bids in accordance with the predefined bidding procedure, of all substantially responsive bids to determine the Successful bidder.

33. Qualification of Bidder

33.1. The Procuring agency/Employer shall determine to its satisfaction whether the bidder is substantially responsive and whose bid is declared as Successful bid either continues to meet (if prequalification applies) or meets (if post-qualification applies) the qualifying criteria specified in Evaluation and Qualification Criteria.

Note: In case of international bidding, the parameters for incorporation or licensing within Pakistan may be fulfilled as part of post qualification.

33.2. The determination shall be based upon an examination of the documentary evidence of the bidder’s qualifications submitted by the bidder, pursuant to ITB 11.

33.3. Prior to contract award, the Procuring agency/Employer will verify that the successful bidder (including each member of a JV) is not blacklisted/debarred. The Procuring agency/Employer will conduct the same verification for each sub-contractor proposed by the successful bidder.

34. Sub-Contractors

34.1. The bidder shall provide details regarding any specialized sub-contractor to the Procuring agency/Employer. In case change of sub-contractors, the bidder shall promptly notify the Procuring agency/Employer and obtain approval for replacement of sub-contractors.

34.2. Bidders may propose sub-contracting up to the percentage of total value of contracts or the volume of works as specified in the BDS.

35. Abnormally Low Financial Bid

35.1. A procuring Agency may reject abnormally low bids in accordance with the PP Rules 2025 rule no. 43. The decision of the Procuring agency/Employer to reject a bid and reasons for the decision shall be recorded in the procurement proceedings and promptly communicated to the bidder concerned. Moreover, the Procuring agency/Employer shall not incur any liability solely by rejecting abnormally bid

Guidance for Procuring agency/Employer:

An abnormally low bid means, in the light of the Procuring agency/Employer's estimate and of all the bids submitted, the bid appears to be abnormally low by not providing a margin for normal levels of profit. In order to identify the Abnormally Low Bid (ALB) following approaches can be considered to minimize the scope of subjectivity:

35.1.1. Comparing the bid price with the cost estimate;

35.1.2. Comparing the bid price with the bids offered by other bidders submitting substantially responsive bids; and

35.1.3. Comparing the bid price with prices paid in similar contracts in the recent past either government- or development partner-funded.

35.2. The Procuring agency/Employer will determine to its satisfaction whether the bidder that is selected as having submitted the successful bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB 11

35.3. The determination will take into account the bidder's financial and technical capabilities. It will be based upon an examination of the

documentary evidence of the bidder's qualifications submitted by the bidder, pursuant to ITB 11, as well as such other information as the Procuring agency/Employer deems necessary and appropriate. Factors not included in these bidding documents shall not be used in the evaluation of the bidders' qualifications.

35.4. Procuring agency/Employer may seek "Certificate for Independent Price Determination" from the bidder and the results of reference checks may be used in determining award of contract.

Explanation: *The Certificate shall be furnished by the bidder. The bidder shall certify that the price is determined keeping in view of all the essential aspects such as raw material, its processing, value addition, optimization of resources due to economy of scale, transportation, insurance and margin of profit etc.*

35.5. An affirmative determination will be a prerequisite for award of the contract to the bidder. A negative determination will result in rejection of the bidder's bid, in which event the Procuring agency/Employer will proceed to the next ranked bidder to make a similar determination of that bidder's capabilities to perform satisfactorily.

F. AWARD OF CONTRACT

36. Criteria of Award

36.1. Subject to ITB 36 and 37, the Procuring agency/Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has been declared as Successful Bidder, provided that such bidder has been determined to be:

36.1.1. eligible in accordance with the provisions of ITB 3;

36.1.2. is determined to be qualified to perform the Contract satisfactorily; and

36.1.3. Successful negotiations have been concluded, if any.

37. Negotiations

37.1. The Committee of the Procuring agency/Employer may negotiate with the Most Advantageous Bidder relating to the following areas:

37.1.1. a minor alteration to the technical (drawings, design technical specifications) details of the statement of works;

37.1.2. Methodology, work plan, staffing in view to streamline the work;

37.1.3. a minor amendment to the Particular conditions of Contract;

37.1.4. finalizing payment arrangements;

37.1.5. clarifying details that were not apparent or could not be finalized at the time of Bidding;

37.2. Where negotiation fails to result into an agreement, the Procuring agency/Employer may invite the next ranked bidder for negotiations. Where negotiations are commenced with the next ranked bidder, the Procuring agency/Employer shall not reopen earlier negotiations.

38. Procuring agency/Employer's Right to reject All Bids

38.1. The procuring agency has the right to reject all bids in accordance with the PP Rules 2025 rule no. 45. However, the Authority (i.e. PPRA) may call from the Procuring agency/Employer the justification of those grounds.

39. Notification of Award

39.1. The procuring agency shall announce and publish the evaluation result in accordance with the PP Rules 2004, rule no. 40.

39.2. Where no complaints have been lodged, the bidder whose bid has been accepted will be notified of the award by the Procuring agency/Employer prior to expiration of the bid validity period through EPADS. However, the Procuring agency/Employer shall not award any procurement contract at least for five (05) days after the announcement of final evaluation report. The notification letter (herein after and in the condition of the contract and contract form called "Letter of Acceptance"

will specify the sum that the Procuring agency/Employer will pay the successful bidder in consideration for the execution and completion of the works as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).

39.3. The notification of award will constitute the formation of the Contract, subject to the bidder furnishing the Performance Security (or guarantee) in accordance with ITB 41 and signing of the contract in accordance with ITB 40.

39.4. Upon the successful bidder's furnishing of the performance security (or guarantee) pursuant to ITB 41, the Procuring agency/Employer will promptly notify each unsuccessful bidder, the name of the successful bidder and the Contract amount and will discharge the Bid Security or Bid Securing Declaration of the bidder(s) pursuant to ITB 17.

40. Signing of Contract

40.1. Promptly after notification of award, Procuring agency/Employer shall send the successful bidder the draft agreement, incorporating all terms and conditions as agreed by the parties to the contract.

40.2. Immediately after the Redressal of grievance by the GRC, and after fulfillment of all conditions precedent of the Contract Form, the successful bidder and the Procuring agency/Employer shall sign the contract.

40.3. Where no formal signing of a contract is required, work order issued to the bidder shall be construed to be the contract.

41. Performance Security (or Guarantee)

41.1. After the receipt of the Letter of Acceptance, the successful bidder, within the specified time, shall deliver to the Procuring agency/Employer a Performance Guarantee in the amount and in the form stipulated in the BDS and PCC, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.

41.2. If the Performance Guarantee is provided by the successful bidder and it shall be in the form specified in the BDS which shall be in any of the

following:

41.2.1. certified cheque, cashier's or manager's cheque, or bank draft;

41.2.2. irrevocable letter of credit issued by a scheduled bank of Pakistan or in the case of an irrevocable letter of credit issued by a foreign bank, the letter shall be confirmed or authenticated by a scheduled bank of Pakistan;

41.2.3. bank guarantee confirmed by a reputable local bank or, in the case of a successful foreign bidder, bonded by a foreign bank; or

41.2.4. surety bond callable upon demand issued by any reputable surety or insurance company.

Any Performance Guarantee submitted shall be enforceable in Pakistan.

41.3. Failure of the Most Advantageous Bidder to comply with the requirement of ITB 40 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or declare blacklisted (in case bid securing declaration is submitted) in which event the Procuring agency/Employer may make the award to the next most advantageous bidder or reinitiate the procurement process afresh (as a case may be).

42. Advance Payment

42.1. Advance payment will be provided to the bidder in percentage and in the manner as agreed by the both parties in terms of Conditions of the Contract.

42.2. The Procuring agency/Employer will provide an advance payment as stipulated in the Conditions of Contract, subject to a maximum amount, as stated and/or Conditions of the Contract. The advance payment request shall be accompanied by an advance payment security (guarantee) in the form provided in Section X. For the purpose of receiving the advance payment, the bidder shall make and estimate of, and include in its bid, the expenses that will relate to the purchase of equipment, machinery, materials, and on the engagement of labor during the first month beginning with the date of the Procuring agency/Employer's "Notice to Commence" as specified in the PCC.

43. General Performance of the Bidders

43.1. The Procuring agency/Employer reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts / works. The Procuring agency/Employer may seek information / report from the previous employer for consideration. However, the Procuring agency/Employer shall incorporate such parameters in the evaluation criteria and accordingly decide the fate of the bid submitted.

44. Corrupt & Fraudulent Practices

44.1. Procuring agencies (including beneficiaries of Government funded projects and procurement) as well as Bidders/Suppliers/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.

G. GRIEVANCE REDRESSAL & COMPLAINT REVIEW MECHANISM

45. Grievance Redressal

45.1. Grievance Redressal shall be carried out in accordance with the PP Rules 2025, rule no. 65 i.e. Redressal of grievances by the procuring agency and "Redressal of Grievances Regulations 2021".

H. MECHANISM OF BLACKLISTING

46. Mechanism of Blacklisting

46.1. The Procuring agency/Employer shall proceed Blacklisting of Bidders/Contractors in accordance with PP Rules 2025, rule no.25 i.e. Blacklisting and "Blacklisting and Debarment of Bidders or Contractors Regulations 2024.



Bid Data Sheet

Bid Data Sheet (BDS)

The following specific data for the procurement of works shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITBs). Whenever there is a conflict, the provisions herein shall prevail over those in ITBs.

A. Introduction

ITB Number

Amendments of, and Supplements to, Clauses in the Instruction to Bidders

ITB Number1.1

Name of Procuring agency/Employer: **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad)**

The subject of procurement is: **Tender for Earthwork-Leveling of Land for Layout Plan of New Academic Building at CUI (Abbottabad Dhamtore Campus)**

Period for completion of the works **90 Days**

Commencement date execution of the works: **14 Days**

Type of Procurement:**Local**

ITB Number2.1

Financial year for the operations of the Procuring agency/Employer: **2026-27**

Name of Project [insert: name and summary description of the Project if any]

Name of financing institution: [insert: name if any]

Name and identification number of the Contract: **P70499**

ITB Number3.1

JV/Consortium or Association Allowed: **No**

Maximum number of members in the joint venture shall be: **Nil**.

B. Bidding Documents

ITB Number6.4

The Bidders may seek clarifications through **EPADS v2.0: Last Clarification Date: Thursday, August 13, 2026**

C. Preparation of Bids

ITB Number8.1

The Language of all correspondences and documents related to the Bid is: **English**

ITB Number 5.1 & 9.1

The following documents must be included to constitute the Bid

No

ITB Number9.4 (b)

Other procurement specific documentation requirements are:

- 1: PEC Certificate in category C-5 and above.
- 2: Undertaking stating that requisite bid security is sealed with priced bid.
- 3: Affidavite on Non Judicial Stamp Paper of Rupees 100 duly notarized regarding no blacklisting
- 4: Information on any litigation or arbitration
- 5: Registration with income tax department (Valid NTN and KPRA)
- 6: On active tax payer list of ATL of FBR

ITB Number12.4

The Bid price will be/will not be subject to the price adjustment **Nil**.

ITB Number12.6

The Bid price shall be adjusted in accordance with Schedule-A to Bid – “Schedule of Adjustment Data” if available.

ITB Number13.1

Bidders to quote entirely in **Pak rupees (PKR)**

ITB Number15.1

The Bid Validity period shall be **90 Days** days.

ITB Number16.1

The amount of Bid Security shall be (insert amount)

The currency of the Bid Security shall be: **PKR**.

ITB Number16.2

The Bid Security shall be in the form of:**Call at Deposit**

D. Submission of Bids

ITB Number19.1

The deadline for Bid submission is:**Thursday, August 20, 2026 11:00 AM**

Address for submission of Original Bid Security:**Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

ITB Number21.1

The Bid opening shall take place at:**EPADS v2.0**

Day : **Thursday**

Date: **August 20, 2026**

Time : **11:30 AM**

ITB Number27.1

The currency that shall be used for Bid evaluation and comparison purposes to convert all Bid prices expressed in various currencies is: **PKR Only**

The source of exchange rate shall be: **Nil**

The date of exchange rate shall be: **Nil**

ITB Number28.2 &28.5

Least Cost Based Selection (LCBS)

see Evaluation Criteria

ITB Number29.1

Domestic preference to apply.

Domestic preference:**No**

Preference to domestic or national suppliers or contractors shall be provided in accordance with policies of the Federal Government and/or in accordance with the regulations issued by the Authority.

If Yes, The percentage for the domestic preference alongwith calculation

formula is provided in the evaluation and qualification criteria.

ITB Number32.2

Sub-contracting is allowed? : **No**

No% of the total value of the contract.

39.1 The Performance Security (or guarantee) shall be **10.00%**

39.2 The Performance Security (or guarantee) shall be in the form of:**Bank Guarantee**



Eligibility Criteria

Bidder's Type	Required Registration
Individual / Individual Consultant	NADRA CITIZENSHIP (CNIC/NICOP)
Sole Proprietorship	FBR (NTN)
Company (Private Limited)	FBR (GSTN)
Company (Public Limited)	PEC
State Owned Enterprise (Private Limited)	
State Owned Enterprise (Public Limited)	

Eligibility Criteria	Document
Only local bidders duly licensed by PEC in Category C-5 and above are eligible to bid.	Yes
An undertaking stating that requisite bid security is sealed with the envelope of Price Bid.	Yes
Contractors/Firms having experience of similar projects are eligible to apply.	Yes
Affidavit on non-judicial stamp paper of Rs. 100/- duly notarized regarding no blacklisting prepared within the current month of submission of bidding document.	Yes
Information on any litigation or arbitration resulting from contracts completed or under execution by the Bidder. In case, the firm is involved in any litigation, the details/updated status shall be provided. Any firm involved in litigation and in case majority of decisions went against that firm or if the firm is blacklisted by any Govt./Semi-Govt./Autonomous body, shall be disqualified.	Yes
Registration with income tax department (Valid NTN & KPRA).	Yes
On Active Tax Payers List at the time of submission of Bid	Yes

Evaluation Criteria

Least Cost Based Selection (LCBS)

Jobs/Lots

Jobs Without Lots :

Job	Delivery Schedule	Quantity	Bid Security
Earthwork Cut & Fill	Address: Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province). Schedule: Days90 Quantity: 2037030/cft	2037030/cft	1000000 PKR

Work Specifications and Market Rates

Jobs Without Lots :

Job: Earthwork Cut & Fill

Specifications / Requirements:

Sr. No	Sr.No.	Description	Unit	Qty	Rate	Amount
-----------	--------	-------------	------	-----	------	--------

1		Earth Work Cut & Fil Excavation/cutting in all kinds of soil to the required lines, grades, levels, and dimensions as shown on the Drawings or as directed by the Engineer-in-Charge, including dressing and trimming of the finished surface, filling of ditches, depressions, and other low-lying areas with approved excavated material, leveling of the excavated area, and transporting, placing, spreading, and disposing of surplus excavated material at locations within the site as directed by the Engineer-in-Charge, including all leads, lifts, handling, and all incidental works necessary to complete the item in accordance with the Drawings, Technical Specifications, and the instructions of the Engineer-in-Charge, complete in all respects.	Cft	2037029.777	14.69	29923967.42413
2	TOTAL AMOUNT					
3		Amount in Words				
					GRAND TOTAL:	Rs29,923,967.42

Scope of Work

Name of the Project & Summary of the Works:

Earthwork for Leveling of Land for Layout of New Building at CUI Dhamtour Abbottabad

The works comprise of above-mentioned Project and other associated works complete in all respects as per Contract Drawings, Specifications and Bill of Quantities.

IMPORTANT NOTE:

The provisions contained in these Important Notes shall prevail over and supersede any conflicting or inconsistent provisions of the Conditions of Contract. In the event of any discrepancy or inconsistency, these Important Notes shall rank first in the order of precedence of the Contract Documents and shall be binding upon the Contractor.

1.The quoted rates shall be deemed to be inclusive of all applicable Federal and Provincial taxes, duties, levies, cess, fees, and statutory deductions, including but not limited to Income Tax, Sales Tax, KPRA Tax, and any other taxes, duties, levies, or charges imposed under the prevailing laws, rules, and regulations of Pakistan. The Contractor shall be solely responsible for the assessment, payment, and compliance with all such taxes, duties, levies, and statutory obligations applicable at the time of bidding and throughout the execution of the Works. No separate payment, reimbursement, adjustment, or claim on account of such taxes, duties, levies, or statutory charges shall be admissible, and all such costs shall be deemed to have been fully allowed for and included in the quoted rates.

2.The disposal of all excavated material, surplus earth, and other excavated debris generated during excavation, cutting, and land leveling within the project area shall be the sole responsibility of the Contractor and shall be carried out strictly in accordance with the directions of the Engineer-in-Charge/Client.

3.The Contractor shall take all necessary precautionary measures during excavation, cutting, and related activities to protect the existing tube well, functional water supply lines serving the existing campus blocks, the existing nullah, and all other adjacent utilities and structures. In the event of any damage to such services or facilities, the Contractor shall, at his own cost, immediately repair and reinstate them to the satisfaction of the Engineer-in-Charge/Client, ensuring the uninterrupted water supply to the

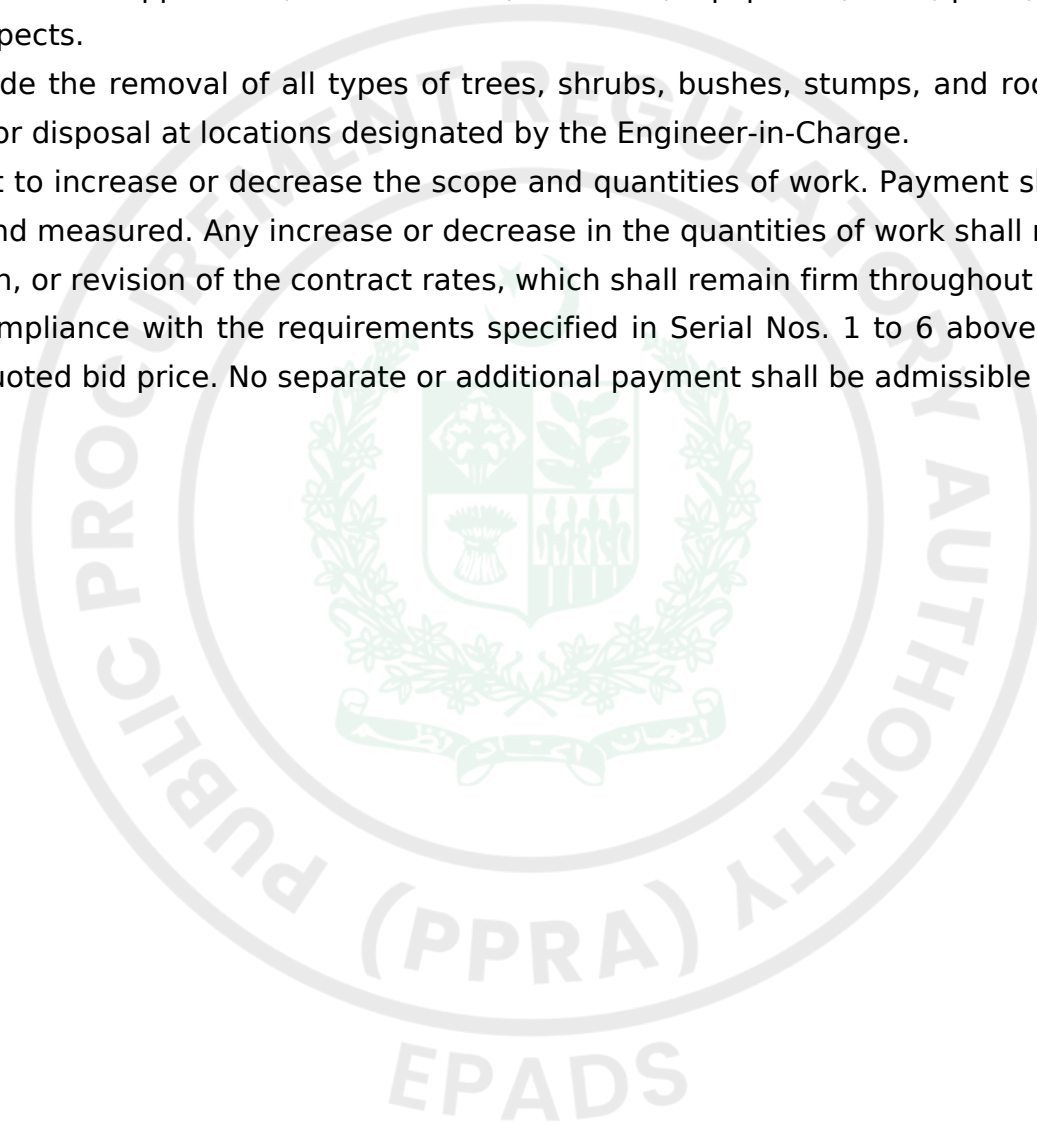
campus and the free flow of stormwater and floodwater through the existing nullah.

4.The quoted rates shall be deemed to include all leads within the project area, lifts, handling, preparation and maintenance of haul/access tracks, watering for dust suppression, and all labour, materials, equipment, tools, plant, and incidental works necessary to complete the item in all respects.

5.The quoted rates shall include the removal of all types of trees, shrubs, bushes, stumps, and roots, including cutting, uprooting where required, and stacking or disposal at locations designated by the Engineer-in-Charge.

6.The Client reserves the right to increase or decrease the scope and quantities of work. Payment shall be made only for the actual quantities of work executed and measured. Any increase or decrease in the quantities of work shall not entitle the Contractor to any additional claim, compensation, or revision of the contract rates, which shall remain firm throughout the contract period.

7.All costs associated with compliance with the requirements specified in Serial Nos. 1 to 6 above shall be deemed to have been included in the Contractor's quoted bid price. No separate or additional payment shall be admissible on this account.



Price Schedule

For Individual Jobs

#	Job Title	Quantity	Unit Price (PKR)	Total Price (PKR)	Delivery Location	Delivery Period / Year	Country of Origin
1							
2							

For Lots

#	Lot Title	Total Lot Price (PKR)	Country of Origin
1	[Lot 1 Title]		





General Conditions of Contract

Red Book:

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The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (“Red book”) Second edition 2017” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and the following “Particular Conditions” which shall complement the General Conditions of the Contract.

The successful Bidder, upon contract award, shall be required to furnish two (02) copies of aforementioned “General Conditions” for incorporation in the Works Contract.

International Federation of Consulting Engineers (FIDIC) FIDIC

Bookshop – Box- 311 – CH – 1215 Geneva 15, Switzerland

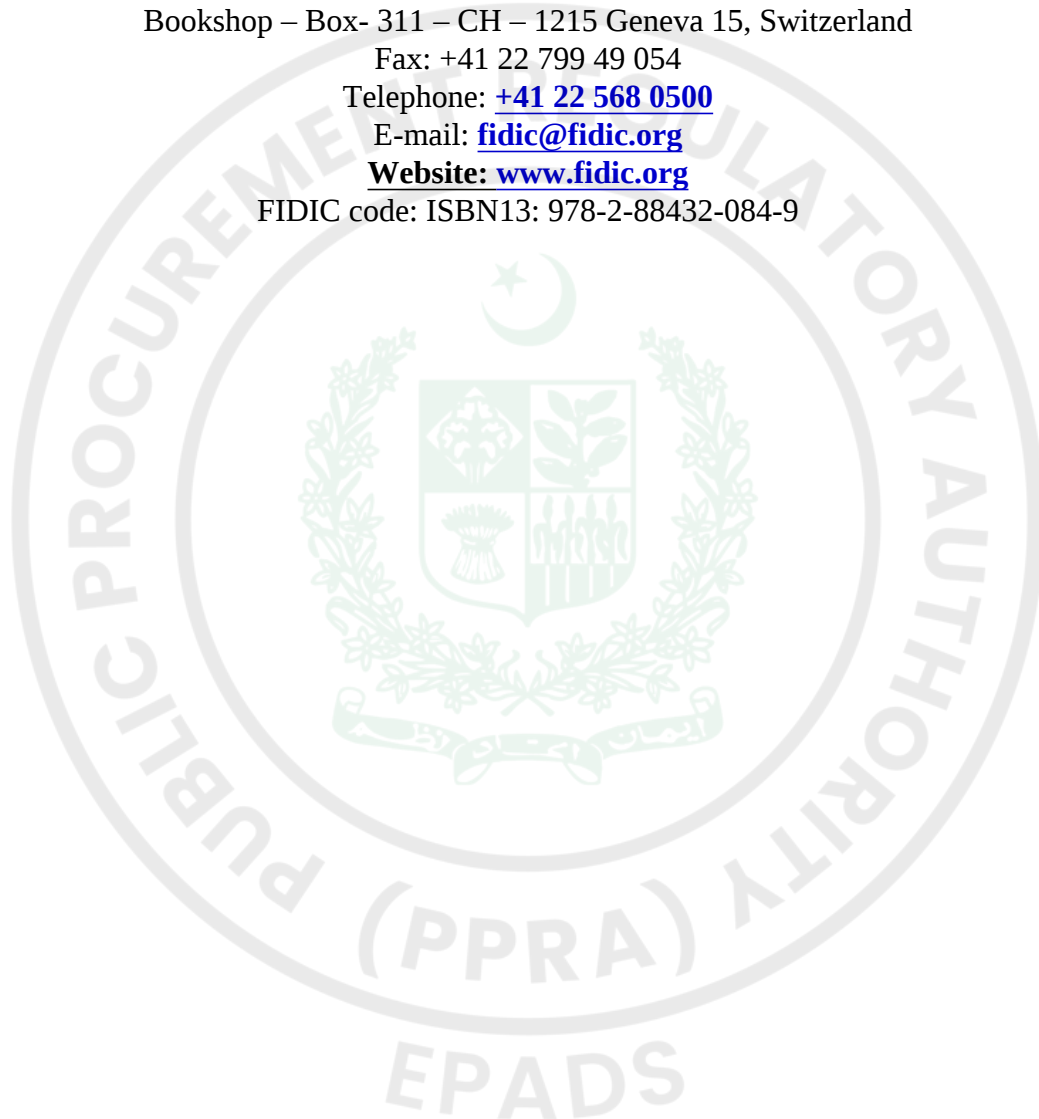
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Website: www.fidic.org

FIDIC code: ISBN13: 978-2-88432-084-9





Special Conditions of Contract

PARTICULAR CONDITIONS OF CONTRACT (PCC)

Particular Conditions

(Mandatory Provisions not to be amended/substituted)

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

PART A - Contract Data

Sub-Clause 1.1.27

Defects Notification Period (DNP): **30** Days

Sub-Clause 1.1.31

Employer's name & address: **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad), Purchase Officer Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

Sub-Clause 1.1.35

Engineer's name & address: Designmen Consulting Engineers (Pvt) Ltd

First Floor, Block 9 West, Blue Area Rizwan Plaza, Jinnah Avenue F-6 Islamabad

Sub-Clause 1.1.84

Time for Completion: **90** days for whole of the works

Sub-Clause 1.3 (a)(ii)

Agreed method of electronic transmission: Agreed

The Electronic Transmission Methods are Email, Whatsapp etc

Sub-Clause 1.3 (d)

Address of Employer for Communications: **Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

Address of Engineer for Communications:

First Floor, Block 9 West, Blue Area Rizwan Plaza, Jinnah Avenue F-6 Islamabad

Address of Contractor for Communications: -----

Sub-Clause 1.4

Contract shall be governed by the law of: **Islamic Republic of Pakistan**

Ruling language: **English**

Language for communications: **English**

Sub-Clause 2.1

After receiving the Letter of Acceptance, the Contractor shall be given right of access to all or part of the Site within: **7 days after Commencement Date**

Sub-Clause 2.4

Employer's financial arrangements:

Own Funds

Sub-Clause 3.2 (e)(ii)

Engineer's Duties and Authority: **Variation resulting in an increase of the Accepted Contract Amount in excess of one percent (1%) subject to accumulative Variations not exceeding five percent (5%) of the Accepted Contract Amount**

Sub-Clause 4.2

Performance Security (as percentage of the Accepted Contract Amount in Currencies): **10.00%**
Form of Performance Guarantee: **Bank Guarantee**

Sub-Clause 4.2.1

List of Insurance Companies:

Not applicable

Sub-Clause 4.7.2

period for notification of errors in the items of reference: **Twenty Eight (28) days**

Sub-Clause 4.19

Period of payment for temporary utilities: **Each Month**

Sub-Clause 5.1 (a)

Maximum allowable accumulated value of work subcontracted (as a percentage of the Accepted Contract Amount): **Nil %**

Sub-Clause 5.1 (b)

Parts of the Works for which subcontracting is not permitted: **Nil**

Sub-Clause 6.5

Normal working hours on the Site: **8**

Sub-Clause 8.3

Number of additional paper copies of programmes: **2**

Sub-Clause 8.8 & 14.15(b)

Delay Damages payable for each day of delay **0.10%** of the Accepted Contract Amount for delay in completion of whole of the Works

Sub-Clause 8.8

Maximum amount of Delay Damages **10.00 %** of the Accepted Contract Amount

Sub-Clause 8.14

Applicability of Incentives for Early Completion **No**

Sub-Clause 12.3

Percentage profit (Not more than 10%): **Nil**

Sub-Clause 13.4.(b)(ii)

Percentage rate to be applied to Provisional Sums for overhead charges and profit: **Twenty Five percent (25%)**

Sub-Clause 14.2

Total Advance Payment: **Fifteen percent (15%) of the Accepted Contract Amount excluding Provisional Sums payable in the currencies and proportions in which the Accepted Contract Amount is payable**

Sub-Clause 14.2.1

Advance Payment Insurance **Not Allowed**

Sub-Clause 14.2.3

Percentage deductions for the repayment of the Advance Payment: Deduction shall be made at the amortization rate of 17.5 % of the value of the Works executed of each IPC as provided in paragraph (i) of Sub-Clause GCC 14.3, starting from 2nd IPC provided that the advance payment shall be completely repaid prior to the time when 90% of the Accepted Contract Amount less Provisional Sums has been certified for payment. It may be more than 17.5% in the last instalment to ensure full repayment.

Sub-Clause 14.3

Period of payment **One Month**

Sub-Clause 14.3(b)

Number of additional paper copies of Statements: **2**

Sub-Clause 14.3 (iii)

Percentage of retention: **Seven percent (7%)**

Sub-Clause 14.3 (iii)

Limit of Retention Money (as a percentage of the Accepted Contract Amount): **Five percent (5%)**

Sub-Clause 14.5(b)(i)

Plant and Materials for payment when shipped: **Plant and Materials under Bill of “Imported Plant and Materials”**

Sub-Clause 14.5(c)(i)

Plant and Materials for payment when delivered to the Site: **Plant and Non Perishable Materials**

Sub-Clause 14.6.2

Minimum amount of Interim Payment Certificate (IPC): **Yes**

The Minimum Amount IPC is 5.0 Million

[Employer to give value not exceeding one fifth of the average expected value of Interim Payment Certificate]

Sub-Clause 14.7(a)

Period of payment of Advance Payment to the Contractor: **14 days**

Sub-Clause 14.7b(i)

Period for the Employer to make interim payments to the Contractor under Sub-Clause 14.6: **15 days**

Sub-Clause 14.7b(ii)

Period for the Employer to make interim payments to the Contractor under Sub-Clause 14.13 (Final Payment): **15 days**

Sub-Clause 14.7(c)

Period for the Employer to make final payment to the Contractor: **30** days

Sub-Clause 14.8

Financing charges for delayed payment Local Currency (PKR):

6-Month KIBOR (Offer) +3% per annum.

Foreign Currency:

USD

6-Month SOFR (Secured Overnight Financing Rate for USD) +1% per annum.

EURO

6-Month EURIBOR (EURO Interbank Offered Rate for EURO) +1% per annum.

Others

Appropriate rates +1% (for other foreign currencies, Ref. Schedule-A, A-4 to Bid).

Sub-Clause 14.11.1(b)

Number of additional paper copies of draft Final Statements: **2**

[insert number of copies say six (06)]

Sub-Clause 14.15

Currencies of payment of Contract Price: **as stated in the Table Schedule of Adjustment Data of Schedule A (if Given)**

Sub-Clause 14.15(a)(i)

Proportions or amounts of Local and Foreign currencies: **as stated in the Table Schedule of Adjustment Data of Schedule A (if Given)**

Sub-Clause 14.15(c)

Currencies and proportions for payment of Delay Damages: **as stated in the Table Schedule of Adjustment Data of Schedule A (if Given)**

Sub-Clause 14.15(f)

rates of exchange: **as stated in the Table IV of Schedule A (If Given)**

Sub-Clause 17.2(d)

Forces of nature, the risks of which are allocated to the Contractor: **Nil**

Sub-Clause 19.1

Permitted deductible limits:

- i) insurance required for the Works: **Ten percent (10%) of loss amount on each & every loss**
- ii) insurance required for Goods: **Nil**
- iii) insurance required for liability for breach of professional duty: **Nil**
- iv) insurance required against liability for fitness for purpose (if any is required): **Nil**
- v) insurance required for injury to persons and damage to property: **Nil**
- vi) insurance required for injury to employees: **Nil**
- vii) other insurances required by Laws and by local practice : **Nil**

Periods for submission of insurance:

- a) evidence of insurance: Not later than the Commencement Date
- b) relevant policies: Within twenty eight (28) day from the Commencement Date

Sub-Clause 19.2.1(b)

Additional amount to be insured (as a percentage of the replacement value): **15% of the replacement value**

(Accepted Contract Amount)

Sub-Clause 19.2.2

Extent of insurance required for Goods: From Ex-Works (i.e., works, factory, warehouse, etc) to delivery at the Site

Amount of insurance required for Goods: Full replacement value

Sub-Clause 19.2.3(a)

Amount of insurance required for liability for breach of professional duty: Full replacement value of the Works to be designed by the Contractor

Sub-Clause 19.2.3(b)

Insurance required against liability for fitness for purpose: **Yes**

Sub-Clause 19.2.3

Period of insurance required for liability for breach of professional duty: Until the date of issuance of Performance Certificate

Sub-Clause 19.2.4

Amount of insurance required for injury to persons and damage to property: Injury to person and Fatal case: in accordance with Workmen Compensation Act

Damage to Property: The Amount of Insurance Required for Person Injury is 500000

The Amount of Insurance Required for Damage to Property is 1000000 as per his assessment of the adjoining property(ies) other than the Works] without limit to the number of incidents

Sub-Clause 19.2.6

Other insurances required by Laws and by local practice: All insurances as applicable, to the extent of execution of the project, under Federal and Provincial laws of Islamic Republic of Pakistan

Sub-Clause 21.1

Time for appointment of the DAAB: Within 28 days from the Commencement Date.

In case the Accepted Contract Amount is lesser than PKR one (01) billion, appointment of the DAAB shall be made when Dispute arises between the Parties.

Sub-Clause 21.1

The DAAB shall comprise 1

[insert either “a sole Member” or “Three Members”]

[For a Contract estimated to cost above PKR 2.5billion, the DAAB shall comprise of three members. For a Contract estimated to cost between PKR1billion and PKR2.5billion, the DAAB may comprise of three members or a sole member. For a Contract estimated to cost less than PKR1billion, a sole member is recommended.]

Sub-Clause 21.1

List of proposed members of DAAB

- proposed by Employer

As per instructions of Employer

- proposed by Contractor

[to be inserted at the time of signing of the Contract]

1. _____

2. _____

3. _____

Sub-Clause 21.2

Appointing entity (official) for DAAB members Managing Director Public Procurement Regulatory Authority (PPRA) or Chairman Pakistan Engineering Council (PEC) from the list of PEC approved arbitrators published at its website

Sub-Clause 21.6

Rules of Arbitration: PEC Rules of Conciliation and Arbitration or Pakistan Arbitration Act of 1940, if the former is inactive.

The place of Arbitration shall be in the Employer's country: **Abbottabad**

[Insert name of city]

Particular Conditions

PartB - Special Provisions

1.1 Definitions

1.1.76 "Specification"

Following is added at the end:

"and consists of two parts i.e.,

- i) "Part A - Specific Provisions"; and
- ii) "Part B - Technical Provisions".

1.2 Interpretation

"and" is deleted from the end of sub-paragraph (i) and added at the end of sub-paragraph (j).

Sub-paragraph (k) is added:

"(k) The word "tender" is synonymous with "bid" the word tenderer with "bidder", the words "tender documents" with "bidding documents" and "Schedule of Prices" with "Bill of Quantities", as applicable."

1.5 Priority of Documents The documents listed at (a) through (k) of this Sub-Clause are deleted and substituted with the following:

- (a) the Contract Agreement;
- (b) the Letter of Acceptance;
- (c) the Letter of Bid;
- (d) the Particular Conditions Part A - Contract Data;
- (e) the Particular Conditions Part B - SpecialProvisions;
- (f) the General Conditions;
- (g) the Specification Part A - SpecificProvisions;
- (h) the Specification Part B- Technical Provisions;
- (i) the Drawings;
- (j) the completed Schedules to Bid includingBillof Quantities;
- (k) the JV Undertaking (if the Contractor is a JV); and
- (l) any other documents forming part of the Contract.

The addenda/corrigenda, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.

1.6 Contract Agreement

In the last line of the 1st paragraph the text "shall be borne by the Employer" is substituted by "shall be reimbursed by the Employer to the Contractor".

3.1 The Engineer

In sub-paragraph (a) the text “as defined in the Pakistan Engineering Council Act, 1975 (Act No.V of 1976)” are added after the words “professional engineer”.

3.2 Engineer’s Duties and Authority

The Engineer shall obtain the consent in writing of the Employer before taking action under the following Sub-Clauses of these Conditions:

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

Issue of FPC Sub Clauses

Sub-Clause 14.14 [Issue of Final Payment Certificate]

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

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

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

Following is added after the words “the Employer’s consent is required” in 4th paragraph: “stating that the Employer’s consent has been obtained for that specified authority”

4.2 Performance Security

4.2.1 Contractor’s Obligations

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

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

Accepted Contract Amount (In Eq. PKR million)	Minimum Rating of Insurance Companies
Up to 1000	A (+)

1001 to no limit AA

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

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

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

4.3 Contractor’s Representative

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

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

4.4 Contractor’s Documents

4.4.2 As-Built Records

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

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

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

Following Sub-Clause is added:

4.4.4 Shop Drawings

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

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

4.8 Health and Safety Obligations

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

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

4.20 Progress Reports

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

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

5.1 Subcontractors

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

“under Schedule to Bid”

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

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

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

5.2 Nominated Subcontractors

5.2.2 Objection to Nomination

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

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

The following is then added as (iii):

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

6.1 Engagement of Staff and Labour

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

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

6.7 Health and Safety of Personnel

The existing text is substituted with the following:

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

6.8 Contractor's Superintendence

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

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

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

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

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

6.12 Key Personnel

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

“If any of the Key Personnel are not fluent in this language, the Contractor shall make competent interpreters

available during all working hours in a number deemed sufficient by the Engineer.”
The following Sub-Clauses 6.13 to 6.26 are added at the end of Sub-Clause 6.12:

6.13 Foreign Personnel

The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use all reasonable endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor’s personnel.

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

6.14 Supply of Foodstuffs

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor’s Personnel for the purposes of or in connection with the Contract.

6.15 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor’s Personnel.

6.16 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor’s Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

6.17 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor’s Personnel.

6.18 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor’s Personnel to do so.

6.19 Festivals and Religious Customs

The Contractor shall respect the Country’s recognized festivals, days of rest and religious or other customs.

6.20 Funeral Arrangements

The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.

6.21 Forced Labour

The Contractor, including its Subcontractors, shall not employ or engage forced labour which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.

6.22 Child Labour

The Contractor, including its Subcontractors, shall not employ or engage child labour in accordance with relevant law(s) in force in Islamic Republic of Pakistan.

6.23 Employment Records of Workers

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Contractor's Records].

6.24 Workers' Organizations

The Contractor shall comply with the relevant labour laws of Pakistan which recognize workers' rights to form and to join workers' organizations/Trade Union of their choosing and to bargain collectively without interference.

6.25 Non-Discrimination and Equal Opportunity

The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.

Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure nondiscrimination and equal opportunity, including for specific groups such as women, persons with disabilities, migrant workers and children (of working age in accordance with Sub-Clause 6.22).

6.26 Epidemics

In the event of any out-break of illness of epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of overcoming the same.

