



PROJECT IMPLEMENTATION UNIT
EDUCATION CITY PROJECT
INVESTMENT DEPARTMENT

NOTIFICATION

NO: PD/E.City/1-2/2009: In pursuance of Rule 31 of SPPRA Rule 2010 a Complaint Redressal Committee is hereby constituted comprising of following officers for for procurement of Goods, Works and Services for the project of Education City Project:

The committee shall comprise of following members;

- | | |
|---|----------|
| 1. Secretary Investment Department, GoS, | Chairman |
| 2. Representative of Accountant General Sindh | Member |
| 3. Chief Executive Officer, SEDF, GoS | Member |

The Complaint Redressal Committee shall announce its decision within seven days and intimate the same to the bidder and authority within three working days

NO: PD/E.City/1-2/2009 / 1939
Date: 20-8-20

(NAJAM AHMED SHAH)
SECRETARY INVESTMENT

A Copy is forwarded for information and necessary action to:-

1. CEO SEDF, GoS
2. Director (Admin), Investment Department, GoS
3. Office copy


PROJECT DIRECTOR
EDUCATION CITY PROJECT

First Floor, Block B, Finance & Trade Centre, Shahra-e-Faisal, Karachi
Tel: 021-99207512-14, Fax: 021-99207515



PROJECT IMPLEMENTATION UNIT
EDUCATION CITY PROJECT
INVESTMENT DEPARTMENT

NOTIFICATION

NO: PD/E.City/1-2/2009: In pursuance of Rule 7 of SPP Rules 2010 a Procurement Committee : hereby re-constituted comprising of following officers for procurements of Goods, Works and Service for the Project Implementation Unit of Education City project. The earlier notification of even number dated 20th August, 2020 is hereby withdrawn:

The committee shall comprise of following members;

- | | |
|--|----------|
| 1. Project Director, Education City, GoS | Chairman |
| 2. Project Coordinator, Investment Department, GoS | Member |
| 3. Representative of Works & Services. Department, GoS | Member |
- (Not below the rank of BPS-17)

Terms of Reference of the committee are as follows:

Term of Reference

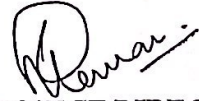
- Preparation of bidding documents.
- Carrying out technical as well as financial evaluation of the bids.
- Preparing evaluation report as provided in Rule 45 of SPP Rules.
- Making recommendations for the award of contract to the competent authority, and
- Perform any other function ancillary and incidental to the above.

NO: PD/E.City/1-2/2009/1938
Date: 9-9-2020

(NAJAM AHMED SHAH)
SECRETARY INVESTMENT

A Copy is forwarded for information and necessary action to:-

1. Secretary to Government of Sindh, Works & Services Department.
2. Office copy


PROJECT DIRECTOR
EDUCATION CITY PROJECT

First Floor, Block B, Finance & Trade Centre, Shahra-e-Faisal, Karachi
Tel: 021-99207512-14, Fax: 021-99207515

**PROJECT IMPLEMENTATION UNIT,
EDUCATION CITY
GOVERNMENT OF SINDH**

NOTICE INVITING TENDER

Tender # NIT/PIU/2026/0614

1. The Employer invites sealed bids from eligible Firms/Contractors for the project titled "Special Technology Zone (STZ), Package 1 Electrical Power Works Education City, Karachi." under the Single Stage – Two Envelope Bidding Procedure". Interested bidders shall possess a valid Pakistan Engineering Council (PEC) license and for the year 2025-2026 and Electric License Certificate in Category C-3 with specialization codes CE-10, EE-04, EE-05 Mandatory. Furthermore, the bidding firm/company must be duly registered with the Federal Board of Revenue (FBR) and the Sindh Revenue Board (SRB). Only those firms/contractors fulfilling the above eligibility requirements shall be considered for participation in the bidding process.

Start Date of Issue	Submission Date/Time	Opening Date/Time	Tender Fee	Bid Security
29th June 2026	16th July 2026	16th July 2026	10,000/- (Non-Refundable)	2% of Bid Price

2. Tender documents containing detailed Bill of Quantity (BoQ), evaluation criteria and scope of services can be downloaded from SPPRA website <https://portalsindh.eprocure.gov.pk> through EPAD (E-Procurement) System and Education City website www.educationcity.gos.pk. Interested bidders are required to submit a Pay Order/ Demand Draft of Rs. 10,000/- (non-refundable) in favor of as the cost of tender documents.
3. EPADs portal at <https://portalsindh.eprocure.gos.pk>. Financial proposals must be accompanied by a bid security of 2% of the total bid amount (refundable) in the form of a Pay Order / Bank Draft / Bank Guarantee issued by a scheduled bank of Pakistan. The bid security should remain Valid for at least 90 days beyond the bid validity date. One hard copy of both technical and financial proposals (in separate sealed envelopes), identical to the documents uploaded on SPPRA EPADs, must be submitted along with the required original bid security at the address given below.
4. The procuring agency reserves the right to reject any or all bids as per the relevant provisions of SPPRA Rules 2010, specifically Rule 25(1). Further, any false or misleading information submitted by a firm/company/ agency will result in immediate disqualification at any stage of the process.

