

#### PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)



#### **INVITITION TO BID**

### CONSTRUCTION OF BOUNDARY WALL, MAIN GATE & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK (NFIP)

1. Pakistan Industrial Development Corporation (PIDC) invites sealed bids from the interested Bidders, licensed by the Pakistan Engineering Council (PEC), bearing relevant codes and validity. Firms having relevant expertise and successful record in carrying out projects of similar nature are encouraged to apply for the following work:

S. No	Name of Work
01	CONSTRUCTION OF BOUNDARY WALL, MAIN ENTRY GATE & ALLIED
01	WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK (NFIP)

The procurement shall be carried out in accordance with Public Procurement Authority Rules 2004 (amended till date).

#### 2. Eligibility/ Qualification Criteria:

- Firm should have the valid Pakistan Engineering Council (PEC) Registration certificate at least C-4 category or above for the year 2023-24 bearing relevant codes.
- Firm should be registered with federal and provincial tax authorities.
- Affidavit be submitted on stamp paper for not Blacklisted on any project or by any organization.
- Firm should have completed atleast one similar kind of work.
- Valid Bid Security.

#### 3. Method of Procurement:

**Single Stage Two Envelope Procedure**, each bid shall comprise a single envelope containing, separately, technical proposal and financial proposal. The Bid found to be the "Most Advantageous" will be accepted after having Technical and Financial evaluation of proposals.

- **4.** The bid Security amount not less than **Rs. 1,000,000**/- in shape of pay order/ bank draft in favour of Pakistan Industrial Development Corporation (PIDC), valid for a period of 28 days beyond the Bid validity date.
- 5. Interested firms should submit their queries at the address/ email given below. In order to clarify the bidder's queries, a pre-bid meeting is scheduled on 12<sup>th</sup> March, 2024 at 11:00 am at same address.
- 6. The bids must be delivered to below address on or before 19<sup>th</sup> March, 2024 at 12:00 pm PKT. Technical Bids will be opened at 12:30 pm on the same day, in the presence of Bidder's representatives who choose to attend at the same address. Delayed/conditional/telegraphic Proposals will not be entertained.
- 7. The tender notice and bidding documents are available free of cost at PPRA <a href="www.ppra.org.pk">www.ppra.org.pk</a> and PIDC <a href="www.pidc.com.pk">www.pidc.com.pk</a> websites.
- 8. PIDC reserves the right to accept or reject any or all bids as per PPRA rules.

#### **Project Manager – PIDC**

Naushahro Feroze Industrial Park (SEZ) NFIP Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan, Naushahro Feroze Sindh

> Email: shahnawaz.hajyani@pidc.com.pk Tel: 0301 2440484





### **Pakistan Industrial Development Corporation (PIDC)**

# (CONSTRUTION OF BOUNDARY WALL, MAIN GATE & ALLIED WORKS)"

# **Bidding Documents Volume-I**

Procurement No: PIDC/Tender/Tech/021

FEBRUARY 2024





#### BIDDING DOCUMENTS COMPRISE OF

Volume-I	Instructions to Bidders & Conditions of Contract,	
Volume-II	Bill of Quantities	
Volume-III	Technical Specification	
Volume-IV	Drawings	

All the above volumes are integral part of the Contract Documents and are to be read in conjunction with each other and are mutually explanatory of each other. In case of any contradiction, the provisions under Priority of Document and explanation of the Engineer shall be final and binding on the Contractor.



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#### **INVITATION TO BIDS**

- 1. Pakistan Industrial Development Corporation (PIDC), Federally Governed Organization (the "Employer"), intends to procure services of a Construction Firm, having PEC category C-4 & above, for construction of Boundary Wall, Main Gate & Allied Works at Naushahro Feroze Industrial Park, Naushahro Feroze (The "Project"). Details are Provided in the Bidding Documents.
- 2. The bids containing Price Proposal are invited under <u>Single Stage Two Envelope bidding</u> procedure, in accordance with Federal Public Procurement Rules 2004. Bids shall be open and evaluated, in accordance with Bidding Documents. The Most advantageous Bid will be selected after Technical and Financial evaluation of Bid.
- 3. Bidders may obtain further information and acquire the bidding documents from the office of the Employer, at the address given below.
- 4. The tender notice and bidding documents are available free of cost at PPRA www.ppra.org.pk and PIDC www.pidc.com.pk websites.
- 5. All Bids must be prepared in accordance with the instructions to Bidders and must be accompanied by a Bid Security by way of an irrevocable and unconditional in form of deposit at call or Bank Guarantee from a schedule bank in Pakistan acceptable to the Employer, as per the Bidding Documents.
- 6. The bids must be delivered to the below mentioned address on 19<sup>th</sup> March, 2024 at 12:00 pm PKT. Bids will be opened at 12:30 pm on the same day in the presence of Bidder' representatives who choose to attend. For financial opening, the qualified bidders will be informed in writing.
- 7. In order to clarify the bidder's queries for the captioned work, a Pre-bid meeting has been scheduled on **12**<sup>th</sup> **March 2024** at the below mentioned address at 11:00 am.
- 8. The Employer shall not be responsible for any costs or expenses incurred by the Bidders in connection with the preparation or delivery of bids or site visits.
- 9. The Employer reserves the right to accept or reject all Bids received under the Bidding Documents as per Federal Public Procurement Rules 2004.

#### Project Manager - PIDC

Naushahro Feroze Industrial Park (SEZ) NFIP Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan, Naushahro Feroze Sindh

Email: <a href="mailto:shahnawaz.hajyani@pidc.com.pk">shahnawaz.hajyani@pidc.com.pk</a>
Tel: 0301-2440484

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#### INSTRUCTIONS TO BIDDERS

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

#### A. GENERAL

#### IB.1 Scope of Bid

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

#### **IB.2** Source of Funds

2.1 "The Employer" allocated budget from its own resources for the Work/Project.

#### **IB.3** Eligible Bidders

3.1 This Invitation for Bids is open to all the Construction Firms falling under the Category mention in Bidding Data by the Employer for the project.

#### IB.4 One Bid per Bidder

4.1 Each bidder shall submit only one bid either by himself, or as a partner in a joint venture. A bidder who submits or participates in more than one bid (other than alternatives pursuant to Clause IB.16) will be disqualified

#### **IB.5** Cost of Bidding

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

#### **IB.6** Site Visit

- 6.1 The bidders are advised to visit and examine the Site of Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. All cost in this respect shall be at the bidder's own expense.
- The bidders and any of their personnel or agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

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#### B. BIDDING DOCUMENTS

#### **IB.7** Contents of Bidding Documents

- 7.1 The Bidding Documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9.
  - Instructions to Bidders.
  - 2. Bidding Data.
  - 3. General Conditions of Contract, Part-I (GCC).
  - 4. Particular Conditions of Contract, Part-II (PCC).
  - 5. Special Provisions.
  - 6. Technical Specifications.
  - 7. Form of Bid & Appendices to Bid.
  - 8. Drawings.
  - 9. Bill of Quantities (Appendix-D to Bid).
  - 10. Form of Bid Security.
  - 11. Form of Contract Agreement.
  - 12. Forms of Performance Security and Mobilization Advance Guarantee.
- 7.2 The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the Bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

#### **IB.8** Clarification of Bidding Documents

8.1 Any prospective bidder requiring any clarification (s) in respect of the Bidding Documents may notify the Employer in writing at the Employer's address indicated in the Invitation for Bids. The Employer will respond to any request for clarification which he receives earlier than Seven (07) days prior to the deadline for submission of bids.

Copies of the Employer's response will be forwarded to all purchasers of the Bidding Documents, including a description of the enquiry but without identifying its source.

#### **IB.9** Amendment of Bidding Documents

- 9.1 At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by issuing addendum.
- 9.2 Any addendum thus issued shall be part of the Bidding Documents pursuant to Sub-Clause
   7.1 hereof and shall be communicated in writing to all purchasers of the Bidding Documents.
   Prospective bidders shall acknowledge receipt of each addendum in writing to the Employer.
- 9.3 To afford prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend the deadline for submission of bids in

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accordance with Clause IB.20

#### C. PREPARATION OF BIDS

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

The bid and all correspondence and documents related to the bid exchanged by a bidder and the Employer shall be in the bid language stipulated in the Bidding Data and Particular Conditions of Contract. Supporting documents and printed literature furnished by the bidders may be in any other language provided the same are accompanied by an accurate translation of the relevant parts in the bid language, in which case, for purposes of evaluation of the bid, the translation in bid language shall prevail.

#### **IB.11** Documents Accompanying the Bid

#### 11.1 Each bidder shall:

- (a) Submit a written power of attorney authorizing the signatory of the bid to act for and on behalf of the bidder;
- (b) Update the information indicated and listed in the Bidding Data and previously submitted with the application for prequalification, and continue to meet the minimum criteria set out in the documents which as a minimum, would include the following:
  - (i) Evidence of access to financial resources along with average annual construction turnover:
  - (ii) Financial predictions for the current year and the two following years including the effect of known commitments;
  - (iii) Work commitments since prequalification;
  - (iv) Current litigation information; and
  - (v) Availability of critical equipment.
- (c) furnish a technical proposal taking into account the various Appendices to Bid, and other pertinent information such as mobilization programme etc.
- Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:
  - (a) The bid and in case of a successful bid, the Form of Contract Agreement shall be signed so as to be legally binding on all partners;
  - (b) one of the joint venture partners shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
  - (c) the partner-in-charge shall always be duly authorized to deal with the Employer regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;

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- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the Contract in accordance with the Contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para (b) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid); and
- (e) a copy of the agreement entered into by the joint venture partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. No amendments / modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partners without prior written consent of the Employer.
- 11.3 Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the Bidders' proposals to meet the technical specifications and the completion time referred to in Sub-Clause 1.2 hereof.

#### **IB.12** Bid Prices

- Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in Sub-Clause 1.1 hereof, the bidder shall quote a premium (%age above or below) based on the prices of Schedule items as exhibited in the summary of cost given at the end of bill of quantities.
- The tender is based on MES-2021 for scheduled items and the non-scheduled items on market rates` basis. Items against which no rate or price is entered by a bidder will not be paid for by the employer when executed and shall be deemed covered by rates and prices for other items in the Bill of Ouantities.
- 12.3 All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to the deadline for submission of bids shall be included in the rates and prices and the total Bid Price submitted by a bidder.

#### **IB.13** Currencies of Bid and Payment

The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees.

#### **IB.14** Bid Validity

- 14.1 Bids shall remain valid for the period stipulated in the Bidding Data after the Date of Bid Opening specified in Clause IB.23.
- In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the bidders extend the period of validity for a specified additional period which shall in no case be more than the original bid validity period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting his Bid Security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his Bid Security for the period of the

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extension, and in compliance with Clause IB.15 in all respects.

#### **IB.15** Bid Security

- Each bidder shall furnish, as part of his bid, a Bid Security in the amount stipulated in the Bidding Data in Pak Rupees or an equivalent amount in a freely convertible currency.
- 15.2 The Bid Security in the form of Deposit at Call (DAC) / Pay Order or Demand Draft/ Bank Guarantee from a Schedule Bank of Pakistan in favor of Employer valid for a period of 28 days beyond the bid validity date.
- 15.3 Any bid not accompanied by an acceptable Bid Security shall be rejected by the Employer as non-responsive.
- 15.4 The bid securities of unsuccessful bidders will be returned as promptly as possible, but not later than 28 days after the expiration of the period of Bid Validity.
- 15.5 The Bid Security of the successful bidder will be returned when the bidder has furnished the required Performance Security and signed the Contract Agreement.
- 15.6 The Bid Security may be forfeited:
  - a) if the bidder withdraws his bid except as provided in Sub-Clause 22.1;
  - b) if the bidder does not accept the correction of his Bid Price pursuant to Sub-Clause 27.2 hereof; or
  - c) In the case of successful bidder, if he fails within the specified time limit to:
    - i. Furnish the required Performance Security; or
    - ii. Sign the Contract Agreement.

#### **IB.16** Alternate Proposals by Bidders

- 16.1 Should any bidder consider that he can offer any advantages to the Employer by a modification to the designs, specifications or other conditions, he may, in addition to his bid to be submitted in strict compliance with the Bidding Documents, submit any Alternate Proposal(s) containing (a) relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details / conditions, provided always that the total sum entered on the Form of Bid shall be that which represents complete compliance with the Bidding Documents.
- Alternate Proposal(s), if any, of the lowest evaluated responsive bidder only may be considered by the Employer as the basis for the award of Contract to such bidder.

#### **IB.17** Pre-Bid Meeting

- 17.1 The Employer may, on his own motion or at the request of any prospective bidder(s), hold a pre-bid meeting to clarify issues and to answer any questions on matters related to the Bidding Documents. The date, time and venue of pre-bid meeting, if convened, is as stipulated in the Bidding Data. All prospective bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.
- 17.2 The bidders are requested to submit questions, if any, in writing so as to reach the Employer not later than Three (3) days before the proposed pre-bid meeting.

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

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

- 18.1 Bidders are particularly directed that the amount entered on the Form of Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.
- 18.2 All appendices to Bid are to be properly completed and signed.
- 18.3 No alteration is to be made in the Form of Bid nor in the Appendices thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the bid may be rejected.
- 18.4 Each bidder shall prepare by filling out the forms completely and without alterations one (1) original and number of copies, specified in the Bidding Data, of the documents comprising the bid as described in Clause IB.7 and clearly mark them "ORIGINAL" and 'COPY" as appropriate. In the event of discrepancy between them, the original shall prevail.
- The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person or persons duly authorized to sign on behalf of the bidder pursuant to Sub- Clause 11.1(a) hereof. All pages of the bid shall be initiated and stamped by the person or persons signing the bid.
- 18.6 The bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the Employer, or as are necessary to correct errors made by the bidder, in which case such corrections shall be initiated by the person or persons signing the bid.
- 18.7 Bidders shall indicate in the space provided in the Form of Bid their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the Contract is to be sent.
- 18.8 Bidders should retain a copy of the Bidding Documents as their file copy.

#### D. SUBMISSION OF BIDS

#### **IB.19** Sealing and Marking of Bids

- 19.1 Each bidder shall submit his bid as under:
  - (a) ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.
  - (b) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed / identified as given in IB 19.2 hereof.
- 19.2 The inner and outer envelopes shall:
  - (a) Be addressed to the Employer at the address provided in the Bidding Data;

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- (b) Bear the name and identification number of the contract as defined in the Bidding Data; and
- (c) Provide a warning not to open before the time and date for bid opening, as specified in the Bidding Data Sheet.
- 19.3 In addition to the identification required in Sub- Clause 19.2 hereof, the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "late" pursuant to Clause IB.21
- 19.4 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

#### **IB.20** Deadline for Submission of Bids

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

#### IB.21 Late Bids

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

#### IB.22 Modification, Substitution and Withdrawal of Bids

- Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the Employer prior to the deadline for submission of bids.
- The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and

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- inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.
- No bid may be modified by a bidder after the deadline for submission of bids except in accordance with Sub-Clauses 22.1 and 27.2.
- Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Bid may result in forfeiture of the Bid Security in pursuance to Clause IB.15.

#### E. BID OPENING AND EVALUATION

#### **IB.23** Bid Opening

- 23.1 The Employer will open the bids, including withdrawals, substitution and modifications made pursuant to Clause IB.22, in the presence of bidders' representatives who choose to attend, at the time, date and location stipulated in the Bidding Data. The bidders' representatives who are present shall sign a register evidencing their attendance.
- 23.2 Envelopes marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause IB.22 shall not be opened.
- 23.3 The bidder's name, total Bid Price and price of any Alternate Proposal(s), any discounts, bid modifications, substitution and withdrawals, the presence or absence of Bid Security, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening of bids.
- Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with the Sub-Clause 23.3.

#### **IB.24** Process to be Confidential

Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of bid evaluation report. The announcement to all Bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the Employer's processing of bids or award decisions may result in the rejection of such bidder's bid. Whereas any bidder feeling aggrieved may lodge a written complaint not later than fifteen (15) days after the announcement of the bid evaluation report; however mere fact of lodging a complaint shall not warrant suspension of the procurement process.

#### **IB.25** Clarification of Bids

25.1 To assist in the examination, evaluation and comparison of bids, the Employer may, at his discretion, ask any bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids in

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accordance with Clause IB.28.

#### **IB.26** Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the Employer will determine whether each bid is substantially responsive to the requirements of the Bidding Documents.
- A substantially responsive bid is one which (i) meets the eligibility criteria; (ii) has been properly signed; (iii) is accompanied by the required Bid Security; and (iv) conforms to all the terms, conditions and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one (i) which affect in any substantial way the scope, quality or performance of the Works; (ii) which limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the bidder's obligations under the Contract; or (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 26.3 If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

#### **IB.27** Correction of Errors

- 27.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
  - a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
  - b) where there is a discrepancy between the unit rate and the line-item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line-item total as quoted will govern and the unit rate will be corrected.
- The amount stated in the Form of Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected Bid Price, his Bid will be rejected, and the Bid Security shall be forfeited in accordance with Sub-Clause 15.6(b) hereof.

#### **IB.28** Evaluation and Comparison of Bids

- 28.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26.
- In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:
  - a) making any correction for errors pursuant to Clause IB.27;
  - b) excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
  - c) making an appropriate adjustment for any other acceptable variation or deviation.
- 28.3 If the Bid of the successful bidder is seriously unbalanced in relation to the Employer's

Instructions to Bidders Page 9 of 15



estimate of the cost of work to be performed under the Contract, the Employer may require the bidder to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the Performance Security set forth in Clause IB.32 be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the Contract.

#### F. AWARD OF CONTRACT

#### IB.29 Award

- 29.1 Subject to Clauses IB.30 and IB.34, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding Documents and who has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be eligible in accordance with the provisions of Clause IB.3 and qualify pursuant to Sub-Clause IB 29.2.
- 29.2 The Employer, at any stage of the bid evaluation, having credible reasons for or prima facie evidence of any defect in supplier's or contractor's capacities, may require the suppliers or contractors to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not: Provided that such qualification shall only be laid down after recording reasons therefor in writing. They shall form part of the records of that bid evaluation report.

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

30.1 Notwithstanding Clause IB.29, the Employer reserves the right to accept or reject any Bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidders or any obligation except that the grounds for rejection of all bids shall upon request be communicated to any bidder who submitted a bid, without justification of grounds. Rejection of all bids shall be notified to all bidders promptly.

#### **IB.31** Notification of Award

- Prior to expiration of the period of bid validity prescribed by the Employer, the Employer will notify the successful bidder in writing ("Letter of Acceptance") that his Bid has been accepted. This letter shall name the sum which the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the "Contract Price").
- No Negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted, however, Employer may have clarification meetings to get clarify any item in the bid evaluation report.
- 31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Employer and the bidder till signing of the formal Contract Agreement.
- 31.4 Upon furnishing by the successful bidder of a Performance Security, the Employer will promptly notify the other bidders that their Bids have been unsuccessful and return their bid securities.

Instructions to Bidders Page 10 of 15



#### **IB.32** Performance Security

- 32.1 The successful bidder shall furnish to the Employer a Performance Security in the form and the amount stipulated in the Bidding Data and the Conditions of Contract within a period of 14 days after the receipt of Letter of Acceptance.
- Failure of the successful bidder to comply with the requirements of Sub-Clause IB.32.1 or Clauses IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

#### **IB.33** Signing of Contract Agreement

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

#### **IB.34** General Performance of the Bidders

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

#### **IB.35** Integrity Pact

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

#### **IB.36** Instructions not Part of Contract

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

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### **BIDDING DATA**



Bidding DatA Page i



**BD-2** 

#### **BIDDING DATA**

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

Instr	erence to uction to idder	Bidding Data		
IB-1	Scope of			
	•	Wall, Main Gate & Allied Works at Naushahro Feroze Industrial Park	<u>s.</u>	
	Name and	d Address of the Employer:  PROJECT MANAGER – PIDC		
		Naushahro Feroze Industrial Park (Sez) NFIP		
	7	Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan,		
	1	Naushahro Feroze Sindh		
		Email: Shahnawaz.Hajyani@Pidc.Com.Pk		
		Tel: 0301 2440484		
ID 4	- C			
IB-2	Source of 2.1 P	TDC arranged funds from its own source.		
IB-3	Eligible F	-		
ш-3		EC Category C-4 or above, other criteria are mentioned in Appendix H		
IB-6	Site Visit	* *		
	$\Gamma$	Delete the whole text and substitute with the following:		
	6.1 T	he Bidder or his authorized representative shall visit and inspect the	Site	of
	Works	including the areas and surroundings to be used for Contractor's C	amp,	on his
		sponsibility and at his own expense, and obtain all the information f		
		which may be necessary for the purpose of preparing the bid. T		
	•	ssist but will not take any responsibility for the supply or correctness	of	the
	informa 6.2 T		a11 .	
		The Bidder shall, before submitting his bid, satisfy himself in including the following:	an .	respects
	(i			
	,	ydrological, hydrogeological and climatological conditions,	the	form
		ure of the Site of Work.		
	(i	ii) The quantities and nature of the Works and materials necessary		for
	comple	tion of the Works.		
	(i	iii) The means of access of the Site of Work and exit from the Site.		
	`	iv) The available accommodation on land for Contractor's Camp		
		vithin or outside the Site of Work.		
	`	v) All necessary information as to risks, contingencies and other		
		ircumstances, which may influence or affect the bid. vi) The existing condition at Site.		
	`	Each Bidder shall also enquire and satisfy himself as to the source, the	anai	ntity of
		the sufficiency of and the means of obtaining and transporting	all	plant,

Bidding DatA Page 1 of 6



Reference to Instruction to Bidder	Bidding Data
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material, labour, fuel, water, electricity, and other matters or things required for or in connection with the Works.

- 6.4 In preparing the bid, Bidder shall also consider his obligation to adequately store all materials and maintain existing facilities and all Temporary Works during the period of their usage.
- 6.5 The Bidder must make local inquiries as to the physical conditions prevailing at the Site and obtain his own information on all matters and things that may in any way influence him in making a bid and fixing the rates in the Bill of Quantities. He must also satisfy himself as to the risks, obligations and responsibilities to be undertaken in accordance to the Contract to be entered into by him should his bid be accepted.
- 6.6 The Bidder shall make his own investigations, enquiries and assessments, on all matters, of all conditions of existing constructions at the site and its vicinity, to his satisfaction before submitting his bid.
- 6.7 The bidders and any of their personnel or agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

#### **IB-8** Clarification of Bidding Documents

Any sort of clarifications can be obtained on or before seven (05) days prior to bid submission date.

#### **IB-10** Language of Bids

10.1 English

#### **IB-11** Documents Accompanying the Bid

11.1 (c) Furnish Technical Proposal

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

#### **IB-12** Bid Price

- 12.3 Add the following paragraphs at the end:
- a) The Bidder, by the act of submitting a bid, acknowledges that he has inspected the Site of Works and determined the general characteristics and conditions. The Employer will not assume any responsibility for information, interpretations and deductions the

bidder may make from the information furnished by the Employer or the Engineer. No verbal agreement or conversation with any officer, employee or agent of the Employer or the Engineer before, during or after the execution of the Contract shall affect or modify any of the terms or obligations contained in the Contract.

b) The attention of the Bidder is drawn to the fact that local regulations require special formalities to be complied with in connection with the ordering, purchasing and importing of materials from outside Pakistan. Bidder will be deemed to have obtained full information about all such matters and to have allowed in his bid for all delays, additional costs and financing charges that may arise directly or indirectly there from.

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Reference to
<b>Instruction to</b>
Bidder

#### **Bidding Data**

- c) Any neglect or failure on the part of the Bidder to obtain reliable information on the spot or elsewhere upon the foregoing or any other matters affecting the execution and completion of the Works, the rates, total amounts and the Contract shall not relieve the Bidder whose bid is accepted from any risks or liabilities or from the responsibility of completing and handing over the works.
- d) The rates and prices set down by the Bidder against all the items in the Bill of Quantities are to be the full inclusive value of the finished work described there under and shall be deemed to include all costs of performing the Works including all taxes and duties, profits and costs of accepting the general risks, liabilities and obligations of every kind set forth or implied in the Contract.
- e) The rates and prices set down by the Bidder against all the items in the Bill of Quantities are to be full inclusive for provision of all items mentioned in the Special Provisions (Volume-II of the Bidding Document) for the Engineer. At the end of the Project, the provisioned items shall become the property of the Client, and all other provided items shall be returned.

#### IB-13 Currencies of Bid and Payment

Pak rupees.

#### **IB-14** Bid Validity

Period of bid Validity is 120 days after the date of bid opening.

#### **IB-15** Amount of Bid Security

The bid Security shall be **01 million (Rupees One Million only)** in the form of Deposit at Call or Bank Guarantee issued by a schedule Bank of Pakistan in favour of the Employer valid for a period of 28 days beyond the Bid validity date.

#### **IB-16** Alternate Proposals by Bidder

This clause is deleted entirely.

#### **IB-17** Pre-Bid Meeting

17.1 A pre bid meeting will be held at Naushahro Feroze Site Office on 12<sup>th</sup> March, 2024 at 11:00 am on below mentioned address

#### PROJECT MANAGER - PIDC

Naushahro Feroze Industrial Park (Sez) NFIP Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan, Naushahro Feroze Sindh

> Email: Shahnawaz.Hajyani@Pidc.Com.Pk TEL: 0301 2440484

#### IB-18 Format and Signing of Bid

18.4 One Original – One Copies of all documents forming the Bid.

All pages of the bid including appendices, addendum, corrigenda, clarifications, and supplementary information as are issued shall be initiated and stamped by the person or persons signing the bid.

#### IB-19 Sealing & Marking of Bids

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

#### PROJECT MANAGER - PIDC

Naushahro Feroze Industrial Park (Sez) NFIP Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan,

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Reference to Instruction to Bidder	Bidding Data						
"Infrastructure De	Naushahro Feroze Sindh Email: Shahnawaz.Hajyani@Pidc.Com.Pk TEL: 0301 2440484  19.2 (b) Name and Identification Number of Contract: "Infrastructure Development & Allied Works at Naushahro Feroze Industrial Parks, Naushahro						
19	Feroze"  "Boundary Wall, Main Gate & Allied Works"  Contract # PIDC/Tender/Tech/21  19.2(c) Do not open before on						
IB-20 Deadline 20.1	for Submission of Bids  19 <sup>th</sup> March, 2024 till 12:00 pm PKT.  If in any case/ scenario the last date of submission is declared a public holiday the next working day shall be considered the deadline for submission of bids.						
Venue M  For financial ope	PROJECT MANAGER – PIDC  Naushahro Feroze Industrial Park (Sez) NFIP ain National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan,  Naushahro Feroze Sindh  Email: Shahnawaz.Hajyani@Pidc.Com.Pk  TEL: 0301 2440484  19th March, 2024 at 12:30 pm PKT ening, the qualified bidders will be informed in writing.						
24.2 A D works v	tion of Bids and Determination of Responsiveness						

26.2 Add following text in sub-Para 26.2 after point iv) "conforms to all the terms ...... reservation"

v) Must meet the minimum criteria set out for eligibility.