7.7 Ownership of Plant and Materials

The following is added before the first paragraph:

"Except as otherwise provided in the Contract,"

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

"No Plant and/or Materials that is the property of the Employer shall be removed from the Site. If it becomes necessary to:

(i) remove any item of such Plant from the Site for the purposes of repair, the Contractor shall give a Notice, with reasons, to the Engineer requesting consent to remove the defective or damaged item off the Site. This Notice shall clearly identify the item of defective or damaged Plant, and shall give details of: the defect or damage to be repaired; the place to which defective or damaged item of Plant is to be taken for repair; the

transportation to be used (and insurance cover for such transportation); the proposed inspections and testing off the Site; and the planned duration required before the repaired item of Plant shall be returned to the Site. The Contractor shall also provide any further details that the Employer may reasonably require; or

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

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

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

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

7.9 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.

8.1 Commencement of Works

The following is added before the first paragraph:

"After signing of the Contract Agreement by both Parties," and thereafter the word "The" is replaced with the word "the".

8.5 Extension of Time for Completion

The following is added after paragraph (c):

"for last five years".

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

8.14 Incentives For Early Completion

If Contract Data does not state applicability of incentives for early completion, this Sub-Clause shall not apply.

The Contractor shall be entitled subject to Sub-Clause 20.2 [Claims for Payment and/or EOT] to bonus payment if the Works and/or each Section is completed earlier than the Time for Completion for the Works or Section (as the case may be). The amount of bonus for early completion of the Works and/or each Section shall be up to a limit and at a rate to 50% of the relevant limit and rate of delay damages prescribed in Contract Data and shall be paid for every day which shall elapse between the relevant Date of Completion of the Works or Section and the relevant Time for Completion.

For the purposes of calculating any bonus payment, the applicable Time for Completion stated in the Contract Data is fixed and no adjustments of this time by reason of granting an EOT will be allowed.

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

11.12 Supervisory Assistance During DNP

If provided under the Schedule of Prices, the Contractor shall provide supervisory assistance to the Employer during the DNP for the Works. Such supervisory assistance shall be as described in the Specification for the purpose of supporting the Employer's operation and maintenance of the Plant for the period specified in the Schedule of Prices after the Date of Completion.

12.2 Method of Measurement

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

“Summary of measured quantity for payment shall be delineated item-wise under four headsnamely; “Schedule of Prices Quantity”, “Quantity Executed To-date”, “Quantity Certified Previously” and “Net Quantity Executed under this Certificate”.

12.3 Valuation of the Works

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

“Sum of overhead charges and profit for sub-paragraph (a) shall be Twenty Five percent (25%)”.

13.4 Provisional Sums

The following paragraph is inserted as the penultimate paragraph:

“The Provisional Sum shall be used to cover the Employer’s share of the DAAB members’ fees and expenses, in accordance with Clause 21. No prior instruction of the Engineer shall be required with respect to the work of the DAAB. The Contractor shall submit the DAAB members’ invoices and the satisfactory evidence of having paid 100% of such invoices as part of the substantiation of those Statements submitted under Sub-Clause 14.3.

13.6 Adjustments for Changes in Laws

The following paragraphs are added at the end of the Sub-Clause:

“Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the Table of Adjustment Data in accordance with the provisions of Sub-Clause 13.7 [Adjustments for Changes in Cost].”

14.1 The Contract Price

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

“Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry an approved re-export bond or bank guarantee, valid until the Time for Completion plus six months, in an amount equal to the full import duties and taxes which would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and callable in the event the Contractor's Equipment is not re-exported from the Country on completion of the Contract. A copy of the bond or bank guarantee endorsed by the customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon re-export of individual items of Contractor's Equipment or spare parts, or upon the completion of the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's Equipment and spare part to be re-exported, based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable Laws. Import duties and taxes shall be due and payable to the customs authorities by the Contractor on (a) the difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to re-exported; and (b) on the initial imported value of the Contractor's Equipment and spare parts remaining in the Country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining.”

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

14.2 Advance Payment

14.2.1 Advance Payment Guarantee

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

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

Accepted Contract Amount (In Eq. million PKR) Minimum Rating of Insurance Companies

Up to 1000 A (+)

1001 to no limit AA

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

14.6 Issue of IPC

14.6.1 The IPC

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

14.7 Payment

The words “or through crossed cheque in favour of the Contractor or JV partners. The Payment to JV partners shall be made at the request of the Joint Ventures in the ratio of their shares specified by them” are added at the end of the Sub-Clause.

14.8 Delayed Payment

In the first paragraph, third line, the words “compounded monthly” are deleted.

The text of 2nd paragraph is deleted and substituted with the following:

“The Employer shall pay to the Contractor compensation at the rate stated in the Contract Data.”

14.9 Release of Retention Money

The following is added at the end of Sub-Clause 14.9:

“Unless otherwise stated in the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a guarantee, in the form annexed to the Particular Conditions or in another form approved by the Employer and issued by a schedule bank selected by the Contractor, for the second half of the Retention Money. The Contractor shall ensure that the guarantee is in the amounts and currencies of the second half of the Retention Money and is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security. On receipt by the Employer of the required guarantee, the Engineer shall certify, and the Employer shall pay the second half of the Retention Money. The release of the second half of the Retention Money against a guarantee shall then be in lieu of the release after the latest of the expiry dates of the Defects Notification Periods. The Employer shall return the guarantee to the Contractor within 21 days after receiving a copy of the Performance Certificate.

If the Performance Security required under Sub-Clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under them when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount guaranteed under the Performance Security when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security.

15.2 Termination for Contractor's Default

15.2.1 Notice

Following text is added at the end of sub-paragraph (h) of this Sub-Clause:

“For the purposes of this Contract, corrupt and fraudulent practices have been defined in Public Procurement Rules 2004.”

15.2.3 After Termination

The word “and” at the end of sub-paragraph (ii) of paragraph (b) is deleted the following paragraph is added after sub-paragraph (iii):

“(iv) all Employer-Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [Employer-Supplied Materials and Employer's Equipment], and”

15.4 Payment after Termination

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

“The Employer shall be entitled to sell any of the Contractor's Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any debt due from the Contractor to the Employer under this Clause including any outstanding payments to the Subcontractors.

16.2 Termination by Contractor

16.2.1 Notice

The sub-paragraph (j) is deleted in its entirety.

At the end of sub-paragraph (i) “; or” is replaced with “.” and at the end of sub-paragraph (h) “;” is replaced with “; or”.

In sub-paragraph (f) “84 days” are replaced with “180 days” and text “for reasons not attributable to the Contractor” is added at the end.

16.3 Contractor's Obligations After Termination

Sub-paragraph (c) is deleted and replaced with:

“(c) deliver to the Engineer all Employer-Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [Employer-Supplied Materials and Employer's Equipment]; and

(d) remove all other Goods from the Site, except as necessary for safety, and leave the Site.”

17.1 Responsibility for Care of the Works

After the two instances of “Goods” in the last paragraph, the words “Employer-Supplied Materials and/or Employer's Equipment” are added.

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

17.7 Use of Employer's Accommodation/Facilities

The Contractor shall take full responsibility for the care of the items of the Employer's facilities and/or accommodation, if any, as detailed in the Specification, from the date of use and/or occupation by the Contractor until the date on which such use and/or occupation is re-vested in the Employer.

If any loss or damage happens to any of the above items during a time while the Contractor is responsible for its care, arising from any cause other than a cause for which the Employer is responsible or liable, the Contractor shall promptly rectify the loss or damage at the Contractor's risk and cost.

18.1 Exceptional Events

The words “or disorder” are replaced with “disorder or sabotage” in sub-paragraph (c) of the Clause.

18.4 Consequences of an Exceptional Event

The following is added at the end of sub-paragraph (b) after deleting the “.”:

“, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Exceptional Events, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 19.2 [Insurance to be provided by the Contractor].”

18.5 Optional Termination

In sub-paragraph (c), the words “and necessarily” are added after the words “was reasonably”.

19.1 General Requirements

Following text is added at the end of first paragraph:

“The Contractor shall immediately after the date of the Letter of Acceptance submit the draft of insurance policies for the Employer’s consent.”

Following text is added at the end of third paragraph:

“The Contractor shall, within the respective periods stated in the Contract Data submit to the Engineer and the Employer a) evidence that the insurances described in this Clause have been effected, and b) copies of policies of the insurances described in Sub-Clauses 19.2.1, 19.2.4 and 19.2.5.”

19.2 Insurance to be provided by the Contractor

19.2.5 Injury to employees

The words “sickness, disease” are deleted in the third line of first paragraph.

The following Sub-Clause is added after Sub-Clause 19.2.6:

19.2.7 Insurance Company

“The Contractor shall be obliged to place all insurances described in this Clause with insurers listed in the Contract Data and rated by PACRA/VISOfrating as provided in Table below:

Accepted Contract Amount (In Eq. million PKR) Minimum Rating of Insurance Companies

Up to 1000 A (+)

1001 to no limit AA

21.6 Arbitration

The word “international” is deleted in the sixth line of first paragraph. The text of sub-paragraph (a) is substituted with the following:

“the Dispute shall be finally settled under the Rules of Arbitration, specified in the Contract Data;”

The following Clauses are added after Clause 21

22 Custom Duty

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

23 Taxes

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

24 Integrity Part

If it is found and established at any stage that the Contractor or any of his Subcontractors, agents or servants have violated or involved in violation of the Integrity Pact signed by the Contractor then the Employer shall

be entitled to :

(a) recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Contractor or any of his Subcontractors, agent or servants;

(b) terminate the Contract; and

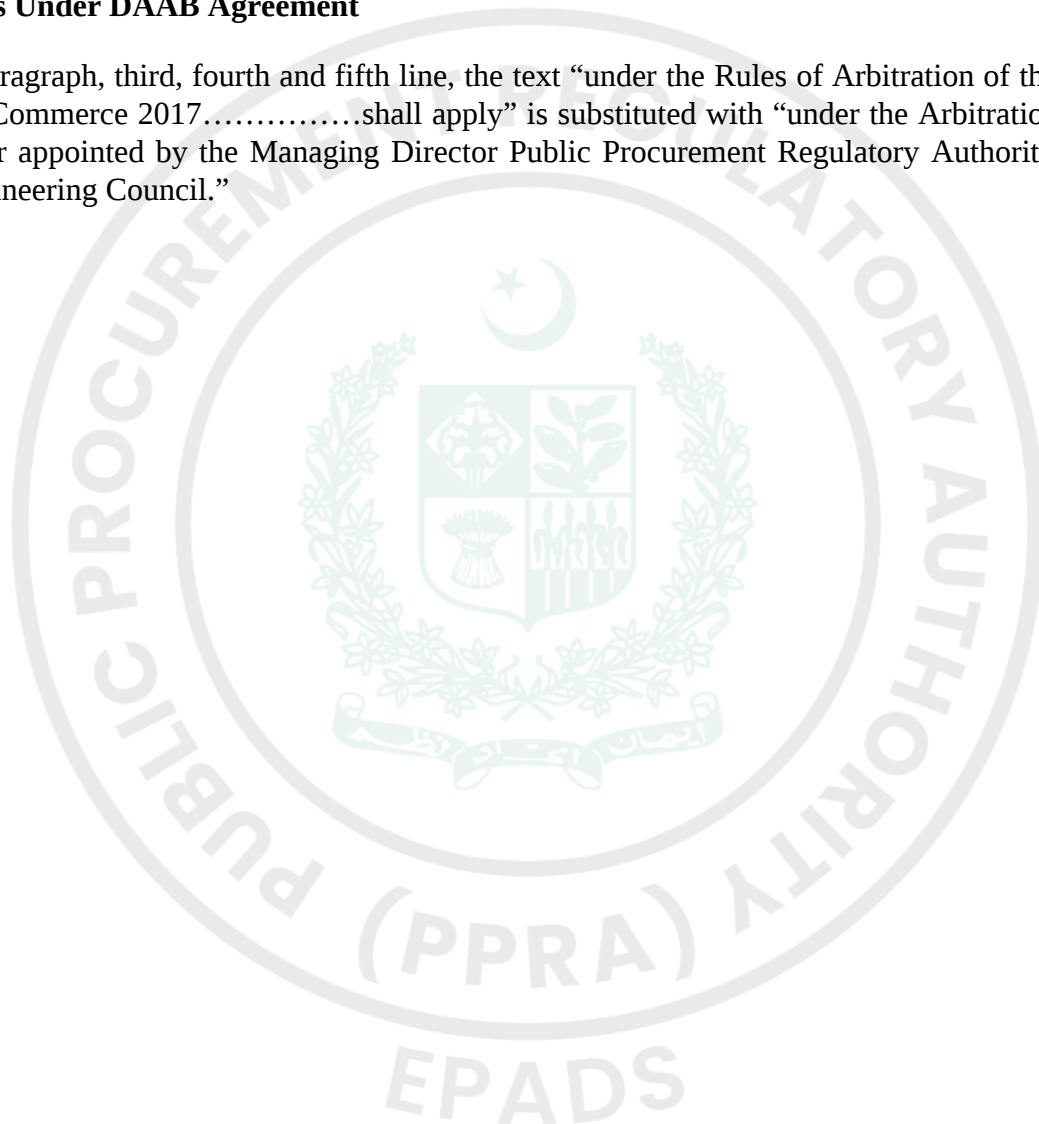
(c) recover from the Contractor any loss or damage to the Employer as a result of such termination or of any other corrupt business practices of the Contractor or any of his Subcontractors, agent or servants.

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

Appendix General Conditions of Dispute Avoidance/Adjudication Agreement

12 Disputes Under DAAB Agreement

In the first paragraph, third, fourth and fifth line, the text “under the Rules of Arbitration of the International Chamber of Commerce 2017.....shall apply” is substituted with “under the Arbitration Act 1940 by sole arbitrator appointed by the Managing Director Public Procurement Regulatory Authority or Chairman Pakistan Engineering Council.”





Bid Securing Declaration

FORM OF BID SECURING DECLARATION

Date:

No.:

Alternative No.: **P70499**

To: **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad), Purchase Officer Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration.

We accept that we will be blacklisted and henceforth cross debarred for participating in respective category of public procurement proceedings for a period of (not more than) six months, if fail to abide with a bid securing declaration, however without indulging in corrupt and fraudulent practices, if we are in breach of our obligation(s) under the Bid conditions, because we:

- (a) have withdrawn our Bid during the period of Bid validity specified in the Letter of Bid; or
- (b) having been notified of the acceptance of our Bid by the Procuring agency/Employer during the period of Bid validity, (i) fail or refuse to sign the Contract; or (ii) fail or refuse to furnish the Performance Security (or guarantee), if required, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder*

Name of the person duly authorized to sign the Bid on behalf of the Bidder** _____

Title of the person signing the Bid _____

Signature of the person named above _____

Date signed _____ day of _____, _____

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

**: Person signing the Bid shall have the power of attorney given by the Bidder attached to the Bid

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members to the Joint Venture that submits the Bid.]



Contract Form

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the “Agreement”) made on the _____ day of _____ (month) 20____ between **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad), Purchase Officer Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province).** (hereinafter called the “Employer”) of the one part and _____ (hereinafter called the “Contractor”) of the other part.

WHEREAS the Employer is desirous that certain Works, viz., **Tender for Earthwork-Leveling of Land for Layout Plan of New Academic Building at CUI (Abbottabad Dhamtore Campus) (P70499)** should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnessed as follows:

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

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

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

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

Signature of the Contactor Signature of Employer

(Seal) (Seal)

Signed, Sealed and Delivered in the presence of:

Witness Witness

(Name, Title and Address) (Name, Title and Address)



DAAB Agreement

[All italicised text and any text within square brackets (except sub-clause headings) in this form of agreement is for use in preparing the form and should be deleted from the final product].

Name and details of the Contract Tender for Earthwork-Leveling of Land for Layout Plan of New Academic Building at CUI (Abbottabad Dhamtore Campus)

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

Name and contact details of the Employer **Comsats University, Islamabad (Abbottabad Campus)**
(Comsats University, Islamabad), Purchase Officer

Comsats University Islamabad CUI Abbottabad Campus, Dhamtore, Near BHU Dhamtore, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province).

+92-343-525-8373

nisarahmed@cuiatd.edu.pk

Name and contact details of the Contractor _____ (name)

_____ (address)

_____ (telephone)

_____ (email / other contact details);

Name and contact details of the DAAB Member _____ (name)

_____ (address)

_____ (telephone)

_____ (email / other contact details);

("DAAB Agreement")

Whereas:

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

_____ (name) _____ (name)
_____ (address) _____ (address)

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

the “**Other Members**”; and

D. the DAAB Member accepts this appointment.

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

1. The conditions of this DAAB Agreement comprise:

(a) Clause 21 [Disputes and Arbitration] of the Conditions of Contract, and any other provisions of the Contract that are applicable to the DAAB’s Activities; and

(b) the “General Conditions of Dispute Avoidance/Adjudication Agreement”, which is appended to the General Conditions of the “Conditions of Contract for Construction” Second Edition 2017 published by FIDIC (“GCs”), as amended and/or added to by the following provisions.

2. [Details of amendments to the GCs, if any. For example:

In the procedural rules annexed to the GCs, Rule _ is deleted and replaced by: “ ... “]

3. The DAAB Member shall be paid in accordance with Clause 9 of the GCs. The currency of payment shall be _____.

In respect of Sub-Clauses 9.1 and 9.2 of the GCs, the amounts of the DAAB Member’s monthly fee and daily fee shall be:

monthly fee _____ per month, and

daily fee of _____ per day

(or as otherwise set under Sub-Clause 9.3 of the GCs).

4. In consideration of the above fees, and other payments to be made to the DAAB Member in accordance with the GCs, the DAAB Member undertakes to act as DAAB Member in accordance with the terms of this DAAB Agreement.

5. The Employer and the Contractor shall be jointly and severally liable for the DAAB Member’s fees and other payments to be made to the DAAB Member in accordance with the GCs.

6. This DAAB Agreement shall be governed by the law of _____ (if not stated, the law that governs the Contract under Sub-Clause 1.4 of the Conditions of Contract).

SIGNED by: _____ SIGNED by: _____ SIGNED by: _____

Print name: _____ Print name: _____ DAAB Member

Title: _____ Title: _____ Title: _____

for and on behalf of the

Employer for and on behalf of the

Contractor

in the presence of in the presence of in the presence of

Witness: _____ Witness: _____ Witness: _____

Name: _____ Name: _____ Name: _____

Address: _____ Address: _____ Address: _____

Date: _____ Date: _____ Date: _____

FORM OF MOBILIZATION ADVANCE GUARANTEE/ BOND

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Employer')

has entered into a Contract for _____

(Particulars of Contract)

with _____ (hereinafter called the "Contractor").

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

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

AND WHEREAS, _____

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

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

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

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

(Date)

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

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

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

Guarantor
(Scheduled Bank/ Insurance Company)

Signature _____

Name _____

Title _____

WITNESS:

1. _____

Corporate Secretary (Seal) Corporate Guarantor (Seal)
2. _____

Name, Title & Address



Retention Money Security Demand Guarantee

_____ [Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ [Insert name and Address of Employer]

Date: _____ [Insert date of issue]

RETENTION MONEY GUARANTEE No.: [Insert guarantee reference number]

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that _____ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Contractor") has entered into Contract No. _____ [insert reference number of the contract] dated _____ with the Employer, for the execution of _____ [insert name of contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, the Employer retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, payment of [insert the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and, if required, the ES Performance Security] is to be made against a Retention Money guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ [insert amount in figures] () [amount in words] upon receipt by us of the Employer's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified therein.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Employer's bank stating that the second half of the Retention Money as referred to above has been credited to the contractor on its account number _____ at _____ [insert name and address of Contractor's bank].

This guarantee shall expire no later than the day of, 2..., and any demand for payment under it must be received by us at the office indicated above on or before that date.

[signature(s)]

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*



Integrity Pact

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

Number: Contract

Value: Contract Title:

Dated:

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

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

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

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

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

Name of Employer:

Signature:

[Seal]

Name of Bidder/Contractor:

Signature:

[Seal]



Performance Guarantee Form

FORM OF PERFORMANCE SECURITY

Guarantee No. _____

Executed on _____

Expiry date _____

Name _____ of _____ Guarantor _____ with _____ address: _____

Name _____ of _____ Principal _____ (Contractor) _____ with
address: _____

Penal Sum of Security (express in words and figures) _____

Letter of Acceptance No. _____ Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the **Comsats University, Islamabad (Abbotabad Campus) (Comsats University, Islamabad), Purchase Officer Comsats University Islamabad CUI Abbotabad Campus, Dhamtour, Near BHU Dhamtour, Abbottabad, Abbottabad (District), Hazara Division (Division), Khyber Pakhtunkhwa (KP) (Province)**. (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

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

(Name of Contract) for the **Tender for Earthwork-Leveling of Land for Layout Plan of New Academic Building at CUI (Abbottabad Dhamtore Campus) (P70499)**

_____ (Name of Project).

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

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

We, _____ (the Guarantor), waiving all objections and defense under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer

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

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

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

Guarantor

(Schedule Bank/ Insurance Company)

Signature: _____

Name: _____

Title: _____

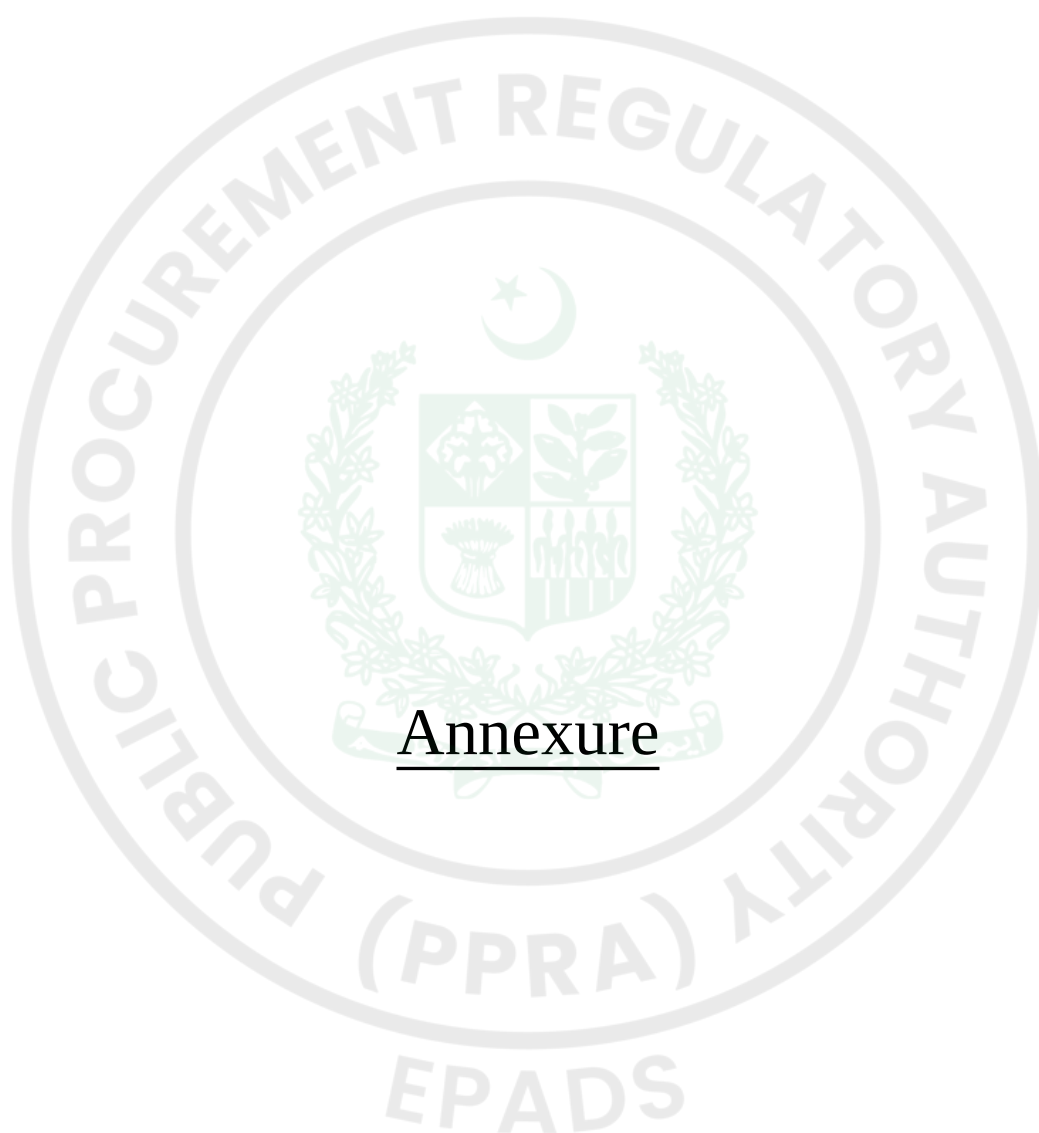
Corporate Guarantor (Seal)

WITNESS:

1.

2.

Name, Title & Address



Annexure

Annex A (Technical Specifications)

The Technical Specifications contained in Annex A are hereby incorporated into the Contract Documents. The Contractor shall execute and complete the Works in full compliance with the requirements of these Technical Specifications, unless otherwise instructed by the Engineer in accordance with the Conditions of Contract.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Annex A (Technical Specifications)** (page number: 85)

Annexure B (Special Provisions)

The Special Provisions contained in Annex B are hereby incorporated into and shall form an integral part of the Contract Documents. The Contractor shall comply with the requirements of these Special Provisions unless otherwise instructed by the Engineer in accordance with the Conditions of Contract.

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Annexure B (Special Provisions)** (page number: 105)

Annexure C (Drawing)

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Annexure C (Drawing)** (page number: 115)

Annexure D

Information (Read-Only)

See Form Under Additional Forms and Documents: **Annexure D** (page number: 127)



Procurement Forms

Past Construction Experiences

See Form Under Additional Forms and Documents: **Past Construction Experiences** (page number: 308)

Contractor's Key Personnel Representative and Their Schedules

See Form Under Additional Forms and Documents: **Contractor's Key Personnel Representative and Their Schedules** (page number: 314)

Financial Resources

See Form Under Additional Forms and Documents: **Financial Resources** (page number: 318)

Past Experience and Completed Contracts

See Form Under Additional Forms and Documents: **Past Experience and Completed Contracts** (page number: 319)

Historical Contract Non-Performance, and Pending Litigation and Litigation History

See Form Under Additional Forms and Documents: **Historical Contract Non-Performance, and Pending Litigation and Litigation History** (page number: 320)

Current Contracts and Their Progress

See Form Under Additional Forms and Documents: **Current Contracts and Their Progress** (page number: 322)

Financial Capacity and Net Worth Evaluation Form

See Form Under Additional Forms and Documents: **Financial Capacity and Net Worth Evaluation Form** (page number: 323)

Average Annual Turnover

Average Annual Turn over for last three years

See Form Under Additional Forms and Documents: **Average Annual Turnover** (page number: 325)





Additional Forms and Documents



COMSATS University Islamabad, Abbottabad Campus

**NATURE OF WORK: EARTHWORK FOR LEVELING OF
LAND FOR LAYOUT OF NEW
BUILDING AT CUI DHAMTOUR
ABBOTTABAD**

**TECHNICAL SPECIFICATIONS
Annex A**

JULY-2026



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SPECIFICATIONS TECHNICAL PROVISIONS

TECHNICAL SPECIFICATIONS

EARTHWORK

1.0 SCOPE

Earth work shall include furnishing of all labour, material, tools, plants, equipments, instruments and services for;

- i) Excavation and formation of embankment in all types of soils. It also covers lifting and transporting excavated material. Suitable material intended for use as backfill shall be placed in temporary stockpiles. All other excavated material shall be placed in spoil banks. These works shall be performed and executed by the Contractor in accordance with stipulations and requirements set forth herein which shall apply except when they are specifically modified in writing by the Engineer-in-Charge for any particular item. The method of carrying out earthwork shall be subject to approval of the Engineer-in-charge in writing.
- ii) Fill and backfill using selected excavated material or imported material obtained from approved sources or by blending the excavated and imported materials.
- iii) Before commencement and during the execution of works, the Contractor shall be responsible for surveys and layout and their maintenance for execution of works according to contract and as approved by the Engineer-in-Charge.

1.1 CLASSIFICATION OF SOILS

The earthwork shall be classified under the following categories and measured separately for each category.

1.1.1 SAND OR SOFT SOIL

It comprises sand, silt and those soils which offer no resistance to excavation and sometime requires shoring when foundation of exact dimensions are required to be excavated. Ordinary kassi, shovels or spade can be used for excavation in such type of soils.

1.1.2 ORDINARY SOIL

It comprises earth and sandy loam, spoil or rubbish of every description and any other formation into which a spade, kassi, shovels or spade can excavate

1.1.3 HARD SOIL

It comprises stiff and heavy clayed soil (having specific gravity of 1.5 and above) and at times have small percentage say upto 15 of kankar or boulders mixed up, it can be excavated by repeated blows of kassi, or with pick or shovel.

1.1.4 SHINGLE OR GRAVEL

It comprises gravel formation, soft varieties of limestone, sandstone, fissured stone or any other formation which can be excavated by the use of pick, shovel, jumpers, wedges, hammers etc.

1.1.5 ORDINARY / SOFT ROCK

Generally, any rock which can be excavated by splitting with crow bars or picks and does not require blasting, wedging or similar means for excavation. If required light blasting may be resorted to for loosening the materials but this will not in any way entitle the material to be classified as 'Hard rock'.

1.1.6 HARD ROCK

Generally, any rock or boulder for the excavation of which blasting is required such as quartzite, granite, basalt, consolidated sand stone, massive bedded lime stone, leterite, marble, schist, Mandrasite, dolorite, pegmatite and reinforced cement concrete (reinforcement to be cut through but not separated from concrete) below ground level and the like.

1.1.7 HARD ROCK (BLASTING PROHIBITED)

Hard rock requiring blasting as described but where the blasting is prohibited for any reason and excavation has to be carried out by chiseling, wedging, use of rock hammers and cutters or any other agreed method.

1.1.8 ALL KIND OF SOILS

All kinds of soils are generally any strata, such as sand, gravel, loam, clay, mud, black cotton moorum, shingle, river or nullah bed boulders, siding of roads, paths etc. and hard core, macadam surface of any description (water bound, grouted tarmac etc.), lime concrete, mud concrete and their mixtures which for excavation yield to application of picks, showels, jumper, scarifiers, ripper and other manual digging implements.

1.2 ANTIQUITIES AND USEFUL MATERIALS

Any finds of archaeological interest such as relics of antiquity, coins, fossils or other articles of value shall be delivered to the Engineer-in-Charge and shall be the property of the Government. Any material obtained from the excavation which in the opinion of the Engineer in-Charge is useful shall be stacked separately in regular stacks as directed by the Engineer in-Charge and shall be the property of the Government. In case of archaeological monuments within or adjacent to the area, the contractor shall provide necessary fencing all around such monuments as per the directions of the Engineer in-Charge and protect the same properly during execution of works. Payment for providing fencing shall be made separately.

1.3 PROTECTIONS

Excavation where directed by the Engineer-in-Charge shall be securely barricaded and provided with proper caution signs, conspicuously displayed during the day and properly illuminated with red lights and/or written using fluorescent reflective paint as directed by Engineer in charge during the night to avoid accident. The Contractor shall take adequate protective measures to see that the excavation operations do not damage the adjoining structures or dislocate the services. Water supply pipes, sluice valve chambers, sewerage pipes, manholes, drainage pipes and chambers, communication cables, power supply cables etc. met within the course of excavation

shall be properly supported and adequately protected, so that these services remain functional. However, if any service is damaged during excavation shall be restored in reasonable time.

Excavation shall not be carried out below the foundation level of the adjacent buildings until underpinning, shoring etc. is done as per the directions of the Engineer-in-Charge. Any damages done by the contractor to any existing work shall be made good by him at his own cost. Existing drains, pipes, culverts, overhead wires, water supply lines and similar services encountered during the course of execution shall be protected against damage by the contractor. The contractor shall not store material or otherwise occupy any part of the site in manner likely to hinder the operations of such services.

1.4 SITE PREPARATION

Before the earthwork is started, the area coming under cutting and filling shall be cleared of shrubs, rank vegetation, grass, brushwood, trees saplings removed up to a distance of 30 meters outside the periphery of the area under clearance. The roots of trees and saplings shall be removed to a depth of 60cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower, and the holes or hollows filled up with the earth, rammed and levelled.

1.5 EXCAVATION IN ALL KINDS OF SOILS

1.5.1 EXCAVATION OPERATIONS

All excavation operations manually or by mechanical means shall include excavation and disposal of the excavated material for canals, drains foundations, trenches, basements, water tanks sewers and manholes; including excavation in hard soils and under water etc. The work shall include the depositing the excavated materials as specified. The disposal of the excavated material beyond free lead shall be either stated as a separate item or included with the items of excavation stating lead. During the excavation the natural drainage of the area shall be maintained. Excavation shall be done from top to bottom. Undermining or undercutting shall not be done.

In firm soils, the sides of the excavations shall be kept vertical up to a depth of 2 meters from the bottom. For greater depths, the excavation profiles shall be widened by allowing steps of 50 cms on either side after every 2 meters from the bottom. Alternatively, the excavation can be done so as to give slope of 1:4 (1 horz. : 4 vert.). Where the soil is soft, loose or slushy, the width of steps shall be suitably increased or sides sloped or the soil shored up as directed by the Engineer-in-Charge. It shall be the responsibility of the contractor to prepare proposals for the stepping, sloping or shoring as required for excavation for various depths. The work shall be executed only after the proposal is approved by the Engineer-in Charge.

The excavation shall be done true to levels, slope, shape and pattern as per drawings and directed by the Engineer-in-Charge. Only the excavation shown on the drawings or as approved by the Engineer-in-Charge shall be measured for payment. No separate measurement and payment shall be made for excavation for centering and shuttering and for contractor's convenience.

The excavation for foundation in trenches and other areas, the bed of excavations shall be to the correct level or slope and consolidated by watering and ramming and other means when necessary. If the excavation is done to a depth greater than that shown in the drawings unless it is required by the Engineer-in-Charge, the excess depth shall be made good by the contractor at his own cost with the concrete of the mix used for levelling/ bed concrete for foundations. Soft/defective spots at the bed of the foundations shall be dug out and filled with concrete (to be paid separately) as directed by the Engineer-in-Charge.

While carrying out the excavation for drain work care shall be taken to cut the side and bottom to the required shape, slope and gradient. The surface shall then be properly dressed. If the excavation is done to a depth greater than that shown on the drawing or as required by the Engineer-in-Charge, the excess depth shall be made good by the contractor at his own cost with stiff clay puddle at places where the drains are required to be pitched and with ordinary earth, properly watered and rammed, where the drains are not required to be pitched. In case the drain is required to be pitched, the back filling with clay puddle, if required, shall be done simultaneously as the pitching work proceeds. The brick pitched storm water drains should be avoided as far as possible in filled-up areas and loose soils. In all other cases where the excavation is taken deeper by the contractor, it shall be brought to the required level by the contractor at his own cost by filling in with earth duly watered, consolidated and rammed. In case the excavation is done wider than that shown on the drawings or as required by the Engineer-in-Charge, additional filling wherever required on that account shall be done by the contractor at his own cost.

The excavation shall be done manually or by mechanical means as proposed by the contractor and approved by Engineer-in-charge considering feasibility, urgency of work, availability of labour/mechanical equipments construction completion programme and other factors involved. Contractor shall ensure the safety measures for the workers fully complying with recognized procedures and state laws.

1.5.2 DISPOSAL OF EXCAVATED MATERIALS

The free lead for disposal of excavated materials where stated in the “Schedule of Quantities” against various items is the average lead for the disposal of excavated earth within the site of work. The subsequent disposal of the excavated material where required shall be either stated as a separate item or included with the item of excavation stating lead. The actual lead for the disposal of earth beyond free lead shall be measured for payment appropriately. The excavated earth shall be disposed off at the locations proposed by the Contractor and approved by the Engineer-in-Charge. The contractor has to take written permission about place of disposal of earth before the earth is disposed off, from Engineer-in-Charge.

1.6 EXCAVATION IN ORDINARY / HARD ROCK

1.6.1 GENERAL

All excavation operations shall include excavation and disposal of the excavated material as shown on drawings and approved by the Engineer-in-Charge. In case of excavation for trenches, basements, water tanks etc. the excavation shall include

disposal of the excavated materials within free lead as specified. The disposal of the excavated material beyond free lead shall be stated as a separate item unless it is included with the item of excavation. During excavation, the natural drainage of the area shall be maintained; Excavation shall be done from top to bottom. Undermining or under cutting shall not be done.

1.6.2 ORDINARY / SOFT ROCK

In ordinary rock excavation shall be carried out by crowbars, pick axes or pneumatic drills and blasting operation shall not be generally adopted. Where blasting operations are not prohibited and it is practicable to resort to blasting for excavation in ordinary rock, contractor may do so with the permission of the Engineer-in-Charge in writing but nothing extra shall be paid for this blasting. Blasting shall be done as specified hereof.

If the required excavation is done to a depth greater than that shown in the drawings or as required by the Engineer-in-Charge, the excess depth shall be made good by the contractor at his own cost with the concrete of the mix used for levelling/ bed concrete for foundations. Soft/ defective spots at the bed of foundations shall be dug out and filled with concrete (to be paid separately) as directed by the Engineer-in-Charge.

In case the excavation is done wider than that shown on the drawings or as required by the Engineer-in-Charge, filling wherever required on this account shall be done by the contractor at his own cost. Only the excavation shown on the drawings or as required by the Engineer in-Charge shall be measured and recorded for payment except in case of hard rock, where blasting operations have been resorted to, excavation shall be measured to the actual levels, provided the Engineer-in-Charge is satisfied that the contractor has not gone deeper than what was unavoidable.

1.6.3 HARD ROCK

(i) General

Where hard rock is met with and blasting operations are considered necessary, the contractor shall obtain the approval of the Engineer-In-charge in writing for resorting to the blasting operations. Blasting operations shall be done as specified and chiseling shall be done to obtain correct levels, slopes, shape and pattern of excavation as per the drawings or as required by the Engineer-In-charge and nothing extra shall be payable for chiseling.

(ii) Blasting

Blasting operations shall be carried out under the supervision of a responsible licensed blasting authorized agent of the contractor (referred as agent), during specified hours as approved in writing by the Engineer-in-Charge. The agent shall be conversant with the rules of blasting notified by Government from time to time. All blasting operations shall be carried out with due regard to safety regulations in force.

For blasting with dynamite or any other high explosive, the position of all the bore holes to be drilled shall be marked in circles with white paint. These shall be inspected by the contractor's agent. Bore holes shall be of a size that the cartridge can easily pass down. After the drilling operation, the agent shall inspect the holes to ensure that drilling has been done only at the marked locations and no extra hole has been drilled. The agent shall then prepare the necessary charge separately for each

bore hole. The bore holes shall be thoroughly cleaned before a cartridge is inserted. Only cylindrical wooden tamping rods shall be used for tamping. Metal rods or rods having pointed ends shall never be used for tamping. One cartridge shall be placed in the bore hole and gently pressed but not rammed down. Other cartridges shall then be added as may be required to make up the necessary charge for the bore hole. The top most cartridge shall be connected to the detonator which shall in turn be connected to the safety fuses of required length. All fuses shall be cut to the length required before being inserted into the holes. Joints in fuses shall be avoided. Where joints are unavoidable a semi-circular notch shall be cut in one piece of fuse about 2 cm deep from the end and the end of another piece inserted into the notch. The two pieces shall then be wrapped together with string. All joints exposed to dampness shall be wrapped with rubber tape. The maximum of eight bore holes shall be loaded and fired at one occasion. The charges shall be fired successively and not simultaneously. Immediately before firing, warning shall be given and the agent shall see that all persons have retired to a place of safety. The safety fuses of the charged holes shall be ignited in the presence of the agent, who shall see that all the fuses are properly ignited.

Careful count shall be kept by the agent and others of each blast as it explodes. In case all the charged bore holes have exploded, the agent shall inspect the site soon after the blast but in case of misfire the agent shall inspect the site after half an hour and mark red crosses (X) over the holes which have not exploded. During this interval of half an hour, nobody shall approach the misfired holes. No driller shall work near such bore until either of the following operations has been done by the agent for the misfired boreholes.

The contractor's agent shall very carefully (when the tamping is of damp clay) extract the tamping with a wooden scraper and withdraw the fuse, primer and detonator. After this a fresh detonator, primer and fuse shall be placed in the misfired holes and fired, or the holes shall be cleaned for 30 cm of tamping and its direction ascertained by placing a stick in the hole. Another hole shall then be drilled 15 cm. away and parallel to it. This hole shall be charged and fired. The misfired holes shall also explode along with the new one.

Before leaving the site of work, the agent of one shift shall inform the another agent relieving him for the next shift, of any case of misfire and each such location shall be jointly inspected and the action to be taken in the matter shall be explained to the relieving agent. The Engineer-in-Charge shall also be informed by the agent of all cases of misfires, their causes and steps taken in that connection.

