

**INVITATION FOR BIDS  
(IFB)**

**PACKAGE-16:  
EFAP/KPID/CW-16:  
REHABILITATION OF  
IRRIGATION SYSTEMS, DIR  
IRRIGATION DIVISION,  
DISTRICT DIR**



**PROJECT MANAGEMENT OFFICE**  
**PEHUR HIGH LEVEL EXTENSION PROJECT SWABI**  
**GOHATI IRRIGATION COMPLEX SWABI**

Phone No. +92-938-530103, Fax No. +92-938-530104

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**INVITATION FOR BIDS**  
**TO ALL THE PREQUALIFIED BIDDERS FOR CATEGORY-II**

<b>Date:</b>	<b>08 November 2023</b>	
<b>Loan No. and Title:</b>	<b>Loan 4279-PAK(COL): Emergency Flood Assistance Project (Khyber Pakhtunkhwa Irrigation Department Component)</b>	
<b>Contract No.</b>	<b>Packages / Contract Title</b>	<b>Qualification Category</b>
<b>EFAP/KPID-CW-16</b>	<b>EFAP/KPID/CW-16: PACKAGE-16: REHABILITATION OF IRRIGATION SYSTEMS, DIR IRRIGATION DIVISION, DISTRICT DIR</b>	<b>Category-II</b>
<b>Deadline for Submission of Bids</b>	<b>22 November 2023 (1100 Hours PST)</b>	

1. The **Islamic Republic of Pakistan** has received financing from the **Asian Development Bank (ADB)** toward the cost of **Repair, Rehabilitation and Reconstruction of Irrigation Structure, Drainage System and Flood Protection Works Spreads in Province of Khyber Pakhtunkhwa**. Part of this financing will be used for payments under the Contract named above. Bidding is open to prequalified Bidders from eligible source countries of ADB.
2. The **Irrigation Department, Government of Khyber Pakhtunkhwa** (“the Employer”) invites sealed bids from prequalified eligible Bidders for the construction and completion of works mentioned in the table above under “**Packages / Contract Title**” (“the Works”).
3. Open competitive bidding will be conducted in accordance with ADB’s Single-Stage: One Envelope following Prequalification procedure and is open to all prequalified Bidders from eligible countries as described in the Bidding Document.
4. Only eligible prequalified Bidders with the following key qualifications defined in the Bidding Document may participate in this bidding.

A pre-bid meeting shall take place on **15 November 2023** at **11:00 hours (Pakistan Standard Time)** at the address mentioned below.

5. To obtain further information and inspect the bidding documents, Bidders should contact:  
**Project Director**  
**Project Management Office**  
**Pehur High Level Canal Extension Project /Emergency Flood Assistance Project**  
**Irrigation Department Khyber Pakhtunkhwa,**  
**Gohati, Swabi.**
6. To purchase the bidding documents in English, eligible bidders should
  - write to address above requesting the Bidding Documents for each package mentioned in the table above under “**Packages / Contract Title**”.
  - pay a nonrefundable fee of PKR 15,000/- or USD equivalent by Pay Order or Demand Bank Draft in favor of Project Director. The eligible bidders also have the option to download the bidding documents at no cost from Irrigation website i.e., **www.irrigation.gkp.pk**. Eligible bidders opting to download the bidding document



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from Irrigation Department website shall inform PMO in writing at the address given below failing which PMO shall not be responsible if the applicants do not receive clarifications and amendments, if any. In case of any discrepancy between the downloaded document and hard copy, the latter shall prevail.

7. Deliver your bid
- to the address given above vide Para-5
  - on or before the deadline **22 November 2023 (1100 Hours 'Pakistan Standard Time')**
  - together with a Bid-Securing Declaration as described in the Bidding Document.

Bids will be opened promptly after the deadline for bid submission in the presence of Bidders' representatives who choose to attend.

8. When comparing Bids, Domestic Preference will not be applied as stipulated in the Bidding Document.

  
**Project Director**  
**Project Management Office (PMO)**  
**Emergency Flood Assistance Project (EFAP)**  
**Irrigation Department, Khyber Pakhtunkhwa**  
**Gohati Swabi**  
**Phone No.: +92-938-530103**  
**Fax: No. +92-938-530104**

**BIDDING DOCUMENT**

**PACKAGE-16:  
EFAP/KPID/CW-16:  
REHABILITATION OF  
IRRIGATION SYSTEMS, DIR  
IRRIGATION DIVISION,  
DISTRICT DIR**



**ISLAMIC REPUBLIC OF PAKISTAN  
KHYBER PAKHTUNKHWA  
IRRIGATION DEPARTMENT (KPID)**



**ASIAN DEVELOPMENT BANK**

**Loan 4279-PAK(COL):  
Emergency Flood Assistance Project  
(Khyber Pakhtunkhwa Irrigation Department Component)  
(EFAP/KPID/CW-16)**

**BIDDING DOCUMENT  
Procurement of Works**

- Single-Stage: One-Envelope Bidding Procedure -  
- Following Prequalification -

**EFAP/KPID-CW-16: PACKAGE-16:  
REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION, DISTRICT DIR**

**Project Management Office (PMO),  
Pehur High Level Canal Extension Project /  
Emergency Flood Assistance Project  
Gohati, Swabi**

**Tel: +92-(938)-530103**

**Fax: +92-(938)-530104**

**Email: pmophlce@gmail.com / efapirrigation@gmail.com**

# **PROCUREMENT OF WORKS**

## **BIDDING DOCUMENT**

**for**

**Procurement**

**of**

**Repair, Rehabilitation and Reconstruction of Irrigation Structure, Drainage System and Flood Protection Work Spreads in Province of Khyber Pakhtunkhwa**

**EFAP/KPID-CW-16: PACKAGE-16:  
REHABILITATION OF IRRIGATION SYSTEMS, DIR IRRIGATION  
DIVISION, DISTRICT DIR**

**Issued on:** 08 November 2023  
**Invitation for Bids No.:** EFAP/KPID/CW-16  
**OCB No.:** EFAP/KPID/CW-16  
**Employer:** Project Director  
Project Management Office  
Pehur High Level Canal Extension  
Project / Emergency Flood  
Assistance Project  
Irrigation Department, Govt. of  
Khyber Pakhtunkhwa  
**Country:** Pakistan

# Preface

This Bidding Document for the Procurement of Works has been prepared by **Irrigation Department, Government of Khyber Pakhtunkhwa** and is based on the Standard Bidding Document for the Procurement of Works-Small Contracts (*SBD Works-Small*) issued by the Asian Development Bank dated **December 2021**.

ADB's *SBD Works-Small* has the structure and the provisions of the Master Procurement Document entitled "Bidding Documents for the Procurement of Works-Small Contracts", prepared by multilateral development banks and other public international financial institutions except where ADB-specific considerations have required a change.

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## PART I BIDDING PROCEDURES

<b>Section 1 - Instructions to Bidders (ITB)</b> -----	<b>1-1</b>
This section specifies the procedures Bidders should follow when preparing and submitting their Bids. Information is also provided on the submission, opening, evaluation of bids, and on the award of contract.	
<b>Section 2 - Bid Data Sheet (BDS)</b> -----	<b>2-1</b>
This section consists of provisions that are specific to each procurement and supplements the information or requirements included in Section 1 (Instructions to Bidders).	
<b>Section 3 - Evaluation and Qualification Criteria (EQC)</b> -----	<b>3-1</b>
This section contains the criteria to determine the lowest evaluated bid and the qualifications of the Bidder to perform the contract.	
<b>Section 4 - Bidding Forms (BDF)</b> -----	<b>4-1</b>
This section contains the forms to be completed by the Bidder and submitted as part of its Bid.	
<b>Section 5 - Eligible Countries (ELC)</b> -----	<b>5-1</b>
This section contains the list of eligible countries.	

## PART II REQUIREMENTS

<b>Section 6 - Employer's Requirements (ERQ)</b> -----	<b>6-1</b>
This section contains the Specifications, Drawings, Supplementary Information that describe the Works to be procured, Personnel Requirements, and Equipment Requirements.	

## PART III CONDITIONS OF CONTRACT AND CONTRACT FORMS

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This section contains the general clauses that govern the Contract. These General Conditions shall be the Conditions of Contract for Construction, Multilateral Development Bank Harmonized Edition, published by the Fédération Internationale des Ingénieurs-Conseil (FIDIC MDB Edition, June 2010). These Conditions are subject to the variations and additions set out in Section 8 (Particular Conditions of Contract).	
<b>Section 8 - Particular Conditions of Contract (PCC)</b> -----	<b>8-1</b>
This section contains provisions that are specific to each contract and that modify or supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract.	
<b>Section 9 - Contract Forms (COF)</b> -----	<b>9-1</b>
This section contains forms that, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.	

# Section 1: Instructions to Bidders

This Section specifies the procedures to be followed by Bidders in the preparation and submission of their Bids. Information is also provided on the submission, opening, evaluation of bids, and award of contract.

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## A. General

1. **Scope of Bid**
  - 1.1 In connection with the Invitation for Bids (IFB) indicated in the Bid Data Sheet (BDS), the Employer, as indicated in the BDS, issues this Bidding Document for the procurement of Works as specified in Section 6 (Employer's Requirements). The name, identification, and number of contracts of the open competitive bidding (OCB) are provided in the BDS.
  - 1.2 Throughout this Bidding Document,
    - (a) the term "in writing" means communicated in written form and delivered against receipt;
    - (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
    - (c) "day" means calendar day.
2. **Source of Funds**
  - 2.1 The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.
  - 2.2 Payments by the ADB will be made only at the request of the Borrower and upon approval by ADB in accordance with the terms and conditions of the Financing Agreement between the Borrower and ADB (hereinafter called "Financing Agreement"), and will be subject in all respects to the terms and conditions of that Financing Agreement. No party other than the Borrower shall derive any rights from the Financing Agreement or have any claim to the funds.
3. **Fraud and Corruption**
  - 3.1 ADB requires Borrowers (including beneficiaries of ADB-financed activity) and their personnel, as well as firms and individuals participating in an ADB-financed activity, including but not limited to, Bidders, Suppliers, and Contractors agents, subcontractors, subconsultants, service providers, subsuppliers, manufacturers (including their respective officers, directors, employees and personnel) under ADB-financed contracts to observe the highest standard of ethics during the procurement and execution of such contracts in accordance with ADB's Anticorruption Policy (1998, as amended from time to time. In pursuance of this policy, ADB
    - (a) defines, for the purposes of this provision, the terms set forth below as follows:
      - (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
      - (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

- (iii) “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
  - (iv) “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
  - (v) “abuse” means theft, waste, or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard;
  - (vi) “conflict of interest” means any situation in which a party has interests that could improperly influence that party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations; and
  - (vii) “integrity violation” is any act, as defined under ADB’s Integrity Principles and Guidelines (2015, as amended from time to time), which violates ADB’s Anticorruption Policy, including (i) to (vi) above and the following: obstructive practice, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB’s Anticorruption Policy, including failure to adhere to the highest ethical standard.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award or any of its officers, directors, employees, personnel, subconsultants, subcontractors, service providers, suppliers or manufacturers has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;
  - (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation, including by failing to inform ADB in a timely manner at the time they knew of the integrity violations;
  - (d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB’s Anticorruption Policy and Integrity Principles and Guidelines, including declaring ineligible, either indefinitely or for a stated period of time, to participate<sup>1</sup> in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or other integrity violations; and
  - (e) will have the right to require that a provision be included in bidding documents and in contracts financed, administered, or supported by

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<sup>1</sup> Whether as a Contractor, Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document).



ADB, requiring Bidders, suppliers and contractors, consultants, manufacturers, service providers and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel, to permit ADB or its representative to inspect the site and their assets, accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.

- 3.2 All Bidders, consultants, contractors, suppliers, manufacturers, service providers, and other third parties engaged or involved in ADB-related activities and their respective officers, directors, employees and personnel, are obliged to cooperate fully in any investigation when requested by ADB to do so. As determined on a case by case basis by ADB, such cooperation includes, but is not limited to, the following:
- (a) being available to be interviewed and replying fully and truthfully to all questions asked;
  - (b) providing ADB with any items requested that are within the party's control including, but not limited to, documents and other physical objects;
  - (c) upon written request by ADB, authorizing other related entities to release directly to ADB such information that is specifically and materially related, directly or indirectly, to the said entities or issues which are the subject of the investigation;
  - (d) cooperating with all reasonable requests to search or physically inspect their person and/or work areas, including files, electronic databases, and personal property used on ADB activities, or that utilizes ADB's Information and Communications Technology (ICT) resources or systems (including mobile phones, personal electronic devices, and electronic storage devices such as external disk drives);
  - (e) cooperating in any testing requested by ADB, including but not limited to, fingerprint identification, handwriting analysis, and physical examination and analysis; and
  - (f) preserving and protecting confidentiality of all information discussed with, and as required by, ADB.
- 3.3 All Bidders, consultants, contractors and suppliers shall require their officers, directors, employees, personnel, agents to ensure that, in its contract with its sub-consultants, Subcontractors, and other third parties engaged or involved in ADB-related activities, such sub-consultants, Subcontractors, and other third parties similarly are obliged to cooperate fully in any investigation when requested by ADB to do so.
- 3.4 The Employer hereby puts the Bidder on notice that the Bidder or any Joint Venture partner of the Bidder (if any) may not be able to receive any payments under the Contract if the Bidder or any of its Joint Venture partners, as appropriate, is, or is owned (in whole or in part) by a person or entity subject to applicable sanctions.
- 3.5 Furthermore, Bidders shall be aware of the provision stated in Subclauses 1.15 and 15.6 of the Conditions of Contract.

**4. Eligible Bidders**

- 4.1 A Bidder may be a natural person, private entity, or government-owned enterprise subject to ITB 4.5 - or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture. In the case of a Joint Venture,
- (a) all partners shall be jointly and severally liable; and
  - (b) the Joint Venture shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the Joint Venture during the bidding process and, in the event the Joint Venture is awarded the Contract, during contract execution.
- 4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section 5 (Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed Subcontractors or Suppliers for any part of the Contract including related services.
- 4.3 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in the bidding process if any of, including but not limited to, the following apply:
- (a) they have controlling shareholders in common; or
  - (b) they receive or have received any direct or indirect subsidy from any of them; or
  - (c) they have the same legal representative for purposes of this bid; or
  - (d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
  - (e) a Bidder participates in more than one bid in this bidding process, either individually or as a partner in a Joint Venture, except for alternative offers permitted under ITB 13 of the Bidding Document. This will result in the disqualification of all Bids in which it is involved. However, subject to any finding of a conflict of interest in terms of ITB 4.3(a)-(d) above, this does not limit the participation of a Bidder as a Subcontractor in another Bid or of a firm as a Subcontractor in more than one Bid; or
  - (f) a Bidder, Joint Venture partner, associates, parent company, or any affiliated entity, participated as a Consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or
  - (g) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the Contract; or
  - (h) a Bidder would be providing goods, works, or nonconsulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS

ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or

- (i) A Bidder that has a financial or familial relationship with staff of the Employer including project implementing/executing agency, or of a recipient of a part of the loan who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to ADB throughout the procurement process and execution of the contract.

- 4.4 A firm will not be eligible to participate in any procurement activities under an ADB-financed, -administered, or -supported project while under temporary suspension or debarment by ADB pursuant to its Anticorruption Policy (see ITB 3), whether such debarment was directly imposed by ADB, or enforced by ADB pursuant to the Agreement for Mutual Enforcement of Debarment Decisions. A bid from a temporarily suspended or debarred firm will be rejected and such bid may be in breach of debarment conditions, thereby subject to further ADB's investigation.
- 4.5 Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Employer.
- 4.6 A Bidder shall not be under suspension from bidding by the Employer as the result of the execution of a Bid–Securing Declaration.
- 4.7 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 4.8 Bidders shall be excluded if, by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods from, or payments to, a particular country, person or entity in respect of goods or services originating in that country. Where the Borrower's country prohibits payments to a particular person or entity or for particular goods or services by such an act of compliance, that firm shall be excluded.
- 4.9 Since a prequalification exercise was conducted prior to the issuance of this Bidding Document, only prequalified Bidders may submit bids for the contract(s) described in BDS.

**5. Eligible Materials, Equipment, and Services**

- 5.1 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2, and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment, and services.

- 5.2 For purposes of ITB 5.1 above, “origin” means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

## B. Contents of Bidding Document

6. **Sections of Bidding Document**
- 6.1 The Bidding Document consists of Parts I, II, and III, which include all the sections indicated below, and should be read in conjunction with any addenda issued in accordance with ITB 8.
- PART I Bidding Procedures**
- Section 1 - Instructions to Bidders (ITB)
  - Section 2 - Bid Data Sheet (BDS)
  - Section 3 - Evaluation and Qualification Criteria (EQC)
  - Section 4 - Bidding Forms (BDF)
  - Section 5 - Eligible Countries (ELC)
- PART II Requirements**
- Section 6 - Employer’s Requirements (ERQ)
- PART III Conditions of Contract and Contract Forms**
- Section 7 - General Conditions of Contract (GCC)
  - Section 8 - Particular Conditions of Contract (PCC)
  - Section 9 - Contract Forms (COF)
- 6.2 The IFB issued by the Employer is not part of the Bidding Document.
- 6.3 The Employer is not responsible for the completeness of the Bidding Document and its addenda, if they were not obtained directly from the source stated by the Employer in the IFB.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.
7. **Clarification of Bidding Document, Site Visit, Pre-Bid Meeting**
- 7.1 A prospective Bidder requiring any clarification on the Bidding Document shall contact the Employer in writing at the Employer’s address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received no later than 21 days prior to the deadline for submission of bids. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.
- 7.2 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.

- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its 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 the inspection.
- 7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested to submit any questions in writing, to reach the Employer not later than 1 week before the meeting.
- 7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that 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 ITB 8 and not through the minutes of the pre-bid meeting.
- 7.7 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

#### **8. Amendment of Bidding Document**

- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding Document by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.
- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

### **C. Preparation of Bids**

#### **9. Cost of Bidding**

- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

#### **10. Language of Bid**

- 10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant

passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.

**11. Documents  
Comprising the  
Bid**

- 11.1 The Bid shall comprise the following:
- (a) Letter of Bid;
  - (b) completed schedules as required, including priced Bill of Quantities, in accordance with ITB 12 and ITB 14;
  - (c) Bid Security or Bid-Securing Declaration, in accordance with ITB 19;
  - (d) alternative Bids, if permissible, in accordance with ITB 13;
  - (e) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
  - (f) documentary evidence in accordance with ITB 17, establishing the Bidder's qualifications to perform the contract if its Bid is accepted;
  - (g) Technical Proposal in accordance with ITB 16; and
  - (h) any other document required in the BDS.
- 11.2 In addition to the requirements under ITB 11.1, Bids submitted by a Joint Venture shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all partners and submitted with the Bid, together with a copy of the proposed agreement.

**12. Letter of Bid and  
Schedules**

- 12.1 The Letter of Bid and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section 4 (Bidding Forms). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested and as required in the BDS.

**13. Alternative Bids**

- 13.1 Unless otherwise indicated in the BDS, alternative Bids shall not be considered.
- 13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different times for completion.
- 13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.
- 13.4 When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section 6 (Employer's Requirements). The method for their evaluation will be stipulated in Section 3 (Evaluation and Qualification Criteria).

**14. Bid Prices and Discounts**

- 14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Bill of Quantities shall conform to the requirements specified below.
- 14.2 The Bidder 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 the Bidder will not be paid for by the Employer when executed, and shall be deemed covered by the rates for other items and prices in the Bill of Quantities. Unit rates and prices for all items of the Works described in the Bill of Quantities shall be expressed in positive values. If unit rates and prices are expressed in negative values, the bid will be rejected.
- 14.3 The price to be quoted in the Letter of Bid, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered. Absence of the total bid price in the Letter of Bid may result in the rejection of the Bid.
- 14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Bid, in accordance with ITB 12.1.
- 14.5 The prices shall be either fixed or adjustable as specified in the BDS.
- (a) In the case of Fixed Price, 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 nonresponsive and rejected.
- (b) In the case of Adjustable Price, prices quoted by the Bidder shall be subject to adjustment during performance of the contract to reflect changes in the cost elements such as labor, material, transport, and contractor's equipment in accordance with the provisions of the Conditions of Contract. A Bid submitted with a fixed price will be treated as nonresponsive and be rejected. The Bidder shall furnish the indexes and weightings for the price adjustment formulas in the Tables of Adjustment Data included in Section 4 (Bidding Forms) and the Employer may require the Bidder to justify its proposed indexes and weightings. Any bid that omits indexes and weightings shall be subject to clarification with the Bidder.
- 14.6 If so indicated in ITB 1.1, bids are being invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all contracts are submitted and opened at the same time.
- 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of 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 the Bidder.



**15. Currencies of Bid and Payment**

- 15.1 The unit rates and the prices shall be quoted by the Bidder entirely in the currency specified in the BDS.
- 15.2 Bidders shall indicate the portion of the bid price that corresponds to expenditures incurred in the currency of the Employer's country in the Schedule of Payment Currencies included in Section 4 (Bidding Forms).
- 15.3 Bidders expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country and wishing to be paid accordingly may indicate the other currencies in the Schedule of Payment Currencies included in Section 4 (Bidding Forms).
- 15.4 The rates of exchange to be used by the Bidder for currency conversion during bid preparation shall be the selling rates for similar transactions prevailing on the date 28 days prior to the deadline for submission of bids published by the source specified in the BDS. If exchange rates are not so published for certain currencies, the Bidder shall state the rates used and the source. Bidders should note that for the purpose of payments, the exchange rates confirmed by the source specified in the BDS as the selling rates prevailing 28 days prior to the deadline for submission of Bids shall apply for the duration of the Contract so that no currency exchange risk is borne by the Bidder.
- 15.5 Foreign currency requirements indicated by the Bidders in the Schedule of Payment Currencies shall include but not limited to the specific requirements for
- (a) expatriate staff and labor employed directly on the Works;
  - (b) social, insurance, medical and other charges relating to such expatriate staff and labor, and foreign travel expenses;
  - (c) imported materials, both temporary and permanent, including fuels, oil and lubricants required for the Works;
  - (d) depreciation and usage of imported Plant and Contractor's Equipment, including spare parts, required for the Works;
  - (e) foreign insurance and freight charges for imported materials, Plant and Contractor's Equipment, including spare parts; and
  - (f) overhead expenses, fees, profit, and financial charges arising outside the Employer's country in connection with the Works.
- 15.6 Bidders may be required by the Employer to clarify their foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Payment Currencies are reasonable and responsive to ITB 15.3 above, in which case a detailed breakdown of its foreign currency requirements shall be provided by the Bidder.
- 15.7 Bidders should note that during the progress of the Works, the foreign currency requirements of the outstanding balance of the Contract Price may be adjusted by agreement between the Employer and the Contractor in order to reflect any changes in foreign currency requirements for the Contract, in accordance with Subclause 14.15 of the Conditions of Contract. Any such adjustment shall be effected by



comparing the percentages quoted in the bid with the amounts already used in the Works and the Contractor's future needs for imported items.

**16. Documents  
Comprising the  
Technical  
Proposal**

16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule, environmental, health and safety (EHS) management plan commensurate with the proposed scope of works, EHS Code of Conduct, and any other information as stipulated in Section 4 (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

**17. Documents  
Establishing the  
Qualifications of  
the Bidder**

17.1 To establish its qualifications to perform the Contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section 4 (Bidding Forms).

17.2 Domestic Bidders, individually or in Joint Ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITB 33.

**18. Period of Validity  
of Bids**

18.1 Bids shall remain valid for the bid validity period specified in the BDS. The bid validity period starts from the date fixed for the bid submission deadline date prescribed by the Employer in accordance with ITB 22.1. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.

18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended 28 days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its Bid.

**19. Bid Security/Bid-  
Securing  
Declaration**

19.1 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its Bid, in original form, either a Bid-Securing Declaration or a bid security as specified in the BDS. In the case of a bid security, the amount and currency shall be as specified in the BDS.

19.2 If a Bid-Securing Declaration is required pursuant to ITB 19.1, it shall use the form included in Section 4 (Bidding Forms). The Employer will declare a Bidder ineligible to be awarded a Contract for a specified period of time, as indicated in the BDS, if the Bid-Securing Declaration is executed.

19.3 If a bid security is specified pursuant to ITB 19.1, the bid security shall be, at the Bidder's option, in any of the following forms:

- (a) an unconditional bank guarantee (hard copy of the bank guarantee or in the form of SWIFT message MT760), or
- (b) an irrevocable letter of credit, or
- (c) a cashier's or certified check.

all from a reputable source from an eligible country as described in Section 5 (Eligible Countries). In the case of a bank guarantee, the bid

security shall be submitted either using the Bid Security Form included in Section 4 (Bidding Forms) or another form acceptable to the Employer. The form must include the complete name of the Bidder. The bid security shall be valid for 28 days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

- 19.4 Unless otherwise specified in the BDS, any Bid not accompanied by a substantially compliant bid security or Bid-Securing Declaration, if one is required in accordance with ITB 19.1, shall be rejected by the Employer as nonresponsive.
- 19.5 If a bid security is specified pursuant to ITB 19.1, the bid security of unsuccessful Bidders shall be returned promptly upon the successful Bidder's furnishing of the performance security pursuant to ITB 44.
- 19.6 If a bid security is specified pursuant to ITB 19.1, the bid security of the successful Bidder shall be returned promptly once the successful Bidder has signed the Contract and furnished the required performance security.
- 19.7 The bid security may be forfeited or the Bid-Securing Declaration executed, if
- (a) notwithstanding ITB 24.3, a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, except as provided in ITB 18.2; or
  - (b) the successful Bidder fails to
    - (i) sign the Contract in accordance with ITB 43;
    - (ii) furnish a performance security in accordance with ITB 44;
    - (iii) accept the arithmetical correction of its Bid in accordance with ITB 31; or
    - (iv) furnish a domestic preference security if so required.
- 19.8 If the bid security is required as per ITB 19.1, the bid security of a Joint Venture shall be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of bidding, the bid security shall be in the name of any or all of the Joint Venture partners. If the Bid-Securing Declaration is required as per ITB 19.1, the Bid-Securing Declaration of a Joint Venture shall be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of bidding, the Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.

## **20. Format and Signing of Bid**

- 20.1 The Bidder shall prepare one original set of the documents comprising the Bid as described in ITB 11 and clearly mark it "ORIGINAL." Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE." In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 20.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as

specified in the BDS and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. If a Bidder submits a deficient authorization, the Bid shall not be rejected in the first instance. The Employer shall request the Bidder to submit an acceptable authorization within the number of days as specified in the BDS. Failure to provide an acceptable authorization within the period as stated in the Employer's request shall cause the rejection of the Bid. If either the Letter of Bid or Bid-Securing Declaration (if applicable) is not signed, the Bid shall be rejected.

- 20.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

## D. Submission and Opening of Bids

### 21. Sealing and Marking of Bids

- 21.1 Bidders shall submit their Bids as specified in the BDS. Procedures for submission, sealing, and marking are as follows:

- (a) Bidders submitting Bids by mail or by hand shall enclose the original and all copies of the Bid, including alternative Bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL," "ALTERNATIVE," and "COPY." These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB 21.2 and ITB 21.3.
- (b) Bidders submitting Bids electronically shall follow the electronic bid submission procedures specified in the BDS.

- 21.2 The inner and outer envelopes shall

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer in accordance with BDS 22.1;
- (c) bear the specific identification of this bidding process indicated in the BDS 1.1; and
- (d) bear a warning not to open before the time and date for bid opening.

- 21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

### 22. Deadline for Submission of Bids

- 22.1 Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS.

- 22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

### 23. Late Bids

- 23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by

the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

**24. Withdrawal, Substitution, and Modification of Bids**

- 24.1 A 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 shall include a copy of the authorization in accordance with ITB 20.2 (except for withdrawal notices, which do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be
- (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except for withdrawal notices, which do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION"; and
  - (b) received by the Employer no later than the deadline prescribed for submission of Bids, in accordance with ITB 22.
- 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.
- 24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

**25. Bid Opening**

- 25.1 The Employer shall open the Bids in public at the address, on the date and time specified in the BDS in the presence of Bidders' designated representatives and anyone who chooses to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 21.1, shall be as specified in the BDS.
- 25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted. The substituted Bid shall not be opened, but returned to the Bidder. No bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at bid opening shall be considered further.
- 25.3 All other envelopes shall be opened one at a time, reading out the name of the Bidder and whether there is a modification; the Bid Price(s), including any discounts and alternative offers; the presence of a bid security or Bid-Securing Declaration, if required; and any other details as the Employer may consider appropriate. Only discounts and alternative offers read out at bid opening shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Bid and Bill of Quantities are to be initialed by at least three representatives of the

Employer attending bid opening. No Bid shall be rejected at bid opening except for late Bids, in accordance with ITB 23.1.

25.4 The Employer shall prepare a record of the bid opening that shall include, as a minimum, the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per contract if applicable, including any discounts and alternative offers; and the presence or absence of a bid security or Bid-Securing Declaration, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted Bids on time, and posted online when electronic bidding is permitted.

## **E. Evaluation and Comparison of Bids**

- 26. Confidentiality**
- 26.1 Information relating to the examination, evaluation, comparison, and qualification 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 publication of Contract award.
- 26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.
- 27. Clarification of Bids**
- 27.1 To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 31.
- 27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.
- 28. Deviations, Reservations, and Omissions**
- 28.1 During the evaluation of Bids, the following definitions apply:
- (a) "Deviation" is a departure from the requirements specified in the Bidding Document;
  - (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
  - (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

- 29. Determination of Responsiveness**
- 29.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB11.
- 29.2 A substantially responsive Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,
- (a) if accepted, would
    - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
    - (ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
  - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
- 29.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section 6 (Employer's Requirements) have been met without any material deviation, reservation, or omission.
- 29.4 If a Bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- 30. Nonmaterial Nonconformities**
- 30.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid that do not constitute a material deviation, reservation, or omission.
- 30.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 30.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or nonconforming item or component. The adjustment shall be made using the method indicated in Section 3 (Evaluation and Qualification Criteria).
- 31. Correction of Arithmetical Errors**
- 31.1 Provided that the Bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:
- (a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the

decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.

- (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
- (c) If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Bid will be corrected.
- (d) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b) and (c) above.

31.2 If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its bid security may be forfeited, or its bid securing declaration executed.

**32. Conversion to Single Currency**

32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified in the BDS.

**33. Domestic Preference**

33.1 Unless otherwise specified in the BDS, domestic preference shall not apply.

**34. Subcontractors**

34.1 Unless otherwise stated in the BDS, the Employer does not intend for the contractor to execute any specific elements of the Works through nominated subcontractors.

**35. Evaluation and Comparison of Bids**

35.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

35.2 To evaluate a Bid, the Employer shall consider the following:

- (a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including Daywork items, where priced competitively;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.4;
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;
- (e) adjustment for nonmaterial nonconformities in accordance with ITB 30.3;
- (f) assessment whether the bid is abnormally low in accordance with ITB 36; and
- (g) application of all the evaluation factors indicated in Section 3 (Evaluation and Qualification Criteria).



- 35.3 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.
- 35.4 If this Bidding Document allows Bidders to quote separate prices for different contracts, and the award to a single Bidder of multiple contracts, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section 3 (Evaluation and Qualification Criteria).
- 35.5 The Employer shall compare all substantially responsive Bids to determine the lowest evaluated Bid price, in accordance with ITB 35.2.

### **36. Abnormally Low Bids**

- 36.1 An abnormally low bid is one where the bid price, in combination with other elements of the bid, appears to be so low that it raises concerns as to the capability of the Bidder to perform the contract for the offered bid price.
- 36.2 When the offered bid price appears to be abnormally low, the Employer shall undertake a three-step review process as follows:
- (a) identify abnormally low costs and unit rates by comparing them with the Engineer's estimates, other substantially responsive bids, or recently awarded similar contracts;
  - (b) clarify and analyze the bidder's resource inputs and pricing, including overheads, contingencies and profit margins; and
  - (c) decide whether to accept or reject the bid.
- 36.3 With regard to ITB 36.2 (b) above, the Employer will seek a written explanation from the bidder of the reasons for the offered bid price, including a detailed analysis of costs and unit prices, by reference to the scope, proposed methodology, schedule, and allocation of risks and responsibilities. This may also include information regarding the economy of the manufacturing process; the services to be provided, or the construction method to be used; the technical solutions to be adopted; and any exceptionally favorable conditions available to the bidder for the works, equipment or services proposed.
- 36.4 After examining the explanation given and the detailed price analyses presented by the bidder, the Employer may:
- (a) accept the bid, if the evidence provided satisfactorily accounts for the low bid price and costs, in which case the bid is not considered abnormally low;
  - (b) accept the bid, but 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. The amount of the performance security shall generally be not more than 20% of the contract price; or
  - (c) reject the bid if the evidence provided does not satisfactorily account for the low bid price, and make a similar determination for the next ranked bid, if required.



- 37. Unbalanced or Front-Loaded Bids**
- 37.1 If the Bid, which results in the lowest evaluated Bid Price, 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, as well as the pricing and sources of materials, equipment and labor.
- 37.2 After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may as appropriate:
- (a) accept the Bid; or
  - (b) accept the Bid, but require that the total 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 subject to ITB 44.2; or
  - (c) reject the Bid and make a similar determination for the next ranked bid.
- 38. Qualification of the Bidder**
- 38.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive Bid meets the qualifying criteria specified in Section 3 (Evaluation and Qualification Criteria).
- 38.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1. Unless permitted in the BDS, the determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities or affiliates.
- 38.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. The Employer reserves the right to reject the bid of any Bidder found to be in circumstances described in GCC 15.2(e). A negative determination shall result in disqualification of the Bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.
- 39. Employer's Right to Accept Any Bid, and to Reject Any or All Bids**
- 39.1 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 contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically bid securities, shall be promptly returned to the Bidders.
- 40. Notice of Intention for Award of Contract**
- 40.1 If Standstill provisions apply as specified in the BDS, the standstill period shall be defined in the BDS to specify the duration subsequent to notification of intention for award of contract (before making the actual contract award) within which any unsuccessful bidder can challenge the proposed award.