#### **IB-28** Evaluation and Comparison of Bids

28.4 In the text of sub-clause 28.4, in the sixth line, after the words, "the Employer may" add the following works: "take action under Sub-Clause 28.5 or may".

28.5 Evaluation and Comparison of Bids

Add the following sub-Para:

A bid with highly inflated or unworkable rates of any BOQ items may be considered as non-responsive, non-conforming and rejected.

#### **IB-29 Award of Contract**

29.3 Add the following sub-Para:

The Employer shall follow the Federal Public Procurement Rules 2004 of Pakistan (PPRA)

#### **IB-32** Performance Security

Page 4 of 6 Bidding DatA



Reference to Instruction to Bidder	Bidding Data						
32.1 A	32.1 Add the following Sub-Para:						
10 % of	10 % of Contract Price stated in the Letter of Acceptance in the form of any scheduled Bank						
of Pakistan or from insurance company having at least AA rating from PACRA/ JCR in favor							
of the E	of the Employer 'Pakistan Industrial Development Corporation (PIDC)'.						

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### **APPENDICE**





#### BA-1 Appendix-A to Bid

#### **SPECIAL STIPULATIONS**

S. No.	Particular	Clause /Sub- Clause	Requirement
1	Employer's name and address	PCC1. 1(a)(i)	Pakistan Industrial Development Corporation (PIDC) PROJECT MANAGER – PIDC Naushahro Feroze Industrial Park (Sez) NFIP Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan, Naushahro Feroze Sindh Email: Shahnawaz.Hajyani@Pidc.Com.Pk TEL: 0301 2440484 19 <sup>th</sup> March, 2024 at 12:30 pm PKT
2	Law	PCC 5.1(b)	The Law in-force is that of Islamic Republic of Pakistan.
3	Contract Agreement	PCC 9.1	The Contractor shall provide three copies of singed Contract Agreement and Contract Documents.
4	Amount of Performance Security	PCC 10.1	10% of Contract Price stated in the Letter of Acceptance, in the form of unconditional, irrevocable Bank Guarantee from any Schedule Bank of Pakistan, or from insurance company having at least AA rating from PACRA/JCR in the favor of Employer PIDC.
5	Time for Furnishing Program	PCC 14.1	Within 14 days from the date of receipt of Letter of Acceptance.
6	Time for Commencement	PCC 41.1	Within Seven (7) days from the date of receipt of Engineer's Notice to Commence which shall be issued within seven (7) days after signing of Contract Agreement.
7	Time for Completion:	PCC 43.1	Total time period for the project is Six (06) Months from the date of Commencement.
8	Amount for Liquidated Damages	47.1	0.1% of contract price stated in the Letter of Acceptance for each day of delay in completion of the Works subject to a maximum of 10% of contract price stated in the Letter of Acceptance.
9	Taking Over Certificate	PCC 48.1	Taking-Over Certificate will be issued as a whole.
10	Taking Over of Sections or Parts	PCC 48.2	Taking Over Certificates for Sections or Parts will not be issued.
11	Defects Liability Period	PCC 49.2	06 months calculated from the date of completion of work certified by the Engineer.
12	Minimum Amount of Interim Payment Certificate (IPC)	PCC 60.2	10 million
13	Percentage of	PCC	10% of the amount of Interim Payment Certificate



S. No.	Particular	Clause /Sub- Clause	Requirement	
	Retention Money	60.3		
14	Limit of Retention Money	PCC 60.3	5% of Contract Price stated in the Letter of Acceptance.	
15	Time of Payment from submitting Interim Payment Certificate to the Employer	PCC 60.10	Within 28 days	
16	Maximum Amount of Mobilization Advance (Interest Free)	PCC 60.13	Contractor may request up to 10% of Contract Price against bank guarantee from any scheduled bank in Pakistan or insurance guarantee from a AA+ rating company accredited by PACRA/JCR, to be submitted within 7 days of letter of acceptance.	
17	Recovery of Mobilization Advance	PCC 60.13	The advance payment shall be recovered 20% by the client from the Contractor's each invoice/IPC till such time it is fully recovered.	
18	Increase Or Decrease of Cost	PCC 70.1	Price Adjustment is not Applicable under this Contract	



BB-1 Appendix-B to Bid

#### FOREIGN CURRENCY REQUIREMENTS

#### **NOT APPLICABLE**



BC-1 Appendix-C to Bid

### PRICE ADJUSTMENT UNDER CLAUSE 70 OF CONDITIONS OF CONTRACT

Not applicable under this contract



BD-1 Appendix-D to Bid

#### **BILL OF QUANTITIES**

#### **BILL OF QUANTITIES**

#### A. Preamble

- 1. The Bill of Quantities shall be read in conjunction with the Volume-I including Conditions of Contract (GCC & PCC), Special Stipulations and Volume-II i.e., Drawings, Special Provisions and Specifications.
- 2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.
- 3. The rates and prices entered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
- 4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
- 5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works.
- 6. General directions and description of work and materials are not necessarily repeated nor summarised in the Bill of Quantities. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the 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 in accordance with Sub-Clause 58.2 of Part I, General Conditions of Contract.
- 8. The rates and prices set down by the Bidder against all the items in the Bill of Quantities are to be full inclusive for provision of all items mentioned in the Special Provisions (Volume-II of the Bidding Document) for the Engineer. At the end of project, all provided items as mentioned vide Special Provisions (Volume-II of the Bidding Document) shall become the property of Client. Furthermore, special claim by the Contractor shall be admissible in this regard.





BE-1 Appendix-E to Bid

#### PROPOSED CONSTRUCTION SCHEDULE

Pursuant to Sub-Clause 43.1 of the General Conditions of Contract, the Works shall be completed on or before the date stated in Appendix-A to Bid. The Bidder shall provide as Appendix-E to Bid, the Construction Schedule in the bar chart (CPM, PERT or any other to be specified herein) showing the sequence of work items and the period of time during which he proposes to complete each work item in such a manner that his proposed Program for completion of the whole of the Works and parts of the Works may meet Employer's completion targets in days noted below and counted from the date of receipt of Engineer's Notice to Commence (Attach sheets as required for the specified form of Construction Schedule):

Description	Time for Completion
Construction Boundary Wall, Main Gate & Allied Works at Naushahro Feroze Industrial Park)"	As stated in Appendix A



BF-1 Appendix-F to Bid

#### METHOD OF PERFORMING THE WORK

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

- 1. Organization Chart indicating head office and field office personnel involved in management and supervision, engineering, equipment maintenance and purchasing.
- 2. Mobilization in Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.
- 3. The method of executing the Works, the procedures for installation of equipment and machinery and transportation of equipment and materials to the site.]



BG-1 Appendix-G to Bid

#### LIST OF MAJOR EQUIPMENT – RELATED ITEMS

[The Bidder will provide on Sheet 2 of this Appendix a list of all major equipment and related items, under separate heading for items owned, to be purchased or to be arranged on lease by him to carry out the Works. The information shall include make, type, capacity, and anticipated period of utilization for all equipment which shall be in sufficient detail to demonstrate fully that the equipment will meet all requirements of the Specifications.

#### LIST OF MAJOR EQUIPMENT

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



BH-1 Appendix-H to Bid

#### TECHNICAL PROPOSAL/QUALIFICATION REQUIREMENTS

#### **ENVELOPE-1: SUBMISSIONS & EVALUATION CRITERIA**

The Qualification Requirements on the basis of which the Bidders shall be evaluated for the instant project are all as given hereunder. These shall be provided by the Bidders as 'Technical Proposal/ Qualification Documents' in Envelope-1 of their Bids for Civil Infrastructure Works. At any stage, if attached documents are proved, wrong, fake or bogus then the client reserves the right to disqualify the firm for further bidding process.

These Qualification Documents, besides specified mandatory requirements, shall also include the past track record, the technical capability, and financial capability as well as the contracting firm's specific methodology & approach proposed for undertaking the relevant construction of Infrastructure Development Works at Naushahro Feroze as stated herein and in the Bid Documents.

Envelope-2 'Financial Proposal/Bid' shall be opened of only those Bidders that have met all the mandatory requirements as well as minimum Scoring Criteria for Qualification as specified hereunder. If quoted price of few bidders is same then, Bidder who get more marks in Technical Bid will be considered. For financial opening, the qualified bidders will be informed in writing.

#### TECHNICAL PROPOSAL/BID EVALUATION CRITERIA

#### MANDATORY REQUIREMENTS/CRITERIA

Description	Evaluation Criteria	Result
I) Reconfirmation of Valid PEC Registration		
The Contractor must have a valid Pakistan Engineering Council	Qualified/	
(PEC) Registration, under C-4 Category or above.	Disqualified	
II) Valid Undertaking/Declaration of No		
Litigation/Blacklisting		
Affidavit be submitted on stamp paper for not Blacklisted on any	Qualified/	
project or by any organization.	Disqualified	
III) NTN & relevant provincial tax Certificate		
A copy of relevant provincial tax Certificate shall be provided by the	Qualified/	
Bidder as a mandatory requirement. And the bidder should be an	Disqualified	
active tax payer.	Disquamicu	
IV) Joint Venture (If applicable)		
The JV Agreement (if) should be in line with PEC Bye-Laws and	Qualified/	
must clearly mention the share and responsibilities of each party.	Disqualified	
V) Valid Bid Security as per Bidding Documents		
Valid Bid Security as described in the tender documents shall be	Qualified/	
provided by the Bidder as a mandatory requirement in Envelope-1.	Disqualified	



#### REQUIREMENTS/CRITERIA FOR SCORING BASED EVALUATION

Sr. No.	Category	Weightage/Marks
A	Experience Record	50
В	Personnel Capabilities	20
C	Equipment Capabilities	10
D	Financial Soundness	10
E	Project Schedule and Work Methodology	10
Total		100

**Note:** Qualification status shall be decided on Pass/Fail basis.

#### A. General Experience

Sr. No.	Description	Marks Assigned	Explanation for Marks
a)	Firms Existence (Registration with PEC)	10	01 mark for each year's existence till 2023
<b>b</b> )	Completion of any type of Civil Project / Work Completed in last ten years with a minimum value of PKR 30 million each. (Completion Certificate/ contract along with final payment or adjustment is required)	10	10 Marks will be given against each project.
c)	Completion of similar nature projects/ works. (Completion certificates/ contract along with final payment/ adjustment)	30	15 Marks will be given against each project.
	Total Mar	ks Allocated	50

#### **B.** Personnel Capabilities

Sr. No.	Description	Marks Assigned	Explanation for Marks
a)	Civil Engineers (Bachelors / Masters) registered with Pakistan Engineering Council (PEC)	10	Minimum 05 years' experience.
<b>b</b> )	Associates Engineers (DAE-Civil)	10	5 Marks will be given against each Associate Engineer with 05 years' experience.



Sr. No.	Description	Marks Assigned	Explanation for Marks
	<b>Total Allocated Marks</b>		20

#### C. Equipment Capability

Critical equipment required for the Project

Sr. No.	Description	Nos.	Marks Assigned	Explanation for Marks
1	Excavator	01	02	
2	Vibrator	01	02	
3	Loader	01	02	
4	Concrete Mixture	01	02	
5	Surveying Instrument (Total Station & Auto level etc.)	01	02	
purch	of acceptable ownershi ased/rental/leased inery/equipment.	p doci	uments of each	
	Total Allocated Ma	arks		10

#### D. Financial Soundness

For Financial Status assessment, the Applicants may be required to submit Audited financial statements for the last three (3) financial years.

Sr. No.	Description	Marks Assigned	Explanation for Marks
a)	Account closing balance (Bank Statement of last 2 years)	5	<ul> <li>Average min. account closing balance of Rs. 1.0 million</li> <li>For limit less than 01 million, use following weightage;</li> <li>x (A/1)</li> <li>A= Available Bank Credit Line Limit</li> </ul>
<b>b</b> )	Annual turnover (Audit report/ Annual return of last 3 years)	5	<ul> <li>Average min. turnover of Rs. 3 million</li> <li>For limit less than 3 million, use following weightage;</li> <li>3 x (A/3)</li> </ul>



Sr. No.	Description	Marks Assigned	Explanation for Marks
			A= Available Bank Credit Line Limit
	<b>Total Allocated Marks</b>		10

#### E. Project Schedule and Work Methodology

The applicant is required to submit the Project Schedule and Work Methodology

Sr. No.	Description	Marks Assigned	Explanation for Marks
a)	Project Schedule	5	<ul> <li>For Major activities</li> </ul>
<b>b</b> )	Work Methodology	5	■ For Major activities
Total Allocated Marks			10

#### **KEY NOTES ON EVALUATION CRITERIA:**

- a) For Technical Proposal/Bid Assessment, the Bidder/Contractor must secure an overall score of minimum 70 Points out of Total 100 Points, in addition to meeting all Mandatory Requirements as stipulated in this Document. In case of Joint Venture, Lead Member must obtain 50 points and other members must obtained 30 points.
- b) The Contractor must fill out all the appendices/ annexure of this Document, with correct information, along with relevant acceptable supporting documents of proofs



#### BO-1 Appendix-O to Bid

#### **INTEGRITY PACT**

Declaration of Fees, Commission and Brokerage etc. Payable by the Suppliers of Goods, Services & Works in Contracts worth Rs. 10.00 million or More

Services & Works in Contr	racts worth Rs. 10.00 million or More
Contract No Dated	
Contract Value:	
Contract Title:	
the procurement of any contract, right, interest,	pplier] hereby declares that it has not obtained or induced, privilege or other obligation or benefit from Government division or agency thereof or any other entity owned or ass practice.
fully declared the brokerage, commission, fee to give and shall not give or agree to give a indirectly through any natural or juridical p consultant, director, promoter, shareholder, spe finder's fee or kickback, whether described as or or inducing the procurement of a contract, ri	ng, [name of Supplier] represents and warrants that it has as etc. paid or payable to anyone and not given or agreed to anyone within or outside Pakistan either directly or person, including its affiliate, agent, associate, broker, consor or subsidiary, any commission, gratification, bribe, consultation fee or otherwise, with the object of obtaining ight, interest, privilege or other obligation or benefit in a has been expressly declared pursuant hereto.
arrangements with all persons in respect of or	le and will make full disclosure of all agreements and related to the transaction with GoP and has not taken any at the above declaration, representation or warranty.
making full disclosure, misrepresenting facts declaration, representation and warranty. It as obligation or benefit obtained or procured as	and strict liability for making any false declaration, not or taking any action likely to defeat the purpose of this grees that any contract, right, interest, privilege or other aforesaid shall, without prejudice to any other rights and ract or other instrument, be voidable at the option of GoP.
Indemnify GoP for any loss or damage incurr further pay compensation to GoP in an amorgratification, bribe, finder's fee or kickback gi	recised by GoP in this regard, [name of Supplier] agrees to red by it on account of its corrupt business practices and unt equivalent to ten time the sum of any commission, ven by [name of Supplier] as aforesaid for the purpose of contract, right, interest, privilege or other obligation or
Name of Buyer:	Name of Seller/Supplier:
Signature:	Signature:
[Seal]	[Seal]





### **FORMS**



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**BS-1** 

#### **BID SECURITY**

The bid Security shall be **01 million** in the form of Deposit at Call or Bank Guarantee issued by a schedule Bank of Pakistan in favor of the Employer valid for a period of 28 days beyond the Bid validity date

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**PS-1** 

#### FORM OF PERFORMANCE SECURITY

#### (Insurance / Bank Guarantee)

	Guarantee No Executed on	
[Letter by the Guarantor to the Employer] Name of Guarantor (Bank) with address:	Expiry date	
(Sched Name of Principal (Contractor) with address:		
Penal Sum of Security (express in words and fig	gures)	
Letter of Acceptance No	Dated	
		e said the
penal sum of the amount stated above for the pa	ayment of which sum well and truly to be made t executors, administrators and successors, jointly	to the
	IS SUCH, that whereas the principal has accepte	d the
Employer's above said Letter of Acceptance (Name of Contract)	for for the	
(Name o	of Project).	
undertakings, covenants, terms and conditions of said Documents and any extensions thereof that it to the Guarantor, which notice is, hereby, waive the undertakings, covenants terms and condition said Documents that may hereafter be made, r	ctor) shall well and truly perform and fulfill all of the said Documents during the original terms of may be granted by the Employer, with or without noted and shall also well and truly perform and fulfions of the Contract and of any and all modification notice of which modifications to the Guarantor led; otherwise to remain in full force and virtue to Conditions of Contract are fulfilled.	of the notice ill all ons of being
liability attaching to us under this Guarantee tha	ed to the sum stated above and it is a condition of at the claim for payment in writing shall be received failing which we shall be discharged of our liability.	ed by
delay upon the Employer's first written demand Employer to prove or to show grounds or reason	(the Guarantor), waiving all objections and defendependently guarantee to pay to the Employer will without cavil or arguments and without requiring for such demand any sum or sums up to the and declaration that the Principal has refused or fail-	thout g the

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perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number.

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

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

#### **GUARANTOR (BANK)**

WITNESS:	Signature:	
1	Name:	
	Title:	
Corporate Secretary (Seal)	Corporate Guarantor (Seal)	
2		
Name, Title & Address		

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**CA-1** 

		FORM OF CONTRACT AGREEMENT	
		ACT AGREEMENT (hereinafter called the "Agreement") made on the  day of (month) 20 between  (hereafter called the "Employer") of the one part and (hereafter called the "Contractor") of the other part.	
the Co	ontractor a	Employer is desirous that certain Works, viz should be executed by and has accepted a Bid by the Contractor for the execution and completion of such Works ing of any defects therein.	
NOW	this Agre	ement witnesseth as follows:	
1.		Agreement words and expressions shall have the same meanings as are respectively d to them in the Conditions of Contract hereinafter referred to.	
2.	The following documents after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement, viz:		
	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)	The Contract Agreement; The Letter of Acceptance; The completed Form of Bid; Special Stipulations (Appendix-A to Bid); The Particular Conditions of Contract – Part II; The General Conditions – Part I; The priced Bill of Quantities (Appendix-D to Bid); The completed Appendices to Bid; The Drawings; The Specifications	
3.	In cons	ideration of the payments to be made by the Employer to the Contractor as hereinafter	

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

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**CA-2** 

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

Signature of the Contractor	Signature of Employer	
(Seal)	(Seal)	
Signed, Sealed and Delivered in the presence of:		
Witness:	Witness:	
(Name, Title and Address)	(Name, Title and Address)	

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**MG-1** 

MOBILIZATION ADVANCE GUARANTEE/BOND			
Guarantee No Date			
WHEREAS (hereinafter called the 'Employer') has entered into a Contract for			
(Particulars of Contract)			
with (hereinafter called the "Contractor').			
AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Rupees (Rs) which amount shall be advanced to the Contractor as per provisions of the Contract.			
AND WHEREAS, the Employer has asked the Contractor to furnish Guarantee to secure the mobilization advance for the performance of his obligations under the said Contract.			
AND WHEREAS,			
(Scheduled Bank in Pakistan / Insurance Company)  (Hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer agreeing to make the above advance to the Contractor, has agreed to furnish the said			
Guarantee.  NOW, THEREFORE, the Guarantor hereby guarantees that the Contractor shall use the advance for the purpose of above-mentioned Contract and if he fails and commits default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount.			
Notice in writing of any default, of which the Employer shall be the sole and final judge, on the part of the Contractor, shall be given by the Employer to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection.			
This Guarantee shall remain in force until the advance is fully adjusted against payments from the Interim Payment Certificates of the Contractor or untilwhichever is earlier.			
(Date)			
The Guarantor's liability under this Guarantee shall not in any case exceed the sum of Rupees(Rs).			

This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against payments from Interim Payment Certificates of the Contractor provided that the Guarantor agrees that the aforesaid period of validity shall be deemed to be extended if on the above-mentioned date, the advance payment is not fully adjusted.

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	GUARANTOR
	1. Signature:
	2. Name:
	3. Title:
WITNESS	
1	
Corporate Secretary (Seal)	
2	
(Name, title & Address)	Corporate Guarantor (Seal)

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# CONDITIONS OF CONTRACT PART-I: GENERAL CONDITIONS OF CONTRACT



#### PART-I: GENERAL CONDITIONS OF CONTRACT

The General Conditions of Contract shall be the FIIDIC "Condition of Contract, Part 1 General Condition". These conditions of Contract are published by the:

FIDIC Secretariat P.O. Box 86 1000 Lausanne 12 Switzerland

#### **FOURTH EDITION 1987**

Reprinted 1988 with editorial amendments

Reprinted in 1992 with further amendments

e-mail: fidic.pub@fidic.org – FIDIC.org/bookshop]

The prospective bidders are required to obtain a copy of the above-mentioned Condition of Contract directly from FIDIC Secretariat, on the address indicated above against payment of their usual charges.

The successful Bidders after receipt of Letter of Acceptance of his Bid, is required to provide two (2) copies of the said FIDIC, all in original, obtained from the publishers for incorporation of the same in the Contract Agreement of the Work.



# PART-II: PARTICULAR CONDITIONS OF CONTRACT





#### PART II – PARTICULAR CONDITIONS OF CONTRACT

#### 1.1 **DEFINITION**

#### (a) (i) The Employer is

#### Pakistan Industrial Development Corporation (PIDC),

2<sup>nd</sup> Floor PIDC House Dr. Ziauddin Road, Karachi, Pakistan its legal successors and assignees.

"Employer's Representative"

#### **Project Manager - PIDC**

Naushahro Feroze Industrial Park (SEZ) NFIP Main National Highway N-5 Near Dargah Nago Shah Deh Izat Wagan, Naushahro Feroze Sindh

Email: shahnawaz.hajyani@pidc.com.pk

Tel: 0301-2440484

#### (a) (iv)The Engineer

PIDC Officials will act as The Engineer during this contract

"Engineer-In-charge" means the same as The Engineer.

The following paragraph is added:

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

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

The following paragraph is added:

- (b) (ix) "**Programme**" means the Programme to be submitted by the Contractor in accordance with Sub-Clause 14.1 and any approved revisions thereto.
- (b) (x) "Addendum/ Addenda" means interpretation of and/ or changes in the Tender Documents and understood upon issuance by the Employer to become an integral part of the Bid Documents and the Contract Documents, wherever applicable.
- (e) (i) The text is deleted and substituted with the following:

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

Add the following sub-clause 1.1 (g):



(v) "Approved" means approved by the Engineer in writing, including subsequent written confirmation of previous verbal approval and approval means approval in writing, including as aforesaid.

#### 2.1 ENGINEER'S DUTIES AND AUTHORITY

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

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

- (i) Certifying additional time and cost determined under Sub-Clause 6.4 "Delay and Cost of Delay of Drawings".
- (ii) Certifying additional time and cost determined under Sub-Clause 12.2 "Not Foreseeable Physical Obstructions or Conditions".
- (iii) Determining additional time and cost under Sub-Clause 17.1 "Setting-out"
- (iv) Any action under Clause 10 "performance Security"
- (v) Certifying additional time and cost determined under Sub-Clause 27.1 "Fossil"
- (vi) Certifying additional time and cost determined under Clause 40 "Suspension".
- (vii) Certifying additional time and cost determined under Sub-Clause 42.2 "Failure to give Possession".
- (viii) Determining extension of time under Clause 44 "Extension of Time for Completion".
- (ix) Any action under Clause 47 "Liquidated Damages for Delay" or Payment of Bonus for Early Completion of Works (PCC Sub-Clause 47.3).
- (x) Issuance of "Taking-Over Certificate" under Clause 48.
- (xi) Issuing a Variation Order under Clause 51, except.
- (xii) In emergency\* situation, as stated herein below, or
- (xiii) If such variation would increase the Contract Price by less than the amount stated in the Appendix-A to Bid.
- (xiv) Notifying acceptance of principles of claims and/ or certifying additional cost under Clause 53 "Procedure of Claims".
- (xv) Release of Retention Money to the Contractor under Sub-Clause 60.3 "Payment of Retention Money".
- (xvi) Certifying additional cost under Clause 65.
- (xvii) Any change in the ratios of Contract currency proportions and payments thereof under Clause 72 "Currency and Rate of Exchange"
- \* (If in the opinion of the Engineer an emergency occurs affecting the safety of life or of the Works or of adjoining property, the Engineer may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such



instruction, in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.)

#### 2.2 ENGINEER'S REPRESENTATIVE

Add the following paragraph:

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

The following Sub-Clauses 2.7 and 2.8 are added:

#### 2.7 ENGINEER NOT LIABLE

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

#### 2.8 REPLACEMENT OF THE ENGINEER

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

#### 5.1 LANGUAGE(S) AND LAW

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

#### 5.2 PRIORITY OF CONTRACT DOCUMENTS

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

- (1) The Contract Agreement
- (2) The Letter of Acceptance;
- (3) The completed Form of Bid;
- (4) Addendum if any
- (5) Special Stipulations (Appendix-A to Bid);
- (6) The Particular Conditions of Contract Part II;
- (7) The General Conditions Part I;
- (8) The priced Bill of Quantities (Appendix-D to Bid);



- (9) Technical Specifications
- (10) The completed Appendices to Bid;
- (11) The Drawings;

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

#### 6.8 AS-BUILT DRAWINGS

Within 14 days of issuance of taking over certificate for whole of the Works, the Contractor shall furnish to the Engineer for his approval 2 copies of marked up drawings. One (01) copy each of marked up drawing approved by the Engineer shall be returned to the Contractor and these shall be used for preparation of As Built Drawings by the Contractor. The Contractor shall furnish to the Engineer 2 copies and one reproducible of all drawings amended to conform with Works as built. The price of such Drawings shall be deemed to be included in the Contract Price.

Add the following sub clauses

#### 10.1 PERFORMANCE SECURITY

The text is deleted and substituted with the following:

The Contractor shall provide Performance Security to the Employer in the prescribed form. The said Security shall be furnished or caused to be furnished by the Contractor within 14 days after the receipt of the Letter of Acceptance. The Performance Security shall be of an amount equal to 10% of the Contract Price stated in the Letter of Acceptance through schedule bank of Pakistan or from insurance company having atleast AA rating from PACRA/ JCR in favour of the Employer 'Pakistan Industrial Development Corporation (PIDC).

The cost of complying with requirements of this Sub-Clause shall be borne by the Contractor.

The following Sub-Clause 10.4 is added:

#### 10.2 PERIOD OF VALIDITY OF PERFORMANCE SECURITY

In the fifth line of this Sub-Clause, substitute "28" with "14".

Add the following at the end of sub-clause:

The performance security shall be valid until a date 28 days from the date of issue of the Defects Liability Certificates.

#### 14.1 PROGRAMME TO BE SUBMITTED

The programme shall be submitted within 07 days from the date of receipt of Letter of Acceptance

#### 14.5 MONTHLY PROGRESS REPORT



- (a) During the period of the Contract, the Contractor shall submit to the Engineer not later than the 10th day of the following month, 2 copies each of Monthly Progress Reports covering:
  - (1) A Construction Schedule indicating the monthly progress in percentage;
  - (2) Description of all work carried out since the last report;
  - (3) Description of the work planned for the next 56 days sufficiently detailed to enable the Engineer to determine his programme of inspection and testing;
  - (4) Monthly summary of daily job record;
  - (5) Photographs to illustrate progress; and
  - (6) Information about problems and difficulties encountered, if any, and proposals to overcome the same.
- (b) During the period of the Contract, the Contractor shall keep a daily record of the work progress, which shall be made available to the Engineer as and when requested. The daily record shall include particulars of weather conditions, number of men working, deliveries of materials, quantity, location and assignment of Contractor's equipment.