(iii) General Precautions

For the safety of persons red flags shall be prominently displayed around the area where blasting operations are to be carried out. All the workers at site, except those who actually ignite the fuse, shall withdraw to a safe distance of at least 200 meters from the blasting site. Audio warning by blowing whistle shall be given before igniting the fuse. Blasting work shall be done under careful supervision and trained personnel shall be employed. Blasting shall not be done within 200 metres of an existing structure, unless specifically permitted by the Engineer-in-Charge in writing.

All procedures and safety precautions for the use of explosives drilling and loading of explosives drilling and loading of explosives before and after shot firing and disposal of explosives shall be taken by the contractor in accordance with safety code for blasting and related drilling operation.

(iv)Precautions against misfire

The safety fuse shall be cut in an oblique direction with a knife. All saw dust shall be cleared from inside of the detonator. This can be done by blowing down the detonator and tapping the open end. No tools shall be inserted into the detonator for this purpose.

If there is water present or if the bore hole is damp, the junction of the fuse and detonator shall be made water tight by means of tough grease or any other suitable material. The detonator shall be inserted into the cartridge so that about one third of the copper tube is left exposed outside the explosive. The safety fuse just above the detonator shall be securely tied in position in the cartridge. Water proof fuse only shall be used in the damp bore hole or when water is present in the bore hole.

If a misfire has been found to be due to defective fuse, detonator or dynamite, the entire consignment from which the fuse detonator or dynamite was taken shall be got inspected by the Engineer-in-Charge or his authorized representative before resuming the blasting or returning the consignment.

1.7 EXCAVATION IN OR UNDER WATER AND /OR LIQUID MUD

1.7.1 GENERAL

Excavation, where water is encountered shall fall in this category. Steady water level in the trial pits before the commencement of bailing or pumping operations shall be the sub-soil water level in that area. Planking and strutting or any other protection work done with the approval of the Engineer-in-Charge to keep the trenches dry and/or to save the foundations against damage by corrosion of rise in water levels shall be measured and paid for separately. Bailing or pumping out water, accumulated in excavation, due to rains is included under respective items of earthwork and is not to be paid separately. In case item for dewatering is listed in the bid schedule, it will be paid as lumpsum item and will constitute full compensation for all labor, equipment's, tools and all other items necessary and incidental to the completion of the work.

1.7.2 CARE OF WATER/ DEWATERING

All water that may accumulate in excavations during the progress of the work from springs, tidal or river seepage, broken water mains or drains (not due to the negligence of the contractor), and seepage from subsoil aquifer shall be bailed, pumped out or otherwise removed by the contractor. The contractor shall take adequate measures for bailing and/or pumping out water from excavations and/or pumping out water from excavations and construct diversion channels, bunds, sumps, coffer dams etc. as may be required. Pumping shall be done directly from the foundations or from a sump outside the excavation or any other appropriate method proposed by Contractor in advance of undertaking the work and approved by the Engineer-in-Charge in such a manner as to preclude the possibility of movement of water through any fresh

concrete or masonry and washing away parts of concrete or mortar. During laying of concrete or masonry and for a period of at least 24 hours thereafter, pumping shall be done from a suitable sump separated from concrete or masonry by effective means.

Capacity and number of pumps, location at which the pumps are to be installed, pumping hours etc. shall be proposed from time to time by the contractor and approved by the Engineer-in-Charge.

Pumping shall be done in such a way as not to cause damage to the work or adjoining property by subsidence etc. Disposal of water shall not cause inconvenience or nuisance in the area or cause damage to the property and structure nearby. To prevent slipping of sides, planking and strutting may also be done with the approval of the Engineer-in Charge.

The approval by the Engineer-in-Charge of the Method Statement for pumping shall not relieve the contractor of his responsibility for the adequacy sufficiency of operations. The applicable extra unit rate for wet and underwater excavation of earthwork includes full compensation for performance of the work and no separate payment shall be allowed, in case item for dewatering is not listed in the bid separately.

1.8 FILLING

1.8.1 GENERAL

- (i) For fillings and embankment construction, the earth from excavation as far as practicable shall be directly used for filling and no payment for double handling of earth shall be admissible. All costs shall be deemed to be included in the unit rate for excavation.
- (ii) The earth used for filling and embankment construction shall be free from all roots, grass, shrubs, rank vegetation, brushwood, tress, sapling and rubbish. Filling with excavated earth shall be done in regular horizontal layers each not exceeding 20 cm in thickness unless otherwise specified or approved by the Engineer-in-Charge. All lumps and clods exceeding 8 cm in any direction shall be broken.
- (iii) Each layer shall be watered and consolidated with steel rammer or ½ tons roller. Where specified, every third and top most layer shall also be consolidated with power roller of minimum 8 tones. Wherever depth of filling exceeds 1.5-meter vibratory power roller shall be used to consolidate the filing unless otherwise directed by Engineer-in-charge. The top and sides of filling shall be neatly dressed. The contractor shall make good all subsidence and shrinkage in earth fillings, embankments, traverses etc. during execution and till the completion of work unless otherwise specified.

1.8.2 LARGE SCALE LEVELLING WORK

- a) In case of large-scale levelling work involving both cutting and filling, an accurate site plan shall be prepared before the work is commenced by contractor for approval of the Engineer in-Charge. The portions requiring cutting and filling shall then be divided into squares and corresponding squares into filling, which are complementary

to the squares in cutting giving the same number.

- b) A table may be written upon the plan showing leads involved between the various complementary squares. This would form a lead chart for the work to be done.
- c) Before the work of levelling is commenced, the lead chart shall be checked in the presence of the contractor or his authorized representative, and his signatures shall be obtained on the same. This should form an integral part of the contract and should be duly signed by both the integral parties before commencement of the work.
- d) The quantity payable for earthwork shall be lower of the quantity derived from cutting or filling. The payment for lead shall be based on lead chart prepared in the aforesaid manner.

1.8.3 BORROW SOIL

Materials required for fill and embankment construction not available from excavations be imported from pre-determined borrow areas approved by the Engineer-in-Charge before the start of the work. Wherever feasible, the average lead should be worked out and stipulated in the tender.

The borrow area shall be stripped carefully of topsoil, sod and other matter unsuitable for fill. Surface of borrow areas shall be left after completion in a reasonable smooth and even condition approved by Engineer-in-Charge.

The initial limits and levels of the area to be filled should be recorded and approved by Engineer-in-Charge. The levels should be properly checked during the progress of work and on completion.

1.9 EMBANKMENT CONSTRUCTION

1.9.1 SOURCE OF FILL MATERIAL

The fill material for construction of embankment shall comply with the provisions of Clause 1.8. and the work shall be carried out as shown on drawings and approved by the Engineer in-Charge.

If sufficient suitable materials are not available from the required excavations to construct the embankment, diversion, coffer dams, backfill and other earthwork construction shown on the approved drawings or directed in writing by the Engineer-in-charge, suitable materials shall be excavated from borrow-pits located in specified areas.

In case of road embankments, the borrow pits may be excavated along the sides of the road so as to form road side drains with proper slopes and sections. The clear berm width between the toe of the bank and the inner edge of the borrow pits shall be specified by the Engineer-in-Charge but it shall not be less than 5 meters after making due allowance for future development.

Borrow pits shall be rectangular in shape with one side parallel to the center line of

the road. If on road land, these shall be dug as near the boundary as possible. Borrow pits shall not be dug continuously. Ridges of not less than 8 meters width should be left at intervals not exceeding 300 meters. Small drains should be cut through the ridges to facilitate drainage. Borrow pits shall be well drained. The bed level of the borrow pits, shall, as far as possible, slope down progressively towards the nearest cross drain, if any and shall not be over than the bed of the cross drain. Borrow pits shall not be dug within 0.8 km of towns or villages. If unavoidable these shall not exceed 30 cm in depth and shall be drained.

Where it becomes necessary to borrow filling materials from temporarily acquired cultivable lands the depth of borrow pits shall not exceed 45 cm. The top soil to a depth of 15 cm shall be stripped and stacked aside. Thereafter soil shall be dug out to a further depth not exceeding 30 cm and used in forming the embankment. The top soil shall then be spread back on the land.

1.10 SITE CLEARANCE

The surface area of the ground to be occupied by all banks, spoils, borrow pits shall be cleared of all roots, grass, shrubs, brush, trees, fences and such other works as may either cause hindrance with the execution of works or may decay and form dangerous pockets. The clearance may be classified with following categories.

1.10.1 SURFACE DRESSING

Surface dressing before placement of fill and construction of embankment shall include cutting and filling up to a depth of 15 cm and clearing of shrubs, rank vegetation, grass, brushwood, trees and saplings of girth up to 30 cm measured at a height of one meter above the ground level and removal of rubbish and other excavated material up to a distance of 50 meters outside the periphery of the area under surface dressing. High portions of the ground shall be cut down and hollows and depressions filled up to the required level with the excavated earth so as to give an even, neat and tidy look.

1.10.2 JUNGLE CLEARANCE

Jungle clearance shall comprise uprooting of rank vegetation, grass, brushwood, shrubs, stumps, trees and saplings of girth upto 2.5 ft. measured at a height of one meter above the ground level.

1.10.3 UPROOTING OF VEGETATIONS

The roots of trees and saplings shall be removed to a depth of 60 cm below ground level or 30 cm below formation level or 15 cm below sub-grade level, whichever is lower. All holes or hollows formed due to removal of roots shall be filled up with earth rammed and levelled. Trees, shrubs, poles, fences, signs, monuments, pipe lines, cable etc., within or adjacent to the area which are not required to be disturbed during jungle clearance shall be properly protected by the contractor at his own cost and nothing extra shall be payable.

1.10.4 CLEARANCE OF GRASS

Clearing and grubbing operation involving only the clearance of grass including removal of rubbish up to a distance of 50 m. outside the periphery of the area under clearance shall not be measured and paid for separately. Its costs shall be deemed to be included in the unit rate for earthwork.

1.10.5 FELLING TREES

While clearing jungle, growth trees above 30 cm girth (measured at a height of one meter above ground level) to be cut, shall be approved by the Engineer-in-Charge and then marked at site. Felling trees shall include taking out roots up to 60 cm below ground level or 30 cm below formation level or 15 cm below sub-grade level, whichever is lower. All excavation below general ground level arising out of the removal of trees, stumps etc. shall be filled with suitable material in 20 cm layers and compacted thoroughly so that the surfaces at these points conform to the surrounding area. The trunks and branches of trees shall be cleared of limbs and tops and cut into suitable pieces as directed by the Engineer-in-Charge.

1.10.6 STACKING AND DISPOSAL

All useful materials obtained from clearing and grubbing operation shall be stacked in the manner as directed by the Engineer-in-Charge. Trunks and branches of trees shall be cleared of limbs and tops and stacked neatly at places indicated by the Engineer-in-Charge. The materials shall be the property of the Government. All unserviceable materials which in the opinion of the Engineer-in-Charge cannot be used or auctioned shall be removed up to a distance of 50 ft. outside the periphery of the area under clearance. It shall be ensured by the contractor that unserviceable materials are disposed off in such a manner that there is no likelihood of getting mixed up with the materials meant for construction.

1.10.7 OTHER PHYSICAL OBSTRUCTIONS

Other physical obstructions like structures, fencing appearing on ground shall be cleared and accounted as approved by the Engineer-in-Charge.

1.11 FOUNDATION PREPARATION & LAYOUT OF EMBANKMENTS

The foundations of the embankment shall be ploughed to a depth of 15 to 25 cm. All clods shall be broken into fine earth and the area roughly levelled. The surface shall then be well watered before the earth work is started. Before commencement of filling the center and toe lines of the embankment shall be marked by pegs driven into the ground at 15 meters intervals and by continuous nicking (day belling) to indicate the limits of the construction. Bamboo and string profiles shall be erected at every 60 meters interval in straight reaches and 15 meters apart in curved portions.

1.12 FILL PLACEMENT FOR EMBANKMENT COMPACTION

1.12.1 FILL PLACEMENT

Embankment material shall be laid in 20 cm layers which shall be continuous and parallel to the finished grade. The placing of earth fill shall be done in the full width of embankment including slopes, and the section of formation shall be kept slightly sloping away from the centre to avoid pools of water forming due to rain. The height of filling in different sections shall be uniform as far as possible. All clods shall be broken while the earth is being placed. Organic matter of any kind shall be removed and disposed off as directed by the Engineer-in-Charge. Joining of old and new embankments shall be done by stepping in an overall slope of about 1 to 5. Each layer of earth shall be adequately watered to aid compaction. The specified compaction shall be achieved by using appropriate compaction equipment as approved by the Engineer-in-Charge.

If the material delivered for fill is too wet it shall be dried by aeration and exposure to the sun, till the moisture content is acceptable for compaction. The embankment if required shall be rolled with roller of minimum 1/2 tons weight, not less than 5 times and further if required till it gets evenly and densely consolidated with wooden or steel rammers of 7 to 10 kg weight having a base of 20 cm square or 20 cm diameter. The labour for ramming shall be at-least one rammer to six diggers. Every third layer of earth and the top most layer shall be well consolidated with a power roller of minimum 8 tonnes weight, rolled not less than 5 times, till the soil behaves as an elastic material and gets compressed only elastically under the load of roller.

1.12.2 DRESSING

The embankment shall be dressed neatly as per designed section and grade, after it has been completed and thoroughly consolidated. The top and slopes shall be protected from any damage and maintained, till the work is completed and handed over to the Engineer-in Charge.

1.12.3 EMBANKMENT COMPACTION

1.12.3.1 GENERAL

The Compaction of the embankment may be required at specified relative density according to ASTM D 1556 at optimum moisture content or otherwise compaction as required.

1.12.3.2 EMBANKMENT CONSTRUCTION (Under Optimum Moisture Conditions)

(i) General

The optimum moisture contents for specified density shall be determined by contractor in laboratory in advance of start of construction.

The optimum moisture contents for specified density shall be determined by contractor in laboratory in advance of start of construction. Control on compaction in the field shall be exercised through frequent moisture content and density determinations. A systematic record of these shall be maintained. At all times during construction the top of the embankment shall be maintained in a profile to shed water and prevent pounding.

(ii) Density Measurement and Acceptance Criteria

Measurement of density shall be made for each 500sq.m of compacted area or for a smaller area as decided by the Engineer-in-Charge. Each measurement shall consist of at least 5 density determinations and the average of these 5 determinations shall be treated as the field density achieved.

In general the control at the top 40 cm thickness of the formation shall be more strict with density measurements being done at the rate of one measurement for 250 sq.m. of compacted area. Further for the determination of the mean density the number of tests in one measurement shall not be less than 10 and the work will be accepted if the mean dry density equals or exceeds the specified density.

When density measurements reveal any soft areas in the embankment, the Engineer-in-Charge shall direct that these be compacted further. If in spite of that the specified compaction is not achieved the material in the soft areas shall be removed and replaced by approved materials and compacted as specified to the satisfaction of the Engineer-in-Charge.

1.12.3.3 EMBANKMENT CONSTRUCTION (Without Optimum Moisture Conditions)

Materials used in embankments shall be earth moorum, gravel, a mixture of these or any other material approved by the Engineer-in-Charge. Such materials shall be free of logs, stumps, roots, rubbish or any other ingredient likely to deteriorate or affect the stability of the embankment. The work shall be so planned and executed that the best available materials are saved for the top portion of the embankment. Highly expansive clays exhibiting marked swell and shrinkage properties may be deposited only at the bottom of the embankment and no such material shall be placed nor permitted to remain in the top 500 mm portion of the embankment below the sub-grade.

1.12.4 EMBANKMENT AROUND STRUCTURES

To avoid interference with the construction of abutments, wing walls or return walls of culvert/bridge structure, the contractor shall at points to be determined by the Engineer-in-Charge suspend work on embankments forming approaches to such structures, until such time as the construction of the latter are sufficiently advanced to permit the completion of approaches without the risk of interference of damage to the bridge works.

Unless directed otherwise, the filling around culverts, bridges and other structures up to a distance of twice the height of the embankment shall not be done. The fill material shall not be placed against any abutment or wing wall unless permission has been given by the Engineer-in-Charge but in any case, not until the concrete or masonry has been in position for 14 days. The embankment shall be brought up simultaneously in equal layers on each side of the structure to avoid displacement and unequal pressure. The sequence of work in this regard shall be got approved from the Engineer-in-Charge. Where the provision of any filter medium is specified behind the abutment, the same shall be laid in layers simultaneously with the laying of fill material. The material used for filter material shall conform to the requirements for filter medium as specified. Payment for providing filter material shall be made separately under relevant items.

Where it may be impracticable to use power roller or other heavy equipment, compaction shall be carried out by mechanical tampers or other methods approved by

the Engineer-in Charge. Care shall be taken to see that the compaction equipments does not hit or come too close to any structural member so as to cause any damage to it.

1.13 EARTHWORK BY MECHANICAL MEANS

Earth work by mechanical means involves careful planning keeping in view site conditions i.e. type of soil, nature of excavation, distances through which excavated soil is to be transported and working space available for employing these machines. The earth moving equipment should be accordingly selected.

The contractor shall submit for approval of the Engineer-in-Charge his detailed Method statement for carrying out the work. The approval of Method statement by the Engineer-in Charge shall not relieve the contractor for carrying out the work according to Contract Agreement as approved by the Engineer. The earth moving equipment consists of excavating and transporting equipment. Excavating equipments may be further classified as excavators and tractor based equipments. The major items which may be used in Construction are listed below.

1.13.1 EXCAVATORS

Excavators generally used at site are as follows:

a) Dipper–shovel

It is used for excavating against a face or bank consisting of open-top bucket or dipper with a bottom opening door, fixed to an arm or dipper stick which slides and pivots on the jib of the crane. It is suitable for excavating all clay chalk and friable materials and for handling rock and stone. However, it is not suitable for surface excavation for which a skimmer is used.

b) Backhoe

It is similar to face shovel except that the dipper stick pivots on the end of the jib and the dipper or bucket works towards the chassis and normally has no bottom door but is emptied by swinging away from the chassis to invert the bucket. It may be designed to carry both a front–mounted bucket and a rear mounted backhoe. It is mainly used to excavate trenches and occasionally used for the excavation of open areas such as small basements.

In the backhoe mode the bucket lifts, swings and discharges materials while the undercarriage is stationary. When used in the ‘loader’ mode the machine loads or excavated through forward motion of the machine, and lifts, transports and discharges materials.

c) Skimmer

This arrangement is similar to the face shovel except that in this case the bucket slides on rollers directly along the jib and thus has a more restricted movement. It is used for surface excavation and levelling in conjunction with transport to haul away the excavated material.

d) Dragline

It is usually fitted with a long slender boom or jib and the bucket, which in operation faces towards the machine and has no door, is supported by cable only as on a crane.

It works from the side of the excavation at normal ground level and is used for excavating large open excavations such as basements when the depth is beyond the limit of the boom of a backhoe. It is commonly used for open cast mining operations.

e) Clamshell

It comprises two hinged half-buckets or jaws pivoted to a frame which is suspended by cable from a long jib of an excavation. The grab is used for deep excavations of limited area on all types of soil except rock. Crane and Grab is a variant of this type of equipment.

1.13.2 TRACTOR BASED EQUIPMENT

It is a self-propelled crawler or wheeled machine used to exert a push or pull force through mounted equipment. It is designed either as attachments to normal tracked or wheeled tractors or as machines in which the earth moving attachments and the tractor are designed as a single integrated unit. A tractor, which is hydraulically operated, can be rigged as:

a) Loaders

It is used for loading, light dozing, scraping and grabbing operations, lifting and transporting the materials (loose earth, rubble, sand, gravel aggregate etc) at various sites through forward motion of the machine.

b) Tractor Shovel

This consists of a tipping bucket at the front attached by strong pivoted arms or booms to the frame of the machine. It is used for stripping top soil, excavating against a face, bulldozing and for loading spoil or loose materials. It is similar to crawler dipper-shovel.

c) Trench Digger

It operates on the same principle as a backhoe excavator except that the bucket is controlled by hydraulic rams instead of cables and pulleys.

d) Scraper

Scrapers provide unique capability to excavate, load, haul and dump materials. Scrapers are available in various capacities by a number of manufacturers with options such as self – loading with elevators, twin engines or push-pull capability. They are cost effective where the haul distance is too long for bulldozers, yet too short for trucks. This distance typically ranges from 120 m. to 1200m. however, the economics should be evaluated for each project. Scraper has an open bowl with a cutting edge positioned between the axles, which cuts, loads, transports, discharges and spreads through forward motion of the machine. Loading through forward motion of the machine can be assisted by a powered mechanism (elevator) fixed to the scraper bowl.

e) Bulldozer and Angle-dozer

The most common equipment used for clearing and levelling activities is a bulldozer. The term bulldozer is used to define a tractor mounted with a dozing blade. The bulldozer consists of a rectangular steel blade with renewable cutting edge set at right angles (capable of only tilting but not angling) to the direction of travel and attached

by steel arms to the side frames of a crawler tractor. It may be used for excavating natural soil or for moving loose soil or debris, which is pushed forward as the tractor forces it ahead. Angle dozer is capable of both tilting and angling.

1.14 TRANSPORTING EQUIPMENT

This implies horizontal movement primarily but it can involve some vertical movement too.

a) Dumpers

These are self-propelled wheeled machines, having an open body. It is designed for the transport of excavated materials and consists of a shallow tipping hopper or skip mounted on a such as, power barrow, dumper, multi-skip dumpers, high discharge dumpers, dump truck, etc. These can be rear dump, side dump or bottom dump.

b) Vibratory Roller

It is a single Drum Vibratory Roller for compaction of embankments, etc. The smooth drum version is for compaction of granular and mixed soil. The sheep's foot Roller comprises a hallow cylindrical steel drum or drums on which projecting feet are mounted. These feet penetrate into the fill as a roller moves forward and cause compaction. The geometry of the foot may be sheep, club pyramid, cone or cylinder foot. Such rollers are employed for compaction (densification) of cohesive and semi-cohesive soils.

1.15 DISPOSAL OF SURPLUS EXCAVATED MATERIAL

- 1.15.1 The rejected unsuitable material and surplus excavated material shall be disposed off at designated place or as directed by the Engineer. No compensation of any lead/lift is admissible and rates quoted shall be deemed to include the same.
- 1.15.2 The disposal of surplus/unsuitable excavated material shall include loading, unloading, transporting, stacking, spreading and leveling as directed by the Engineer.

1.16 MEASUREMENT AND PAYMENT

1.16.1 General

Except otherwise specified herein or elsewhere in the Contract Documents, no measurement and payment will be made for the under mentioned works related to the relevant BOQ items. The cost thereof shall be deemed to have been included in the quoted unit rate of the respective items of the Bill of Quantities.

- 1.16.1.1 Timber shoring, planking, strutting and providing slope for upholding the sides of excavations.
- 1.16.1.2 Any fill with approved material necessitated by over excavation due to fault or convenience of the Contractor except under structural members.

- 1.16.1.3 Stockpiling the excavated material at approved location within free haulage limit of the Project Boundary and transporting back suitable material to places requiring fill or backfill.
- 1.16.1.4 Specified foundation bed preparation.
- 1.16.1.5 Excavation involved in providing adequate working space around sides of foundation and service line trenches.
- 1.16.1.6 Providing approved quality fill/backfill material obtained from excavated material as designated by the Engineer.
- 1.16.1.7 Rolling, leveling, watering & compacting the fill and backfill to required density.
- 1.16.1.8 All laboratory and field tests stipulated in these specifications.
- 1.16.1.9 Disposal of rejected surplus and unsuitable excavated material within the capital territory of Islamabad. No compensation of any lead/lift is admissible and rates quoted shall be deemed to include the same.
- 1.16.1.10 De-watering to keep the foundations dry during construction.
- 1.16.1.11 All cost inclusive of borrow area's royalty charges
- 1.16.1.12 Testing of Sub-grade material equal to or greater than CBR value 10%.
- 1.16.1.13 Providing and testing of sweet earth.

1.16.2 Excavation

Measurement

Quantities of excavation shall be calculated/measured from the pre-work levels of leveled and graded ground taken jointly by the Contractor and the Engineer before commencement of the work.

The quantities set out for excavation and its subsequent disposal shall be deemed to be the bulk quantity before excavating and no allowance shall be made for any subsequent variations in bulk or for any extra excavation.

Unless otherwise shown on the Drawings quantities of excavation shall be measured of acceptably completed works on the basis of vertical excavations required in accordance with lines of concrete.

Quantities of excavation for laying service line trenches shall be measured for payment on the basis of vertical excavation faces for the specified width for the trench as shown on the drawings.

Measurement for acceptably completed excavation works shall be made on the basis of number of cubic feet of material excavated for foundation and service trenches as shown on the Drawings or as directed by the Engineer.

Payment

Payment will be made for acceptably measured quantity of excavation on the basis of unit rate per cubic foot quoted in the Bills of Quantities and shall constitute full compensation for all the works related to the item, including but not limiting to back filling.

1.16.3 Backfill/Fills

Measurement

Measurement for acceptably completed backfill/fill works will be made on the basis of number of cubic foot of compacted backfill/fill in position in accordance with the lines, levels and grade as shown on Drawings or as directed by the Engineer.

Payment

Payment will be made for acceptably measured quantity of backfill/fill on the basis of unit rate per cubic foot quoted in the Bills of Quantities and shall constitute full compensation for all the works related to the item.

1.16.4 Sub Grade

Measurement

Measurement for acceptably completed sub-grade works will be made on the basis of number of cubic foot/meters of compacted sub-grade in position in accordance with the lines, levels and grade as shown on Drawings or as directed by the Engineer.

Payment

Payment will be made for acceptably measured quantity of sub-grade on the basis of unit rate per cubic foot quoted in the Bills of Quantities and shall constitute full compensation for all the works related to the item.



COMSATS University Islamabad, Abbottabad Campus

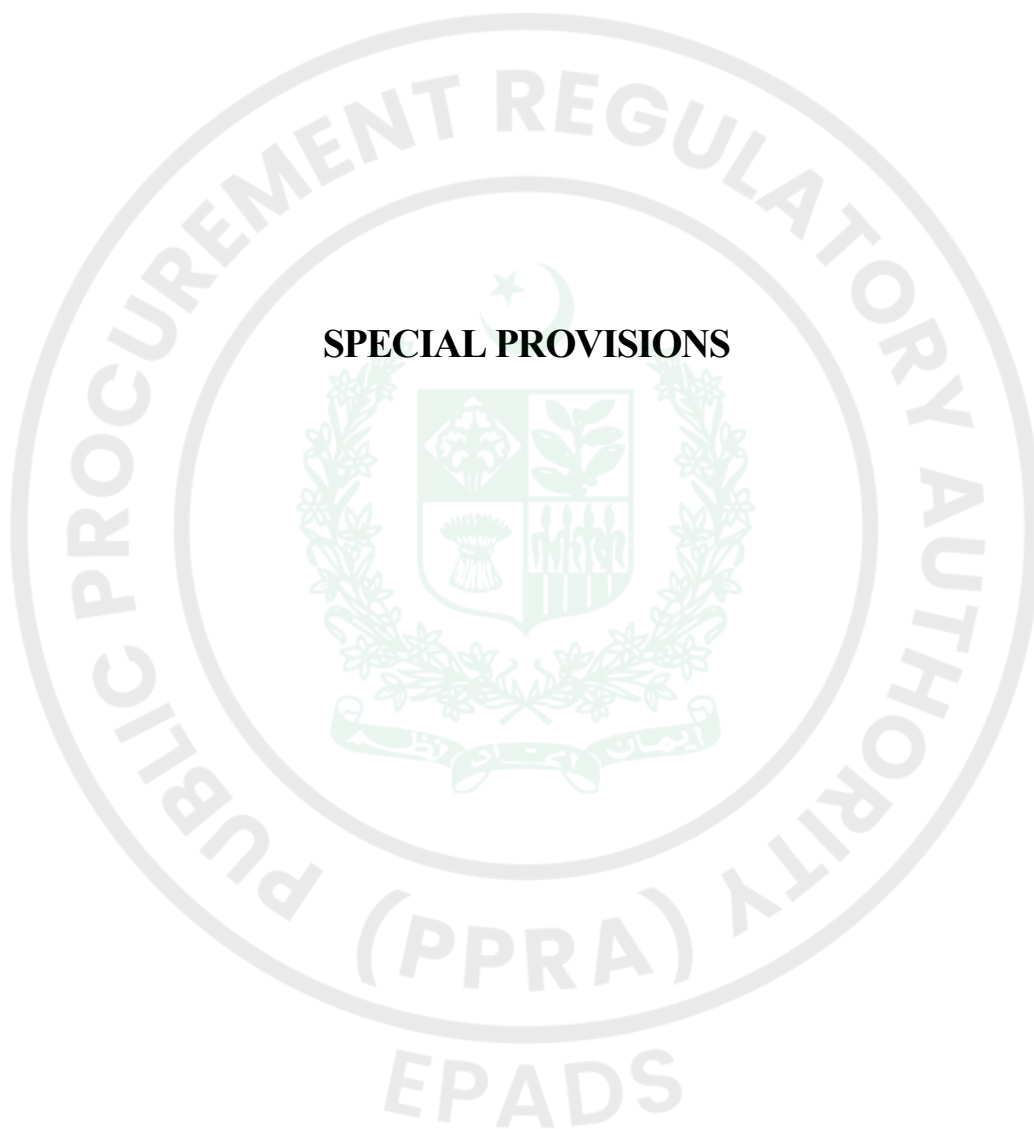
**NATURE OF WORK: EARTHWORK FOR LEVELING OF
LAND FOR LAYOUT OF NEW
BUILDING AT CUI DHAMTOUR
ABBOTTABAD**

**SPECIAL PROVISIONS
ANNEX B**

JULY-2026



**DESIGNMEN Consulting Engineers (Pvt.) Ltd.
1st Floor, Block 9 West Blue Area
Rizwan Plaza, Jinnah Avenue F-6 Islamabad
Tel. No. 051-2828577 – 2829002
Fax: 051-2307615**



SPECIAL PROVISIONS

SP-1 SITE OFFICE AND TEMPORARY FACILITIES TO BE PROVIDED BY THE CONTRACTOR

1 Contractor's Office, Facilities etc.

The Contractor shall establish and maintain a Site office. The Contractor shall provide all facilities in connection with the execution, completion, of the Works, remedying defects therein and maintenance of the utilities services. The facilities shall not be limited to the Contractor's Site Office, labour camps, work yard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection *and firefighting equipment etc.* The Contractor shall be solely responsible for arranging all utilities and the Contractor shall setup, maintain and operate an architectural and engineering facility at site with adequate number of technical and support staff as well as equipment required for particular nature of job covered under the Contract to prepare drawings/shop drawings for approval of the Engineer.

The Contractor shall arrange his labor camp, work yard, storage area and site office within the site area available at the site.

2. Temporary Roads

The Contractor shall prepare and maintain such temporary roads as may be necessary, from the site to the nearest road and also within the plot. Such roads shall be positioned strictly in accordance with the Engineer's instructions and the Contractor shall reduce or control any dust nuisance by regularly spraying water and compaction as directed.

3. Temporary Services

3.1 Temporary Water Supply

The Contractor shall supply in sufficient quantity all necessary potable and other water for construction purposes for all trades at points within a reasonable distance of any building being constructed. The Contractor shall make arrangements and pay charges for water service installation, maintenance and removal thereof, and pay the costs of water for all trades.

At completion of the work, the temporary water services equipment and piping shall be removed by the Contractor at his own expense.

3.2 Temporary Electricity

The Contractor shall make all the necessary arrangements for a temporary electricity service, pay all expense in connection with the installation, operation and removal thereof and pay the costs of electricity consumed by all trades. If the Contractor is un-able to arrange a temporary electrical connection, then he shall arrange and furnish an Electric Power Generating set at site and maintain the generating set in perfect working condition through-out the duration of Contract. The generating power of the set shall be sufficient to operate all plant and equipment during construction at site. Should the set fail to meet the required demand at site or fail to function or operate, the Contractor shall immediately replace the same with other generating set/sets to the satisfaction of

the Employer as well as the Engineer.

A temporary lighting system shall be furnished, installed and maintained by the Contractor as required to satisfy the minimum requirements for safety and security and to the satisfaction of the Engineer.

When the permanent electrical power and lighting systems are in an operating condition, they may be used for temporary power and lighting for construction purposes provided that the Contractor obtains the written approval of the Engineer and the Employer and assumes full responsibility for the entire power and lighting system and pays all costs for operation and maintenance of the system.

At completion of construction work, or at such time as the Contractor makes use of permanent electrical equipment and devices, temporary electricity services shall be removed by the Contractor at his own expense.

3.3 Waste Disposal

The Contractor shall make such temporary provisions as may be required in order to dispose of any chemicals, fuels, oils, grease, bituminous materials, waste and soil waste and the like without causing pollution to either the site or the environment. Disposal of any materials, wastes, effluent, garbage, oil, grease, chemicals and the like shall be in areas specified by the concerned local authority proposed by the Contractor and subject to the approval of the Engineer. If any waste material is dumped in unauthorized areas the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated, disposed off as directed by the Engineer and replaced with suitable fill material compacted and finished with topsoil all at the expense of the Contractor.

3.4 Fire Protection

The Contractor shall provide and maintain adequate fire protection in the form of barrels of water with buckets, fire bucket tanks, fire extinguisher, or other effective means ready for instant use, distributed around the project and in and about temporary inflammable structures during construction of the works.

Gasoline and other flammable liquids shall be stored in and dispensed from safety containers approved by the Engineer and storage shall not be within A buildings Torch-cutting and welding operations performed by the Contractor shall have the approval of the Engineer before such work is started and a chemical extinguisher is to be available at the location where such work is in progress.

The Contractor shall follow the instructions and specifications of the Civil Defense Organization.

4. Sign Board

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer two (2) Sign Boards of dimensions approved by the Engineer. The Sign Boards shall be made of metal. It shall be mounted on steel posts securely anchored and

braced. The Contractor shall paint on the Sign Boards, the name of the Works, and the names of the Employer, Engineer and the Contractor.

5. Site Office cum Residence for Engineer and Engineer's Staff

- 5.1 The contractor shall provide furnish and maintain an office cum residence including a toilet for the resident engineer and his staff. It shall include furniture and fixtures, desktop computer, monitor, key board, mouse and laser jet printer. The office of Resident Engineer will be provided with heating & air conditioning and telephone.
- 5.2 The contractor shall make suitable arrangement for the transport by providing vehicles for the Consultant staff. Boarding/lodging and food shall also be responsibility of the contractor. No additional payment shall be made to the contractor for works and facilities involved under clause SP-5.
- 5.3 In case the Consultant staffs need to attend Head Office Islamabad for any query/guidance/technical advice regarding the project, the Contractor shall arrange to attend the office and back to the project.

6. Site Facilities to be provided by the Contractor

6.1 General

Without prejudice to the generality of the various clauses of the Contract, particular attention is drawn to the obligation of the Contractor to make his own arrangement at his own expense for the following.

6.2 Labor Camps and Staff Residences

The Contractor/shall provide, operate and maintain labor camps and staff residences and are required for the proper and efficient progress of the work to house his own employees. For the purposes of operation and maintenance of the Camps and Residences, the Contractor shall comply with the rules specified by the Employer.

7. Protection of the Environment

7.1 General

The Contractor shall take all necessary measures and precautions and otherwise ensure that the execution of the works and all associated operations on-site are carried out in conformity with statutory and regulatory environmental requirements of Federal/Provincial Environmental Protection Agencies (EPA's) including those prescribed elsewhere in this document.

The Contractor shall take all the measures and precautions to avoid any nuisance or disturbance arising from the execution of the works. This shall wherever possible be achieved by suppression of the nuisance at source rather than abatement of the nuisance once generated. The provision of this sub-clause shall however, be disregarded in respect of emergency work required for saving life or the safety of

the works. However, after completing such works of emergent nature, suitable environmental mitigation measures will be adopted by the contractor with the approval of Engineer.

In the event of any spoil or debris or silt from the sites being deposited on adjacent land, the Contractor shall immediately remove such spoils, debris or silt and restore the affected areas to its original state to the satisfaction of both the Supervising Engineer and the land owner.

Surplus excavation materials and topsoil shall, wherever possible, be used to reinstate quarries or borrow pits or other areas as may be approved by the Engineer. Such materials should be spread in such a manner as to limit subsequent erosion and the site shall be re-vegetated as existing ground cover dictates.

The Contractor shall protect the Works from water flooding. The Contractor shall keep and maintain adequate drainage system for the site area. Regular cleaning of drainage system shall be insured specially before and after the rainy season.

7.2 Borrow-Pits for Embankment Construction

Borrow-pits shall not be dug in the project area. However, even outside the project area prior to approval of Engineer-in-charge depending upon type of soil strata, depth of water table, ground topography and prevalent vegetation state etc. a minimum distance for such borrow areas will be pre-specified by the Supervisor Engineer.

7.3 Quarry Operations

The Contractor shall obtain materials from licensed and government approved quarries only. The quarry operation shall be undertaken within the purview of the rules and regulations in force.

7.4 Soil Erosion and Sedimentation Control

The Contractor shall carry out the works in such a manner that soil erosion is fully controlled, and sedimentation and pollution of natural watercourses, ponds, tanks and reservoirs is avoided. At suitable places sedimentation basin with impervious linings will be constructed for containing, stopping and trapping any silt run off for premature siltation of downstream watercourses and reservoirs.

7.5 Conservation of fauna and flora

The Contractor shall adopt all measures and take necessary precautions to avoid disturbance to fauna and flora, as far as possible. Felling of trees and removal of vegetation for fuel or other uses will not be practiced. The contractor shall protect the natural landscape of the project area.

7.6 Fuel and Chemical Storage

All fuel and chemical storage shall be sited on an impervious base within an

embanked area and secured by fencing. The storage area shall be located away from any watercourse or wetland. The base and walls of the embankment shall be impermeable and of sufficient capacity to contain 110% of the volume of tanks.

Filling and refueling shall be strictly controlled and subjected to formal procedures. All valves and trigger guns, shall be resistant to unauthorized interference and vandalism and be turned off and securely locked when not in use. The contents of any tank or drum shall be clearly marked. Measures shall be taken to ensure that no contamination happens or discharges enter any drain or water courses.

7.7 Water Quality

The Contractor shall prevent any interference with the supply to or abstraction from polluted water sources (including underground percolating water) as a result of execution of the works.

Areas where water is regularly or repetitively used for dust suppression purposes shall be laid to fall to specially constructed settlement tanks to permit sedimentation of particulate matter. After resettlement, the water may be re-used for dust suppression.

All water and liquid waste products arising on the sites shall be collected and disposed-off at location outside or off site and in a manner that shall not cause nuisance or pollution.

The Contractor shall not discharge or deposit any matter arising from the execution of the works into any place except with the permission of the Supervisor Engineer and the regulatory authorities concerned.

The Contractor shall protect all watercourses, water ways, ditches, canals, drains, lakes and the like from pollution, silting flooding or erosion as a result of the execution of the works.

7.8 Air Quality

The Contractor shall devise and arrange methods of working to minimize dust, gaseous or other air borne emissions and carry out the works in such a manner as to minimize adverse impacts on air quality.

The Contractor shall utilize effective after sprays during the delivery and handling of materials when dust is generated and dampen stored material during dry weather.

Stockpiles of materials should be sited in sheltered areas or within hoarding, away from sensitive areas. Stockpiles of friable materials shall be covered with clean tarpaulins with application of sprayed water during dry and windy weather. Stockpiles of debris shall be dampened prior to their movement, except where this is contrary to the specifications.

Any vehicle with an open load carrying area used for transport of potentially dust producing materials shall have properly fitting side and tailboards. Materials having

potential to produce dust shall not be loaded to a level higher than the side and tail boards and shall be covered with clean tarpaulin in good condition. The tarpaulin should be properly secured and extended to at least 280 mm over the edges of the sideboard and tailboard.

During high wind, no dust generating operations shall be permitted within 200 m of residential areas having regard to the prevailing direction of the wind.

Construction vehicles and machinery shall be kept in good working order and engine turned off when not in use. Appropriate measures shall be taken to limit exhaust emissions from construction vehicles, machinery and plant and the Contractor shall include details of such proposed measures in the mitigation and monitoring plan to be submitted to the Supervisor.

In residential areas or other sensitive areas, such as nurseries, schools, hospitals, etc. advance warning shall be given to potentially affected persons so that some measures can be taken by them before commencement of the works.

Any open vehicle carrying a load of freshly mixed asphalt concrete for transportation and laying the pavement must have a full cover of tarpaulin sheet. In this manner its toxic fumes will be reduced against any atmospheric contamination.