## **F. Award of Contract**

- 41. Award Criteria**
- 41.1 The Employer shall award the Contract to the Bidder whose offer has been determined in line with ITB 35 to ITB 37 above to be the lowest evaluated Bid and is substantially responsive to the Bidding Document,

provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

#### **42. Notification of Award**

- 42.1 Prior to the expiration of the period of bid validity and upon expiry of the standstill period specified in ITB 40.1; or upon satisfactory resolution of a complaint filed within standstill period, if applicable, the Employer shall transmit the Notification of Award through issuance of Letter of Acceptance using the form included in Section 9 (Contract Forms) to the successful Bidder, in writing, that its Bid has been accepted. At the same time, the Employer shall also notify all other Bidders of the results of the bidding.
- 42.2 Unless standstill period applies, upon notification of award through issuance of Letter of Acceptance, unsuccessful Bidders may request in writing to the Employer for a debriefing seeking explanations on the grounds on which their Bids were not selected. The Employer shall promptly respond in writing and/or in a debriefing meeting to any unsuccessful Bidder who, after publication of contract award, requests a debriefing.
- 42.3 Until a formal contract is prepared and executed, the notification of award through issuance of Letter of Acceptance shall constitute a binding Contract.
- 42.4 Within 2 weeks of the award of contract or expiry of the standstill period, where such period applies; or, if a complaint has been filed within the standstill period, upon receipt of ADB's confirmation of satisfactory resolution of the complaint, the borrower shall publish in an English language newspaper or widely known and freely accessible website the results identifying the bid and lot or package numbers, as applicable and the following information:
- (a) name of each Bidder who submitted a Bid;
  - (b) bid prices as read out at bid opening;
  - (c) name and evaluated prices of each Bid that was evaluated;
  - (d) name of bidders whose bids were rejected and the reasons for their rejection; and
  - (e) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.

#### **43. Signing of Contract**

- 43.1 Promptly after notification, the Employer shall send the successful Bidder the Contract Agreement.
- 43.2 Within 28 days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

#### **44. Performance Security**

- 44.1 Within 28 days of the receipt of notification of award through issuance of Letter of Acceptance from the Employer, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, subject to ITB 36 and ITB 37, using for that purpose the Performance Security Form included in Section 9 (Contract Forms), or another form acceptable to the Employer. If the bank issuing performance security is located outside the Employer's country, it shall

be counter-guaranteed or encashable by a bank in the Employer's country.

44.2 Failure of the successful Bidder to submit the abovementioned performance security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security or execution of the Bid-Securing Declaration. In that event, the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.

44.3 The above provision shall also apply to the furnishing of a domestic preference security if so required.

**45. Bidding-Related  
Complaints**

45.1 The procedures for dealing with Bidding-Related Complaints arising out of this bidding process are specified in the BDS.

## Section 2: Bid Data Sheet

This Section consists of provisions that are specific to each procurement and supplement the information or requirements included in Section 1 (Instructions to Bidders).

### A. General

ITB 1.1	The number of the Invitation for Bids (IFB) is: <b>EFAP/KPID/CW-16</b>
ITB 1.1	The Employer is: <b>Irrigation Department, Government of Khyber Pakhtunkhwa</b>
ITB 1.1	The name of the open competitive bidding (OCB) is: <b>Package-16: (EFAP/KPID-CW-16): Rehabilitation Of Irrigation Systems, Dir Irrigation Division, District Dir</b>  The identification number of the OCB is: <b>EFAP/KPID/CW-16</b>  The number and identification of lots comprising this OCB is: <b>None</b>
ITB 2.1	The Borrower is: <b>Islamic Republic of Pakistan</b>
ITB 2.1	The name of the Project is: <b>Emergency Flood Assistance Project (EFAP)</b>
ITB 4.1(b)	Representative: <b>The Joint Venture shall nominate a Representative from the Lead Partner.</b>

### B. Contents of Bidding Documents

ITB 7.1	For <b>clarification purposes</b> only, the Employer's address is: <table border="1"> <tr> <td>Attention:</td> <td><b>Project Director Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b></td> </tr> <tr> <td>Street address:</td> <td><b>Gohati, Swabi</b></td> </tr> <tr> <td>Floor/ Room number:</td> <td><b>Office of the Project Director</b></td> </tr> <tr> <td>City:</td> <td><b>Swabi, Khyber Pakhtunkhwa</b></td> </tr> <tr> <td>ZIP code:</td> <td><b>23430</b></td> </tr> <tr> <td>Country:</td> <td><b>Islamic Republic of Pakistan</b></td> </tr> <tr> <td>Telephone:</td> <td><b>+92-(938)-530103</b></td> </tr> <tr> <td>E-mail address:</td> <td><b>pmophlce@gmail.com / efapirrigation@gmail.com</b></td> </tr> </table>	Attention:	<b>Project Director Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b>	Street address:	<b>Gohati, Swabi</b>	Floor/ Room number:	<b>Office of the Project Director</b>	City:	<b>Swabi, Khyber Pakhtunkhwa</b>	ZIP code:	<b>23430</b>	Country:	<b>Islamic Republic of Pakistan</b>	Telephone:	<b>+92-(938)-530103</b>	E-mail address:	<b>pmophlce@gmail.com / efapirrigation@gmail.com</b>
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ITB 7.4	A Pre-Bid meeting will be take place. <table border="1"> <tr> <td>Date:</td> <td><b>15 November 2023</b></td> </tr> <tr> <td>Time:</td> <td><b>1100 Hours (PST)</b></td> </tr> <tr> <td>Place:</td> <td><b>Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b></td> </tr> <tr> <td>City:</td> <td><b>Gohati, Swabi</b></td> </tr> </table>	Date:	<b>15 November 2023</b>	Time:	<b>1100 Hours (PST)</b>	Place:	<b>Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b>	City:	<b>Gohati, Swabi</b>								
Date:	<b>15 November 2023</b>																
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	Country:	<b>Islamic Republic of Pakistan</b>
	Telephone:	<b>+92-(938)-530103</b>
<p>A site visit conducted by the Employer <b>will not</b> be organized. Bidders are encouraged to conduct site visit on their own and contact the Employer and the Engineer before scheduling / making the site visit.</p>		

### C. Preparation of Bids

<b>ITB 10.1</b>	<p>The language of the Bid is: <b>English.</b></p> <p>The translation of the documents shall be duly notarized</p>
<b>ITB 11.1 (h)</b>	<p>The Bidder shall submit with its Bid the following additional documents:</p> <p>Documents indicating the Historical Financial Performance i.e., audited financial statements for the Financial Year 2019-20, 2020-21 &amp; 2021-22 of the bidders which close their accounts on June 30<sup>th</sup> every year OR Calendar Year 2020, 2021 &amp; 2022 of the bidders which close their accounts on 31<sup>st</sup> December every year or for latest three years, as applicable.</p> <p>Supporting documents indicating availability of Financial Resources shown by the bidder to meet with the Cash Flow Requirements (refer 2.1 of Section 3) i.e., <i>latest year's audited financial statements, the line of credit should be (i) project specific; (ii) address to the Client; (iii) shall be issued within last 03 month; (iv) it should be confirmed by the concerned bank(s); (v) it should be unconditional; and (vi) it must be for the complete duration of the Project.</i></p> <p>Bidders are required to submit all documents to support their bid in English language. If the documentary evidence is in a language other than the English language, then the bidder shall submit accurate translation of the relevant passages in the English language duly attested by the notary public of the Bidder's Country or similar legal instrument of notarization as applicable under the laws of the Bidder's home country, (specifying the authority for such attestation as per law of the country).</p> <p>If a Bidder omits to submit any of the above documents or the documents submitted are deficient, the Bid shall not be rejected in the first instance and a clarification will be sought from the Bidder under ITB 27.</p>
<b>ITB 11.2</b>	<p>In addition to the requirement under ITB 4.1, the Joint Venture Agreement or a Letter of Intent to execute a Joint Venture Agreement in the event of the successful Bid, shall include the following:</p> <ul style="list-style-type: none"> <li>(a) The lead partner shall be clearly identified and nominated.</li> <li>(b) The financial share of each partner shall be clearly stated.</li> <li>(c) Corresponding to the financial share of each Partner, the roles and responsibilities of each partner shall also be specified; and</li> <li>(d) Any other requirements as per the applicable law.</li> </ul>
<b>ITB 12.1</b>	<p>The units and rates in figures entered into the Bill of Quantities and Daywork Schedule should be typewritten, if written by hand, must be in print form. Bill of Quantities and Daywork Schedule not presented accordingly may be considered nonresponsive.</p>

<b>ITB 13.1</b>	Alternative Bids <b>shall not</b> be permitted.
<b>ITB 13.2</b>	Alternative times for completion <b>shall not</b> be permitted.
<b>ITB 13.4</b>	Alternative technical solutions shall be permitted for the following parts of the Works: <b>Not Applicable</b>
<b>ITB 14.5</b>	The prices quoted by the Bidder <b>Adjustable</b> .
<b>ITB 15.1</b>	The unit rates and the prices shall be quoted by the Bidder entirely in <b>“Pakistan Rupees”</b> .
<b>ITB 15.4</b>	The rates of exchange shall be the selling rates 28 days prior to the deadline for submission of bids published by <b>State Bank of Pakistan</b> .
<b>ITB 18.1</b>	The bid validity period shall be <b>Sixty (60) days</b> .
<b>ITB 19.1</b>	The Bidder shall furnish a <b>Bid-Securing Declaration</b>
<b>ITB 19.2</b>	The ineligibility period is: <b>Five (05) Years</b>
<b>ITB 19.4</b>	Subject to the succeeding sentences, any bid not accompanied by Bid-Securing Declaration shall be rejected by the Employer as nonresponsive. If a Bidder submits a Bid-Securing Declaration that (i) deviates in form, content , and/or period of validity or (ii) does not provide sufficient identification of the Bidder (including, without limitation, failure to indicate the name of the Joint Venture or, where the Joint Venture has not yet been constituted, the names of all future Joint Venture Partners), the Employer shall request the Bidder to submit a compliant Bid-Securing Declaration within fourteen (14) days of receiving such a request. Failure to provide a compliant Bid-Securing Declaration within the prescribed period of receiving such a request shall cause the rejection of the Bid
<b>ITB 20.1</b>	<p>In addition to the original Bid, the number of copies is: <b>Three (03)</b></p> <p>To facilitate evaluation, bidders are encouraged to submit the scanned soft copies, in PDF format, of their Bids in shape of a USB Drive.</p> <p>The soft copy (USB) of the Bids shall be enclosed in the envelope containing the hard copy of the Bidder’s Original Bid.</p> <p>If there is any discrepancy between the data/information in the soft copy (USB) of the Bidder’s Bids and the hard copy of the Bidder’s Bids and between the Price indicated in the hard copy of the Bidder’s Original Price Bid, and in the soft copy (USB) of the Bidder’s Price Bid, the data and information indicated in the hard copy of the Original Bid shall prevail. All of the rates and amounts must be written by the bidder in words that are written in figures.</p> <p>In addition to above, soft copy of Priced Bid in “Excel format”, in the same USB containing the “PDF format”, shall also be provided in the envelope containing the hard copy of the Bidder’s Original Price Bid, to facilitate review and evaluation process.</p> <p><b>Note:</b> Submission of the USB is only for reference and shall not constitute electronic bid submission as stipulated in ITB 21.1(b) and is provision in the Data Sheet.</p>

<p><b>ITB 20.2</b></p>	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of a board resolution or its equivalent, or power of attorney, which should either be:</p> <p>a) <i>notarized, or</i></p> <p>b) <i>attested to by an appropriate forum (authority) in the Bidder's home country, specifying the representative's authority to sign the bid on behalf of the bidder.</i></p> <p><i>If the bidder is an intended or existing joint venture, such authorization should be signed by all parties and specify the representative's authority to sign the bid on behalf of the intended or existing joint venture.</i></p> <p><i>If the joint venture has not yet been formed, also include written evidence from all proposed partners of joint venture of their intent to enter into a joint venture in the event of a contract award.</i></p>
<p><b>ITB 20.2</b></p>	<p>The Bidder shall submit an acceptable authorization within fourteen (14) days.</p>

**D. Submission and Opening of Bids**

<p><b>ITB 21.1</b></p>	<p>Bidders shall submit their Bids by mail or by hand.</p>																				
<p><b>ITB 21.1 (b)</b></p>	<p>Electronic bidding submission procedures shall be: <b>Not Applicable.</b></p>																				
<p><b>ITB 22.1</b></p>	<p>For <b>bid submission purposes</b> only, the Employer's address is:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Attention:</td> <td><b>Project Director Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b></td> </tr> <tr> <td>Street address:</td> <td><b>Gohati, Swabi</b></td> </tr> <tr> <td>Floor/ Room number:</td> <td><b>Office of the Project Director</b></td> </tr> <tr> <td>City:</td> <td><b>Swabi, Khyber Pakhtunkhwa</b></td> </tr> <tr> <td>ZIP code:</td> <td><b>23430</b></td> </tr> <tr> <td>Country:</td> <td><b>Islamic Republic of Pakistan</b></td> </tr> <tr> <td>Telephone:</td> <td><b>+92-(938)-530103</b></td> </tr> <tr> <td>E-mail address:</td> <td><b>pmophlce@gmail.com / efapirrigation@gmail.com</b></td> </tr> </table> <p><b>The deadline for bid submission is:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Date:</td> <td><b>22 November 2023</b></td> </tr> <tr> <td>Time:</td> <td><b>1100 Hours</b></td> </tr> </table>	Attention:	<b>Project Director Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b>	Street address:	<b>Gohati, Swabi</b>	Floor/ Room number:	<b>Office of the Project Director</b>	City:	<b>Swabi, Khyber Pakhtunkhwa</b>	ZIP code:	<b>23430</b>	Country:	<b>Islamic Republic of Pakistan</b>	Telephone:	<b>+92-(938)-530103</b>	E-mail address:	<b>pmophlce@gmail.com / efapirrigation@gmail.com</b>	Date:	<b>22 November 2023</b>	Time:	<b>1100 Hours</b>
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Date:	<b>22 November 2023</b>																				
Time:	<b>1100 Hours</b>																				
<p><b>ITB 25.1</b></p>	<p>The bid opening shall take place at:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Street address:</td> <td><b>Office of the Project Director Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b></td> </tr> <tr> <td>Floor / Room number:</td> <td><b>Office of the Project Director</b></td> </tr> <tr> <td>City:</td> <td><b>Gohati, Swabi, Khyber Pakhtunkhwa</b></td> </tr> <tr> <td>ZIP code:</td> <td><b>23430</b></td> </tr> <tr> <td>Country:</td> <td><b>Islamic Republic of Pakistan</b></td> </tr> <tr> <td>Date:</td> <td><b>22 November 2023</b></td> </tr> </table>	Street address:	<b>Office of the Project Director Project Management Office Pehur High Level Canal Extension Project/ Emergency Flood Assistance Project Khyber Pakhtunkhwa, Irrigation Department</b>	Floor / Room number:	<b>Office of the Project Director</b>	City:	<b>Gohati, Swabi, Khyber Pakhtunkhwa</b>	ZIP code:	<b>23430</b>	Country:	<b>Islamic Republic of Pakistan</b>	Date:	<b>22 November 2023</b>								
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	Time: <b>1130 Hours</b>
<b>ITB 25.1</b>	Electronic bid opening procedure shall be as follows: <b>Not Applicable</b>
<b>ITB 25.3</b>	The Letter of Bid and Bill of Quantities shall be initialled by <b>at least three (03)</b> representatives of the Employer attending the Bid opening.

### E. Evaluation and Comparison of Bids

<b>ITB 32.1</b>	The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: <b>Pak Rupees (PKR)</b> The source of the selling exchange rate shall be: <b>State Bank of Pakistan</b> The date for the selling exchange rate shall be: <b>28 days prior to the deadline for submission of bids.</b>
<b>ITB 33.1</b>	Domestic preference <b>shall not</b> apply.
<b>ITB 34.1</b>	The Employer <b>does not intend</b> for the contractor to execute any specific elements of the Works through nominated Subcontractors.
<b>ITB 38.2</b>	Qualifications of other firms such as the <b>Bidder's subsidiaries, parent entities, affiliates, subcontractors</b> (other than Specialist Subcontractors permitted in ITB 38.2) <b>shall not</b> be permitted.
<b>ITB 40.1</b>	Standstill provisions shall not apply.

### F. Award of Contracts

<b>ITB 45.1</b>	The procedures for Bidding-Related Complaints are referenced in the Procurement Regulations for ADB Borrowers (Appendix 7). The Bidder should submit its complaint following these procedures, in writing, to:  Title or position: <b>Secretary</b> Client: <b>Irrigation Department, Government of Khyber Pakhtunkhwa</b> Address: <b>Civil Secretariat, Peshawar</b> Project: <b>Emergency Flood Assistance Project (EFAP)</b>
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# Section 3: Evaluation and Qualification Criteria

## - Following Prequalification -

This Section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders. In accordance with ITB 35 to ITB 38, no other methods, criteria and factors shall be used. The Bidder shall provide all the information requested in the forms included in Section 4 (Bidding Forms).

### Table of Criteria

<b>1.</b>	<b>Evaluation</b> .....	<b>3-2</b>
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	2.2 Updating of Information .....	3-6

# 1. Evaluation

In addition to the criteria listed in ITB 35.2 (a)–(f), other relevant factors are as follows:

## 1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to successfully implement the contract considering its proposed site organization, method statement, mobilization, and construction schedule (to be described by the Bidder in sufficient detail to demonstrate the adequacy of its work methods, scheduling, and material sourcing) including the extent to which they are presented in a consistent manner and comply with requirements stipulated in Section 6 (Employer's Requirements) without material deviation, reservation, or omission.

Noncompliance with equipment and personnel requirements described in Section 6 (Employer's Requirements) shall not normally be a ground for bid rejection, and such noncompliance will be subject to clarification during bid evaluation and rectification prior to contract award.

## 1.2 Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows:

**Not Applicable**

## 1.3 Technical Alternatives

Technical alternatives, if permitted under ITB 13.4, will be evaluated as follows:

**Not Applicable**

## 1.4 Quantifiable Nonconformities and Omissions

Subject to ITB 14.2 and ITB 35.2, the evaluated cost of quantifiable nonconformities including omissions, is determined as follows:

Pursuant to ITB 30.3, the cost of all quantifiable nonmaterial nonconformities shall be evaluated, including omissions in Daywork where competitively priced but excluding omission of prices in the Bill of Quantities. The Employer will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of Bids.

## 1.5 Domestic Preference

If domestic preference is provided for under ITB 33.1, the following procedure shall apply:

**Not Applicable**

## 1.6 Other Criteria

The Other Criteria is described as under:

### 1.6.1 Environmental, Health and Safety Management Plan (EHSMP)

Any bid not accompanied by the EHSMP may be rejected by the Employer as nonresponsive. If a Bidder submits a EHSMP that is not commensurate with the risks and impacts of the proposed works and activities in the bidding document, the Employer shall issue a request for clarification to request for further information from the Bidder. The Bidder must submit the requested information within **five (05)** days of receiving such a request. Failure to provide a satisfactory response to the request for further information within the prescribed period of receiving such a request may cause the rejection of the Bid.

### 1.6.2 Sustainable Procurement

**Not Applicable.**

### 1.6.3 Life Cycle costs (for Financial Evaluation)

Life cycle costing **shall not** apply.

## 1.8 Multiple Contracts

Works are grouped in multiple contracts and pursuant to ITB 35.4, the Employer shall evaluate and compare Bids on the basis of a contract, or a combination of contracts, or as a total of contracts in order to arrive at the least-cost combination for the Employer by taking into account discounts offered by Bidders in case of award of multiple contracts.

If a Bidder as defined in ITB 4.1 submits several successful (lowest evaluated substantially responsive) bids, the evaluation will also include an assessment of the Bidder's capacity to meet the following aggregated requirements as presented in the bid:

- Financial resources,
- Equipment to be allocated, and
- Personnel to be fielded.

## 2. Qualification

### 2.1 Financial Resources

If the bid evaluation process and the decision for the award of the Contract takes more than 1 year from the date of bid submission, Bidders may be asked to resubmit their current contract commitments and latest information on financial resources supported by latest audited accounts or audited financial statements, or if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, and the Bidders' financial capacity, will be reassessed on this basis.

Criteria Requirement	Compliance Requirements			Documents Submission Requirements	
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
<b>For Single Entities</b> The Bidder must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its current contract commitments defined in FIN-4, meet or exceed the total requirement for the Subject Contract is <b>PKR 62 million or US\$ equivalent</b>	Must meet requirement	Not applicable	Not applicable	Not applicable	Form FIN – 3 and Form FIN – 4
<b>For Joint Ventures</b> (1) One partner must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its own current contract commitments defined in FIN-4, meet or exceed its required share of <b>40%</b> from the total requirement for the Subject Contract.  AND	Not applicable	Not applicable	Not applicable	Must meet requirement	Form FIN – 3 and Form FIN – 4
(2) Each partner must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its own current contract commitments defined in FIN-4, meet or exceed its required share of <b>25%</b> from the total requirement for the Subject Contract.  AND	Not applicable	Not applicable	Must meet requirement	Not applicable	Form FIN – 3 and Form FIN – 4
(3) The Joint Venture must demonstrate that the combined financial resources of all partners defined in FIN - 3, less all the partners' total financial obligations for the current contract commitments defined in FIN-4, meet or exceed the total requirement for the Subject Contract of <b>PKR 62 million or US\$ equivalent</b>	Not applicable	Must meet requirement	Not applicable	Not applicable	Form FIN – 3 and Form FIN – 4

## 2.2 Updating of Information

The Bidder shall continue to meet the criteria used at the time of prequalification. Updating and reassessment of the following information which was previously considered during prequalification will be required:

- (a) Eligibility
- (b) Historical Contract Nonperformance
- (c) Financial Requirements
  - (i) Historical Financial Performance
  - (ii) Average Annual Construction Turnover

The Bidder shall provide updated details for the above by using the relevant forms included in Section 4 (Bidding Forms).

# Section 4: Bidding Forms

## - Following Prequalification -

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## Letter of Bid

**Note-**

The Bidder must accomplish the Letter of Bid on its letterhead clearly showing the Bidder's complete name and address.

Date: .....

OCB No.: .....

Invitation for Bid No.: .....

To:

**Project Director  
Project Management Office (PMO),  
Pehur High Level Canal Extension Project /  
Emergency Flood Assistance Project  
Gohati, Swabi**

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We acknowledge that we have read and understand ADB's Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.
- (c) We offer to execute in conformity with the Bidding Documents the following Works:

**Package-16: Rehabilitation of Irrigation Systems, Dir Irrigation Division, District Dir:**

- (d) The total price of our Bid, excluding any discounts offered in item (d) below is:

*[amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]*

*The total bid price from the Summary of Bill of Quantities should be entered by the Bidder inside this box. Absence of the total bid price in the Letter of Bid may result in the rejection of the bid.*

- (e) The discounts offered and the methodology for their application are: *[insert discounts and methodology for their application if any]*
- (f) Our bid shall be valid for a period of *[insert bid validity period as specified in ITB 18.1 of the BDS]* days starts from the date fixed for the bid submission deadline in accordance with ITB 22.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (g) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents.
- (h) Our firm, including any Subcontractors or Suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.
- (i) We, our directors, key officers, key personnel, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.

If there is any conflict of interest, please state details:

- (i) Parties involved in the conflict of interest: \_\_\_\_\_
- (ii) Details about the conflict of interest: \_\_\_\_\_

- (j) We are not participating, as a Bidder, either individually or as partner in a Joint Venture, in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (k) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not subject to, or not controlled by any entity or individual that is subject to a temporary suspension or a debarment imposed by the Asian Development Bank or a debarment imposed by the Asian Development Bank in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the Asian Development Bank and other development banks.<sup>1</sup>
- (l) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not under ongoing investigation and/or sanctions proceedings by the Asian Development Bank or any multilateral development bank.

If under ongoing investigation and/or sanction proceedings by the Asian Development Bank or any multilateral development bank, please state details:

- (i) Name of the multilateral development bank: \_\_\_\_\_
- (ii) Reason for the ongoing investigation/allegations: \_\_\_\_\_

- (m) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the Contract, are not temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency.

If so temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency, please state details (as applicable to each Joint Venture partner, their respective direct or indirect shareholders, directors, key officers, key personnel, associate, parent company, affiliate, subsidiaries, Subcontractors, consultants, subconsultants, manufacturers, service providers and/or Suppliers):

- (i) Name of Institution: \_\_\_\_\_
- (ii) Period of the temporary suspension, debarment, ineligibility, or national or international sanction [*start and end date*]: \_\_\_\_\_
- (iii) Reason for the temporary suspension, debarment, ineligibility, or national or international sanction: \_\_\_\_\_

- (n) Our firm, Joint Venture partners, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers, Suppliers,

<sup>1</sup> These institutions include African Development Bank, European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IADB), and the World Bank Group. According to paragraph 9 of the Agreement, other international financial institutions may join upon the consent of all Participating Institutions and signature of a Letter of Adherence by the international financial institution substantially in the form provided (Annex B to the Agreement). Upon adherence, such international financial institution shall become a Participating Institution for purposes of the Agreement. Bidders are advised to check [www.adb.org/integrity](http://www.adb.org/integrity) for updates.



key officers, directors and key personnel have never been charged or convicted with any criminal offense (including felonies but excluding misdemeanors) or infractions and/or violations of ordinance; nor charged or found liable in any civil or administrative proceedings in the last 10 years; or undergoing investigation for such, or subject to any criminal, civil or administrative orders, monitorship or enforcement actions.

If so charged, convicted found liable, under ongoing investigation, or subject to orders, monitorship or enforcement actions, please state details:

- (i) Nature of the offense, violation, proceedings, investigation, and/or monitorship or enforcement actions: \_\_\_\_\_
- (ii) Court, area of jurisdiction and/or the enforcement agency: \_\_\_\_\_
- (iii) Resolution [*i.e. dismissed, settled, or convicted; duration of penalty*]: \_\_\_\_\_
- (iv) Other relevant details [*please specify*]: \_\_\_\_\_

- (o) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, can make and receive electronic fund transfer payments through the international banking system or otherwise discharge the Employer’s obligation upon initiation of wire transfer.

If unable to make or receive funds through the international banking system or otherwise discharge the Employer’s obligation upon initiation of wire transfer, please state the details:

- (i) Nature of the restriction: \_\_\_\_\_
- (ii) Jurisdiction of the restriction: \_\_\_\_\_
- (iii) Other relevant details: \_\_\_\_\_

- (p) Our firm, Joint Venture partners, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, key officers, directors and key personnel are not from a country which is prohibited to export goods or services to, or receive any payments from the Employer’s country and/or are not prohibited to receive payments for particular goods or services by the Employer’s country by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

- (q) We understand that it is our obligation to notify the Employer of any changes in connection with the matters described in paragraphs (i), (k), (l), (m), (n), (o), (p) and (t) of this Letter of Bid.

- (r) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].<sup>2</sup>

- (s) We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration in accordance with ITB 4.6.

- (t) We have paid, or intend to pay, either directly or indirectly, the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:<sup>3</sup>

Name of Recipient	Address	Reason	Amount
.....	.....	.....	.....
.....	.....	.....	.....

- (u) We understand that this bid, together with your written acceptance thereof included in your notification of award through the issuance of Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed.

<sup>2</sup> Use one of the two options as appropriate.  
<sup>3</sup> If none has been paid or is to be paid, indicate “None”.

- (v) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (w) At any time following submission of our Bid, we shall permit, and shall cause our Joint Venture partners, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract to permit ADB or its representative to inspect our site, assets, accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB. We understand that failure of this obligation may constitute obstructive practice that may result in debarment and/or contract termination.
- (x) Regardless of whether the contract will be awarded to us, we shall preserve all accounts, records and other documents related to bid submission for at least 3 years from the date of submission of the bid or the period prescribed in applicable law, whichever is longer.
- (y) If we are awarded the contract, we shall preserve all accounts, records and other documents related to the procurement and execution of the contract for at least 5 years after completing the works contemplated in the relevant contracts or the period prescribed in applicable law, whichever is longer.
- (z) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section 6 (Employer’s Requirements) and our technical proposal, or as otherwise agreed with the Employer.
- (aa) We certify on behalf of the Bidder, that the information provided in the bid has been fully reviewed, given in good faith, and to the best of our knowledge is true and complete. We understand that it is our obligation to inform the Employer of any changes to the information as and when it becomes known to us. We understand that any misrepresentation that knowingly or recklessly misleads, or attempts to mislead may lead to the automatic rejection of the Bid or cancellation of the contract, if awarded; and may result in remedial actions, in accordance with ADB’s Anticorruption Policy (1998, as amended to date) and Integrity Principles and Guidelines (2015, as amended from time to time).

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

## Schedules

### Schedule of Payment Currencies

#### Package-16: Rehabilitation of Irrigation Systems, Dir Irrigation Division, District Dir

	A	B	C	D
Name of Payment Currency	Amount of Currency	Rate of Exchange to Local Currency	Local Currency Equivalent $C = A \times B$	Percentage of Net Bid Price (NBP) $\frac{100 \times C}{NBP}$
Local Currency		1.00		
Foreign Currency #1				
Foreign Currency #2				
Foreign Currency #3				
Net Bid Price				100.00
Provisional Sums Expressed in Local Currency		1.00		
BID PRICE				

**- Note -**

*The rates of exchange shall be the selling rates 28 days prior to the deadline for submission of bids published by the source specified in BDS 15.*

## Tables of Adjustment Data

**Table A - Local Currency Payment**

**Package-16: Rehabilitation of Irrigation Systems, Dir Irrigation Division, District Dir**

S/No	Description	Unit	*Base Rate	Weightages	Source of Index (District: Dir)
(i)	Fixed Portion	-		<b>0.15</b>	-
(ii)	High Speed Diesel	Litres		<b>To be proposed by the bidder (Acceptable range 0.18 to 0.22)</b>	Monthly Statistical Bulletin, Pakistan Bureau of Statistics / Pakistan State Oil
(iii)	Labour	Per Day		<b>To be proposed by the bidder (Acceptable range 0.09 to 0.11)</b>	Monthly Statistical Bulletin, Pakistan Bureau of Statistics GOP
(iv)	All types of Steel	Per Ton		<b>To be proposed by the bidder (Acceptable range 0.27 to 0.33)</b>	Monthly Statistical Bulletin, Pakistan Bureau of Statistics GOP
(v)	Cement	Per Bag		<b>To be proposed by the bidder (Acceptable range 0.23 to 0.28)</b>	Monthly Statistical Bulletin, Pakistan Bureau of Statistics GOP
<b>Total</b>				<b>1.000 [Sum of (ii), (iii), (iv) and (v) shall not exceed 0.85]</b>	

Note:

1. Base prices of Specified Material shall be as of actually prevailing market on the base date notified by the Engineer with the approval of the Employer after the award of works. The Base Date means the date 28 days prior to the deadline for the bid submission.
2. The basic material prices are meant to be ex-factory prices and inclusive all kinds of taxes and duties that can be levied at source.
3. Adjustment of increase/ decrease shall only be admissible for the materials listed above.
4. All amounts shall be in Pakistani Rupees.
5. Value of work done for escalation purpose shall be value of permanent works (excluding bill for General items and Provisional sums)
6. The proposed weightages of bidders exceeding the upper limit shall not be permitted.
7. All amounts in Pak Rupees Only.

**Table B - Foreign Currency Payment**

**Name of Currency:** .....

*[Insert name of currency. If the bidder wishes to quote in more than one foreign currency, this table should be repeated for each foreign currency such as #1, #2 and #3..]*

To be entered by the Bidder				
Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Proposed Weighting
L: Labor	Nonadjustable	—	—	a: <u>0.15</u>
E: Equipment				b: _____
M!: Material 1				c: _____
M2: Material 2				d: _____
...etc...				e: _____
				<b>1.00</b>

To be entered by the Bidder.  
(Employer may prescribed the range. of weighing)

**- Notes -**

- As per GCC 1.1.3.1, "Base Date" means the date 28 days prior to the latest date for submission of the bid.
- For a given currency, the "Source of Index" should be issued or published within the country to which the currency relates.
- Tables of Adjustment Data shall only be included if prices are to be quoted as adjustable prices in accordance with ITB 14.5.

## Bid Security Bank Guarantee

[Bank's name, and address of issuing branch or office]<sup>4</sup>

**Beneficiary:** [Name and address of the Employer]

**Date:** .....

**Bid Security No.:** .....

We have been informed that [name of the Bidder] (hereinafter called "the Bidder") has submitted to you its bid dated [please specify] (hereinafter called "the Bid") for the execution of [name of contract] under Invitation for Bids No. [please specify] ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we [name of bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [amount in words] [amount in figures] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letter of Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB, or (iii) fails or refuses to furnish a domestic reference security, if required.

This guarantee will expire (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.<sup>5</sup>

[Authorized signature(s) and bank's seal (where appropriate)]

<sup>4</sup> All italicized text is for use in preparing this form and shall be deleted from the final document.

<sup>5</sup> Or the employer may use "Uniform Rules for Demand Guarantees (URDG), ICC Publication No. 458 as appropriate.

## Bid-Securing Declaration

Date: *[insert date (as day, month and year)]*

Bid No.: *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a bid for an alternative]*

To: *[insert complete name of the Employer]*

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 automatically be suspended from being eligible for bidding in any contract with the Borrower for the period of time of *[insert number of years as indicated in ITB 19.2 of the BDS]* starting on the date that we receive a notification from the Employer, 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) do not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter “the ITB”); or
- (c) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required; or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB; or (iii) fail or refuse to furnish a domestic preference security, if required.

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) 28 days after the expiration of our Bid.

Signed: *[insert signature of person whose name and capacity are shown]*

In the capacity of *[insert legal capacity of person signing the Bid-Securing Declaration]*

Name: *[insert complete name of person signing the Bid-Securing Declaration]*

Duly authorized to sign the bid for and on behalf of *[insert complete name of the Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

Corporate Seal *[where appropriate]*

## AFFILIATE COMPANY GUARANTEE

Name of Contract/Contract No.: \_\_\_\_\_

Name and Address of Employer: \_\_\_\_\_

\_\_\_\_\_

[together with successors and assigns].

We have been informed that [name of Contractor] (hereinafter called the "Contractor") is submitting an offer for the above-referenced Contract in response to your invitation, and that the conditions of your invitation require its offer to be supported by an affiliate company guarantee.