The following Sub-Clauses 15.2 and 15.3 are added:

#### 15.2 LANGUAGE ABILITY OF CONTRACTOR'S REPRESENTATIVE

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

#### 15.3 CONTRACTOR'S REPRESENTATIVE

The Contractor's authorised representative and his other professional engineers working at Site shall register themselves with the Pakistan Engineering Council.

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

#### 16.3 LANGUAGE ABILITY OF SUPERINTENDING STAFF OF CONTRACTOR

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the English language. If the Contractor's superintending staff are not fluent in English language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.

#### 16.4 EMPLOYMENT OF LOCAL PERSONNEL

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour and associated sub-contractors with the appropriate qualification and experience from Pakistan.

Add the following Sub-Clauses (d), (e), (f) and (g)



#### 19.1 SAFETY, SECURITY AND PROTECTION OF ENVIRONMENT

- (d) The Contractor to ensure protection of the environment, shall take all the necessary measures and precaution in conformity with statuary and regulatory environmental requirements enforced and amended from time to time.
- (e) The Contractor shall exercise due care to protect the natural landscape and shall conduct his construction operations so as to prevent any unnecessary destruction, scarring or defacing of the natural surroundings in the vicinity of the Works, except where clearing is required for Permanent Works, Approved Temporary Works and for excavation operations. All watercourses, ponds, wells, trees and native vegetation shall be preserved and shall be protected from the damage, which may be caused by the Contactor's construction operations and equipment. On completion of the Works, all work area shall be smoothed and graded in a manner to conform the natural appearance of the landscape. Where necessary, destruction, scarring or defacing may occur as a result of Contractor's operations, it shall repair, replaced, replanted o otherwise corrected at Contractor's expenses to the satisfaction of the Engineer and national and/or provincial Environment Protection Agency.
- (f) Borrow areas shall be located and operated so as not to detract from the future usefulness or value of the sites. Upon completion of the operations, borrow areas shall be left in a safe and rightly conditions. No borrow area shall be located within 500m from the right of way, except were approved by the Engineer.
- (g) During performance of the Works, the Contractor shall carryout proper and efficient measures as often as necessary to reduce the dust pollution.

The following Sub-Clauses 19.3 and 19.4 are added:

#### 19.3 SAFETY PRECAUTIONS

In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the Safety Requirements of the Government of Pakistan with such modifications thereto as the Engineer may authorise or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose.

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

#### 19.4 LIGHTING WORK AT NIGHT

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

#### 20.4 EMPLOYER'S RISKS

The Employer's risks are:



Delete the text and substitute with the following:

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

#### 21.4 EXCLUSIONS

The text is deleted and substituted with the following:

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

#### 25.5 INSURANCE COMPANY

The Contractor shall be obliged to place all insurances relating to the Contract (including, but not limited to, the insurances referred to in Clauses 21, 23 and 24) with an insurance company having at least AA rating from PACRA/JCR or acceptable to the Employer.

Costs of such insurances shall be borne by the Contractor.



#### 30.3 TRANSPORT OF MATERIALS OR PLANT

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

Add the following Sub-Clause 30.5

#### 34.2 RATES OF WAGES AND CONDITIONS OF LABOUR

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

#### 34.3 EMPLOYMENT OF PERSONS IN THE SERVICE OF OTHERS

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

#### 34.4 HOUSING FOR LABOUR

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

#### 34.5 HEALTH AND SAFETY

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of



his staff and labour at all times throughout the period of the Contract. The Contractor shall further ensure that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

#### 34.6 EPIDEMICS

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

#### 34.7 SUPPLY OF WATER

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

#### 34.8 ALCOHOLIC LIQUOR OR DRUGS

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

#### 34.9 ARMS AND AMMUNITION

The Contractor shall not give, barter, or otherwise dispose of, to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid except to those who are employed or hired for security of the work, Plant & Equipment, Material, Camp Sites, Offices, Housing including Employer's/Engineer's facilities, etc.

#### 34.10 FESTIVALS AND RELIGIOUS CUSTOMS

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

#### 34.11 DISORDERLY CONDUCT

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

#### 34.14 BURIAL OF DEAD

The Contractor shall make any necessary arrangements for the transport, to any place as required for the burial, of any kind of his expatriate employers or members of their families who may die in Pakistan. The Contractor shall also be responsible, to the extent required by the local regulations, for making any arrangements regarding burial of any of his local employees who may die while engaged upon the Works.

#### 34.15 SUPPLY OF FOODSTUFFS

The Contractor shall arrange for the provision of a sufficient supply of suitable food at



reasonable prices for all his staff and labour, or his Sub-contractors, for the purposes of or in connection with the contract.

#### 34.16 ACCIDENT PREVENTION OFFICER

The Contractor shall have on his staff at the site an officer dealing only with questions regarding the safety and protection against accidents of all staff and labour. This officer shall be qualified for this work and shall have the authority to issue instruction and shall take protective measures to prevent accidents. Adequate number of site safety inspector shall be deployed by Contractor to assist Accident Prevention Officer and ensure safety of Workers in the hazardous work area.

#### 34.17 FIRST AID FACILITIES

The Contractor shall provide and maintain adequate First Aid Facilities convenient to the site and as approved by the Engineer.

#### 34.18 DANGEROUS MATERIAL

The Contractor and his sub-contractors shall convey, store and make use of all explosives, dangerous petroleum, acetylene, carbide of calcium and any other similar material provide by them for use in or on the Works in strict accordance with the provision of all laws, orders and regulation that are in force at the site may be issued from time to time by the Government.

#### 35.2 RECORDS OF SAFETY AND HEALTH

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

#### 35.3 REPORTING OF ACCIDENTS

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

Add the following at the end of the sub-clause:

#### 36.1 OUALITY OF MATERIALS, PLANT, SUPPLIES AND WORKMANSHIP

The place of such tests shall be situated in Pakistan and notified to the Contractor whenever the need arises.

#### 36.6 USE OF PAKISTANI MATERIALS AND SERVICES

The Contractor shall, so far as may be consistent with the Contract, make the maximum use of materials, supplies, plant and equipment indigenous to or produced or fabricated in Pakistan and services, available in Pakistan provided such materials, supplies, plant, equipment and services shall be of required standard.

40.2 Engineer's Determination following Suspension

Add "/or" in the end of the text appearing under (a) after the word "and"



Add "determined under sub-clause 53.5" after the word "Contract Price" appearing in the end of first line of text under (b).

#### 41.1 COMMENCEMENT OF WORKS

The text is deleted and substituted with the following:

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

#### 42.2 FAILURE TO GIVE POSSESSION

Add "/or" in the end of the text appearing under (a) after the word "and"

Add "determined under sub clause 53.5" after the word "Contract Price" appearing in the end of first line of text under (b)

#### 43.1 TIME FOR COMPLETION

Total time period for the project completion is 06 Months from the date of Commencement.

#### 45.2 OVERTIME WORKING

Working hours shall be observed by the Contractor as stipulated in the Labour Laws of Pakistan. However, when deemed necessary to expedite the works, overtime, night time or holiday working may be allowed by the Engineer upon the Contractor's request. The Contractor in these cases shall pay all the costs of Engineer and his staff for such overtime, night time and holiday working at site. This covers overtime to be performed for any reason by the Contractor.

#### 48.1 TAKING OVER CERTIFICATE

When the whole of the Works have been substantially completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer with a copy to the Employer, accompanied by a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. Such notice and undertaking shall be deemed to be a request by the Contractor for the Engineer to issue a Taking-Over Certificate in respect of the Works. The Engineer shall within 21 days of the date of delivery of such notice, either issue to the Contractor, with a copy to the Employer, a Taking-Over Certificate, stating the date on which, in his opinion, the Works were substantially completed in accordance with the Contract, or give instructions in writing to the Contractor specifying all the work which, in the Engineer's opinion, is required to be done by the Contractor before the issue of such Certificate. The Engineer shall also notify the Contractor of any defects in the Works affecting substantial completion that may appear after such instructions and before completion of the Woks specified therein. The Contractor shall be entitled to receive such Taking-Over Certificate within 21 days of completion, to the satisfaction of the Engineer, of the Works so specified and remedying any defects so notified.

#### 49.2 COMPLETION OF OUTSTANDING WORKS AND REMEDYING DEFECTS



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

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

#### 49.5 MAINTENANCE & DEFECTS LIABILITY PERIOD

The defects liability period for the works as provided in sub-clause 49.1 shall be 06 months (or otherwise as specified in Appendix-A to Bid) from the date of completion of the works certified by the engineer in the taking over certificate. The Contractor shall be responsible to make rectification of the items on the punch list issued by the engineer and as otherwise required under the contract without any cost to the employer within this period.

Maintenance shall mean the process of sustaining the level of physical quality of the project as per originally established criteria, usually involving a programme of inspection, clearing and repair activities by the Contractor at his own cost.

Maintenance period shall be one (01) year from the date of completion of the work certified by the Engineering and by issuance of completion certificate.

#### 49.6 EXTENSION OF DEFECTS LIABILITY PERIOD

The defects liability period for the works shall be extended by a period equal to the period during which the works cannot be used by reason of defects or damages. If only part of the works is affected, the defects liability period shall be extended only for that part. In neither case shall the defects liability period extend beyond two (02) years.

#### 51.1 VARIATIONS

Add the following para at the end of this sub-clause:

The approval / finalization of rates of all variations shall not relieve the Contractor of his obligations under the Contract. The Contractor shall neither stop the work nor slow down progress of the works in awaiting the approval of rates of all variations.

#### 51.2 INSTRUCTIONS FOR VARIATIONS

At the end of the first sentence, after the word "Engineer", the words "in writing" are added.

#### 52.1 VALUATION OF VARIATIONS

In the tenth line, after the words "Engineer shall" the following is added:

within a period not exceeding one-eighth of the completion time subject to a minimum of 14 days from the date of disagreement whichever is later.

#### 52.2 POWER OF ENGINEER TO FIX RATES

The following Sub-Clause 52.2 (c) is added:



Detail Rate Analysis of each item influence shall be providing the Contractor.

#### 52.3 VARIATION EXCEEDING 15 PERCENT

Maximum permissible variation percentage as per the GCC (Part-I) as 15%.

#### 55.2 OMISSION OF QUANTITIES

Items of works described in the Bill of Quantities for which no rate or price has been entered in the Contract shall be considered as included in other rates and prices in the Contract and will not be paid for separately by the Employer.

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 Work.

Delete sub clause 57.1 and replace with following

#### 57.1 METHOD OF MEASUREMENT

The measurement of the Works shall be performed on the basis of the Specifications. All work completed under the Contract shall be measured according to the BOQ system for all items, unless otherwise provided herein or in the Special Provisions. Where no items are provided in the Bill of Quantities for Works required under the Contract, costs shall be deemed to be distributed among the quoted rates and prices entered for other items of work in the Bill of Quantities. The Works shall be measured net notwithstanding any general or local custom except where otherwise specifically described or prescribed in the Contract.

Add following sub clause 57.3

#### 60.1 MONTHLY STATEMENTS

The Contractor shall submit two (02) copies of the statement to the Engineer at the end of each month, in a tabulated form approved by the Engineer, showing the amounts to which, the Contractor considers himself to be entitled. The statement shall include the following items, as applicable, which shall be taken into account in the sequence listed:

- (a) the estimated Contract value of the Permanent Works executed up to the end of the month in question, determined in accordance with Sub-Clause 56.1, at the unit rates and prices included in the Contract;
- (b) the actual value certified for payment for the Permanent Works executed up to the end of the previous month, at the unit rates and prices included in the Contract;
- (c) the estimated Contract value at the unit rates and prices included in the Contract of the Permanent Works for the month in question, obtained by deducting (b) from (a);
- (d) the equivalent of the amount set forth in (c), expressed in the various currencies (if applicable) in which the Contract Price is payable, and calculated by applying the proportions and the exchange rates set forth in the Appendix to Bid to the amount set forth in (c);



- (e) the value of any variations executed up to the end of the month in question, less the amount certified in the previous Interim Payment Certificate, expressed in the relevant amounts of foreign (if applicable) and local currencies, pursuant to Clause 52;
- (f) amounts approved in respect of day work executed up to the end of the month in question, less the amount for day work certified in the previous Interim Payment Certificate, as determined from the day work schedule of the Bill of Quantities;
- (g) amounts reflecting changes in cost and legislation, pursuant to Clause 70;
- (h) any credit or debit for the month in question in respect of materials for the Permanent Works, in the relevant amounts, and under the conditions set forth in Sub-Clause 60.11;
- (i) any amount to be withheld under the retention provisions of Sub-Clause 60.3, determined by applying the percentage set forth in Sub-Clause 60.3;
- (j) any amounts to be deducted as recovery of the advance under the provisions of Sub-Clause 60.13;
- (k) adjustment of any other sum, expressed in the applicable currency or currencies, to which the Contractor may be entitled under the Contract or to be recovered from the Contractor; and
- (l) any amounts to be deducted as withholding tax and any other applicable taxes under the provisions of Income Tax Laws and Central Board of Revenue regulations.

#### 60.2 MONTHLY PAYMENTS

Delete sub-clause 60.2 and replace with following:

The said statement shall be approved or amended by the Engineer in such a way that, in his opinion, it reflects the amount in various currencies due to the Contractor in accordance with the Contract, after deduction, other than pursuant to Clause 47, of any sums which may have become due and payable by the Contractor to the Employer. In cases where there is a difference of opinion as to the value of any item, the Engineer's view shall prevail. Within 14 days of receipt of the monthly statement referred to in Sub-clause 60.1, the Engineer shall determine the amounts due to the Contractor and shall issue to the Employer and the Contractor a certificate herein called "Interim Payment Certificate", certifying the amounts due to the Contractor.

The Engineer shall not be bound to certify any payment under this Sub-clause if the net amount thereof, after all retention and deductions, would be less than the Minimum Amount of Interim Payment Certificates stated in the Appendix A to Bid. However, in such case, the unpaid certified amount will be added to the next interim payment, and the cumulative unpaid certified amount will be compared to the minimum amount of interim payment

Notwithstanding the terms of this Clause or any other Clause of the Contract, no amount will be certified by the Engineer for payment until the Performance Security has been provided by the Contractor and approved by the Employer".

#### 60.3 PAYMENT OF RETENTION MONEY

Retention Money shall be 10% of the sum stated in Letter of Acceptance. From each Interim Payment Certificate of the Contractor, 10% or the percentage (%) as decided by the Engineer of amounts certified under Clause 60.2 shall be retained until the amounts so retained reach



5% of the Contract Price stated in the Letter of Acceptance.

Notwithstanding anything above, the retention shall be affected in local currency only from the local currency portion of payments and shall also be released the same way in local currency.

#### 60.6 FINAL STATEMENT

Add following paragraph at the end

If, following discussions between the Engineer and the Contractor and any changes to the draft final statement which may be agreed between them, it becomes evident that a dispute exists, the Engineer shall issue to the Employer an Interim Payment Certificate for those parts of the draft final statement which are not in dispute. The dispute shall then be settled in accordance with Clause 67. The Final Statement shall be agreed upon settlement of the dispute.

#### 60.8 FINAL PAYMENT CERTIFICATE

Delete the words "other than pursuant to Clause 47" from Para (b) line 2 and 3. Add the following para at the end of this sub – clause.

The Contractor shall also submit the following documents with his final statement to the Engineer:

- a) Approved final As-built drawings.
- b) An affidavit by the Contractor that the works have been executed according to approved specifications, drawings, designs and standard and have not concealed defects known to him.

#### 60.10 TIME FOR PAYMENT

Delete the text and substitute:

The amount due to the Contractor under any Interim Payment Certificate (IPC) issued by the Consultant and the Engineer pursuant to this Clause, or to any other terms of the Contract, shall, subject to Clause 47, be paid by the Employer to the Contractor within 28 days after such Interim Payment Certificate has been delivered to the Employer, or, in the case of the Final Certificate referred to in sub-clause 60.8, within 56 days, after such Final Payment Certificate has been delivered to the Employer.

All payments to the Contractor shall be made in Pak Rupees only under the Contract. No payment in foreign currency is admissible.

Add the following sub-clause 60.11:

#### 60.11 MATERIAL FOR THE PERMANENT WORKS

The above clause is deleted.

No secured advance will be allowed through the currency of Contract.

#### 60.13 FINANCIAL ASSISTANCE TO CONTRACTOR

a) An interest free mobilization Advance (if required by the contractor) up to 10% of the Contract Price stated in the Letter of Acceptance shall be paid by the Employer to the



Contractor in two equal parts upon submission by the Contractor of a Mobilization Advance Guarantee for the full amount of the Advance in the specified form from a Scheduled Bank in Pakistan, or from insurance company having at least AA rating from PACRA/JCR in the favor of Employer PIDC.

- (1) First part within 14 days after signing of the Contract Agreement or date of receipt of Engineer's Notice to Commence, whichever is earlier; and
- (2) Second part within 42 days from the date of payment of the first part, subject to the satisfaction of the Engineer as to the state of mobilization of the Contractor.
- b) This advance shall be recovered in three equal instalments from first three invoices.

### 63.1 DEFAULT OF CONTRACTOR

Add following as paragraph (b) (iii):

If the progress of the works with respect to the Programme of Works is observed to be behind the approved program of works against agreed three consecutive months.

Delete the last paragraph of this sub-clause and substitute with:

"then the Employer may, after giving 14 days' notice to the Contractor, enter upon the Site and expel the Contractor therefrom without thereby avoiding the Contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the Employer or Engineer by the Contract, and may himself complete the works or may employ any other Contractor to complete the Works.

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

### 63.2 VALUATION AT DATE OF TERMINATION

Modify the heading of Sub-Clause 63.2 by substituting "Valuation at Date of Expulsion" for "Valuation Date of Termination." In Sub-Clause 63.2, delete the word "termination" on the second and fifth lines and substitute "expulsion."

### 63.3 PAYMENT AFTER TERMINATION

Modify the heading of Sub-Clause 63.3 by substituting "Payment after Expulsion" for "Payment after Termination." In Sub-Clause 63.3, delete the words "terminates the Contractor's employment" on the first line, and substitute "shall enter and expel the Contractor."

### 63.4 ASSIGNMENT OF BENEFIT OF AGREEMENT

In Sub-Clause 63.4, delete the word "termination" on the second line and substitute "expulsion".

Add the following sub clause

### 63.5 CORRUPT AND FRAUDULENT PRACTICES

If in the judgment of the Employer the Contractor has engaged in corrupt or fraudulent practices, in competing for or in executing the Contract, then the Employer may, after having



fourteen (14) days' notices to the Contractor, terminate the Contractor's employment under the Contract and expel him from the site, and the provision of clause 63 shall apply as if such expulsion had been made sub-clause 63.1 of General Conditions of Contract Part-I.

For the purpose of this sub-clause:

"Corrupt practices" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in the Contract execution.

"Fraudulent practices" means a misrepresentation of facts in order to influence a procurement process or the execution of the Contract to the detriment of the Employer, and includes collusive practice among bidders (prior to or after bid submissions) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition".

### 63.6 FAILURE IN MOBILIZATION

Notwithstanding anything contained herein, failure of the Contractor to mobilize at the site in accordance with Program of work shall lead to discharge of both the parties from further performance except as to the Employer's right under this Clause to encase the full amount of the Bank Guarantee for Mobilization Advance and Performance Security together with utilization of Insurance Policies furnished by the Contractor in respect of the Contract as compensation against damages incurred upon the Employer due to such failure of the Contractor to mobilize at the site. The Employer shall have the further right of debarring the Contractor from participation in future works in, to recommend Pakistan Engineering council for black listing as per PEC Bylaws. The application or otherwise of this Sub-Clause shall be at the discretion of the employer and in case of its application sub clause 63.2, 63.3 and 63.4 shall not apply.

### 65.2 SPECIAL RISKS

The text is deleted and substituted with the following:

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

### 67.3 ARBITRATIONS

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

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

The following paragraph is added:

The place of arbitration shall be Karachi, Pakistan.

### 68.1 NOTICE TO CONTRACTOR

The following paragraph is added:

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



the Contract.

### 68.2 NOTICE TO EMPLOYER AND ENGINEER

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

a) The Employer:

Chief Executive Officer
Pakistan Industrial Development Corporation (PIDC)
2<sup>nd</sup> Floor, PIDC House, Dr. Ziauddin Ahmed Road, Karachi, Pakistan
Tel: +92-21-3568-5041-9

b) The Engineer:

Pakistan Industrial Development Corporation (PIDC)

### 69.3 PAYMENT ON TERMINATION

Delete sentence from "but in addition to the payments...

### 73.1 COST INCLUSIVE OF DUTIES AND TAXES LOCAL TAXATION

All duties (including stamp duty), taxes and other levies payable by the Contractor.

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

### 74.1 INTEGRITY PACT

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

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

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

### 75.1 TERMINATION OF CONTRACT FOR EMPLOYER'S CONVENIENCE

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



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

### 76.1 LIABILITY OF CONTRACTOR

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

### 77.1 JOINT AND SEVERAL LIABILITIES

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

### 78.1 STATE OF EMERGENCY

In addition to the other responsibilities under the Contract, the Contractor shall comply with any police or Military regulations, order or instructions in force in the area of the Works due to state of emergency.

### 81.1 WASTAGE

No payment shall be made under any circumstances for wastage of materials, supplies and/ or fixtures supplied by the Contractor. In all case payment shall be made only on the basis of the net quantities of work done. It is up to the Contractor to calculate and make allowance for any or all such wastage (e.g., cut ends of reinforcement bars, spillage of cement and the like) in establishing the unit rates or prices for the items of works.



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### SPECIFICATIONS – SPECIAL PROVISIONS

#### SP-01 GENERAL

### A. Location of Works

The Woks to be constructed under this Contract will be located at Naushahro Feroze
 Industrial Parks at Naushahro Feroze.

### **B.** Definition of Site

- The site of the is defined as the areas required for the construction of Infrastructure development including allied works (Underground tank, rescue building, office building and boundary wall) shown on the Drawing and such additional areas adjacent thereto as may be designated by the Engineer from time to time for the construction to be performed under the Contract Documents, and all such areas and additional areas shall be comprised in the Site as defined in Clause 1 of the Conditions of Contract.
- Within the area which is defined as the Site, the Contractor shall carry out and perform the construction of the Works, and subject to the approval of the Engineer, will be permitted to construct temporary road-ways, building and temporary works which he may require for the construction of Works. If the Contractor wishes to use other land for such purposes, the Contractor shall make all necessary arrangements with the owner thereof and shall pay all rentals or other costs connected therewith.

### C. Climatology

1. The climate is hot except during the winter months of November to February. The temperature during summers may reach up to 45 degrees centigrade, which are hot and dry except during the months of July and August when the humidity increases due to heavy monsoon rain. The winters are cool and the lowest temperature drop to almost 0 degree centigrade on a few days.

### D. General Description

- 1. The Works are to be executed and completed in accordance with drawings, Specifications, Terms and Conditions under Special Provision related to all Bill of Quantities Items and Satisfaction of Engineer and the Employer, Scope of the works will include but not limited to the construction of Multi-Purpose Complex and External Development, Civil Work, Public Health Work, Electrical Work and Hard Landscaping and Parking, Utilities Infrastructure Works as Shown on Contract Drawings.
- 2. The Contractor shall perform all the Works required for the complete construction of the aforesaid Works.
- 3. The Contractor shall procure, furnish, provide and arrange for all the necessary equipment, transportation, fuel and other services, shall be responsible for the construction and maintenance of other works necessary for the completion of the Works described herein in strict conformity with the Specifications.



4. The Works shall also include rectification of defects during the Defect Liability Period.

### SP-02 DRAWINGS

A. The Drawings issued with the Tender and hereinafter referred to as Tender Drawings, are generally in sufficient detail so as enable the Contractor to submit rates and prices of the pay items in The Bill of Quantities, subject to corrections based on the future issue of drawing as provided under Sub-Clause SP-02-B —Drawings Issued for Construction. The Tender Drawing returned by the Contractor with his Tender shall be kept in safe custody by the Employer/ Engineer.

### **B.** Drawings Issued for Construction

1. After award of the Contract, Construction Drawing will issue for the construction. The Drawing issued for construction will include Tender Drawings as may be modified and additional drawings are required to develop the work in greater detail and supplementary Specifications shall be constructed to be included in the expression "Supplementary Drawings and Instructions" under Sub-Clause 7.1 of the condition of the Contract. The drawings issued for the construction that show changes from the Tender Drawings and Specification will be reviewed by the Engineer for his determination of adjustment (if any) of the Contract Price in accordance with the provisions of Sub-Clause 52.1 and 52.2 of the Conditions of Contract. The work shall be executed in conformity with the Drawings issued for the construction. The Engineer and the Contractor shall jointly prepare a schedule for issuance to the Contractor of "Drawings Issued for Construction" of various parts of the Works based on a list of Drawings prepared by the Consultant.

### C. Definition of Term Drawings

1. The term Drawings as used throughout the Specifications applies to both the "Tender Drawings" defined in Sub-Clause SP-02-A and the "Drawings issued for the construction" as described in Sub-Clause Sp-02-B.

### D. Checking Drawings

1. The Contractor shall check all the Drawings issued for the construction carefully as soon as practicable after receipt thereof, and shall promptly seek advice from the Engineer of any errors discovered.

### E. Drawings to be furnished by the Contractor

### 1. Shop Drawings

(i) All shop drawings required for the Works including field erection and layout and construction detail drawings shall be furnished by the Contractor for approval of the Engineer. Written drawing matter shall be in English. If more detailed drawings are necessary to complete any part of the Work, such detailed drawings shall be prepared by the Contractor and submitted to the Engineer for Approval. All drawings shall be prepared by the Contractor and submitted to the Engineer for approval. All drawings



shall be complete and shall be submitted in due time and in logical order to facilitate proper coordination. All drawings submitted and approved will form a part of the Contract.

### 2. Lift and Placement Drawings

(i) Lift and other Placement drawing shall be submitted for the approval of the Engineer only for such lift or other placement of concrete where necessary or as directed by the Engineer. Lift or other placement drawings shall be to such scale as to show clearly all recesses, openings and embedded work, including embedded structural, mechanical and electrical Items, in each lift in sufficient detail for proper installation of the work.

### 3. Other Drawings

(i) Drawings showing proposed methods of construction and other drawings additional to those-referred to hereinabove, required by the Specification, shall be submitted to the Engineer for approval.