7.9 Noise

The Contractor shall consider noise as an environmental concern in his planning and during execution of the works.

The Contractor shall use plant and equipment conforming to applicable standards and directives on noise, vibrations and emissions shall include the details of measures for abating noise at source in the mitigation and the monitoring plan to be submitted to the Supervisor Engineer.

7.10 Transmission of Diseases

The Contractor shall be liable to make sure implementation of necessary precautionary measures and safety regarding COVID-19 according to Govt. policy and concerned departments/agencies for your staff and as well as Consultant's and Employer's staff without claiming any additional cost in this regard.

The Contractor shall take all necessary measures to prevent transmission of diseases between inhabitants and the laborers engaged for the works, especially with regard to sexually transmitted diseases. The Contractor shall install the necessary medical facilities for this purpose.

The Contractor shall verify that checkup for detecting the occurrence of sexually transmitted diseases amongst the laborers engaged for the works are actually being carried out and submit a certificate to that effect to the Supervisor Construction Engineer.

Preservation of Archeological, Cultural, Religions Assets/Heritage Value and

Antiquities.”

Where antiquities are shown on the drawing or otherwise identified during the course of the works, these shall be protected by means of suitable fencing and barriers to the satisfaction of the Supervisor Engineer. The Contractor shall provide and maintain access at all times for persons wishing to stop and pay their respects.

7.11 Preservation of Archaeological, cultural, religious assets / Heritage Value and Antiquities

The Contractor shall take all necessary measures to protect any archaeological finds or antiquities as required.

Where antiquities are shown on the drawing or otherwise identified during the course of the works, these shall be protected by means of suitable fencing and barriers to the satisfaction of the Supervisor Engineer. The Contractor shall provide and maintain access at all time for persons wishing to stop and pay their respects.

7.12 Environment Enhancement

All existing highways and roads used by vehicle of the Contractor or any of his sub-contractors or suppliers of materials or plant, and similarly any new roads which are part of the works and which are being used by traffic, shall be kept clean and clear of all dust/mud or other extraneous materials dropped by the said vehicles or their tyres. Similarly, all dust/mud or other extraneous materials from the works spreading on these highways shall be immediately cleared by the Contractor.

Clearance shall be affected immediately by manual sweeping and removal of debris, or, if so directed by the Engineer, by mechanical sweeping and clearing equipment, and all dust, mud and other debris shall be removed entirely from the road surface. Additionally, if so directed by the Supervisory Engineer, the road surface shall be hosed or watered using suitable equipment.

Any structural damage caused to the existing roads by the Contractor’s construction equipment shall be made good without any extra cost.

On completion of the works, the Contractor shall reinstate all areas with proper vegetation to the satisfaction of the Supervisor Engineer.

The Contractor shall remove all old tyres and internal rubes from project area and subject to the agreement of adjacent landowners for additional areas of 75 m on either side of the project area. The Contractor shall dispose of all materials in a manner approved by the Supervisor Engineer.

Where directed by the Supervisor Engineer, the Contractor shall improve and reinstate the land on which informal structures/temporary building has been established, by removing all debris and contaminated soils, regarding to natural ground levels and reestablishing the original vegetation where appropriate. All debris and contaminated materials shall be disposed-off on site as approved by the Supervisor Engineer.

7.13 Payment

No separate payment shall be made for this provision to the contractor.

All costs in connection with the clause -7 shall be borne by the contractor and shall be deemed to have been included in the bid price. In case of failure deduction will be made from his IPCs.

8 IMPORTANT NOTES:

- 8.1 The disposal of all excavated material, surplus earth, and other excavated debris generated during excavation, cutting, and land leveling within the project area shall be the sole responsibility of the Contractor, as directed by the Engineer-in-Charge/Client.
- 8.2 The Contractor shall take all necessary precautionary measures during excavation, cutting, and related activities to protect the existing tube well, functional water supply lines serving the existing campus blocks, the existing nullah, and all other adjacent utilities and structures. In the event of any damage to such services or facilities, the Contractor shall, at his own cost, immediately repair and reinstate them to the satisfaction of the Engineer-in-Charge/Client, ensuring the uninterrupted water supply to the campus and the free flow of storm water and floodwater through the existing nullah.
- 8.3 All costs associated with compliance with the requirements specified in Serial Nos. 1 and 2 above shall be deemed to have been included in the Contractor's quoted bid price. No separate or additional payment shall be admissible on this account.



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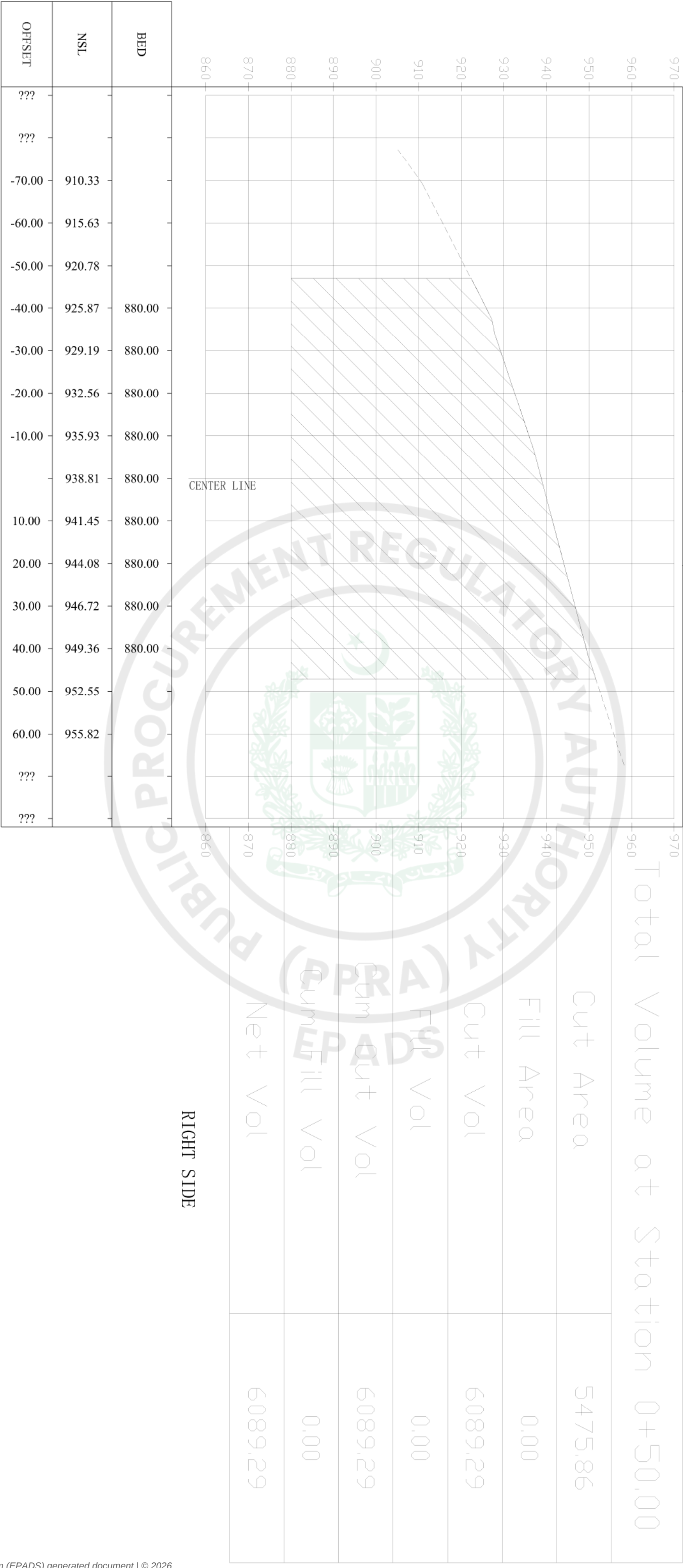
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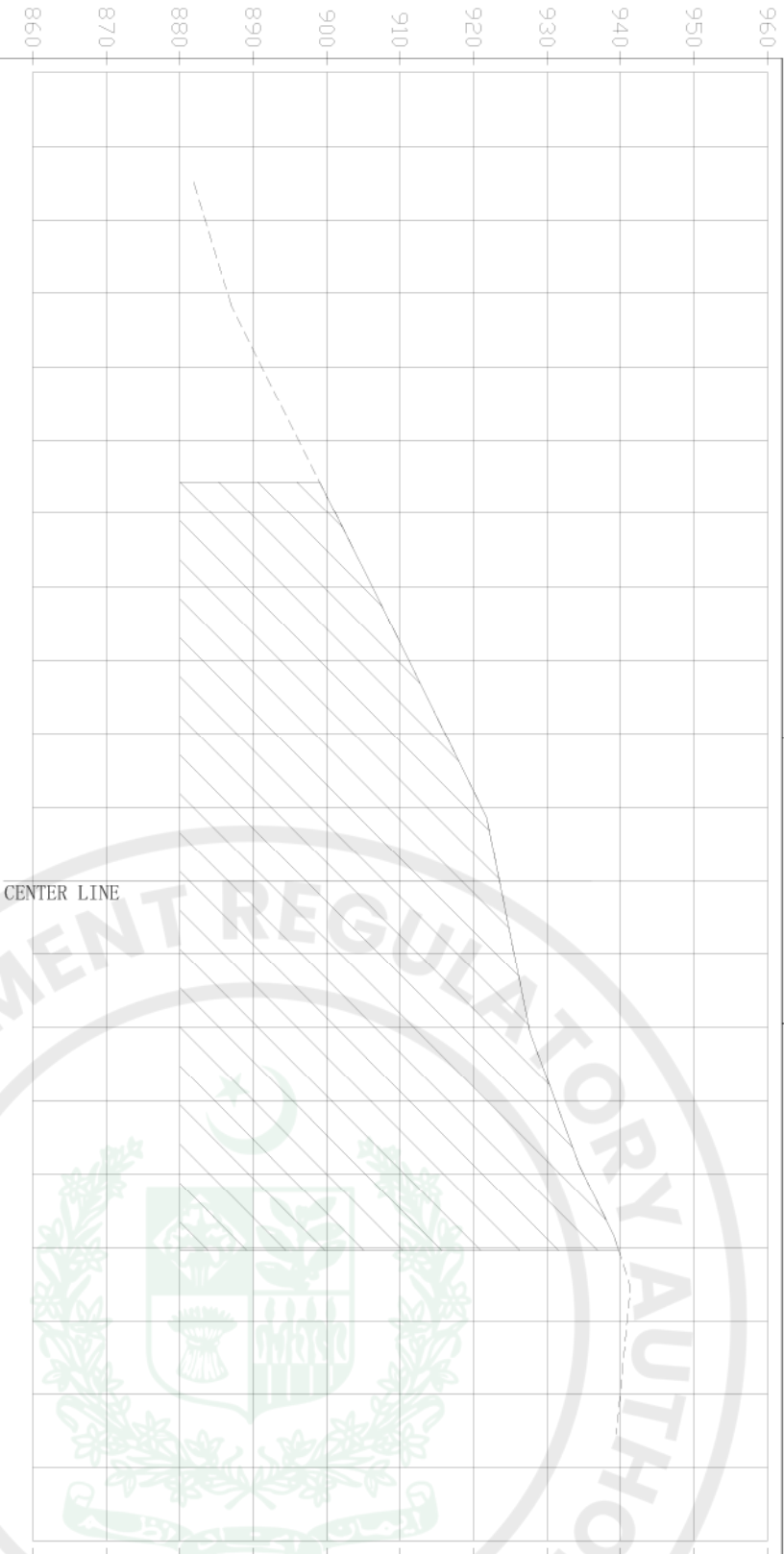
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RIGHT SIDE



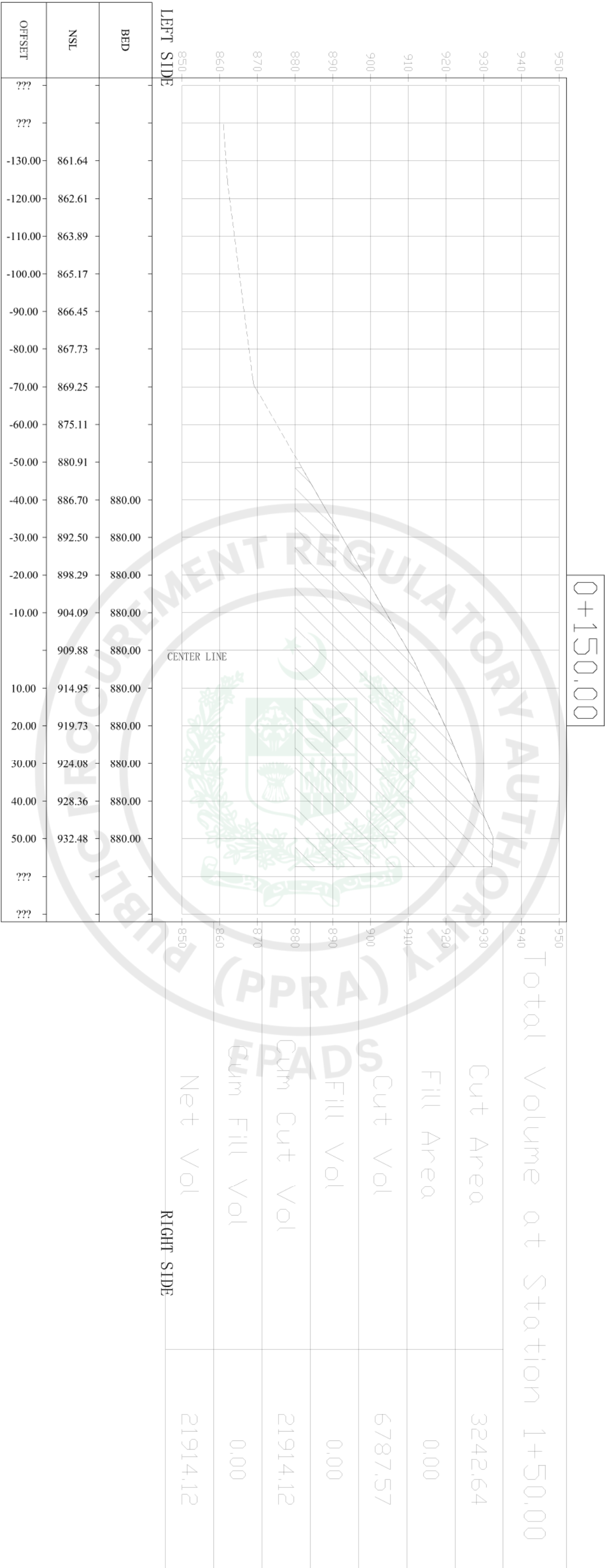
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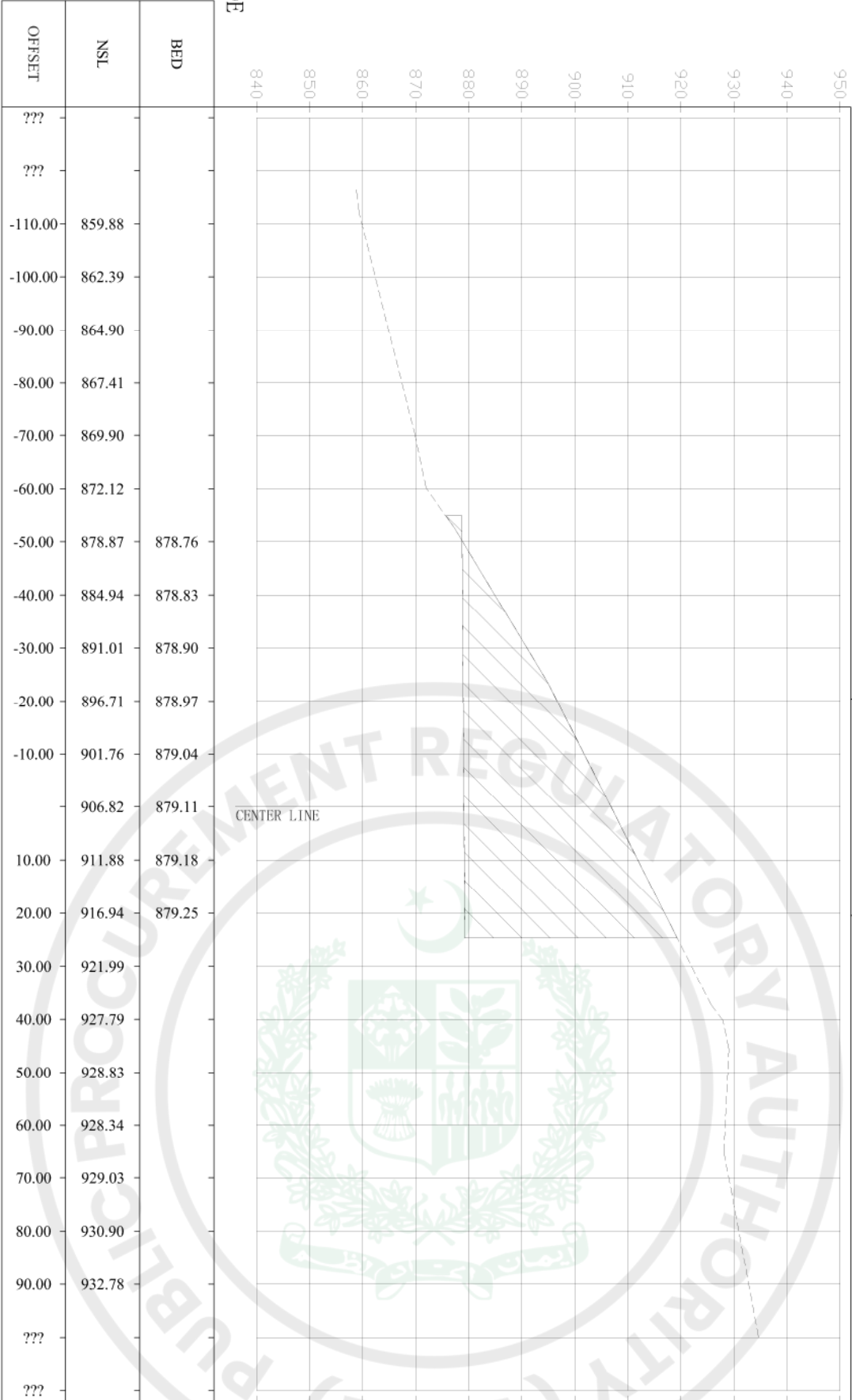
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-20.00	916.13
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	923.51
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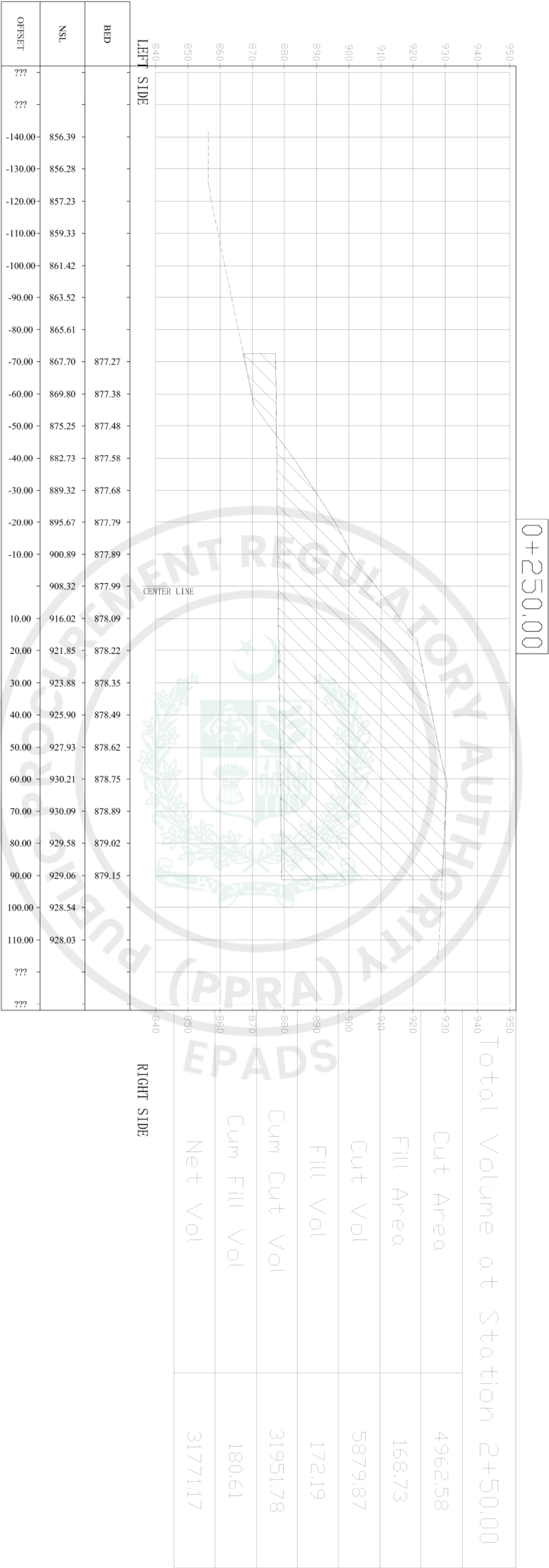
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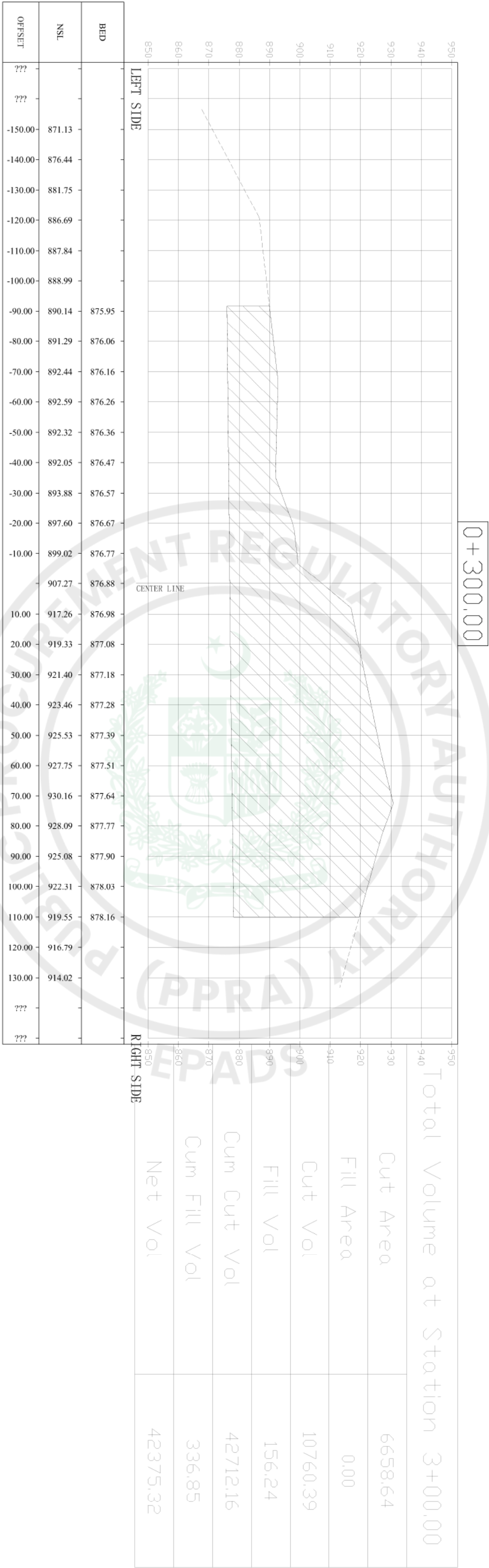
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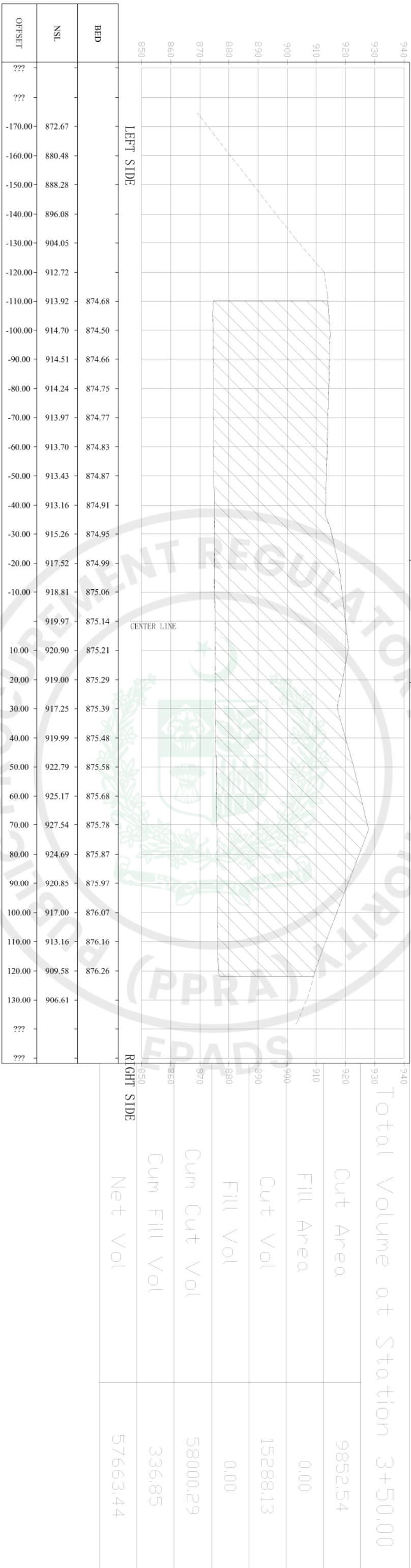


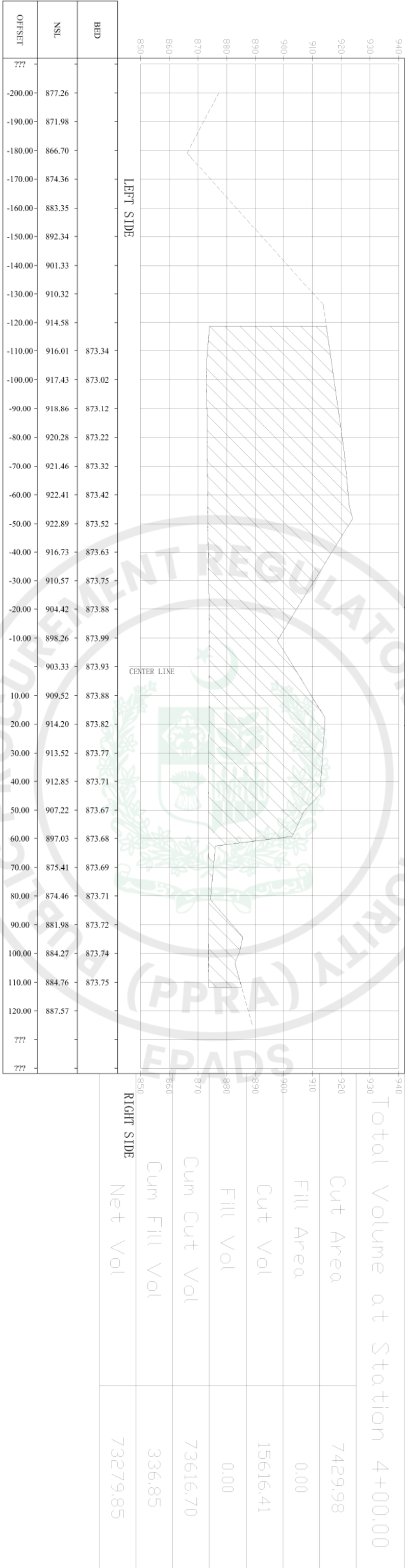
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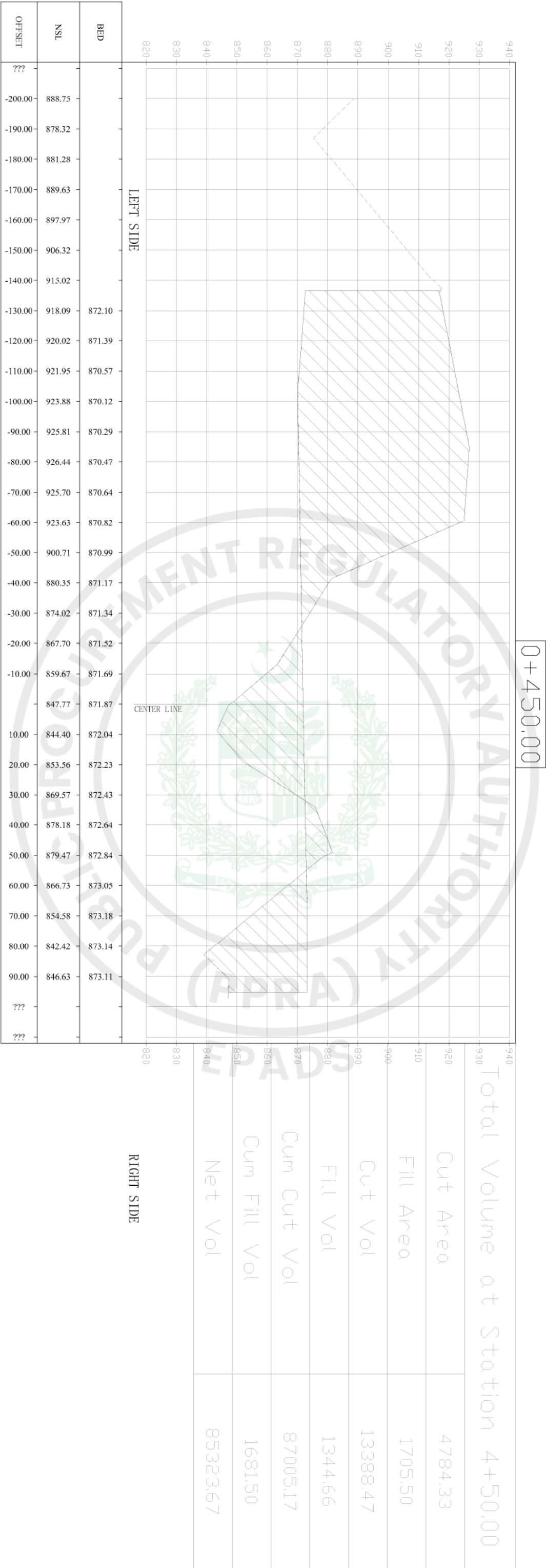
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Net Vol	26063.48













COMSATS University Islamabad, Abbottabad Campus

NATURE OF WORK: EARTHWORK FOR LEVELING OF LAND FOR LAYOUT OF NEW BUILDING AT CUI DHAMTOUR ABBOTTABAD

CONDITIONS OF CONTRACT

- Instructions To Bidders
- Bidding Data
- Appendices
- Part- I General Conditions of Contract (FIDIC)
- Part-II Particular Conditions of Contract
- Part-III Special Provisions
- Part-IV Technical Specifications

JULY-2026



DESIGNMEN Consulting Engineers (Pvt.) Ltd.
1st Floor, Block 9 West Blue Area
Rizwan Plaza, Jinnah Avenue F-6 Islamabad
Tel. No. 051-2828577 – 2829002
Fax: 051-2307615

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| 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 |
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PART-I: GENERAL CONDITIONS OF CONTRACT

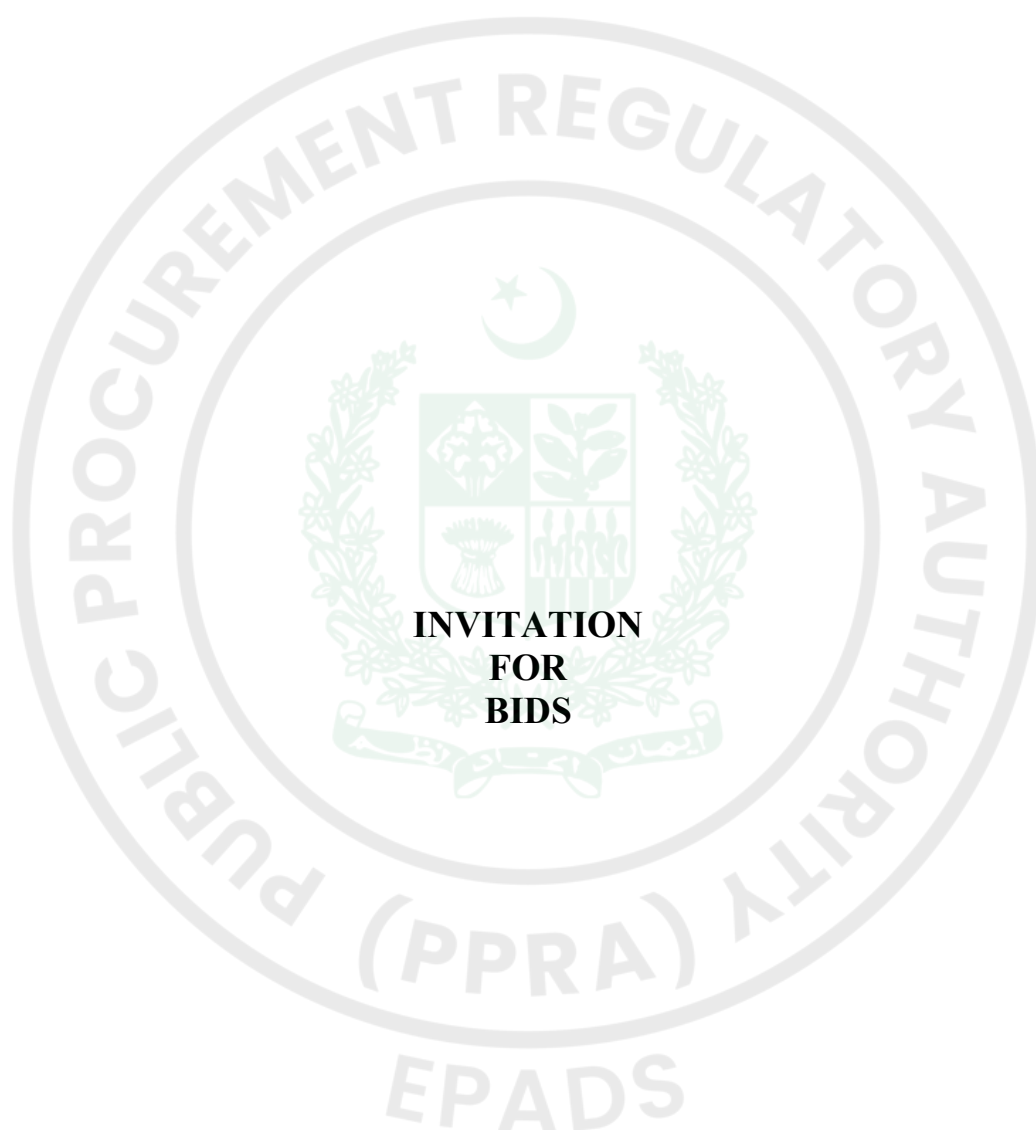
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SPECIFICATIONS - SPECIAL PROVISIONS

SPECIFICATIONS - TECHNICAL PROVISIONS

DRAWINGS







INVITATION FOR BIDS

M/s _____

Bid No.: _____

1. COMSATS University Islamabad, Abbottabad Campus, invites bids through **e-Pak Acquisition & Disposal System (EPADS)** www.eprocure.gov.pk on **Single Stage Single Envelope** procedure basis from eligible firms having valid registration with the Pakistan Engineering Council for the year 2026 in the C-5 and above category, valid Income Tax Registration (NTN) & Sales Tax Registration (STRN) with FBR and on active tax payer list. The works are as following:

S No.	Nature of Works	Completion Period	PEC Category	Bid Security in shape of CDR	Bid Closing and Opening date & Time
i)	Earthwork for Leveling of Land for Layout of New Building at CUI Dhamtour Abbottabad	90 Days	C-5 & above	Rs. 1,000,000/-	July, 2026 at 1100 & opening at 1130hrs

2. The perspective bidders having appropriate category can bid for the works mentioned above. A complete set of Bidding documents, containing the detailed terms and conditions, procedure for submission of bids, bid security etc. are available on **PPRA-EPADS** (www.eprocure.gov.pk). The bid is based on item rate type of contract and not subject to the price adjustment being a short duration project with completion period of 90 Days in line with the Pakistan Engineering Council Standard bidding documents.
3. Original Bid Security along with sealed true copy of Bid in Hard Form must be submitted to the below mentioned address prior to the online submission deadline of the bid. E-Tenders without submission of Bid Security in favour of **COMSATS University Islamabad, Abbottabad Campus** will be rejected. If any difference / discrepancy / deviation between submissions of online bid and hard form is found, the bidder shall be declared non-responsive.
4. The interested bidders are requested to get them registered on EPADS. For any clarification/help may contact EPADS UAN: 051-111-137-237.
5. All the applicable Federal/Provincial taxes (income tax, sales tax, KPRA Tax etc.) must be included while preparing the bid and are required to be built in the quoted rates and not to be mentioned separately.
6. Closing and Opening date & time for submission and opening of bids is as mentioned above. The bids will be opened through EPADS in the presence of bidders' representatives who wish to be present, venue will be **Conference Room Administration Block, COMSATS University Islamabad, Abbottabad Campus**.
7. COMSATS University Islamabad, Abbottabad Campus reserves the right to reject all Bids in accordance with PPRA Rule No. 33

Purchase Officer
Purchase Office, Administration Block,
Tel: 0092-383863
COMSATS University, Islamabad
Abbottabad Campus, Abbottabad

INSTRUCTIONS





INSTRUCTIONS TO BIDDERS

(These Instructions to Bidders along with Bidding Data will not be part of the Contract and will cease to have effect once the contract is signed.)

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 summarized 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 Employer has arranged funds from its own sources.

IB.3 Eligible Bidders

- 3.1 This Invitation for Bids is open to all bidders meeting the following requirements:
 - a. Duly licensed by the Pakistan Engineering Council (PEC) in the category relevant to the value of the Works.
 - b. Duly prequalified / enlisted with the Employer.

IB.4 One Bid per Bidder

- 4.1 Each bidder shall submit only one bid either by himself, 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.

IB.6 Site Visit

- 6.1 The bidders are advised to visit and examine the Site of Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. All cost in this respect shall be at the bidder’s own expense.

- 6.2 The bidders and any of their personnel or agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

B. BIDDING DOCUMENTS

IB.7 Contents of Bidding Documents

- 7.1 The Bidding Documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9.

1. Instructions to Bidders.
2. Bidding Data.
3. 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
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 14 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 along with 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 Program 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.

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.
- 13.2 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

- 15.1 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 in the form of Deposit at Call 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 favor 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 will be returned when the bidder has furnished the required Performance Security and signed the Contract Agreement.
- 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 initialed 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 initialed 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) Bids must be received by the Employer at the address specified no later than the time and date stipulated in the Bidding Data.
- (b) Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of bids. No claims will be entertained for

refund of such expenses.

- (c) Where delivery of a bid is by mail and the bidder wishes to receive an acknowledgment of receipt of such bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed bid 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

- 22.1 Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the Employer prior to the deadline for submission of bids.
- 22.2 The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" OR "WITHDRAWAL" as appropriate.
- 22.3 No bid may be modified by a bidder after the deadline for submission of bids except in accordance with Sub-Clauses 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.
- 26.2 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 Day-work; and
- (c) making an appropriate adjustment for any other acceptable variation or deviation.