In consideration of you, the Employer, awarding the Contract to the Contractor, we [name of affiliated company] irrevocably and unconditionally guarantee to you, as a primary obligation, that (i) throughout the duration of the Contract, we will make available to the Contractor our financial, technical capacity, expertise and resources required for the Contractor's satisfactory performance of the Contract; and (ii) we are fully committed, along with the Contractor, to ensuring a satisfactory performance of the Contract.

If the Contractor fails to so perform its obligations and liabilities and comply with the Contract, we will indemnify the Employer against and from all damages, losses and expenses (including legal fees and expenses) which arise from any such failure for which the Contractor is liable to the Employer under the Contract.

This guarantee shall come into full force and effect when the Contract comes into full force and effect. If the Contract does not come into full force and effect within a year of the date of this guarantee, or if you demonstrate that you do not intend to enter into the Contract with the Contractor, this guarantee shall be void and ineffective. This guarantee shall continue in full force and effect until all the Contractor's obligations and liabilities under the Contract have been discharged, when this guarantee shall expire and shall be returned to us, and our liability thereunder shall be discharged absolutely.

This guarantee shall apply and be supplemental to the Contract as amended or varied by the Employer and the Contractor from time to time. We hereby authorize them to agree on any such amendment or variation, the due performance of which and compliance with which by the Contractor are likewise guaranteed hereunder. Our obligations and liabilities under this guarantee shall not be discharged by any allowance of time or other indulgence whatsoever by the Employer to the Contractor, or by any variation or suspension of the works to be executed under the Contract, or by any amendments to the Contract or to the constitution of the Contractor or the Employer, or by any other matters, whether with or without our knowledge or consent.

This guarantee shall be governed by the law of the same country (or other jurisdiction) that governs the Contract and any dispute under this guarantee shall be finally settled under the [Rules or Arbitration provided in the Contract]. We confirm that the benefit of this guarantee may be assigned subject only to the provisions for assignment of the Contract.

Signed by:..... Signed by: .....

[signature]

[signature]

[name]

[name]

[position in parent/subsidiary company]

[position in parent/subsidiary company]

Date:.....

**-- Note --**

If permitted in accordance with ITB 38.2 of the BDS, the Bidder shall provide the Affiliate Company Guarantee Form filled out and signed by each subsidiary, parent entity or affiliate that the Bidder submits for consideration of the Employer in determining its qualifications.



## Bill of Quantities

### B. 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 as per specifications & drawings and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.
3. The rates and prices entered in the priced Bill of Quantities shall, except as otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, as applicable in the Borrower's Country (modified from time to time) together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities. The units and rates in figures entered into the Bill of Quantities should be typewritten or if written by hand, must be in print form. Bill of Quantities not presented accordingly may be considered nonresponsive.
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 such as Employer's requirement in Section 6 of the Bidding Documents including Engineer's Laboratory along with equipment and its running expense, survey equipment and their maintenance for entire project life, Environment Management Plan (EMP), Resettlement Plan etc.
6. General directions and descriptions of works and materials are not necessarily repeated not summarized in the Bill of Quantities. Reference to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
7. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer and the Employer in accordance with Conditions of Contract.
8. Note: The bid price is inclusive of all Environmental, Health and Safety management and compliance cost.

### B. Work Items

1. Bill of Quantities (BOQs) are attached.
2. Bidders shall Price the Bill of Quantities in Pakistani Rupees Only.

## Financial Situation

### Form FIN – 3: Availability of Financial Resources

Bidders must demonstrate sufficient financial resources, usually comprising of Working Capital supplemented by credit line statements or overdraft facilities and others to meet the Bidder's financial requirements for

- (a) its current contract commitments, and
- (b) the subject contract.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: \_\_\_\_\_

Financial Resources		
No.	Source of financing	Amount (PKR or \$ equivalent)
1	Working Capital (to be taken from FIN - 1)	
2	Credit Line <sup>a</sup>	
3	Other Financial Resources	
	Total Available Financial Resources	

<sup>a</sup> To be substantiated by a letter from the bank issuing the line of credit (i) project specific; (ii) address to the Client; (iii) shall be issued within last 03 month; (iv) it should be confirmed by the concerned bank(s); (v) it should be unconditional; and (vi) it must be for the complete duration of the Project).

**Form FIN – 4: Financial Requirement for Current Contract Commitments**

Bidders (or each Joint Venture partner) 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.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: \_\_\_\_\_

**Current Contract Commitments**

No.	Name of Contract	Employer's Contact (Address, Tel, Fax)	Contract Completion Date	Outstanding Contract Value (X) <sup>a</sup>	Remaining Contract Period in months (Y) <sup>b</sup>	Monthly Financial Resources Requirement (X / Y)
1						
2						
3						
4						
Total Monthly Financial Requirements for Current Contract Commitments						PKR or \$ equivalent .....

<sup>a</sup> Remaining outstanding contract values to be calculated from 28 days prior to the bid submission deadline (PKR or \$ equivalent based on the foreign exchange rate as of the same date).

<sup>b</sup> Remaining contract period to be calculated from 28 days prior to bid submission deadline.

**Form FIN - 5: Self-Assessment Tool for Bidder’s Compliance to Financial Resources (Criterion 2.1 of Section 3)**

This form requires the same information submitted in Forms FIN - 3 and FIN - 4. All conditions of “Available Financial Resources Net of CCC  $\geq$  Requirement for the Subject Contract” must be satisfied to qualify.

**Form FIN - 5A: For Single Entities**

For Single Entities: (A)	Total Available Financial Resources from FIN – 3 (B)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN – 4 (C)	Available Financial Resources Net of CCC $D = (B - C)$	Requirement for the Subject Contract (E)	Results: Yes or No [D must be greater than or equal to E] (F)
_____ (Name of Bidder)				....._	

**Form FIN - 5B: For Joint Ventures**

For Joint Ventures: (A)	Total Available Financial Resources from FIN – 3 (B)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN – 4 (C)	Available Financial Resources Net of CCC $D = (B - C)$	Requirement for the Subject Contract (E)	Results: Yes or No [D must be greater than or equal to E] (F)
One Partner:					
_____ (Name of Partner)				.....	
Each Partner:					
_____ (Name of Partner 1)				.....	
_____ (Name of Partner 2)				.....	
_____ (Name of Partner 3)				.....	
All partners combined	$\Sigma D =$ Sum of available financial resources net of current contract commitments for all partners		$\Sigma D =$ _____	.....	

**- Note -**

Form FIN – 5 is made available for use by the bidder as a self-assessment tool, and by the Employer as an evaluation work sheet, to determine compliance with the financial resources requirement as stated in 2.1. Failure to submit Form FIN - 5 by the Bidder shall not lead to bid rejection.

# Technical Proposal

**Joint Venture Agreement (in case of JV) in accordance with ITB 11.2**

**Personnel**

**Equipment**

**Site Organization**

**Method Statement**

**Mobilization Schedule**

**Construction Schedule**

**Environmental, Health and Safety Management Plan (EHSMP)**

**Environmental, Health and Safety Code of Conduct**

**Other Documents in accordance with ITB 11.1(h) of Section 2-Bid Data Sheet,**

## Personnel

### Form PER – 1: Proposed Personnel

Bidder should provide the details of the proposed personnel and their experience record in the relevant Information Forms below for each candidate:

1.	Title of position
	Name
2.	Title of position
	Name
3.	Title of position
	Name
4.	Title of position
	Name
5.	Title of position
	Name
6.	Title of position
	Name
etc.	Title of position
	Name

**-- Note --**

*All titles of positions will be as listed in Section 6 (Employer's Requirements).*

**Form PER – 2: Resumé of Proposed Personnel**

The Bidder shall provide all the information requested below. Use one form for each position.

<b>Position</b>		
<b>Personnel information</b>	<b>Full Legal Name</b>	<b>Date of birth</b>
	<b>Known as</b>	<b>Place of Birth</b>
	<b>Nationality</b>	<b>Citizenship</b>
	<b>Type of Government ID</b>	<b>ID number</b>
	<b>Attach a copy of ID to this form</b>	
<b>Professional qualifications</b>		
<b>Present employment</b>	<b>Name of employer</b>	
	<b>Address of employer</b>	
	<b>Telephone</b>	<b>Contact (manager / personnel officer)</b>
	<b>Fax</b>	<b>E-mail</b>
	<b>Job title</b>	<b>Years with present employer</b>

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

<b>From</b>	<b>To</b>	<b>Company/Project/Position/Relevant Technical and Management Experience</b>

## Equipment

### Form EQU: Equipment

The Bidder shall provide adequate information and details to demonstrate clearly that it has the capability to meet the equipment requirements indicated in Section 6 (Employer's Requirements), using the Forms below. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

<b>Item of Equipment</b>	
<b>Equipment Information</b>	<b>Name of manufacturer</b>
	<b>Capacity</b>
	<b>Model and power rating</b>
	<b>Year of manufacture</b>
<b>Current Status</b>	<b>Current location</b>
	<b>Details of current commitments</b>
<b>Source</b>	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured

Omit the following information for equipment owned by the Bidder.

<b>Owner</b>	<b>Name of owner</b>
	<b>Address of owner</b>
	<b>Telephone</b>
	<b>Contact name and title</b>
	<b>Fax</b>
	<b>Telex</b>
<b>Agreements</b>	<b>Details of rental / lease / manufacture agreements specific to the project</b>



## Joint Venture Agreement in accordance with ITB 11.2:

The Joint Venture Agreement or a Letter of Intent to execute a Joint Venture Agreement in the event of the successful Bid, shall include the following:

- (a) All partners shall be jointly and severally liable;
- (b) The lead partner shall be clearly identified and nominated;
- (c) The financial share of each partner shall be clearly stated;
- (d) Corresponding to the financial share of each partner, the roles and responsibilities of each partner shall also be specified in conformance with requirement of Works stated in the Method Statement; and
- (e) Any other requirements as per the applicable law.

In case a letter of intent to execute the Joint Venture Agreement is submitted by the Bidder at the time of submission of the Bid, the Bidder shall be bound to submit a duly executed Joint Venture Agreement to the Employer immediately after the issuance of Letter of Acceptance but not later than 28 days after the issuance of the same. Such Joint Venture Agreement, thus submitted by the successful Bidder must contain the information postulated above. Failure to comply with this condition may lead to the rejection of Bid and forfeiture of Bid Security and/or Bid Securing Declaration, as the case may be.

## Site Organization

**[Note:** *Evaluation of the Bidder's Site Organization will include an assessment of the Bidder's capacity to mobilize key personnel for the Contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section 6 (Employer's Requirements).]*

## Method Statement

The bidder **shall** provide detailed Method Statement of executing the project. The bidder shall also indicate the machinery to be used and key personnel showing their responsibilities.

In case of a JV, the Method Statement **shall** include clear delineation of activities / roles to be performed by each JV partner consistent with the indicated JV share in the JV Agreement.

## Mobilization Schedule

The Mobilization Schedule should reflect the no-objection request and approval step for Site-Specific Environmental, Health and Safety Management Plan as per Contract Conditions.

Bidder shall provide mobilization Schedule conforming with the requirement of condition of contract Clause 14.2.

## Construction Schedule

**[Note:** *Evaluation of the Bidder's Construction Schedule will include an assessment of the Bidder's technical capacity to mobilize equipment for the Contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section 6 (Work's Requirements).]*

*Bidders must provide their Construction Schedule on primavera / MS project or equivalent by allocating the equipment and other resources, critical activities must be identified.]*

### **Environmental, Health and Safety Management Plan (EHSMP)<sup>6</sup>**

The Bidder shall submit an outline Environmental, Health and Safety Management Plan (EHSMP) commensurate with the risks and impacts of the proposed works and activities. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the EHS provisions of the contract and EHS risks including those as may be more fully described in Section 6 (Employers' Requirements).

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<sup>6</sup> For projects categorized as Category C for environment for which no EMP has been prepared, this subsection should be omitted.

## Environmental, Health and Safety Code of Conduct

### Environmental, Health and Safety Code of Conduct for Contractor's Personnel Form

#### **Note to Bidder**

*The minimum content of the EHS Code of Conduct form as set out by the Employer shall not be substantially modified. However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.*

*The Bidder shall initial and submit the EHS Code of Conduct form as part of its bid.*

### ENVIRONMENTAL, HEALTH AND SAFETY CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

We are the Contractor, [enter name of Contractor]. We have signed a contract with [enter name of Employer] for [enter description of the Works]. These Works will be carried out at [enter the Site and other locations where the Works will be carried out]. Our contract requires us to implement measures to address environmental, health and safety risks related to the Works.

This EHS Code of Conduct is part of our measures to deal with environmental, health and safety risks related to the Works. It applies to all our staff, labourers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as "**Contractor's Personnel**" and are subject to this EHS Code of Conduct.

This EHS Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

#### REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this EHS Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
  - (a) ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
  - (b) wearing required personal protective equipment;
  - (c) using appropriate measures relating to chemical, physical and biological substances and agents; and
  - (d) following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;

6. report violations of this EHS Code of Conduct; and
7. not retaliate against any person who reports violations of this EHS Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

### **RAISING CONCERNS**

If any person observes behavior that he/she believes may represent a violation of this EHS Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done by call [ ] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

### **CONSEQUENCES OF VIOLATING THE ENVIRONMENTAL, HEALTH AND SAFETY CODE OF CONDUCT**

Any violation of this EHS Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR CONTRACTOR'S PERSONNEL:

I have received a copy of this EHS Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this EHS Code of Conduct, I can contact [*enter name of Contractor's contact person(s) with relevant experience*] requesting an explanation.

Name of Contractor's Personnel: [*insert name*]

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

Date: (*day month year*): \_\_\_\_\_

Countersignature of authorized representative of the Contractor:

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

Date: (*day month year*): \_\_\_\_\_

## Updating of Bidder's Qualification

The Bidder shall update the information given during the corresponding prequalification exercise to demonstrate that he continues to meet the criteria used at the time of prequalification regarding

- (a) Eligibility
- (b) Historical Contract Nonperformance
- (c) Financial Situation
  - (i) Historical Financial Performance
  - (ii) Average Annual Construction Turnover

For this purpose, the Bidder shall use the relevant forms included in this Section.

**Form ELI - 1: Bidder's Information Sheet**

<b>Bidder's Information</b>			
		<b>Information of the Bidder</b>	<b>If the Bidder is a subsidiary or branch, information of any parent company/companies</b>
<b>Names</b>	<b>Full legal name(s)</b>		
	<b>Full trading name(s) (if any)</b>		
<b>Addresses</b>	<b>Registered address(es)</b>		
	<b>Trading address(es)</b>		
	<b>Postal address(es) (if different from trading address)</b>		
<b>Type of organization</b>			
<b>Country of constitution/incorporation/registration</b>			
<b>Year of constitution/incorporation/registration</b>			
<b>Corporate or registration number</b>			
<b>In case of a Joint Venture, legal name of each partner</b>			
<b>Bidder's authorized representative</b> (name, address, telephone number(s), fax number(s), e-mail address)			
<p><b>Attached are copies of the following documents:</b></p> <ol style="list-style-type: none"> <li>1) In case of a single entity, articles of incorporation or constitution and company incorporation/registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2.</li> <li>2) Authorization to represent the firm or Joint Venture named above, in accordance with ITB 20.2.</li> <li>3) In case of a Joint Venture, a letter of intent to form a Joint Venture or Joint Venture agreement, in accordance with ITB 4.1.</li> <li>4) In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5.</li> </ol>			

**Form ELI - 2: Joint Venture Information Sheet**

Each partner of the Joint Venture and Specialist Subcontractor must fill out this form separately.

Joint Venture / Specialist Subcontractor Information			
<b>Bidder's legal name</b>			
		<b>Information of Joint Venture Partner or Specialist Subcontractor</b>	<b>If any Joint Venture Partner or Specialist Subcontractor is a subsidiary or branch, information of any parent company/companies</b>
<b>Names</b>	<b>Full Legal name(s)</b>		
	<b>Full trading name(s) (if any)</b>		
<b>Addresses</b>	<b>Registered address(es)</b>		
	<b>Trading address (es)</b>		
	<b>Postal address (es) (if different from trading address)</b>		
<b>Type of organization</b>			
<b>Country of constitution/incorporation/ registration</b>			
<b>Year of constitution/incorporation/ registration</b>			
<b>Corporate or registration number</b>			
<b>Joint Venture Partner's or Specialist Subcontractor's authorized representative information</b> <small>(name, address, telephone number(s), fax number(s), e-mail address)</small>			
<p><b>Attached are copies of the following documents:</b></p> <ol style="list-style-type: none"> <li>1) Articles of incorporation or constitution and company incorporation/registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2.</li> <li>2) Authorization to represent the firm named above, in accordance with ITB 20.2.</li> <li>3) In the case of a government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5.</li> </ol>			

### Form CON - 1: Historical Contract Nonperformance

Each Bidder must fill out this form in accordance with Criterion 2.2(b) of Section 3 (Evaluation and Qualification Criteria) to describe any history of nonperforming contracts and pending litigation or arbitration formally commenced against it.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: \_\_\_\_\_

Table 1: History of Nonperforming Contracts			
<b>Choose one of the following:</b> <input type="checkbox"/> No nonperforming contracts. <input type="checkbox"/> Below is a description of nonperforming contracts involving the Bidder (or each Joint Venture partner if Bidder is a Joint Venture).			
Year	Description	Amount of Nonperformed Portion of Contract (\$ equivalent)	Total Contract Amount (\$ equivalent)
[insert year]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Employer: [insert full name] Address of Employer: [insert street/city/country] Reason(s) for nonperformance: [indicate main reason(s)]	[insert amount]	[insert amount]
Table 2: Pending Litigation and Arbitration			
<b>Choose one of the following:</b> <input type="checkbox"/> No pending litigation, arbitration or any other material events impacting the net worth and/or liquidity of the bidder. <input type="checkbox"/> Below is a description of all pending litigation, arbitration involving the Bidder or any other material events impacting the net worth and/or liquidity of the bidder (or each Joint Venture partner if Bidder is a Joint Venture).			
Year	Matter in Dispute	Value of Pending Claim in \$ Equivalent	Value of Pending Claim as a Percentage of Net Worth
[insert year]	Contract Identification, as applicable: [indicate complete contract name/ number, and any other identification] Name of Employer, parties involved in the material events impacting the net worth and/or liquidity of the bidder: [insert full name] Address of Employer, parties involved in the material events impacting the net worth and/or liquidity of the bidder: [insert street/city/country] Matter of Dispute: [indicate full description of dispute] Party who initiated the dispute: [indicate "Employer" or "Contractor"] Status: [indicate status of dispute]	[insert amount]	[insert amount]

**Note -**

Table 2 of this form shall only be included if Criterion 2.2(b) of Section 3 (Evaluation and Qualification Criteria) is applicable.



**Form CON – 2: EHS Performance Declaration**

Each Bidder must fill out this form in accordance with Criterion 2.2.4 of Section 3 (Evaluation and Qualification Criteria).

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_

In case of a Specialist Subcontractors, each Specialist Subcontractor must fill out this form and provide the Specialist Subcontractor’s name:

Specialist Subcontractor: \_\_\_\_\_

<b>Environmental and Health and Safety Performance Declaration</b> <b>in accordance with Section 3 (Evaluation and Qualification Criteria)</b>			
<input type="checkbox"/> <b>No suspension or termination of contract:</b> An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Health and Safety performance since the date specified in Section 3 (Evaluation and Qualification Criteria), Criterion 2.5.			
<input type="checkbox"/> <b>Declaration of suspension or termination of contract:</b> The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Health and Safety performance since the date specified in Section 3 (Evaluation and Qualification Criteria), Criterion 2.5. Details are described below:			
<input type="checkbox"/> <b>Declaration of request for replacement of Key Environment, Health and Safety Personnel:</b> The following contract(s) has/have experienced a request by the Employer to replace Environmental, Health and Safety Personnel for reasons related to Environmental or Health and Safety performance since the date specified in Section 3 (Evaluation and Qualification Criteria), Criterion 2.5. Details are described below:			
<input type="checkbox"/> <b>Declaration of past fatality resulted from EHS issues on site:</b> The following contract(s) has/have experienced a fatality resulted from EHS issues on site since the date specified in Section 3 (Evaluation and Qualification Criteria), Criterion 2.5. Details are described below:			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Employer: [insert full name] Address of Employer: [insert street/city/country] Reason(s) for suspension or termination: [indicate main reason(s) e.g. discharge over environmental limit, workers did not have required health and safety permits to undertake high risk work, work carried out was not adhered to approved construction methodology and quality control plan]	[insert amount]
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Employer: [insert full name]	[insert amount]

	Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i>	
...	...	<i>[list all applicable contracts]</i>
<b>Performance Security called by an employer(s) for reasons related to EHS performance</b>		
Year	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. discharge over environmental limit, workers did not have required health and safety permits to undertake high risk work, work carried out was not adhered to approved construction methodology and quality control plan]</i>	<i>[insert amount]</i>
<b>Key EHS personnel replacement requested by the Employer for reasons related to EHS performance</b>		
Year	Contract Identification and Reasons	Personnel replacement action and results
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for requesting for replacement: <i>[indicate main reason(s)]</i>	<i>[insert description]</i>
<b>Fatality due to EHS issues on Site</b>		
Year	Contract Identification	Follow-on actions taken by the contractor
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Description of fatality event: Causation:	<i>[insert description]</i>

**Form FIN - 1: Historical Financial Performance**

Each Bidder must fill out this form.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: \_\_\_\_\_

<b>Financial Data for Previous _____ Years [PKR or \$ Equivalent]</b>		
<b>Year 1:</b>	<b>Year 2:</b>	<b>Year __:</b>

**Information from Balance Sheet**

<b>Total Assets (TA)</b>			
<b>Total Liabilities (TL)</b>			
<b>Net Worth = TA – TL</b>			
<b>Current Assets (CA)</b>			
<b>Current Liabilities (CL)</b>			
<b>Working Capital = CA - CL</b>			

<b>Most Recent Working Capital</b>		To be obtained for most recent year and carried forward to FIN - 3 Line 1; in case of Joint Ventures, to the corresponding Joint Venture Partner's FIN - 3.
------------------------------------	--	---

**Information from Income Statement**

<b>Total Revenues</b>			
<b>Profits Before Taxes</b>			
<b>Profits After Taxes</b>			

- Attached are copies of financial statements (balance sheets including all related notes and income statements) for the last \_\_\_\_\_ years, as indicated above, complying with the following conditions:
- 1) Unless otherwise required by Section 3 of the Bidding Document, all such documents reflect the standalone financial situation of the legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.
  - 2) Historical financial statements must be audited by a certified accountant.
  - 3) Historical financial statements must be complete, including all notes to the financial statements.
  - 4) Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

**Form FIN - 2: Average Annual Construction Turnover**

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder or each partner of a Joint Venture for the total certified payments received from the clients for contracts in progress or completed, converted to US dollars at the rate of exchange at the end of the period reported.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: \_\_\_\_\_

<b>Annual Turnover Data for the Last _____ Years (Construction only)</b>			
<b>Year</b>	<b>Amount Currency</b>	<b>Exchange Rate</b>	<b>PKR or \$ Equivalent</b>
<b>Average Annual Construction Turnover</b>			

## Section 5: Eligible Countries

This section contains the list of eligible countries.

1. Afghanistan
2. Armenia
3. Australia
4. Austria
5. Azerbaijan
6. Bangladesh
7. Belgium
8. Bhutan
9. Brunei Darussalam
10. Cambodia
11. Canada
12. China, People's Republic of
13. Cook Islands
14. Denmark
15. Fiji
16. Finland
17. France
18. Georgia
19. Germany
20. Hong Kong, China
21. India
22. Indonesia
23. Ireland
24. Italy
25. Japan
26. Kazakhstan
27. Kiribati
28. Korea, Republic of
29. Kyrgyz Republic
30. Lao People's Democratic Republic
31. Luxembourg
32. Malaysia
33. Maldives
34. Marshall Islands
35. Micronesia, Federated States of
36. Mongolia
37. Myanmar
38. Nauru
39. Nepal
40. The Netherlands
41. New Zealand
42. Norway
43. Pakistan
44. Palau
45. Papua New Guinea
46. Philippines
47. Portugal
48. Samoa
49. Singapore
50. Solomon Islands
51. Spain
52. Sri Lanka
53. Sweden
54. Switzerland
55. Tajikistan
56. Taipei, China
57. Thailand
58. Timor-Leste
59. Tonga
60. Turkey
61. Turkmenistan
62. Tuvalu
63. United Kingdom
64. United States
65. Uzbekistan
66. Vanuatu
67. Viet Nam
68. Niue

## Section 6: Employer's Requirements

This Section contains the Specifications, Drawings, Supplementary Information that describe the Works to be procured, Personnel Requirements, and Equipment Requirements.

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## Specifications

(a) Technical Specifications

For the Technical Specifications, please refer to the detailed Specifications published by Govt. of Khyber Pakhtunkwa available at the following link: <https://www.cwd.gkp.pk/images/CSR/Technical-Specification-MRS-KPK-2020.pdf>

(b) Special Specifications/ Provisions

(SS & SP–Items) Attached within Bidding Document as Special Specifications / Provisions (SP) under this Section 6 (as follows)

## **Part A: Technical Specifications**

For the Technical Specifications, please refer to the detailed Specifications published by Govt. of Khyber Pakhtunkwa available at the following link:  
<https://www.cwd.gkp.pk/images/CSR/Technical-Specification-MRS-KPK-2020.pdf>



## **Part B: Special Provision / Special Specifications (SS - SP)**

## SPECIAL SPECIFICATIONS (Special Provisions)

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## SP-1 Project Description

### SP-1.1 BACKGROUND

Floods are the most frequently occurring natural hazards in the Pakistan. Floods of various intensities have become common specially in northern part of the country, whereas the characteristics may vary from region to region. The hydrological attributes of floods are not only linked to the topography of the area, but climatic and weather conditions as well. Most common types of floods in Pakistan include fluvial floods; occurring in Indus Basin, flash flooding; occurring in the hilly areas of Indus and Kharan basins and, cyclones mostly hitting the coastal areas. Another likely flooding scenario that has come in to effect recently by heat waves is the bursting of glacial lakes, a phenomenon termed as Glacial Lake Outburst Flood (GLOF). Global warming may warrant an increase potential of GLOF in the future. Floods in Pakistan rivers usually result from excessive rainfall and / or snowmelt in catchment areas in mountains. These rivers, therefore, generally experience peak discharges and consequent floods during the monsoon season of July through September. In July – August 2022, one of the most severe floods in the history of Pakistan was triggered due to the exceptionally high monsoon rainfall effecting all four provinces of the country. The post flood damage assessment estimates total damages to exceed USD 14.9 billion, and total economic losses to reach about USD 15.2 billion.

The flood event of 2022 was the deadliest flood in Pakistan since 2020, affecting 33 million people. Eighty-one (81) districts of the country were declared as “calamity hit” among those 17 districts lie in Khyber Pakhtunkhwa. These unprecedented floods not only threatened human lives at national scale but also caused unprecedented damage to livestock, agriculture, forests, and wildlife, while the destruction of infrastructure is incalculable. These floods resulted in total crop loss in most the cases and death of animal herds. The fluctuations in monsoon patterns due to erratic climate changes additionally alarm the future scenarios of peak pest infestations and heat stress. Some crops i.e., cotton (quantity and quality) was partially affected, and sugar cane, rice, and other types of seeds were most used as adaptation options.

In addition, the occurrence of the two rain induced catastrophes is in a shorter period of 13 years (i.e., the events of 2010 and 2023) resulted in major damages to irrigation and drainage infrastructure including almost complete washout of Munda Headworks in 2010 and partial in 2022. This report deliberates the flood damages and the methodology for restoration /rehabilitation works required in Dir irrigation system

The present design report is for Package-16, named “Rehabilitation of Irrigation Systems, Dir Irrigation Division, consists of three (03) irrigation schemes.

### SP-1.2 INTRODUCTION OF PROJECT

To address the urgency of the situation, NESPAK has been selected as ‘Consultants’ through single-source selection process. Their responsibilities include promptly assessing the flood damage, preparing detail designs, and incorporating flood resilient features. NESPAK has also

been entrusted for providing subsequent supports for procurement and construction supervision to ensure smooth and rapid rehabilitation efforts.

The package- 16 lies in Swat irrigation circle comprises of irrigation system of lower and upper Dir Irrigation systems. These systems mainly consist of irrigation channels and civil minors and irrigates fertile lands of Khyber Pakhtunkhwa province.

The package includes three (03) schemes, focused on rehabilitation / restoration of lower and upper Dir irrigation network. Rehabilitation works of these schemes involve restoration / construction of;

- Channels prism by brick/concrete side protection
- Channel linings
- Provision of stone pitching on upstream and downstream of hydraulic structures
- Channel bank restoration/raising.

### **SP-1.3 PROJECT AREA CHARACTERISTICS**

The Consultant collected available reports, documents and technical literature available with Irrigation Department, Khyber Pakhtunkhwa and other stake holders involved in the related activities. The Consultant visited different offices to collect such reports under guidance of the Client. A brief description of the various physical characteristics of the area is as under:

#### **SP-1.3.1 Climate Change**

Climate change is a significant global challenge with far-reaching implications for both the natural environment and human societies. The Khyber Pakhtunkhwa (KP) region in Pakistan is particularly vulnerable to the impacts of climate change due to its geographical location and reliance on agriculture and natural resources. To effectively understand and mitigate these impacts, it is crucial to select appropriate climate change models and scenarios that can provide accurate projections for the region.

Most visible impacts of climate change are increasing variability in rainfall leading to more extreme events – floods and droughts, as well as increasing temperatures with respective impacts on evapotranspiration and respective agricultural impacts as well as impacts on snow and ice covers resulting in glacier melt, changes in the snow line and respective freshwater availability changes in space and time in many regions.

The Consultants have undertaken a diligent effort to collect technical climate change literature accessible on the internet and also look into the guidance document of ADB report (TA-9246), March 2023. Consultants have utilized base length between 1990-2014 (25 years of data) for precipitation and temperature data. For precipitation, Kalam observed data is used for bias corrections while for temperature, Consultants have opted to utilize long-term temperature data from ERA5 as baseline, the same has also been endorsed in the guidance document. ERA5, the fifth generation ECMWF reanalysis, provides valuable information on global climate and weather spanning the past eight decades, with data available from 1940 onwards. By incorporating this reliable and widely recognized dataset, the Consultants ensure a robust foundation of their analysis and projections regarding climate change impacts in the Swat River Basin.

### SP-1.3.2 Rainfall

Three agencies are involved in the collection of the hydro-meteorological data i.e. Pakistan Meteorological Department (PMD), Surface Water Hydrology Project (SWHP) of WAPDA and Khyber Pakhtunkhwa Irrigation Department (KPID). The data of stations within and around the catchment boundary of the adjoining area has been collected, inventory is given in **Table 2.1**. Furthermore, series of one-day annual maximum rainfalls and annual instantaneous peak discharges of the stations have also been assembled for performing the frequency analyses.

**Table 1.1: Inventory of Hydro-Meteorological Data**

S. No.	Station	Data Type	Data Period (years)	Agency
<b>Stream Gauges</b>				
1	Zulam at Panjkora	Mean Daily and Annual Instantaneous Peak Discharge	2006 and 2022	SWHP
2	Khazana at Panjkora	Mean Daily Discharge	2005-2022	KPID
<b>Weather Stations</b>				
2	Upper Dir	Daily Rainfall	1983-2022	PMD
3	Lower Dir	Daily Rainfall	2010-2022	PMD
4	Kalam	Daily Rainfall	1962-2022	PMD

### SP-2 Scope of Work

#### SP-2.1 Scope of Permanent Works:

As described in the preceding chapters of the report, Package-16 consists of 03 schemes. Majorly the types of damages identified during condition survey of the project area consisted of damaged channel beds, banks and retaining / side walls along the hydraulic structures. Keeping in view the project specific requirements, proposed rehabilitation / protection works have been disaggregated in the following categories;

- Restoration of canal prism by concrete side protection
- Reconstruction of damaged portion of concrete lining
- Canal bank restoration/raising

The detail of components of the project are as under: -

#### SP-2.2 Scope of Temporary Works

Temporary works will include, but will not be limited to, the following:

- Pumping arrangements for dewatering
- Temporary access ramps, embankments and platforms for access or erection of components

- Contractor's field offices, furnished employer/engineer's field offices or cabins (one at each site Offices, labour camps, sanitary arrangements, workshops, warehouses etc. for Contractor's own use
- Any protection work required to protect partially completed permanent works as directed by the Engineer.

Temporary Works shall be removed as soon as practicable after having served their purpose. Any affected areas shall be reinstated so as not to cause an obstruction or erosion or otherwise interfere with the flow or cause damage to the permanent works, all to the satisfaction and approval of the Engineer.

## **SP-3 General**

### **SP-3.1 Existing Cables, Pipe-Lines and Works**

#### **SP-3.1.1 Drawings Showing Existing Infrastructure**

Drawings showing existing power and pipe-lines systems within the Project Area are not included with the Contract Documents.

#### **SP-3.1.2 Information and Instructions**

It shall be the Contractor's responsibility to locate on the site all utilities whether or not indicated on the Drawings, including pipes, cables etc and to make the necessary arrangements with the utilities authorities for any work in the vicinity of the utilities and or diversions of the utilities. All such work shall be at the cost of the Contractor.

The Employer may hold certain information on the location of cable and/or pipe-line systems within the site which will be provided to the Contractor on request. However, the Employer does not guarantee the reliability of such information.

The Contractor shall provide temporary arrangements for utilities, such as power lines, to avoid disrupting utility service provision, which will be subject to the Engineer's approval, which will not be unreasonably withheld, but the approval will only be given where the utility infrastructure's owner consents to the arrangement. These provisions will be provided to the contractor's staff as well as the engineer/employer's staff.

#### **SP-3.1.3 Interference with Existing Installations**

The Contractor shall not interfere in any way with any existing installations whether they are the property of the Employer or of a third party, except where such interference is specifically described as part of the works either in the Contract or in the Engineer's instructions.

The Contractor shall at his own expense provide and erect to the approval of the Engineer such measures as may be required to protect efficiently all structures or works. On completion of the works he shall remove protective structures.

The Contractor is to execute the works in such a manner that he does not damage or interfere with existing services which are located in proximity to the Site. The Contractor shall be responsible for any damage or interference which may be caused to these services due to execution of the Works and shall carry out all necessary repairs at his own expense.