### F. Submission And Approval

- 1. Except as otherwise specified, three ammonia prints of each drawing for approval or review shall be furnished as herein required. Transmittals shall be made to the Engineer, in accordance to the written instructions to be furnished by the Engineer. Within 15 calendar days of receipt, the Engineer will send one copy to the Contractor marked "Approved", Approved except as Noted" or "Returned for Correction". The notations "Approved", Approved except as Noted" or "Returned for Correction" will authorize the Contractor to proceed with fabrication of the materials and equipment covered by such drawings and shall re-submit prints for approval in the same manner as for new drawings. Every revision made during the life of the Contract shall be shown by number, date and subject in a revision book.
- 2. Upon receipt of prints which have been "Approved", Approved except as Noted", the Contractor shall furnish four prints plus one reproducible for each drawing to the Engineer. If revisions are made after a drawing has been approved, the Contractor shall furnish for approval additional copies as specified for the initial submission subsequent to each revision.
- 3. All the applicable requirements of this Clause with reference to the drawings to be prepared by the Contractor shall apply equally to catalogues, cuts, illustrations, printed specifications, or other data submitted for approval.
- 4. Any work done prior to the approval of drawings shall be at the Contractor's risk. The Engineer will have the right to request any additional details and to require the Contractor to make any changes in the design which are necessary to conform to the provisions and intent of the Specifications without additional details and to require the Contractor to make any changes in the design which are necessary to conform to the provision and intent of the Specification without additional cost to the Employer. The approval of the drawings by the Engineer shall not be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory. Approval by the Engineer of the Contractor's drawings shall be held to



relieve the Contractor of the obligation to meet all the requirements of Specifications or the responsibility of correctness of the Contractor's Drawings or of the responsibility for correct fit of assembled parts in final position or of the responsibility for the adequacy of method of construction.

### SP-03 LAYOUT OF WORK AND SURVEYS

### A. Reference points, Lines and Levels

(i) The Engineer will provide assistance for layout a reference line(s) in the field with accompanying points and bench marks for each major structure, sufficient to enable the Contractor to establish there from his survey control for construction.

### B. Verification

(i) The Engineer may make checks as the Work progresses to verify lines and grades established by the Contractor and to determine the conformance of the Work as is programme with the requirements of the Contract Specification and Drawings. Such checking by the Engineer shall not relieve the Contractor of his responsibility to perform all Work in accordance with the drawings and Specifications and the lines and grades given therein.

### SP-04 APPROVAL OF MATERIAL AND EQUIPMENT

### A. Submission of Samples and Data

1. As soon as practicable after award of the Contract, the Contractor shall submit for the approval of the Engineer drawings, catalogs, cuts, diagrams and other descriptive data for all mechanical, electrical, architectural, and such other materials and equipment designated by the Engineer, which the Contractor proposes to use under this Contract. For certain materials and equipment, data may be required to be submitted in accordance with a "Detail Form" furnished by the Engineer. Items submitted shall be properly labeled to indicate the Contract No., Works, Contractor, source of supply, manufacturer, pay item number and other data required by the Specification. All items shall be submitted in sufficient time, but not later than thirty days prior to purchase, to permit proper consideration and action thereon without delaying the approved construction schedule.

### B. Tests

- 1. The provisions of Sub-Clause 36.3 in Conditions to Contract are intended to apply the tests required to establish conformance to all materials, products and equipment to the Specification in the Technical Provisions of the Specifications, e.g. the particular specifications for cement, re-enforcing steel, structural steel, paints miscellaneous metals, bricks, concrete masonry blocks, water, concrete and stone aggregates, cement concrete and earthwork materials, etc. as may be deemed necessary by the Engineer. Instead of specific test for materials at the Site or approved Laboratories, the Engineer may request satisfactory proof of the commissioning in one or more of the following ways.
- 2. Manufacturer's Certificate of Compliance



(i) In the case of the standard labeled stock products of standard manufacture which have a record of satisfactory performance in similar work over a period of not less than two years, the Engineer may accept a notarized statement from the manufacturer certifying that the product conforms to the applicable Specification.

### 3. Mill Certificate

(i) Regarding materials for which such practice is usual, the Engineer may accept the manufacturer's certified mill and laboratory certificate.

### 4. Testing Laboratory Certificates

(i) The Engineer may accept a certificate from a testing laboratory satisfactory to him certifying that the product has been tested within a period acceptable to the Engineer and that it conform to the requirements of the Specifications.

### 5. Service Record

(i) If a demonstrable satisfactory service record is available for s material, certain specified tests may be waived by the Engineer.

### C. Cost

1. The cost of any additional laboratory, field and shop tests required through the resubmission of samples because of failure of compliance with Specifications shall also be borne by the Contractor.

### SP-05 INSPECTION

A. All materials and equipment furnished and all work performed under this Contract will be subject to inspection by the Engineer at all times and in all states of completion both off- Site and on-Site. The Contractor shall furnish promptly without additional charge, all facilities, labor and material reasonably needed for performing such inspections and tests may be required by the Engineer. Inspection at the source, e.g., borrow area, manufacturer's plant etc., will be made of selected materials and equipment in addition to inspection at the Site. Acceptance of materials and equipment or the waiving of inspection thereof shall in no way relieve the Contractor of the responsibility for furnishing materials and equipment meeting the requirements of the Contract Documents.

### SP-06 COST OF INSPECTION BY EMPLOYER AND/OR ENGINEER ON MANUFACTURER'S PREMISES

"Factory acceptance tests shall be witnessed by the personnel of the Employer and the Engineer. The numbers of the visits are to be indicated by the Manufacturer, which will be finalized at the time of Award of Contract and will not be less than 8 in numbers (each visit shall comprise of three personnel). Charges towards inspection trips by the Employer/Engineer or by his authorised inspector(s), for daily allowance, accommodation and airfare shall be borne by the, Manufacturer. These shall include the cost of business class air travel from Pakistan to place of inspection/testing and back, hotel accommodation/boarding/lodging (as per actual), inland transportation and daily allowance @ US Dollars 200 per day per person for inspection/testing to be conducted outside the Pakistan and Rs 5000 per day per person for inspection/testing to be conducted inside the



Pakistan for each visit of every person to witness these tests. The Employer shall direct what sums by way of daily allowance are to be paid by the Manufacturer to such persons.

The time of visits by the personnel of the Engineer and the Employer shall be finalised after submission of the Manufacturer's workshop test programme.

Inspection visits shall, as far as possible, be arranged to coincide with the performance of key activities indicated in the workshop test programme.

### SP-07 CONSTRUCTION SCHEDULE

### A. Primavera P6 and Bar Chart

- 1. The Preliminary Construction Schedule submitted with Tender shall, as a minimum, provide overall Works schedules and specific structure construction schedule. The completion dates which are mandatory for certain parts of the Work shall be shown as such dates or earlier on the Schedule submitted by the Contractor.
- 2. The operations under the programme, submitted by the contractor in completion with Sub-Clause 14.1 of the Condition of Contract shall be broken down in such detail as necessary to fully confirm the Contractor's proposed schedule.

### B. Network Analysis

- 1. The Network Analysis Schedule, if required by the Engineer, shall also be prepared by the Contractor and approved by the Engineer. This Schedule shall be monitored and kept current band updated by the Contractor throughout the Work. All revisions shall be accompanied by a detailed explanation of the reason for a detailed explanation of the reasons for the changes. For the purpose of determining the Contractor's compliance with the Contract Progress, the Construction Programme shall govern, however, the Network Analysis Schedule shall govern for such other Contract purposes e.g., determination of extension of time as the Engineer may determine.
- 2. The Contractor shall plan, prepare and draw the complete construction schedule on PRIMAVERA P6 software and submit to Engineer for approval in accordance with clause 14 of the condition of the Contract.

### SP-08 EMPLOYER'S, ENGINEER'S AND CONSULTANT FACILITIES TO BE PROVIDED BY THE CONTRACTOR

### a) Testing of Material

(i) the Contractor shall propose for the approval of the Engineer three well renowned laboratories for the testing of material and other tests specified in the specification.

### Laboratory

The Contractor shall establish and maintain the laboratory at site at his own cost to carry out routine tests.

- **Note:** (i) The Facilities of the Consultant along with their maintenance as mentioned above from Sr. (a) to (c) are not payable separately and shall be included in other pay items mentioned in BOQ.
- (i) if the Contractor fails to provide any a) Article as specified above



with in14 days from the Date of Commencement then the Engineer is authorized to deduct the monies of the Contractor as actual / prevailing rates plus 20% overheads etc.

per

(ii) The Contractor shall be responsible to provide the Engineering facilities along with maintenance till issuance of Taking Over Certificate / Completion of the Project.

### SP-09 SUPPLY OF WATER AND POWER

- A. The Contractor will make his own arrangements for temporary water and power connections from the relevant authorities and all water and electricity supply charges as well as its operation and maintenance costs shall be borne by the Contractor throughout the currency of the Contract.
- B. Any expenses, loss or damage suffered by the Contractor as a result of interruption in supply of water and/or power shall be borne by the Contractor alone. The Contractor shall provide such stand-by arrangements for his own needs in the construction of the Works as he deems necessary.

### SP-10 STANDARD AND CODES

A. Where the Contract Documents provide requirements for material or equipment by specifying a standard or code such as one of the British Standard Institution, which has its origin in one country, it is not the intention to restrict the requirements solely to that standard and that country. Other standards, including standards of other countries, will be accepted, provided the requirement thereof, in the sole opinion of the Engineer, are equal to the requirements of the standard specified. The Contractor may propose to the Engineer a standard other than that specified, in which case he shall submit an English translation of the proposed standard and all other information required by Clause SP-04, "Approval of Material and Equipment", and shall submit written proof that his proposed standard is equivalent in all significant respects to the standard specified. Dates of specified standards are generally provided in the Specifications or indicated on the Drawings. Where Dates are not shown or specified or indicated, standards will be those in effect thirty days prior to the Opening of Tender.

### SP-11 MEASUREMENTS AND PAYMENT GENERAL PROVISIONS

### A. Payment – general

1. Payment will be made as provided in Clause 55 through 60 of the Conditions of Contract and as specified hereinafter. Payments will be made at the Contract rates/prices for the Contract/Pay Items in the accepted Tender, as defined in the aforementioned Clauses, here-in-below, and in the various clauses on the measurement and payment throughout the Technical Provisions. Unless an item is specifically provided there for in the Bill of Quantities, no separate payment will be provided for the work required by the Special Provisions and cost of fulfillment of other obligations under the Contract.

### B. Measurement – general

1. Measurement for the payment at the Contract unit rates and lump-sum prices will be made by the Engineer of the actual quantities of work performed or items furnished



in accordance with the specified methods of measurements. In all cases where a quantity under one Item measured for payment is contiguous to the quantity under another end of the quantity under each item shall be determined by the Engineer. Unless otherwise specified under a Pay Item, measurement for the payment will be Permanent Work. Excavations for construction plant and other purposes of the Contractor's choosing will not be measured for payment.

### C. Measurement by Weight

1. The weights of the material and equipment, the installing, handling or placing of which is to be paid for on the basis of weight, will be determined by the Engineer from the information furnished by the Contractor. Unless otherwise specified the Contractor will be required to provide scales for actually weighing these materials and equipment. The Engineer, however, reserves the right to ascertain and check the weight of each part of item involved in the most practicable manner and he will use for that purpose railroad shipping weights, manufacturer's weights, catalogue weights, scale weights if available or computed theoretically weights. Net weights only will be paid for, and the weight of all tare, packing, and blocking will be deducted. No extra allowance will be made for paint or other protective coatings.

### D. Compensation Included

 Payment to the Contractor of the amounts based on the actual quantities of Work as measured by the Engineer in accordance with the specified methods of measurements and the rates and the prices stipulated in the accepted Tender, will constitute full and comprehensive compensation for all work shown on the Drawing provided in the Specifications or the Contract Documents, or reasonably inferable from any of the Contract Documents, and all expense incidental thereto;

and all costs of accepting the general risks, liabilities and the obligations set forth or implied in the Contract Documents. The Contractor will be required to perform work of such payment whether the work is specially referred to or otherwise included in a specific Item in the Bill of Quantities or not. Payments under all items shall include, but not necessarily be limited to, compensation for furnishing all plant, superintendence, labour, equipment, overhead, profit, materials, services, and taxes etc., and performing all work required to accomplish and complete the work specified under each Item and all other work required by the Contract Documents.

### SP-12 SIGNBOARD

A. The Contractor shall provide and install, at a suitable place, a Sign Board containing project data/ information at his own cost of design approved by the Engineer.

### SP-13 GENERAL PAY ITEMS

A. For fulfillment of obligations by the Contractor as per Conditions of Contract and Special Provisions of the Specifications, payment shall be made only for the General Pay Items applicable to this Contract as listed in the Bill of Quantities. No separate payment shall be made for fulfilling other obligations not mentioned here-in-below cost of which shall be deemed to be included in the rates and prices of other pay items in the Bill of Quantities.



### Pay Items Description Unit for rate

- G-1 Obtain and submit insurance of Works as per Clause 21 of the Conditions of Contract (no payment shall be made for insurance of Contractor's equipment) L.S.
- G-2 Obtain and submit insurance against accident to workmen as per Sub-Clause 24(2) of the Conditions of Contract L.S.
- G-3 Obtain and submit third part insurance as per Clause 23 of the Conditions of Contract L.S.

### SP-14 DAMAGE TO PUBLIC/PRIVATE PROPERTY

The Contractor shall be responsible to for remedying, to its original state, any damage to the public or private properties during the execution of the Project.

### SP-15 PLANTS AND MACHINERY FOR SPECIFIED JOB

The contractor shall be responsible to ensure any type of concrete or asphalt works will be done through relevant batching plants only. No other option/procedure will be acceptable for such works. Hydraulic paver machine will be used for asphalt laying.





### **`Pakistan Industrial Development Corporation (PIDC)**

"(Boundary Wall, Main Gate and Allied Works)" Naushahro Feroze Industrial Park, Naushahro Feroze

**VOLUME-II: BILL OF QUANTITIES** 

FEBRUARY-2024



### **BIDDING DOCUMENTS COMPRISE**

Volume-I Instructions to Bidders & Conditions of Contract,

Volume-II Bill of Quantities

Volume-III Technical Specification

Volume-IV Drawings

All the above volumes are integral part of the Contract Documents and are to be read in conjunction with each other and are mutually explanatory of each other. In case of any contradiction, the provisions under Priority of Document and explanation of the Engineer shall be final and binding on the Contractor.







Infrastructure)"

### **QUALITY CONTROL SHEET**



QUALITY CONTR	QUALITY CONTROL SHEET				
DOCUMENT	Volume-II: Bill of Quantities				
PROJECT	"(Infrastructure Development Works) (Boundary Wall, Main Gate and Allied Works)" Naushahro Feroze Industrial Park, Naushahro Feroze				
CODE					
AUTHOR					
VERIFIED					
TO	Pakistan Industrial Development Corporation (PIDC)				
NOTES					



### Boundary Wall, Main Gate and Allied Works

FB-1

	FORM OF BID
Bid Re	eference No
(Nam	e of Contract/Works)
To:	
	eman,
1.	Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract. Specifications, Drawings and Bill of Quantities and Addenda Nos
	sum as may be ascertained in accordance with the said conditions.
2.	We understand that all the Appendices attached hereto form part of this Bid.
3.	As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of Rupees (Rs) drawn in your favour or made payable to you and valid for a period of days beginning from the
	date Bids are opened.
4.	We undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in Appendix-A to Bid.
5.	We agree to abide by this Bid for the period of days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6.	Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7.	We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
8.	We understand that you are not bound to accept the lowest or any Bid you

may receive.



Dated this	day of	20
Signature:		_
in the capacity of _		duly authorized to sign Bids for and
on behalf of		
		(Name of Bidder in Block Capitals) (Seal)
Witness:		
Signature:		
Name:		
Occupation		



### **PREAMBLES**

- 1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Technical Specifications and Drawings.
- In case of any variation or item not available in the priced bill of quantities, the same will be analyzed as per prevalent market rate adopting standard procedure for the purpose.
- 3. The rates entered against the various Items in the following Bill of Quantities are those referred to in the Contract as the Contract Rates and shall cover the execution, completion and maintenance in every respect as shown on and described in the Contract, with or without such modifications, either by way of additions or deductions or such alterations as may be ordered in writing during the progress of the works and include but not by way of limitation all matters and things particularly referred to in the Contract.
- 4. The quantities in the Bill of Quantities are estimated amounts and the Employer does not expressly nor by implication agree that the actual amount of work to be performed will correspond therewith. No payments will be made on account of anticipated profits for work covered by the Contract which is not performed.
- 5. The rates shall be quoted in figures as well as in words and shall cover all costs of every kind whatsoever, including but not limited to all office charges, supervision, transport, materials, and labour, the provision, maintenance, use and efficient repair of all plant equipment, and appliances of every kind the construction and maintenance of all Temporary Works of every description and the performance of all services that may be required for the proper execution completion and maintenance of the Works in full and complete accordance with the provisions of the Contract and the undertaking and discharge of all obligations and responsibilities therein defined.
- 6. The Contractor shall be deemed to have fully considered all the conditions obligations and requirements of Contract before entering the respective rates against the various Items in the following Bill of Quantities.
- 7. Where a discrepancy exists between the unit rate and extended total amount the unit rate shall be taken as correct and the total amount adjusted accordingly. Similarly, where a discrepancy exists between the rates quoted in the figures and the words the rates quoted in words shall be taken as correct and the total amount adjusted accordingly.
- 8. 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.
- 9. 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



#### **PREAMBLES**

rates and prices entered for the related items of the Works.

- 10. All measurements shall be taken net except when otherwise specified and shall be applicable to finished work only as completed notwithstanding any trade custom to the contrary.
- 11. Except as may otherwise be provided under the terms of the Contract of the unit rates, prices, and lump sum amount entered in the Bill of Quantities, will be the rates at which the Contractor with be paid and shall be deemed to have included all costs of whatsoever nature for performing the works including but not limited to income tax, super tax, profits, rentals of equipment, etc. and the costs of accepting the general risks, liabilities and obligations set forth or implied in the Contract.
- 12. The unit rate in the bill of quantities for any item of work shall apply to completed work in all respects conforming to the Contract covering the total cost of material, labour, plant, shuttering and equipment required for the execution of that item of work, as well as covering the share of any from the other general expenses to be incurred by the Contractor during the execution of the Works. These general expenses shall include, but are not restricted to, the following, unless otherwise stated in the Contract.
  - Preparation and submission of bids including the Site inspection;
  - Employment, mobilization and accommodation of the Contractor's staff including official holidays, annual leaves, sick leaves, compensation, bonuses insurance etc.;
  - Mobilization and demobilization of construction plant and equipment, transportation within the Site, operation, maintenance, repair, depreciation and all related costs;
  - Costs related to the Contractor's Site Camps, office for the Engineer including the provisions of all utility facilities;
  - Costs shall also include providing, testing and commissioning of the complete installation;
  - Costs of laboratory testing, survey work and all assistance to the Engineer as required by the Contract;
  - Cost of bank / insurance guarantees / bonds;
  - Costs of all temporary works;
  - Costs of all work items for which there is no direct payment, and which are considered in the Contract as subsidiary to other items in the bill of quantities;
  - Overheads and profit;
  - All other expenses the Contractor may encounter in the proper execution of the Contract.



# BOUNDARY WALL AND MAIN ENTRY GATE NAUSHAHRO FEROZE INDUSTRIAL PARK

### **Bill of Quantities**

### **General Abstract of Cost**

Sr. No	Description	Amount (Rs.)
A	Boundary Wall	
В	Entry Gate (Civil, Plumbing & Electrical)	
	GRAND TOTAL AMOUNT	

### BOUNDARY WALL AND MAIN ENTRY GATE AT NAUSHAHRO FEROZE INDUSTRIAL PARK

### **NAUSHAHRO FEROZE**

### BILL OF QUANTIT|IES

	A. Boundar	y Wall				
Sr. No	Description	Unit	Qty	Unit Rate	Amount	Rs.
RCC Pla	nks Boundary Wall			I	l	
1	Clearing & grubbing the site by cutting uprooting and removing all rubbish and shrubs including disposal to (outside limit) designated place as directed by the engineer.	Sqm	8,000			
2	Excavation as in Ordinary Soil up to 1.5 M depth (4.92 ft), in foundation and trenches up to 1.5 M wide (4.92 ft), in shafts, wells and independent holes up to 30 sqm each and throw earth clear of edges of excavation within 10m.	Cu.m	1,447.88			
3	Earth filling as in Ordinary or hard soil, filling in foundation, trenches incl watering and compaction in 150 mm layer and dressing to required	Cu.m	885.00			
4	Providing and laying stone soling 8 inch thick under foundation complete etc.	Sqm	370.00			
5	Providing and laying of CC 1:4:8 using Crushed or Broken Stone as specified, in Foundation	Cu.m	198.38			
6	Providing & Laying First class Burnt brick masonry, in wall 115 mm thick, laid and jointed in CM 1:4, up to planks bottom level.	Cu.m	675.00			
7	Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements (foundation etc.) including form work all as specified.	Cu.m	339.64			
8	Supply and fix, bars round, using deformed bars Grade-60, incl cutting, bending, binding and placing reinforcement in position.	Kg	44,153.20			
9	Providing and fixing at site Precast prestressed Boundary Wall comprising of H-Column 6"x6.5"x9.5', planks size 8.25'x12"x2" Up to 6 ft Height and pillar cap of suitable size complete in all respects i/c all cost of labour material and carriage charges etc.	Rum	2500.00			
		Boun	dary Wall T	otal Amount		

### INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK

### NAUSHAHRO FEROZE

### **Bill of Quantities**

	B. Main Entry Gate, Guard Room & Bathroom						
Sr.Nr.	Description	Unit	Qty	Unit Rate	Amount R	s.	
(CIVIL	WORKS)						
1	Excavation as in Ordinary Soil up to 1.5 M depth (4.92 ft), in foundation and pipe trenches up to 1.5 M wide (4.92 ft), in shafts, wells and independent holes up to 30 sqm each and throw earth clear of edges of excavation within 10m.	Cu.m	62.70				
2	Earth filling as in Ordinary or hard soil, filling in foundation, trenches incl watering and compaction in 150 mm layer and dressing to required.	Cu.m	34.00				
3	Providing and laying of PCC with 3000 psi compressive cylindrical strength in all non-structural elements except formwork.	Cu.m	0.99				
4	Providing and laying of CC 1:4:8 using Crushed or Broken Stone as specified, in Foundation.	Cu.m	4.88				
5	Burnt brick work, in wall over 115 mm thick, laid and jointed in CM 1:6, straight or to curve with inner radius of 6m and over, up to 4.25 m depth.	Cu.m	18.60				
6	Burnt brick work, in walls 115 mm thick, laid and jointed in CM 1:4, straight or to curve with inner radius of 6m and over, up to G.F roof level.	Cu.m	21.42				
7	Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements (foundation etc.) including form work all as specified. Reinforcement measured and paid separately.	Cu.m	7.06				
8	Providing and laying of RCC with 3000 psi compressive cylindrical strength in n roof slabs, landings, walls, plinth beams and bands etc. all as specified including form work (reinforcement measured and paid separately).	Cu.m	11.46				
9	Providing and laying of RCC with 4000 psi compressive cylindrical strength all as specified in roof slabs, landings, walls, plinth beams and bands, etc., including form work. Reinforcement measured and paid separately. (For Columns).	Cu.m	10.21				
10	Supply and fix, bars round, using deformed bars Grade-60, incl cutting, bending, binding and placing reinforcement in position.	Kg	5,000.98				
11	Plaster Cement Plaster 1:4, 19 mm thick finished as specified (up to 30ft height). (External Plaster).	Sqm	275.23				
12	Cement Plaster 1:4, 13 mm thick finished as specified (Basement, GF, FF and 2nd floor). (Internal Plaster).	Sqm	87.2				

13	Aluminum WorkSupply of Aluminum Sliding window, Deluxe Quality, of AnodizedAluminum extruded section in any size, color and texture asspecified, including fixing on concrete, wood or steel frames, complete with all necessary fittings except glass.(Aluminum Frame 2mm Thick).	Sqm	6.66	
14	Supply of Aluminum Fly/Insect screening with imported mesh (Economy Deluxe and Premium Model), of Anodized Champagne Aluminum extruded section as specified, incl fixing on concrete, wood or steel frames, complete with all necessary fittings.	Sqm	2.88	
15	Supply and fix, 5mm thick, Plain Sheet glass fixed to timber or steel sashes with putty as specified.	Sqm	6.66	
16	UPVC Door Supply and fix, uPVC Door, 60 mm thick shutter with groove panel 20 mm thick with frame complete exceeding 1.9 sqm each, in white color including necessary fittings, monger, complete all as specified.	Sqm	1.58	
17	Main Gate / Iron Work Repair & Erection/fix of Main Gates complete in all respect. (Steel Main Gate already available at site).	Job	1	
18	Paint Iron Work  1st Coat of painting on new or old work such as iron guard bars, iron gates, railing and similar open work with Synthetic Enamel paint.	Sqm	86.4	
19	1st Coat of Epoxy Red Oxide Zinc Chromate primer on steel surface, new or old work, as specified.	Sqm	86.4	
20	Pavers Providing and laying, CC Paving stone, 60 mm thick in natural colour, as in floors, streets, public parking etc, any pattern and shape, (Hydraulically compressed), laid and jointed in sand, incl 50 mm thick sand bed as laying course, all as specified.	Sqm	80	
21	Tile Work Providing and laying Deluxe quality tiles of any make but not size exceeding 1600 sq cm but not exceeding 3700 sq cm, including setting, jointing and bonding, complete all as specified.	Sqm	73.64	
22	Providing and laying Wooden Porcelain Mate Tile size 1200mmx200mm on Elevation of approved quality using tile bond and tile filling over a 3/4" thick cement sand mortar 1:2 complete in all respect as per direction/satisfaction of the Engineer.	Sqm	110.64	
23	Paint Work Surface preparation (for dampness) by provision of a film with Alkali Resisting primer on plastered wall or ceiling.	Sqm	106.84	
24	Two Coat of painting on new or old work such as walls including all detached attachment with Plastic Emulsion paint.	Sqm	106.84	
25	Two Coat of Weather Resistant paint on exterior wall on new surface.	Sqm	275	

### INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK

### NAUSHAHRO FEROZE

### **Bill of Quantities**

PLUM	BING & MECHANICAL WORKS			
26	Supply and fixing, UPVC Pipe, with all fittings, i.e., Valves, socket bend, tee, elbow, Socket etc. where required dia with solvent cement joint.			
	20 mm dia	RM	30	
	25 mm dia	RM	10	
	50mm dia	RM	10	
	75mm dia	RM	4	
	110mm dia	RM	5	
	160mm dia	RM	35	
27	Bathroom Providing and installation accessories for one toilet along with Tabs, Toilet shower, Towel rail, soap dish, toilet paper holder, huk bar and mirror, Wash Basin, WC including uPVC Soil and waste pipe complete fitting.	Job	1	
28	Manhole Manholes, complete, rectangular or circular as described, not exec 900mm deep from invert to surface of cover, incl. main channel, set in CM 1:1, 150 mm thick RCC walls including manhole cover.	Job	1	
ELECT	TRICAL WORKS			
29	One fan point; one light point, one bell point, controlled by one switch, wiring complete, with PVC single core cable 1.5mm², in Concealed conduit, stove enameled, supply and fixing.	Nos	30	
30	One Three pin socket outlet, 5A, point controlled by one switch, wiring complete PVC with single core cable 1.5 mm <sup>2</sup> in Concealed conduit, stove enamelled, including earth wire, supply and fixing.	Nos	20	
31	One three pin socket outlet, 15 A, POINT controlled by one switch, wiring complete with PVC single core cable 2.5mm², in Concealed conduit stove enamelled, incl earth wire, supply and fixing	Nos	5	
32	Cable unsheathed for earth continuity conductor 1.5 mm <sup>2</sup> used for 15A socket outlet points, where metallic boards/housings are used, in Concealed or Surface conduit, but without conduit, supply and fixing.	Nos	5	
33	Switch, SP, socket outlet 3 pin, 5A, Bakelite, shuttered pattern, complete, supply and fixing.	Nos	4	
34	Switch SP socket out let 3 pin, 15A, shuttered pattern, mounted in Bakelite box complete, supply and fixing.	Nos	5	
35	Switch, SP, Socket outlet, 3 pins, 20A, shuttered pattern, mounted in Bakelite box, complete, supply and fixing	Nos	1	