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 there-for 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

30.1 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.
- 31.3 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 14 days after the receipt of Letter of Acceptance.
- 32.2 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

- 33.1 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 10 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

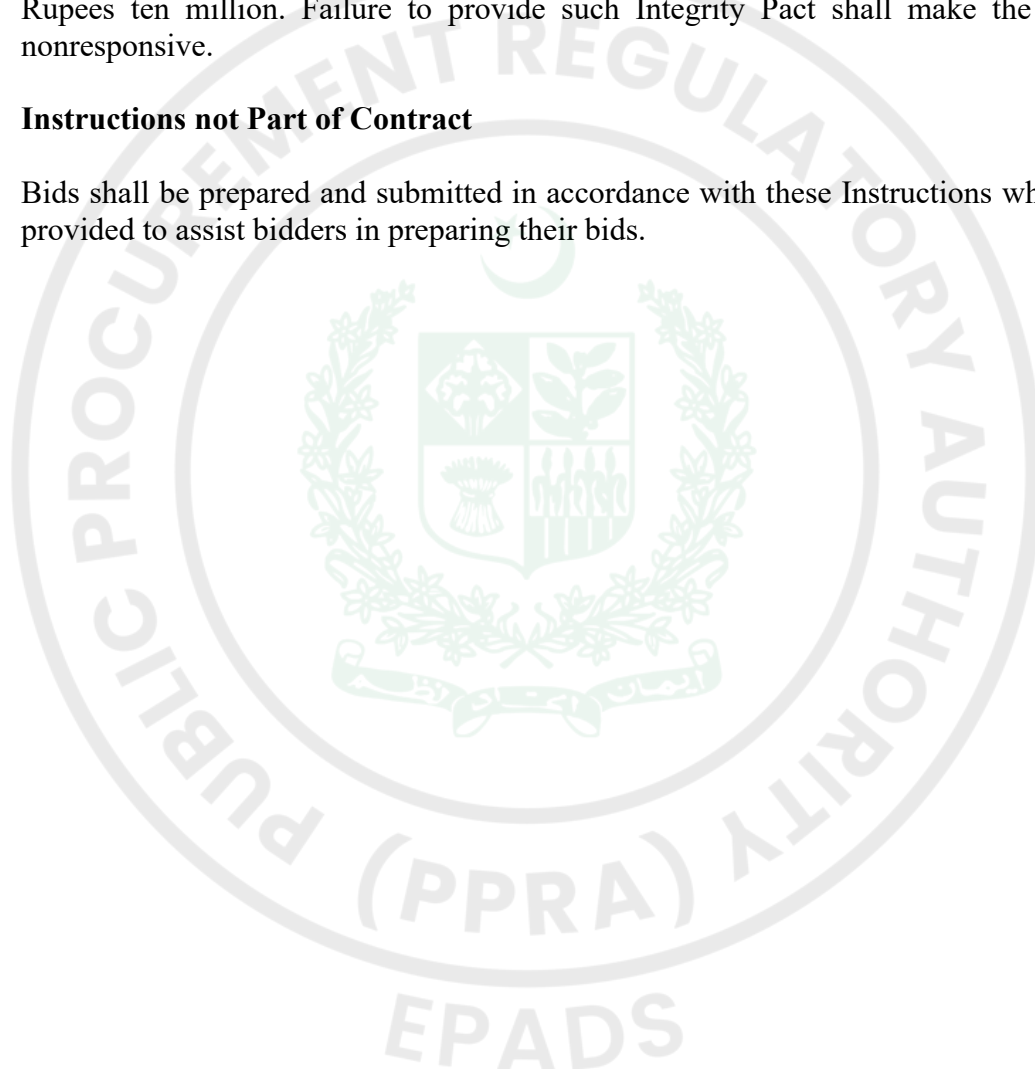
consistent poor performance of any Bidder as reported by the employers of the previously awarded contracts, inter alia, reject his bid and/or refer the case to the Pakistan Engineering Council (PEC). Upon such reference, PEC in accordance with its rules, procedures and relevant laws of the land take 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 nonresponsive.

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.







**BIDDING
DATA**

NOT APPLICABLE



Bidding Data

The following specific data for the Works to be bided shall compliment, amend, or supplement the provisions in the Instructions to Bidders. Wherever there is a conflict, the provisions herein shall prevail over those in the Instructions to Bidders.

Instructions to Bidders

Clause Reference

1.1 Name and address of the Employer:

Director COMSATS University Islamabad (CUI), Abbottabad Campus

1.1 Name of the Project & Summary of the Works:

Earthwork for Leveling of Land for Layout of New Building at CUI Dhamtour Abbottabad

The works comprise of above-mentioned Project and other associated works complete in all respects as per Contract Drawings, Specifications and Bill of Quantities.

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

Not Applicable

2.1 Amount and type of financing:

Not Applicable

8 Clause IB 8 is deleted and replaced with following:

8.1 Any prospective Bidder requiring any clarification in respect of the Bidding Documents may raise queries through e-PADS within five (05) days of publication of the advertisement and/or availability of the Bidding Documents on the e-PADS.

8.2 The Employer's response will be uploaded through the same system that will be available to all prospective Bidders, including a description of the enquiry but without identifying its source.

8.3 Pre-bid e-Conference will not be held. Any Clarification may be sought from the Employer as per the provision of sub-clause IB.8.1, if required.

9.2 Text is deleted and replaced with following:

Any addendum thus issued shall be part of the Bidding Documents listed in Sub-Clause IB.7.1 hereof and shall be published by the Employer on e-PADS.

10.1 Bid language:

English

11.1 (b) Prequalification Information to be updated:

Not Applicable

11.1(c) Furnish Technical Proposal:

The bidder to submit a technical proposal in sufficient detail to demonstrate the adequacy of the bid in meeting requirements for timely completion of the Works.

11.2 This sub clause deleted in its entirety.

13.1 Bidders to quote entirely in Pak. rupees

14.1 Period of Bid Validity:

90 days from the date of submission of bids.

15.1 Amount of Bid Security:

A lump sum amount of Rs. 1,000,000/- as a bid security in the form of Deposit at Call by a Schedule Bank in Pakistan is mandatory to be submitted on or before the bid opening date and time.

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

Pre-bid meeting will not be held

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

One original and two copies

19.1 Each bidder shall submit its bid in PDF format through the e-PADS system, and all bid entries shall be electronically encrypted by the bidder.

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

As notified in "Notice Inviting Tender"

20.1 Deadline for submission of bids:

Text in Sub-Clause IB 20.1 is deleted and replaced with following:

Bids must be uploaded by the Bidders online through E-PADS <http://eprocure.gov.pk> no later than the deadline for submission of Bids.

21 The Clause IB 21 is deleted in entirety and replaced with following:

21.1 Bid cannot be uploaded on e-PADS after the deadline for the submission of bids.

23.1 Venue, time, and date of Bid opening:

As notified in “Notice Inviting Tender”

31 The text is deleted and replaced with following:

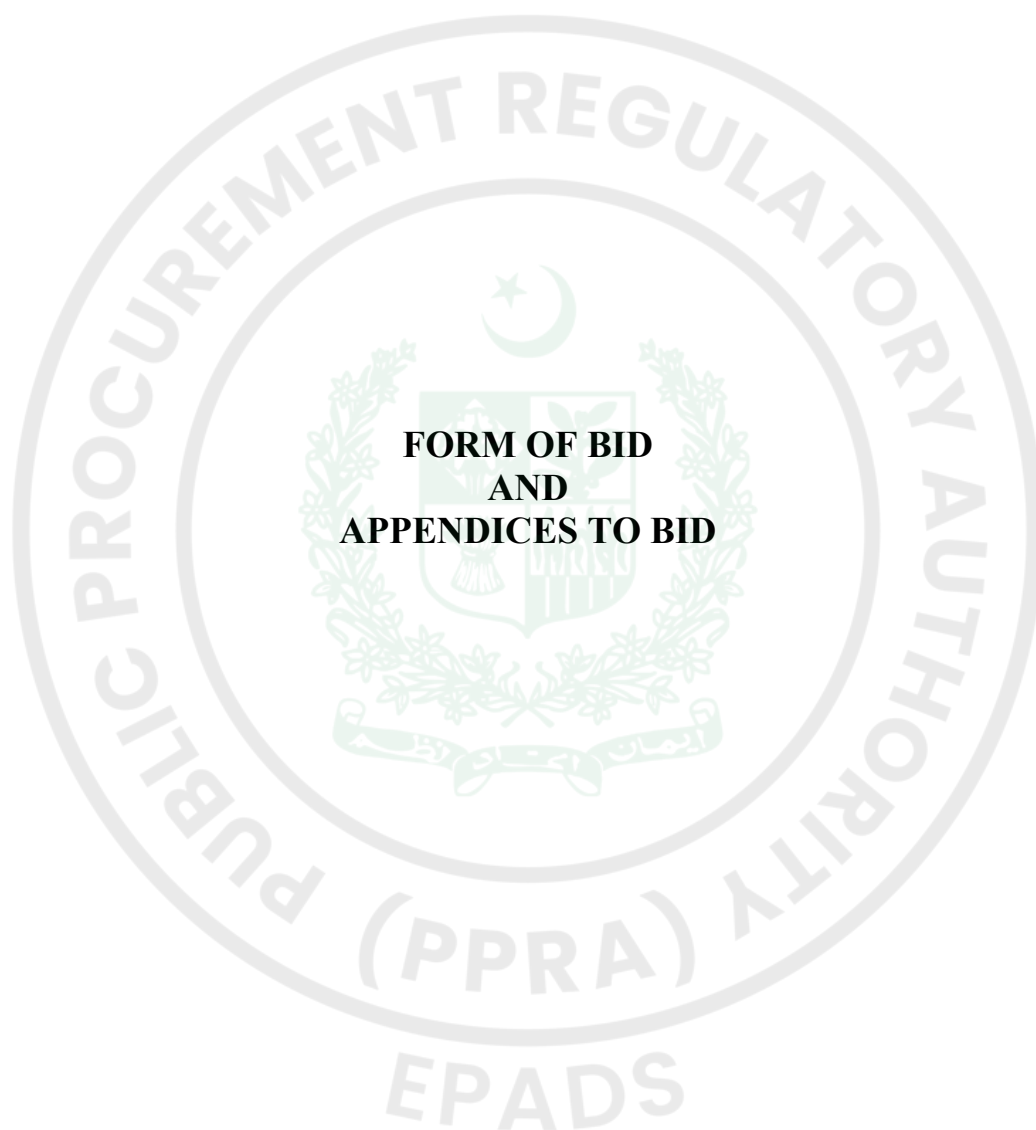
The Employer through e-PADS shall publish the results of final bid evaluation and make it available for the Bidders.

Prior to expiration of the period of Bid validity prescribed by the Employer, the Employer through the e-PADS shall upload the (“Letter of Acceptance”) as well as in writing that his Bid has been accepted. This letter shall name the sum which the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the “Accepted Contract Amount”).

The Letter of Acceptance will also state the remedies with respect to Sub-Clause IB.27 if applicable.

32.1 Standard form and amount of Performance Security acceptable to the Employer:

The successful bidder shall furnish to the Employer a Performance Security amounting to 10% (ten percent) of the Contract Price, in the form of a Bank Guarantee only, issued by any Scheduled Bank of Pakistan acceptable to the Employer, in accordance with the Conditions of Contract. The Performance Security shall be submitted within 14 (fourteen) days from the date of issuance of the Letter of Acceptance.



FORM OF BID

Bid Reference No. _____
(Name of Contract/Works)

To:

Gentleman,

1. Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract. Specifications, Drawings and Bill of Quantities and Addenda Nos. _____ for the execution of the above-named Works, we, the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the Conditions of Contract. Specifications, Drawings, Bill of Quantities and Addenda for the sum of Rs. _____ (Rupees _____) or such other sum as may be ascertained in accordance with the said conditions.
2. We understand that all the Appendices attached hereto form part of this Bid.
3. As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of Rupees _____ (Rs. _____) drawn in your favor or made payable to you and valid for a period of _____ days beginning from the date Bids are opened.
4. We undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in Appendix-A to Bid.
5. We agree to abide by this Bid for the period of _____ days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
8. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this _____ day of _____ 20...

Signature: _____

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

(Name of Bidder in Block Capitals)

(Seal)

Address: _____

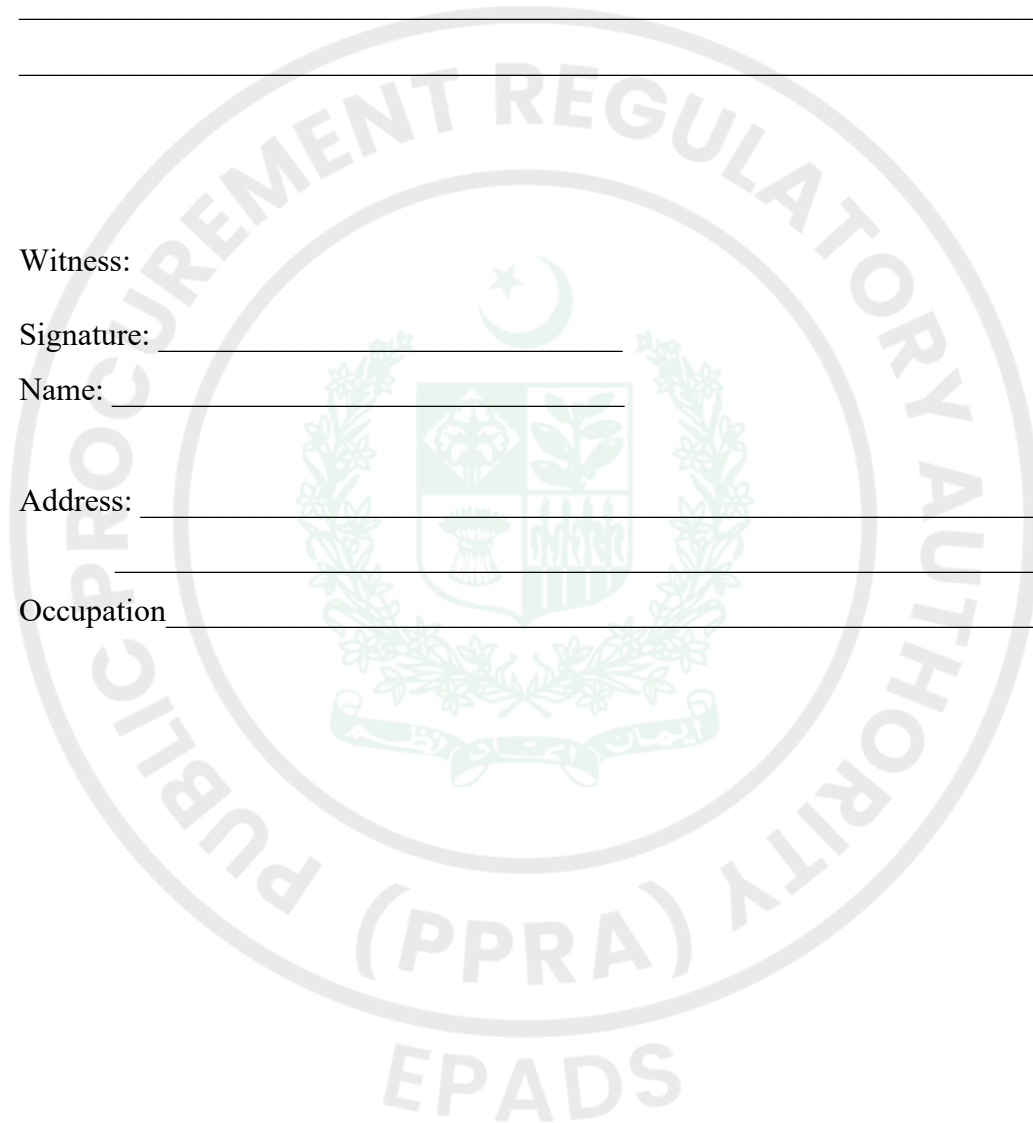
Witness:

Signature: _____

Name: _____

Address: _____

Occupation _____



SPECIAL STIPULATIONS
Conditions of Contract

#	Description	Clause	Details
1.	Bid Security	-	A lump sum amount of Rs. 1,000,000/- as a bid security in the form of Deposit at Call by a Schedule Bank in Pakistan is mandatory to be submitted on or before the bid opening date and time.
2.	Period of Bid Validity		90 days from the date fixed for the bid submission deadline.
3	a) Amount of Performance Security	10.1	The successful bidder shall furnish to the Employer a Performance Security amounting to 10% (ten percent) of the Contract Price stated in the Letter of Acceptance, in the form of a Bank Guarantee only, issued by any Scheduled Bank of Pakistan and acceptable to the Employer, in accordance with the Conditions of Contract.
	b) Time of Submission		At the time of signing of the Contract.
	c) Period of Validity	10.2	Valid till expiry of defects liability period.
4.	Signing of the Contract	-	Within 14 days of issue of acceptance letter and submission of performance security.
5.	Mobilization Advance * (Interest Free)	60.12	Not Applicable
6.	Time for Furnishing Program	14.1	Within 14 days from the date of receipt of Letter of Acceptance.
7.	Time for Commencement	41.1	Within 14 days from the date of receipt of Engineer's Notice to Commence.
8.	Time for Completion	43.1	90 (Ninety) days from the date of receipt of Engineer's Notice to Commence.

9.	Minimum amount of Interim Payment Certificates (Running Bills)	60.2	PKR. 5.0 Million
10.	Time of Payment.	60.10	Within 15 (fifteen) working days from the date of receipt of the Interim Payment Certificate from the office of the Engineer, comprising 5 (five) working days for the Consultant's review and certification and 10 (ten) working days for processing and payment by the Employer.
11.	a) Percentage of Retention Money	60.3	10% (Ten percent) of the amount of Interim Payment Certificate.
	b) Release of retention money		50% (Fifty percent) on completion of the project and balance 50% (Fifty percent) after successful completion of maintenance period of 30 days.
12.	Limit of retention money	60.2	05% (Five percent) of the Contract Price
13.	Minimum amount of Third-Party Insurance	23.2	Rs. 500,000 (Five Hundred Thousand) per occurrence with number of unlimited occurrences from following companies: i) Any insurance company approved by the Government of Pakistan
14.	Secured Advance*	60.11	Not Applicable
15.	Amount of Liquidated Damages	47.1	One tenth of one percent (0.10%) for each day of delay in completion of the whole Works.
	Maximum amount of Delay Damages		Ten percent (10%) of the Accepted Contract Amount
16.	Defects Liability Period	49.1	30 days from the effective date of Taking Over Certificate issued by the Engineer.
17.	Escalation	70.1	Not Applicable
18.	Water Supply and Electricity	-	All arrangements for water supply and Electricity during execution of works shall be made by the Contractor at his own cost. All charges shall be deemed included in the bid price of the contractor.

19.	Payment to Nominated Sub-Contractors	59.4	In accordance with Clause-59.4 of the contract documents.
20.	Payment to Material Suppliers	-	As per contract it will be responsibility of the contractor to make payments to them directly.
21.	Engineer's Authority to issue Variation in emergency		2% (Two percent) of the Contract Price stated in the Letter of Acceptance.



ELIGIBILITY / QUALIFICATION CRITERIA

Qualification of Bidders shall be evaluated on the basis of mentioned criteria with at least 50% score in each category regarding the bidder's financial soundness, experience record, personnel capabilities and equipment capabilities, in addition to fulfilment of mandatory requirements.

The Employer reserves the right to waive minor deviations, if they do not materially affect the capability of the Bidder to perform the Contract.

Mandatory Requirements:

- i) Only local bidders duly licensed by PEC in Category C-5 and above are eligible to bid.
- ii) An undertaking stating that requisite bid security is sealed with the envelope of Price Bid.
- iii) Contractors/Firms having experience of similar projects are eligible to apply.
- iv) Affidavit on non-judicial stamp paper of Rs. 100/- duly notarized regarding no blacklisting prepared within the current month of submission of bidding document.
- v) Information on any litigation or arbitration resulting from contracts completed or under execution by the Bidder. In case, the firm is involved in any litigation, the details/updated status shall be provided. Any firm involved in litigation and in case majority of decisions went against that firm or if the firm is blacklisted by any Govt./Semi- Govt./Autonomous body, shall be disqualified.
- vi) Registration with income tax department (Valid NTN & KPRA).
- vii) On Active Tax Payers List at the time of submission of Bid

BC-1

Appendix-C To Bid

**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 and PEC Standard Procedure and Formula for Price Adjustment (Second Edition) May-2022 shall be as follows:

Cost Element	Description	Weightages	Applicable index
1	2	3	4
(i)	Fixed Portion	0.00	Government of Pakistan (GP) Federal Bureau of Statistics Monthly Statistical
(ii)	NOT APPLICABLE		do
(iii)			do
(iv)			do
(v)			do
(vi)			do
	Total	0.00	

Notes:

- Indices for “(ii)” to “(vi)” are to be 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.
- Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.

BILL OF QUANTITIES

A. Preamble:

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

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

BILL OF QUANTITIES

EARTHWORK FOR LEVELING OF LAND FOR LAYOUT OF NEW BUILDING AT CUI DHAMTOUR ABBOTTABAD CAMPUS

S.No	Description	Qty	Unit	Rate (Rs)	Amounts (Rs)
Earth Work					
	General Cut and Fill				
1	Excavation/cutting in all kinds of soil to the required lines, grades, levels, and dimensions as shown on the Drawings or as directed by the Engineer-in-Charge, including dressing and trimming of the finished surface, filling of ditches, depressions, and other low-lying areas with approved excavated material, leveling of the excavated area, and transporting, placing, spreading, and disposing of surplus excavated material at locations within the site as directed by the Engineer-in-Charge, including all leads, lifts, handling, and all incidental works necessary to complete the item in accordance with the Drawings, Technical Specifications, and the instructions of the Engineer-in-Charge, complete in all respects.	2037030	Cft		
TOTAL AMOUNT					
Amount in Words:					

IMPORTANT NOTE: The provisions contained in these Important Notes shall prevail over and supersede any conflicting or inconsistent provisions of the Conditions of Contract. In the event of any discrepancy or inconsistency, these Important Notes shall rank first in the order of precedence of the Contract Documents and shall be binding upon the Contractor.

1. The quoted rates shall be deemed to be inclusive of all applicable Federal and Provincial taxes, duties, levies, cess, fees, and statutory deductions, including but not limited to Income Tax, Sales Tax, KPRA Tax, and any other taxes, duties, levies, or charges imposed under the prevailing laws, rules, and regulations of Pakistan. The Contractor shall be solely responsible for the assessment, payment, and compliance with all such taxes, duties, levies, and statutory obligations applicable at the time of bidding and throughout the execution of the Works. No separate payment, reimbursement, adjustment, or claim on account of such taxes, duties, levies, or statutory charges shall be admissible, and all such costs shall be deemed to have been fully allowed for and included in the quoted rates.
2. The disposal of all excavated material, surplus earth, and other excavated debris generated

during excavation, cutting, and land leveling within the project area shall be the sole responsibility of the Contractor and shall be carried out strictly in accordance with the directions of the Engineer-in-Charge/Client.

3. The Contractor shall take all necessary precautionary measures during excavation, cutting, and related activities to protect the existing tube well, functional water supply lines serving the existing campus blocks, the existing nullah, and all other adjacent utilities and structures. In the event of any damage to such services or facilities, the Contractor shall, at his own cost, immediately repair and reinstate them to the satisfaction of the Engineer-in-Charge/Client, ensuring the uninterrupted water supply to the campus and the free flow of stormwater and floodwater through the existing nullah.
4. The quoted rates shall be deemed to include all leads within the project area, lifts, handling, preparation and maintenance of haul/access tracks, watering for dust suppression, and all labour, materials, equipment, tools, plant, and incidental works necessary to complete the item in all respects.
5. The quoted rates shall include the removal of all types of trees, shrubs, bushes, stumps, and roots, including cutting, uprooting where required, and stacking or disposal at locations designated by the Engineer-in-Charge.
6. The Client reserves the right to increase or decrease the scope and quantities of work. Payment shall be made only for the actual quantities of work executed and measured. Any increase or decrease in the quantities of work shall not entitle the Contractor to any additional claim, compensation, or revision of the contract rates, which shall remain firm throughout the contract period.
7. All costs associated with compliance with the requirements specified in Serial Nos. 1 to 6 above shall be deemed to have been included in the Contractor's quoted bid price. No separate or additional payment shall be admissible on this account.

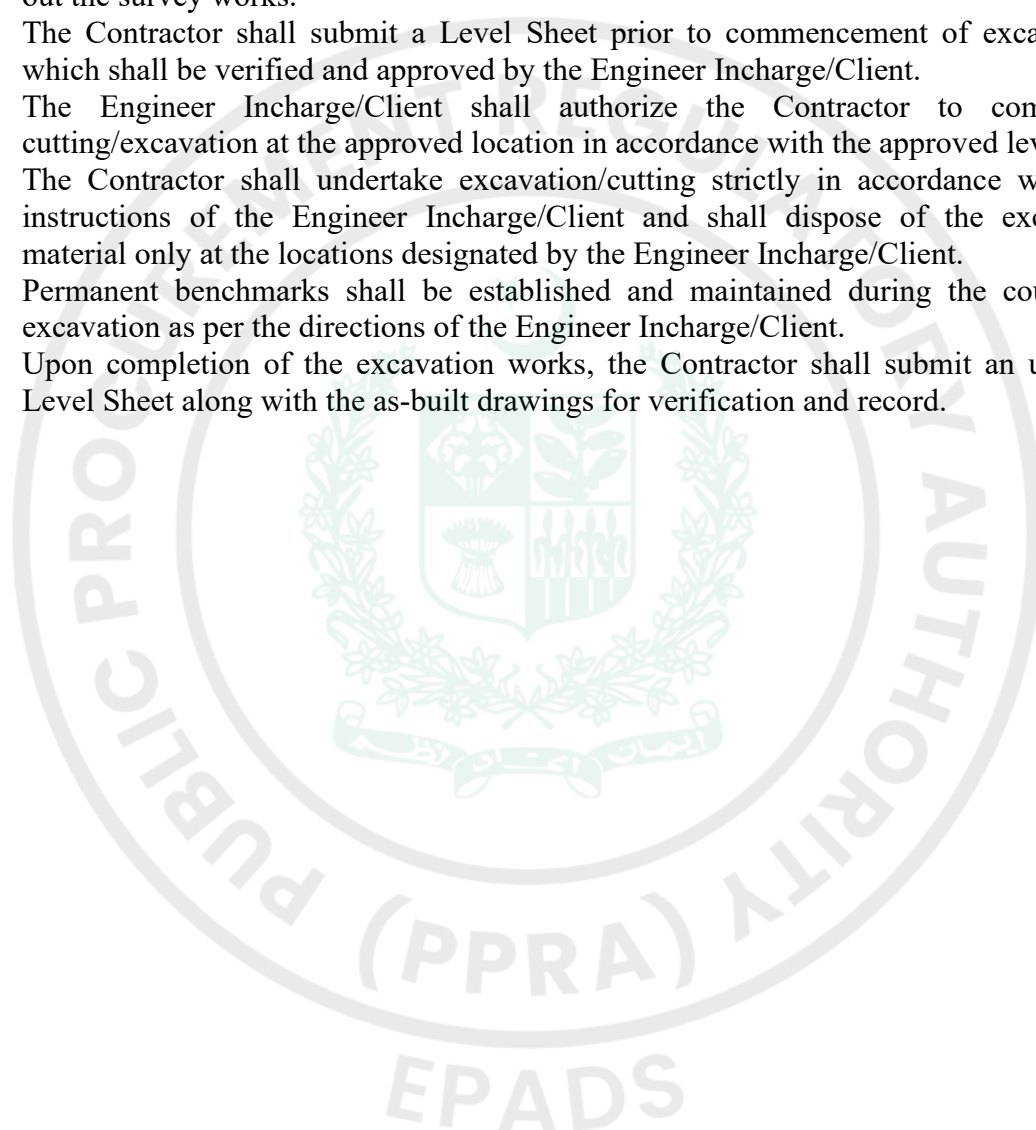
PROPOSED CONSTRUCTION SCHEDULE

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 provide as Appendix-E to Bid, the Construction Schedule in the bar chart (CPM, PERT or Primavera) 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 program for completion of the whole of the Works and parts of the Works may meet Employer's completion targets in days noted below and counted from the date of receipt of Engineer's Notice to Commence (Attach sheets as required for the specified form of Construction Schedule).

<u>Description</u>	<u>Time for Completion</u>
<u>Earthwork for Leveling of Land for Layout of New Building at CUI Dhamtour Abbottabad</u>	<u>90 (Ninety) Days</u>

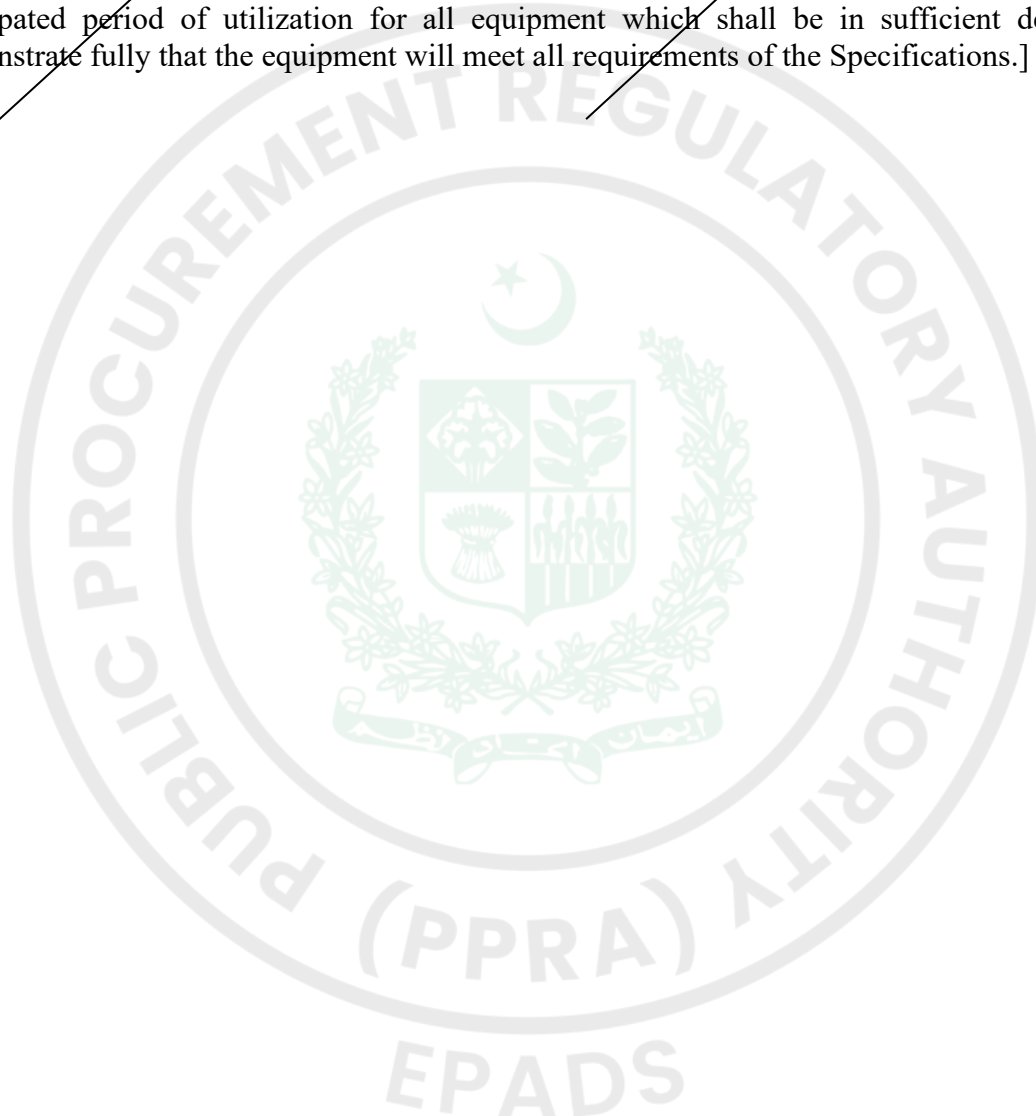
METHOD OF PERFORMING THE WORK

1. The successful bidder (Contractor) shall deploy a qualified surveyor equipped with a level machine, total station, and all other requisite surveying equipment for carrying out the survey works.
2. The Contractor shall submit a Level Sheet prior to commencement of excavation, which shall be verified and approved by the Engineer Incharge/Client.
3. The Engineer Incharge/Client shall authorize the Contractor to commence cutting/excavation at the approved location in accordance with the approved levels.
4. The Contractor shall undertake excavation/cutting strictly in accordance with the instructions of the Engineer Incharge/Client and shall dispose of the excavated material only at the locations designated by the Engineer Incharge/Client.
5. Permanent benchmarks shall be established and maintained during the course of excavation as per the directions of the Engineer Incharge/Client.
6. Upon completion of the excavation works, the Contractor shall submit an updated Level Sheet along with the as-built drawings for verification and record.



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 Purchase d or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Condi on	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 Purchase d						
c. To be arranged on Lease						

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.).

Appendix-I to Bid

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

Appendix-J to Bid

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 Program of the Works and the Rates in the Bill of Quantities, expressed in thousands of Pakistani Rupees:

Month/ Year/ Period	Percentage of the value of work
1	2
1 st Month	
2 nd Month	
3 rd Month	
Bid Price	

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



(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: _____

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

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

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

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

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

Name of Buyer:

Signature:

[Seal]

Name of Seller/Supplier:

Signature:

[Seal]

Declaration of Beneficial Ownership Information

Each bidder shall submit a duly completed and signed Declaration of Beneficial Ownership Information with its bid. Failure to furnish the required declaration may render the bid non-responsive.

Tender Title: *Earthwork for Leveling of Land for Layout of New Building at CUI Dhamtour Abbottabad*

Tender No.: _____

Name of Bidder/Firm/Company: _____

NTN No.: _____

Registration No. (SECP/Partnership/AOP): _____

Beneficial Ownership Information

S. No.	Name of Beneficial Owner	Father's/Spouse's Name	CNIC/Passport No.	Nationality	Residential Address	Email Address	Percentage of Ownership/ Control
1							
2							
3							

Declaration

The undersigned hereby declares that:

1. The information provided above regarding the beneficial owner(s) of the firm/company is true, complete, and correct to the best of our knowledge and belief.
2. No beneficial owner has been concealed, omitted, or misrepresented in this declaration.
3. The bidder shall promptly inform COMSATS University Islamabad, Abbottabad Campus of any change in the beneficial ownership information during the procurement process and, if awarded the contract, during the contract period.
4. It is understood that submission of false information may result in disqualification, forfeiture of bid security, cancellation of award, blacklisting, or any other action permissible under applicable procurement rules and regulations.

Authorized Representative

Name: _____

Designation: _____

CNIC No.: _____

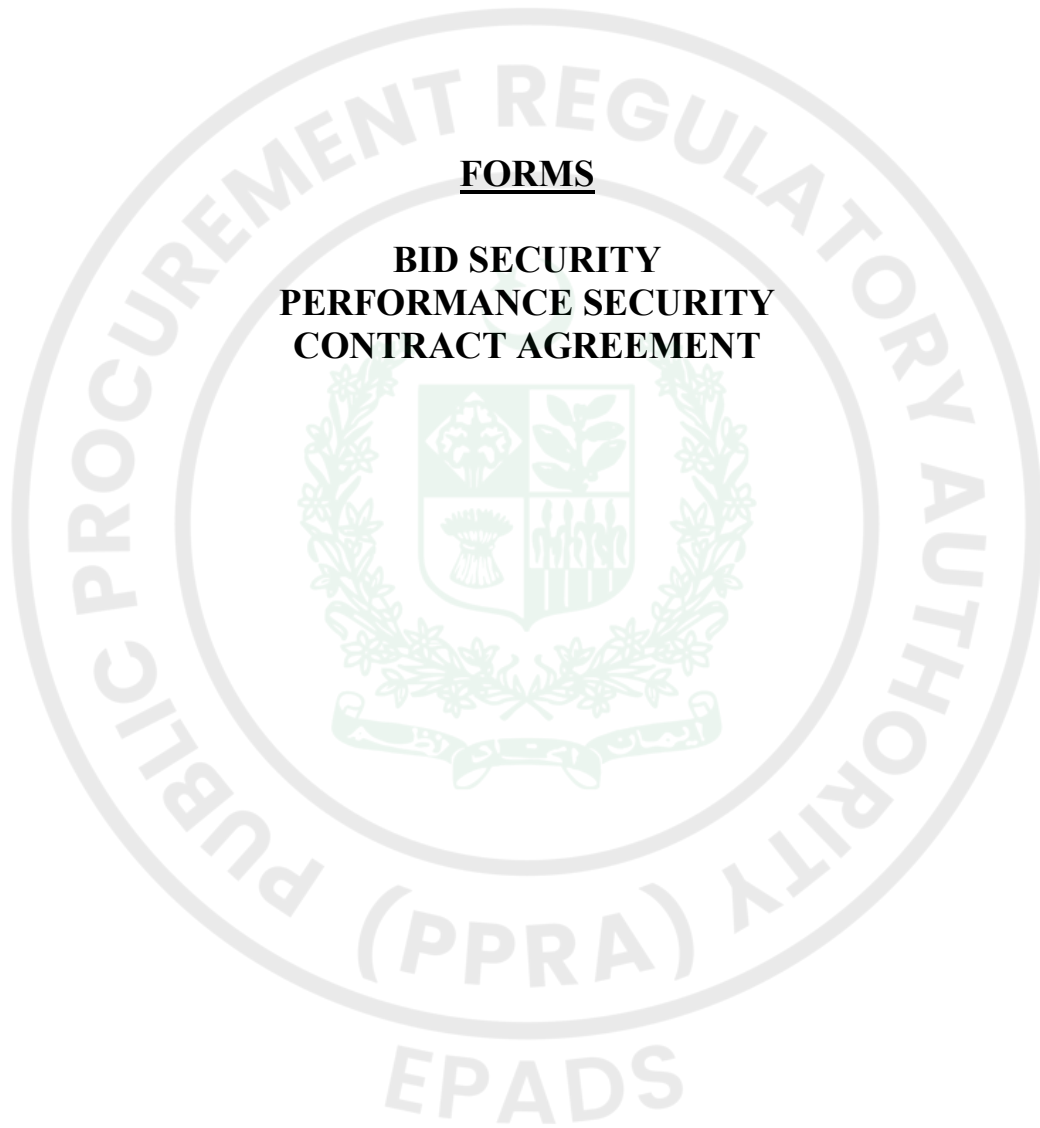
Signature: _____

Date: _____

Official Stamp of Firm/Company

FORMS

**BID SECURITY
PERFORMANCE SECURITY
CONTRACT AGREEMENT**



BID SECURITY
(Bank Guarantee)

Security Executed on _____
(Date)

Name of Surety (Bank) with Address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees. _____ (Rs. _____)

Bid Reference No. _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto _____

(hereinafter called the 'Employer') in the sum stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated _____ for Bid No. _____ for _____ (Particulars of Bid) to the said Employer; and

WHEREAS, the Employer has required as a condition for considering said Bid that the Bidder furnishes a Bid Security in the above said sum from a Scheduled Bank in Pakistan or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan, to the Employer, conditioned as under:

- (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 there-for, 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
(Bank Guarantee)**

Guarantee No. _____
 Executed on _____
 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 figures) _____

Letter of Acceptance No. _____ Dated _____

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the Employer's above said Letter of Acceptance for _____
 _____ (Name of Contract) for the _____
 _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 49, Defects Liability, of Conditions of Contract are fulfilled.

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

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

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

PROVIDED ALSO THAT the Employer shall 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.

Guarantor (Bank)

Witness:

1. _____

Signature _____

Name _____

Corporate Secretary (Seal)

Title _____

2. _____

Name, Title & Address

Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the “Agreement”) made on the _____ day of _____ (month) 20____ between _____ (hereafter called the “Employer”) of the one part and _____ (hereafter called the “Contractor”) of the other part.