#### **SP-3.1.4 Precautions**

The Contractor shall familiarise himself with all local regulations and "Permit to Work" requirements for working near households, local residents and customs of famines veil.

The contractor will be responsible to gather information regarding flood flows, expected floods, security/safety of local people, contract's staff, temporary facilities and permanent works. No separate payment will be made for any such damage to the above mentioned facilities by any means.



**SP-3.2 Electrical Power**

Interruptions in the public electrical power supply can be expected at any time.

The Contractor shall supply, install, operate and maintain reliable temporary electrical power supplies and systems as required for the execution and operation of the works up to Taking Over by the Employer.

**SP-3.3 Removal of Trees**

No trees may be cut without the approval of the Engineer and the Forest Department.

Unless directed by the Engineer, removal of trees along with their roots and their disposal will be carried out by the Forest Department.

**SP-3.4 Standards and Specifications**

Except as otherwise provided by these Specifications or the Drawings, all materials and equipment, and fabrication and testing thereof shall conform to the latest applicable standards and specifications contained in the following list or to equivalent applicable standard and established and approved in the country of manufacture or supply. Copies of these standards and specifications may be purchased from the indicated agency which published them:

ACI	American Concrete Institute
ASTM	American Society for Testing and Materials
AISC	American Institute of Steel Construction
ASME	American Society of Mechanical Engineers
ASA	American Standards Association
AWS	American Welding Society
AGMA	American Gear Manufacturers Association
BSI	British Standards Institution

**SP-3.5 Measurement & Payment**

No separate payment shall be made for complying with the provisions of Clauses SP-3.1 to 3.4 unless otherwise stated in the Bill of Quantities.

## **SP-4 Engineer's Requirements**

### **SP-4.1 Scope of the Facilities**

The Contractor shall provide and maintain the following facilities at site till the issuance of Taking Over Certificate:

- Offices for the Employer/Engineer's Personnel
- Engineer's Survey Equipment
- Support staff and facilities

The facilities shall be as specified herein.

Layout of the facilities shall be subject to approval by the Engineer which shall be obtained before provision of these facilities. All facilities for the Engineer shall be provided, not later than 90 days after the Commencement Date, by the Contractor. In the event of non-compliance by the Contractor, the cost of providing temporary facilities and any associated costs shall be borne by the Contractor.

Unless otherwise specified or instructed, the facilities provided for the Engineer and all equipment shall become the property of the Employer upon completion of the Contract.

### **SP-4.2 Offices for the Engineer's Personnel**

The Contractor shall provide furnished field office buildings or portable field office cabins, provided with electric, plumbing and HVAC Services installed; one for each site, for the sole use of the Employer/Engineer. The contractor will provide these offices or portable cabins in 01 No. at suitable location, varying from time to time.

The field offices shall be located in the vicinity of the project area, subject to approval and directions of the Engineer and shall be moved from time to time by the Contractor during the construction of the Works, when so directed. Adequate vehicular access to such portable offices shall also be provided and maintained by the Contractor.

Each office shall have a floor area of not less than 260 sqft and shall be of substantial timber construction, or the equivalent, well insulated and weather tight. The floor shall be raised 1 ft above ground level and shall be constructed of 1 inch nominal tongued and grooved boarding firmly supported on substantial joists or shall be of approved equivalent construction. The door shall be provided with a lock and there shall be three windows each with a glazed area not less than 16 sqft. Each window shall be hinged, glazed and screened, and provided with a substantial shutter fastening on the inside.

Each office shall be fitted with electric lighting and wall mounted socket outlets; water cooler; hot plate; an air conditioner; fan; a table with one drawer to take A0 drawings; one 4-drawer lockable filing cabinet with 3 keys; one lock-up drawer; one stool; seven chairs; one cupboard fitted with shelves; hat and coat hooks; a telephone connection and Internet facility.

Each office shall be provided with simple toilet facilities, having at least a wash basin and stand, located in a covered and enclosed privy separated from the office, provided with lock and key.

The type of toilet facilities, method of waste disposal, location and type of construction shall be submitted to the Engineer for approval.

The Contractor shall be responsible for providing, furnishing, service and maintenance of the field offices (one at each site).

The contractor shall provide field offices within specified time i.e. 30 days. If the Contractor fails to provide the field offices within the period stated herein. The employer will arrange the same from their resources and all expenses for providing the same, their maintenance and running cost including utility bills shall be deducted from the interim payments of the contractor.

#### **SP-4.3 Engineer's Survey Equipment**

If instructed by the Engineer, the Contractor shall supply and insure, for the sole use of the Engineer and the Employer, surveying and other instruments and equipment, as approved by the Engineer/ Employer. The instruments and equipment shall be new and shall be maintained in a good state of repair and shall be replaced in the event of loss or damage. On completion of the Contract, the equipment shall become the property of the Employer.

All equipment shall be provided with carrying cases suitable to prevent damage when carried about the Site. The contractor shall be responsible for maintaining and servicing of the equipment up-to the defect liability period.

#### **SP-4.4 Connection to Utilities**

The Contractor shall be responsible for providing connection to supplies of water, gas, electricity, telephone and sewerage to all offices up to defect liability period at no cost to Employer.

#### **SP-4.5 Maintaining Offices and Providing Services**

The Contractor shall be responsible for service and maintenance of the Offices for the Engineer's Personnel. The Contractor shall keep the offices clean and shall provide adequate cleaning staff for this purpose throughout the contract period. When required, the Contractor shall repair, maintain and shall carry out emptying of the septic tanks and supply water to the water tanks.

All construction costs, operating and maintenance charges, relating to electricity, water, telephone, sewerage, generators of suitable size and refuse disposal services for the offices including consumption, communications, connection and disconnection fees. In the event that utility supplies are unreliable or intermittent, the offices shall be provided with elevated water storage tanks, and bottled gas supplies which shall be maintained by the Contractor. The contractor shall provide office boys and sufficient quantity office entertainment materials.

The Contractor shall replenish consumable items as and when required. In addition, at the end of the Defects Liability Period the furniture, fittings and equipment shall be cleaned, repaired or replaced, as necessary, to bring them into good condition, and they shall remain property of the Employer at the conclusion of the Contract.

The Contractor shall also supply items of safety equipment such as hard hats, safety shoes, goggles, safety belts, life jackets, etc, for the Engineer's staff and visitors to the site.

**SP-4.7 Assistance to the Engineer**

The Contractor shall supply such labour, either continuously or from time to time, as may be required by the Engineer in connection with the operation and maintenance of the Engineer's office, and as watchman over the Engineer's offices and equipment.

**SP-4.8 Reporting Requirements****SP-4.8.1 Photographs**

The caption shall be typed on each photograph:

- a. Title of Project.
- b. Identification of subject shown.
- c. Station point of camera and direction of view.
- d. Date & time (automatically displayed on the photos)
- e. Name of Employer / Engineer and Contractor.

The size of photograph is 8"X6". All these photographs (colour copies) shall be included in the hard and soft copies of Progress Reports.

**SP-4.8.2 Digital Colour Video film**

The Contractor shall prepare a colour digital video film as the work progresses. The film shall be of 90 minutes duration fully edited and with commentary in English language. The video shall clearly show the progressive construction stages and completion of important phases of the Works. Five DVD disks of the film shall be submitted to the Engineer, on start of work and again upon completion of the Work.

At agreed intervals during the progress of the Works the Contractor shall arrange to show the video film to the Engineer for his approval. The Contractor shall affect any improvement in preparation of the digital video film that the Engineer may direct.

**SP-4.9 Measurement & Payment**

No Separate payment shall be made for complying with these provisions of the Engineer's Requirements.

## **SP-5 CONSTRUCTION SCHEDULE**

### **SP-5.1 General**

The detailed time programme submitted by the Contractor in accordance with Sub-Clause 35 "Programme" of the General Conditions of Contract shall be supplemented by submittal of a detailed Construction Schedule based on a computerized programme [Primavera Enterprise for Engineering & Construction P6 software or as approved by the Engineer], covering all construction activities and shall furnish a hard as well as soft copy to the Engineer within 28 days of the Commencement Date.

The Contractor shall use latest version of industry's best used **Document Control software or Customized solution** to track correspondence, drawings, submittals, material & equipment procurement, daily reports, transmittals, minutes of meetings, bill of quantities, proposals, request for inspection, requests for clarification, change orders, invoices, payment requisitions and snag lists etc. The Contractor shall scan all submittals and official documents and attach them to. The software shall be provided, maintained and accessible for the Engineer's use in the Engineer's designated office at no additional cost to the Employer.

The contractor will make proposal of different Document control software's for the Engineer approval within 28 days of the Commencement Date. after the completion of Projects this system along with hardware software, and data will be handed over to the Engineer at no additional cost to the Employer.

As-built Construction Schedule submitted by the Contractor periodically shall form the basis of evaluation of claims for Extension of Time, if any.

Processing of any progress payment (IPC's) is condition precedent with the submission of updated baseline Schedule as directed by the Engineer

### **SP-5.2 Requirements & Procedure**

#### **SP-5.2.1 General Requirements**

- The narrative report accompanying the submittal shall describe the construction methods; plant and equipment proposed to be used and shall explain the expected production rates that are the basis of the scheduled durations of different activities.
- Start Date of the Project.
- Dates on which different site possession will be required.
- General administrative items like, Performance guarantee, Mobilization Advance Guarantee, Insurance etc.
- Unique Activity ID, description and duration.
- Activities' earliest start and finish dates, latest start and finish dates.
- All activities with zero float.
- Critical path with listing of all activities on the path.

- Dates for Employer furnished material or equipment if any.
- Required dates of Drawings from the Engineer.
- Dates for submittals like Method Statements etc.
- Work Breakdown Structure (WBS) and activity codes.
- Definition of calendars with non-working days or periods i.e. planned closures, flood seasons etc.
- Loading of key resources.
- Milestone dates.
- Network logic Diagram.
- List of constraints i.e. reason and type of constraint.
- Full S – Curve and Critical S – Curve (for critical activities only).
- Cost/ Resource Histograms.
- Planning assumptions and any external relationships
- Explain any discretionary dependencies.

**SP-5.2.2 Construction Schedule:**

Construction Schedule will be submitted along with Bid Document and will be prepared in accordance with the Sub-Clause 35.

**SP-5.2.3 Baseline Schedule:**

Baseline Schedule to be submitted within 28 days after receiving the notice of commencement and will be prepared in accordance with the General Requirements mentioned under clause 35. Start date will be the date of Notice to Commence.

**SP-5.2.4 Revised Baseline Schedule:**

Besides, the General Requirements mentioned above, following will be the additional requirements for or quarterly Baseline Schedule:

- The revised narrative report depicting the actual situation and submittal describing the construction methods, plant and equipment proposed to be used and shall explain the expected production rates that are the basis of the revision of scheduled durations of different activities.
- Start Date will be taken as Notice to Proceed.
- Change in strategy to achieve the target Completion Date describing the additional resources if required, change in sequence of activities etc.
- Actual start and finish dates.

- Incorporation of effects of all approved changes that have occurred during last three months i.e. any change order which will affect the Completion Date of the Project. Any change in Completion Date for milestones shall be on the basis of prior extension if any granted by the Engineer
- Comparison with the target Baseline Schedule. The narrative of any deviation from the Baseline.

**SP-5.2.5 Recovery Schedule:**

The Recovery schedule will be submitted to the Engineer as and when required by the Engineer. If in the opinion of the Engineer any project milestone is likely to be missed, mitigation strategy for recovering the project will be submitted in the form of Recovery Schedule.

The recovery schedule will include all the requirements as mentioned in the Clause 35 Program.

**SP-5.3 Explanation & Definitions of Different Terms****SP-5.3.1 Activity Codes**

Activity codes will include the following details:

- Types of structure
- Types of sub-structures
- Zone/ Area
- Work Restrictions (Closure etc.)
- Sub-contractor
- Responsibility if identified, in the Contract to be shared with an agency other than the Contractor

**SP-5.3.2 Work Breakdown Structure**

The Work Breakdown Structure (WBS) shall divide the project scope into hierarchical, manageable, definable packages of work that will clearly indicate the scope and budget for the element.

The WBS elements shall clearly reflect project's purpose and objectives, functional/ performance design criteria, project scope, technical performance requirements, and other technical attributes.

The WBS to be submitted by the contractor will be based on the following parameters:

- The WBS submitted by the contractor will include and be a part of the high level WBS provided by the Engineer.
- Each WBS element will represent a single tangible deliverable.

- Each WBS element will represent an aggregation of all subordinate WBS elements listed immediately below it.
- Each subordinate WBS element must belong to only one single parent (or superior) WBS element
- The deliverables should be logically decomposed to the level that represents how they will be produced (designed, purchased, sub-contracted, fabricated). The partitioning of the deliverables from higher levels within the WBS to lower levels must be logically related
- Deliverables must be unique and distinct peers, and should be decomposed to the level of detail needed to plan and manage the work to obtain or create them.
- Deliverables should be clearly defined to eliminate duplication of effort within WBS elements, across organizations, or between individuals responsible for completing the work
- Deliverables should be limited in size and definition for effective control – but not so small as to make cost of control excessive and not so large as to make the item unmanageable or the risk unacceptable.
- A coding scheme for WBS elements that clearly represents the hierarchical structure when viewed in text format will be used.

**SP-5.4 Progress Measuring System**

The Contractor will agree with the Engineer the Progress Measuring System after award of the Contract and before submission of Clause 35 Program.

**SP-5.5 Activity Definition**

Activity definition will involve identifying and documenting the specific activities that must be performed to produce the deliverables and sub deliverables identified in the Work Breakdown Structure (WBS).

Within the context of the process of Activity Definition, decomposition will include identifying and documenting a list of activities that will be performed on the project. It will be organized as an extension to the WBS and will not include any activities that are not required as part of the project scope.

The adequate level of detail must be carefully planned for the intent of the schedule based on the following parameters:

- The list of activities should lead to the identification and achievement of major deliverables of the project, including project management
- Cost, resource and duration estimates will be loaded for the activities
- Progress Measurement Criteria and Activity Weights Definition will be devised for progress reporting.



- Each Activity will be assigned a unique Activity ID based on a coding structure. The coding structure logic will also be indicated and communicated to the Engineer.

**SP-5.6 Activity Sequencing**

Activity sequencing will involve identifying and documenting interactivity logical relationships. Activities will be sequenced accurately to support development of a realistic and achievable schedule. A project network diagram using Precedence Diagramming Method (PDM) will be utilized for showing dependencies between the activities.

**SP-5.7 Activity Duration Estimation**

Activity durations will be estimated based on the work quantity, productivity and resources applied to the activity. Calendar dates will be utilized for all duration estimation with a minimum time unit of days. Calendars, constraints (canal closure days) and assumptions will be documented and reported.

**SP-5.8 Schedule Development**

The schedule will be developed to indicate the start and finish dates for project activities. The schedule developed will be iterated during the project according to the frequency of progress reporting. Critical Path Method (CPM) will be used for mathematical analysis of the schedule for calculation of Early and Late dates. The following inputs to the schedule will be identified, documented and reported as part of the project schedule:

- Project Network Diagram
- Activity Duration Estimates
- Resource pool for the project and resource requirement to achieve each activity.
- Calendars specific to activities and resources.
- Activity notebook items describing the reason for following activity attributes:
- Constraints: Imposed dates, Key events or major milestones, statutory requirements (limits and restrictions or other obligations placed on the project by federal, state or local regulations)
- Discretionary Dependencies
- Assumptions
- Leads and Lags
- Risks

Submittal of construction schedules as per requirements of this Clause shall be a condition precedent to payment to the Contractor under any Interim Payment Certificate.

As-Built construction schedules submitted by the Contractor periodically shall form the basis of evaluation of claim for Extension of Time, if any.

### **Reporting Requirement**

#### **Daily Progress Report:**

The contractor will submit the site daily progress report to the Engineer / Resident Engineer before the closing of work Day. The report will be having daily site activities , Site resource , Events , Health & Safety , The contents and the format will be agreed with the Engineer within 14 days of the commence date.

#### **Weekly Progress Report / Progress Presentation:**

The contractor will submit the weekly progress Report and the Progress Presentation before the weekly Progress Review Meeting. The Contents of the Weekly report and the presentation will be agreed with the Engineer within 14 days of the commence date

#### **Monthly Progress Report:**

The contractor will submit the Monthly progress Report within first week of the forthcoming month. The Contents of the Monthly report will be agreed with the Engineer within 28 days of the commence date

#### **Risk management Plan**

The contractor will also submit Risk Management Plan showing the potential risk , their tendency, occurrence , impact , Risk Response and the mitigation measures

### **SP-5.9 Measurement & Payment**

No Separate payment shall be made for complying with these provisions of the Construction Schedule.

## **SP-6 Unit Price Breakdown**

Within 56 days after receipt of the Engineer's Notice to Commence, the Contractor shall submit to the Engineer the Contractor's breakdown of unit prices for excavation item, fill material/compaction item, concrete items and other items including Gabions, with a prescribed form and instructions furnished by the Engineer. The breakdown shall include the elements of the Contractor's overheads costs, other indirect costs, and equipment costs. The Engineer may ask for more items and the Contractor will have to provide.

The Contractor shall also submit to the Engineer the Contractor's breakdown of such other unit prices as the Engineer may from time to time reasonably require pursuant to the provisions of Clause 47, Variations of the Conditions of Contract.

## **SP-7 Environmental Protection**

In accordance with the Sub-Clause 27.2-Protection of Environment of Section 8: Particular Conditions of Contract, the Contractor, within 28 days of the Commencement Date shall submit a detailed Site Specific Environmental Management Plan (SSEMP) for the Engineer's no objection showing how he/she intends to comply with environmental laws and regulations and other specific requirements prescribed in the Contract, addressing all the monitoring and mitigation measures set forth in Section 6- Employer's Requirements. Work shall not commence on the Site until the no objection of SSEMP has been obtained from the Engineer and is being implemented. Such acceptance by the Engineer shall not relieve the Contractor of any of his obligations or responsibilities under the Contract.

No separate payment shall be made for implementation of the EMP, cost of the same is deemed to be included in other BOQ items.

## **SP-8 Health and Safety**

In accordance with the Sub-Clause 24.11 of Section 8: Particular Conditions of Contract, the Contractor, within 28 days of the Commencement Date shall submit a detailed Site Specific Health and Safety Management Plan (SSHSMP) for the Engineer's no objection showing how he/she intends to comply with the local Health and Safety laws and regulations and other specific requirements prescribed in the Contract, taking into account the Supplementary Information in Section 6- Employer's Requirements. Work shall not commence on the Site until the confirmation of no objection of the SSHSMP has been obtained from the Engineer and is being implemented. Such confirmation of no objection by the Engineer shall not relieve the Contractor of any of his/her obligations or responsibilities under the Contract.

No separate payment shall be made for complying with this provision.

## Supplementary Information Regarding Works to Be Procured

Asian Development Bank (ADB) in collaboration with the Federal and Provincial Governments is funding the Rehabilitation and construction program of Emergency Flood Assistance Project.

The Khyber Pakhtunkhwa Irrigation output is strengthened, of Repair, Rehabilitation and Reconstruction of Irrigation Structure, Drainage System and Flood Protection Works Spreads in Province of Khyber Pakhtunkhwa

The package interventions lie in the District of Dir of Khyber Pakhtunkhwa Province.

Standard Operation Procedures (SOPs) issued by Government of Pakistan from time to time, local regulations and guidance specific to COVID-19 prevention and controls, and worksite safety measures requirements that are deemed applicable to the contract, as well as the applicable international good practices on Health and Safety for the contract.

### **Site Specific Health and Safety Management Plan (SSHSMP)**

**Standard Operating Procedures (SOPs):** *All Standard Operating Procedures (SOPs) issued by the Government of Pakistan from time to time on COVID-19 prevention and controls, as well as workplace safety requirements, with international good practice guidelines [World Health Organization, Considerations for public health and social measures in the workplace in the context of COVID-19. Geneva. Available here: <https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19>] and SOPs (<http://covid.gov.pk/>) will be applicable.*

## Personnel Requirements

Using Form PER - 1 and PER - 2 in Section 4 (Bidding Forms), the Bidder must demonstrate that it has personnel who meet the following requirements:

No.	Position	Minimum Qualification	Total Work Experience (years)	Experience in Similar Work (years)
1	Project Manager	BE (Civil Engineering) or equivalent Professional qualification.	15	10
2	Deputy Project Engineer/Planning Engineer	BE (Civil Engineering) or equivalent Professional qualification	10	05
3	Site Engineers (03 Numbers)	BE (Civil Engineering) or equivalent Professional qualification.	06	04
4	Qualified / Experienced Quantity Surveyor	Diploma of Associate Engineering or equivalent Professional qualification	07	05
5	Qualified / Experienced Surveyor	Diploma of Associate Engineering or equivalent Professional qualification	07	05
6	Qualified Environment Specialist	M.Sc. (Environment.) or equivalent Professional qualification	07	05

*Note- All Engineers whether foreign or local must be registered with Pakistan Engineering Council (PEC). Copy of Registration Certificate shall be required to be submitted to employer prior to starting any activity at site.*

Using Form EXP-6 (PER-2) in Section 4 (Bidding Forms), the Bidder must demonstrate that it has EHS personnel who meet the following requirements:

### Key Personnel as determined by the EMP and other safeguard management plans

Item No.	Position/ Specialization	Relevant academic qualifications	Minimum years of relevant work experience	Minimum time on-site (%FTE)
1	Qualified Health and Safety Expert	M.Sc. (Public Health Engineering) or equivalent Professional qualification	05	
2	Gender Specialist	Master's degree in relevant field	05	

## Equipment Requirements

Using Form EQU in Section 4 (Bidding Forms), the Bidder must demonstrate that it has the key equipment listed below:

S/No	Equipment Type and Characteristics	Minimum Number Required
1	Excavators	03
2	Bulldozers	01
3	Rollers/ Vibratory Rollers (all combination)	02
4	Loaders/ Shovel	01
5	Dump Trucks	04
6	Concrete Batching Plant	02
7	Concrete Pumps	04
8	Transit Mixers (All types)	06
9	Water Bowsers	02
10	Complete Set of Shuttering & scaffolding (Steel) 100 Sq.m	01
11	Air Compressors	06

*Note: The bidder shall furnish on judicial stamp paper an undertaking after the signing of the contract stating that it shall bring the equipment mentioned here-in-above or more to successfully execute and complete the project within the completion period.*



**Bill of Quantities (BOQ)**

Attached with the Bidding Document.

**BILL OF QUANTITIES  
(BOQS)**

**PACKAGE-16:  
EFAP/KPID/CW-16:  
REHABILITATION OF  
IRRIGATION SYSTEMS, DIR  
IRRIGATION DIVISION,  
DISTRICT DIR**

**Emergency Flood Assistance Project (EFAP)-KP  
 "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood Protection  
 Works in Khyber Pakhtunkhwa"**

**EFAP/KPID/CW-16: Package-16: Rehabilitation of Irrigation Systems, Dir Irrigation Division**

**Engineers's Estimate PACKAGE - 16**

**SUMMARY OF COST**

Sr. No.	Description	Total Cost
		(PKR)
(A)	General Items (Excluding Item 6 and 7)	
<b>Sub-Total (A)</b>		
<b>PRIORITY - 1 WORKS</b>		
(B)	Civil Works	
<b>Scheme-1</b>	Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy and Baron Civil Channels District Dir Lower.	
<b>Scheme-2</b>	Rehabilitation of Badwan Irrigation Scheme & Trakha Civil Channel, Brangola, Khadagzai, Kamala & Adenzai Area Civil Channels District Dir Lower.	
<b>Sub-Total (B)</b>		
<b>Sub-Total (A+B)</b>		
(C)	Provisional Sums	
	<b>Geotechnical Site Investigation as directed by the Engineer</b>	3,000,000.00
	<b>Provision for Environmental/Social Safeguards Management Plan (ESMP)</b>	3,982,000.00
<b>Sub-Total ( C )</b>		6,982,000.00
<b>Grand Total (A + B + C) in PKR</b>		
<b>Grand Total (A + B + C) in Million PKR</b>		

**Emergency Flood Assistance Project (EFAP)-KP  
 "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood Protection Works in  
 Khyber Pakhtunkhwa"**

**EFAP-KPID- CW-16: Rehabilitation of Irrigation Systems, Dir Irrigation Division**

**Engineers's Estimate PACKAGE - 16**

**SUMMARY OF COST**

Sr. No.	Description	Total Cost
		(PKR)
Bill No.1.0	General Items (Excluding Item 6 and 7)	
<b>PRIORITY - 1 WORKS</b>		
<b>Scheme-1</b>	<b>Rehabilitation of Balambat Irrigation Scheme &amp; Khall Payeen,Haji abad,Chargorai,Malak abad,Adai,Ranai,Manzary Tangy and Baron Civil Channels District Dir Lower.</b>	
Bill No.1.1	Balambat Irrigation Scheme	
Bill No.1.1.1	Rehabilitation of Balambat Channel	
Bill No.1.1.2	Rehabilitation of Diversion Weir	
Bill No.1.1.3	Rehabilitation of Head Regulator	
Bill No.1.1.4	Rehabilitation of Escape Structure	
Bill No.1.2	Khall Payeen Civil Channel	
Bill No.1.3	Hajiabad Civil Channel	
Bill No.1.4	Chargorai Civil Channel	
Bill No.1.5	Sadoo Civil Channel	
Bill No.1.6	Ranai Civil Channel	
Bill No.1.7	Baroon Civil Channel	
<b>Scheme-2</b>	<b>Rehabilitation of Badwan Irrigation Scheme &amp; Trakha Civil Channel, Brangola, Khadagzai, Kamala &amp; Adenzai Area Civil Channels District Dir Lower.</b>	
Bill No.2.1	Badwan Civil Channel	
Bill No.2.2	Badwan Kharif Irrigation Scheme	
Bill No.2.3	Brangola Civil Channel	
Bill No.2.4	Khadagzai Civil Channel	
<b>Total</b>		

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood Protection Works in Khyber Pakhtunkhwa"**

**Bill of Quantities  
Bill No. 1.0: General Items**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Insurance of Works and Contractor's Equipment	Lump Sum	1.00			
2	Insurance for Contractor's Personnel	Lump Sum	1.00			
3	Third Party Insurance against Injury to Persons and Damage to Property	Lump Sum	1.00			
4	Provide Digital Colour Video Documentary including Aerial views as desired by the Engineer	Lump Sum	1.00			
5	Provide, furnished, maintained, airconditioned Field Office Building / Portable Field Office Cabins for the Engineer with power generators, utilities and all necessary equipments i.e. computers/laptops, printers & scanner etc till issuance of defect liability certificate- (1 No.)	Months	1.00			
6	Geotechnical Site Investigation as directed by the Engineer	Provisional Sum	1.00	-	-	3,000,000.00
7	Adjustment of Contract Price for changes in Legislation under Sub-Clause 54.1 and any other authorized reimbursements under the Contract	Provisional Sum	1.00	-	-	52,600,320.16
8	Provision for Environmental/Social Safeguards Management Plan (ESMP)	Provisional Sum	1.00	-	-	3,982,000.00
9	Construction of Bench Marks as per drawings and to be located as per directions of the Engineer	Nos.	12.00			
10	Care and Handling of Water including Dewatering, Diversion Arrangements and Water for Construction	Lump Sum	1.00			
<b>Total Cost (Excluding Item 6 and 7)</b>						
<b>Total Cost (Including Item 6 and 7)</b>						

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood Protection Works in Khyber Pakhtunkhwa"**

**Priority - 1 Works  
Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargarai, Malak abad, Adai, Ranai, Manzary Tangy and Baron Civil Channels District Dir Lower.**

**Bill No.1.1.1: Rehabilitation of Balambat Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	12.96			
2	Dismantling RCC, separating reinforcement, cleaning & straightening the same	04-20-a	100 Cft	2.21			
3	Dismantling brick work in lime or cement mortar	04-13	100 Cft	4.43			
4	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	5.16			
5	Reinforced cement concrete work as in dams, spillways, weirs, barrages, cross drainage works and other hydraulic structures using crushed stone aggregate(screening & washing) and coarse sand 1/c costof all labour and material and finishing the exposed surface, cast in situ/precast excluding the cost of steel reinforcement and labour for bending binding also excludig cost of additives which have to be paid separately. (1:1.5:3)	06-07-d-02	100 Cft	149.70			
6	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	06-08-b	100 Kg	543.38			
7	Supplying stone and stone filling in GI wire crate and its sewing, excluding cost of crates	19-26	100 Cft	2,520.00			
8	Provide & weave GI wire netting for wire crates 4"x4" mesh : 8 SWG wire	19-13-c-03	100 Sft	3,948.00			
9	Construction of Control Room with attached bath including flooring, brickwork, plastering, RC roof slab, plumbing & sanitary works, electrification, whitewash, doors & windows, complete in all respect with 1st class construction finish		Sft	196.000			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood Protection Works in Khyber Pakhtunkhwa"**

**Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargarai, Malak abad, Adai, Ranai, Manzary Tangy and Baron Civil Channels District Dir Lower.**

**Bill No.1.1.2: Rehabilitation of Diversion Weir**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Earth excavation in ashes, sand, shingle & soft soil or silt clearance by mechanical means undressed lead upto 15m.	03-02-b	1000 Cft	24.66			
2	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	38.23			
3	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	277.32			
4	Reinforced cement concrete work as in dams, spillways, weirs, barrages, cross drainage works and other hydraulic structures using crushed stone aggregate(screening & washing) and coarse sand i/c costof all labour and material and finishing the exposed surface, cast in situ/precast excluding the cost of steel reinforcement and labour for bending binding also excludig cost of additives which have to be paid separately. (1:1.5:3)	06-07-d-02	100 Cft	289.10			
5	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	06-08-b	100 Kg	1,049.37			
6	Supplying and Fixing PVC Water Stopper 8" wide 3/8" thick. Providing and fixing PVC water stopper 8" wide 3/8" thick in verticle (Wall/Column) or horizontal (Floor/Slab) expansion joint including cutting and jointing complete in all respects.	24-40	Rft	221.42			
7	Providing and Laying stone pithcing/filling, dry hand packed in pitching & aprons	19-25	100 Cft	201.29			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy  
Bill No.1.1.3: Rehabilitation of Head Regulator**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Earth excavation in ashes, sand, shingle & soft soil or silt clearance by mechanical means undressed lead upto 15m.	03-02-b	1000 Cft	3.01			
2	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	1.48			
3	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	2.58			
4	Reinforced cement concrete work as in dams, spillways, weirs, barrages, cross drainage works and other hydraulic structures using crushed stone aggregate(screening & washing) and coarse sand i/c costof all labour and material and finishing the exposed surface, cast in situ/precast excluding the cost of steel reinforcement and labour for bending binding also excludig cost of additives which have to be paid separately. (1:1.5:3)	06-07-d-02	100 Cft	47.02			
5	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	06-08-b	100 Kg	170.68			
6	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	4.16			
7	Providing and fixing Steel Rungs of 1 inch dia and 5 ft long steel bars as per drawing and specifications.	RA	No	14.00			
8	Removal of existing groove channel and gate assembly from damaged structure and re-installing of gate assembly to new structure including repair, complete in all respect as directed by the Engineer.		LS	1.00			
<b>Total</b>							



**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary**

**Bill No.1.1.4: Rehabilitation of Escape Structure**

<b>Item No.</b>	<b>Description</b>	<b>Referen ce MRS-</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Earth excavation in ashes, sand, shingle & soft soil or silt clearance by mechanical means undressed lead upto 15m.	03-02-b	1000 Cft	2.04			
2	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	0.62			
3	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	0.68			
4	Reinforced cement concrete work as in dams, spillways, weirs, barrages, cross drainage works and other hydraulic structures using crushed stone aggregate(screening & washing) and coarse sand i/c costof all labour and material and finishing the exposed surface, cast in situ/precast excluding the cost of steel reinforcement and labour for bending binding also excludig cost of additives which have to be paid separately. (1:1.5:3)	06-07-d-02	100 Cft	9.18			
5	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	06-08-b	100 Kg	33.34			
6	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	0.41			
7	Providing and fixing Steel Rungs of 1 inch dia and 5 ft long steel bars as per drawing and specifications.	RA	No	14.000			
8	Removal of existing groove channel and gate assembly from damaged structure and re-installing of gate assembly to new structure including repair, complete in all respect as directed by the Engineer.		LS	2.00			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargarai, Malak abad, Adai, Ranai, Manzary  
Bill No.1.2: Khall Payeen Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	10.94			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	0.50			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	5.25			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	5.25			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	8.75			
6	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	70.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	6.60			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	43.75			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy  
Bill No.1.3: Hajiabad Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	81.25			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	1.56			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	24.38			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	24.38			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	29.69			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	325.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	20.63			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	325.00			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy  
Bill No.1.4: Chargorai Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	43.55			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	0.84			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	13.07			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	13.07			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	15.91			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	174.20			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	11.06			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	174.20			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy  
Bill No.1.5: Sadoo Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	15.31			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	0.70			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	7.35			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	7.35			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	12.25			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	98.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	9.24			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	61.25			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy  
Bill No.1.6: Ranai Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	22.75			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	0.44			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	6.83			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	6.83			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	8.31			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	91.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	5.78			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	91.00			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme-1 - Rehabilitation of Balambat Irrigation Scheme & Khall Payeen, Haji abad, Chargorai, Malak abad, Adai, Ranai, Manzary Tangy  
Bill No.1.7: Baroon Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	6.56			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	0.30			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	3.15			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	3.15			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	5.25			
6	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	42.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	3.96			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	26.25			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme No.2 - Rehabilitation of Badwan Irrigation Scheme & Trakha Civil Channel, Brangola, Khadagzai, Kamala & Adenzai Area Civil  
Bill No.2.1: Badwan Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	49.08			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	1.13			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	14.72			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	14.72			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	19.82			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	196.30			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	14.95			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	196.30			
<b>Total</b>							



**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme No.2 - Rehabilitation of Badwan Irrigation Scheme & Trakha Civil Channel, Brangola, Khadagzai, Kamala & Adenzai  
Bill No.2.2: Rehabilitation of Badwan Kharif Irrigation Scheme**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	186.480			
2	4" thick PCC lining, using washed screened & graded/curshed stone aggregate : in bed : Ratio 1:2:4	17-10-a-01	100 Cft	53.280			
3	4" thick PCC lining, using washed screened & graded/curshed stone aggregate : On slope : Ratio 1:2:4	17-10-b-01	100 Cft	133.200			
4	Bitumen coating to plastered / cement concrete surface : 14 lbs. per 100 sft.	13-08-b	100 Sft	18.741			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and  
Priority - 1 Works**

**Abstract of Cost**

**Scheme No.2 - Rehabilitation of Badwan Irrigation Scheme & Trakha Civil Channel, Brangola, Khadagzai, Kamala & Adenzai  
Bill No.2.3: Brangola Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	33.75			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	0.90			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	13.50			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	13.50			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	16.88			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	180.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	11.88			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	135.00			
<b>Total</b>							

**Emergency Flood Assistance Project (EFAP)-KP "Reconstruction and Rehabilitation of Irrigation, and Drainage System and Flood  
Priority - 1 Works**

**Abstract of Cost**

**Scheme No.2 - Rehabilitation of Badwan Irrigation Scheme & Trakha Civil Channel, Brangola, Khadagzai, Kamala & Adenzai Area  
Bill No.2.4: Khadagzai Civil Channel**

<b>Item No.</b>	<b>Description</b>	<b>Reference MRS-KPK</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate in Figures (Rs)</b>	<b>Unit Rate in Words (Rs)</b>	<b>Amount (Rs)</b>
1	Dismantling : Plain Cement Concrete 1:2:4	04-19-c	100 Cft	65.00			
2	Earth excavation undressed upto single throw of kassi phaorah or shovel etc : in ashes, sand, soft soil or silt clearance	03-01-a	1000 Cft	1.25			
3	Structural Excavation in Common Material by mechanical means	03-67-a	1000 Cft	19.50			
4	Structural backfill using Common Material available at site.	03-67-c	1000 Cft	19.50			
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	06-05-i	100 Cft	23.75			
6	Erection and removal of Form work with Steel Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-47-b	100 Sft	260.00			
7	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-05-f	100 Cft	16.50			
8	PCC 1:3:6 in mass concrete less formwork using 30% boulders	06-44-c	100 Cft	260.00			
<b>Total</b>							

**ENVIRONMENTAL  
DOCUMENTATION /  
EMP**

**PACKAGE-16:  
EFAP/KPID/CW-16:  
REHABILITATION OF  
IRRIGATION SYSTEMS, DIR  
IRRIGATION DIVISION,  
DISTRICT DIR**

# 1 ENVIRONMENTAL AND SOCIAL (E&S) STUDIES

This Section will provide the necessary guidance to Project Management Unit (Irrigation Department), Environmental and Social Unit (ESU) and Construction Contractor (CC) to implement good environmental and social practices to reduce environmental and social damage while rehabilitating, restoring or reconstructing subprojects. This Section will further provide an overall approach for managing and monitoring environmental-issues and describes the institutional framework to implement the Environmental and Social (E&S) requirements for subproject. The detailed Environmental and Social Management Plan (ESMP) and Social Due Diligence Report (SDDR) have been prepared for the Environment and Social compliance of the proposed project in accordance with the ESMF and ADB SPS 2009.