I	I	I 1	1	ı	1
36	PVC conduit 25 mm dia, complete with all bends tees, boxes, saddles etc., for Concealed wiring, supply and fixing.	RM	80		
37	Fan electric, AC, Exhaust, with copper winding, 220/230 V, SP, single/double way, 50 cycle, having plastic frame body and blades, complete with cord operated switch, shutter and fixing screws 20 cm & 25 cm "Standard" supply and fixing.	Nos	2		
38	Wiring in conduit surface, concealed, with single core PVC insulated cable, installed and connected complete single core cable, 1 mm <sup>2</sup> and 2.5 mm <sup>2</sup> cable.	RM	30		
39	Twin core cable 1 mm2 copper conductor, PVC insulated cable complete (excluding conduit), supply and fixing.	RM	30		
40	Gang Switches One gang switch, 10 A, 250 V, including PVC/steel back box with proper screws supply and fixing.				
	4 gang, 10 A.	Each	3		
	6 gang, 10 A.	Each	2		
41	Supply at site & installation of PVC back boxes compatible with switch & socket plates to be installed (Contractor should submit samples) by Popular, kLASS (Rate only for back box as).				
	3" x 3"	Each	3		
	3" x 6"	Each	2		
	Junction Box 9"x7"	Each	2		
42	Lighting Fixtures Supply Installation Testing & Commissioning of following various Types of LED lights of local make with international standards NVC, Opple and orient or approved equivalent as per site Engineer.				
	Surface or Ceiling mounted 12-watt LED	Each	8		
	Wall mounted Bulk head Light with 12 Watt LED Light	Each	9		
	Mirror Light 18 Watt LED	Each	1		
	Façade light/ Spot Light IP 65 50 Watt LED	Each	7		
43	LT Switch Gear DISTRIBUTION BOARD "Light/Power" INSTALLED IN GUARD ROOM. Fabrication, supply at site, installation and commissioning of Distribution Board(DB) indoor type, floor mounted madeof sheet steel 14 SWG, with flexible earthing straps, degreased andde-rusted, zinc phosphate, finished with electro-static powdercoating of 100 micron thickness in approved colour, panel housingto comply with protection class IP-67, with hinged door, lockablehandle, all auxiliaries, internal wiring, designation labels on MCB'S, earthing bar, numbering beads on the control wires, MPB suitable for system Voltage 230 V, 50 Hz, 1 Phase & neutral, bus bars of 99.8% purity	Each	1		

### INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK

### NAUSHAHRO FEROZE

### Bill of Quantities

electrolytic copper, including cost of cable termination lugs,					
brass cable glands for incoming & outgoing cables, wiring					
from breakers, indication lamps, instruments and control all					
accessories complete in all respect. All incoming and					
outgoing breakers shall be accessible byopening the front					
door having additional M.S. sheet cover. Gaskets shall also be					
provided where necessary. LTMPB shall have					
thermostatically controlled exhaust fan and tube light with					
door switch on each cubicle. Incoming from existing source1					
: 20 Amps 2 pole MCB R.C: 6 KA.1 Indication lamps of					
colour Red01 Digital Voltmeter of scale 0-500 Volt with					
selector Swicth1 Sets of "Brass Cable Glands" suitable					
forincoming cable.4 x 10ASP MCB RC 6KA2 x 16ASP					
MCB RC 6KA2x provision of spaces for future					
ENTRY GATE TOTAL AMOUNT					

# TENDER DRAWINGS ENTERY GATE & BOUNDARY WALL

AT NAUSHAHRO FEROZE INDUSTRIAL PARK,
DISTRICT NAUSHAHRO FEROZE

JANUARY,2023







DESIGN REVIEW AND CONSTRUCTION SUPERVISION
OF LEFT-OVER INFRASTRUCTURE WORKS AT
NAUSHAHRO FEROZE INDUSTRIAL PARK,
DISTRICT NAUSHAHRO FEROZE

## ENTRY GATE 3D VIEWS

ORIGINAL:		DATE: S		SCALE:	
A2		JANUARY, 2022			
DATE	DESCRIPTION		DRAWN	DESIGNED	APPROVED
14-01-2022	PRELIMINARY DESIGN		JAWAD	AR.KHIZER	ENGR. ARSLAN
17-01-2022	ISSUED FOR	TENDER ONLY	M. SHAHZAI	B AR.KHIZER	ENGR. ARSLAN
DRAWING	3 Nº:				
				SHEET	REV
	NFIP-E	EG-C-00		01	00
				-	

CLIENT:









DESIGN REVIEW AND CONSTRUCTION SUPERVISION
OF LEFT-OVER INFRASTRUCTURE WORKS AT
NAUSHAHRO FEROZE INDUSTRIAL PARK,
DISTRICT NAUSHAHRO FEROZE

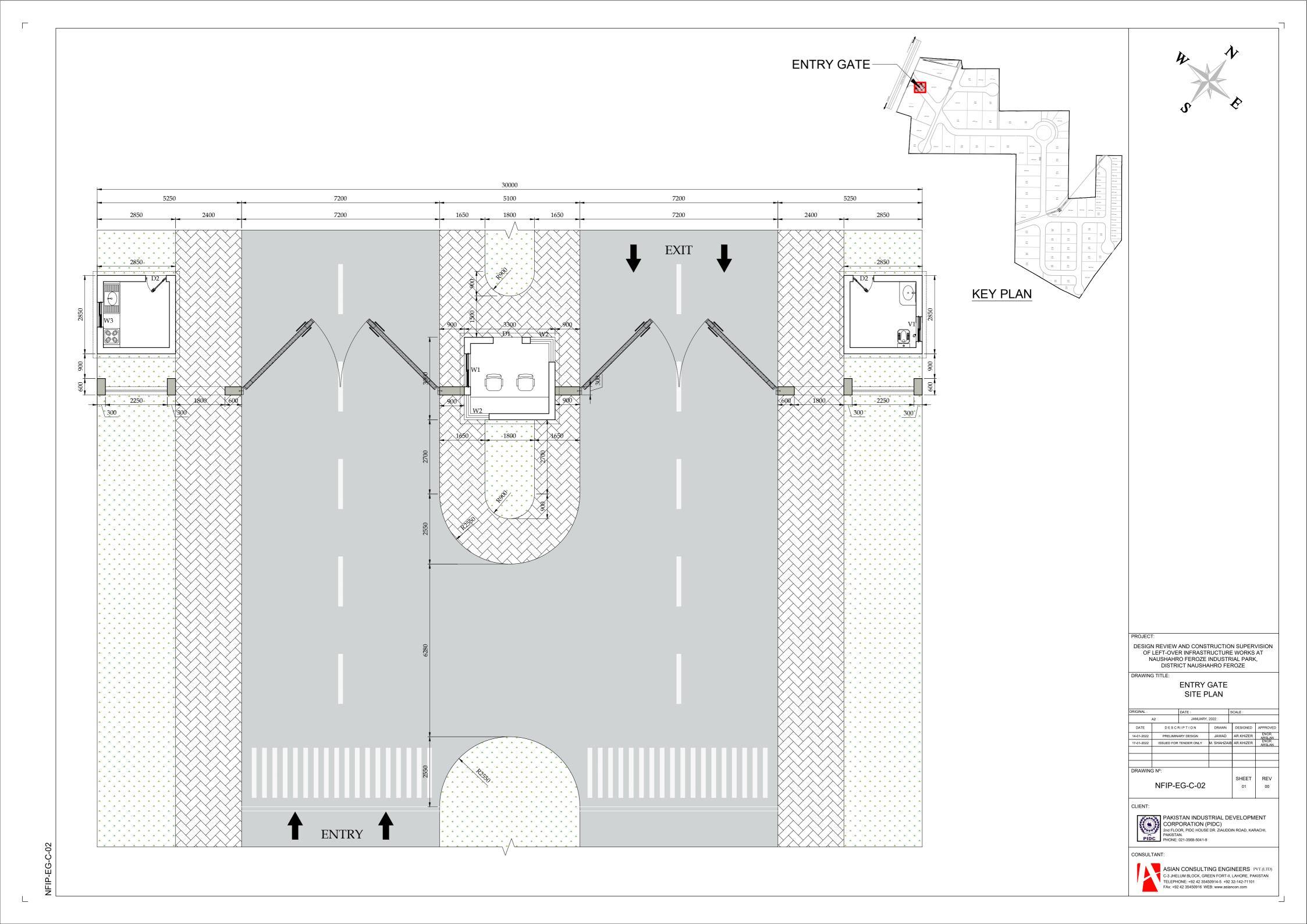
### ENTRY GATE LOCATION PLAN

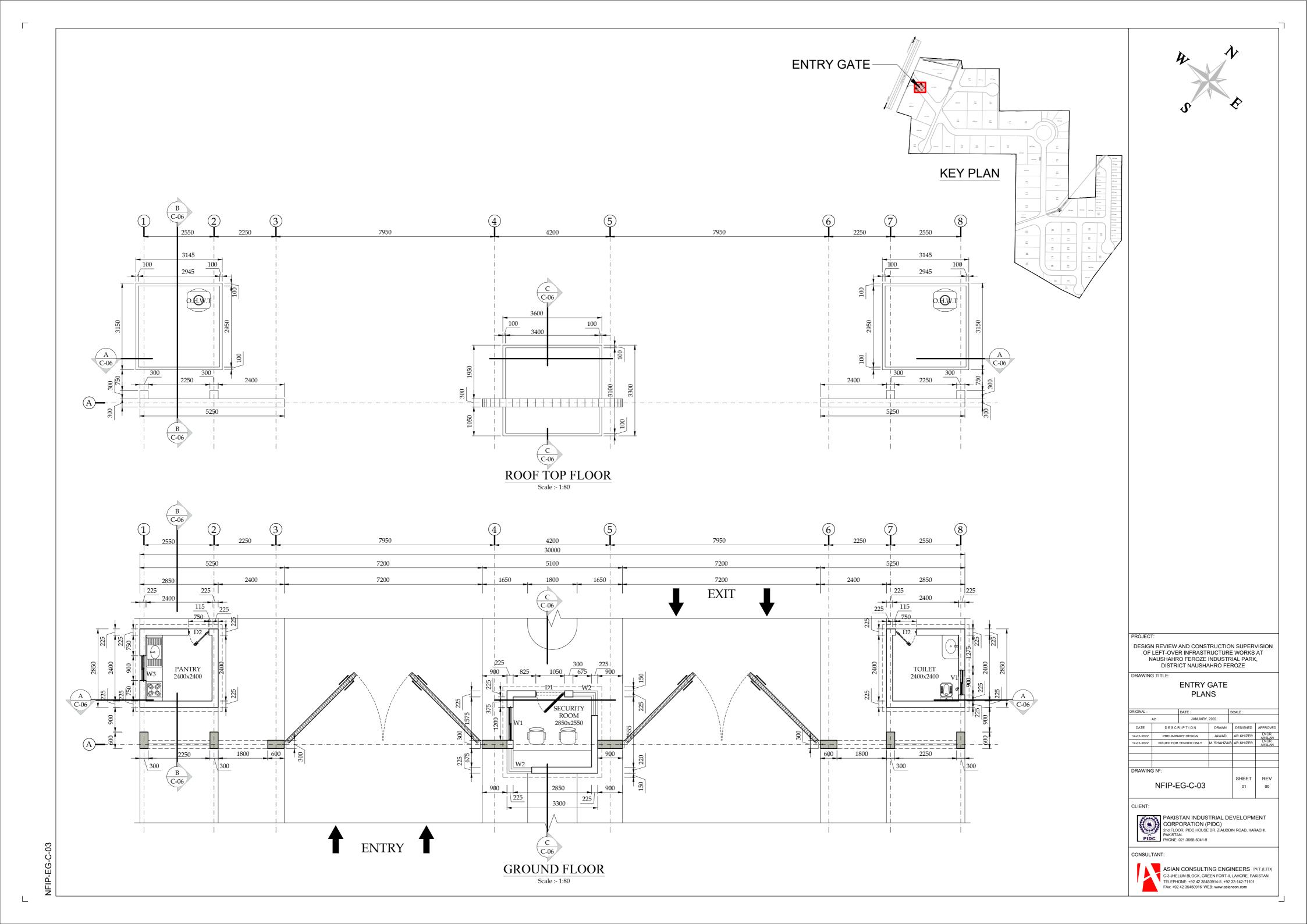
ORIGINAL:		DATE :		SCALE:	
A2		JANUARY, 2022			
DATE	DESCRIPTION		DRAWN	DESIGNED	APPROVED
14-01-2022	PRELIMINARY DESIGN		JAWAD	AR.KHIZER	ENGR. ARSLAN
17-01-2022	ISSUED FOR	TENDER ONLY	M. SHAHZAI	B AR.KHIZER	ENGR. ARSLAN
DRAWING	3 Nº:				
	NFIP-E	EG-C-01		SHEET 01	REV 00

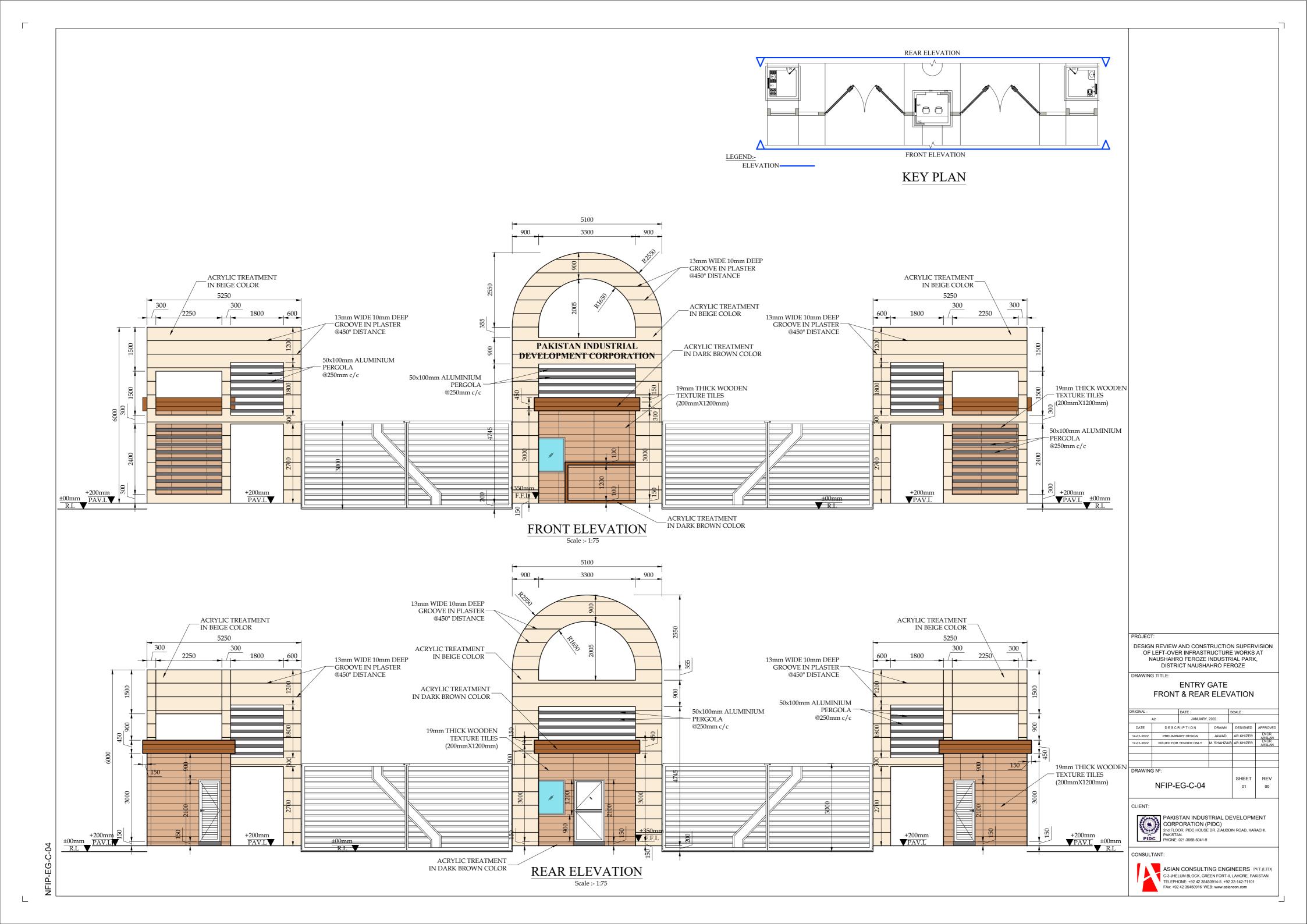
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)

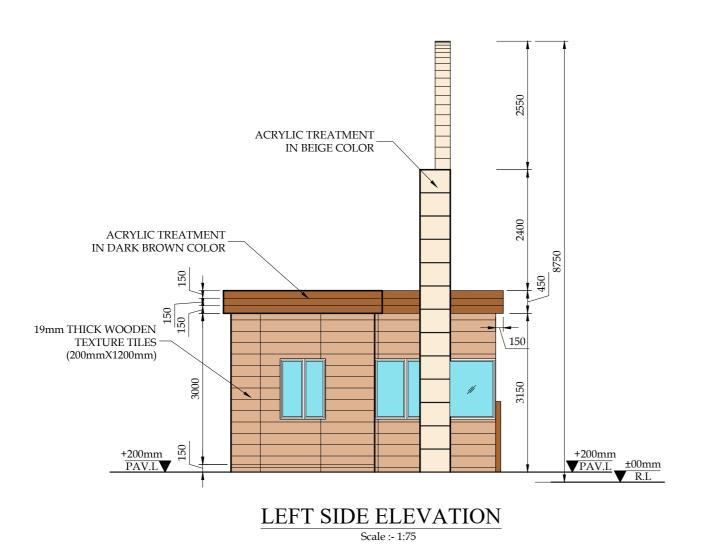
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

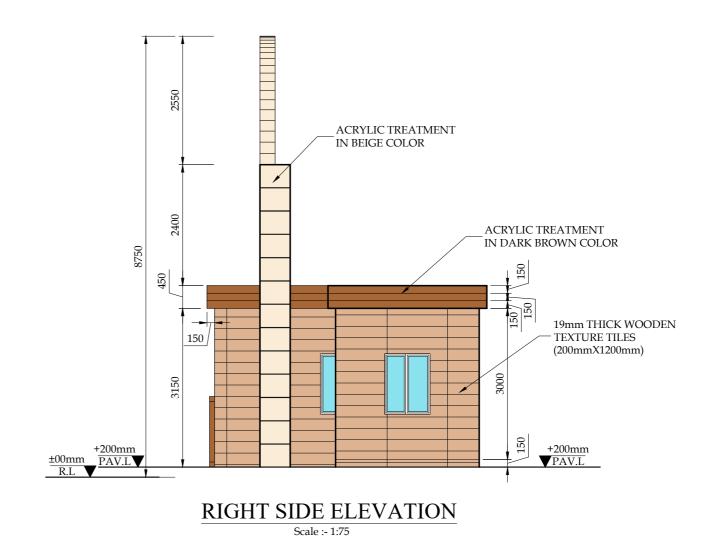












KEY PLAN

ELEVATION-

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

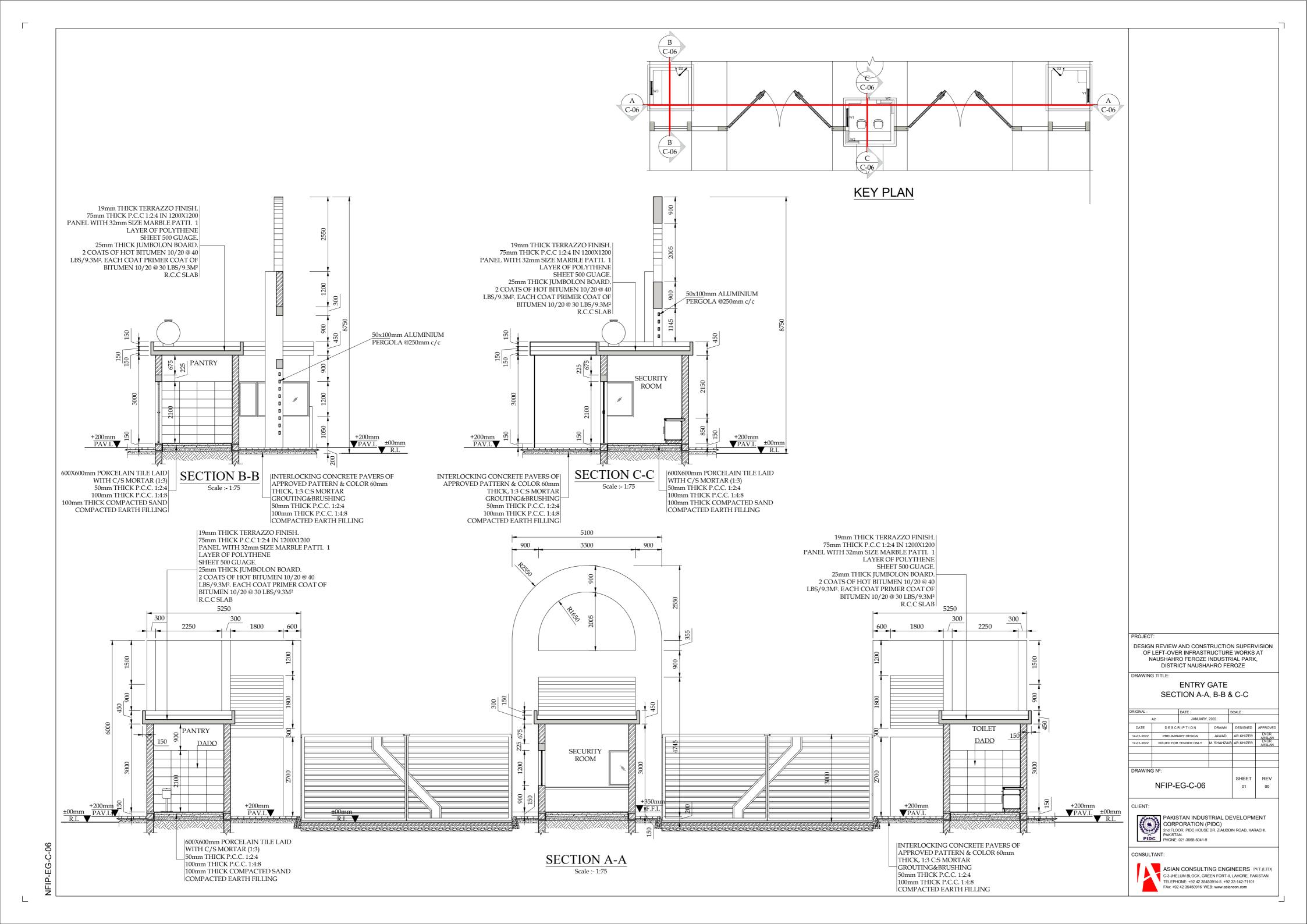
#### **ENTRY GATE** LEFT & RIGHT SIDE ELEVATION

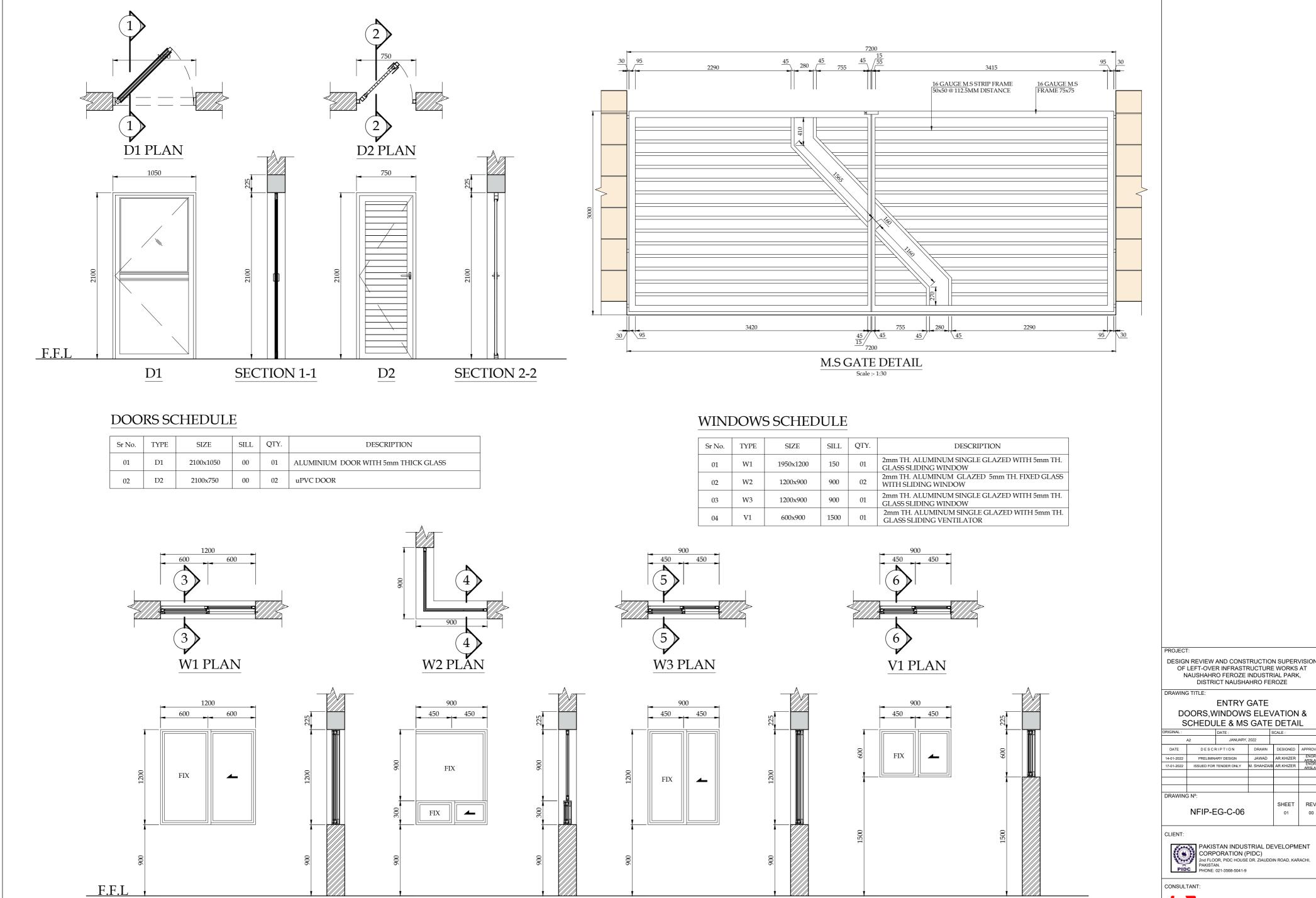
ORIGINAL:		DATE:		SCALE:	
	A2	JANUARY	, 2022		
DATE	DESC	RIPTION	DRAWN	DESIGNED	APPROVED
14-01-2022	PRELIMINARY DESIGN		JAWAD	AR.KHIZER	ENGR. ARSLAN
17-01-2022	ISSUED FOR TENDER ONLY		M. SHAHZAI	B AR.KHIZER	ENGR. ARSLAN
DRAWING	3 Nº:				
				SHEET	REV
	NFIP-E	EG-C-05	G-C-05		00
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CLIENT:









W1

SECTION 3-3

W2

**SECTION 4-4** 

W3

SECTION 5-5

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

**ENTRY GATE** DOORS, WINDOWS ELEVATION & SCHEDULE & MS GATE DETAIL

ORIGINAL :		DATE:		SCALE:	
	A2	JANUARY,	2022		
DATE	DESC	RIPTION	DRAWN	DESIGNED	APPROVED
14-01-2022	PRELIMINARY DESIGN		JAWAD	AR.KHIZER	ENGR. ARSLAN
17-01-2022	ISSUED FOR TENDER ONLY		M. SHAHZAI	IB AR.KHIZER	ENGR. ARSLAN
DRAWING	G Nº:				
	NFIP-EG-C-06			SHEET 01	REV 00

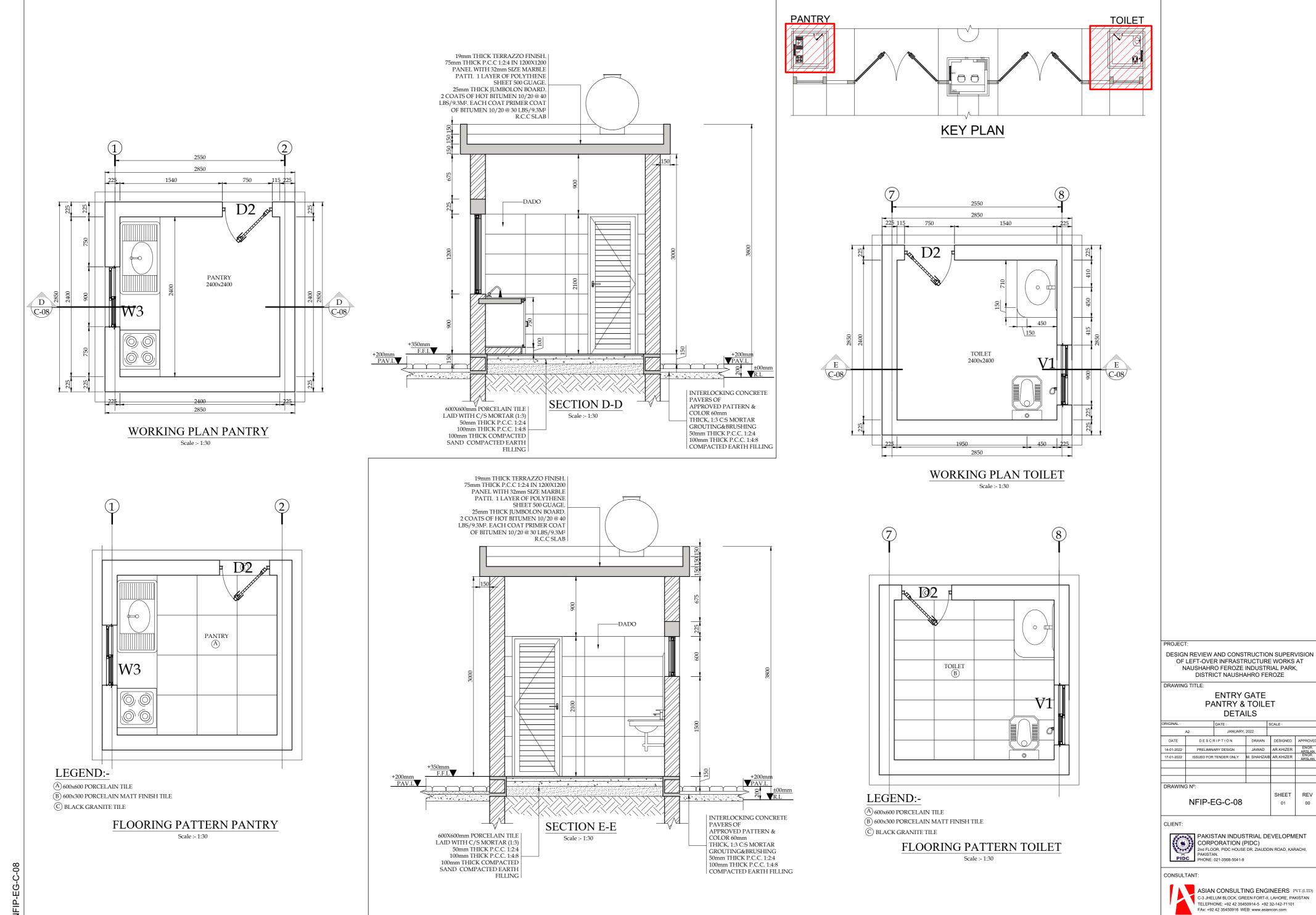


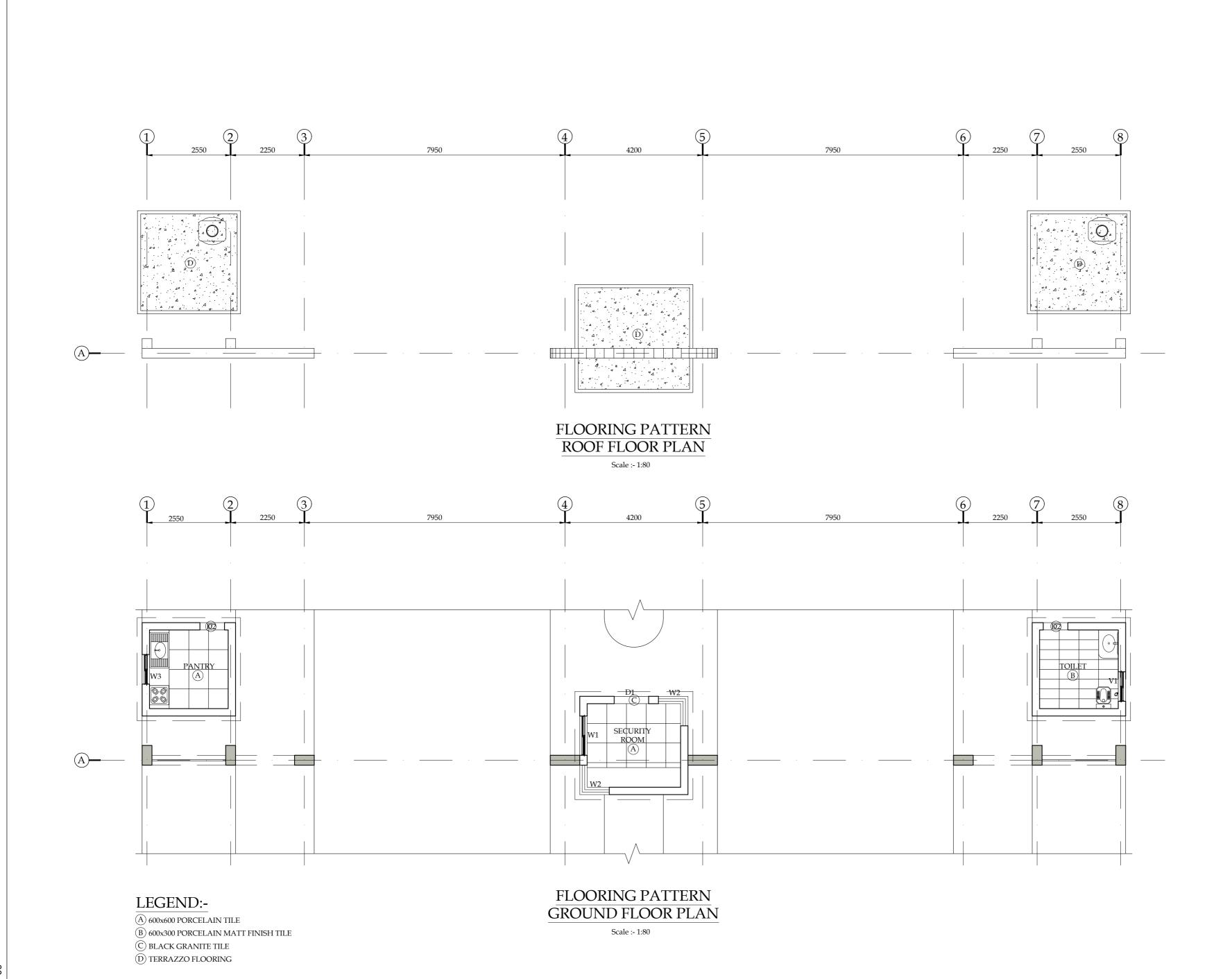
SECTION 6-6

V1

2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN. PHONE: 021-3568-5041-9







DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

#### **ENTRY GATE** FLOORING PATTERN GROUND FLOOR & ROOF FLOOR PLAN

ORIGINAL:		DATE :		SCALE :	
	A2	JANUARY,	2022		
DATE	DESC	RIPTION	DRAWN	DESIGNED	APPROVED
14-01-2022	PRELIMINARY DESIGN		JAWAD	AR.KHIZER	ENGR. ARSLAN
17-01-2022	ISSUED FOR TENDER ONLY		M. SHAHZAI	B AR.KHIZER	ENGR. ARSLAN
DRAWING	3 Nº:				
	NFIP-E	G-C-09		SHEET 01	REV 00





#### A. GENERAL

- 1- READ ALL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL & ANY OTHER RELEVANT DRAWING.
- 2- NOTES, GIVEN IN THIS DRAWING, ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHERWISE. NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERRED.
- 3- ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO CONTRACT SPECIFICATIONS. IN THE ABSENCE OF ANY SPECIFICATIONS, ALL MATERIALS & WORKMANSHIP SHALL CONFORM TO RELEVANT BRITISH/ACI CODES AND SHALL SUBJECT TO APPROVAL OF THE ENGINEER.
- 4- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURES DURING CONSTRUCTION. HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.
- 5- THE CONTRACTOR SHALL CO-ORDINATE WITH ARCHITECTURAL AND VARIOUS SERVICES DRAWINGS FOR SIZES & LOCATION OF ALL STRUCTURAL MEMBERS, FLOORS, WALLS, OPENINGS, FLOOR FINISHES, PIPES ETC.
- 6- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF DEWATERING SYSTEM WHERE SO REQUIRED DURING CONSTRUCTION.COST DEEMED TO BE INCLUDED IN OTHER COST DEEMED ITEMS.
- 7- TERMITE CONTROL TREATMENT SHALL BE CARRIED OUT IN ALL BUILDINGS/STRUCTURES
- 8- ALL LEVELS AND DIMENSIONS ARE IN METERS & MILLIMETERS UNLESS OTHERWISE NOTED.
- 9- DO NOT SCALE THE DRAWINGS. DIMENSIONS, GIVEN ON THE DRAWING, SHALL GOVERN.
- 10- ALL FABRICATION, PAINTING, ERECTION AND QUALITY CONTROL IS TO BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE SPECIFICATIONS/BRITISH STANDARDS

#### B. FOUNDATION

- $1\hbox{-}\,$  THE DESIGN OF FOUNDATION IS BASED ON ASSUMED BEARING CAPACITY OF 0.7 T SFT AS PER GEOTECH REPORT.
- 2- BEFORE LAYING OF FOUNDATION ALL EXCAVATED AREA SHOULD BE INSPECTED BY THE ENGINEER FOR COMMENCEMENT OF WORKS.

#### C. DESIGN & LOADS

1- STRUCTURAL DESIGN IS BASED ON THE BUILDING CODE OF PAKISTAN & AMERICAN CONCRETE INSTITUTE CODE OF REINFORCED CONCRETE (ACI 318-08) AND APPROVED DESIGN CRITERIA

#### D. REINF. CONCRETE WORKS

- 1- CONCRETE FOR ALL STRUCTURAL MEMBERS SHALL HAVE CYLINDER STRENGTH 3000 PSI AT 28 DAYS STRENGTH EXCEPT COLUMNS
- 1a-CONCRETE FOR COLUMNS SHALL HAVE
- CYLINDER STRENGTH 4000 PSI AT 28 DAYS STRENGTH.
- 2- WATER CEMENT RATIO SHALL NOT EXCEED 0.50 OR AS INCLUDED IN CONTRACT SPECIFICATIONS.
- 3- NO CONCRETING SHALL BE CARRIED OUT UNTIL PERMISSION IS GIVEN IN WRITING TO DO SO BY THE ENGINEER.

- 5- ALL REINFORCEMENT FOR FOUNDATION, COLUMNS, WALLS, BEAMS & SLABS SHALL BE HIGH STRENGTH DEFORMED STEEL GRADE 60 WITH A MINIMUM YIELD STRENGTH OF 60000 psi, UNLESS OTHERWISE MENTIONED
- 6- ALL REINFORCEMENT SHOULD BE BENT COLD
- 7- ALL STRUCTURAL STEEL SHALL CONFORM TO REQUIREMENTS OF AMERICAN STANDARD ASTM 615 OR EQUIVALENT.

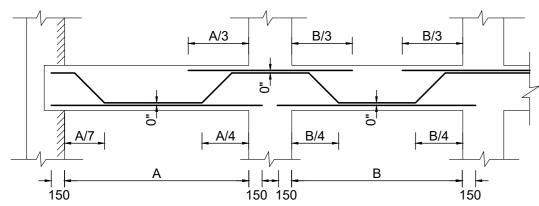
#### 8-CLEAR COVER TO REINFORCEMENT SHALL BE: (mm)

STRUCTURAL ELEMENT  BASE SLAB / RAFT: a) BOTTOM SIDE b) TOP SIDE c) SIDES	COVER (mm)
a) BOTTOM SIDE b) TOP SIDE	75
b) TOP SIDE	75
l c) SIDES	50
C) SIDES	75
BEAMS	40
COLUMNS	40
300 THICK FLOOR SLABS,	
POTABLE WATER TANK BASE &	
ROOF SLABS:	
a) BOTTOM SIDE	40
b) TOP SIDE	40
ROOF SLAB:	
a) BOTTOM SIDE	20
b) TOP SIDE	25
EXTERNAL WALLS:	
a) OUTER FACE	50
b) INNER FACE	25
NOTE: CLEAR COVER IN PORTION OF	
EXTERNAL WALLS FORMING INTERNAL PART OF DUCTS	
WILL REMAIN SAME AS FOR	
EXTERNAL WALL.	
ALL INTERNAL WALLS:	
(230-THICK):	
a) OUTER FACE	20
b) INNER FACE	20

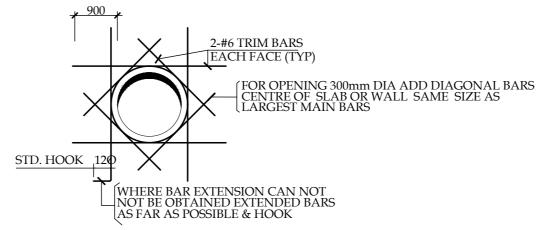
9- ALL REINF. STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND HELD FIRMLY IN PLACE BEFORE & DURING THE PLACING OF CONCRETE, BY MEANS OF WIRE AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION

# 

# STRAIGHT BAR SECTION FOR ALL MEMBERS OTHER THAN SLABS



BENT-UP BAR SECTION FOR SLABS



#### REINFORCEMENT AROUND

### SLEEVE IN SLAB & WALLS (TYP)

(NOTE: FOLLOW ABOVE REINFORCEMENT PATTERN ONLY IF NOT SPECIFICALLY SHOWN ON RESPECTIVE DESIGN / REINF. DETAIL DRAWINGS)

#### E. MISCELLANEOUS WORKS

- 1- THE CONTRACTOR SHALL SUBMIT CONCRETE POURING SCHEDULE FOR ENGINEER'S APPROVAL. NO CONCRETE SHALL BE PLACED UNTIL WRITTEN PERMISSION IS GIVEN BY THE ENGINEER.
- 2- DURING CONSTRUCTION, STACKING OF CONSTRUCTION MATERIALS, BLOCKS, etc. SHOULD BE AVOIDED ON SLAB PANELS.
- 3- BEFORE CASTING OF ANY STRUCTURAL MEMBER, THE CONTRACTOR SHALL ENSURE THAT ALL EMBEDDED ITEMS FOR ELECTRICAL, MECHANICAL, HVAC, PLUMBING, STRUCTURAL STEEL AND OTHER WORKS ARE PROPERLY LOCATED IN PLACE.

#### F. CONSTRUCTION JOINTS

- 1- JOINTS, NOT SHOWN ON THE DRAWING, SHALL BE SO MADE AND LOCATED AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL NEED PRIOR APPROVAL OF THE ENGINEER. THEY SHALL BE LOCATED NEAR THE MIDDLE OF THE SPANS OF SLAB & BEAMS. JOINT IN WALLS & COLUMNS SHALL BE AT THE UNDERSIDE OF FLOORS, SLABS OR BEAMS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS
- 2- JOINTS SHALL BE PERPENDICULAR TO MAIN REINFORCEMENT. ALL REINFORCING STEEL SHALL BE CONTINUED ACROSS JOINTS.
- 3- JOINTS IN THE BASE SLAB & WALLS AND ROOF SLAB, IN ADDITION TO THOSE SHOWN ON THE DRAWINGS SHALL BE BORNE BY THE CONTRACTOR. BEAMS & BRACKETS SHALL BE PLACED AT THE SAME TIME AS SLABS.

# G. ELECTRICAL & COMMUNICATION SYSTEMS 1- CONDUITS, FOR ELECTRICAL WORKS, SHALL BE PLACED WITHIN THE REINFORCED

- 1- CONDUITS, FOR ELECTRICAL WORKS, SHALL BE PLACED WITHIN THE REINFORCED CONCRETE. THEY SHALL BE PLACED WITHIN THE MIDDLE THIRD OF THE SECTION IN BEAMS & SLABS AND WITHIN THE MIDDLE HALF OF THE THICKNESS. SPACING BETWEEN PARALLEL CONDUITS SHALL NOT BE LESS THAN 6 INCHES.
- 2- THE CONTRACTOR WILL PREPARE SHOP DRAWINGS FOR ALL THE ELECTRICAL & COMMUNICATION SYSTEMS FOR THE PROJECT MANAGER APPROVED BEFORE EXECUTION OF WORK
- 3- SAMPLES / TECHNICAL DATA FOR ALL THE ITEMS WILL BE SUBMITTED & APPROVED BY THE PROJECT ENGINEER BEFORE PROCUREMENT.
- 4- THE WORK WILL BE CARRIED OUT THROUGH APPROVED ELECTRICAL CONTRACTOR HAVING A VALID ELECTRICAL LICENCE OF THE AREA.
- 5- CONTRACTOR WILL PROVIDE TEST REPORT DULY VERIFIED FROM THE ELECTRICAL
- INSPECTOR OF THE AREA.

  6- THE CONTRACTOR WILL USE MATERIALS OF APPROVED MAKE & VENDORS / MANUFACTURERS.

#### H. SHORING & BRACING

1- SHORE & BRACE ALL PARTS OF THE BUILDING DURING CONSTRUCTION, TO THE EXTENT NECESSARY TO ENSURE COMPLETE SAFETY, STRENGTH & SERVICEABILITY OF ALL STRUCTURAL ELEMENTS UNDER ALL CONDITIONS OF LOADS WHICH MAY OCCUR DURING CONSTRUCTION. SUCH SHORING & BRACING IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND IS NOT SHOWN ON STRUCTURAL DRAWINGS OR SPECIFIED IN THE PROJECT.



# VERTICAL BAR SPACING



#### PROJEC1

DESIGN REVIEW AND CONSTRUCTION SUPERVISION
OF LEFT-OVER INFRASTRUCTURE WORKS AT
NAUSHAHRO FEROZE INDUSTRIAL PARK,
DISTRICT NAUSHAHRO FEROZE

DRAWING TITLE

#### ENTRY GATE GENERAL NOTES-I

ORIGINAL:		DATE:		SCALE:	
1	A2	JANUARY	, 2022		
DATE	DESCI	RIPTION	DRAWN	DESIGNED	APPROVED
14-01-2022	PRELIMINARY DESIGN		FIDA HUSSAI	N ENGR. ZAIN	ENGR. YASIR
17-01-2022	ISSUED FOR TENDER ONLY		FIDA HUSSAI	N ENGR. ZAIN	ENGR. YASIR
DRAWING N°:					
NFIP-EG-GN-01			l	SHEET 01	REV 00

CLIENT:



CONSULTANT



#### DEVELOPMENT LENGTH LD FOR GRADE 60, UNCOATED, BOTTOM REINFORCEMENT INNORMAL WEIGHT CONCRETE

	F' <sub>C</sub> PSI	NO. 6 AND SMALLER BARS AND DEFORMED WIRES	NO. 7 AND LARGER BARS
CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS	3000	44DB	55DB
THAN DB, CLEAR COVER NOT LESS THAN DB, AND BEAM STIRRUPS OR	4000	38DB	47DB
COLUMN TIES THROUGHOUT LD NOT LESS THAN THE CODE MINIMUM	5000	34DB	42DB
OR	6000	31DB	39DB
CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS	8000	27DB	34DB
THAN 2DB AND CLEAR COVER NOT LESS THAN DB	10,000	24DB	30DB
	3000	66DB	82DB
	4000	57DB	71DB
OTHER CASES	5000	51DB	64DB
	6000	46DB	58DB
	8000	40DB	50DB
	10,000	36DB	45DB

#### COMPRESSION DEVELOPMENT LENGTH LDC (INCHES) FOR GRADE 60 BARS

BAR	F 'C (NORMAL WEIGHT CONCRET			
NO.	3000	4000	>4444	
3	8.2	7.1	6.8	
4	11	9.5	9	
5	13.7	11.9	11.3	
6	16.4	14.2	13.5	
7	19.2	16.6	15.8	
8	21.9	19	18	
9	24.7	21.4	20.3	
10	27.8	24.1	22.9	
11	30.9	26.8	25.4	
14	37.1	32.1	30.5	
18	49.4	42.8	40.6	

# LAP LENGTH COMPRESSION REINFORCEMENT

	OICLIV		
BAR NO.	LAP LENGTH		
DAK NO.	TIES (mm)	SPIRALS (mm)	
4	350	300	
5	400	350	
6	500	450	
7	520	500	
8	625	575	
9	750	650	
10	800	700	
11	875	800	

#### DEVELOPMENT LENGTH 1dh (INCHES) OF STANDARD HOOKS FOR UNCOATED GRADE 60 BARS\*

BAR	F'C (NORMAL WEIGHT CONCRETE) , PSI					
NO.	3000	4000	5000	6000	8000	10,000
3	8.2	7.1	6.4	5.8	5.0	4.5
4	11.0	9.5	8.5	7.7	6.7	6.0
5	13.7	11.9	10.6	9.7	8.4	7.5
6	16.4	14.2	12.7	11.6	10.1	9.0
7	19.2	16.6	14.8	13.6	11.7	10.5
8	21.9	19.0	17.0	15.5	13.4	12.0
9	24.7	21.4	19.1	17.5	15.1	13.5
10	27.8	24.1	21.6	19.7	17.0	15.2
11	30.9	26.8	23.9	21.8	18.9	16.9
14	37.1	32.1	28.7	26.2	22.7	20.3
18	49.5	42.8	38.3	35.0	30.3	27.1

#### COMPRESSION LENGTH FOR GRADE 60 REINFORCEMENT IN NORMAL WEIGHT CONCRETE

BAR	F'C (NORMAL WEIGHT CONCRETE), PSI					
NO.	3000	4000	5000	6000	8000	10,000
3	15	7.1	6.4	5.8	5.0	4.5
4	11.0	9.5	8.5	7.7	6.7	6.0
5	13.7	11.9	10.6	9.7	8.4	7.5
6	16.4	14.2	12.7	11.6	10.1	9.0
7	19.2	16.6	14.8	13.6	11.7	10.5
8	21.9	19.0	17.0	15.5	13.4	12.0
9	24.7	21.4	19.1	17.5	15.1	13.5
10	27.8	24.1	21.6	19.7	17.0	15.2
11	30.9	26.8	23.9	21.8	18.9	16.9
14	37.1	32.1	28.7	26.2	22.7	20.3
18	49.5	42.8	38.3	35.0	30.3	27.1

#### LAP LENGTH LD FOR GRADE 60, UNCOATED, BOTTOM REINFORCEMENT IN NORMAL WEIGHT CONCRETE

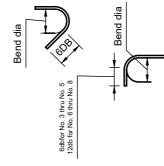
	F' <sub>C</sub> PSI	NO. 6 AND SMALLER BARS AND DEFORMED WIRES	NO. 7 AND LARGER BARS
CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS	3000	58DB	72DB
THAN DB, CLEAR COVER NOT LESS THAN DB, AND BEAM STIRRUPS OR	4000	50DB	61DB
COLUMN TIES THROUGHOUT LD NOT LESS THAN THE CODE MINIMUM	5000	44DB	55DB
OR	6000	40DB	51DB
CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS	8000	35DB	44DB
THAN 2DB AND CLEAR COVER NOT LESS THAN DB	10,000	31DB	39DB
	3000	86DB	107DB
	4000	74DB	92DB
OTHER CASES	5000	66DB	83DB
	6000	60DB	75DB
	8000	52DB	65DB
	10,000	48DB	60DB

#### STANDARD HOOKS FOR PRIMARY REINFORCEMENT

BAR SIZE, NO.	MIN.FINISHED BEND DIA.(a)
3 THROUGH 8	6D <sub>B</sub>
9, 10, 11	8D <sub>B</sub>
14 and 18	10D <sub>B</sub>

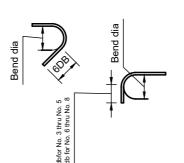
#### STANDARD HOOKS FOR STIRRUPS AND TIE REINFORCEMENT

BAR SIZE, NO.	MIN. FINISHED BEND DIA. (B)
3 THROUGH 5	4D <sub>B</sub>
6 THROUGH 8	6D <sub>B</sub>

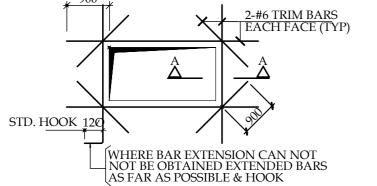


	11112 11
_	BAR SIZ
– IDB ≥ 65	3 THROUG
	6 THROU

(b) MEASURED ON INSIDE OF BAR



MEASURED ON INSIDE OF BAR

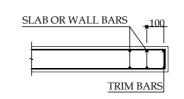


# REINFORCEMENT DETAIL AT

OPENING IN SLAB & WALLS (TYP)
(NOTE: FOLLOW ABOVE REINFORCEMENT PATTERN ONLY IF NOT SPECIFICALLY SHOWN ON RESPECTIVE DESIGN / REINF. DETAIL DRAWINGS)

# **NOTES**

- FOR OPENING WITH MAXIMUM DIMENSION
- OVER 125mm REFER TO OTHER DETAILS.
   USE THIS DETAILS IF NOT SHOWN IN DESIGN DRAWINGS

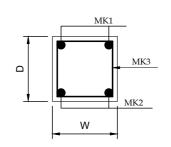


**SECTION A-A** 

#### SCHEDULE OF LINTEL BEAMS

SPAN (mm)	W	(D)	MK-1	MK-2	MK-3 (mm)
UP TO 900	WIDTH OF WALL	150	2-#4	2-#4	3#200
1050 TO 1500	WIDTH OF WALL	230	2-#4	2-#6	3#175
1650 TO 2100	WIDTH OF WALL	300	2-#4	2-#6	3#150
2250 TO 2700	WIDTH OF WALL	300	2-#4	2-#6 + 1-#4	3#150
2850 TO 3300	WIDTH OF WALL	375	2-#4	3-#6	3#125
3450 TO 3900	WIDTH OF WALL	400	2-#4	4-#6	3#125
4050 TO 4500	WIDTH OF WALL	425	2-#4	5-#6	4#175
4650 TO 5100	WIDTH OF WALL	450	2-#4	6-#6	4#150
NOTE.					