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

NOW this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) The Contract Agreement;
 - (b) The Letter of Acceptance;
 - (c) The completed Form of Bid;
 - (d) Special Stipulations (Appendix-A to Bid);
 - (e) The Particular Conditions of Contract – Part II;
 - (f) The General Conditions – Part I;
 - (g) The priced Bill of Quantities (Appendix-D to Bid);
 - (h) The completed Appendices to Bid (B, C, E to L);
 - (i) The Drawings;
 - (j) The Specifications.
 - (k) _____ (any other)
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

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

Signature of the Contactor

(Seal)

Signature of Employer

(Seal)

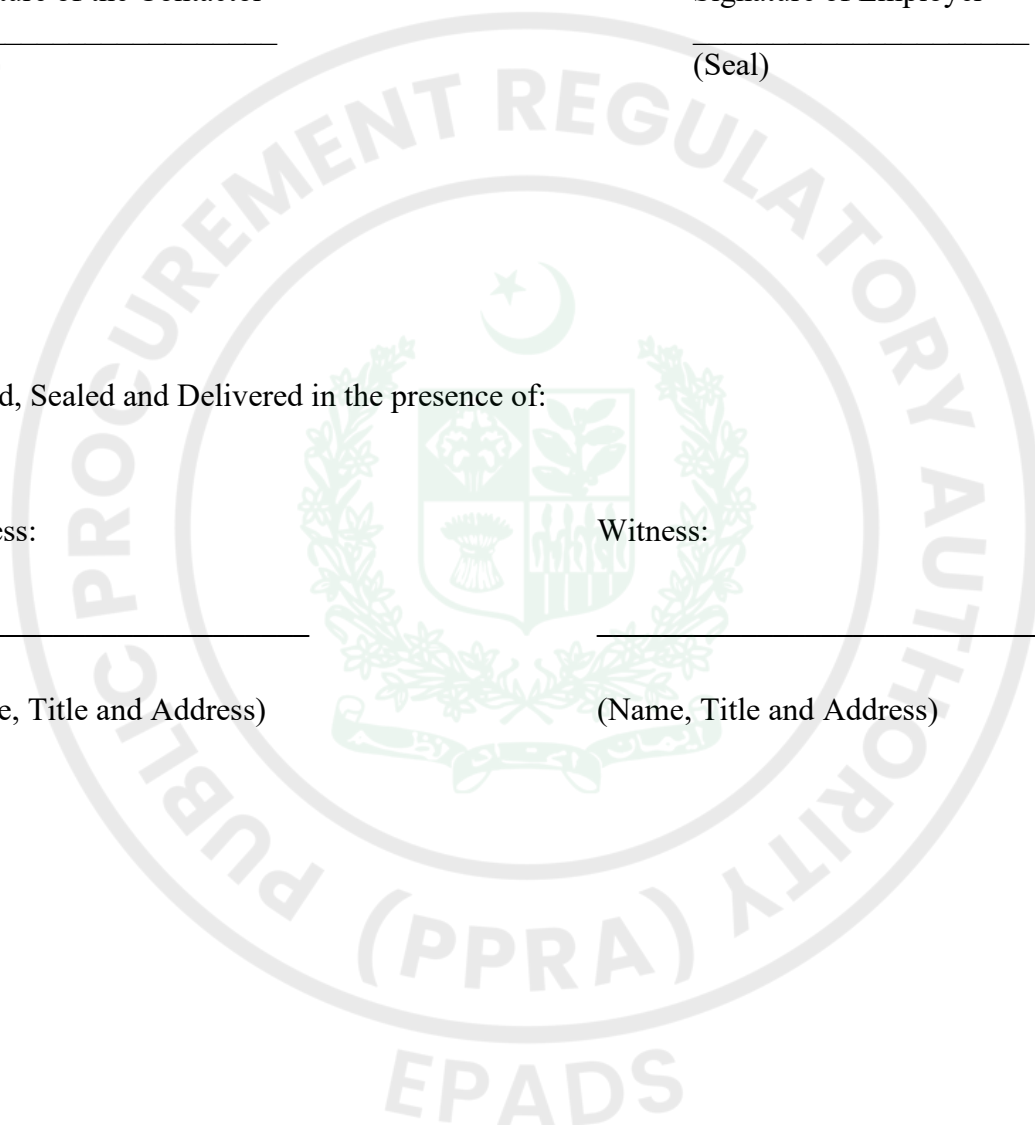
Signed, Sealed and Delivered in the presence of:

Witness:

(Name, Title and Address)

Witness:

(Name, Title and Address)



MOBILIZATION ADVANCE GUARANTEE/BOND

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Employer') has entered into a Contract for _____
 (Particulars of Contract)
 with _____ (hereinafter called the "Contractor").

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

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

AND WHEREAS, _____
 (Scheduled Bank) (hereinafter called the "Guarantor") (hereinafter called the "Guarantor")
 agreeing to furnish the said Guarantee.

NOW, THEREFORE, the Employer shall use the advance for the Contractor's default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount.

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

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

(Date)

The Guarantor's liability under this Guarantee shall not in any case exceed the sum of Rupees _____ (Rs _____).

This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against payments from Interim Payment Certificates of the Contractor provided that the Guarantor agrees that the aforesaid period of validity shall be deemed to be extended if on the above mentioned date the advance payment is not fully adjusted.

GUARANTOR

1. Signature _____
2. Name _____
3. Title _____

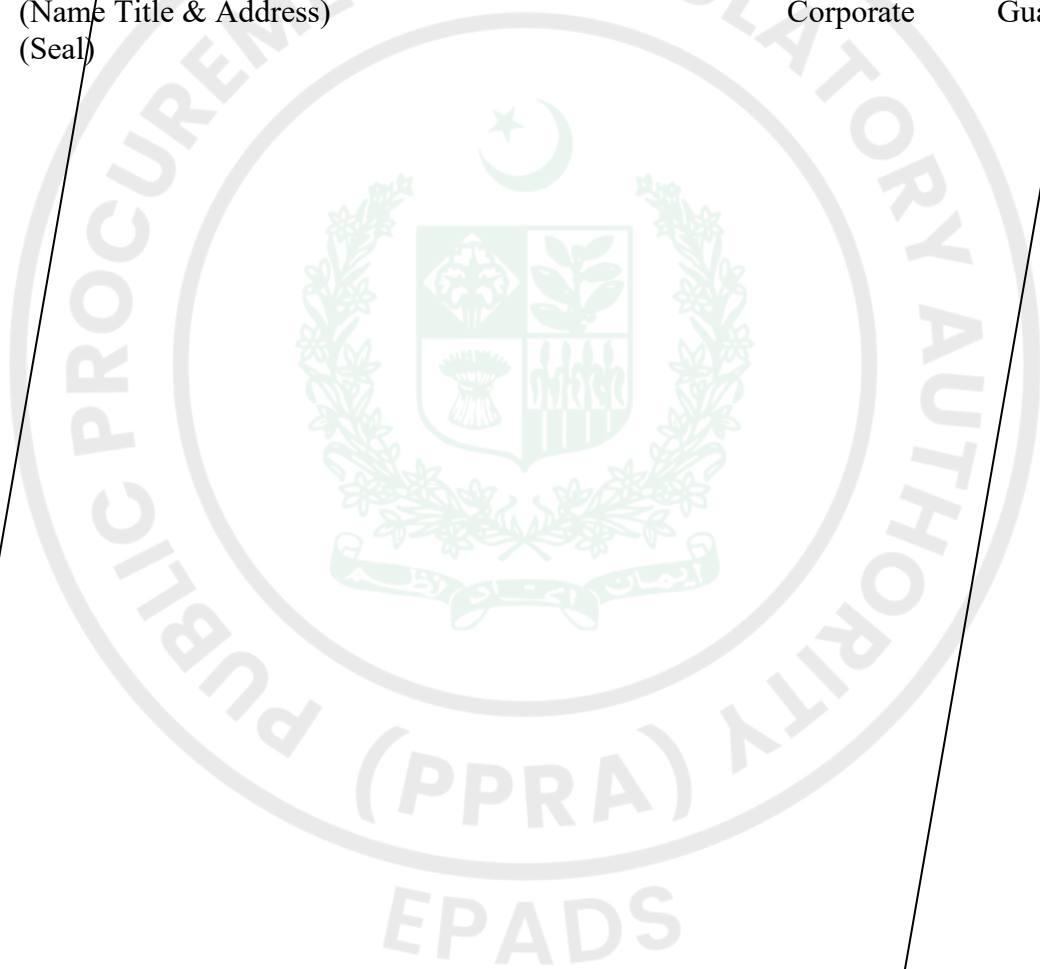
WITNESS

1. _____
Corporate Sec

2. _____
(Name Title & Address)
(Seal)

**NOT
APPLICABLE**

Corporate Guarantor



[Notes on the Conditions of Contract]

The Conditions of Contract comprise two parts:

- (a) **Part I - General Conditions of Contract**
- (b) **Part II - Particular Conditions of Contract**

Over the years, a number of “model” General Conditions of Contract have evolved. The one used in these Standard Bidding Documents was prepared by the International Federation of Consulting Engineers (Federation Internationale des Ingenieurs-Conseils, or FIDIC), and is commonly known as the FIDIC Conditions of Contract. (The used version is the fourth edition, 1987, reprinted in 1992 with further amendments).

The FIDIC Conditions of Contract have been prepared for an ad measurement (unit price or unit rate) type of contract, and cannot be used without major modifications for other types of contract, such as lump sum, turnkey, or target cost contracts.

The standard text of the General Conditions of Contract chosen must be retained intact to facilitate its reading and interpretation by bidders and its review by the Client. Any amendments and additions to the General Conditions, specific to the contract in hand, should be introduced in the Particular Conditions of Contract.

The use of standard conditions of contract for all civil Works will ensure comprehensiveness of coverage, better balance of rights or obligations between Employer and Contractor, general acceptability of its provisions, and savings in time and cost for bid preparation and review, leading to more economic prices.

The FIDIC Conditions of Contract are copyrighted and may not be copied, faxed, or reproduced. Without taking any responsibility of its being accurate, Pakistan Engineering Council with prior consent of FIDIC Secretariat, has reproduced herein the FIDIC General **Conditions of Contract for reference purpose only which cannot be used by the users** for preparing their bidding documents. The bidding document may include a purchased copy, the cost of which can be retrieved as part of the selling price of the bidding document. Alternatively, the FIDIC Conditions of Contract can be referred to in the bidding documents, and the bidders are advised to obtain copies directly from FIDIC.*

* Add the following text if the bidding documents, as issued, do not include a copy:

“Copies of the FIDIC Conditions of Contract can be obtained from:

FIDIC Secretariat

P.O. Box 86

1000 Lausanne 12

Switzerland

e-mail: fidic.pub@fidic.org – FIDIC.org/book



FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS

CONDITIONS OF CONTRACT FOR WORKS OF CIVIL ENGINEERING CONSTRUCTION

PART I GENERAL CONDITIONS WITH FORMS OF TENDER AND AGREEMENT

FIDIC Secretariat
P.O. Box 86
1000 Lausanne 12
Switzerland
e-mail: fidic.pub@fidic.org – FIDIC.org/bookshop

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PART I - GENERAL CONDITIONS

Definitions and Interpretation

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) "Employer" means the person named as such in Part II of these Conditions and the legal successors in title to such person, but not (except with the consent of the Contractor) any assignee of such person.
- (ii) "Contractor" means the person whose tender has been accepted by the Employer and the legal successors in title to such person, but not (except with the consent of the Employer) any assignee of such person.
- (iii) "Subcontractor" means any person named in the Contract as a Subcontractor for a part of the Works or any person to whom a part of the Works has been subcontracted with the consent of the Engineer and the legal successors in title to such person, but not any assignee of any such person.
- (iv) "Engineer" means the person appointed by the Employer to act as Engineer for the purposes of the Contract and named as such in Part II of these Conditions.
- (v) "Engineer's Representative" means a person appointed from time to time by the Engineer under Sub-Clause 2.2.
- (b) (i) "Contract" means these Conditions (Parts I and II), the Specification, the Drawings, the Bill of Quantities, the Tender, the Letter of Acceptance, the Contract Agreement (if completed) and such further documents as may be expressly incorporated in the Letter of Acceptance or Contract Agreement (if completed).
- (ii) "Specification" means the specification of the Works included in the Contract and any modification thereof or addition thereto made under Clause 51 or submitted by the Contractor and approved by the Engineer.
- (iii) "Drawings" means all drawings, calculations and technical information of a like nature provided by the Engineer to the Contractor under the Contract and all drawings, calculations, samples, patterns, models, operation and maintenance manuals and other technical information of a like nature submitted by the Contractor and approved by the Engineer.

- (iv) "Bill of Quantities" means the priced and completed bill of quantities forming part of the Tender.
- (v) "Tender" means the Contractor's priced offer to the Employer for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Acceptance.
- (vi) "Letter of Acceptance" means the formal acceptance by the Employer of the Tender.
- (vii) "Contract Agreement" means the contract agreement (if any) referred to in Sub-Clause 9.1.
- (viii) "Appendix to Tender" means the appendix comprised in the form of Tender annexed to these Conditions.
- (c) (i) "Commencement Date" means the date upon which the Contractor receives the notice to commence issued by the Engineer pursuant to Clause 41.
- (ii) "Time for Completion" means the time for completing the execution of and passing the Tests on Completion of the Works or any Section or part thereof as stated in the Contract (or as extended under Clause 44) calculated from the Commencement Date.
- (d) (i) "Tests on Completion" means the tests specified in the Contract or otherwise agreed by the Engineer and the Contractor which are to be made by the Contractor before the Works of any Section or part thereof are taken over by the Employer.
- (ii) "Taking-Over Certificate" means a certificate issued pursuant to Clause 48.
- (e) (i) "Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract.
- (ii) "Retention Money" means the aggregate of all monies retained by the Employer pursuant to Sub-Clause 60.2(a).
- (iii) "Interim Payment Certificate" means any certificate of payment issued by the Engineer other than the Final Payment Certificate.
- (iv) "Final Payment Certificate" means the certificate of payment issued by the Engineer pursuant to Sub-Clause 60.8.
- (f) (i) "Works" means the Permanent Works and the Temporary Works or

- either of them as appropriate.
- (ii) "Permanent Works" means the permanent works to be executed (including Plant) in accordance with the Contract
 - (iii) "Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required in or about the execution and completion of the Works and the remedying of any defects therein.
 - (iv) "Plant" means machinery, apparatus and the like intended to form or forming part of the Permanent Works.
 - (v) "Contractor's Equipment" means all appliances and things of whatsoever nature (other than Temporary Works) required for the execution and completion of the Works and the remedying of any defects therein, but does not include Plant, materials or other things intended to form or forming part of the Permanent Works.
 - (vi) "Section" means a part of the Works specifically identified in the Contract as a Section.
 - (vii) "Site" means the places provided by the Employer where the Works are to be executed and any other places as may be specifically designated in the Contract as forming part of the Site.
- (g) (i) "cost" means all expenditure properly incurred or to be incurred, whether, on or off the Site, including overhead and other charges properly allocable thereto but does not include any allowance for profit.
- (ii) "day" means calendar day.
 - (iii) "foreign currency" means a currency of a country other than that in which the Works are to be located.
 - (iv) "writing" means any hand-written, type-written, or printed communication, including telex, cable and facsimile transmission.

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 organization 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.

Engineer and Engineer's Representative

2.1 Engineer's Duties and Authority

- (a) The Engineer shall carry out the duties specified in the Contract.
- (b) The Engineer may exercise the authority specified in or necessarily to be implied from the Contract, provided, however, that if the Engineer is required, under the terms of his appointment by the Employer, to obtain the specific approval of the Employer before exercising any such authority, particulars of such requirements shall be set out in Part II of these Conditions. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer.
- (c) Except as expressly stated in the Contract, the Engineer shall have no authority to relieve the Contractor of any of his obligations under the Contract.

2.2 Engineer's Representative

The Engineer's Representative shall be appointed by and be responsible to the Engineer and shall carry out such duties and exercise such authority as may be delegated to him by the Engineer under Sub-Clause 2.3.

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; and

- (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 the 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 7 days, confirms in writing to the Engineer any oral instruction of the Engineer and such confirmation is not contradicted in writing within 7 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,
- (b) expressing his satisfaction or approval,
- (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.

Assignment and Subcontracting

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 there-under, otherwise than by:

- (a) A charge in favor of the Contractor's bankers of any monies due or to become due under the Contract, or
- (b) Assignment to the 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 agent's servants or workmen.

Provided that the Contractor shall not be required to obtain such consent for:

- (a) the provision of labor,
- (b) the purchase of materials which are in accordance with the standards specified in the Contract,
- (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.

Contract Documents

5.1 Language/s and Law

There is stated in Part II of these Conditions:

- (a) the language or languages in which the Contract documents shall be

drawn up, and

- (b) the country or state the law of which shall apply to the Contract and according to which the Contract shall be construed.
If the said documents are written in more than one language, the language according to which the Contract shall be construed and interpreted is also stated in Part II of these Conditions, being therein designated the "Ruling Language".

5.2 **Priority of Contract Documents**

The several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer who shall thereupon issue to the Contractor instructions thereon and in such event, unless otherwise provided in the Contract, the priority of the documents forming the Contract shall be as follows:

- (1) The Contract Agreement (if completed);
- (2) The Letter of Acceptance;
- (3) The Tender;
- (4) Part II of these Conditions;
- (5) Part I of these Conditions; and
- (6) Any other document forming part of the Contract.

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

authorized 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 Delay and Cost of Delay of Drawings

If, by reason of any failure or inability of the Engineer to issue, within a time reasonable in all the circumstances, any drawing or instruction for which notice has been given by the Contractor in accordance with Sub-Clause 6.3, 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.

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.

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.

General Obligations

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, labor, material, 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 Operations 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 modification as may be necessary.

10.1 Performance Security

If the Contract requires the Contractor to obtain security for his proper performance of the Contract, he shall obtain and provide to the Employer, such security within 14 days after the receipt of the Letter of Acceptance, in the sum stated in the Appendix to Tender. When providing such security to the Employer, the Contractor shall notify the Engineer of so doing. Such security shall be in the form annexed to these Conditions or in such other form as may be agreed between the Employer and the Contractor. The institution providing such security shall be

subject to the approval of the Employer. The cost of complying with the requirements of this Clause shall be borne by the Contractor, unless the Contract otherwise provides.

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 14 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.

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
- (d) 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.

The Contractor shall be deemed to have based his Tender on the data made available by the Employer and on his own inspection and examination, all as aforementioned.

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 Not Foreseeable 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 obstructions 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 his delegate).

14.1 Program to be submitted

The Contractor shall, within the time stated in Part II of these Conditions after the date of the Letter of Acceptance, submit to the Engineer for his consent a Program, in such form and detail as the Engineer shall reasonably prescribe, for the execution of the Works. The Contractor shall, whenever required by the Engineer, also provide in writing for his information a general description of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works.

14.2 Revised Program

If at any time it should appear to the Engineer that the actual progress of the Works does not conform to the Program to which consent has been given under Sub-

Clause 14.1, the Contractor shall produce, at the request of the Engineer, a revised Program showing the modifications to such Program necessary to ensure completion of the Works within the Time for Completion.

14.3 Cash Flow Estimate to be Submitted

The Contractor shall, within the time stated in Part II of these Conditions after the date of the Letter of Acceptance, provide to the Engineer for his information a detailed cash flow estimate, in Monthly periods, of all payments to which the Contractor will be entitled under the Contract and the Contractor shall subsequently supply revised cash flow estimates at Monthly intervals, if required to do so by the Engineer.

14.4 Contractor not Relieved of Duties or Responsibilities

The submission to and consent by the Engineer of such Programs 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.

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 authorized 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 authorized representative shall receive, on behalf of the Contractor, instructions from the Engineer.

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.

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 labor 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 to 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.

17.1 Setting-out

The Contractor shall be responsible for:

- (a) 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 labor in connection with the foregoing responsibilities.

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,
- (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.

20.1 **Care of Works**

The Contractor shall take full responsibility for the care of the Works and materials and Plant for incorporation therein from 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:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, revolution, insurrection, or military or usurped power, or civil war,
- (c) ionizing radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
- (d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
- (e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractor and arising from the conduct of the Works,
- (f) 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,
- (g) 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
- (h) any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions.

21.1 Insurance of Works and Contractor's Equipment

The Contractor shall, without limiting his or the Employer's obligations and

responsibilities under Clause 20, insure:

- (a) the Works, together with materials and Plant for incorporation therein, to the full replacement cost (the term “cost” in this context shall include profit),
- (b) an additional sum of 15 per cent of such replacement cost, or as may be specified in Part II of these Conditions, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature, and
- (c) the Contractor's Equipment and other things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

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 Periods, 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**

There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by:

- (a) war, hostilities (where war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, revolution, insurrection, or military or usurped power, or civil war,

- (c) ionizing, radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof, or
- (d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds.

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, is 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, and
- (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 obligation 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 the Appendix 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 insured.

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 the 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 affected and shall, within 84 days of the Commencement Date, 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 affect 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 Program 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 that 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 affected 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 Fossil

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 therefore.

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, notwithstanding 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 hauler 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 obligations 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 failure 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 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
- (c) 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 other contractor, or to the Employer or any such authority, any roads or ways for the maintenance of which the Contractor is responsible,
- (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.

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 materials, 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.

Labor

34.1 Engagement of Staffs and Labor

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

35.1 Returns of Labor 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 labor from time to time employed by the Contractor on the Site and such information respecting Contractor's Equipment as the Engineer may require.

Materials, Plant and Workmanship

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) subjected 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 specified in the Contract, or at all or any of such places.

The Contractor shall provide such assistance, labor, 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) particularized in the Contract (in cases only for 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 fulfill) 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 intended by or provided for,
- (b) (in the cases above mentioned) not so particularized, or
- (c) (through 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 test 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 of 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.

37.1 Inspection of Operations

The Engineer, and any person authorized 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 authorized representative, does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Engineer, proceed with the 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 tests readings. If the Engineer has not attended the 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 test 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 this 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 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 there-for, 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 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.

Suspension

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,
- (b) necessary by reason of some default of or breach of contract by the Contractor or for which he is responsible,
- (c) necessary by reason of climatic conditions of the Site, or
- (d) necessary for the proper execution of the Works or 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 for 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 terminates his employment under the Contract in accordance with the provisions of Sub-Clause 69.1, whereupon the provisions of Sub-Clause 69.2 and 69.3 shall apply.

Commencement and Delays

41.1 Commencement of Works

The Contractor shall commence the Works as soon as is reasonably possible after the receipt by him of notice to this effect from the Engineer, which notice shall be issued within the time stated in the Appendix to Tender after the date of the Letter of Acceptance. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

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,
- (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 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 Program 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 Program 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 Rights of Way and Facilities

The Contractor shall bear all costs and charges for special or temporary way leaves 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,
- (b) any cause of delay referred to in these Conditions,
- (c) exceptionally adverse climatic conditions,
- (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 effects 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 recognized 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 recognized 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 not as a penalty (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 of 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.

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 21 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 21 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

Similarly, in accordance with the procedure set out in Sub-Clause 48.1, the Contractor may request and the Engineer shall issue a Taking-Over Certificate in respect of:

- (a) any Section in respect of which a separate Time for Completion is provided in the Appendix to Tender,
- (b) any substantial part of the Permanent Works which has been both completed to the satisfaction of the Engineer and, otherwise than as provided for in the Contract, occupied or used by the Employer, or
- (c) any part of the Permanent Works which the Employer has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the Contract or has not been agreed by the Contractor as a temporary measure).

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 Contractor, 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.

Defects Liability

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 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,
- (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 default 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 cost 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 a 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.

Alterations, Additions and Omissions

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, or
- (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. 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 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.

52.2 Power of Engineer to Fix Rates

Provided that if the nature or amount of any varied work relative to the nature or amount of the whole of the Works or to any part thereof, is such that, in the opinion of the Engineer, the rate or price contained in the Contract for any item of the Works is, by reason of such varied work, rendered inappropriate or inapplicable, then, after due consultation by the Engineer with the Employer and the Contractor, a suitable rate or price shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such other rate or price as is, 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.

Provided also that no varied work instructed to be done by the Engineer pursuant to Clause 51 shall be valued under Sub-Clause 52.1 or under this Sub-Clause unless, within 14 days of the date of such instruction and, other than in the case of omitted work, before the commencement of the varied work, notice shall have been given either:

- (a) by the Contractor to the Engineer of his intention to claim extra payment or a varied rate or price, or
- (b) by the Engineer to the Contractor of his intention to vary a rate or price.

52.3 Variations Exceeding 15 per cent

If, on the issue of the Taking-Over Certificate for the whole of the Works, it is found that as a result of:

- (a) all varied work valued under Sub-Clauses 52.1 and 52.2, and
- (b) all adjustments upon measurement of the estimated quantities set out in the Bill of Quantities, excluding Provisional Sums, day works and adjustment of price made under Clause 70 but not from any other cause, there have been additions to or deductions from the Contract Price which taken together are in excess of 15 per cent of the "Effective Contract Price" (which for the purposes of this Sub-Clause shall mean the Contract Price, excluding Provisional Sums and allowance for day-works, if any) then and in such event (subject to any action already taken under any other Sub-Clause of this Clause), after due consultation by the Engineer with the Employer and the Contractor, there shall be added to or deducted from the Contract Price such further sums as may be agreed between the Contractor and the Engineer or, failing agreement, determined by the Engineer having regard to the Contractor's Site and general overhead costs of the Contract. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer. Such sum shall be based only on the amount by which such additions or deductions shall be in excess of 15 per cent of the Effective Contract Price.

52.4 Day work

The Engineer may, if in his opinion it is necessary or desirable, issue an instruction that any varied work shall be executed on a day work basis. The Contractor shall then be paid for such varied work under the terms set out in the day work 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 provide the amounts paid and, before ordering material, shall submit to the Engineer quotations for the same for his approval.

In respect of such of the Works executed on a day work 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 there for other than Contractor's Equipment which is included in the percentage addition in accordance with such day work 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 labor, 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 authorize payment for such work, either as day work, on being satisfied as to the time employed and the labor, materials and Contractor's Equipment used on such work, or at such value there-for as shall, in his opinion, be fair and reasonable.

Procedure for Claims

53.1 Notice of Claims

Notwithstanding 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 the Engineer or any arbitrator or arbitrators appointed pursuant to Sub-Clause 67.3 assessing the claim considers to be verified by contemporary records (whether or not such records were brought to the Engineer's notice as required under Sub-Clause 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.

Contractor's Equipment, Temporary Works and Materials

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, labor, 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

The Employer will use his best endeavors in assisting the Contractor, where required, in obtaining clearance through the Customs of Contractor's Equipment, materials and other things required for the Works.

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 endeavors 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 Contract.

54.5 Conditions of Hire of Contractor's Equipment

With a view to securing, in the event of termination under Clause 63, the continued availability, for the purpose of executing the Works, of any hired Contractor's Equipment, the Contractor shall not bring on to the Site any hired Contractor's Equipment unless there is an agreement for hire thereof (which agreement shall be deemed not to include an agreement for hire purchase) which contains a provision that the owner thereof will, on request in writing made by the Employer within 7 days after the date on which any termination has become effective, and on the Employer undertaking to pay all hire charges in respect thereof from such date, hire such Contractor's Equipment to the Employer on the same terms in all respect as the same was hired to the Contractor save that the Employer shall be entitled to permit the use thereof by any other contractor employed by him for the purpose of execution and completing the Works and remedying any defects therein, under the terms of the said Clause 63.

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 provision 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.

Measurement

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 fulfillment 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 authorized 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.

Provisional Sums

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, material, 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, and
- (c) a nominated Subcontractor, as hereinafter defined, in which case the sum to be paid to the Contractor there for 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.

Nominated Subcontractors

59.1 Definition of "Nominated Subcontractors"

All specialists, merchants, tradesmen and others executing any work or supplying any goods, materials, Plant or services for which Provisional Sums are included in the Contract, who may have been or be nominated or selected or approved by the Employer or the Engineer, and all persons to whom by virtue of the provisions of the Contract the Contractor is required to subcontract shall, in the execution of such work or the supply of such goods, materials, Plant or services, be deemed to be subcontractors to the Contractor and are referred to in this Contract as "nominated Subcontractors".

59.2 Nominated Subcontractors; Objection to Nomination

The Contractor shall not be required by the Employer or the Engineer, or be deemed to be under any obligation, to employ any nominated Subcontractor against whom the Contractor may raise reasonable objection or who declines to enter into subcontract with the Contractor containing provisions:

- (a) that in respect of the work, goods, materials, Plant or services the subject of the subcontract, the nominated Subcontractor will undertake towards the Contractor such obligations and liabilities as will enable the Contractor to discharge his own obligations and liabilities towards the Employer under the terms of the Contract and will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfill such

liabilities, and

(b) that the nominated Subcontractor will save harmless and indemnify the Contractor from and against any negligence by the nominated Subcontractor, his agents, workmen and servants and from and against any misuse by him or them of any Temporary Works provided by the Contractor for the purposes of the Contract and from all claims as aforesaid.

59.3 Design Requirements to be Expressly Stated

If in connection with any Provisional Sum the services to be provided include any matter of design or specification of any part of the Permanent Works or of any Plant to be incorporated therein, such requirement shall be expressly stated in the Contract and shall be included in any nominated Subcontract. The nominated Subcontract shall specify that the nominated Subcontractor providing such services will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection with any failure to perform such obligations or to fulfill such liabilities.

59.4 Payments to Nominated Subcontractors

For all work executed or goods, materials, Plant or services supplied by any nominated Subcontractor, the Contractor shall be entitled to:

- (a) the actual price paid or due to be paid by the Contractor, on the instructions of the Engineer, and in accordance with the subcontract;
- (b) in respect of labor supplied by the Contractor, the sum, if any, entered in the Bill of Quantities or, if instructed by the Engineer pursuant to paragraph (a) of Sub-Clause 58.2, as may be determined in accordance with Clause 52; and
- (c) in respect of all other charges and profit, a sum being a percentage rate of the actual price paid or due to be paid calculated, where provision has been made in the Bill of Quantities for a rate to be set against the relevant Provisional Sum, at the rate inserted by the Contractor against that item or, where no such provision has been made, at the rate inserted by the Contractor in the Appendix to Tender and repeated where provision for such is made in a special item provided in the Bill of Quantities for such purpose.

59.5 Certification of Payments to Nominated Subcontractors

Before issuing, under Clause 60 any certificate, which includes any payment in respect of work done or goods, materials, Plant or services supplied by any nominated Subcontractor, the Engineer shall be entitled to demand from the

Contractor reasonable proof that all payments, less retentions, included in previous certificates in respect of the work or goods, materials, Plant or services of such nominated Subcontractor have been paid or discharged by the Contractor. If the Contractor fails to supply such proof then, unless the Contractor:

- (a) Satisfies the Engineer in writing that he has reasonable cause for withholding or refusing to make such payment, and
- (b) produces to the Engineer reasonable proof that he has so informed such nominated Subcontractor in writing, the Employer shall be entitled to pay to such nominated Subcontractor direct, upon the certificate of the Engineer, all payments, less retention, provided for in the nominated Subcontract, which the Contractor has failed to make to such nominated Subcontractor and to deduct by way of set-off the amount so paid by the Employer from any sums due or to become due from the Employer to the Contractor.

Provided that, where the Engineer has certified and the Employer has paid direct as aforesaid, the Engineer shall in issuing any further certificate in favour of the Contractor, deduct from the amount thereof the amount so paid, direct as aforesaid, but shall not withhold or delay the issue of the certificate itself when due to be issued under the terms of the Contract.

Certificates and Payment

60.1 Monthly Statements

The Contractor shall submit to the Engineer after the end of each month six copies, each signed by the Contractor's representative approved by the Engineer in accordance with the Sub-Clause 15.1, of a statement, in such form as the Engineer may from time to time prescribe, showing the amounts to which the Contractor considers himself to be entitled up to the end of the month in respect of:

- (a) the value of the Permanent Works executed,
- (b) any other items in the Bill of Quantities including those for Contractor's Equipment, Temporary Works, day works and the like,
- (c) the percentage of the invoice value of listed materials, all as stated in the Appendix to Tender, and Plant delivered by the Contractor on the Site for incorporation in the Permanent Works but not incorporated in such Works,
- (d) adjustments under Clause 70, and
- (e) any other sum to which the Contractor may be entitled under the Contract or otherwise.

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 account calculated by applying the Percentage of Retention stated in the Appendix to Tender, to the amount to which the Contractor is entitled under paragraph (a), (b), (c) and (e) of Sub-Clause 60.1 until the amount so retained reaches the Limit of Retention Money stated in the Appendix 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 Payment Certificates stated in the Appendix 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 part 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 instructed, pursuant to Clause 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 Payment 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 Payment Certificate.

60.5 Statement at Completion

Not later than 84 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 verify 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").

If, following discussions between the Engineer and the Contractor and any changes to the draft final statement which may be agreed between them, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer an Interim Payment Certificate for those parts of the draft final statement, if any, which are not in dispute. The dispute may then be settled in accordance with Clause 67.

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 Payment 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 Payment Certificate

Within 28 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 Payment Certificate stating:

(a) the amount which, in the opinion of the Engineer, is finally due under the Contract or otherwise, 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 other than under 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 amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other term 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 delivered to the Employer, or, in the case of the Final Payment Certificate referred to in Sub-Clause 60.8, within 56 days, after such Final Payment Certificate has been delivered to the Employer. In the event of the failure of the Employer to make payment within the times stated, the Employer shall pay to the Contractor interest at the rate stated in the Appendix to Tender upon all sums unpaid from the date by which the same should have been paid. The provisions of this Sub-Clause are without prejudice to the Contractor's entitlement under Clause 69 or otherwise.

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 Clause 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 fulfillment 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 of 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.

Remedies

63.1 Default of Contractor

If the Contractor is deemed by law unable to pay his debts as they fall due, or enters into voluntary or involuntary bankruptcy, liquidation or dissolution (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or becomes insolvent, or makes an arrangement with, or assignment in favour of, his creditors, or agrees to carry out 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 assets, or if, under any law or regulation relating to reorganization, arrangement or readjustment of debts, proceedings are commenced against the Contractor or resolutions passed in connection with dissolution or liquidation or if any steps are taken to enforce any security interest over a substantial part of the assets of the Contractor, or if any act is done or event occurs with respect to the Contractor or his assets 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 28 days after receiving notice pursuant to Sub-Clause 46.1,
- (c) has failed to comply with a notice issued pursuant to Sub-Clause 37.4 or an instruction issued pursuant to Sub-Clause 39.1 within 28 days after having received

it;

(d) despite previous warning from the Engineer, in writing, is otherwise persistently or flagrantly neglecting to comply with any of his 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 Works and terminate the employment of the Contractor without thereby releasing the Contractor from any of his 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 Works or may employ any other contractor to complete the Works. The Employer or such other contractor may use for such completion so much of the Contractor's Equipment, Temporary Works and materials as he or they may think proper.

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 by 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.

Special Risks

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,
- (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 Special Risks are:

- (a) the risks defined under paragraphs (a), (c), (d) and (e) of Sub-Clause 20.4, and
- (b) the risks defined under paragraph (b) of Sub-Clause 20.4 insofar as these relate to the country in which the Works are to be executed.

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 of 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, munitions, 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 Work (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.

65.6 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 endeavor 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 Clause 67, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.

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 prices 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 portion 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; and
- (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 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.

Release from Performance

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 fulfill his or their contractual obligations, or under the law governing the Contract the parties are released from further performance, then the parties shall be discharged from the Contract, except as to their rights under this Clause and Clause 67 and without prejudice to the rights of either party in respect of any antecedent breach of the Contract, and 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.

Settlement of Disputes

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 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.

67.2 Amicable Settlement

Where notice of intention to commence arbitration as to a dispute has been given in accordance with Sub-Clause 67.1, the parties shall attempt to settle such dispute amicably before the commencement of arbitration. 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, even if no attempt at amicable settlement thereof has been made.

67.3 Arbitration

Any dispute in respect of which:

(a) the decision, if any, of the Engineer has not become final and binding pursuant to Sub-Clause 67.1, and

(b) amicable settlement has not been reached within the period stated in Sub-Clause 67.2, shall be finally settled, unless otherwise specified in the Contract, under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed under such Rules. The said arbitrator/s shall have full power to open up, review and revise any decision, opinion, instruction, determination, certificate or valuation of the Engineer related to the dispute.

Neither party shall be limited in the proceedings before such arbitrator/s to the evidence or arguments put before the Engineer for the purpose of obtaining his said decision pursuant to Sub-Clause 67.1. No such decision shall disqualify the Engineer from being called as a witness and giving evidence before the arbitrator/s on any matter whatsoever relevant to the dispute.

Arbitration may be commenced prior to or after completion of the Works, provided that the obligations of the Employer, the Engineer and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the Works.

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-Clause 67.1 and 67.2 shall not apply to any such reference.

Notices

68.1 Notice to Contractor

All certificates, notices or instructions to be given to the Contractor by the Employer or the Engineer under the terms of the Contract shall be sent by post, cable, telex or facsimile transmission to or left at the Contractor's principal place of business or such other address as the Contractor shall nominate for that purpose.

68.2 Notice to Employer and Engineer

Any notice to be given to the Employer or to the Engineer under the terms of the Contract shall be sent by post, cable, telex or facsimile transmission to or left at the respective addresses nominated for that purpose in Part II of these Conditions.

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.

Default of Employer

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 Sub-Clause 60.10 within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract,

(b) interfering with or obstructing or refusing any required approval to the issue of any such certificate,

(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 economic reasons 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 dispatch, 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 28 days after the expiry of the time stated in Sub-Clause 60.10 within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, after giving 28 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 costs 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.

Changes in Cost and Legislation

70.1 Increase or Decrease of Cost

There shall be added to or deducted from the Contract Price such sums in respect of rise or fall in the cost of labor and/or materials or any other matters affecting the cost of the execution of the Works as may be determined in accordance with part II of these Conditions.

70.2 Subsequent Legislation

If, after the date 28 days prior to the latest date for submission of tenders for the Contract there occur 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 the 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.

Currency and Rates of Exchange

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 there from, 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 prevailing, 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 Currencies of Payment for Provisional Sums

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 72.1 and 72.2 as and when these sums are utilized in whole or in part in accordance with the provisions of Clauses 58 and 59.

REFERENCE TO PART II

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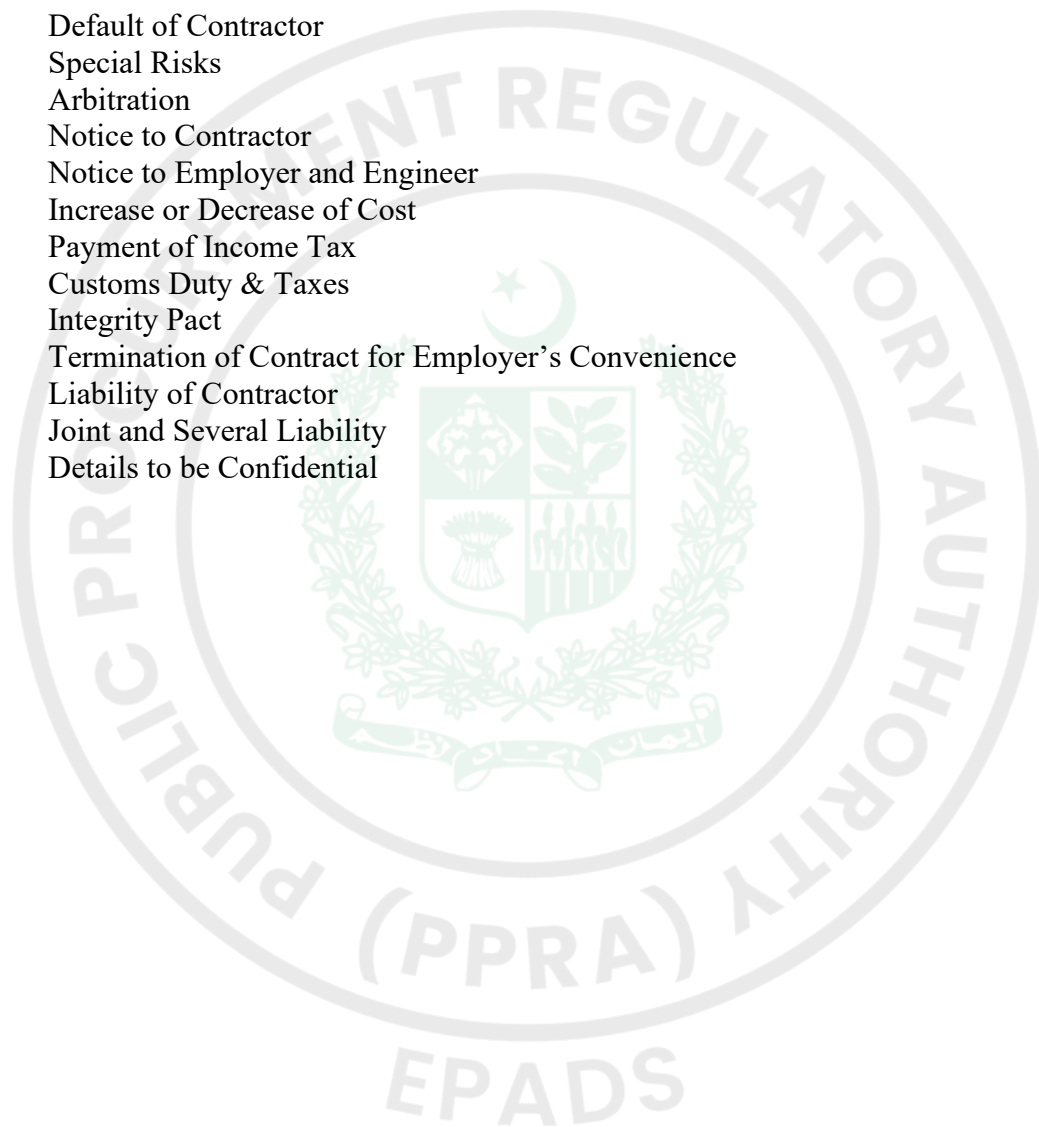
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PART II

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

(a) (i) The Employer is **The Director, COMSATS University Islamabad, Abbottabad Campus, Administration Block, Abbottabad**

(a) (iv) The Engineer is **M/s DESIGNMEN Consulting Engineers (Pvt) Ltd. 1st Floor, 9-West, Rizwan Plaza, Jinnah Avenue, F-6, Islamabad**, or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer. Provided always that except in cases of professional misconduct, the outgoing Engineers is to formulate his certifications/recommendations in relation to all outstanding matters, disputes and claims relating to the execution of the Works during his tenure.