## 1.1 E&S STUDY OBJECTIVES

The E&S study will help Irrigation department to address the potential negative E&S impacts of the project, enhance project benefits, and introduce standards of good environmental practice. The main objectives of the E&S study is to:

- Provide project impacts along with the proposed mitigation measures, and a corresponding implementation phase;
- To ensure that all necessary corrective actions will be carried out in time to counter any adverse E&S impact;
- To ensure the regular monitoring of those factors which may affect the safety of the environment under a systematic monitoring approach;
- Define the roles and responsibilities of the Project Proponent and Contractor in order to effectively communicate E&S issues among them;
- Provide a procedure for timely action in the face of unanticipated E&S situation;
- Identify training requirements at various levels including Project Proponent, Contractor and SC; and
- Provides estimation of environmental cost for the implementation of E&S requirements.

## 1.2 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Following is the list of the applicable policies, laws, regulations and guidelines related to the proposed project:

### 1.2.1 National and Provincial Requirements

- Khyber Pakhtunkhwa Environmental Protection Act, 2014
- The Khyber Pakhtunkhwa Environmental Assessment Rules, 2021
- Khyber Pakhtunkhwa Wildlife and Biodiversity Act, 2015
- Khyber Pakhtunkhwa Forest (amendment) Act, 2022
- The Khyber Pakhtunkhwa Occupational Health and Safety Act , 2022
- Khyber Pakhtunkhwa Antiquities Act, 2016
- The Khyber Pakhtunkhwa Prohibition of Employment of Child Act, 2015
- Land Acquisition Act (LAA), 1894 Including Later Amendments

- Fisheries Act, 1897
- The Khyber Pakhtunkhwa Protection of Trees and Brushwood Act, 1949
- Culture Policy, Khyber Pakhtunkhwa, 2018
- Khyber Pakhtunkhwa Climate Change Policy 2016
- Biodiversity Action Plan, 1999
- The Canal and Drainage Act (CDA) 1873
- Cutting of Trees (Prohibition) Act, 1975
- Pakistan Climate Change Act, 2017
- The Protection against Harassment of Women at the Workplace Act, 2010
- Pakistan Penal Code, 1860
- Building Code of Pakistan, 2007
- National Sustainable Development Strategy, 2012
- National Resettlement Policy, 2002
- National Water Policy 2018
- National Climate Change Policy, 2012
- National Conservation Strategy, 1992
- National Environmental Policy, 2005
- National Forest Policy, 2001
- National Disaster Risk Reduction Policy, 2013
- National Disaster Management Act, 2010

### **1.2.2 Asian Development Bank (ADB) Requirements**

- ADB's access to Information Policy (AIP) 2018
- ADB's Accountability Mechanism Policy 2012
- ADB's Safeguard Policy Statement (SPS), 2009
  - ✓ Safeguard Requirements 1: Environment
  - ✓ Safeguard Requirements 2: Involuntary Resettlement
  - ✓ Safeguard Requirements 3: Indigenous Peoples

### **1.2.3 Environmental and Social Management Framework (ESMF)**

ESMF of the EFAP is already prepared to ensure the sub-projects funded by the ADB are in compliance with the relevant requirements of national policies, regulations and legislations as well as ADB's SPS 2009.

### **1.2.4 Environmental Categorization**

The Khyber Pakhtunkhwa Environmental Assessment Rules, 2021 provides screening categories of the projects for which environmental assessment need to be conducted. As the proposed project does not impose significant Environmental impacts, hence no environmental assessment is required.

The Rapid Environmental Assessment Checklist (REA) of this project has been dully filled and based on ESMF and ADB SPS 2009, the proposed project has been classified as "Category C" if

it is likely to have minimal or no adverse environmental effects. For a “Category C” project, the borrower is responsible for preparing a short environmental assessment report such as ESMP in the instant case. This ESMP covers the scope of work, anticipated environmental impacts and proposed mitigation measures.

### **1.2.5 Social Categorization**

### **1.2.6 Involuntary Category**

The involuntary resettlement impacts of ADB-supported projects are considered significant if 200 or more persons will be physically displaced from home or lose 10% or more of their productive or income-generating assets.

For those involving involuntary resettlement, a resettlement plan is prepared that is commensurate with the extent and degree of the impacts, the scope of physical and economic displacement and the vulnerability of the affected persons.

Projects are classified into the following categories:

**Category A.** A proposed project is likely to have significant involuntary resettlement impacts. A resettlement plan, which includes assessment of social impacts, is required

**Category B.** A proposed project includes involuntary resettlement impacts that are not deemed significant. A resettlement plan, which includes assessment of social impacts is required.

**Category C.** A proposed project has no involuntary resettlement impacts. No further action is required.

Keeping in view the project categorization under ADB Safeguard Policy Statement 2009, this subproject is classified as a Category “C” project as it does not involve any involuntary land acquisition, assets displacement and loss of income. The entire land within the sub-project area belonged to Irrigation Department, Government of the Khyber Pakhtunkhwa and there is no private ownership, encroachers/squatters and occupants exist in the sub-project area. The entire work will be carried out in the existing RoW of sub-project; hence Social Due Diligence (SDDR) Report has been prepared.

### **1.2.7 Indigenous People Category**

The project area was surveyed for identification of any indigenous people or groups having customary rights on use and access of land and natural resources, socioeconomic status, cultural and communal integrity and self-recognition as IPs. However, no such groups were found in the entire project area who can be categorized as IP. More specifically, the people consulted do not recognize themselves as IP or those falling under IP groups as described in IP policy of ADB’s SPS. Therefore, the project is categorized as “C” for IP safeguards hence; no Indigenous peoples plan is required for this project. Moreover, the **Table 8.1** depicts the IR and IP Impact Categorization on CRBC Irrigation Division sub-projects.

**Table 1.1: IR and IP Impact Categorization**

Sr. No.	Package	IR	IP	Remarks
1	Package 16: Rehabilitation of Irrigation Systems, Dir Irrigation Division.	No Impact	No Impact	There will be no impact on the local community with respect to land acquisition or displacement of assets as construction work will be carried out in the existing ROW which is owned by the irrigation department. Moreover, No IPs exist in the proposed project area.

**1.3 SENSITIVE RECEPTORS**

There is no sensitive receptor located within or near the vicinity of the proposed subproject.

**1.4 ANTICIPATED E&S IMPACTS**

The proposed project was assessed for anticipated environmental impacts during construction phase. In operation phase, the irrigation channels will function as its pre-flood state. No adverse impact is envisaged after rehabilitation of channels.

**1.4.1 Positive E&S Impacts of sub-projects**

Following are the anticipated positive impacts of subprojects on socio-economic and environmental aspects of the project area:

- Improves the agricultural productivity by ensuring a consistent and controlled water supply to agricultural lands;
- Enhances food security for the local communities;
- Creates employment opportunities in agriculture and related sectors, boosting incomes for farmers and supporting rural livelihoods; and
- Manages excessive water during heavy rainfall or flooding, mitigating the risk of flood damage to crops, infrastructure, and communities.

**1.4.2 Impacts Due to Siting**

1. **Protected Areas:** There is no notified protected area directly falling within or near the vicinity of the proposed subproject. Also, there is no notified buffer zone of the protected area or notified special area for protecting biodiversity falls inside or near vicinity of subproject.
2. **Loss of Forests:** No areas of primary forest are found within or adjacent to RoW of the sub-project.
3. **Incursion into Wetlands:** There are no notified wetland or Ramsar sites near the RoW or vicinity.
4. **Encroachment on Historical/Cultural/Archeological Sites:** No designated cultural heritage site has been noted or reported within the subproject Bridge alignment or vicinity.

**1.4.3 Anticipated Adverse E&S Impacts in construction phase**



Few anticipated adverse impacts are envisaged which are listed in **Table 8.2**.

**Table 1.2: Anticipated Adverse E&S Impacts**

Sr. No.	Aspects/Impacts	Major Issues and Concerns
1.	Climate Risks	<p>The construction activities of sub-project may be affected due to the climate risks during the severe vulnerable conditions such as heat waves, heavy rains and floods.</p> <p>The project area is prone to flash floods as it has already been affected by floods multiple times. The recent 2022 flash flood damaged the irrigation channels and embankments around the rivers. Flood water can cause severe damage to the banks of the civil channels and embankments of the rivers.</p>
2.	Deterioration of surface water quality	Construction activities and the wastewater including oil/chemical spills from the construction camps can contain harmful substances which may deteriorate the quality of the water bodies.
3.	Noise Pollution and Vibration Impact	The noise and vibration will be produced due to the operation of construction machinery and equipment. Sources of noise and vibration during construction are heavy machinery such as cranes and other equipment's.
4.	Deterioration of Air Quality	<p>Air quality will be affected by dust fugitive emissions during movement of construction vehicle and construction activities; Procurement, transport and handling of construction materials etc. to the construction site; and</p> <p>The overall impact on the quality of air during the construction phase will, however, be temporary and limited to the project's implementation phase.</p>
5.	Wastewater Generation at Construction Camp	Wastewater will be generated at the construction camp which may contain harmful and toxic substances that may affect water bodies if disposed of without proper treatment.
6.	Solid waste generation at Construction camp	Solid waste may be generated on daily basis which contains garbage, putrescible waste, rubbish and small portion of ashes and residues.
7.	Soil Erosion and Contamination	Construction activities and the use of construction machinery at the site will leads to soil erosion
8.	Scouring of Canals/distributaries	During construction, the slopes of the irrigation channels may be unstable due to loose soil or lack of proper compaction, making them susceptible to erosion and scouring.
9.	Clogging of Canals/distributaries	Construction activities will lead to increase erosion and sediment runoff into the irrigation channels. The increase in accumulation of sediments in the irrigation channels will reduce tits carrying capacity and ultimately leads to clogging of the irrigation channels.
10.	Impacts on Flora, Fauna and Aquatic life	There is no direct impact on flora and fauna. However, construction activities, stockpiling of material and the wastewater discharge including oil/chemical spills from the camps can contain harmful substances which may cause impact on aquatic life.

Sr. No.	Aspects/Impacts	Major Issues and Concerns
11.	Occupational Health and Safety	<p>Construction workers will be exposed to a variety of physical hazards, principally from operating machinery and moving vehicles but also working at height.</p> <p>The falls during constructing flood protection structures. Eye injury can be caused by stone or metal particles. Hazard of being hit by falling objects, major hand-arm and whole body vibration hazards, skin and respiratory tract irritation from exposure to dust, overexertion and awkward postures etc. will be another impact.</p> <p>Other impacts will be contact with heavy electrical and mechanical equipment, equipment failure, uncontrolled movement, unguarded moving mechanical equipment parts, fatigue, unbalanced load, falling objects, hand injury, slip and trip hazards, wind / storm activity, injury from releasing load etc.</p> <p>Disasters such as floods, earthquakes and fires may occur. Lack of Emergency Response Plan (ERP) or an inefficient response plan may lead to an accident or critical injury.</p>
12.	Community Health and Safety	<p>Community health and safety issues during the construction of proposed project may include dust, noise, and vibration from construction vehicle transit, and communicable diseases associated with the influx of temporary construction labor. Significant community health and safety issues associated with the project may also include:</p> <ul style="list-style-type: none"> <li>▪ Failure/ Collapse of bank during operation stage due to emergency situation such as flood/earthquake</li> <li>▪ Disruption of Community life due to traffic congestion and road closures;</li> <li>▪ Safety of water supplies for downstream usage;</li> <li>▪ Emergency preparedness</li> </ul> <p>The proposed project will also have potential of air (dust pollution), noise and vibration impact on nearby community. The labor works with different transmittable diseases (HIV/AIDS, COVID-19, etc.) may cause spread out of those diseases in the local residents.</p>
13.	Impact on Local Residents	<p>During construction, the construction activities may generate air, noise and dust emissions. Due to influx of labor, a stress on local resources may also occur and social conflicts may arise.</p>
14.	Social Conflicts	<p>During the construction phase of the proposed Project, conflicts may arise between labor force and local community. Use of local resources and products by the construction workers can generate stress on the local resources. Furthermore, difference in cultural values may also cause discomfort to local residents.</p>
15.	Child Labor and Gender Based Violence (GBV)	<p>The impact of child labor and gender based violence may arise during the construction stage of the sub-project.</p>

#### 1.4.4 Anticipated E&S Impacts in Operation Phase

**Increase Agricultural Productivity:** The proposed project will provide water through rehabilitated irrigation channels which will lead to increased crop yields and agricultural productivity, benefiting local farmers and food production

**Economic Benefits:** The rehabilitation of irrigation systems will stimulate economic growth in the nearby communities by increasing income for farmers and creating employment opportunities in the agricultural sector.

**Water Conservation:** Rehabilitated irrigation schemes are less prone to leaks, breaches, and other failures, reducing the risk of water shortages and crop losses.

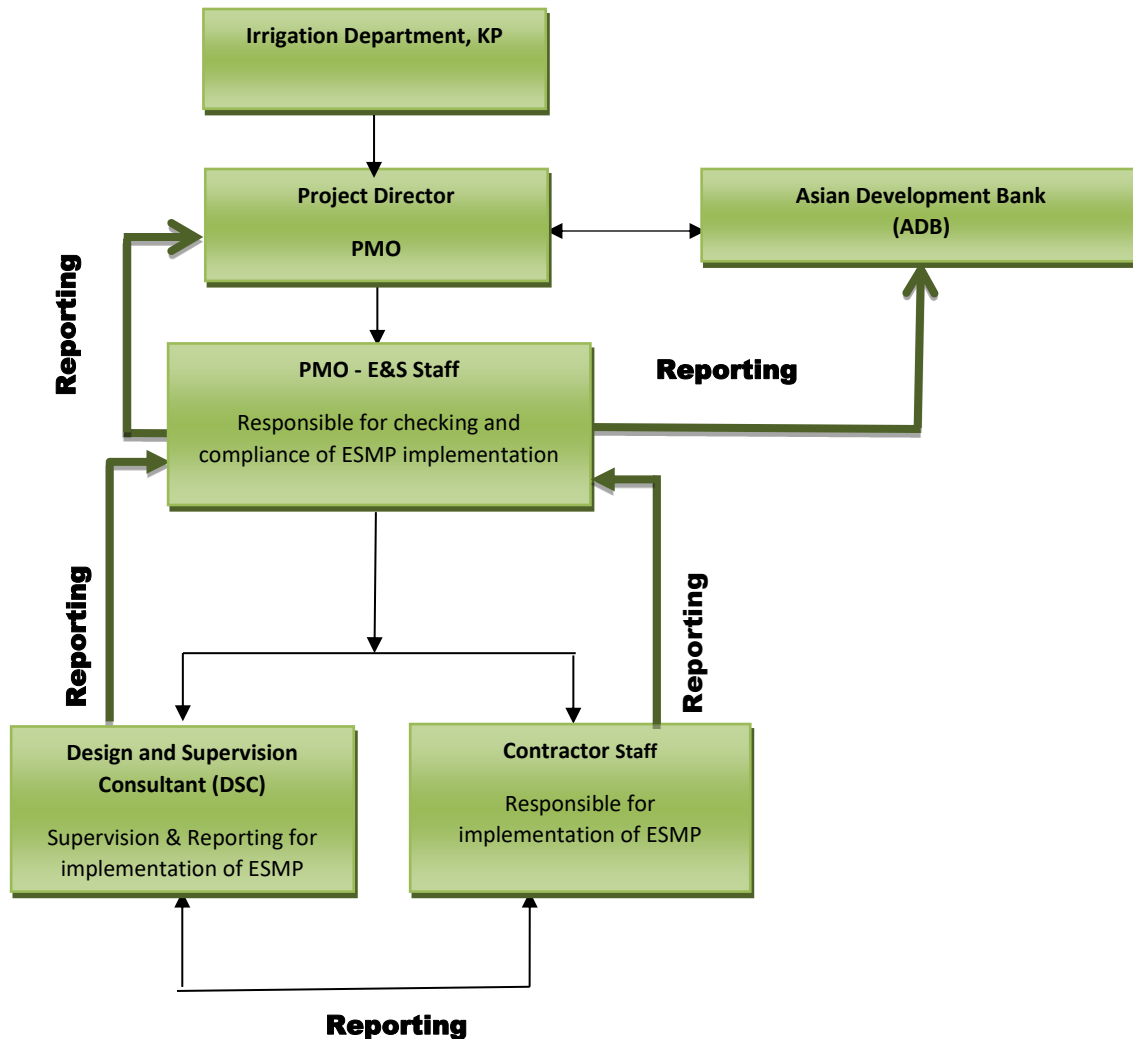
**Reduced Conflicts:** Improved water management can help reduce conflicts among locals by ensuring a fair and reliable distribution of water resources.

## **1.5 INSTITUTIONAL ARRANGEMENTS**

This section describes the responsibilities required for the implementation of E&S Study in conjunction with the Irrigation Department (PMO), Environmental and Social Unit (ESU), Design and Supervision Consultants (DSC) and Construction Contractor (CC). The proposed project will be managed through Project Management Office (PMO) of Package 16. The following staff will be involved in the implementation of ESMP:

- PMO / Environmental and Social Unit (ESU) of PMO;
- Design and Supervision Consultant (DSC) Environmental and Social Staff; and
- Contractor's Environmental and Social Expert.

The organizational setup for implementation of E&S study during construction phase is provided in **Figure 8.1**.



**Figure 1.1: Organizational Setup for Implementation of EMP during Construction Phase**

## **1.6 GRIEVANCE REDRESS MECHANISM (GRM)**

People adversely affected (or about to be affected) by a subproject, if they have any E&S issues, will be able to raise their grievances and dissatisfactions, if any, to the GRM in order to find a satisfactory solution. Affected parties will be able to raise their grievances and will be given an adequate hearing. A detailed grievance log will be maintained by the ESU of PMO and will be reported in monitoring reports. Satisfactory solutions shall be found that mutually benefit both the complainants and the project.

## **1.7 CONTRACTOR'S OBLIGATION AND MANAGEMENT**

The contractor will be primarily responsible for ensuring the implementation of the mitigation measures proposed in the ESMP. The requisite content of this ESMP or complete ESMP will be

incorporated in bidding document and will become a part of the contractor's contract documents. The provision of the environmental and social mitigation cost will be made in the total cost of project, for which the contractor will be paid on the basis of compliance reports and actual work done at site along with resource loading. The contractor will ensure the availability of an Environment, Social, health and Safety (ESHS) expert at site from the start of the project (at mobilization stage) dually approved from DSC and ESU-PMO.

## 1.8 REPORTING AND FEEDBACK MECHANISM

The Contractor's ESHS Officer will manage the daily activities to be conducted in compliance with the ESMP and will be responsible for weekly reporting. DSC would be responsible for preparing periodic inspection or sub-project completion report and submit to the PMO. PMO will share the compliance monitoring report with ADB for review and clearance.

## 1.9 E&S IMPLEMENTATION REQUIREMENTS

The summary of E&S implementation items required for compliance at each active subproject is presented in **Table 8.3**. The contractor(s) shall be paid for these items after providing the implementation and cost incurred evidences dully approved by DSC and PMO.

**Table 1.3: Environmental and Social Compliance Requirement**

Sr. No.	Items	Description	Cost (Rs.)
1	Cost for Purchasing of Potable Dust and Noise Monitoring Equipment	One dust monitoring and one noise monitoring equipment	100,000
2	Cost of Purchasing water testing kit	One testing kit to check basic parameter such as PH, temperature turbidity etc.	50,000
3	Medical screening for workers	Rs. 5000/- per employee and for 30 employees	150,000
4	Material Storage, handling and use	Four (04) no. of tarpaulins of Rs. 30,000	120,000
5	Handling of solid waste including hazardous waste	Lump sum cost of collection, transportation and disposal to the designated site.	500,000
6	Provision of Safety Signboards, safety cones, warning tapes etc.	Lump sum for entire package	200,000
7	Cost of Personal Protective Equipment (PPE)	For 30 employees for the provision of dust masks, safety shoes, helmet, jackets, safety goggles, gloves, first aid box, ear plugs	500,000
8	Cost for hiring of staff for ESMP implementation	@ Rs. 150,000/- per month till sub-project completion	1,800,000
9	Training and capacity building	Lump sum for entire package	200,000
Total			3,620,000/-
Contingency Charges @10% of total			362,000
Grand Total			3,982,000/-

**TENDER DRAWINGS**

**PACKAGE-16:  
EFAP/KPID/CW-16:  
REHABILITATION OF  
IRRIGATION SYSTEMS, DIR  
IRRIGATION DIVISION,  
DISTRICT DIR**





GOVERNMENT OF KHYBER PAKHTUNKHWA  
IRRIGATION DEPARTMENT

# EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP) – KP “RECONSTRUCTION AND REHABILITATION OF IRRIGATION AND DRAINAGE SYSTEM AND FLOOD PROTECTIONWORKS IN KHYBER PAKHTUNKHWA”

ADB LOAN NO. 4279 PAK (COL)

## ANNEXURE - II DRAWINGS (EFAP/KPID-CW-16)

REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION

NOVEMBER 2023



1C, BLOCK N, MODEL TOWN EXT,  
LAHORE 54700, PAKISTAN

+92-42-99090513 FAX: +92-42-99231940

WA@NESPAK.COM.PK



## LIST OF DRAWINGS

SR. NO.	DRAWING TITLE	DRAWING NO.
1	DETAILS OF PROPOSED REPAIR & REHABILITATION OF IRRIGATION SYSTEMS	4593/EFAP-16/TD/SOW/01
2	PROJECT AREA MAP	4593/EFAP-16/TD/LM/01
3	LAYOUT MAP OF BENCH MARKS AND CONTROL POINTS	4593/EFAP-16/TD/BM/01
4	LAYOUT MAP OF BENCH MARKS AND CONTROL POINTS	4593/EFAP-16/TD/BM/02
5	LIST OF BENCH MARKS AND CONTROL POINTS	4593/EFAP-16/TD/BM/03
6	TYPICAL DETAIL OF BENCH MARKS - PLAN, SECTION AND DETAILS	4593/EFAP-16/TD/BM/04
7	GENERAL NOTES	4593/EFAP-16/TD/GN/01
8	REHABILITATION OF SCHEME NO. 1 - TYPICAL CROSS SECTIONS	4593/EFAP-16/TD/RCW/01
9	REHABILITATION OF SCHEME NO. 2 - TYPICAL CROSS SECTIONS	4593/EFAP-16/TD/RCW/02
10	REHABILITATION OF SCHEME NO. 3 - TYPICAL CROSS SECTIONS	4593/EFAP-16/TD/RCW/03
11	REHABILITATION OF BALAMBAT IRRIGATION SCHEME - DIVERSION WEIR - PLAN & SECTION	4593/EFAP-16/TD/RCW/04
12	REHABILITATION OF BALAMBAT IRRIGATION SCHEME - HEAD REGULATOR - PLAN & SECTIONS	4593/EFAP-16/TD/RCW/05
13	REHABILITATION OF BALAMBAT IRRIGATION SCHEME - HEAD REGULATOR - SECTIONS	4593/EFAP-16/TD/RCW/06
14	REHABILITATION OF BALAMBAT IRRIGATION SCHEME ESCAPE - GATE PLAN & SECTIONS	4593/EFAP-16/TD/RCW/07

EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHUNKHWA"



GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED

DRAWN	M.T
SUBMITTED	F.F
RECOMMENDED	F.F
CHD/VER	N.A
APPROVED	N.A

**NES**  
**PAB**  
**LIMITED**

HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

LIST OF DRAWINGS

DATE  
NOV. 2023

DWG. NO.

REV.  
0



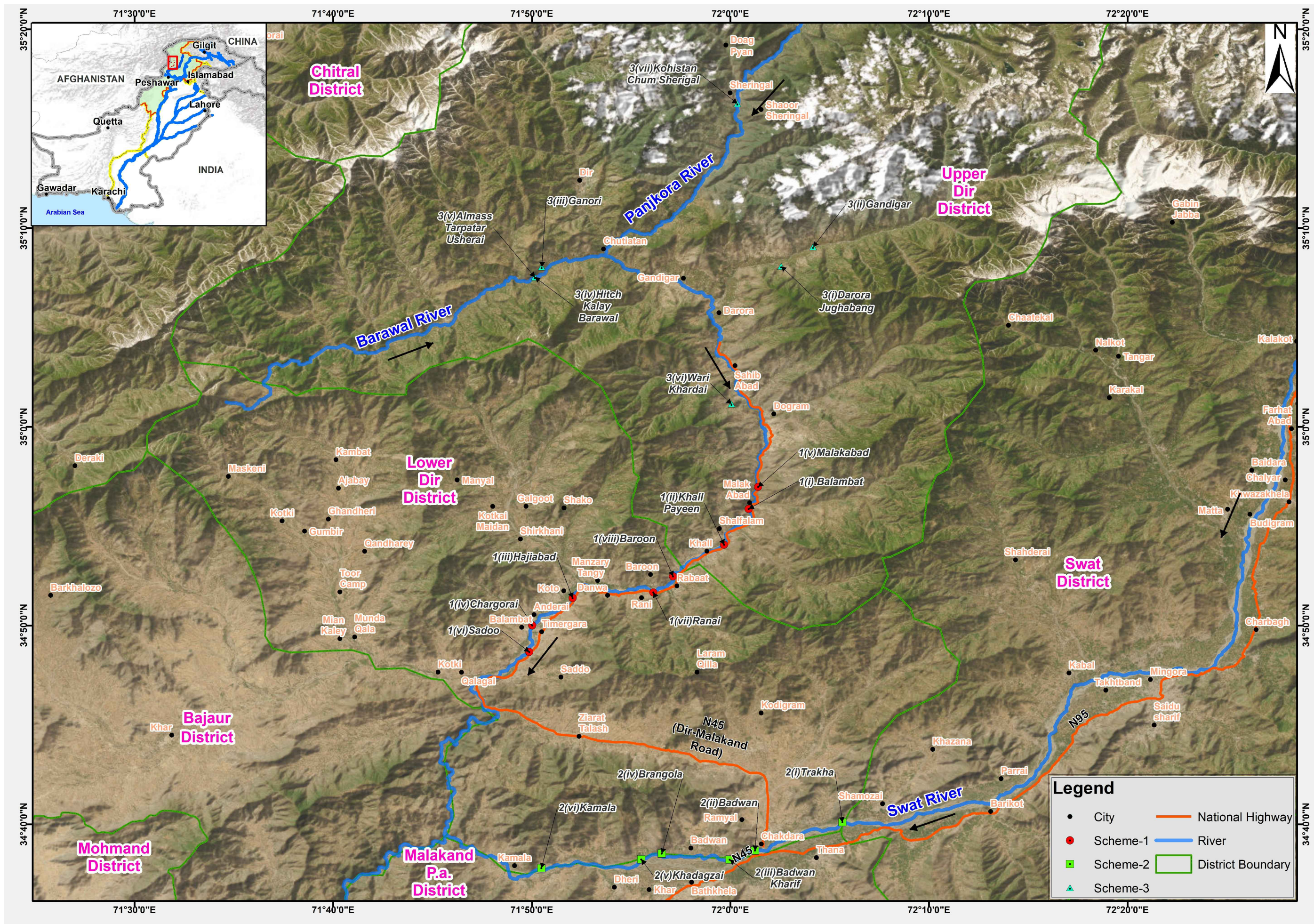
Sr. No.	Name of Channel	Coordinates	Total Length (ft)	Damaged Length (ft)	Damaged Length RDs	Discharge (Cusec)	CCA (Acres)	Priority of Scheme
<b>Scheme No.1 - Rehabilitation of Balambat Irrigation Scheme &amp; Khall Payeen, Haji abad, Chargarai, Malak abad, Adai, Ranai, Manzary Tangy and Baron Civil Channels District Dir Lower.</b>								
1	Balambat Irrigation Scheme	34°55'52.21"N 72° 0'55.14"E	246,306	5,000	RD 0+00 to RD 5000	125.0	15,163	1
2	Khall Payeen Civil Channel	34°54'4.11"N 71°59'40.99"E	13,000	1,000	RD 0+00 to RD 1000	8.0	800	1
3	Hajiabad Civil Channel	34°51'23.38"N 71°52'3.22"E	14,000	2,500	RD 0+00 to RD 2500	12.0	1,200	1
4	Chargarai Civil Channel	34°50'0.77"N 71°50'1.37"E	15,300	1,340	RD 0+00 to RD 940, RD 2400 to RD 2800	10.0	980	1
5	Malakabad Civil Channel	34°56'58.68"N 72° 1'23.55"E	11,000	2,240	RD 300 to RD 2500, RD 9000 to RD 9040	3.0	300	2
6	Sadoo Civil Channel	34°48'40.60"N 71°49'52.28"E	18,000	1,400	Rd 0+00 to RD 1400	8.0	800	1
7	Ranai Civil Channel	34°51'40.25"N 71°56'6.97"E	5,000	700	RD 0+00 to RD 700	4.5	440	1
8	Baroon Civil Channel	34°52'28.77"N 71°57'6.83"E	8,000	600	RD 0+00 to RD 600	5.0	520	1
<b>Scheme No.2 - Rehabilitation of Badwan Irrigation Scheme &amp; Trakha Civil Channel, Brangola, Khadagzai, Kamala &amp; Adenzai Area Civil Channels District Dir Lower.</b>								
1	Trakha Civil Channel	34°40'6.20"N, 72° 5'38.61"E	23,000	2,000	RD 3+000 to RD 6+000	12.0	840	2
2	Badwan Civil Channel	34°38'40.73"N, 72° 1'14.36"E	17,000	1,510	RD 0+00 to RD 1+510	8.0	700	1
3	Badwan Kharif Irrigation Scheme	34°38'13.37"N 71°59'58.01"E	72,800	2,000	RD: 0+000 to RD: 5+000, RD: 6+000 to RD: 20+000, RD: 23+000 to RD: 72+000	20.0	1,529	1
4	Brangola Civil Channel	34°38'31.94"N 71°56'32.68"E	8,300	1,800	RD 0+000 RD 1+800	6.0	280	1
5	Khadagzai Civil Channel	34°38'14.26"N 71°55'30.63"E	16,700	2,000	RD 0+000 to RD 2+500	14.0	1,500	1
6	Kamala Civil Channel	34°37'47.71"N 71°50'28.79"E	9,800	2,000	RD 1+500 to RD 1+700	5.0	450	2
<b>Scheme No.3 - Rehabilitation of Gandigar, Darora and Ganorai Irrigation Schemes Civil Channels in Kohistan, Barawal, Usharai, Warai, Shamalai, Shahi bagh &amp; Mamba zara in District Dir Upper.</b>								
1	Darora Jughabang Irrigation Scheme	35° 8'24.79"N 72° 2'33.21"E	72,000	3,937	At RDs: 2+500, 4+300, 7+000, 9+300, 11+000, 13+000, 16+000, 25+000, 28+000, 41+000, 49+500, 55+000, 68+000	30.0	2,332	2
2	Gandigar Irrigation Scheme	35° 9'3.33"N 72° 4'9.86"E	92,000	3,609	At RDs 6+500, 9+600, 11+000, 17+500, 23+000, 26+000, 29+300, 34+000, 38+000, 41+400, 45+000, 50+000, 52+500, 65+000, 71+600, 74+000, 76+500, 78+000, 83+000	50.0	3,980	2
3	Ganori Irrigation Scheme	35° 8'2.55"N 71°50'29.93"E	42,000	3,280	At RDs 1+000, 2+300, 3+800, 82+00, 13+500, 21+700, 24+000, 32+000	17.0	1,300	2
4	Hitch Kalay Barawal Civil Channel	35° 07'32"N 71°50'09"E	15,000	700	At RDs 0+150, 150+400, 400+600, 650+7500	8	1,000	2
5	Almass Tarpatar Usharai Civil Channel	35° 07'32"N 71°50'09"E	12,000	800	At RDs 0+200, 250+800	10	1,200	2
6	Wari Khardai Civil Channel	35° 01'09"N 72°0'3.27"E	7,000	500	At RDs 0+150, 250+300, 700+750, 2500+2560	5	500	2
7	Kohistan Chum Sherigal Civil Channel	35° 01'6'31"N 71°00'24"E	4,500	200	At RDs 0+200	4	200	2



REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED	N.A.







EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
 "RECONSTRUCTION AND REHABILITATION OF  
 IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
 PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



GOVERNMENT OF KHYBER  
 PAKHTUNKHWA  
 IRRIGATION DEPARTMENT

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED	
							DRAWN
							M.T
							SUBMITTED
							F.F
							RECOMMENDED
							F.F
							CHD/VER
							N.A
							APPROVED
							N.A

**NESPAC** NATIONAL ENGINEERING  
 SERVICES PAKISTAN (PVT)  
 LIMITED

HEAD OFFICE : NESPAC HOUSE, 1-C BLOCK N,  
 MODEL TOWN EXTENSION, LAHORE PAKISTAN

PROJECT AREA MAP

DATE  
 OCT. 2023

DWG. NO.  
 4593/EFAP-16/TD/LM/01

REV.  
 0



# G E N E R A L N O T E S

## A. GENERAL

- ALL DIMENSIONS AND ELEVATIONS ETC. SHOWN ON DRAWINGS ARE IN FP SYSTEM FOR THE EASE OF CONSTRUCTION UNLESS OTHERWISE INDICATED.
- THE GRID, CO-ORDINATES OF POINTS AND CONTOURS ARE IN METER.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT HIS PLAN FOR EXCAVATION OF FOUNDATION AND LIFT DRAWINGS FOR CONCRETE STRUCTURES TO THE ENGINEER PRIOR TO POURING OF CONCRETE AT SITE.
- ALL AREAS DISTURBED DUE TO THE CONSTRUCTION ACTIVITIES SHALL BE PROPERLY RESTORED TO ITS ORIGINAL FORM OR AS DIRECTED BY THE ENGINEER.
- LOCATIONS OF VARIABLE FEATURES SUCH AS NATURAL STREAMS, DEPRESSIONS AND HOUSES ETC., SHOWN IN DRAWINGS ARE SUBJECT TO CHANGE.
- TO RECORD THE EXISTING GROUND LEVELS FOR MEASUREMENT OF EXCAVATION AND FILL IN EMBANKMENTS, THE AREA SHALL BE JOINTLY SURVEYED BY THE CONTRACTOR AND THE ENGINEER BEFORE STARTING THE WORKS, AND SAME SHALL BE USED FOR QUANTITY CERTIFICATION.
- ANY VARIATION BETWEEN DRAWINGS AND SITE CONDITIONS SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CLARIFICATION BEFORE EXECUTION OF THE WORK.
- DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
- LOCATION OF STRUCTURE IS TENTATIVE AND SUBJECT TO VERIFICATION BY THE ENGINEER AT SITE.
- EXCAVATED MATERIAL SUITABLE FOR EMBANKMENT FILL SHALL BE USED FOR COMPACTED EMBANKMENTS.
- EARTH FILL IN EMBANKMENTS SHALL BE COMPACTED AS PER SPECIFICATIONS.
- THE STRUCTURES TO BE CONSTRUCTED ON FILL, SHALL BE PLACED ON FILL COMPACTED TO 95 % OF DRY DENSITY.

## B. EARTHWORK

- EXCAVATION SHALL BE CARRIED TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE EXCAVATED AREA.
- FILL, BACKFILL AND SELECT FILL MATERIAL WHERE REQUIRED, SHALL BE PLACED AND COMPACTED TO THE REQUIREMENTS AS PER TECHNICAL SPECIFICATIONS AND DRAWINGS.
- THE EARTHEN RAMPS AROUND THE STRUCTURE SHALL HAVE SLOPE OF 1V:30H UNLESS OTHERWISE MENTIONED.
- ANY LOOSE SOIL ENCOUNTERED DURING EXCAVATION OF STRUCTURE FOUNDATIONS, SHALL BE REPLACED WITH APPROVED FILL MATERIAL AS PER SPECIFICATIONS AND DRAWINGS.
- THE CONTRACTOR SHOULD KEEP THE EXCAVATED AREA DRY DURING THE CONSTRUCTION ACTIVITY AND AT LEAST 12 HOURS AFTER CONCRETING IT OR AS DIRECTED BY THE ENGINEER.
- DEVELOPMENT OF ANY EXCESSIVE PRESSURE BEHIND THE ABUTMENT AND RETAINING WALLS DUE TO OVER COMPACTION SHALL BE AVOIDED.

## C. CONCRETE

- CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF ACI CODE.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, THE MINIMUM COMPRESSIVE CYLINDER STRENGTH  $f_c'$  OF CONCRETE AT 28 DAYS SHALL BE AS FOLLOWS:
 

i) CLASS 'AA'	6000 Psi	BLINDING CONCRETE, MASS CONCRETE
ii) CLASS 'A'	5000 Psi	PRESTRESSED GIRDERS
iii) CLASS 'B'	4000 Psi	PRECAST MEMBERS
iv) CLASS 'C'	3000 Psi	STRUCTURAL CONCRETE, (IN-SITU)
v) CLASS 'D'	1500 Psi	CANAL LINING, PCC
- ORDINARY PORTLAND CEMENT SHALL BE USED IN CONCRETE UNLESS OTHERWISE SPECIFIED ELSEWHERE.
- CONCRETE FINISHES AND TOLERANCES SHALL BE AS PER TECHNICAL SPECIFICATIONS.
- ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED  $\frac{3}{4} \times \frac{3}{4}$ " UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

- THE DESIGN OF FORMWORK AND FALSE WORK AS WELL AS ITS CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN OF FORMWORK AND FALSE WORK SHALL CONFORM TO THE TECHNICAL SPECIFICATIONS.
- ALL REINFORCED CONCRETE SHALL BE FAIR-FACED TO BE CAST IN PROPERLY DESIGNED STEEL FORM WORK AND PLATES.

## D. REINFORCEMENT

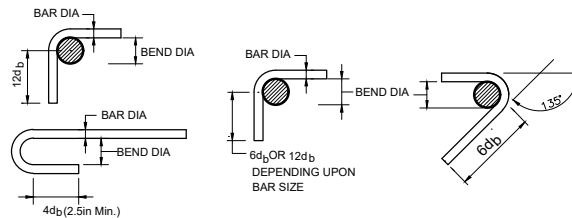
- REINFORCEMENT STEEL INDICATED ON DRAWINGS SHALL CONFORM TO ASTM A615 GRADE 60,000 Psi DEFORMED BARS.
- MINIMUM COVER TO THE REINFORCEMENT (UNLESS OTHERWISE INDICATED) SHALL BE:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
FOOTINGS	3"
TOP SURFACE OF GLACIS AND STILLING BASIN	2½"
PILES	3"
BEAMS, COLUMNS: TIES, STIRRUPS	1½"
RAILINGS, SPIRALS, PILE CAPS	1"

- THE BEND DETAILS SHALL BE AS SHOWN IN THE TABLE AND FIGURES BELOW:

### MINIMUM DIAMETER OF BEND

BAR SIZE	MINIMUM DIAMETER OF BEND
#3 THROUGH #8	6db
#9,#10 AND #11	8db



STANDARD HOOKS FOR REINFORCEMENT OTHER THAN STIRRUPS, TIES AND HOOPS

STANDARD HOOKS FOR STIRRUPS, TIES AND HOOPS

## 4. DEVELOPMENT LENGTH

UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM BASIC DEVELOPMENT LENGTH FOR REINFORCEMENT STEEL OF GRADE-60 (60,000 Psi) SHALL BE AS FOLLOWS:

### (i) DEVELOPMENT LENGTH IN TENSION

TOP BARS*		DEVELOPMENT LENGTH (in)									
$f_c'$ MPa(Psi)	BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	
4000		18	25	31	37	54	62	69	77	85	
5000		17	22	28	33	48	55	62	69	76	
6000		16	20	26	30	43	50	56	63	69	

### OTHER BARS

BAR SIZE		DEVELOPMENT LENGTH (in)									
$f_c'$ MPa(Psi)	BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	
4000		15	19	24	28	42	47	53	59	65	
5000		13	17	21	25	37	42	48	53	58	
6000		12	16	19	23	33	39	45	48	52	

### (ii) DEVELOPMENT LENGTH IN COMPRESSION

BAR SIZE		DEVELOPMENT LENGTH (in)									
$f_c'$ MPa(Psi)	BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	
4000		8	10	12	15	17	19	21	24	26	
5000		8	9	11	14	16	18	20	23	25	
6000		8	8	10	13	15	17	20	22	24	

\* HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12in. OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW

## 5. SPLICE/LAP LENGTH

- WELDED WIRE FABRIC MESH SHOULD BE LAPPED OVER ADJACENT SHEET BY 12in.
- BARS SHALL BE SPLICED ONLY WHERE INDICATED, OR AT LOCATIONS SPECIFICALLY APPROVED BY THE ENGINEER.
- EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS, WHENEVER REINFORCING BARS OF DIFFERENT SIZES ARE TO BE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF THE DEVELOPMENT LENGTH OF THE LARGER BAR, OR SPLICE LENGTH OF THE SMALLER BAR.
- THE LAPS SHOULD BE STAGGERED.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM LAP LENGTH FOR REINFORCEMENT STEEL OF GRADE-60 (60,000 Psi) SHALL BE AS FOLLOWS:

### (i) LAP SPLICE LENGTH IN TENSION

TOP BARS*		SPLICE LENGTH (in)									
$f_c'$ MPa(Psi)	BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	
4000		24	32	40	48	70	80	90	100	110	
5000		22	29	36	43	63	72	81	90	99	
6000		21	27	33	39	57	66	75	81	90	

### OTHER BARS

BAR SIZE		SPLICE LENGTH (in)									
$f_c'$ MPa(Psi)	BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	
4000		18	25	31	37	54	62	69	77	85	
5000		17	22	28	33	48	55	62	69	76	
6000		16	20	26	30	43	50	56	63	68	

### (ii) LAP SPLICE LENGTH IN COMPRESSION

BAR SIZE		SPLICE LENGTH (in)									
$f_c'$ MPa(Psi)	BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	
4000		11	15	19	23	26	30	34	38	41	
5000		11	15	19	23	26	30	34	38	41	
6000		11	15	19	23	26	30	34	38	41	

- EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS, WHENEVER REINFORCING BARS OF DIFFERENT SIZES ARE TO BE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OF THE DEVELOPMENT LENGTH OF THE LARGER BAR, OR SPLICE LENGTH OF THE SMALLER BAR.
- THE LAPS SHOULD BE STAGGERED.
- THE CONTRACTOR SHALL PREPARE ALL BAR BENDING SCHEDULES AS PER CONSTRUCTION DRAWINGS AND SUBMIT TO THE ENGINEER WELL BEFORE EXECUTION FOR APPROVAL.
- ALL REINFORCING STEEL SHALL BE ACCURATELY PLACED IN THE FORM WORK AND HELD FIRMLY BEFORE PLACING CONCRETE, BY MEANS OF 16 GAUGE BLACK ANNEALED WIRES AND ADEQUATELY DESIGNED SPACERS.

## E. PLUM CONCRETE

- PLUM CONCRETE SHALL CONSIST OF CONCRETE CLASS C (3000PSI) CONTAINING LARGE EMBEDDED STONES HAVING NO STONE DIMENSION LESS THAN 8INCH.
- NO TWO STONES SHALL BE CLOSER THAN 6INCH TO EACH OTHER
- ONLY STEEL PLATES OR PLYWOOD FORM WORK SHOULD BE USED AND IT SHOULD NOT BE DAMAGED OR MISPLACED WHILE PLACING/DUMPING OF STONES.
- PLUM CONCRETE WILL CONSTITUTE ONLY 30% STONES OF TOTAL VOLUME AND CONCRETE CLASS B WILL NOT BE LESS THAN 70%.
- THE COMMON PRACTICE OBSERVED IN SUCH CONSTRUCTIONS IS THAT STONES USED ARE MORE THAN 40% AND CONCRETE USED IS LESS THAN 60%, WHICH IS INCORRECT PRACTICE AND NEEDS TO BE MONITORED AT THE SITE. ANOTHER INCORRECT PRACTICE OBSERVED IS THAT A LAYER OF STONES IS PLACED AND THEN A LAYER OF MORTAR IS SPREAD OVER THE STONE LAYERS. THE CORRECT PRACTICE IS TO FIRST PLACE A CONCRETE LAYER OF 6INCH AND THEN PLACES A FEW STONES 6INCH APART
- EACH STONE SHOULD BE COVERED BY 6INCH CLASS C CONCRETE ALL AROUND AND THE SPACES IN BETWEEN THE LARGER STONES SHOULD NOT BE FILLED WITH SMALLER STONE CHIPPING EXCEPT CONCRETE.
- IT IS ALSO TO BE ENSURED THAT WATER CURING IS CARRIED OUT FOR AT LEAST 14 DAYS.
- POOR WORKMANSHIP AND LACK OF SUPERVISION IS ALSO A CAUSE OF POOR CONSTRUCTION AND ULTIMATELY FAILURE. HENCE, PROPER SUPERVISION MUST ALSO BE INSURED.

## F. STRUCTURAL STEEL

- ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENT OF ASTM A36 UNLESS NOTED OTHERWISE ON DRAWINGS.
- ALL WELDED CONSTRUCTION SHALL BE WITH CONTINUOUS FILLET WELD WITH ELECTRODES OF APPROVED QUALITY UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL STRUCTURAL STEEL SHALL BE GALVANIZED OR PAINTED AS DIRECTED BY THE ENGINEER.

## G. STONE PROTECTION WORKS

- STONES FOR PITCHING AND APRON SHALL BE GENERALLY CUBOID IN SHAPE WITH THE LARGEST DIMENSIONS NOT EXCEEDING TWICE THE SMALLEST DIMENSIONS.
- STONES FOR PITCHING AND APRON SHALL INDIVIDUALLY WEIGH BETWEEN 18-54kg WITH 80 PERCENT SHALL BE 36kg OR LARGER AND NOT MORE THAN 5 PERCENT SHALL WEIGH LESS THAN 18kg, EXCEPT WHERE NOTIFIED ON THE DRAWINGS.
- ALL INTERSTICES IN STONE WORK SHALL BE WELL FILLED WITH ROCK SPALLS. THE ROCK SPALLS SHALL BE ROCK FRAGMENTS SIZE BETWEEN 2in. AND 4in.

## H. MISCELLANEOUS

- TWO COATS OF APPROVED QUALITY OF BITUMEN SHALL BE APPLIED ON THE EARTH FACE OF THE STRUCTURES FOR WATERPROOFING AS PER CONTRACT SPECIFICATIONS UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL WATERSTOPS SHALL BE 9" WIDE PVC WATERSTOPS WITH THREE BULBS AND OF THE SHAPE AND SIZE ONLY FOR CONSTRUCTION JOINTS.
- THE CONSTRUCTION OF EXPANSION, CONTRACTION, AND CONSTRUCTION JOINTS IN STRUCTURE WHERE SHOWN ON THE DRAWINGS, SHALL BE CARRIED OUT AS PER THE REQUIREMENTS OF TECHNICAL SPECIFICATIONS AND THE DRAWINGS.
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, CONSTRUCTION JOINTS SHALL BE PROVIDED, WITH THE APPROVAL OF THE ENGINEER AND SHALL BE PLANNED BEFORE EXECUTION OF WORK.

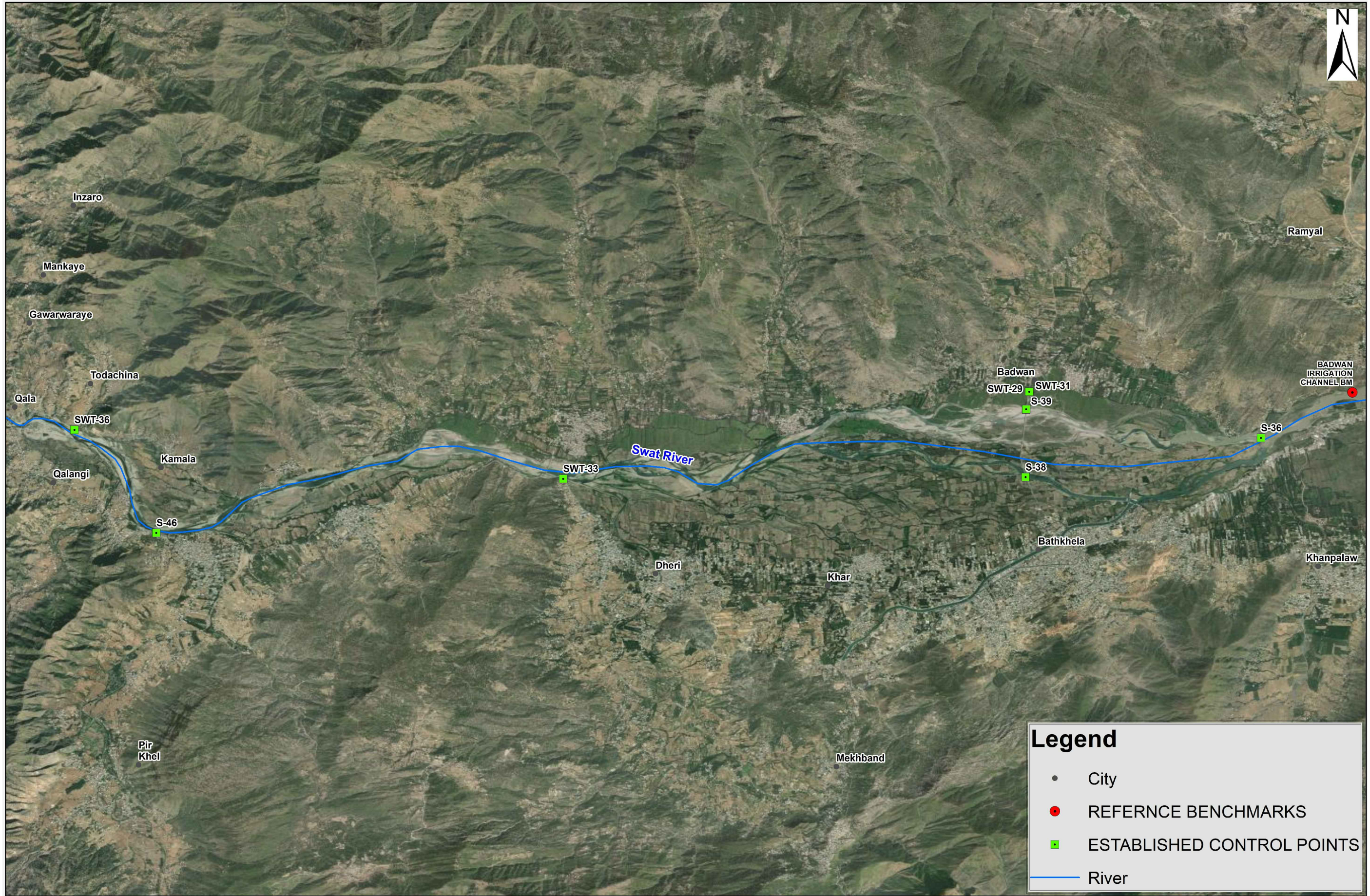






							DRAWN	M.T
							SUBMITTED	F.F
							RECOMMENDED	F.F
							CHD/VER	N.A
REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED		N.A





SHEET 2 OF 2

EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT

							DRAWN	M.T
							SUBMITTED	F.F
							RECOMMENDED	F.F
							CHD/VER	N.A
REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED		N.A

**NESPAC** NATIONAL ENGINEERING  
SERVICES PAKISTAN (PVT)  
LIMITED

HEAD OFFICE : NESPAC HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION  
LAYOUT MAP OF BENCH MARKS  
AND CONTROL POINTS

DATE  
NOV. 2023

DWG. NO.  
4593/EFAP-16/TD/BM/02

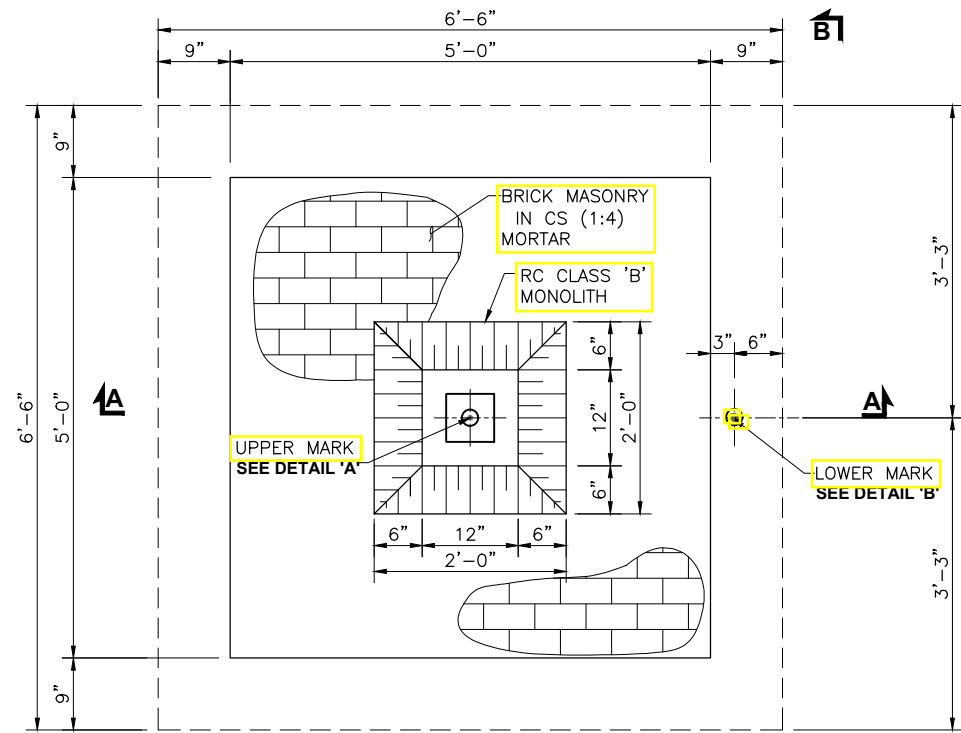
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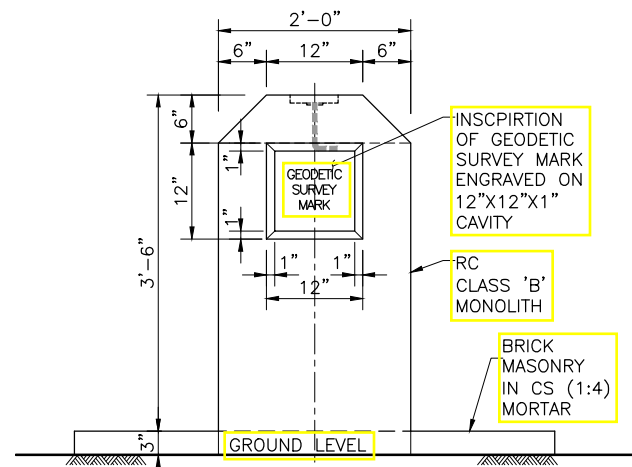
SN	NAME	LATITUDE	LONGITUDE	EASTING	NORTHING	ELEVATION
		(DMS)	(DMS)	(m)	(m)	(m)
<b>REFERNCE BENCH MARKS</b>						
1	SOP-KP	34° 47' 29.674" N	72° 20' 49.328" E	78416.81	1174450.71	914.688
2	BADWAN IRRIGATION CHANNEL BM	34° 38' 40.763" N	72° 1' 14.364" E	69164.85	1169738.00	676.876
<b>ESTABLISHED CONTROL POINTS in WGS84 &amp; UTM Zone 42N</b>						
1	S-38	34° 37' 49.179" N	71° 57' 55.175" E	771845.556	3836048.797	652.672
2	S-39	34° 38' 30.500" N	71° 57' 55.571" E	771818.152	3837322.515	653.175
3	S-46	34° 37' 15.172" N	71° 49' 5.150" E	758373.686	3834613.281	584.665
4	SWT-29	34° 38' 41.264" N	71° 57' 57.366" E	771854.111	3837655.563	654.362
5	SWT-31	34° 38' 41.264" N	71° 57' 57.366" E	771854.111	3837655.563	654.362
6	SWT-33	34° 37' 48.172" N	71° 53' 13.196" E	764663.605	3835809.117	612.352
7	SWT-36	34° 38' 18.012" N	71° 48' 15.233" E	757048.165	3836514.288	573.209
<b>ESTABLISHED CONTROL POINTS in WGS84 &amp; UTM Zone 42N</b>						
1	S-36	34° 38' 13.096" N	72° 0' 18.681" E	225472.509	3836865.852	667.182
2	SRP-05	34° 39' 34.292" N	72° 3' 45.063" E	230802.328	3839213.268	705.526
3	SWT-24	34° 41' 9.639" N	72° 12' 33.768" E	244346.491	3841768.424	784.705
4	SWT-26	34° 40' 4.879" N	72° 7' 48.362" E	237024.531	3839977.158	739.107
5	SWT-28	34° 39' 31.529" N	72° 3' 45.473" E	230810.268	3839127.805	702.642
6	SWT-29	34° 38' 46.789" N	72° 1' 39.181" E	227553.589	3837843.441	684.254



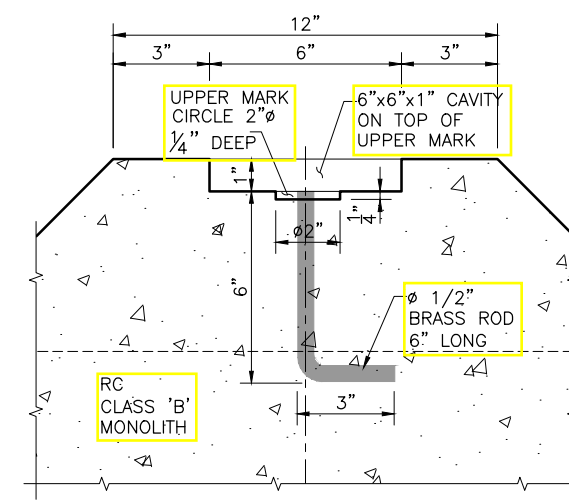
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							SUBMITTED	F.F
							RECOMMENDED	F.F
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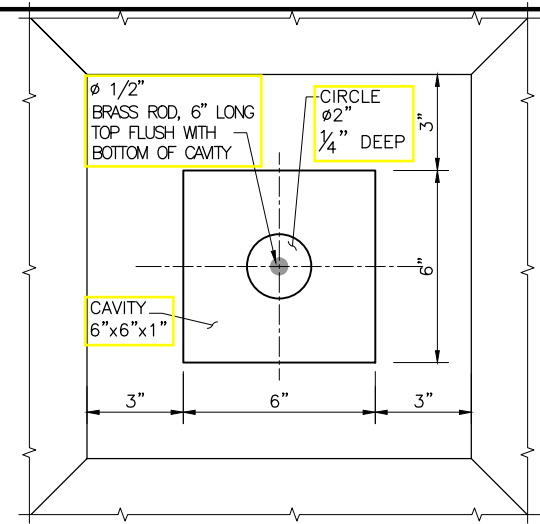
PLAN



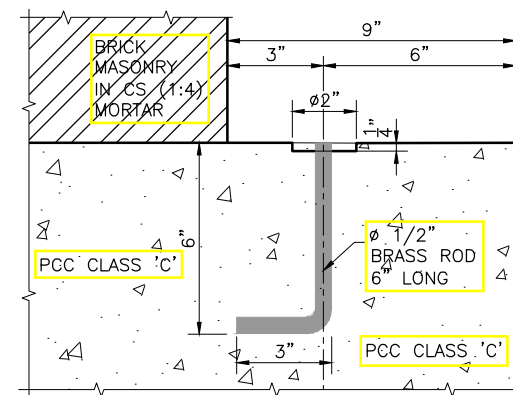
SECTION B-B



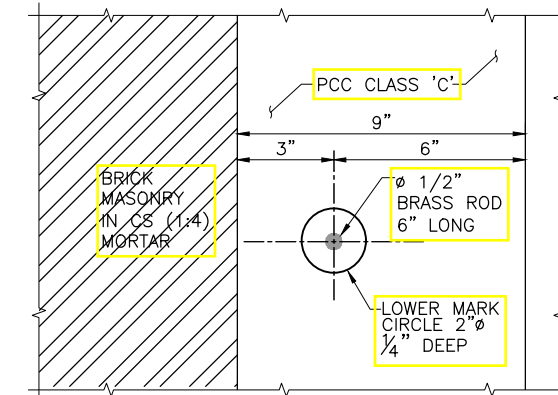
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UPPER MARK



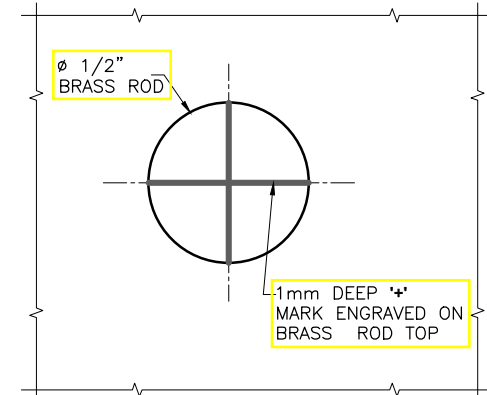
PLAN



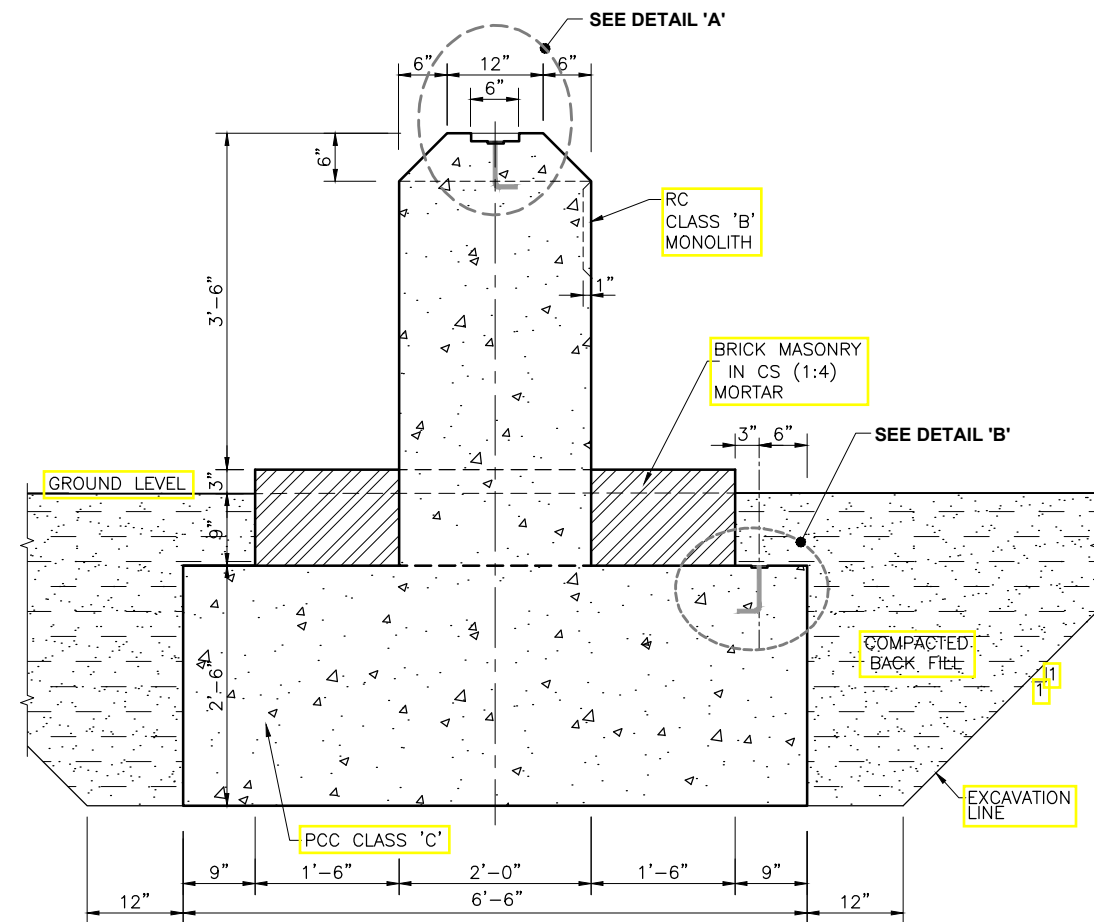
DETAIL "B"



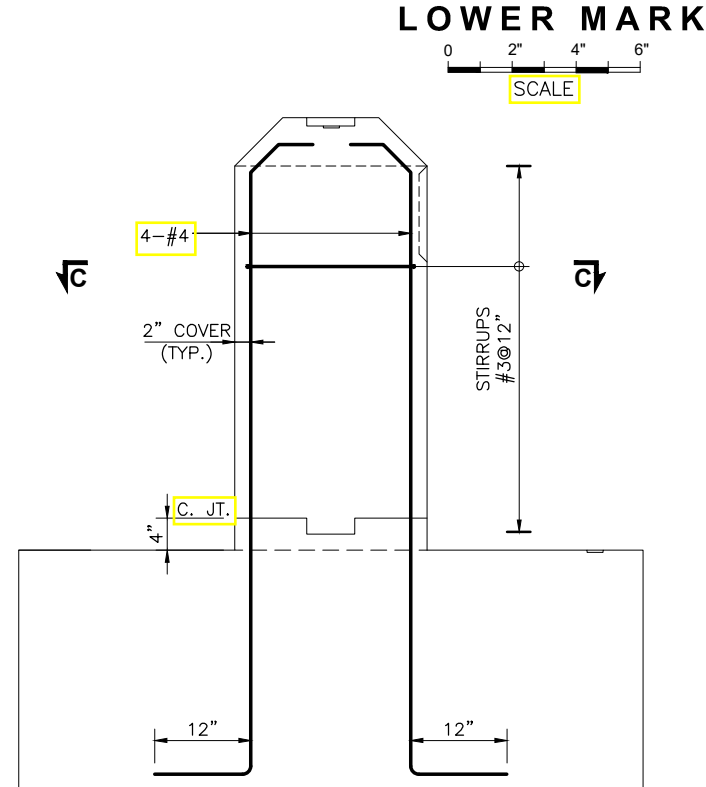
PLAN



VIEW AT TOP OF BRASS RODS

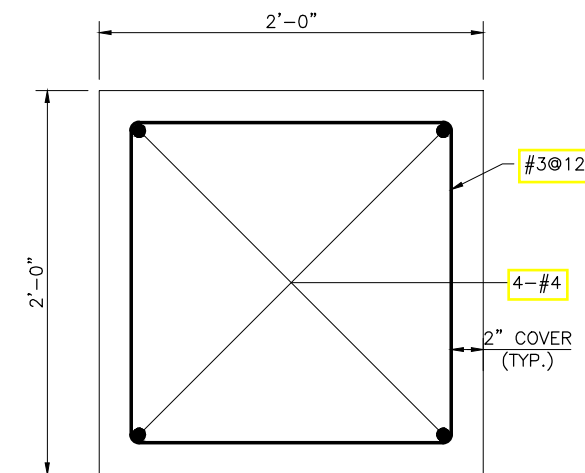


SECTION A-A



SECTION A-A

REINFORCEMENT DETAILS



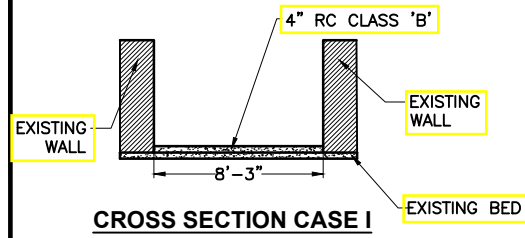
SECTION C-C



REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED	N.A.