NOIE:-WHEN SPAN DIFFERENCE TO LOWER SIDE IS EXCESSIVE INTERPOLATE DEPTH USING SAME STEEL



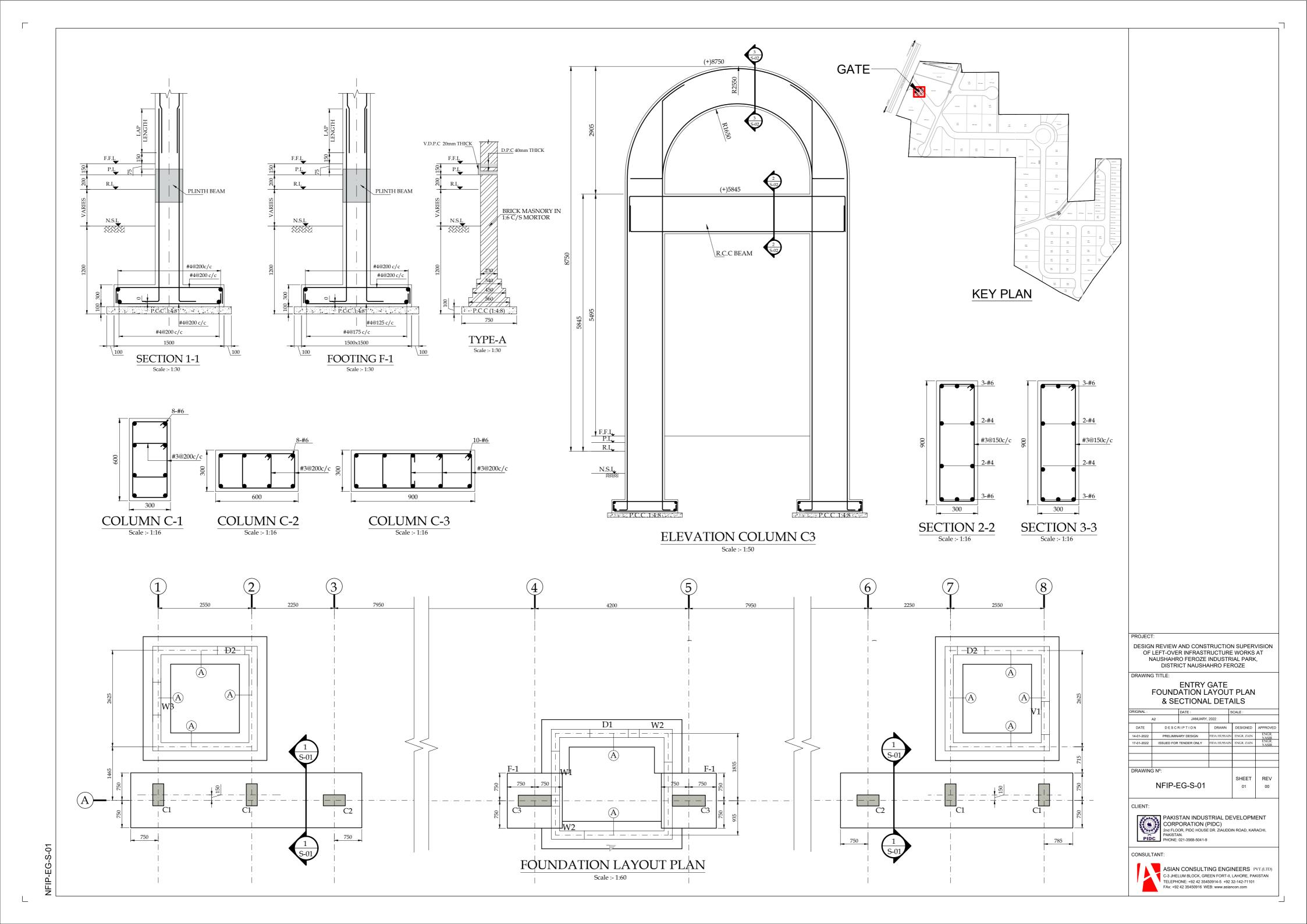
DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

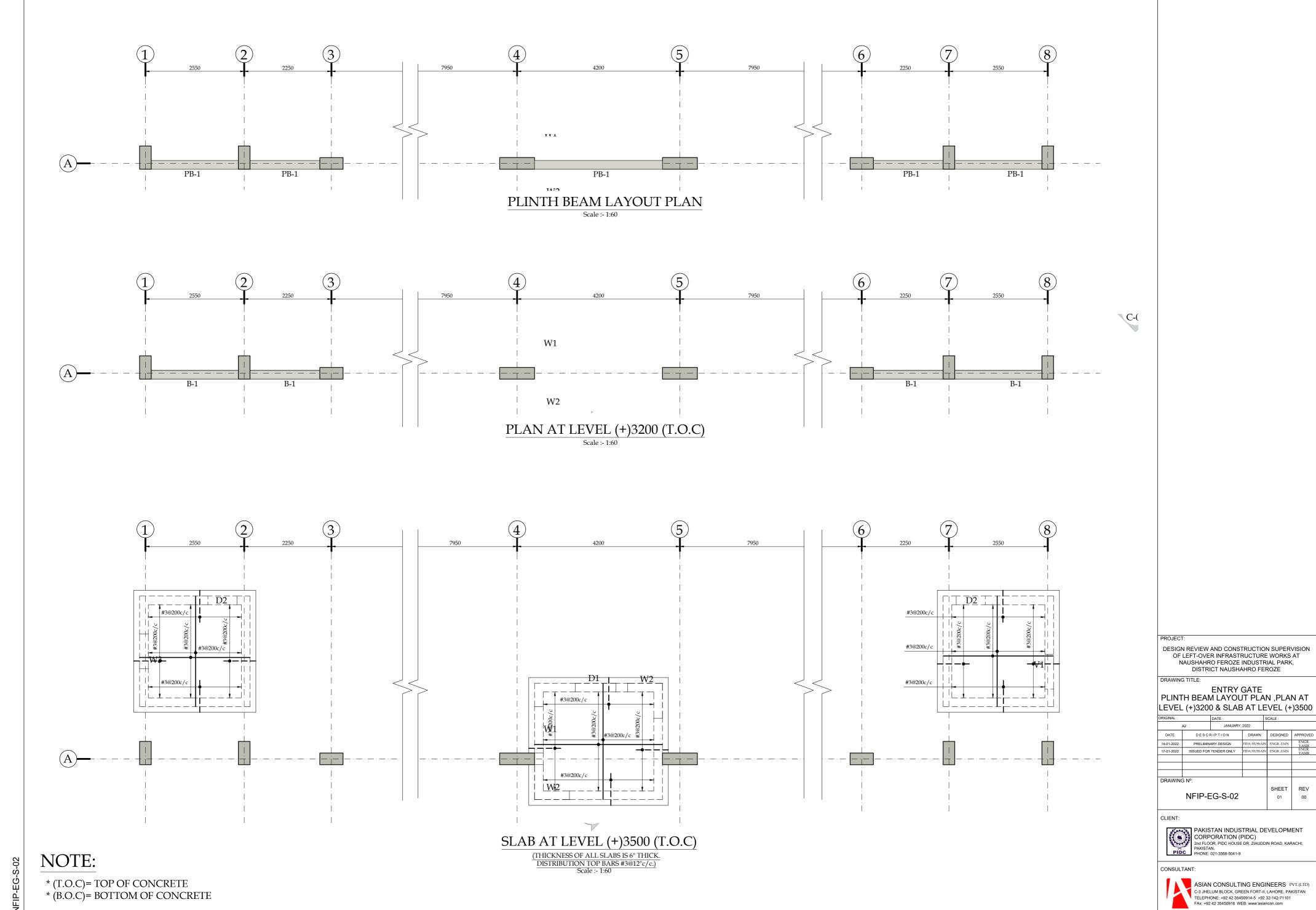
#### **ENTRY GATE GENERAL NOTES-II**

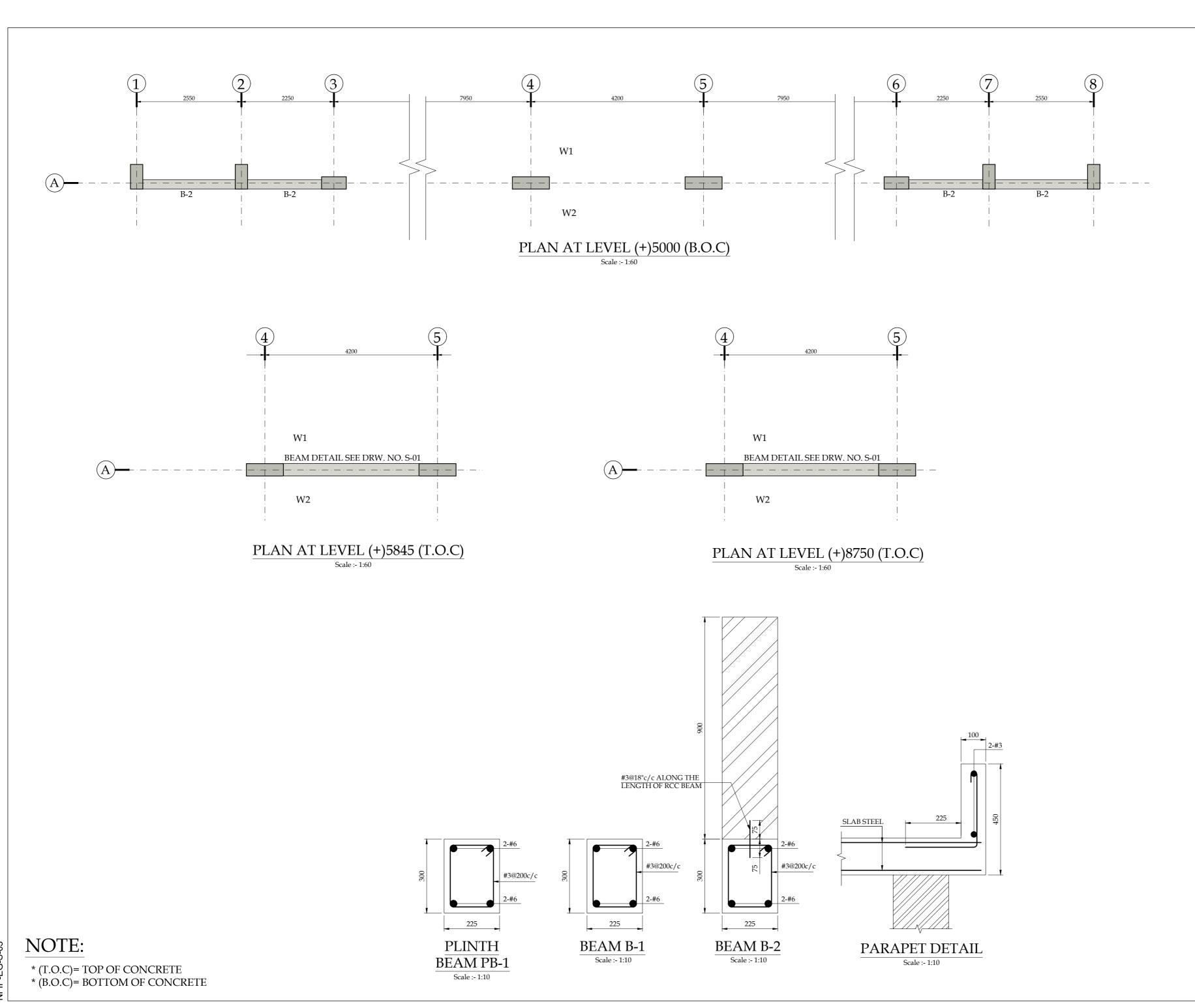
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14-01-2022	PRELIMIN	ARY DESIGN	FIDA HUSSAI	N ENGR. ZAIN	ENGR. YASIR
17-01-2022	ISSUED FOR	TENDER ONLY	FIDA HUSSAI	N ENGR. ZAIN	ENGR. YASIR
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	NFIP-E	01	00		











NFIP-EG-S-03 CLIENT:

14-01-2022

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

REV

SHEET

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

ENTRY GATE PLAN AT LEVEL (+)5000 , (+)5845,

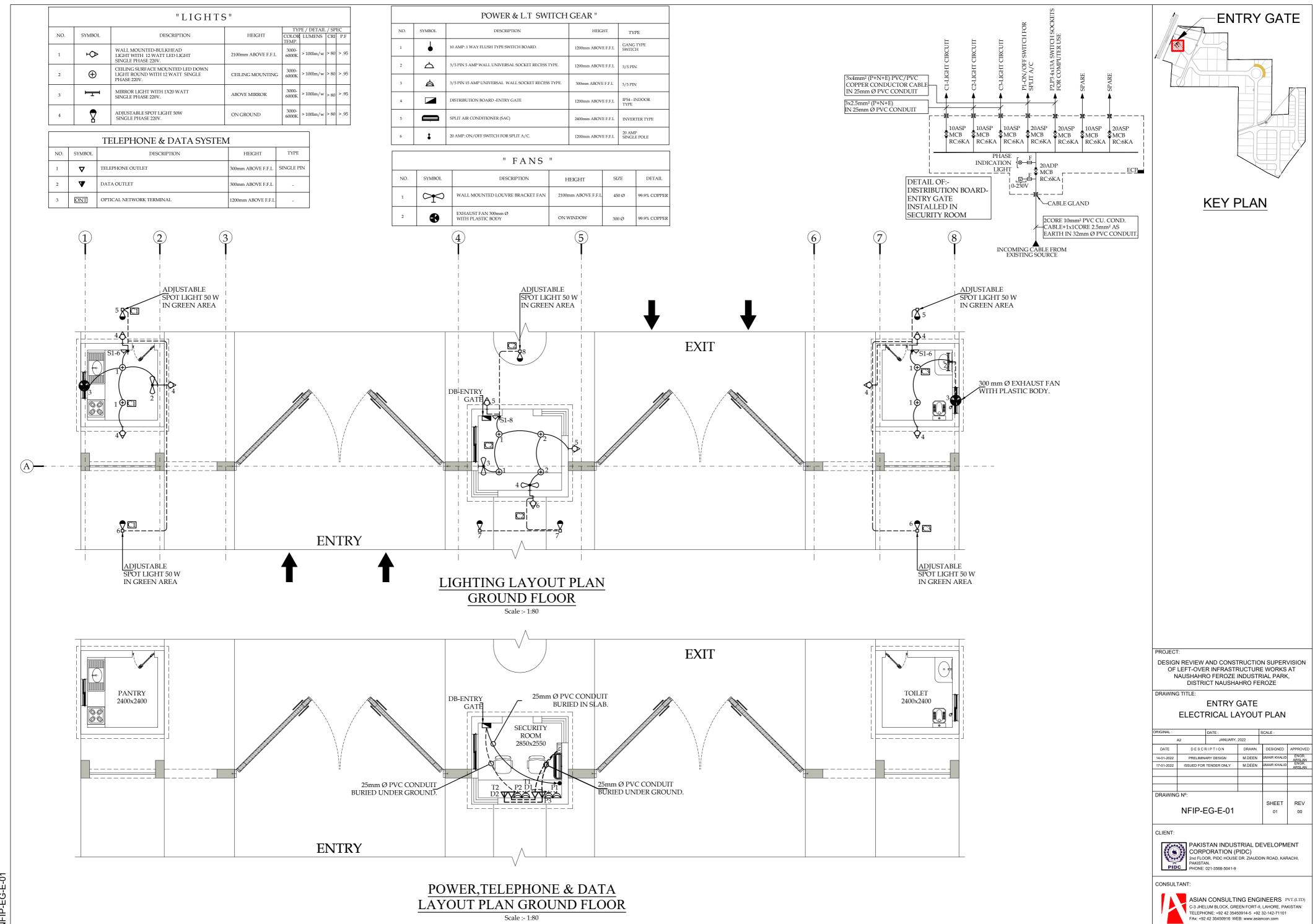
(+)8750 & BEAM DETAILS

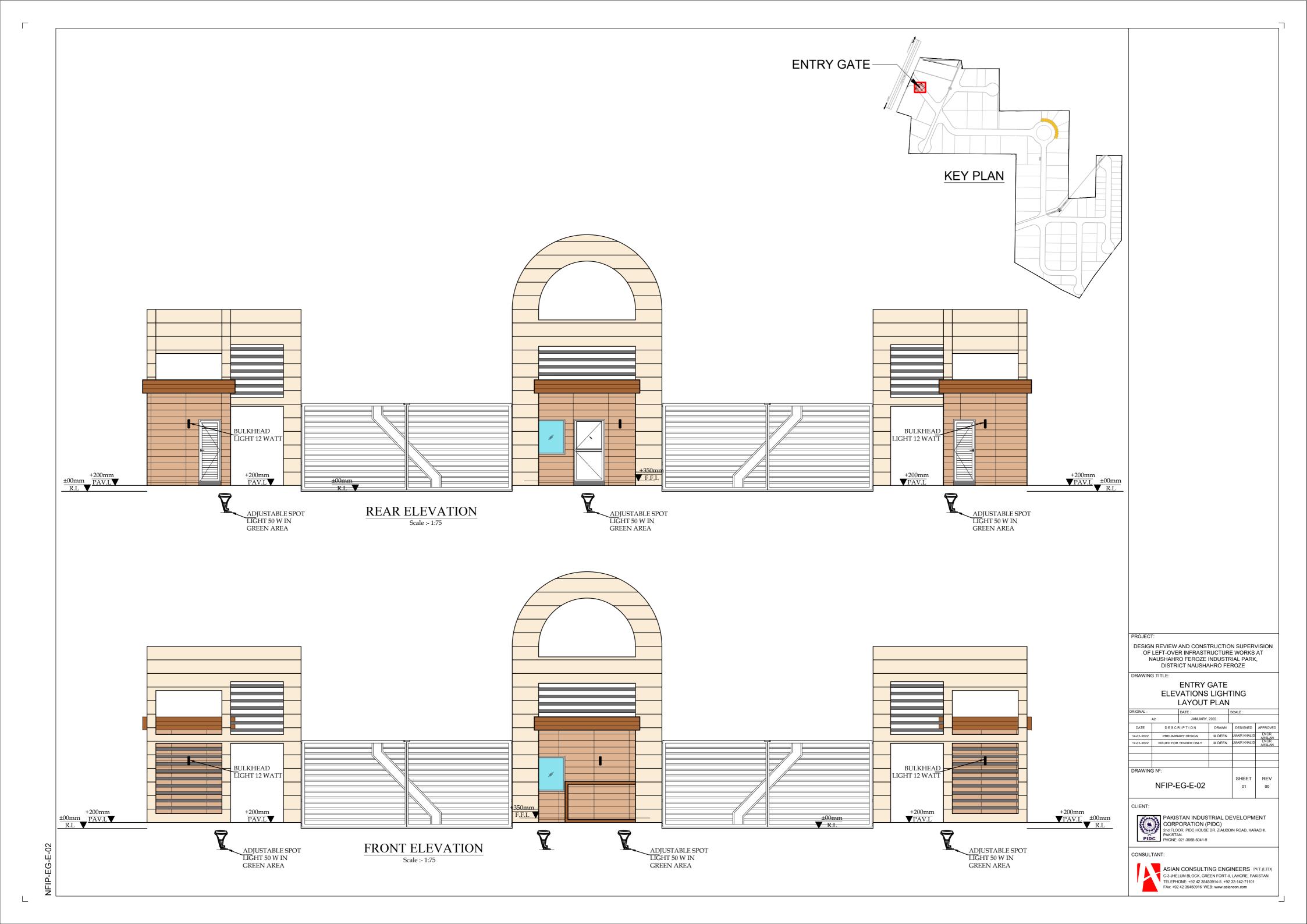
JANUARY, 2022

DESCRIPTION

PRELIMINARY DESIGN 17-01-2022 ISSUED FOR TENDER ONLY







# LEGEND (WATER SUPPLY): COLD WATER PIPE HOT WATER PIPE GAS PIPE FIRE FIGHTING PIPE —FF—FF—FF—FF—FF— ELECTRIC GEYSER $\bigcirc$ **GAS GEYSER** GAS INSTANT GEYSER **SHOWER** WATER TAP WATER TAP + MUSLIM SHOWER GARDEN HYDRANT COLD AND HOT WATER MIXING UNIT WATER STACK BALL VALVE/GATE VALVE / WITH CHAMBER LEGEND BUILDING DRAINAGE SOIL PIPE (uPVC) WASTE PIPE (uPVC) SOIL OR WASTE PIPE (uPVC) ENCASED RCC SEWER PIPE W-C ENGLISH TYPE W-C ASIAN TYPE KITCHEN SINK BOWL KITCHEN SINK SINGLE BOWL, SINGLE TRAY KITCHEN SINK SINGLE BOWL, DOUBLE TRAY KITCHEN SINK DOUBLE BOWL, DOUBLE TRAY WASH HAND BASIN/ COUNTER VANITY LABORATORY SINK URINAL SOIL / WASTE STACK VENT STACK MANHOLE TYPE - A MANHOLE TYPE - B. G GULLY TRAP WITH CI COVER. GULLY TRAP WITH GRATING FLOOR TRAP. P TRAP WITH GRATING. $\odot$ BOTTLE NECK TRAP C.P BRASS. WASTE BEND / TEE O— O— CLEAN OUT / CLEANING EYE $\triangle$ **GAS METER**

# **ABBREVIATIONS**

WASH HAND BASIN	PE/PP	RC/uPVC	PIPES	
WATER CLOSET	PIPE SIZE	EQU.	AL TO PIPE SI	ZE
COLD WATER	MENTIONED IN THE DRAWING	PE	PPRC	uPVC
HOT WATER	1/2"(0)	20mm O/D	20mm O/D	
COLD & HOT WATER		,	,	
MIXED WATER	3/4"Ø	25mm O/D	32mm O/D	
MAN HOLE	1"Ø	32mm O/D	40mm O/D	
GULLY TRAP	11/4"Ø	40mm O/D	50mm O/D	
FLOOR TRAP	1½"Ø	50mm O/D	63mm O/D	40mm O/D
FIRE FIGHTING	2"Ø	63mm O/D	75mm O/D	50mm O/D
ANTI SYPHONIC PIPE	2½"Ø	75mm O/D	90mm O/D	
LOWER GROUND FLOOR		,	,	75mm O/D
UPPER GROUND FLOOR	3 0	90mm 0/D	110mm 0/D	75mm O/D
GROUND FLOOR	4"Ø	125mm O/D		110mm O/D
FIRST FLOOR	5"Ø	160mm O/D		
SECOND FLOOR	6"Ø	180mm O/D		160mm O/D
THIRD FLOOR	8"Ø	250mm O/D		200mm O/D
	COLD WATER HOT WATER COLD & HOT WATER MIXED WATER MAN HOLE GULLY TRAP FLOOR TRAP FIRE FIGHTING ANTI SYPHONIC PIPE LOWER GROUND FLOOR UPPER GROUND FLOOR GROUND FLOOR FIRST FLOOR SECOND FLOOR	WASITHAND BASIN  WATER CLOSET  COLD WATER  HOT WATER  COLD & HOT WATER  MIXED WATER  MAN HOLE  GULLY TRAP  FLOOR TRAP  FIRE FIGHTING  ANTI SYPHONIC PIPE  LOWER GROUND FLOOR  UPPER GROUND FLOOR  GROUND FLOOR  FIRST FLOOR  SECOND FLOOR  THERD FLOOR  PIPE SIZE  MENTIONED IN THE DRAWING  1½"Ø  1½"Ø  2½"Ø  3"Ø  4"Ø  5"Ø  5"Ø	WATER CLOSET         PIPE SIZE         EQU.           COLD WATER         PE         PE           HOT WATER         1/2"Ø         20mm O/D           COLD & HOT WATER         3/4"Ø         25mm O/D           MIXED WATER         1"Ø         32mm O/D           MAN HOLE         1"Ø         32mm O/D           GULLY TRAP         11/4"Ø         40mm O/D           FLOOR TRAP         11/2"Ø         50mm O/D           FIRE FIGHTING         2"Ø         63mm O/D           ANTI SYPHONIC PIPE         21/2"Ø         75mm O/D           LOWER GROUND FLOOR         3"Ø         90mm O/D           UPPER GROUND FLOOR         4"Ø         125mm O/D           GROUND FLOOR         5"Ø         160mm O/D           FIRST FLOOR         5"Ø         160mm O/D           SECOND FLOOR         6"Ø         180mm O/D	WATER CLOSET         PIPE SIZE         EQUAL TO PIPE SIZE           COLD WATER         MENTIONED IN THE DRAWING         PE         PPRC           HOT WATER         1/2"Ø         20mm O/D         20mm O/D           MIXED WATER         3/4"Ø         25mm O/D         32mm O/D           MAN HOLE         1"Ø         32mm O/D         40mm O/D           GULLY TRAP         11/4"Ø         40mm O/D         50mm O/D           FLOOR TRAP         11/2"Ø         50mm O/D         63mm O/D           FIRE FIGHTING         2"Ø         63mm O/D         75mm O/D           ANTI SYPHONIC PIPE         21/2"Ø         75mm O/D         90mm O/D           LOWER GROUND FLOOR         3"Ø         90mm O/D         110mm O/D           UPPER GROUND FLOOR         4"Ø         125mm O/D            FIRST FLOOR         5"Ø         160mm O/D            SECOND FLOOR         6"Ø         180mm O/D