The following paragraph is added:

(a)(vi) “Bidder or Tenderer” means any person or persons, company, corporation, firm 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)(ix) “Program” means the Program 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 there from as may be made and remedying of any defects therein in accordance with the provisions of the Contract.

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) Any action under Clause 47 “Liquidated Damages for Delay” or Payment of Bonus for Early Completion of Works (PCC Sub-Clause 47.3).
- (vii) Issuance of “Taking Over Certificate” under Clause 48.
- (viii) Issuing a Variation Order under Clause 51, except:
 - a) in an emergency* situation, as stated here below, or
 - b) if such variation would increase the Contract Price by less than the amount stated in the Appendix-A to Bid.
- (ix) Fixing rates or prices under Clause 52.
- (x) Extra payment as a result of Contractor’s claims under Clause 53.
- (xi) Release of Retention Money to the Contractor under Sub-Clause 60.3 “Payment of Retention Money”.
- (xii) Issuance of “Final Payment Certificate” under Sub-Clause 60.8.
- (xiii) Issuance of “Defect Liability Certificate” under Sub-Clause 62.1.
- (xiv) Any change in the ratios of Contract currency proportions and payments thereof under Clause 72 “Currency and Rate of Exchange”.

(Note: Employer may further vary according to need of the project)

* (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:

MR. Najib AHMAD Shakir - DESIGNMEN Consulting Engineers (Pvt) Ltd. 1st Floor, 9-West Rizwan Plaza, Jinnah Avenue, Blue Area, Islamabad shall act as

Engineer's Representative.

The following Sub-Clauses 2.7 and 2.8 are added:

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.”

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;
- (4) Special Stipulations (Appendix-A to Bid);
- (5) The Particular Conditions of Contract – Part II;
- (6) The General Conditions – Part I;
- (7) The priced Bill of Quantities (Appendix-D to Bid);
- (8) The completed Appendices to Bid (B, C, E to L);
- (9) The Drawings;
- (10) The Specifications; and
- (11) _____(any other).

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:

6.6 Shop Drawings

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

Review and approval by the Engineer shall not 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 6 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.

10.1 Performance Security

The text is deleted and substituted with the following:

The Contractor shall provide a Performance Security to the Employer in the prescribed form. The Performance Security shall be furnished by the Contractor within 14 (fourteen) days of receipt of the Letter of Acceptance. The amount of the Performance Security shall be 10% (ten percent) of the Contract Price stated in the Letter of Acceptance. The Performance Security shall be only in the form of a Bank Guarantee issued by any Scheduled Bank of Pakistan and acceptable to the Employer.

The cost of complying with requirements of this Sub-Clause shall be borne by the Contractor.

The following Sub-Clause 10.4 is added:

10.4 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.

14.1 Program to be Submitted

The Program shall be submitted within 21 days from the date of receipt of Letter of Acceptance, which shall be in the form of:

A CPM identifying the critical path/activities or PERT or Primavera.

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:

14.5 Detailed Program and Monthly Progress Report

- a) For purposes of Sub-Clause 14.1, the Contractor shall submit to the Engineer detailed Program 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, 10 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 Program 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:

15.2 Language Ability of Contractor's Representative

The Contractor's authorized 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 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:

16.3 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 is 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:

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.

20.4 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.

21.4 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:

25.5 Insurance Company

The Contractor shall be obliged to place all insurances relating to the Contract (including, but not limited to, the insurances referred to in Clauses 21, 23 and 24) with either National Insurance Company of Pakistan or any other insurance company operating in Pakistan and acceptable to the Employer.

Costs of such insurances shall be borne by the Contractor.

The following Sub-Clause 31.3 is added:

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:

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:

35.2 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:

36.6 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.

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.

47.1 Liquidated Damages for Delay

In the fifth line of the Sub-Clause, delete the words” and not as a penalty”

Add the following paragraphs at the end of the Sub-Clause: -

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 of 10% of the Contract price stated in the Letter of Acceptance.

The following Sub-Clause 47.3 is added:

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”.

51.2 Instructions for Variations

At the end of the first sentence, after the word “Engineer”, the words “in writing” are added.

52.1 Valuation of Variations

In the tenth line, after the words “Engineer shall” the following is added:

“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”.

53.4 Failure to Comply

This Sub-Clause is deleted in its entirety.

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.

The following Sub-Clauses 59.4 & 59.5 are added:

59.4 Payments to Nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with Clause 58 [Provisional Sums], except as stated in Sub-Clause 59.5 [Certification of Payments].

59.5 Certification of Payments & Nominated Subcontractors

Before issuing a Payment, Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- a) submits reasonable evidence to the Engineer, or
- b)
 - i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
 - ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Employer may (at his sole discretion) pay direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.

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-Clause 60.11 (a)(6) hereof".
(in case Clause 60.11 is applicable)

60.2 Monthly Payments

In the first line, “28” is substituted by “14”.

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 15 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 60 days after such Final Payment Certificate has been jointly verified by Employer and Contractor; Provided that the Interim Payment shall be caused in 42 days and Final Payment in 60 days in case of foreign funded project. In the event of the failure of the Employer to make payment within the times stated, the Employer shall pay to the Contractor compensation at the 28 days rate of KIBOR+2% per annum for local currency and LIBOR+1% for foreign currency, upon all sums unpaid from the date by which the same should have been paid. The provisions of this Sub-Clause are without prejudice to the Contractor’s entitlement under Clause 69.

The following Sub-Clause 60.11 is added:

60.11 Secured Advance on Materials

- a) The Contractor shall be entitled to receive from the Employer Secured Advance against an indemnity bond acceptable to the Employer of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the Site but not yet incorporated in the Permanent Works provided that:

(1)

(2)

(3)

(4)

(5)

NOT APPLICABLE

The Contractor’s records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records shall be available for inspection by the Engineer;

The Contractor shall submit with his monthly statement the estimated value of the materials on Site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefor;

Ownership of such materials shall be deemed to vest in the Employer and these materials shall not be removed from the Site or otherwise disposed of without written permission of the Employer; and

- (6) The sum payable for such materials on Site shall not exceed 75 % of the (i) landed cost of imported materials, or (ii) ex-factory / materials, or

NOT APPLICABLE

- (b) The provisions shall be effected from the monthly payments on actual consumption basis.

60.12 Financial Assistance to Contractor (Not Applicable)

Financial assistance shall be made available to the Contractor by the Employer by adopting the following:

Mobilization Advance (Not Applicable)

- (a) An interest-free Mobilization Advance up to 10 % of the Contract Price stated in the Letter of Acceptance shall be paid by the Employer to the Contractor in two equal parts upon submission by the Contractor of a Mobilization Advance Certificate. Provided further that the Employer shall specify the form from operating in Pakistan employer:

NOT APPLICABLE

Contract Agreement or
ence, whichever is

- (b) This Advance shall be recovered in equal instalments; first instalment at the expiry of third month after the date of payment of first part of Advance and the last instalment two months before the date of completion of the Works as per Clause 43 hereof.

63.1 Default of Contractor

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

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.

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).

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 Islamabad - Pakistan.

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 addresses are:

- a) **The Employer:**
The Director
COMSATS University Islamabad, Abbottabad Campus
Administration Block, Abbottabad
- b) **Engineer:**
M/s DESIGNMEN Consulting Engineers (Pvt) Ltd. 9-West Rizwan Plaza,
Jinnah Avenue, F-6, Islamabad.

70.1 Increase or Decrease of Cost

Sub-Clause 70.1 is deleted in its entirety, and substituted with the following:

The amounts in respect of Works, by applying to such amount the formula prescribed in this Sub-Clause. 1, shall be adjusted other inputs to the

NOT APPLICABLE

(a) Other Changes in Cost

To the extent that full compensation for any rise or fall in costs to the Contractor is

not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.

(b) Adjustment Formula

The adjustment to the monthly statements in respect of changes in cost shall be determined from the following formula:-

$$P_n = A + b \frac{L_n}{L_o} + c \frac{M_n}{M_o} + d \frac{E_n}{E_o} + \dots\dots\dots$$

Where:

P_n is a price adjustment factor to be applied to the amount for the payment of the work carried out in the subject month, determined in accordance with Paragraph 60.1 (a), and with Paragraphs 60.1 (b) and (e), where any variations and daywork are not otherwise subject to adjustment;

A is a constant, specified in Appendix-C to Bid, representing the nonadjustable portion in contractual payments;

b, c, d , etc., are weightages or coefficients representing the estimated proportion of each cost element (labour, cement and reinforcing steel etc.) in the Works or Sections etc., shall be the sum of A, b, c, d ,

L_n, M_n , prices of the cost elements in the subject month, as per Paragraph 60.1(d), applicable to each cost element.

L_o, M_o , prices of the cost elements in the base month, as per Paragraph 60.1(d), corresponding to the above cost elements.

NOT APPLICABLE

(c) Sources

The sources of indices shall be those listed in Appendix-C to Bid, as approved by the Engineer. As the proposed basis for price adjustment, the Contractor shall have submitted with his bid the tabulation of Weightages and Source of Indices if different than those given in Appendix-C to Bid, which shall be subject to approval by the Engineer.

(d) Base, Current, and Provisional Indices

The base cost indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of bids. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular monthly statement is related. If at any time the current indices are not available, provisional indices as determined by the Engineer will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available.

(e) Adjustment after Completion

If the Contractor fails to complete the Works within the Time for Completion prescribed under Clause 43, adjustment of prices thereafter until the date of completion of the Works shall be made using either the indices or prices relating to the prescribed materials, whichever is more favorable to the Contractor, and the time of time is granted pursuant to the provisions of the Contract after the expiration of the time for completion of the Works.

NOT APPLICABLE

(f) Weightage

The weightage to be given to the Bid/C to Bid shall be adjusted if, in the opinion of the Engineer, they have been rendered unreasonable, unbalanced, or inapplicable as a result of varied or additional work executed or instructed under Clause 51. Such adjustment(s) shall have to be agreed in the variation order.

The following Sub-Clauses 73.1, 73.2, 74.1, 75.1, 76.1, 77.1 and 78.1 are added:

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

(Employer may incorporate provisions where applicable)

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

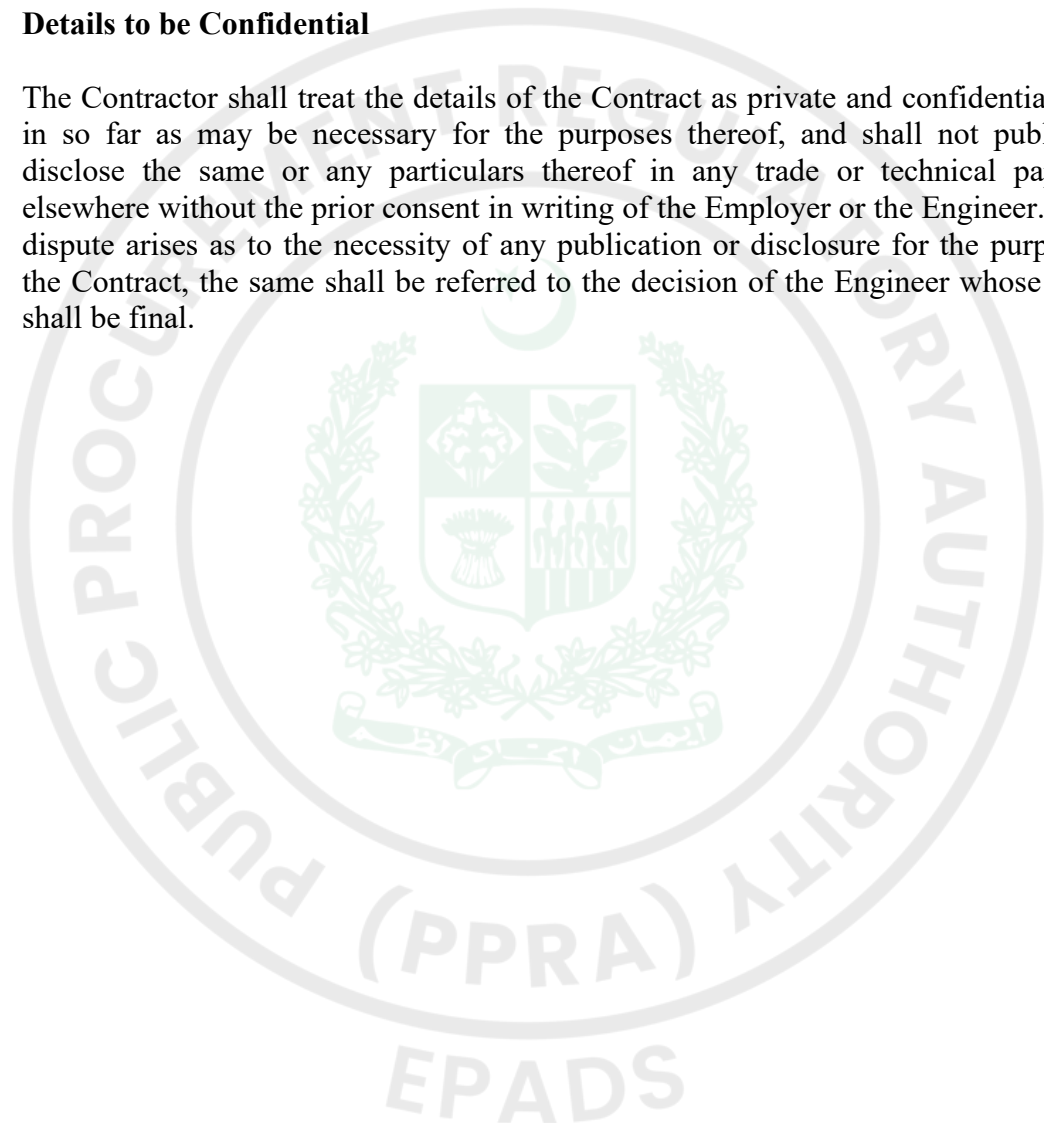
The Contractor or his Subcontractors or assigns shall follow strictly, all relevant labour laws including the Workmen's Compensation Act and the Employer shall be fully indemnified for all claims, damages etc. arising out of any dispute between the Contractor, his Subcontractors or assigns and the labour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

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 performance of the terms of the Contract and shall designate **DELETED** 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

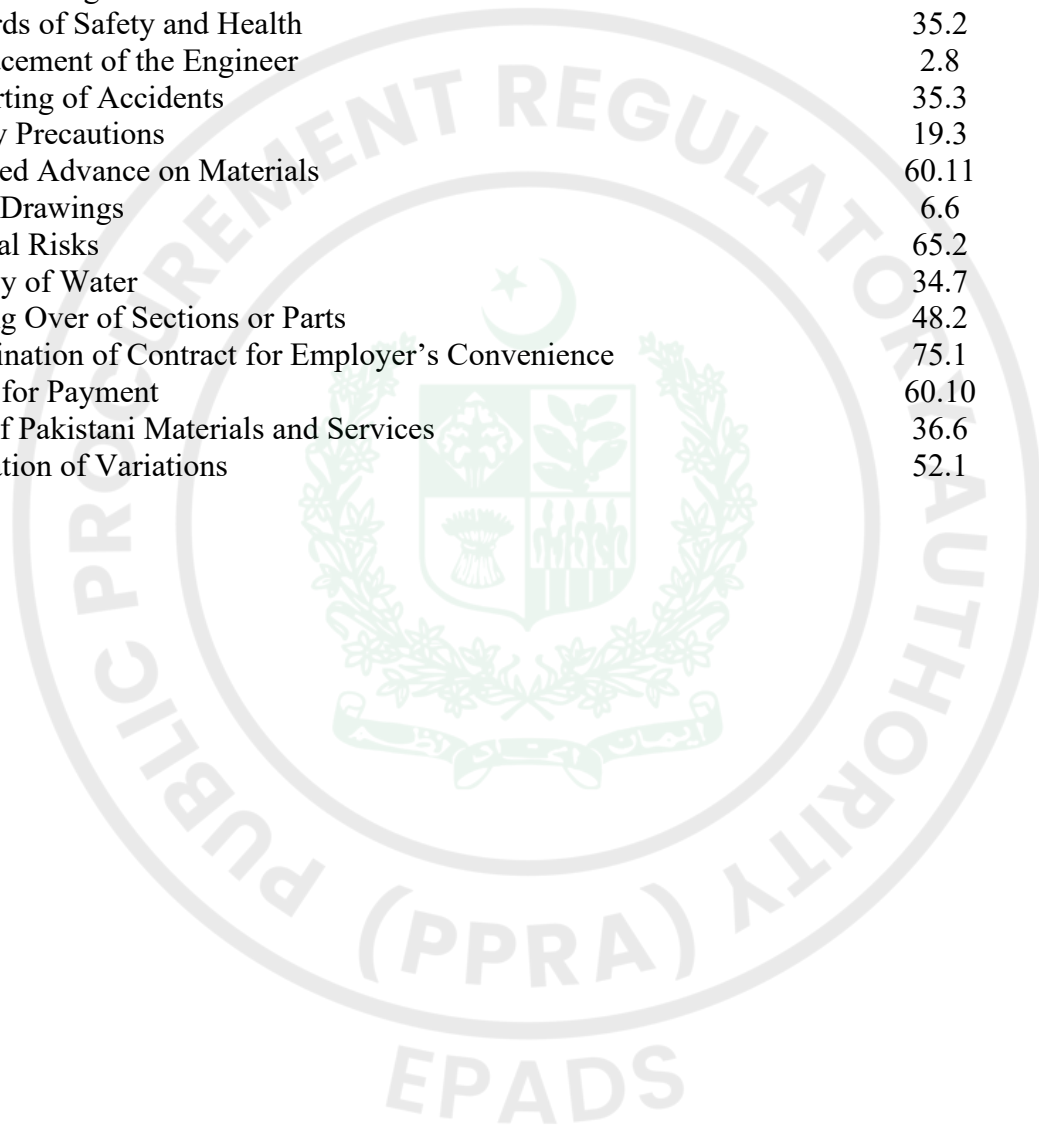
The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the 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.



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SPECIAL PROVISIONS

SP-1 SITE OFFICE AND TEMPORARY FACILITIES TO BE PROVIDED BY THE CONTRACTOR

1 Contractor's Office, Facilities etc.

The Contractor shall establish and maintain a Site office. The Contractor shall provide all facilities in connection with the execution, completion, of the Works, remedying defects therein and maintenance of the utilities services. The facilities shall not be limited to the Contractor's Site Office, labour camps, work yard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection *and firefighting equipment etc.* The Contractor shall be solely responsible for arranging all utilities and the Contractor shall setup, maintain and operate an architectural and engineering facility at site with adequate number of technical and support staff as well as equipment required for particular nature of job covered under the Contract to prepare drawings/shop drawings for approval of the Engineer.

The Contractor shall arrange his labor camp, work yard, storage area and site office within the site area available at the site.

2. Temporary Roads

The Contractor shall prepare and maintain such temporary roads as may be necessary, from the site to the nearest road and also within the plot. Such roads shall be positioned strictly in accordance with the Engineer's instructions and the Contractor shall reduce or control any dust nuisance by regularly spraying water and compaction as directed.

3. Temporary Services

3.1 Temporary Water Supply

The Contractor shall supply in sufficient quantity all necessary potable and other water for construction purposes for all trades at points within a reasonable distance of any building being constructed. The Contractor shall make arrangements and pay charges for water service installation, maintenance and removal thereof, and pay the costs of water for all trades.

At completion of the work, the temporary water services equipment and piping shall be removed by the Contractor at his own expense.

3.2 Temporary Electricity

The Contractor shall make all the necessary arrangements for a temporary electricity service, pay all expense in connection with the installation, operation and removal thereof and pay the costs of electricity consumed by all trades. If the Contractor is un-able to arrange a temporary electrical connection, then he shall arrange and furnish an Electric Power Generating set at site and maintain the generating set in perfect working condition through-out the duration of Contract. The generating power of the set shall be sufficient to operate all plant and equipment during construction at site. Should the set fail to meet the required demand at site or fail to function or operate, the Contractor shall immediately replace the same with other generating set/sets to the satisfaction of

the Employer as well as the Engineer.

A temporary lighting system shall be furnished, installed and maintained by the Contractor as required to satisfy the minimum requirements for safety and security and to the satisfaction of the Engineer.

When the permanent electrical power and lighting systems are in an operating condition, they may be used for temporary power and lighting for construction purposes provided that the Contractor obtains the written approval of the Engineer and the Employer and assumes full responsibility for the entire power and lighting system and pays all costs for operation and maintenance of the system.

At completion of construction work, or at such time as the Contractor makes use of permanent electrical equipment and devices, temporary electricity services shall be removed by the Contractor at his own expense.

3.3 Waste Disposal

The Contractor shall make such temporary provisions as may be required in order to dispose of any chemicals, fuels, oils, grease, bituminous materials, waste and soil waste and the like without causing pollution to either the site or the environment. Disposal of any materials, wastes, effluent, garbage, oil, grease, chemicals and the like shall be in areas specified by the concerned local authority proposed by the Contractor and subject to the approval of the Engineer. If any waste material is dumped in unauthorized areas the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated, disposed off as directed by the Engineer and replaced with suitable fill material compacted and finished with topsoil all at the expense of the Contractor.

3.4 Fire Protection

The Contractor shall provide and maintain adequate fire protection in the form of barrels of water with buckets, fire bucket tanks, fire extinguisher, or other effective means ready for instant use, distributed around the project and in and about temporary inflammable structures during construction of the works.

Gasoline and other flammable liquids shall be stored in and dispensed from safety containers approved by the Engineer and storage shall not be within A buildings Torch-cutting and welding operations performed by the Contractor shall have the approval of the Engineer before such work is started and a chemical extinguisher is to be available at the location where such work is in progress.

The Contractor shall follow the instructions and specifications of the Civil Defense Organization.

4. Sign Board

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer two (2) Sign Boards of dimensions approved by the Engineer. The Sign Boards shall be made of metal. It shall be mounted on steel posts securely anchored and

braced. The Contractor shall paint on the Sign Boards, the name of the Works, and the names of the Employer, Engineer and the Contractor.

5. Site Office cum Residence for Engineer and Engineer's Staff

- 5.1 The contractor shall provide furnish and maintain an office cum residence including a toilet for the resident engineer and his staff. It shall include furniture and fixtures, desktop computer, monitor, key board, mouse and laser jet printer. The office of Resident Engineer will be provided with heating & air conditioning and telephone.
- 5.2 The contractor shall make suitable arrangement for the transport by providing vehicles for the Consultant staff. Boarding/lodging and food shall also be responsibility of the contractor. No additional payment shall be made to the contractor for works and facilities involved under clause SP-5.
- 5.3 In case the Consultant staffs need to attend Head Office Islamabad for any query/guidance/technical advice regarding the project, the Contractor shall arrange to attend the office and back to the project.

6. Site Facilities to be provided by the Contractor

6.1 General

Without prejudice to the generality of the various clauses of the Contract, particular attention is drawn to the obligation of the Contractor to make his own arrangement at his own expense for the following.

6.2 Labor Camps and Staff Residences

The Contractor/shall provide, operate and maintain labor camps and staff residences and are required for the proper and efficient progress of the work to house his own employees. For the purposes of operation and maintenance of the Camps and Residences, the Contractor shall comply with the rules specified by the Employer.

7. Protection of the Environment

7.1 General

The Contractor shall take all necessary measures and precautions and otherwise ensure that the execution of the works and all associated operations on-site are carried out in conformity with statutory and regulatory environmental requirements of Federal/Provincial Environmental Protection Agencies (EPA's) including those prescribed elsewhere in this document.

The Contractor shall take all the measures and precautions to avoid any nuisance or disturbance arising from the execution of the works. This shall wherever possible be achieved by suppression of the nuisance at source rather than abatement of the nuisance once generated. The provision of this sub-clause shall however, be disregarded in respect of emergency work required for saving life or the safety of

the works. However, after completing such works of emergent nature, suitable environmental mitigation measures will be adopted by the contractor with the approval of Engineer.

In the event of any spoil or debris or silt from the sites being deposited on adjacent land, the Contractor shall immediately remove such spoils, debris or silt and restore the affected areas to its original state to the satisfaction of both the Supervising Engineer and the land owner.

Surplus excavation materials and topsoil shall, wherever possible, be used to reinstate quarries or borrow pits or other areas as may be approved by the Engineer. Such materials should be spread in such a manner as to limit subsequent erosion and the site shall be re-vegetated as existing ground cover dictates.

The Contractor shall protect the Works from water flooding. The Contractor shall keep and maintain adequate drainage system for the site area. Regular cleaning of drainage system shall be insured specially before and after the rainy season.

7.2 Borrow-Pits for Embankment Construction

Borrow-pits shall not be dug in the project area. However, even outside the project area prior to approval of Engineer-in-charge depending upon type of soil strata, depth of water table, ground topography and prevalent vegetation state etc. a minimum distance for such borrow areas will be pre-specified by the Supervisor Engineer.

7.3 Quarry Operations

The Contractor shall obtain materials from licensed and government approved quarries only. The quarry operation shall be undertaken within the purview of the rules and regulations in force.

7.4 Soil Erosion and Sedimentation Control

The Contractor shall carry out the works in such a manner that soil erosion is fully controlled, and sedimentation and pollution of natural watercourses, ponds, tanks and reservoirs is avoided. At suitable places sedimentation basin with impervious linings will be constructed for containing, stopping and trapping any silt run off for premature siltation of downstream watercourses and reservoirs.

7.5 Conservation of fauna and flora

The Contractor shall adopt all measures and take necessary precautions to avoid disturbance to fauna and flora, as far as possible. Felling of trees and removal of vegetation for fuel or other uses will not be practiced. The contractor shall protect the natural landscape of the project area.

7.6 Fuel and Chemical Storage

All fuel and chemical storage shall be sited on an impervious base within an

embanked area and secured by fencing. The storage area shall be located away from any watercourse or wetland. The base and walls of the embankment shall be impermeable and of sufficient capacity to contain 110% of the volume of tanks.

Filling and refueling shall be strictly controlled and subjected to formal procedures. All valves and trigger guns, shall be resistant to unauthorized interference and vandalism and be turned off and securely locked when not in use. The contents of any tank or drum shall be clearly marked. Measures shall be taken to ensure that no contamination happens or discharges enter any drain or water courses.

7.7 Water Quality

The Contractor shall prevent any interference with the supply to or abstraction from polluted water sources (including underground percolating water) as a result of execution of the works.

Areas where water is regularly or repetitively used for dust suppression purposes shall be laid to fall to specially constructed settlement tanks to permit sedimentation of particulate matter. After resettlement, the water may be re-used for dust suppression.

All water and liquid waste products arising on the sites shall be collected and disposed-off at location outside or off site and in a manner that shall not cause nuisance or pollution.

The Contractor shall not discharge or deposit any matter arising from the execution of the works into any place except with the permission of the Supervisor Engineer and the regulatory authorities concerned.

The Contractor shall protect all watercourses, water ways, ditches, canals, drains, lakes and the like from pollution, silting flooding or erosion as a result of the execution of the works.

7.8 Air Quality

The Contractor shall devise and arrange methods of working to minimize dust, gaseous or other air borne emissions and carry out the works in such a manner as to minimize adverse impacts on air quality.

The Contractor shall utilize effective after sprays during the delivery and handling of materials when dust is generated and dampen stored material during dry weather.

Stockpiles of materials should be sited in sheltered areas or within hoarding, away from sensitive areas. Stockpiles of friable materials shall be covered with clean tarpaulins with application of sprayed water during dry and windy weather. Stockpiles of debris shall be dampened prior to their movement, except where this is contrary to the specifications.

Any vehicle with an open load carrying area used for transport of potentially dust producing materials shall have properly fitting side and tailboards. Materials having

potential to produce dust shall not be loaded to a level higher than the side and tail boards and shall be covered with clean tarpaulin in good condition. The tarpaulin should be properly secured and extended to at least 280 mm over the edges of the sideboard and tailboard.

During high wind, no dust generating operations shall be permitted within 200 m of residential areas having regard to the prevailing direction of the wind.

Construction vehicles and machinery shall be kept in good working order and engine turned off when not in use. Appropriate measures shall be taken to limit exhaust emissions from construction vehicles, machinery and plant and the Contractor shall include details of such proposed measures in the mitigation and monitoring plan to be submitted to the Supervisor.

In residential areas or other sensitive areas, such as nurseries, schools, hospitals, etc. advance warning shall be given to potentially affected persons so that some measures can be taken by them before commencement of the works.

Any open vehicle carrying a load of freshly mixed asphalt concrete for transportation and laying the pavement must have a full cover of tarpaulin sheet. In this manner its toxic fumes will be reduced against any atmospheric contamination.

7.9 Noise

The Contractor shall consider noise as an environmental concern in his planning and during execution of the works.

The Contractor shall use plant and equipment conforming to applicable standards and directives on noise, vibrations and emissions shall include the details of measures for abating noise at source in the mitigation and the monitoring plan to be submitted to the Supervisor Engineer.

7.10 Transmission of Diseases

The Contractor shall be liable to make sure implementation of necessary precautionary measures and safety regarding COVID-19 according to Govt. policy and concerned departments/agencies for your staff and as well as Consultant's and Employer's staff without claiming any additional cost in this regard.

The Contractor shall take all necessary measures to prevent transmission of diseases between inhabitants and the laborers engaged for the works, especially with regard to sexually transmitted diseases. The Contractor shall install the necessary medical facilities for this purpose.

The Contractor shall verify that checkup for detecting the occurrence of sexually transmitted diseases amongst the laborers engaged for the works are actually being carried out and submit a certificate to that effect to the Supervisor Construction Engineer.

Preservation of Archeological, Cultural, Religions Assets/Heritage Value and

Antiquities.”

Where antiquities are shown on the drawing or otherwise identified during the course of the works, these shall be protected by means of suitable fencing and barriers to the satisfaction of the Supervisor Engineer. The Contractor shall provide and maintain access at all times for persons wishing to stop and pay their respects.

7.11 Preservation of Archaeological, cultural, religious assets / Heritage Value and Antiquities

The Contractor shall take all necessary measures to protect any archaeological finds or antiquities as required.

Where antiquities are shown on the drawing or otherwise identified during the course of the works, these shall be protected by means of suitable fencing and barriers to the satisfaction of the Supervisor Engineer. The Contractor shall provide and maintain access at all time for persons wishing to stop and pay their respects.

7.12 Environment Enhancement

All existing highways and roads used by vehicle of the Contractor or any of his sub-contractors or suppliers of materials or plant, and similarly any new roads which are part of the works and which are being used by traffic, shall be kept clean and clear of all dust/mud or other extraneous materials dropped by the said vehicles or their tyres. Similarly, all dust/mud or other extraneous materials from the works spreading on these highways shall be immediately cleared by the Contractor.

Clearance shall be affected immediately by manual sweeping and removal of debris, or, if so directed by the Engineer, by mechanical sweeping and clearing equipment, and all dust, mud and other debris shall be removed entirely from the road surface. Additionally, if so directed by the Supervisory Engineer, the road surface shall be hosed or watered using suitable equipment.

Any structural damage caused to the existing roads by the Contractor’s construction equipment shall be made good without any extra cost.

On completion of the works, the Contractor shall reinstate all areas with proper vegetation to the satisfaction of the Supervisor Engineer.

The Contractor shall remove all old tyres and internal rubes from project area and subject to the agreement of adjacent landowners for additional areas of 75 m on either side of the project area. The Contractor shall dispose of all materials in a manner approved by the Supervisor Engineer.

Where directed by the Supervisor Engineer, the Contractor shall improve and reinstate the land on which informal structures/temporary building has been established, by removing all debris and contaminated soils, regarding to natural ground levels and reestablishing the original vegetation where appropriate. All debris and contaminated materials shall be disposed-off on site as approved by the Supervisor Engineer.

7.13 Payment

No separate payment shall be made for this provision to the contractor.

All costs in connection with the clause -7 shall be borne by the contractor and shall be deemed to have been included in the bid price. In case of failure deduction will be made from his IPCs.

8 IMPORTANT NOTES:

- 8.1 The disposal of all excavated material, surplus earth, and other excavated debris generated during excavation, cutting, and land leveling within the project area shall be the sole responsibility of the Contractor, as directed by the Engineer-in-Charge/Client.
- 8.2 The Contractor shall take all necessary precautionary measures during excavation, cutting, and related activities to protect the existing tube well, functional water supply lines serving the existing campus blocks, the existing nullah, and all other adjacent utilities and structures. In the event of any damage to such services or facilities, the Contractor shall, at his own cost, immediately repair and reinstate them to the satisfaction of the Engineer-in-Charge/Client, ensuring the uninterrupted water supply to the campus and the free flow of storm water and floodwater through the existing nullah.
- 8.3 All costs associated with compliance with the requirements specified in Serial Nos. 1 and 2 above shall be deemed to have been included in the Contractor's quoted bid price. No separate or additional payment shall be admissible on this account.



SPECIFICATIONS TECHNICAL PROVISIONS

TECHNICAL SPECIFICATIONS

EARTHWORK

1.0 SCOPE

Earth work shall include furnishing of all labour, material, tools, plants, equipments, instruments and services for;

- i) Excavation and formation of embankment in all types of soils. It also covers lifting and transporting excavated material. Suitable material intended for use as backfill shall be placed in temporary stockpiles. All other excavated material shall be placed in spoil banks. These works shall be performed and executed by the Contractor in accordance with stipulations and requirements set forth herein which shall apply except when they are specifically modified in writing by the Engineer-in-Charge for any particular item. The method of carrying out earthwork shall be subject to approval of the Engineer-in-charge in writing.
- ii) Fill and backfill using selected excavated material or imported material obtained from approved sources or by blending the excavated and imported materials.
- iii) Before commencement and during the execution of works, the Contractor shall be responsible for surveys and layout and their maintenance for execution of works according to contract and as approved by the Engineer-in-Charge.

1.1 CLASSIFICATION OF SOILS

The earthwork shall be classified under the following categories and measured separately for each category.

1.1.1 SAND OR SOFT SOIL

It comprises sand, silt and those soils which offer no resistance to excavation and sometime requires shoring when foundation of exact dimensions are required to be excavated. Ordinary kassi, shovels or spade can be used for excavation in such type of soils.

1.1.2 ORDINARY SOIL

It comprises earth and sandy loam, spoil or rubbish of every description and any other formation into which a spade, kassi, shovels or spade can excavate

1.1.3 HARD SOIL

It comprises stiff and heavy clayed soil (having specific gravity of 1.5 and above) and at times have small percentage say upto 15 of kankar or boulders mixed up, it can be excavated by repeated blows of kassi, or with pick or shovel.

1.1.4 SHINGLE OR GRAVEL

It comprises gravel formation, soft varieties of limestone, sandstone, fissured stone or any other formation which can be excavated by the use of pick, shovel, jumpers, wedges, hammers etc.

1.1.5 ORDINARY / SOFT ROCK

Generally, any rock which can be excavated by splitting with crow bars or picks and does not require blasting, wedging or similar means for excavation. If required light blasting may be resorted to for loosening the materials but this will not in any way entitle the material to be classified as 'Hard rock'.

1.1.6 HARD ROCK

Generally, any rock or boulder for the excavation of which blasting is required such as quartzite, granite, basalt, consolidated sand stone, massive bedded lime stone, leterite, marble, schist, Mandrasite, dolorite, pegmatite and reinforced cement concrete (reinforcement to be cut through but not separated from concrete) below ground level and the like.

1.1.7 HARD ROCK (BLASTING PROHIBITED)

Hard rock requiring blasting as described but where the blasting is prohibited for any reason and excavation has to be carried out by chiseling, wedging, use of rock hammers and cutters or any other agreed method.

1.1.8 ALL KIND OF SOILS

All kinds of soils are generally any strata, such as sand, gravel, loam, clay, mud, black cotton moorum, shingle, river or nullah bed boulders, siding of roads, paths etc. and hard core, macadam surface of any description (water bound, grouted tarmac etc.), lime concrete, mud concrete and their mixtures which for excavation yield to application of picks, showels, jumper, scarifiers, ripper and other manual digging implements.

1.2 ANTIQUITIES AND USEFUL MATERIALS

Any finds of archaeological interest such as relics of antiquity, coins, fossils or other articles of value shall be delivered to the Engineer-in-Charge and shall be the property of the Government. Any material obtained from the excavation which in the opinion of the Engineer in-Charge is useful shall be stacked separately in regular stacks as directed by the Engineer in-Charge and shall be the property of the Government. In case of archaeological monuments within or adjacent to the area, the contractor shall provide necessary fencing all around such monuments as per the directions of the Engineer in-Charge and protect the same properly during execution of works. Payment for providing fencing shall be made separately.

1.3 PROTECTIONS

Excavation where directed by the Engineer-in-Charge shall be securely barricaded and provided with proper caution signs, conspicuously displayed during the day and properly illuminated with red lights and/or written using fluorescent reflective paint as directed by Engineer in charge during the night to avoid accident. The Contractor shall take adequate protective measures to see that the excavation operations do not damage the adjoining structures or dislocate the services. Water supply pipes, sluice valve chambers, sewerage pipes, manholes, drainage pipes and chambers, communication cables, power supply cables etc. met within the course of excavation

shall be properly supported and adequately protected, so that these services remain functional. However, if any service is damaged during excavation shall be restored in reasonable time.

Excavation shall not be carried out below the foundation level of the adjacent buildings until underpinning, shoring etc. is done as per the directions of the Engineer-in-Charge. Any damages done by the contractor to any existing work shall be made good by him at his own cost. Existing drains, pipes, culverts, overhead wires, water supply lines and similar services encountered during the course of execution shall be protected against damage by the contractor. The contractor shall not store material or otherwise occupy any part of the site in manner likely to hinder the operations of such services.

1.4 SITE PREPARATION

Before the earthwork is started, the area coming under cutting and filling shall be cleared of shrubs, rank vegetation, grass, brushwood, trees saplings removed up to a distance of 30 meters outside the periphery of the area under clearance. The roots of trees and saplings shall be removed to a depth of 60cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower, and the holes or hollows filled up with the earth, rammed and levelled.

1.5 EXCAVATION IN ALL KINDS OF SOILS

1.5.1 EXCAVATION OPERATIONS

All excavation operations manually or by mechanical means shall include excavation and disposal of the excavated material for canals, drains foundations, trenches, basements, water tanks sewers and manholes; including excavation in hard soils and under water etc. The work shall include the depositing the excavated materials as specified. The disposal of the excavated material beyond free lead shall be either stated as a separate item or included with the items of excavation stating lead. During the excavation the natural drainage of the area shall be maintained. Excavation shall be done from top to bottom. Undermining or undercutting shall not be done.

In firm soils, the sides of the excavations shall be kept vertical up to a depth of 2 meters from the bottom. For greater depths, the excavation profiles shall be widened by allowing steps of 50 cms on either side after every 2 meters from the bottom. Alternatively, the excavation can be done so as to give slope of 1:4 (1 horz. : 4 vert.). Where the soil is soft, loose or slushy, the width of steps shall be suitably increased or sides sloped or the soil shored up as directed by the Engineer-in-Charge. It shall be the responsibility of the contractor to prepare proposals for the stepping, sloping or shoring as required for excavation for various depths. The work shall be executed only after the proposal is approved by the Engineer-in Charge.

The excavation shall be done true to levels, slope, shape and pattern as per drawings and directed by the Engineer-in-Charge. Only the excavation shown on the drawings or as approved by the Engineer-in-Charge shall be measured for payment. No separate measurement and payment shall be made for excavation for centering and shuttering and for contractor's convenience.

The excavation for foundation in trenches and other areas, the bed of excavations shall be to the correct level or slope and consolidated by watering and ramming and other means when necessary. If the excavation is done to a depth greater than that shown in the drawings unless it is required by the Engineer-in-Charge, the excess depth shall be made good by the contractor at his own cost with the concrete of the mix used for levelling/ bed concrete for foundations. Soft/defective spots at the bed of the foundations shall be dug out and filled with concrete (to be paid separately) as directed by the Engineer-in-Charge.

While carrying out the excavation for drain work care shall be taken to cut the side and bottom to the required shape, slope and gradient. The surface shall then be properly dressed. If the excavation is done to a depth greater than that shown on the drawing or as required by the Engineer-in-Charge, the excess depth shall be made good by the contractor at his own cost with stiff clay puddle at places where the drains are required to be pitched and with ordinary earth, properly watered and rammed, where the drains are not required to be pitched. In case the drain is required to be pitched, the back filling with clay puddle, if required, shall be done simultaneously as the pitching work proceeds. The brick pitched storm water drains should be avoided as far as possible in filled-up areas and loose soils. In all other cases where the excavation is taken deeper by the contractor, it shall be brought to the required level by the contractor at his own cost by filling in with earth duly watered, consolidated and rammed. In case the excavation is done wider than that shown on the drawings or as required by the Engineer-in-Charge, additional filling wherever required on that account shall be done by the contractor at his own cost.