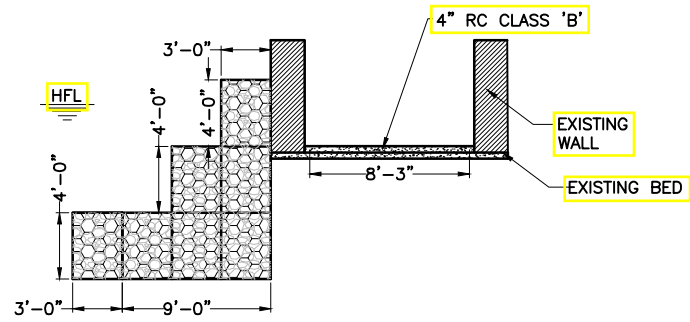
DRAWN	M.T
SUBMITTED	F.F
RECOMMENDED	F.F
CHD/VER	N.A
APPROVED	N.A

**BALAMBAT CIVIL CHANNEL LENGTH**



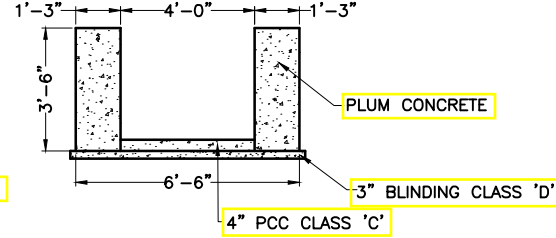
**CROSS SECTION CASE I**

**BALAMBAT IRRIGATION CHANNEL LENGTH**



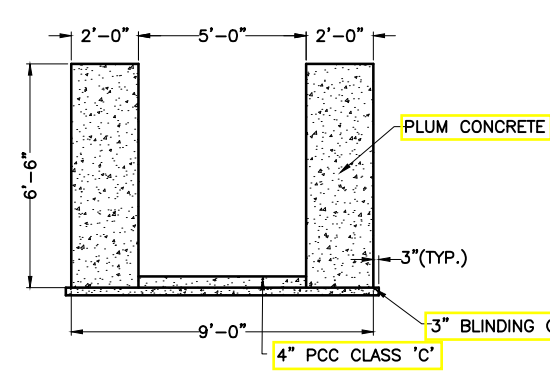
**CROSS SECTION CASE II**

**SADO CIVIL CHANNEL**



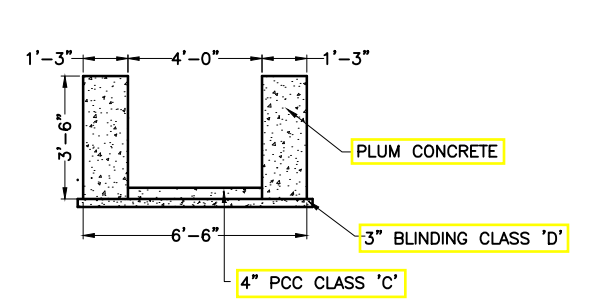
**CROSS SECTION**

**RANAI CIVIL CHANNEL**



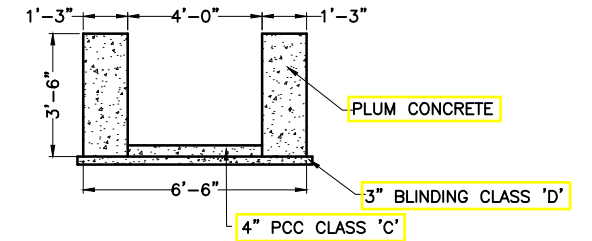
**CROSS SECTION**

**MALAK ABAD CIVIL CHANNEL**



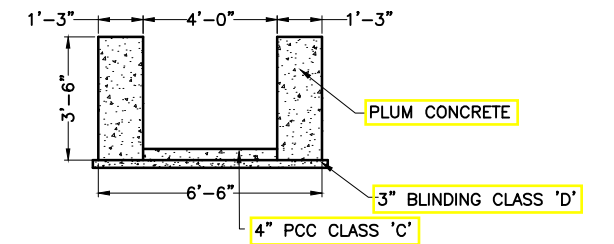
**CROSS SECTION**

**KHALL PAYEEN CIVIL CHANNEL**



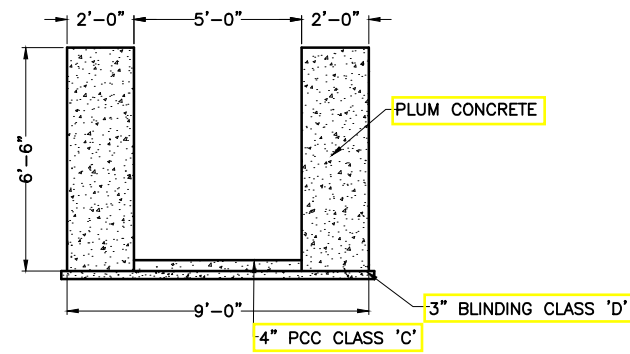
**CROSS SECTION**

**BAROON CIVIL CHANNEL**



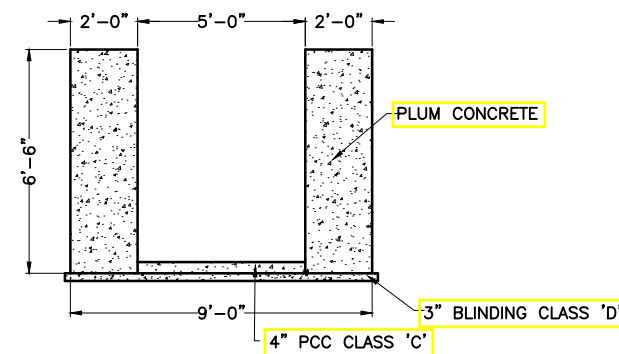
**CROSS SECTION**

**HAJIABAD CIVIL CHANNEL**

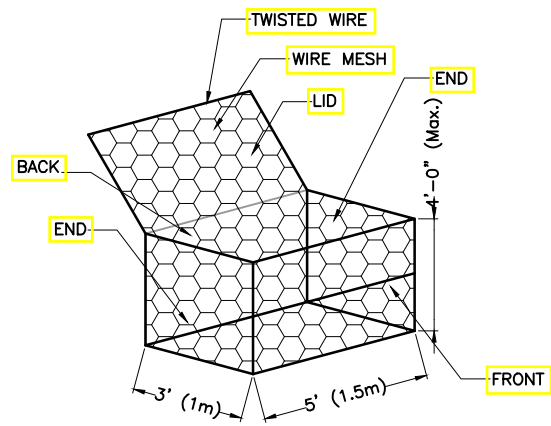


**CROSS SECTION**

**CHARGORAI CIVIL CHANNEL**



**CROSS SECTION**



**TYPICAL GABION 3D VIEW**

**NOTES**

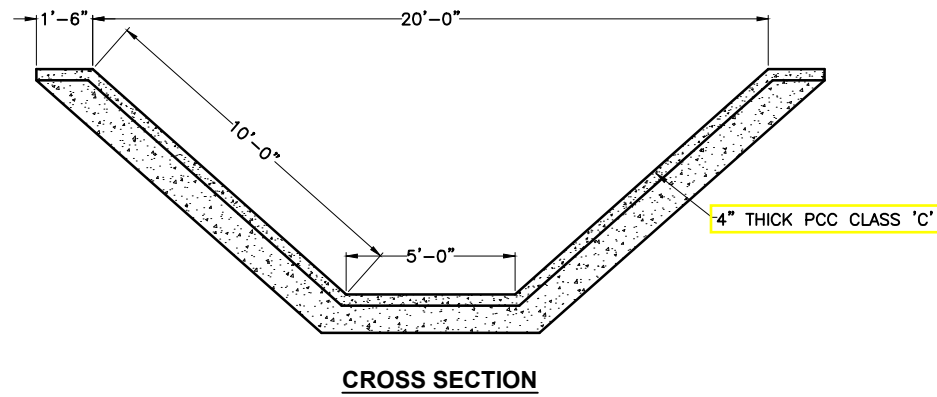
- FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.
- ALL SHOWN SECTIONS ARE TYPICAL AND TENTATIVE AND MAY VARY AS PER LEVELS AND DIMENSIONS OF EXISTING CHANNEL. CHANNELS ARE EITHER COMPLETELY DAMAGED OR PARTIALLY AND SHALL BE EXECUTED AS DIRECTED BY THE ENGINEER.



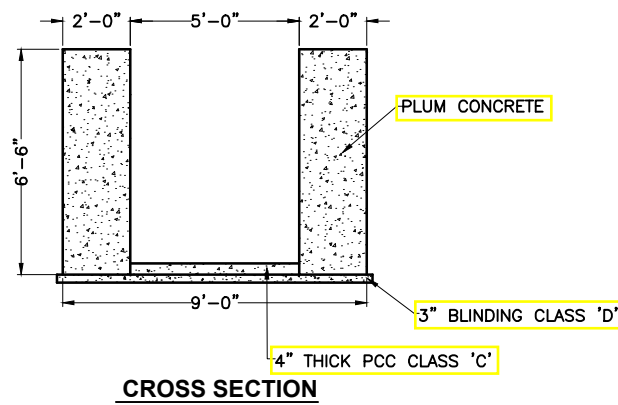
REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	DRAWN	M.T
						SUBMITTED	F.F
						RECOMMENDED	F.F
						CHD/VER	N.A
						APPROVED	N.A



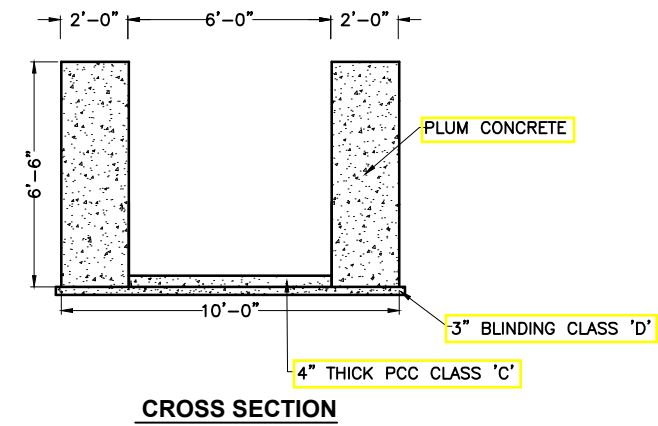
**BADWAN KHARIF CHANNEL**



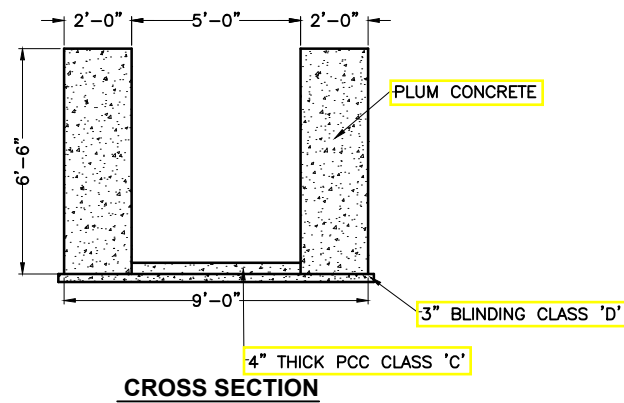
**KAMALA CIVIL CHANNEL**



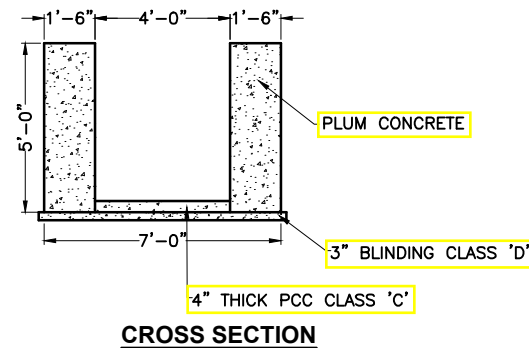
**TRAKHA CIVIL CHANNEL**



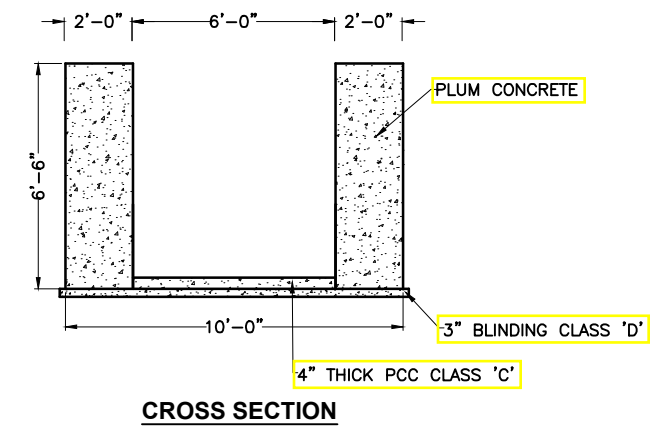
**KHADAGZAI CIVIL CHANNEL**



**MAIN BRANGOLA CIVIL CHANNEL**

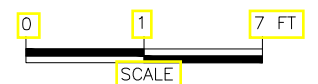


**BADWAN CIVIL CHANNEL**



**NOTES**

1. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.
2. ALL SHOWN SECTIONS ARE TYPICAL AND TENTATIVE AND MAY VARY AS PER LEVELS AND DIMENSIONS OF EXISTING CHANNEL. CHANNELS ARE EITHER COMPLETELY DAMAGED OR PARTIALLY AND SHALL BE EXECUTED AS DIRECTED BY THE ENGINEER.



EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED	

DRAWN M.T  
SUBMITTED F.F  
RECOMMENDED F.F  
CHD/VER N.A  
APPROVED N.A

**NESPAK** NATIONAL ENGINEERING  
SERVICES PAKISTAN (PVT)  
LIMITED

HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION

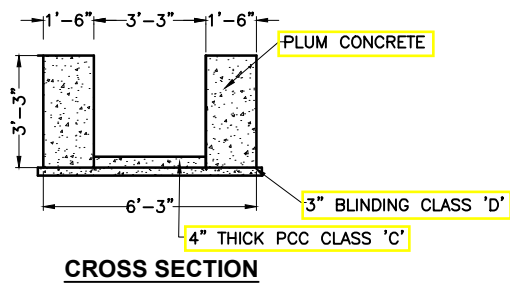
REHABILITATION OF SCHEME NO. 2  
TYPICAL CROSS SECTIONS

DATE  
NOV. 2023

DWG. NO.  
4593/EFAP-16/TD/RCW/02

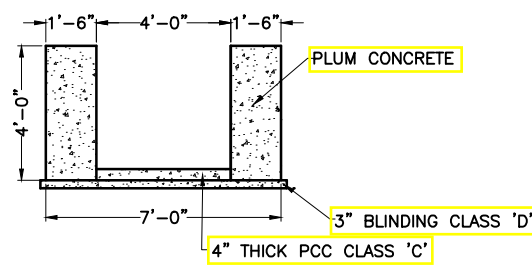
REV.  
0

**GANORAI CIVIL CHANNEL**



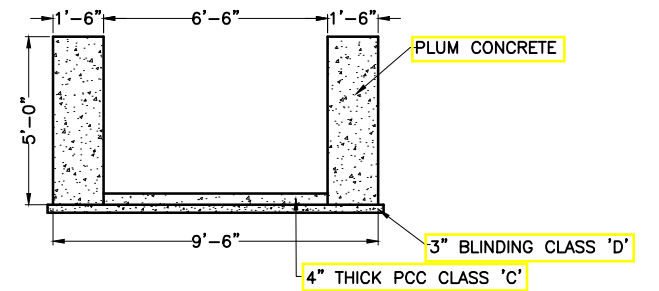
**CROSS SECTION**

**DARORA CIVIL CHANNEL**



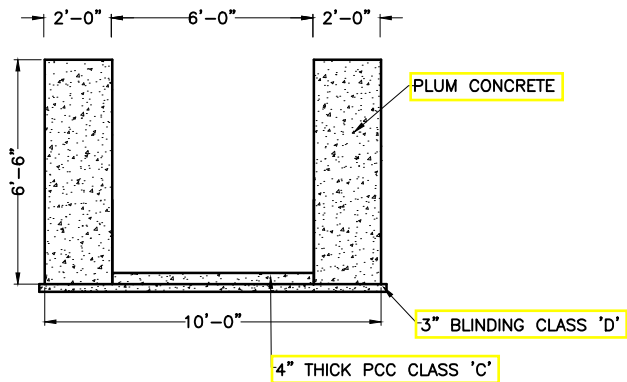
**CROSS SECTION**

**GANDIGAR CIVIL CHANNEL**



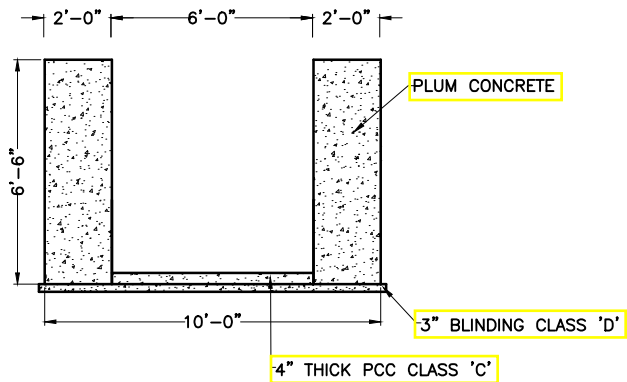
**CROSS SECTION**

**HITCH KALAY BARAWAL CIVIL CHANNEL**



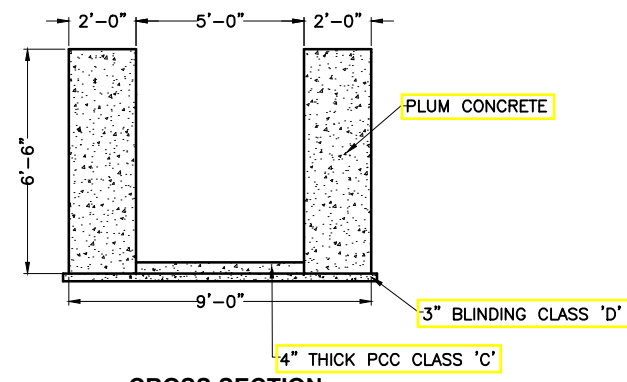
**CROSS SECTION**

**ALMASS TARPATAR USHERAI CHANNEL**



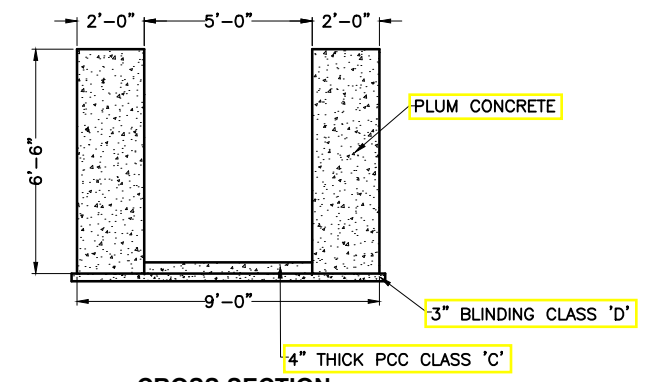
**CROSS SECTION**

**WARI KHARDAI CIVIL CHANNEL**



**CROSS SECTION**

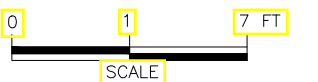
**KOHISTAN CHUM SHERIGAL CIVIL CHANNEL**



**CROSS SECTION**

**NOTES**

1. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.
2. ALL SHOWN SECTIONS ARE TYPICAL AND TENTATIVE AND MAY VARY AS PER LEVELS AND DIMENSIONS OF EXISTING CHANNEL. CHANNELS ARE EITHER COMPLETELY DAMAGED OR PARTIALLY AND SHALL BE EXECUTED AS DIRECTED BY THE ENGINEER.



EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED

DRAWN	M.T
SUBMITTED	F.F
RECOMMENDED	F.F
CHD/VER	N.A
APPROVED	N.A

**NEP PAK** NATIONAL ENGINEERING  
SERVICES PAKISTAN (PVT)  
LIMITED

HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION

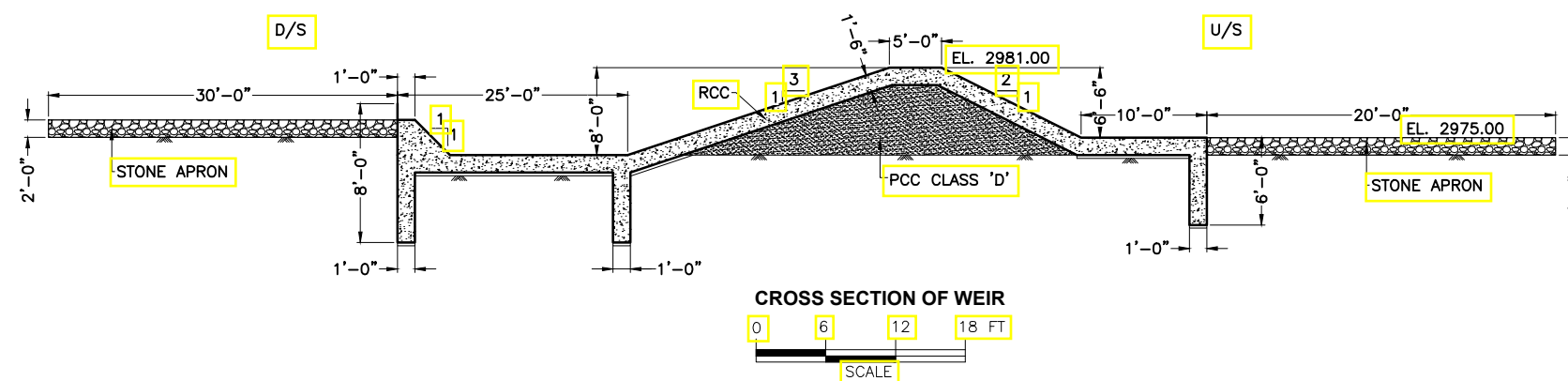
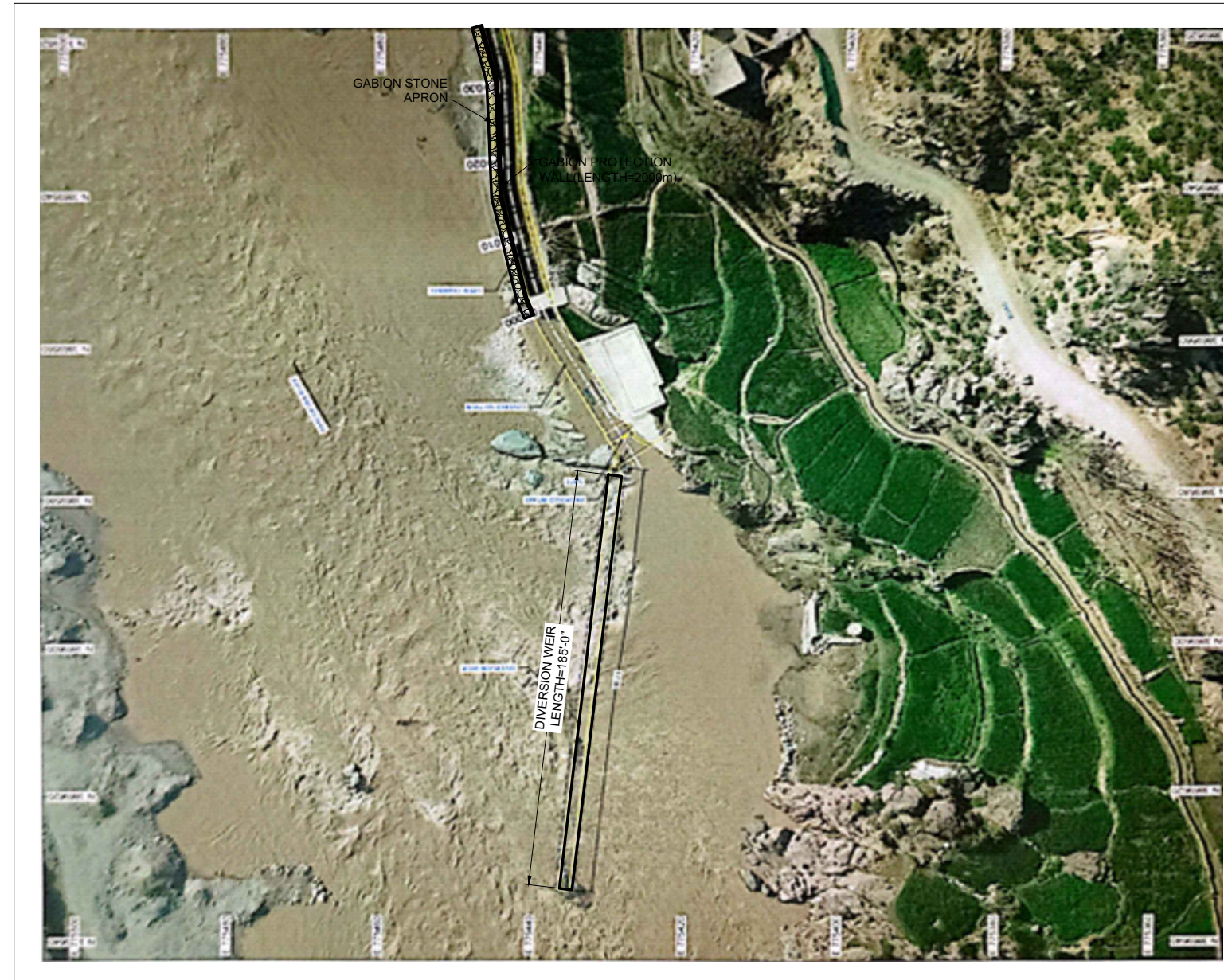
REHABILITATION OF SCHEME NO. 3  
TYPICAL CROSS SECTIONS

DATE  
NOV. 2023

DWG. NO.  
4593/EFAP-16/TD/RCW/04

REV.  
0





**NOTES**

1. ALL ELEVATIONS & DIMENSIONS ARE IN FEET UNLESS OTHERWISE INDICATED.
2. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.

EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



**GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT**

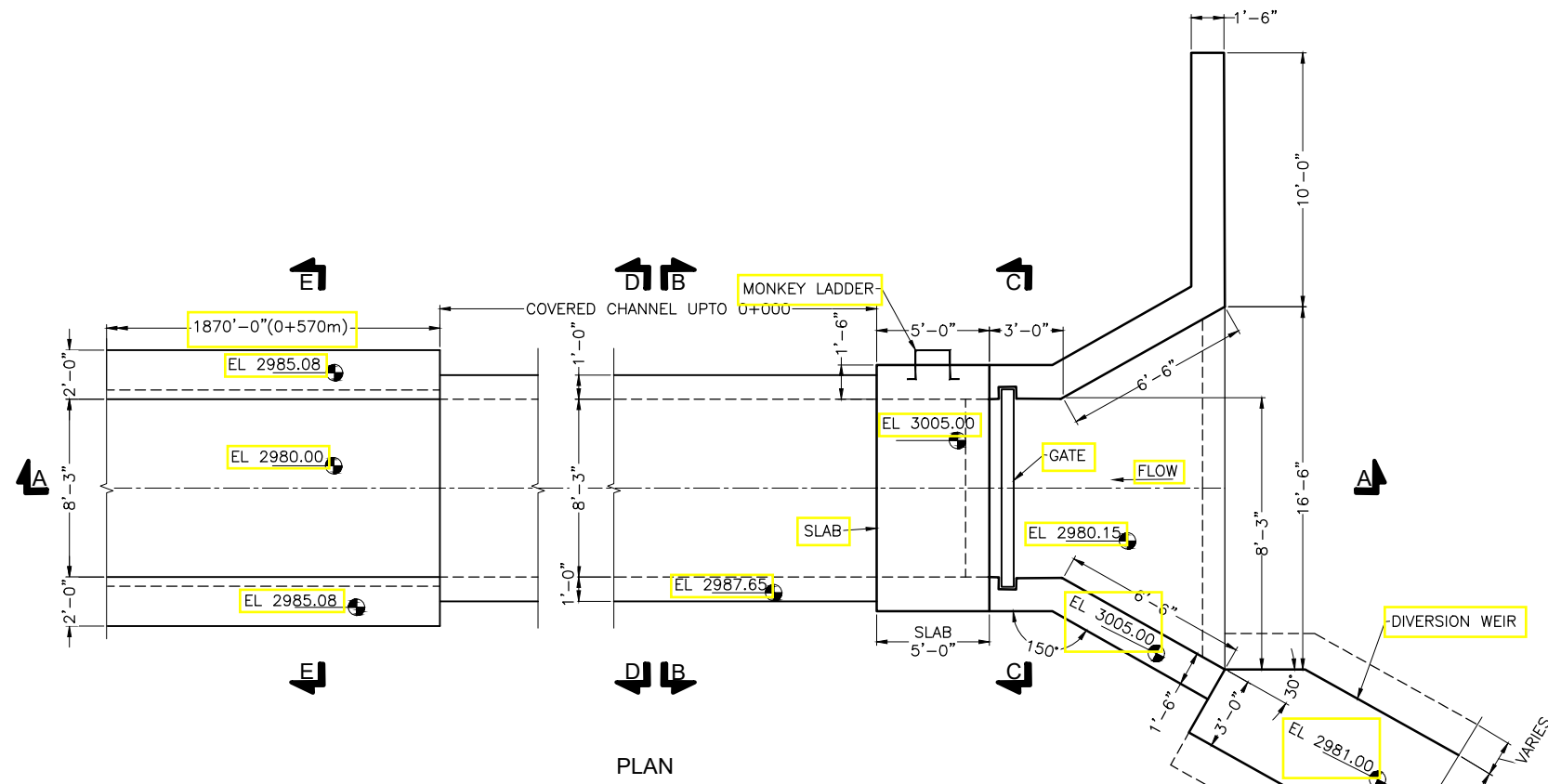
REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED

DRAWN	M.T
SUBMITTED	F.F
RECOMMENDED	F.F
CHD/VER	N.A
APPROVED	N.A

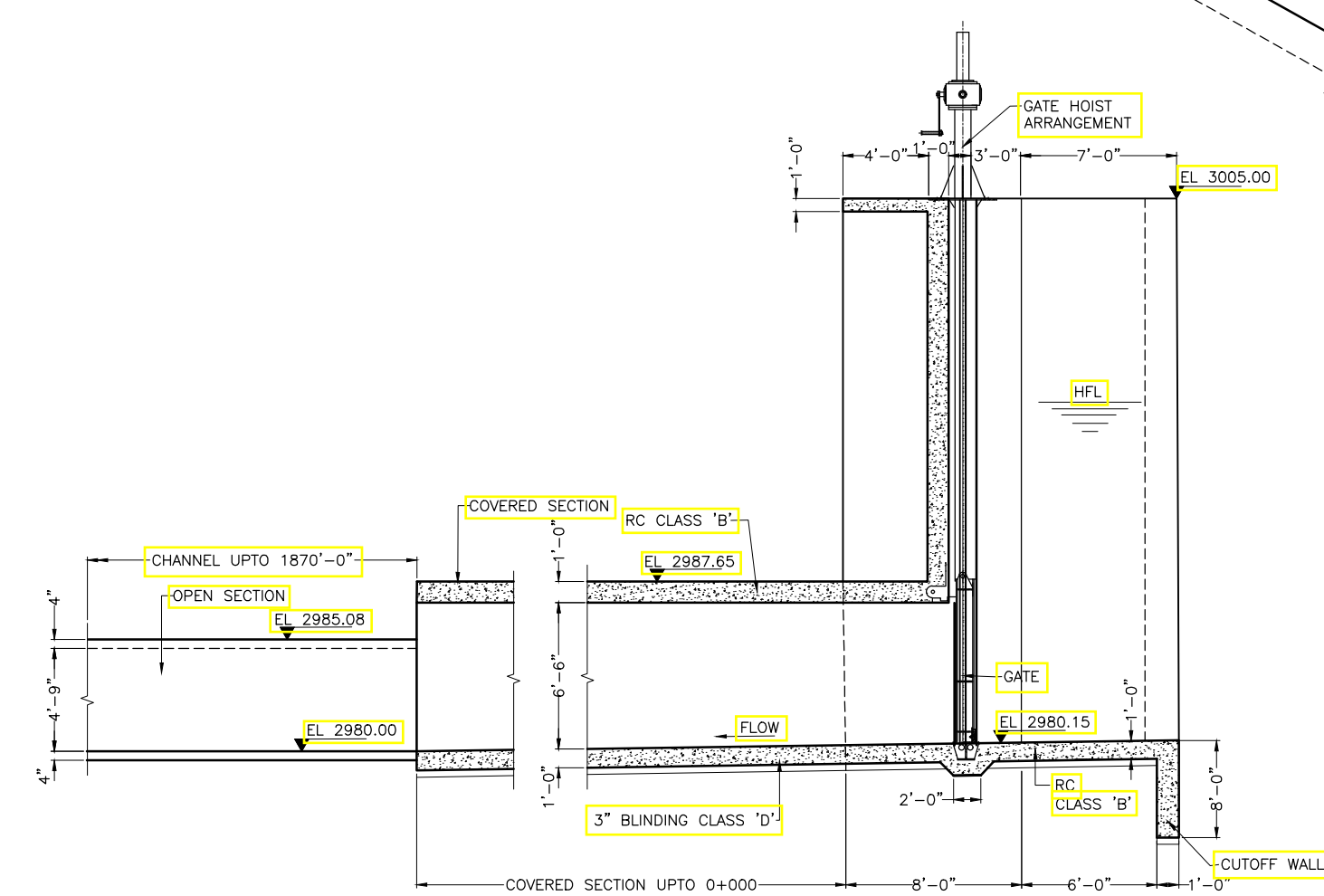
**NATIONAL ENGINEERING  
SERVICES PAKISTAN (PVT)  
LIMITED**

HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

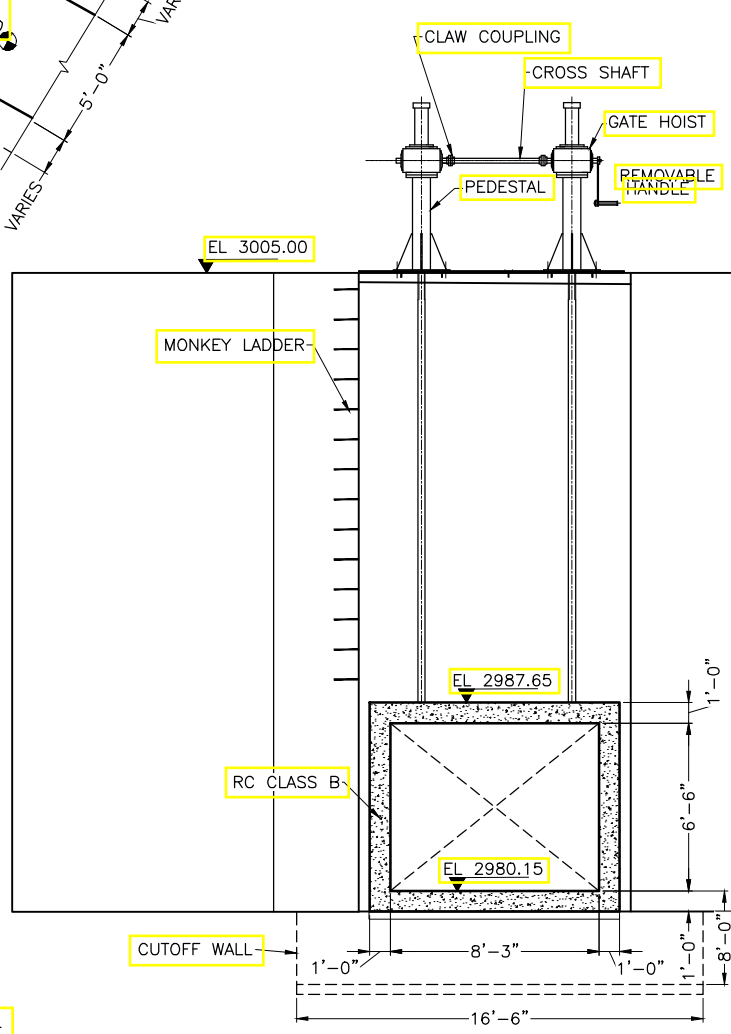
REHABILITATION OF IRRIGATION SYSTEMS, DIR IRRIGATION DIVISION	
REHABILITATION OF BALAMBAT IRRIGATION SCHEME DIVERSION WEIR - PLAN & SECTION	
DATE	DWG. NO.
NOV. 2023	4593/EFAP-16/TD/RCW/04
REV.	0



PLAN



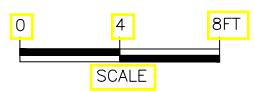
SECTION A-A



SECTION B-B

**NOTES**

1. ALL ELEVATIONS & DIMENSIONS ARE IN FEET UNLESS OTHERWISE INDICATED.
2. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.



EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF IRRIGATION AND DRAINAGE SYSTEM AND FLOOD PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



GOVERNMENT OF KHYBER PAKHTUNKHWA  
IRRIGATION DEPARTMENT

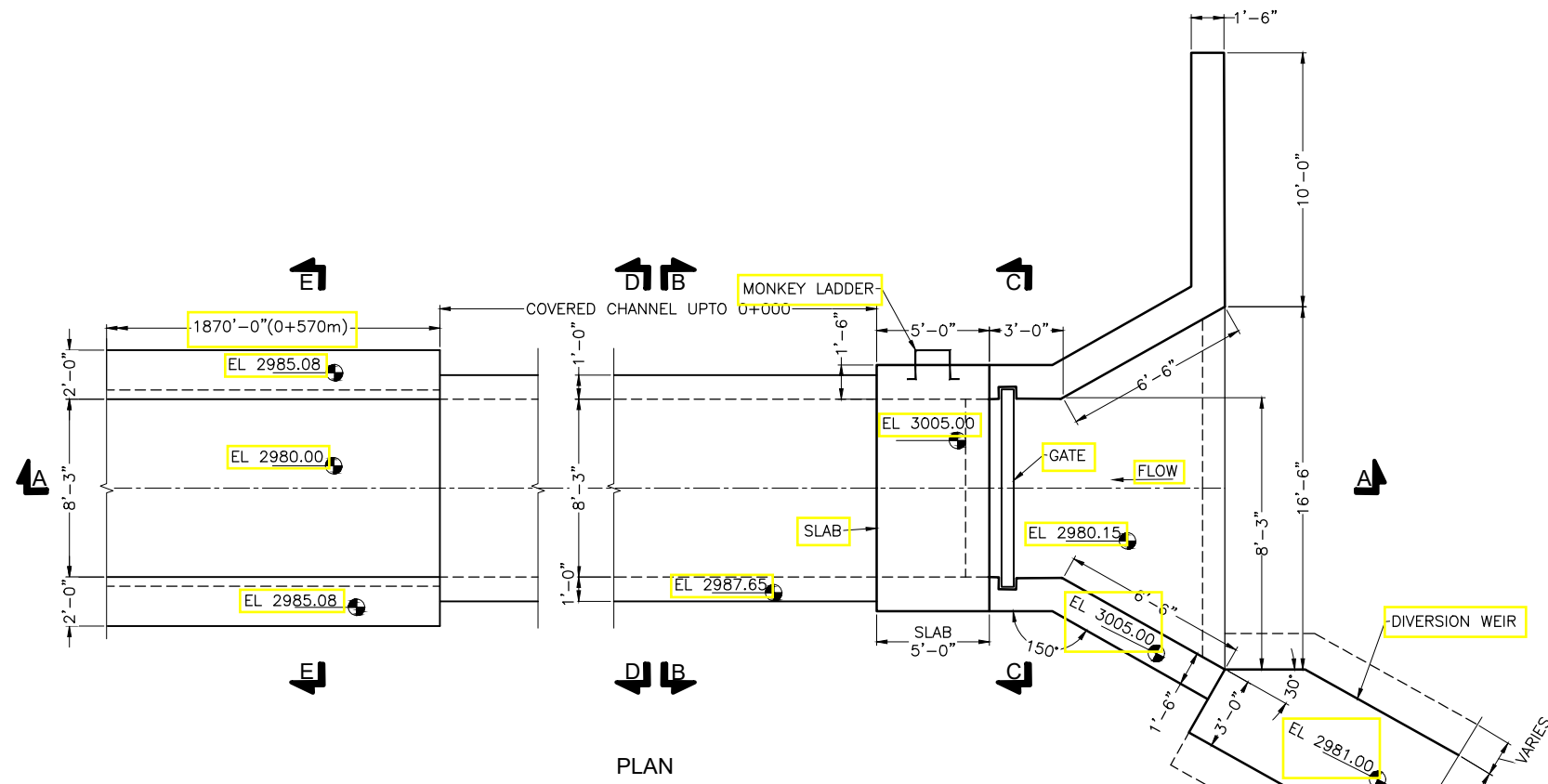
REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED

DRAWN	M.T
SUBMITTED	F.F
RECOMMENDED	F.F
CHD/VER	N.A
APPROVED	N.A

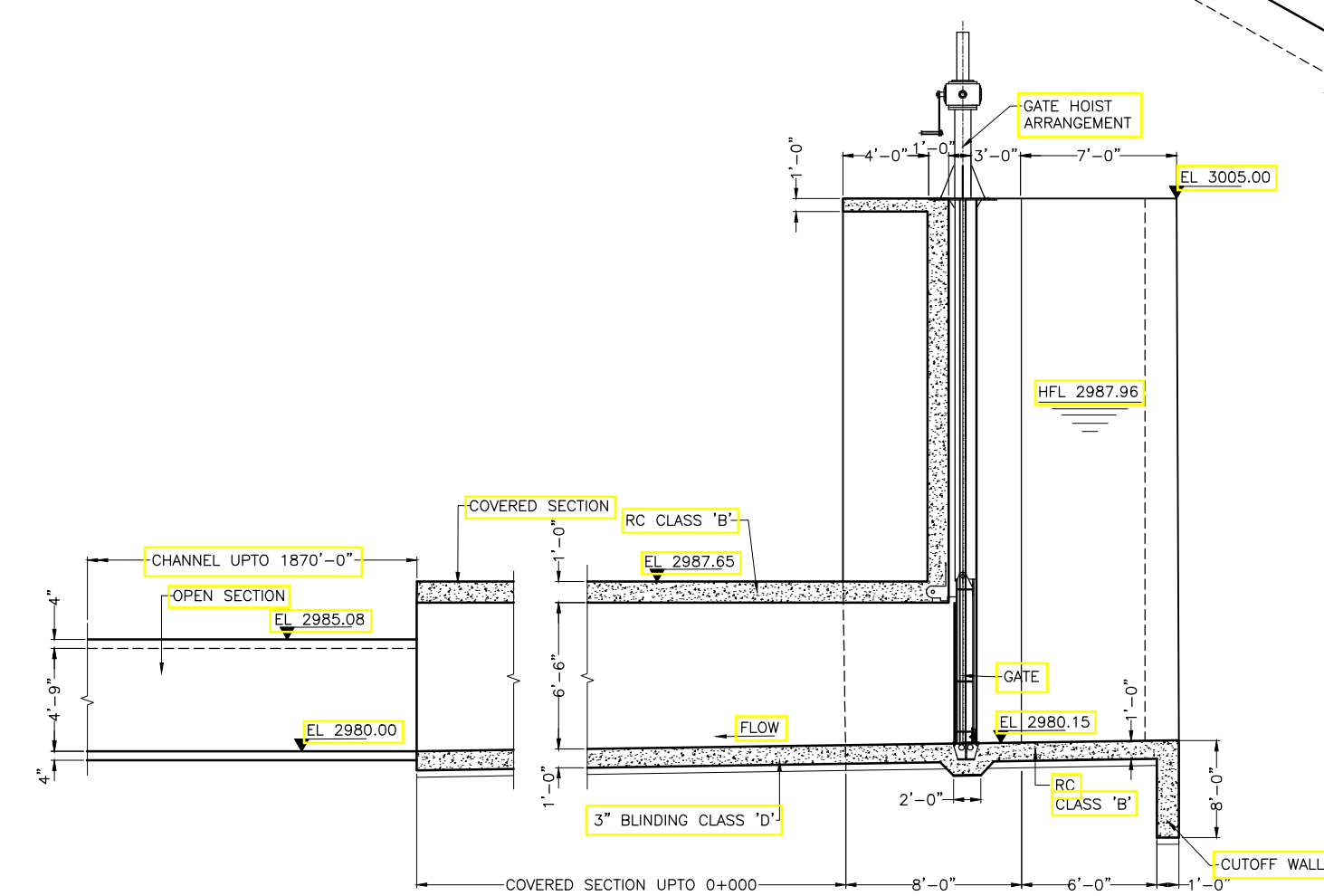
**NESPAK NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED**  
HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N, MODEL TOWN EXTENSION, LAHORE PAKISTAN

REHABILITATION OF IRRIGATION SYSTEMS, DIR IRRIGATION DIVISION  
REHABILITATION OF BALAMBAT IRRIGATION SCHEME HEAD REGULATOR - PLAN & SECTIONS  
DATE: NOV. 2023  
DWG. NO. 4593/EFAP-16/TD/RCW/05  
REV. 10

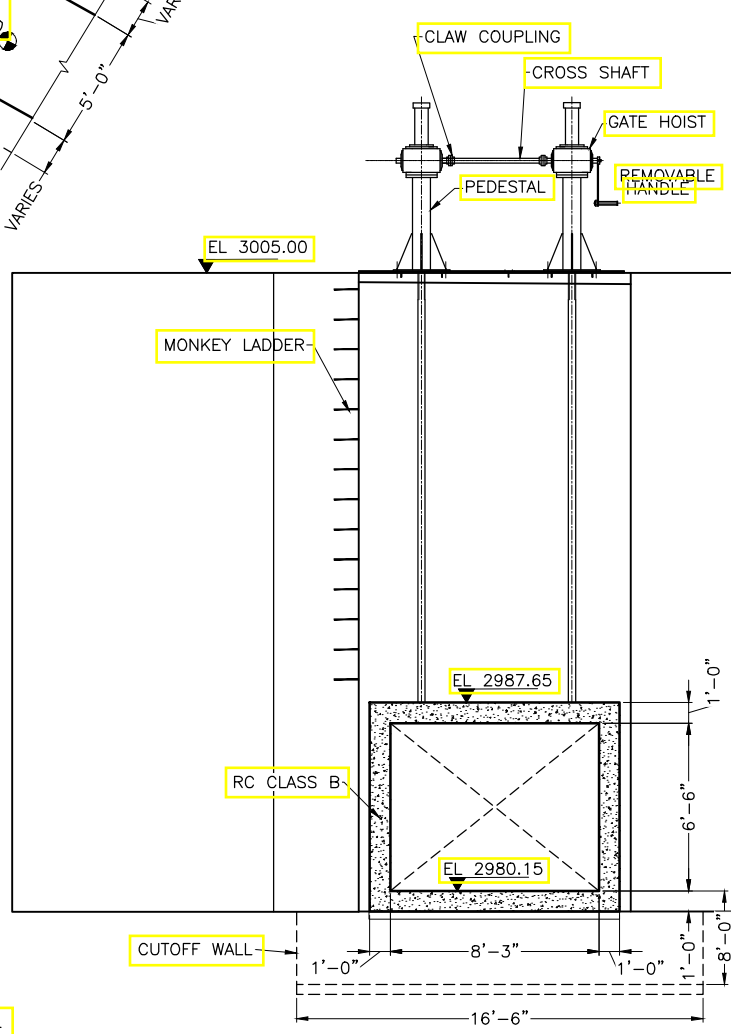




PLAN



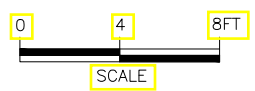
SECTION A-A



SECTION B-B

**NOTES**

1. ALL ELEVATIONS & DIMENSIONS ARE IN FEET UNLESS OTHERWISE INDICATED.
2. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.



EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHTUNKHWA"



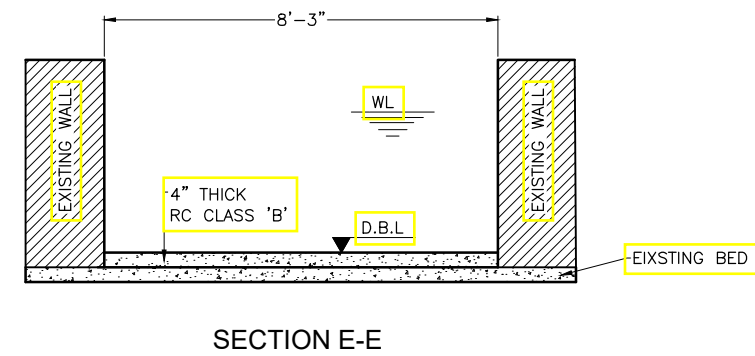
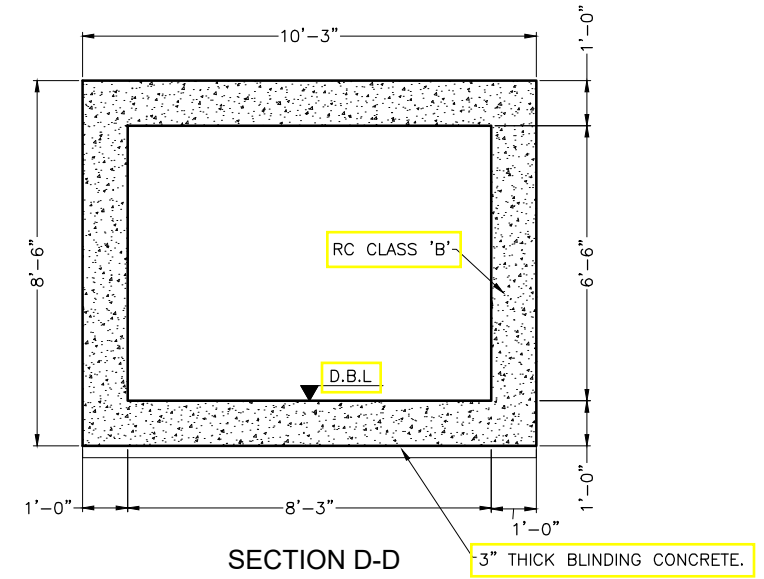
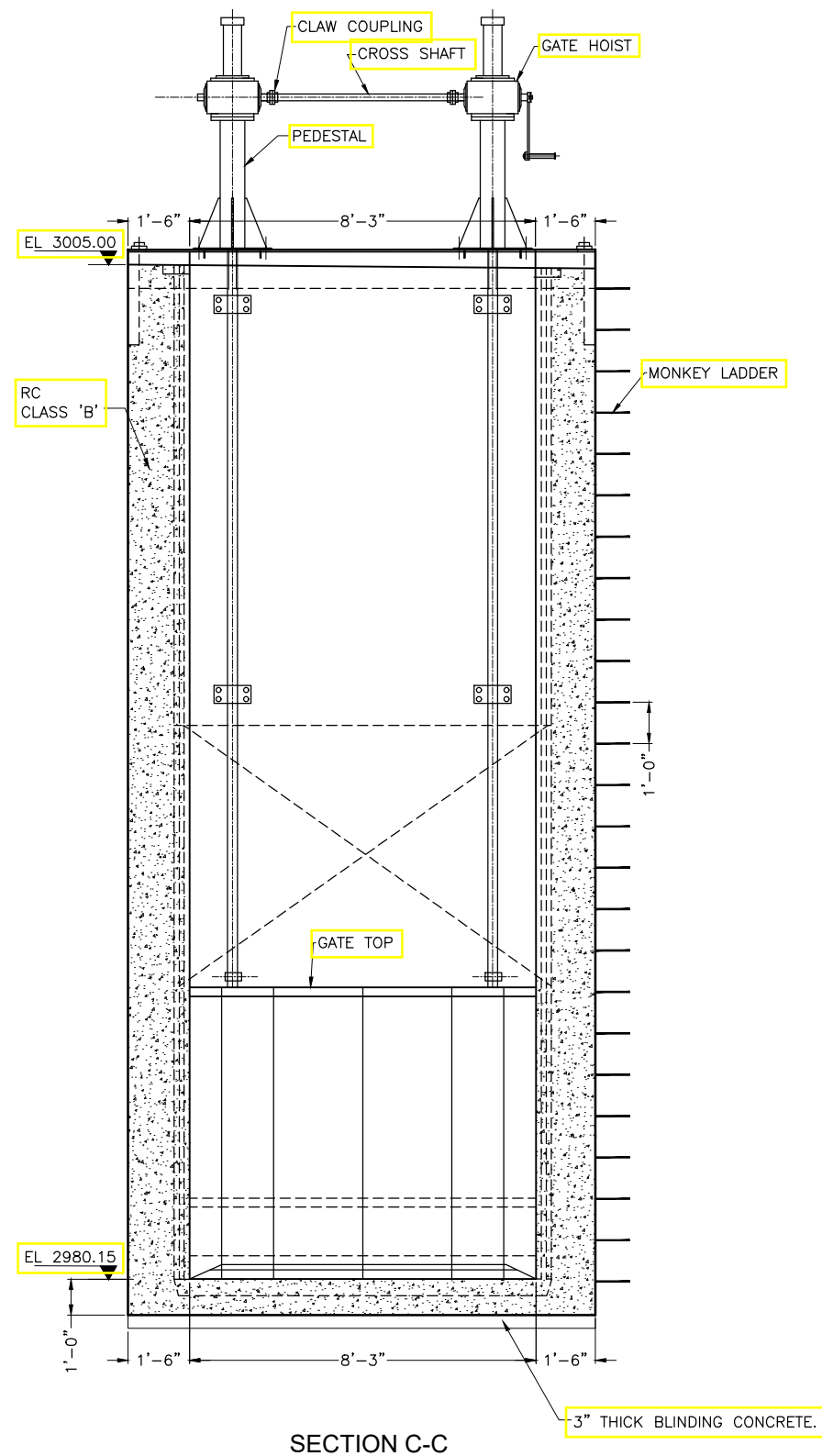
GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED

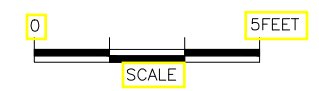
DRAWN	M.T
SUBMITTED	F.F
RECOMMENDED	F.F
CHD/VER	N.A
APPROVED	N.A

**NESPAK NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED**  
HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

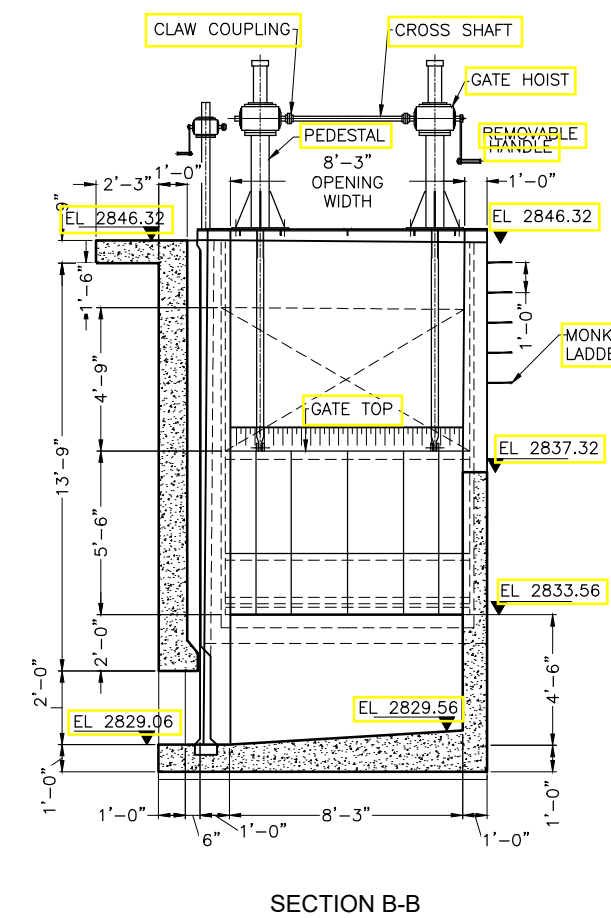
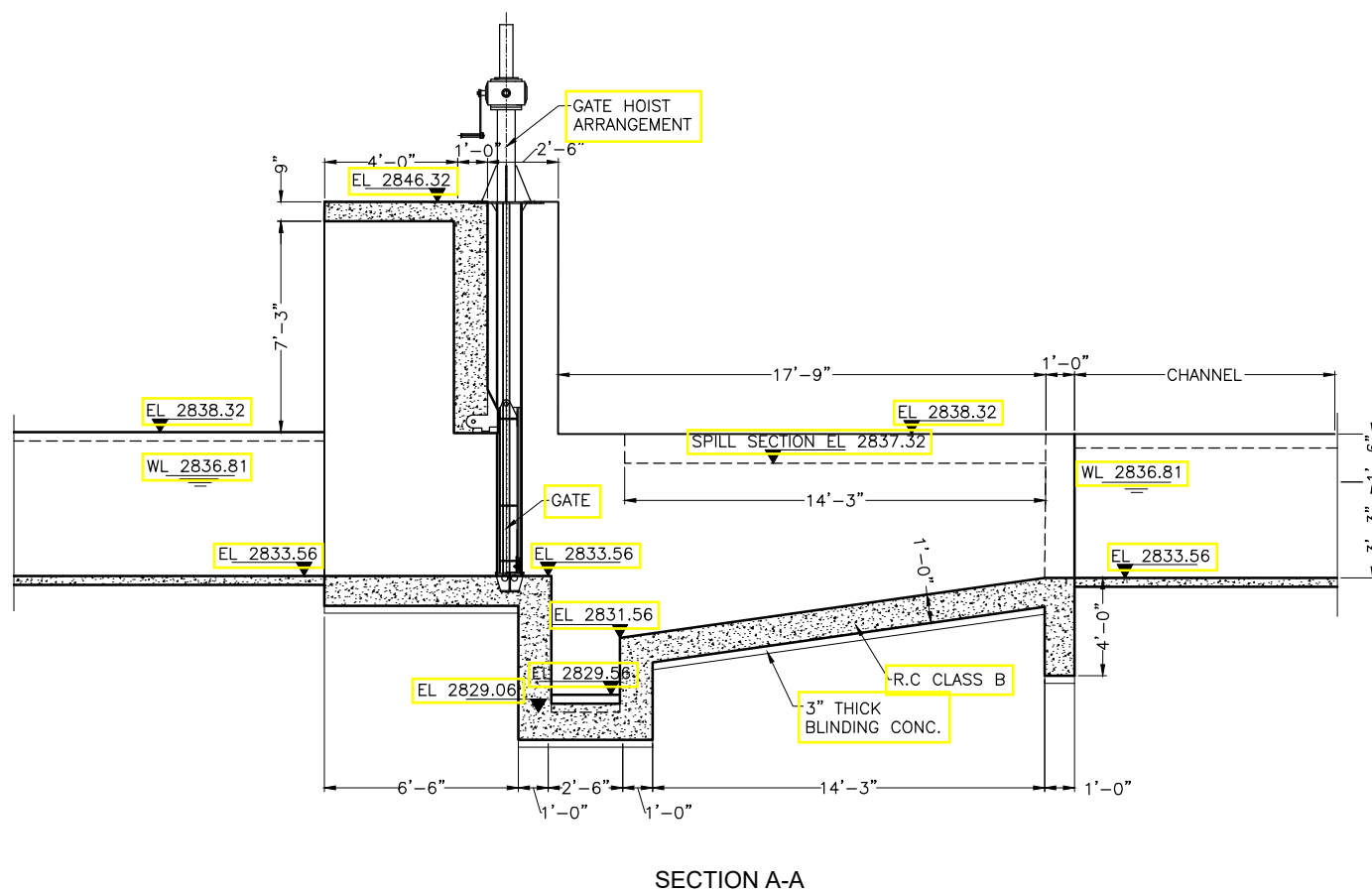
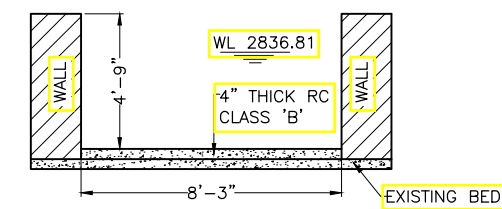
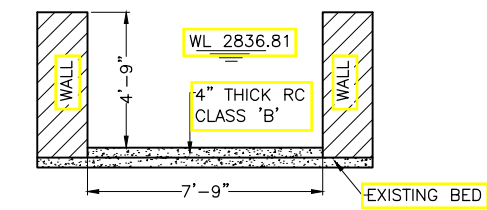
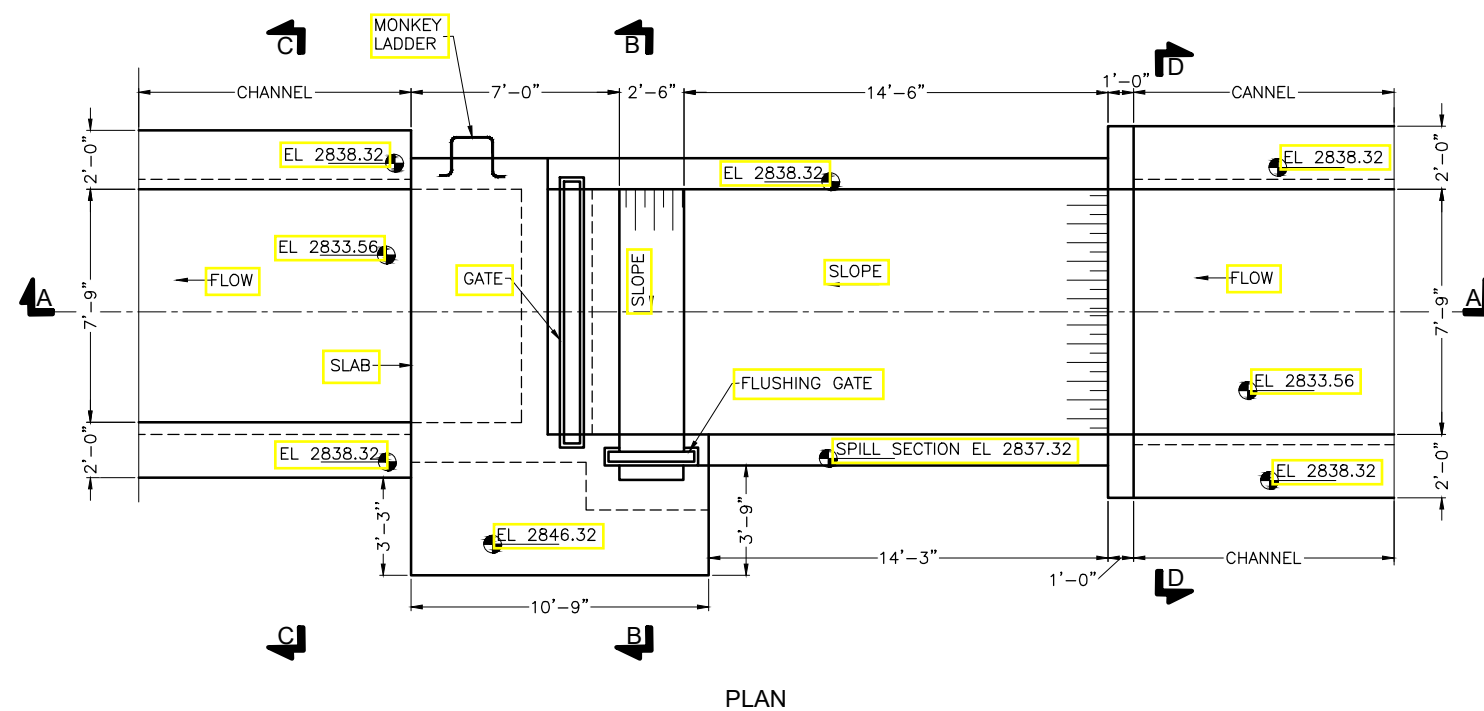
REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION  
REHABILITATION OF BALAMBAT IRRIGATION SCHEME  
HEAD REGULATOR - PLAN & SECTIONS  
DATE NOV. 2023  
DWG. NO. 4593/EFAP-16/TD/RCW/05  
REV. 10



- NOTES**
1. ALL ELEVATIONS & DIMENSIONS ARE IN FEET UNLESS OTHERWISE INDICATED.
  2. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.

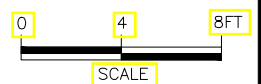


<b>EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP</b> <b>"RECONSTRUCTION AND REHABILITATION OF</b> <b>IRRIGATION AND DRAINAGE SYSTEM AND FLOOD</b> <b>PROTECTION WORKS IN KHYBER PAKHTUNKHWA"</b>	 <b>GOVERNMENT OF KHYBER</b> <b>PAKHTUNKHWA</b> <b>IRRIGATION DEPARTMENT</b>	REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED	DRAWN M.T SUBMITTED F.F RECOMMENDED F.F CHD/VER N.A APPROVED N.A	<b>NATIONAL ENGINEERING</b> <b>SERVICES PAKISTAN (PVT)</b> <b>LIMITED</b>  HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N, MODEL TOWN EXTENSION, LAHORE PAKISTAN	<b>REHABILITATION OF IRRIGATION SYSTEMS,</b> <b>DIR IRRIGATION DIVISION</b>  <b>REHABILITATION OF BALAMBAT IRRIGATION SCHEME</b> <b>HEAD REGULATOR - SECTIONS</b>		DATE	DWG. NO.	REV.
												NOV. 2023	4593/EFAP-16/TD/RCW/06	0	



**NOTES**

1. ALL ELEVATIONS & DIMENSIONS ARE IN FEET UNLESS OTHERWISE INDICATED.
2. FOR GENERAL NOTES REFER DRAWING NO. 4593/EFAP-16/TD/GN/01.



EMERGENCY FLOOD ASSISTANCE PROJECT (EFAP)-KP  
"RECONSTRUCTION AND REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEM AND FLOOD  
PROTECTION WORKS IN KHYBER PAKHUNKHWA"



GOVERNMENT OF KHYBER  
PAKHTUNKHWA  
IRRIGATION DEPARTMENT

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	APPROVED

**NESPAK** NATIONAL ENGINEERING  
SERVICES PAKISTAN (PVT)  
LIMITED

HEAD OFFICE : NESPAK HOUSE, 1-C BLOCK N,  
MODEL TOWN EXTENSION, LAHORE PAKISTAN

REHABILITATION OF IRRIGATION SYSTEMS,  
DIR IRRIGATION DIVISION  
REHABILITATION OF BALAMBAT IRRIGATION SCHEME  
ESCAPE - GATE PLAN & SECTIONS

DATE NOV. 2023 DWG. NO. 4593/EFAP-16/TD/RCW/07

REV. 0