#### PIPE SLOPES

300mmØ	12"Ø	1 IN 330
225mmØ	9"Ø	1 IN 225
160mmØ	6"Ø	1 IN 180
110mmØ	4"Ø	1 IN 100
75mmØ	3"Ø	1 IN 75
50mmØ	2"Ø	1 IN 50

#### GENERAL NOTES

- ALL SOIL AND WASTE PIPES SHALL BE uPVC CONFORMING TO ISO 3633 / PS 3214 TYPE ' B'.
- ALL VENT OR ASP PIPES SHALL BE uPVC CONFORMING TO ISO 3633 / PS 3214 TYPE ' B' . ALL VENT PIPES SHALL BE UPTO 1' ABOVE OF FINISHED ROOF LEVEL
- ALL JOINTS FOR uPVC PIPES AND FITTING SHALL BE MADE WITH SOLVENT CEMENT SOCKET CONFORMING TO ISO 3633: 1991 AND WHERE NECESSARY RUBBER RING SOCKET JOINT CONFORMING TO DIN 19560 SHALL BE PROVIDED.
- PIPES FOR COLD WATER SUPPLY INSIDE THE TOILETS UPTO CONNECTION FROM STACKS/BUILDING OUTER LINE SHALL BE POLYPROPYLENE RANDOM CONFORMING TO DIN 8077 - 8078 - PN 10 AND FITTINGS CONFORMING TO DIN 16962 - PN 25 , AND SHALL BE THERMALLY ISOLATED.
- PIPES FOR HOT WATER SUPPLY SHALL BE POLYPROPYLENE RANDOM CONFORMING TO DIN 8077 - 8078 - PN 20 AND FITTINGS CONFORMING TO DIN 16962 - PN 25 AND SHALL BE THERMALLY ISOLATED.
- 6. ALL PIPE DIAMETER, INCLUDING RCC SHOWN ON THE DRAWINGS MEAN INNER DIAMETER OF THE SAME OR OTHERWISE MENTIONED.
- 7. ALL EXTERNAL WATER SUPPLY PIPES SHALL BE OF POLYETHYLENE (PE) SDR 11 CONFORMING TO DIN 8074 / 8075 AND PS - 3580 - 1994 AND PE FITTINGS, SPECIALS CONFORMING TO ISO 3458, 3459, 3501, 3503 BS 5114. OR G.I WHERE MENTIONED ON THE DRAWINGS OR EXPOSE TO SUNLIGHT.
- ALL PIPES MANHOLE TO MANHOLE SHALL BE R.C.C. 9" Ø OR OTHERWISE MENTIONED ON THE DRAWINGS.
- GULLY TRAP TO MANHOLE, uPVC PIPES AS LISTED IN NOTE Nr. 1 SHALL BE USED
- 10. INSTALLATION OF INSTANT TYPE GAS GEYSER SHOULD BE STRICTLY AS PER INSTRUCTIONS OF THE MANUFACTURERS MOREOVER IT SHOULD BE INSTALLED IN OPEN TO SKY LOCATION WITH G.I SHEET SHELTER, IF UNAVOIDABLY BE INSTALLED IN COVERED AREA THEN ADEQUATE VENT ARRANGEMENT BE PROVIDED TO AVOID ANY TYPE OF INCIDENT
- 11. ELECTRIC WATER HEATER SHALL BE CLAMPED WITH THE WALL AT 6' CLEAR HEIGHT.
- 12. ALL PPRC, PE AND uPVC PIPES SHALL BE IN THE DUCTS, EMBEDDED IN WALLS OR SOME SUITABLE ARRANGEMENT SHALL BE MADE, AS PER SITE SITUATION, TO AVOID DIRECT CONTACT WITH THE SUNLIGHT, AS PER INSTRUCTIONS OF THE ENGINEER INCHARGE.
- 13. ALL BUILDING DRAINAGE PIPES SHALL HAVE A MINIMUM SLOPE AS MENTIONED ABOVE AND PROVISION OF CLEAN OUT/CLEANING EYES ACCORDING TO MANDATORY REGULATIONS.
- 14. WHERE SITE SITUATION ALLOW MORE THAN ONE VENT STACKS MAY BE COMBINE INTO ONE STACK, MOREOVER IF LEVELS AND PIPE CROSSINGS HELP AT SITE, PROVISION OF ONE GULLY TRAP MAY BE ADAPTED INSTEAD OF TWO OR THREE.
- 15. USE CONCRETE (1:2:4) MIN. 3" THICK ENCASEMENT TO ALL BUILDING DRAINAGE PIPES
- 16. ROOF DRAINAGE SLOPE SHOULD BE 0.3%.

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

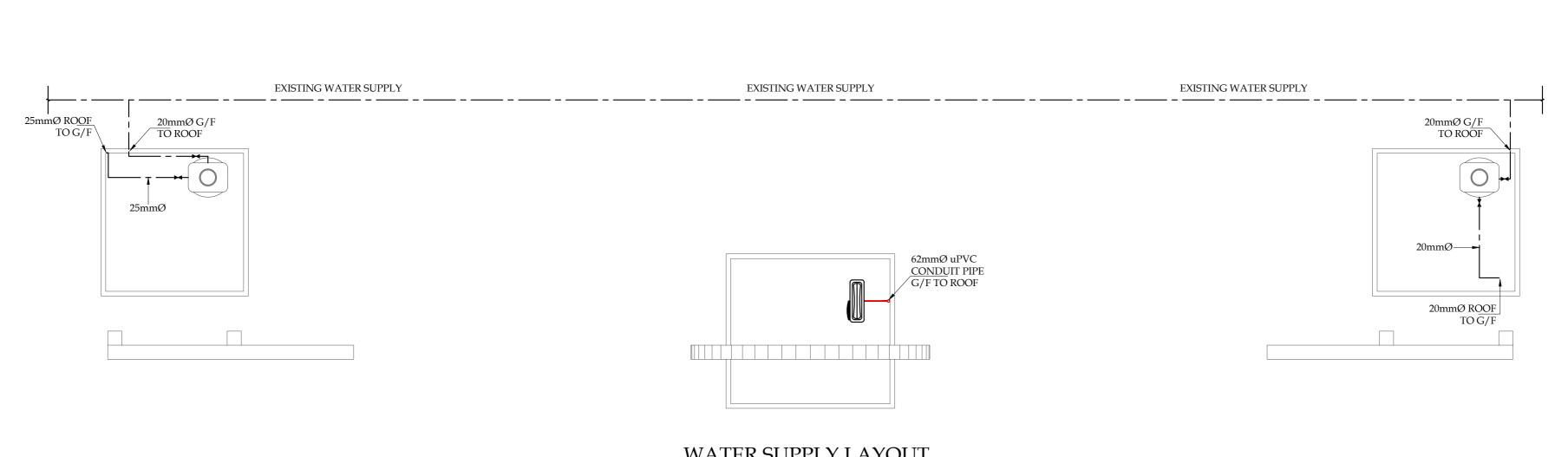
#### ENTRY GATE LEGEND PLUMBING

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14-01-2022	PRELIMIN	ARY DESIGN	M.DANIYAL	ENGR.ABID	ENGR. ARSLAN
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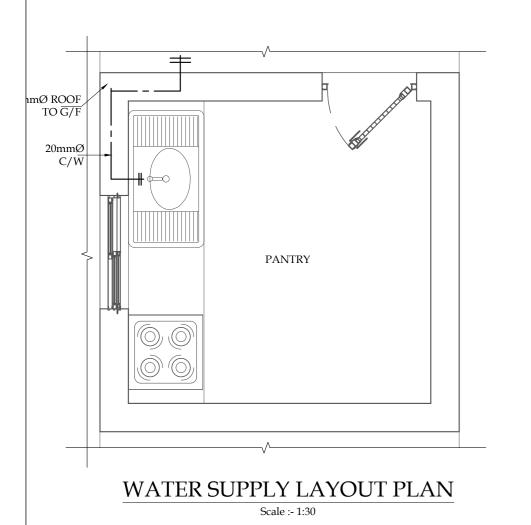


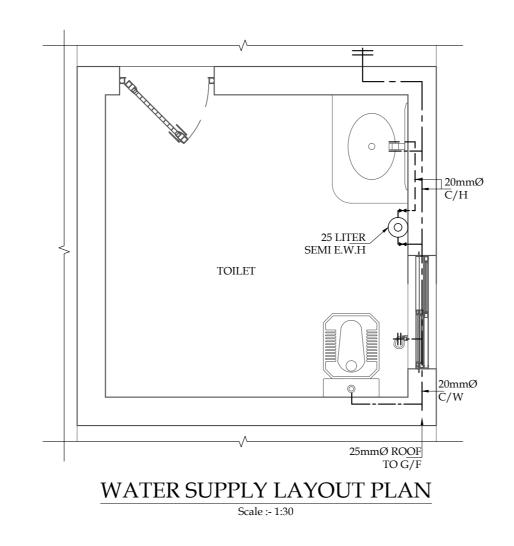


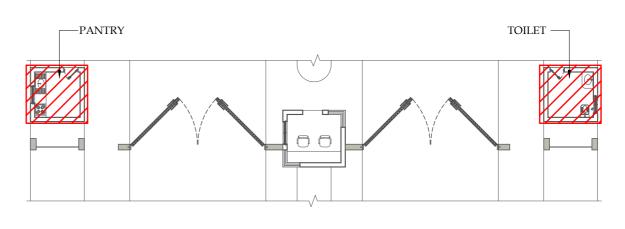


# WATER SUPPLY LAYOUT PLAN ROOF TOP

Scale :- 1:75







KEY PLAN

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

**ENTRY GATE** WATER SUPPLY LAYOUT PLAN

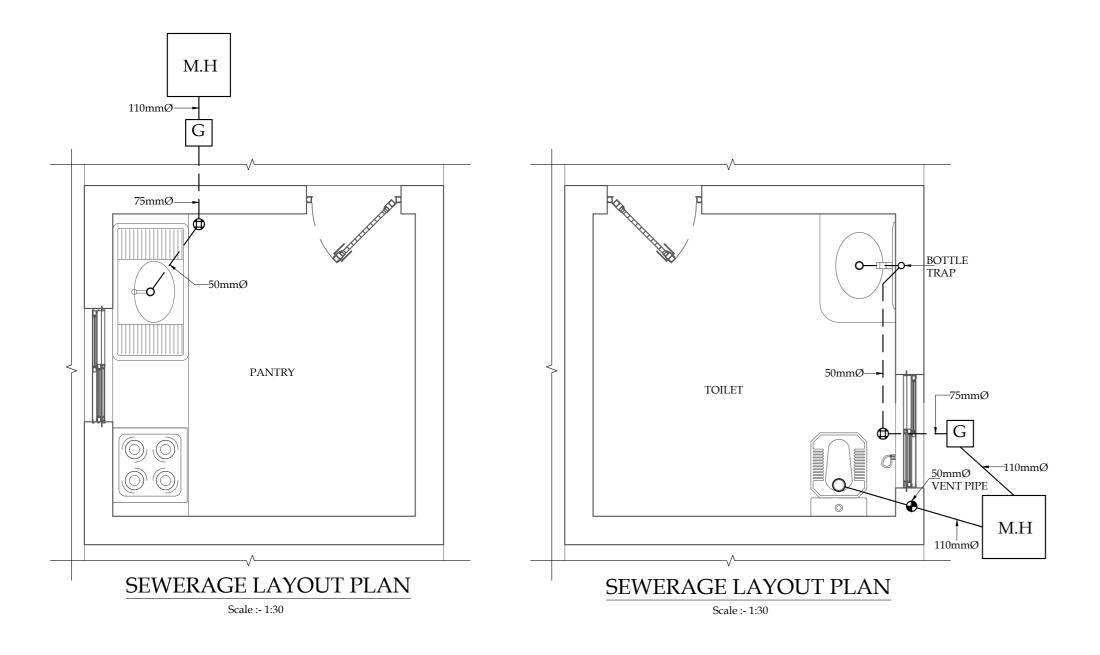
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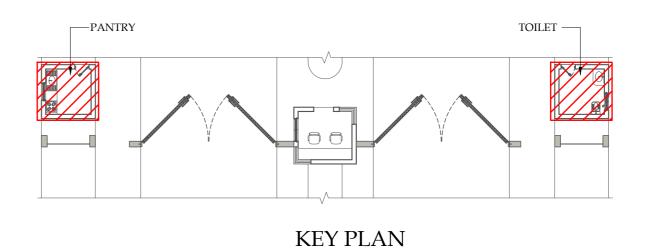
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#### EXTERNAL SEWERAGE PLAN Scale :- 1:75





DESIGN REVIEW AND CONSTRUCTION SUPERVISION
OF LEFT-OVER INFRASTRUCTURE WORKS AT
NAUSHAHRO FEROZE INDUSTRIAL PARK,
DISTRICT NAUSHAHRO FEROZE

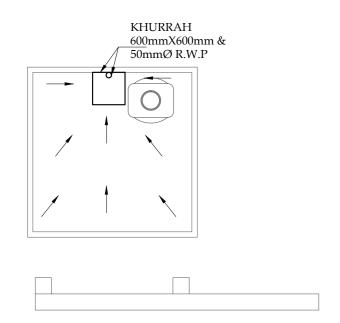
#### **ENTRY GATE** SEWERAGE LAYOUT PLAN

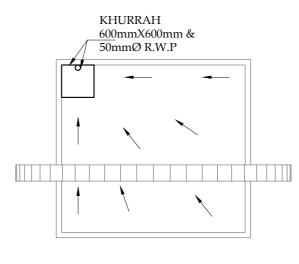
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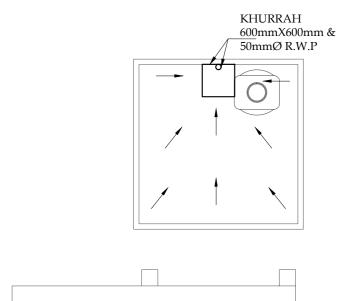
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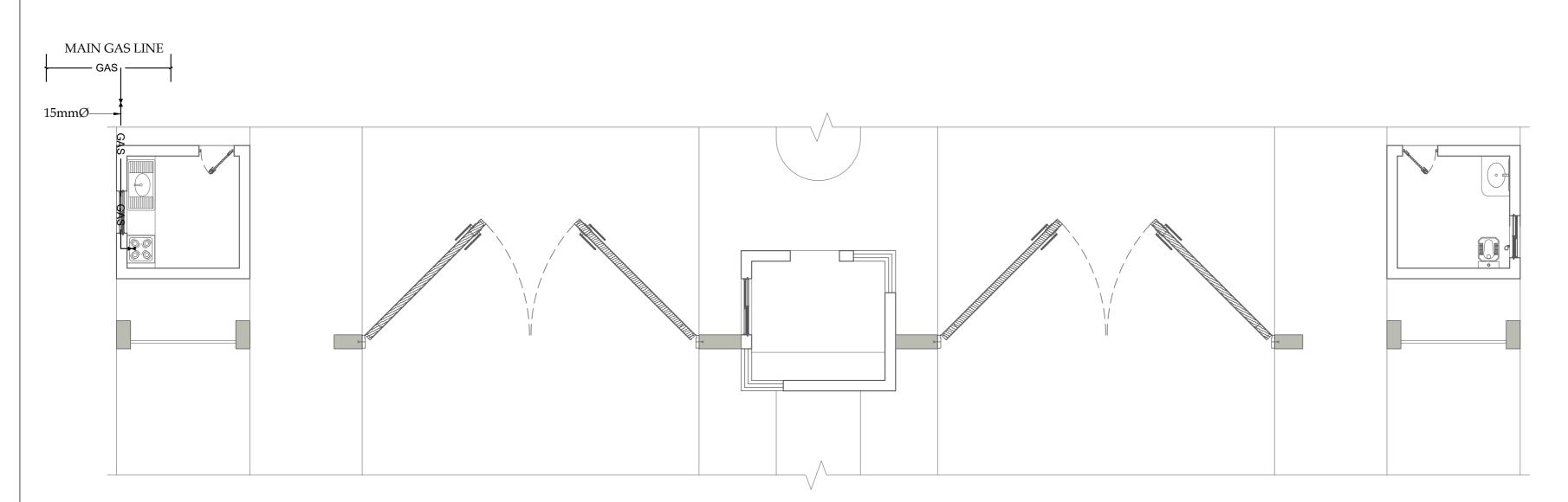






# ROOF DRAINAGE PLAN

Scale :- 1:75



# GAS LAYOUT PLAN LAYOUT PLAN

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

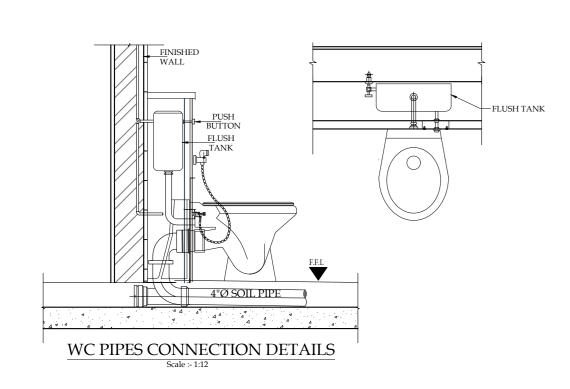
ENTRY GATE ROOF DRAINAGE & GAS LAYOUT PLAN

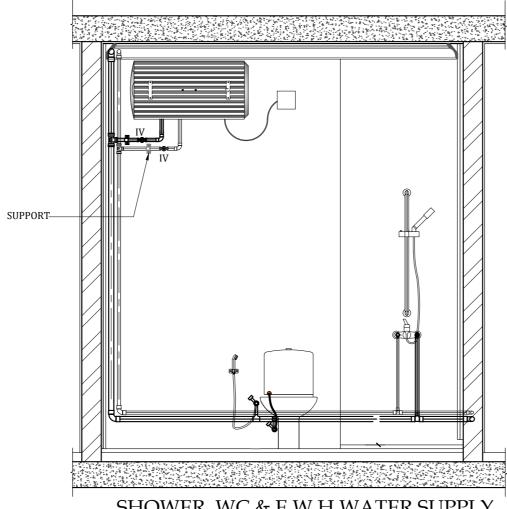
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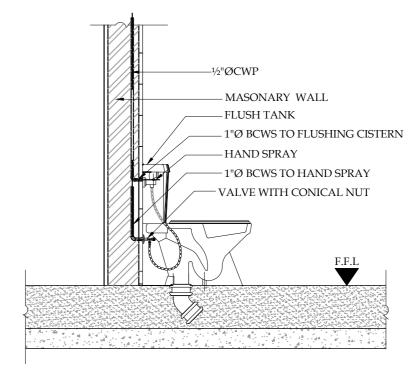






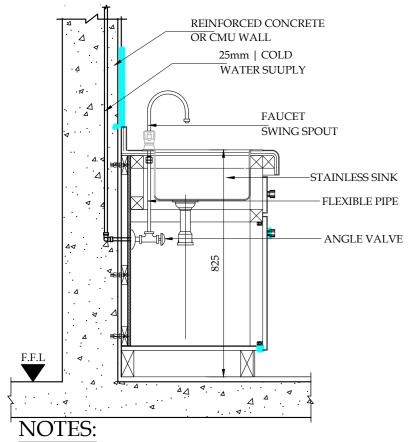


SHOWER, WC & E.W.H WATER SUPPLY PIPES ARRANGEMENT DETAIL

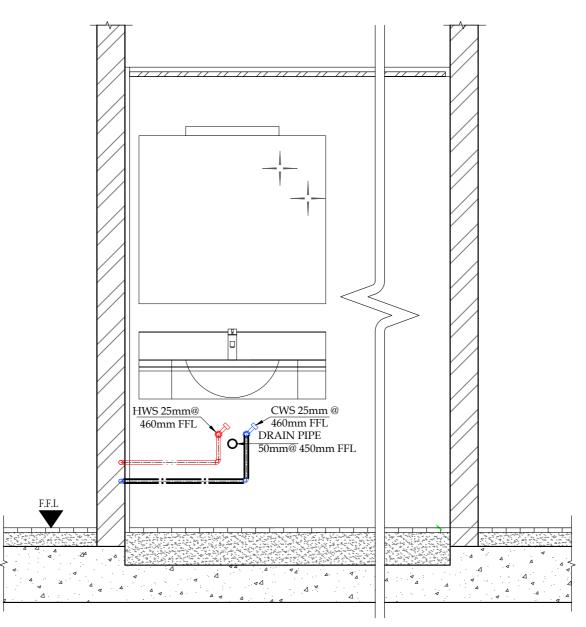


# GENERAL PIPING ARRANGEMENT FOR FLUSH TANK TYPE WATER CLOSET

Scale :- 1:12

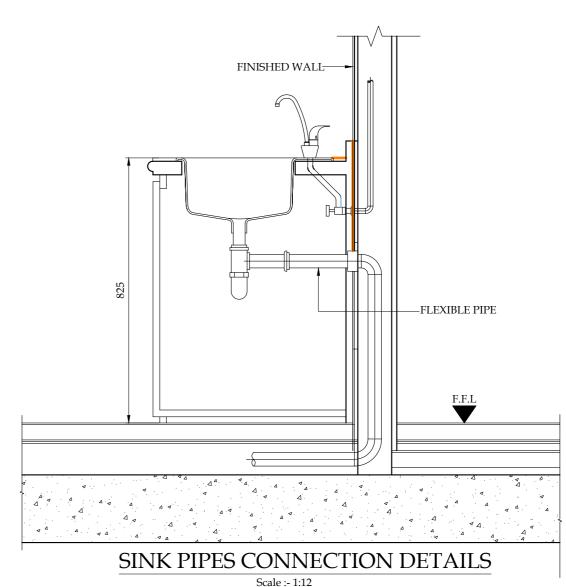


**SECTION** Scale :- 1:12



WASH BAISIN PIPES CONNECTION DETAILS

Scale :- 1:12



DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

#### **ENTRY GATE** MISCELLANEOUS DETAILS

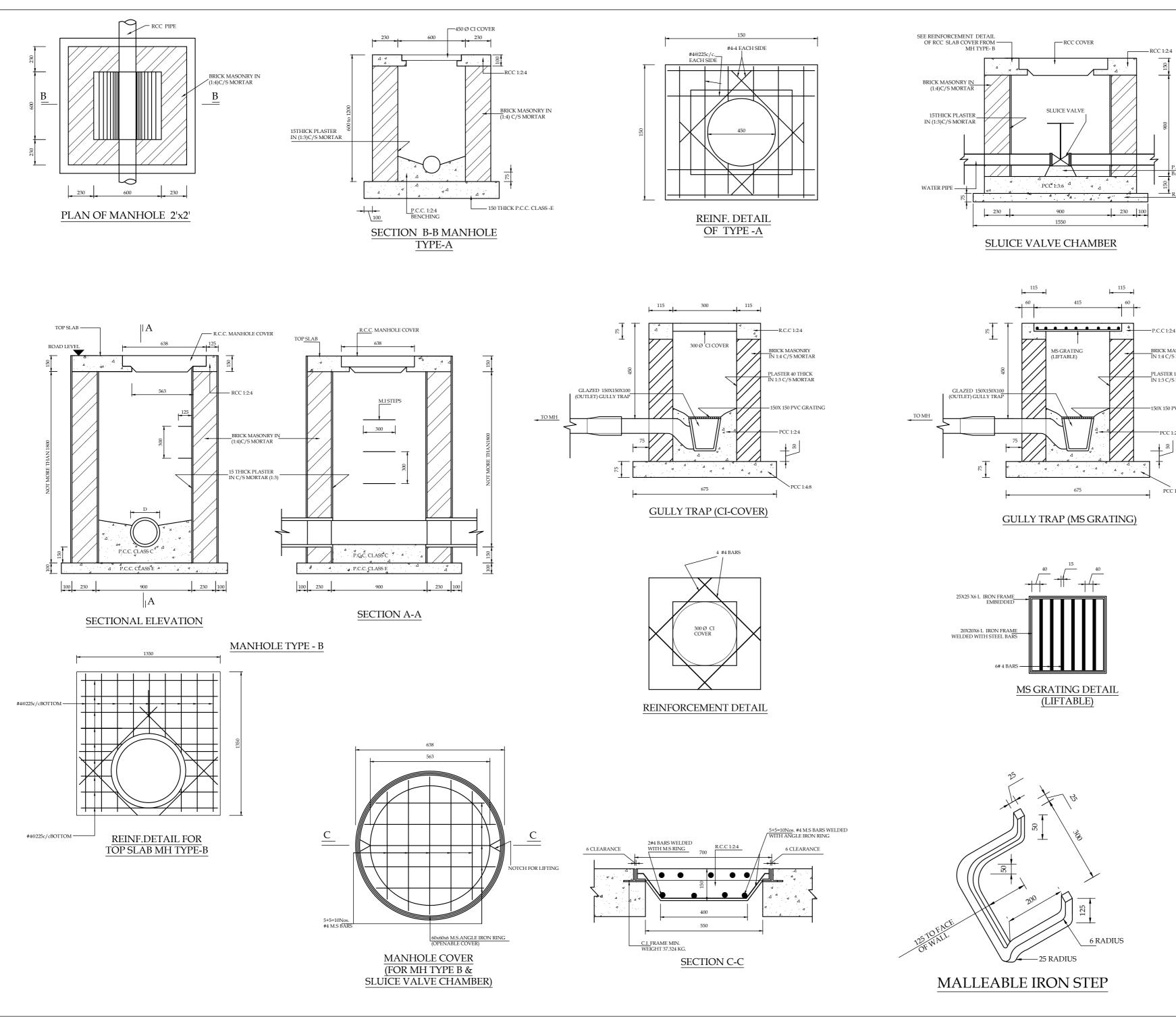
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DATE	DESCRIPTION		DRAWN	DESIGNED	APPROVE
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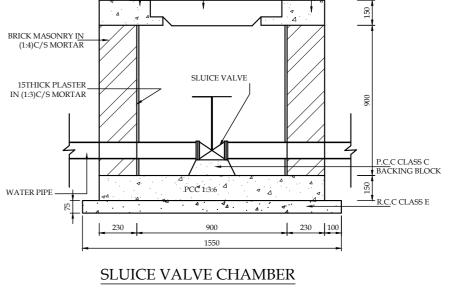
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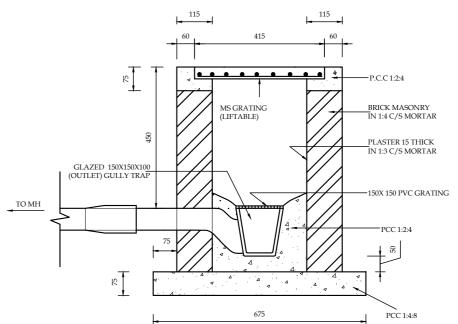


PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN 2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN. PHONE: 021-3568-5041-9









PROJECT:

DESIGN REVIEW AND CONSTRUCTION SUPERVISION OF LEFT-OVER INFRASTRUCTURE WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, DISTRICT NAUSHAHRO FEROZE

# ENTRY GATE MANHOLE TYPE-A,B SLUICE VALVE CHAMBER & GULLY TRAP

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17-01-2022	ISSUED FOR	TENDER ONLY	M.DANIYAL	ENGR.ABID	ENGR. ARSLAN
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CONSULTANT