The excavation shall be done manually or by mechanical means as proposed by the contractor and approved by Engineer-in-charge considering feasibility, urgency of work, availability of labour/mechanical equipments construction completion programme and other factors involved. Contractor shall ensure the safety measures for the workers fully complying with recognized procedures and state laws.

1.5.2 DISPOSAL OF EXCAVATED MATERIALS

The free lead for disposal of excavated materials where stated in the “Schedule of Quantities” against various items is the average lead for the disposal of excavated earth within the site of work. The subsequent disposal of the excavated material where required shall be either stated as a separate item or included with the item of excavation stating lead. The actual lead for the disposal of earth beyond free lead shall be measured for payment appropriately. The excavated earth shall be disposed off at the locations proposed by the Contractor and approved by the Engineer-in-Charge. The contractor has to take written permission about place of disposal of earth before the earth is disposed off, from Engineer-in-Charge.

1.6 EXCAVATION IN ORDINARY / HARD ROCK

1.6.1 GENERAL

All excavation operations shall include excavation and disposal of the excavated material as shown on drawings and approved by the Engineer-in-Charge. In case of excavation for trenches, basements, water tanks etc. the excavation shall include

disposal of the excavated materials within free lead as specified. The disposal of the excavated material beyond free lead shall be stated as a separate item unless it is included with the item of excavation. During excavation, the natural drainage of the area shall be maintained; Excavation shall be done from top to bottom. Undermining or under cutting shall not be done.

1.6.2 ORDINARY / SOFT ROCK

In ordinary rock excavation shall be carried out by crowbars, pick axes or pneumatic drills and blasting operation shall not be generally adopted. Where blasting operations are not prohibited and it is practicable to resort to blasting for excavation in ordinary rock, contractor may do so with the permission of the Engineer-in-Charge in writing but nothing extra shall be paid for this blasting. Blasting shall be done as specified hereof.

If the required excavation is done to a depth greater than that shown in the drawings or as required by the Engineer-in-Charge, the excess depth shall be made good by the contractor at his own cost with the concrete of the mix used for levelling/ bed concrete for foundations. Soft/ defective spots at the bed of foundations shall be dug out and filled with concrete (to be paid separately) as directed by the Engineer-in-Charge.

In case the excavation is done wider than that shown on the drawings or as required by the Engineer-in-Charge, filling wherever required on this account shall be done by the contractor at his own cost. Only the excavation shown on the drawings or as required by the Engineer in-Charge shall be measured and recorded for payment except in case of hard rock, where blasting operations have been resorted to, excavation shall be measured to the actual levels, provided the Engineer-in-Charge is satisfied that the contractor has not gone deeper than what was unavoidable.

1.6.3 HARD ROCK

(i) General

Where hard rock is met with and blasting operations are considered necessary, the contractor shall obtain the approval of the Engineer-In-charge in writing for resorting to the blasting operations. Blasting operations shall be done as specified and chiseling shall be done to obtain correct levels, slopes, shape and pattern of excavation as per the drawings or as required by the Engineer-In-charge and nothing extra shall be payable for chiseling.

(ii) Blasting

Blasting operations shall be carried out under the supervision of a responsible licensed blasting authorized agent of the contractor (referred as agent), during specified hours as approved in writing by the Engineer-in-Charge. The agent shall be conversant with the rules of blasting notified by Government from time to time. All blasting operations shall be carried out with due regard to safety regulations in force.

For blasting with dynamite or any other high explosive, the position of all the bore holes to be drilled shall be marked in circles with white paint. These shall be inspected by the contractor's agent. Bore holes shall be of a size that the cartridge can easily pass down. After the drilling operation, the agent shall inspect the holes to ensure that drilling has been done only at the marked locations and no extra hole has been drilled. The agent shall then prepare the necessary charge separately for each

bore hole. The bore holes shall be thoroughly cleaned before a cartridge is inserted. Only cylindrical wooden tamping rods shall be used for tamping. Metal rods or rods having pointed ends shall never be used for tamping. One cartridge shall be placed in the bore hole and gently pressed but not rammed down. Other cartridges shall then be added as may be required to make up the necessary charge for the bore hole. The top most cartridge shall be connected to the detonator which shall in turn be connected to the safety fuses of required length. All fuses shall be cut to the length required before being inserted into the holes. Joints in fuses shall be avoided. Where joints are unavoidable a semi-circular notch shall be cut in one piece of fuse about 2 cm deep from the end and the end of another piece inserted into the notch. The two pieces shall then be wrapped together with string. All joints exposed to dampness shall be wrapped with rubber tape. The maximum of eight bore holes shall be loaded and fired at one occasion. The charges shall be fired successively and not simultaneously. Immediately before firing, warning shall be given and the agent shall see that all persons have retired to a place of safety. The safety fuses of the charged holes shall be ignited in the presence of the agent, who shall see that all the fuses are properly ignited.

Careful count shall be kept by the agent and others of each blast as it explodes. In case all the charged bore holes have exploded, the agent shall inspect the site soon after the blast but in case of misfire the agent shall inspect the site after half an hour and mark red crosses (X) over the holes which have not exploded. During this interval of half an hour, nobody shall approach the misfired holes. No driller shall work near such bore until either of the following operations has been done by the agent for the misfired boreholes.

The contractor's agent shall very carefully (when the tamping is of damp clay) extract the tamping with a wooden scraper and withdraw the fuse, primer and detonator. After this a fresh detonator, primer and fuse shall be placed in the misfired holes and fired, or the holes shall be cleaned for 30 cm of tamping and its direction ascertained by placing a stick in the hole. Another hole shall then be drilled 15 cm. away and parallel to it. This hole shall be charged and fired. The misfired holes shall also explode along with the new one.

Before leaving the site of work, the agent of one shift shall inform the another agent relieving him for the next shift, of any case of misfire and each such location shall be jointly inspected and the action to be taken in the matter shall be explained to the relieving agent. The Engineer-in-Charge shall also be informed by the agent of all cases of misfires, their causes and steps taken in that connection.

(iii) General Precautions

For the safety of persons red flags shall be prominently displayed around the area where blasting operations are to be carried out. All the workers at site, except those who actually ignite the fuse, shall withdraw to a safe distance of at least 200 meters from the blasting site. Audio warning by blowing whistle shall be given before igniting the fuse. Blasting work shall be done under careful supervision and trained personnel shall be employed. Blasting shall not be done within 200 metres of an existing structure, unless specifically permitted by the Engineer-in-Charge in writing.

All procedures and safety precautions for the use of explosives drilling and loading of explosives drilling and loading of explosives before and after shot firing and disposal of explosives shall be taken by the contractor in accordance with safety code for blasting and related drilling operation.

(iv) Precautions against misfire

The safety fuse shall be cut in an oblique direction with a knife. All saw dust shall be cleared from inside of the detonator. This can be done by blowing down the detonator and tapping the open end. No tools shall be inserted into the detonator for this purpose.

If there is water present or if the bore hole is damp, the junction of the fuse and detonator shall be made water tight by means of tough grease or any other suitable material. The detonator shall be inserted into the cartridge so that about one third of the copper tube is left exposed outside the explosive. The safety fuse just above the detonator shall be securely tied in position in the cartridge. Water proof fuse only shall be used in the damp bore hole or when water is present in the bore hole.

If a misfire has been found to be due to defective fuse, detonator or dynamite, the entire consignment from which the fuse detonator or dynamite was taken shall be got inspected by the Engineer-in-Charge or his authorized representative before resuming the blasting or returning the consignment.

1.7 EXCAVATION IN OR UNDER WATER AND /OR LIQUID MUD

1.7.1 GENERAL

Excavation, where water is encountered shall fall in this category. Steady water level in the trial pits before the commencement of bailing or pumping operations shall be the sub-soil water level in that area. Planking and strutting or any other protection work done with the approval of the Engineer-in-Charge to keep the trenches dry and/or to save the foundations against damage by corrosion of rise in water levels shall be measured and paid for separately. Bailing or pumping out water, accumulated in excavation, due to rains is included under respective items of earthwork and is not to be paid separately. In case item for dewatering is listed in the bid schedule, it will be paid as lumpsum item and will constitute full compensation for all labor, equipment's, tools and all other items necessary and incidental to the completion of the work.

1.7.2 CARE OF WATER/ DEWATERING

All water that may accumulate in excavations during the progress of the work from springs, tidal or river seepage, broken water mains or drains (not due to the negligence of the contractor), and seepage from subsoil aquifer shall be bailed, pumped out or otherwise removed by the contractor. The contractor shall take adequate measures for bailing and/or pumping out water from excavations and/or pumping out water from excavations and construct diversion channels, bunds, sumps, coffer dams etc. as may be required. Pumping shall be done directly from the foundations or from a sump outside the excavation or any other appropriate method proposed by Contractor in advance of undertaking the work and approved by the Engineer-in-Charge in such a manner as to preclude the possibility of movement of water through any fresh

concrete or masonry and washing away parts of concrete or mortar. During laying of concrete or masonry and for a period of at least 24 hours thereafter, pumping shall be done from a suitable sump separated from concrete or masonry by effective means.

Capacity and number of pumps, location at which the pumps are to be installed, pumping hours etc. shall be proposed from time to time by the contractor and approved by the Engineer-in-Charge.

Pumping shall be done in such a way as not to cause damage to the work or adjoining property by subsidence etc. Disposal of water shall not cause inconvenience or nuisance in the area or cause damage to the property and structure nearby. To prevent slipping of sides, planking and strutting may also be done with the approval of the Engineer-in Charge.

The approval by the Engineer-in-Charge of the Method Statement for pumping shall not relieve the contractor of his responsibility for the adequacy sufficiency of operations. The applicable extra unit rate for wet and underwater excavation of earthwork includes full compensation for performance of the work and no separate payment shall be allowed, in case item for dewatering is not listed in the bid separately.

1.8 FILLING

1.8.1 GENERAL

- (i) For fillings and embankment construction, the earth from excavation as far as practicable shall be directly used for filling and no payment for double handling of earth shall be admissible. All costs shall be deemed to be included in the unit rate for excavation.
- (ii) The earth used for filling and embankment construction shall be free from all roots, grass, shrubs, rank vegetation, brushwood, tress, sapling and rubbish. Filling with excavated earth shall be done in regular horizontal layers each not exceeding 20 cm in thickness unless otherwise specified or approved by the Engineer-in-Charge. All lumps and clods exceeding 8 cm in any direction shall be broken.
- (iii) Each layer shall be watered and consolidated with steel rammer or ½ tons roller. Where specified, every third and top most layer shall also be consolidated with power roller of minimum 8 tones. Wherever depth of filling exceeds 1.5-meter vibratory power roller shall be used to consolidate the filing unless otherwise directed by Engineer-in-charge. The top and sides of filling shall be neatly dressed. The contractor shall make good all subsidence and shrinkage in earth fillings, embankments, traverses etc. during execution and till the completion of work unless otherwise specified.

1.8.2 LARGE SCALE LEVELLING WORK

- a) In case of large-scale levelling work involving both cutting and filling, an accurate site plan shall be prepared before the work is commenced by contractor for approval of the Engineer in-Charge. The portions requiring cutting and filling shall then be divided into squares and corresponding squares into filling, which are complementary

to the squares in cutting giving the same number.

- b) A table may be written upon the plan showing leads involved between the various complementary squares. This would form a lead chart for the work to be done.
- c) Before the work of levelling is commenced, the lead chart shall be checked in the presence of the contractor or his authorized representative, and his signatures shall be obtained on the same. This should form an integral part of the contract and should be duly signed by both the integral parties before commencement of the work.
- d) The quantity payable for earthwork shall be lower of the quantity derived from cutting or filling. The payment for lead shall be based on lead chart prepared in the aforesaid manner.

1.8.3 BORROW SOIL

Materials required for fill and embankment construction not available from excavations be imported from pre-determined borrow areas approved by the Engineer-in-Charge before the start of the work. Wherever feasible, the average lead should be worked out and stipulated in the tender.

The borrow area shall be stripped carefully of topsoil, sod and other matter unsuitable for fill. Surface of borrow areas shall be left after completion in a reasonable smooth and even condition approved by Engineer-in-Charge.

The initial limits and levels of the area to be filled should be recorded and approved by Engineer-in-Charge. The levels should be properly checked during the progress of work and on completion.

1.9 EMBANKMENT CONSTRUCTION

1.9.1 SOURCE OF FILL MATERIAL

The fill material for construction of embankment shall comply with the provisions of Clause 1.8. and the work shall be carried out as shown on drawings and approved by the Engineer in-Charge.

If sufficient suitable materials are not available from the required excavations to construct the embankment, diversion, coffer dams, backfill and other earthwork construction shown on the approved drawings or directed in writing by the Engineer-in-charge, suitable materials shall be excavated from borrow-pits located in specified areas.

In case of road embankments, the borrow pits may be excavated along the sides of the road so as to form road side drains with proper slopes and sections. The clear berm width between the toe of the bank and the inner edge of the borrow pits shall be specified by the Engineer-in-Charge but it shall not be less than 5 meters after making due allowance for future development.

Borrow pits shall be rectangular in shape with one side parallel to the center line of

the road. If on road land, these shall be dug as near the boundary as possible. Borrow pits shall not be dug continuously. Ridges of not less than 8 meters width should be left at intervals not exceeding 300 meters. Small drains should be cut through the ridges to facilitate drainage. Borrow pits shall be well drained. The bed level of the borrow pits, shall, as far as possible, slope down progressively towards the nearest cross drain, if any and shall not be over than the bed of the cross drain. Borrow pits shall not be dug within 0.8 km of towns or villages. If unavoidable these shall not exceed 30 cm in depth and shall be drained.

Where it becomes necessary to borrow filling materials from temporarily acquired cultivable lands the depth of borrow pits shall not exceed 45 cm. The top soil to a depth of 15 cm shall be stripped and stacked aside. Thereafter soil shall be dug out to a further depth not exceeding 30 cm and used in forming the embankment. The top soil shall then be spread back on the land.

1.10 SITE CLEARANCE

The surface area of the ground to be occupied by all banks, spoils, borrow pits shall be cleared of all roots, grass, shrubs, brush, trees, fences and such other works as may either cause hindrance with the execution of works or may decay and form dangerous pockets. The clearance may be classified with following categories.

1.10.1 SURFACE DRESSING

Surface dressing before placement of fill and construction of embankment shall include cutting and filling up to a depth of 15 cm and clearing of shrubs, rank vegetation, grass, brushwood, trees and saplings of girth up to 30 cm measured at a height of one meter above the ground level and removal of rubbish and other excavated material up to a distance of 50 meters outside the periphery of the area under surface dressing. High portions of the ground shall be cut down and hollows and depressions filled up to the required level with the excavated earth so as to give an even, neat and tidy look.

1.10.2 JUNGLE CLEARANCE

Jungle clearance shall comprise uprooting of rank vegetation, grass, brushwood, shrubs, stumps, trees and saplings of girth upto 2.5 ft. measured at a height of one meter above the ground level.

1.10.3 UPROOTING OF VEGETATIONS

The roots of trees and saplings shall be removed to a depth of 60 cm below ground level or 30 cm below formation level or 15 cm below sub-grade level, whichever is lower. All holes or hollows formed due to removal of roots shall be filled up with earth rammed and levelled. Trees, shrubs, poles, fences, signs, monuments, pipe lines, cable etc., within or adjacent to the area which are not required to be disturbed during jungle clearance shall be properly protected by the contractor at his own cost and nothing extra shall be payable.

1.10.4 CLEARANCE OF GRASS

Clearing and grubbing operation involving only the clearance of grass including removal of rubbish up to a distance of 50 m. outside the periphery of the area under clearance shall not be measured and paid for separately. Its costs shall be deemed to be included in the unit rate for earthwork.

1.10.5 FELLING TREES

While clearing jungle, growth trees above 30 cm girth (measured at a height of one meter above ground level) to be cut, shall be approved by the Engineer-in-Charge and then marked at site. Felling trees shall include taking out roots up to 60 cm below ground level or 30 cm below formation level or 15 cm below sub-grade level, whichever is lower. All excavation below general ground level arising out of the removal of trees, stumps etc. shall be filled with suitable material in 20 cm layers and compacted thoroughly so that the surfaces at these points conform to the surrounding area. The trunks and branches of trees shall be cleared of limbs and tops and cut into suitable pieces as directed by the Engineer-in-Charge.

1.10.6 STACKING AND DISPOSAL

All useful materials obtained from clearing and grubbing operation shall be stacked in the manner as directed by the Engineer-in-Charge. Trunks and branches of trees shall be cleared of limbs and tops and stacked neatly at places indicated by the Engineer-in-Charge. The materials shall be the property of the Government. All unserviceable materials which in the opinion of the Engineer-in-Charge cannot be used or auctioned shall be removed up to a distance of 50 ft. outside the periphery of the area under clearance. It shall be ensured by the contractor that unserviceable materials are disposed off in such a manner that there is no likelihood of getting mixed up with the materials meant for construction.

1.10.7 OTHER PHYSICAL OBSTRUCTIONS

Other physical obstructions like structures, fencing appearing on ground shall be cleared and accounted as approved by the Engineer-in-Charge.

1.11 FOUNDATION PREPARATION & LAYOUT OF EMBANKMENTS

The foundations of the embankment shall be ploughed to a depth of 15 to 25 cm. All clods shall be broken into fine earth and the area roughly levelled. The surface shall then be well watered before the earth work is started. Before commencement of filling the center and toe lines of the embankment shall be marked by pegs driven into the ground at 15 meters intervals and by continuous nicking (day belling) to indicate the limits of the construction. Bamboo and string profiles shall be erected at every 60 meters interval in straight reaches and 15 meters apart in curved portions.

1.12 FILL PLACEMENT FOR EMBANKMENT COMPACTION

1.12.1 FILL PLACEMENT

Embankment material shall be laid in 20 cm layers which shall be continuous and parallel to the finished grade. The placing of earth fill shall be done in the full width of embankment including slopes, and the section of formation shall be kept slightly sloping away from the centre to avoid pools of water forming due to rain. The height of filling in different sections shall be uniform as far as possible. All clods shall be broken while the earth is being placed. Organic matter of any kind shall be removed and disposed off as directed by the Engineer-in-Charge. Joining of old and new embankments shall be done by stepping in an overall slope of about 1 to 5. Each layer of earth shall be adequately watered to aid compaction. The specified compaction shall be achieved by using appropriate compaction equipment as approved by the Engineer-in-Charge.

If the material delivered for fill is too wet it shall be dried by aeration and exposure to the sun, till the moisture content is acceptable for compaction. The embankment if required shall be rolled with roller of minimum 1/2 tons weight, not less than 5 times and further if required till it gets evenly and densely consolidated with wooden or steel rammers of 7 to 10 kg weight having a base of 20 cm square or 20 cm diameter. The labour for ramming shall be at-least one rammer to six diggers. Every third layer of earth and the top most layer shall be well consolidated with a power roller of minimum 8 tonnes weight, rolled not less than 5 times, till the soil behaves as an elastic material and gets compressed only elastically under the load of roller.

1.12.2 DRESSING

The embankment shall be dressed neatly as per designed section and grade, after it has been completed and thoroughly consolidated. The top and slopes shall be protected from any damage and maintained, till the work is completed and handed over to the Engineer-in Charge.

1.12.3 EMBANKMENT COMPACTION

1.12.3.1 GENERAL

The Compaction of the embankment may be required at specified relative density according to ASTM D 1556 at optimum moisture content or otherwise compaction as required.

1.12.3.2 EMBANKMENT CONSTRUCTION (Under Optimum Moisture Conditions)

(i) General

The optimum moisture contents for specified density shall be determined by contractor in laboratory in advance of start of construction.

The optimum moisture contents for specified density shall be determined by contractor in laboratory in advance of start of construction. Control on compaction in the field shall be exercised through frequent moisture content and density determinations. A systematic record of these shall be maintained. At all times during construction the top of the embankment shall be maintained in a profile to shed water and prevent pounding.

(ii) Density Measurement and Acceptance Criteria

Measurement of density shall be made for each 500sq.m of compacted area or for a smaller area as decided by the Engineer-in-Charge. Each measurement shall consist of at least 5 density determinations and the average of these 5 determinations shall be treated as the field density achieved.

In general the control at the top 40 cm thickness of the formation shall be more strict with density measurements being done at the rate of one measurement for 250 sq.m. of compacted area. Further for the determination of the mean density the number of tests in one measurement shall not be less than 10 and the work will be accepted if the mean dry density equals or exceeds the specified density.

When density measurements reveal any soft areas in the embankment, the Engineer-in-Charge shall direct that these be compacted further. If in spite of that the specified compaction is not achieved the material in the soft areas shall be removed and replaced by approved materials and compacted as specified to the satisfaction of the Engineer-in-Charge.

1.12.3.3 EMBANKMENT CONSTRUCTION (Without Optimum Moisture Conditions)

Materials used in embankments shall be earth moorum, gravel, a mixture of these or any other material approved by the Engineer-in-Charge. Such materials shall be free of logs, stumps, roots, rubbish or any other ingredient likely to deteriorate or affect the stability of the embankment. The work shall be so planned and executed that the best available materials are saved for the top portion of the embankment. Highly expansive clays exhibiting marked swell and shrinkage properties may be deposited only at the bottom of the embankment and no such material shall be placed nor permitted to remain in the top 500 mm portion of the embankment below the sub-grade.

1.12.4 EMBANKMENT AROUND STRUCTURES

To avoid interference with the construction of abutments, wing walls or return walls of culvert/bridge structure, the contractor shall at points to be determined by the Engineer-in-Charge suspend work on embankments forming approaches to such structures, until such time as the construction of the latter are sufficiently advanced to permit the completion of approaches without the risk of interference of damage to the bridge works.

Unless directed otherwise, the filling around culverts, bridges and other structures up to a distance of twice the height of the embankment shall not be done. The fill material shall not be placed against any abutment or wing wall unless permission has been given by the Engineer-in-Charge but in any case, not until the concrete or masonry has been in position for 14 days. The embankment shall be brought up simultaneously in equal layers on each side of the structure to avoid displacement and unequal pressure. The sequence of work in this regard shall be got approved from the Engineer-in-Charge. Where the provision of any filter medium is specified behind the abutment, the same shall be laid in layers simultaneously with the laying of fill material. The material used for filter material shall conform to the requirements for filter medium as specified. Payment for providing filter material shall be made separately under relevant items.

Where it may be impracticable to use power roller or other heavy equipment, compaction shall be carried out by mechanical tampers or other methods approved by

the Engineer-in Charge. Care shall be taken to see that the compaction equipments does not hit or come too close to any structural member so as to cause any damage to it.

1.13 EARTHWORK BY MECHANICAL MEANS

Earth work by mechanical means involves careful planning keeping in view site conditions i.e. type of soil, nature of excavation, distances through which excavated soil is to be transported and working space available for employing these machines. The earth moving equipment should be accordingly selected.

The contractor shall submit for approval of the Engineer-in-Charge his detailed Method statement for carrying out the work. The approval of Method statement by the Engineer-in Charge shall not relieve the contractor for carrying out the work according to Contract Agreement as approved by the Engineer. The earth moving equipment consists of excavating and transporting equipment. Excavating equipments may be further classified as excavators and tractor based equipments. The major items which may be used in Construction are listed below.

1.13.1 EXCAVATORS

Excavators generally used at site are as follows:

a) Dipper–shovel

It is used for excavating against a face or bank consisting of open-top bucket or dipper with a bottom opening door, fixed to an arm or dipper stick which slides and pivots on the jib of the crane. It is suitable for excavating all clay chalk and friable materials and for handling rock and stone. However, it is not suitable for surface excavation for which a skimmer is used.

b) Backhoe

It is similar to face shovel except that the dipper stick pivots on the end of the jib and the dipper or bucket works towards the chassis and normally has no bottom door but is emptied by swinging away from the chassis to invert the bucket. It may be designed to carry both a front–mounted bucket and a rear mounted backhoe. It is mainly used to excavate trenches and occasionally used for the excavation of open areas such as small basements.

In the backhoe mode the bucket lifts, swings and discharges materials while the undercarriage is stationary. When used in the ‘loader’ mode the machine loads or excavated through forward motion of the machine, and lifts, transports and discharges materials.

c) Skimmer

This arrangement is similar to the face shovel except that in this case the bucket slides on rollers directly along the jib and thus has a more restricted movement. It is used for surface excavation and levelling in conjunction with transport to haul away the excavated material.

d) Dragline

It is usually fitted with a long slender boom or jib and the bucket, which in operation faces towards the machine and has no door, is supported by cable only as on a crane.

It works from the side of the excavation at normal ground level and is used for excavating large open excavations such as basements when the depth is beyond the limit of the boom of a backhoe. It is commonly used for open cast mining operations.

e) Clamshell

It comprises two hinged half-buckets or jaws pivoted to a frame which is suspended by cable from a long jib of an excavation. The grab is used for deep excavations of limited area on all types of soil except rock. Crane and Grab is a variant of this type of equipment.

1.13.2 TRACTOR BASED EQUIPMENT

It is a self-propelled crawler or wheeled machine used to exert a push or pull force through mounted equipment. It is designed either as attachments to normal tracked or wheeled tractors or as machines in which the earth moving attachments and the tractor are designed as a single integrated unit. A tractor, which is hydraulically operated, can be rigged as:

a) Loaders

It is used for loading, light dozing, scraping and grabbing operations, lifting and transporting the materials (loose earth, rubble, sand, gravel aggregate etc) at various sites through forward motion of the machine.

b) Tractor Shovel

This consists of a tipping bucket at the front attached by strong pivoted arms or booms to the frame of the machine. It is used for stripping top soil, excavating against a face, bulldozing and for loading spoil or loose materials. It is similar to crawler dipper-shovel.

c) Trench Digger

It operates on the same principle as a backhoe excavator except that the bucket is controlled by hydraulic rams instead of cables and pulleys.

d) Scraper

Scrapers provide unique capability to excavate, load, haul and dump materials. Scrapers are available in various capacities by a number of manufacturers with options such as self – loading with elevators, twin engines or push-pull capability. They are cost effective where the haul distance is too long for bulldozers, yet too short for trucks. This distance typically ranges from 120 m. to 1200m. however, the economics should be evaluated for each project. Scraper has an open bowl with a cutting edge positioned between the axles, which cuts, loads, transports, discharges and spreads through forward motion of the machine. Loading through forward motion of the machine can be assisted by a powered mechanism (elevator) fixed to the scraper bowl.

e) Bulldozer and Angle-dozer

The most common equipment used for clearing and levelling activities is a bulldozer. The term bulldozer is used to define a tractor mounted with a dozing blade. The bulldozer consists of a rectangular steel blade with renewable cutting edge set at right angles (capable of only tilting but not angling) to the direction of travel and attached

by steel arms to the side frames of a crawler tractor. It may be used for excavating natural soil or for moving loose soil or debris, which is pushed forward as the tractor forces it ahead. Angle dozer is capable of both tilting and angling.

1.14 TRANSPORTING EQUIPMENT

This implies horizontal movement primarily but it can involve some vertical movement too.

a) Dumpers

These are self-propelled wheeled machines, having an open body. It is designed for the transport of excavated materials and consists of a shallow tipping hopper or skip mounted on a such as, power barrow, dumper, multi-skip dumpers, high discharge dumpers, dump truck, etc. These can be rear dump, side dump or bottom dump.

b) Vibratory Roller

It is a single Drum Vibratory Roller for compaction of embankments, etc. The smooth drum version is for compaction of granular and mixed soil. The sheep's foot Roller comprises a hallow cylindrical steel drum or drums on which projecting feet are mounted. These feet penetrate into the fill as a roller moves forward and cause compaction. The geometry of the foot may be sheep, club pyramid, cone or cylinder foot. Such rollers are employed for compaction (densification) of cohesive and semi-cohesive soils.

1.15 DISPOSAL OF SURPLUS EXCAVATED MATERIAL

- 1.15.1 The rejected unsuitable material and surplus excavated material shall be disposed off at designated place or as directed by the Engineer. No compensation of any lead/lift is admissible and rates quoted shall be deemed to include the same.
- 1.15.2 The disposal of surplus/unsuitable excavated material shall include loading, unloading, transporting, stacking, spreading and leveling as directed by the Engineer.

1.16 MEASUREMENT AND PAYMENT

1.16.1 General

Except otherwise specified herein or elsewhere in the Contract Documents, no measurement and payment will be made for the under mentioned works related to the relevant BOQ items. The cost thereof shall be deemed to have been included in the quoted unit rate of the respective items of the Bill of Quantities.

- 1.16.1.1 Timber shoring, planking, strutting and providing slope for upholding the sides of excavations.
- 1.16.1.2 Any fill with approved material necessitated by over excavation due to fault or convenience of the Contractor except under structural members.

- 1.16.1.3 Stockpiling the excavated material at approved location within free haulage limit of the Project Boundary and transporting back suitable material to places requiring fill or backfill.
- 1.16.1.4 Specified foundation bed preparation.
- 1.16.1.5 Excavation involved in providing adequate working space around sides of foundation and service line trenches.
- 1.16.1.6 Providing approved quality fill/backfill material obtained from excavated material as designated by the Engineer.
- 1.16.1.7 Rolling, leveling, watering & compacting the fill and backfill to required density.
- 1.16.1.8 All laboratory and field tests stipulated in these specifications.
- 1.16.1.9 Disposal of rejected surplus and unsuitable excavated material within the capital territory of Islamabad. No compensation of any lead/lift is admissible and rates quoted shall be deemed to include the same.
- 1.16.1.10 De-watering to keep the foundations dry during construction.
- 1.16.1.11 All cost inclusive of borrow area's royalty charges
- 1.16.1.12 Testing of Sub-grade material equal to or greater than CBR value 10%.
- 1.16.1.13 Providing and testing of sweet earth.

1.16.2 Excavation

Measurement

Quantities of excavation shall be calculated/measured from the pre-work levels of leveled and graded ground taken jointly by the Contractor and the Engineer before commencement of the work.

The quantities set out for excavation and its subsequent disposal shall be deemed to be the bulk quantity before excavating and no allowance shall be made for any subsequent variations in bulk or for any extra excavation.

Unless otherwise shown on the Drawings quantities of excavation shall be measured of acceptably completed works on the basis of vertical excavations required in accordance with lines of concrete.

Quantities of excavation for laying service line trenches shall be measured for payment on the basis of vertical excavation faces for the specified width for the trench as shown on the drawings.

Measurement for acceptably completed excavation works shall be made on the basis of number of cubic feet of material excavated for foundation and service trenches as shown on the Drawings or as directed by the Engineer.

Payment

Payment will be made for acceptably measured quantity of excavation on the basis of unit rate per cubic foot quoted in the Bills of Quantities and shall constitute full compensation for all the works related to the item, including but not limiting to back filling.

1.16.3 Backfill/Fills

Measurement

Measurement for acceptably completed backfill/fill works will be made on the basis of number of cubic foot of compacted backfill/fill in position in accordance with the lines, levels and grade as shown on Drawings or as directed by the Engineer.

Payment

Payment will be made for acceptably measured quantity of backfill/fill on the basis of unit rate per cubic foot quoted in the Bills of Quantities and shall constitute full compensation for all the works related to the item.

1.16.4 Sub Grade

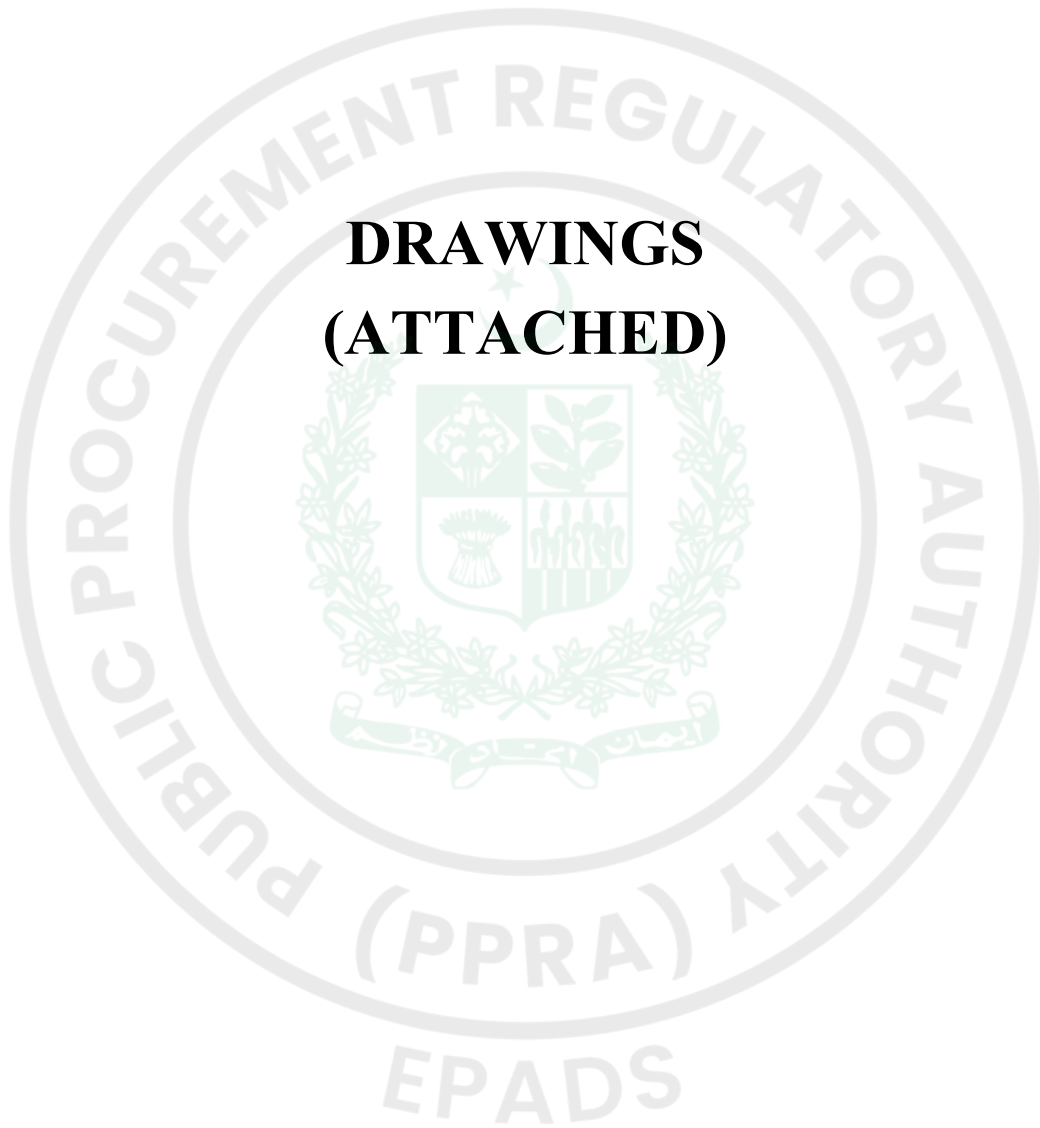
Measurement

Measurement for acceptably completed sub-grade works will be made on the basis of number of cubic foot/meters of compacted sub-grade in position in accordance with the lines, levels and grade as shown on Drawings or as directed by the Engineer.

Payment

Payment will be made for acceptably measured quantity of sub-grade on the basis of unit rate per cubic foot quoted in the Bills of Quantities and shall constitute full compensation for all the works related to the item.

**DRAWINGS
(ATTACHED)**



CONSTRUCTION EXPERIENCE

Form EXP - 4.1 General Construction Experience

Bidder's Name: _____

Date: _____

JV Member's Name _____

Bid Reference No. (if any) and title: _____

Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Bidder
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of EMPLOYER: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of EMPLOYER: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of EMPLOYER: _____ Address: _____	

Form EXP - 4.2(a)
Specific Construction and Contract Management Experience

Bidder's Name: _____

Date: _____

JV Member's Name _____

Bid Reference No. (if any) and title: _____

Page _____ of _____ pages

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount	PKR equivalent			
If member in a JV or sub-contractor, specify participation in total Contract amount				
EMPLOYER's Name:				
Address:				
Telephone/fax number				
E-mail:				

Form EXP - 4.2(a) (cont.)
Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

Form EXP - 4.2(b)
Construction Experience in Key Activities

Bidder's Name: _____

Date: _____

Bidder's JV Member Name: _____

Sub-contractor's Name (if any): _____

Bid Reference No. (if any) and title: _____

Page _____ of _____ pages

All Sub-contractors for key activities must complete the information and Qualification Criteria and Requirements, Sub-Factor 4.2.

1. Key Activity No One: _____

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount	PKR equivalent			
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)	
Year 1				
Year 2				
Year 3				
Year 4				
EMPLOYER's Name:				
Address:				
Telephone/fax number				

	Information
E-mail:	

2. Activity No. Two

3.

	Information
Description of the key activities in accordance with Section III:	

Form EXP - 4.2 (c)
Specific Experience in Managing ES aspects

[The following table shall be filled in for contracts performed by the Bidder, and each member of a Joint Venture]

Bidder's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

Bid Reference No. (if any) and title: *[insert ICB/NCB number and title]*

Page *[insert page number]* of *[insert total number]* pages

1. Key Requirement no 1 in accordance with 4.2 (c): _____

Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Subcontractor ☐
Total Contract Amount			PKR	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.2 (c): _____
3. Key Requirement no 3 in accordance with 4.2 (c): _____
4. [PA define key requirements]

Contractor's Representative and Key Personnel Schedule

Bidders should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
2.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
3.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
4.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>

	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
5.	Title of position:	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
6.	Title of position: <i>[insert title]</i>	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

**Form PER-2:
Resume and Declaration
Contractor's Representative and Key Personnel**

Name of Bidder

Position [#1]: <i>[title of position from Form PER-1]</i>		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
details		
	Address of Employer:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Employer:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned [insert either “Contractor’s Representative” or “Key Personnel” as applicable] , certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	Details
Commitment to duration of contract:	[insert period (start and end dates) for which this Contractor’s Representative orKey Personnel is available to work on this contract]
Time commitment:	[insert period (start and end dates) for which this Contractor’s Representative orKey Personnel is available to work on this contract]

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Bid evaluation;
- (b) result in my disqualification from participating in the Bid;
- (c) result in my dismissal from the contract.

Name of Contractor’s Representative or Key Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day/month/year): _____

Financial Resources

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

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

Past Experience / Contracts

Contracts over <i>[insert amount]</i> during the last three years:				
Procuring Agency	Value	Year	Goods/Services Supplied	Country of Destination



Historical Contract Non-Performance, and Pending Litigation and Litigation History

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

IFP No. and title: *[insert IFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

☐ Not debarred due to deviation from commitment of Bid Securing Declaration- ☐ Not debarred due to non-performance			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and PKR equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
☐ Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.3 as indicated below.			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), US\$ PKR Equivalent (exchange rate)

<i>[insert year]</i>	<i>[insert amount]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Agency" or "Supplier"]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>
☐ No consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4. ☐ Consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), PKR Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Agency" or "Supplier"]</i> Court/ arbitral award decision: <i>[Indicate if the award decision was against the Applicant or any member of a joint venture.]y]</i>	<i>[insert amount]</i>

Current Contract Commitments / Works in Progress

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

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

Financial Situation and Performance

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: [insert full name]

Date: [insert day, month, year]

Joint Venture Member Name: [insert full name]

IFP No. and title: [insert IFP number and title]

Page [insert page number] of [insert total number] pages

1. Financial data

Type of Financial information in (currency)	Historic information for previous [insert number] years, [insert in words] (amount in currency, currency, exchange rate*, PKR equivalent)				
	Year 1	Year 2	Year 3		
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

* Refer ITA 14 for the exchange rate

3. Financial documents

The Applicant and in case of JV, members of JV shall provide copies of financial statements for [number] years pursuant Section III, Qualifications Criteria and Requirements. The financial statements shall:

- (a) reflect the financial situation of the Applicant or in case of JV member, and not an affiliated entity (such as parent company or group member).
 - (b) be independently audited or certified in accordance with local legislation.
 - (c) be complete, including all notes to the financial statements.
 - (d) correspond to accounting periods already completed and audited.
- ☐ Attached are copies of financial statements¹ for the [number] years required above; and complying with the requirements.

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

Average Annual Turnover (Annual Sales Value)

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

IFP No. and title: *[insert IFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

Annual Turnover Data			
Year	Amount Currency	Exchange rate* (If applicable)	PKR equivalent
<i>[indicate calendar year]</i>	<i>[insert amount and indicate currency]</i>		
		Average Annual Turnover **	

* Refer ITA for date and source of exchange rate.

** Total PKR equivalent for all years divided by the total number of years. See Section III, Qualification Criteria and Requirements, ITA.