**PROJECT IMPLEMENTATION UNIT
(EDUCATION CITY)
GOVERNMENT OF SINDH**

1st Floor, Block A, FTC Building, Sharhrah-e-Faisal
Karachi

EDUCATION CITY

INFRASTRUCTURE DEVELOPMENT OF EDUCATION CITY, KARACHI

Special Technology Zone Package 1 Electrical Power Works

VOLUME - I

CONDITIONS OF CONTRACT



GOVERNMENT OF SINDH



CGD CONSULTING

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No. _____

Dated: _____

INVITATION TO BIDDERS

SUBJECT: Special Technology Zone (STZ), Package 1 Electrical power Works Education City, Karachi.

1. The Employer invites sealed bids under Single Stage-Two Envelope bidding procedure from eligible firms licensed by the Pakistan Engineering Council valid for the year 2025-2026 in Category C-3 with specialization codes CE-10, EE-04, EE05. The company must be registered with FBR and SRB.
2. Tender documents containing detailed Bill of Quantity (BoQ), evaluation criteria and scope of services can be downloaded from SPPRA website <https://portalsindh.eprocure.gov.pk> through EPAD (E Procurement) System and Education City website www.educationcity.gos.pk from _____, 2025 till _____, 2025 on or before _____ hrs. Interested bidders are required to submit a Pay Order / Demand Draft of Rs. 10,000/- (non-refundable) in favor of "Project Implementation Unit, Education City Project" as the cost of tender documents.
3. All interested bidders must upload their Bids (Technical and Financial) via the SPPRA EPADs portal at <https://portalsindh.eprocure.gos.pk>. Financial proposals must be accompanied by a bid security of **2%** of the total bid amount (refundable) in the form of a Pay Order / Bank Draft / Bank Guarantee issued by a scheduled bank of Pakistan. The bid security should remain Valid for at least 90 days beyond the bid validity date and be made in favor of "Education City Project". Note: One hard copy of both technical and financial proposals (in separate sealed envelopes), identical to the documents uploaded on SPPRA EPADs, must be submitted along with the required bid security at the address (Project Implementation Unit, 1st Floor, Block A, FTC Building, Shahrah-e-Faisal Karachi) of the procuring agency is mandatory.
4. Bids must be uploaded via the SPPRA E-Procurement Portal on or before _____ hrs. on _____, 2025 and same will be opened on same date at _____ hrs. through SPPRA's E-pad portal. All designated committee members and interested bidders are required to be online during the opening and evaluation, Bidders who fail to appear online during the opening session will be marked as absent, and their bids will be rejected.
5. The procuring agency reserves the right to reject any or all bids as per the relevant provisions of SPPRA Rules 2010, specifically Rule 25(1). Further, any false or misleading information submitted by a firm/company/agency will result in immediate disqualification at any stage of the process.
6. Date of opening of Financial Bids of Technically qualified bidders shall be notified at later date after Evaluation of the Technical Bids.
7. The blue ink shall be used to fill all the form/ BOQ.
8. Join Venture will not be allowed.
9. Any work executed under for mode shall not be considered as an experience.
10. Performance shall be given to than bidders who are ISO certify.

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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 Source of Funds

- 1.1 Procuring agency as defined in the bidding data hereinafter called “the procuring agency” wishes to receive bids for the construction and completion of works as described in these bidding documents, and summarized in the bidding data hereinafter referred to as the “Works”.
- 1.2 The successful bidder will be expected to complete the works within the time specified in Appendix-A to Bid.

IB.2 Source of Funds

- 2.1 Procuring agency has received/allocated/] applied for loan/grant/ Federal/ Provincial/Local Government funds from the source(s) indicated in the bidding data in various currencies towards the cost of the project /scheme specified in the bidding data, and it is intended that part of the proceeds of this loan/grant/funds will be applied to eligible payments under the contract for which these bidding documents are issued.

IB.3 Eligible Bidders

- 3.1 This Invitation for Bids is open to all interested bidders who are eligible under provisions of Sindh Public Procurement Rules as mentioned below and the criteria given in the Notice Inviting Tender (NIT)/ Bidding Document.

Firms and individuals, national or international, may be allowed to bid for any project where international competitive bidding is feasible. Any conditions for participation shall be limited to those that are essential to ensure the bidder's capability to fulfill the contract in question.

(a) Bidders may be excluded if;

- (i) as a matter of law or official regulations, commercial relations are prohibited with the bidder's country by the federal government in case of ICB, or
- (ii) a firm is blacklisted/ debarred by the procuring agency and the matter has been reported to the Authority, subject to Rule 30 of Sindh Public Procurement Rules 2010.

(b) Government-owned enterprises or institutions may participate only if they can establish that they are;

- (i) legally and financially autonomous, and
- (ii) operate under commercial law

Provided that where government-owned universities or research centers in the country are of a unique and exceptional nature, and their participation is critical to project implementation, they may be allowed to participate; and

Bidders shall include all those contractors who are registered or incorporated in Pakistan, irrespective of the nationality of their owners and professional staff, or

(c) Bidders are:-

- (i) pre-qualified with procuring agency for particular project/scheme;
- (ii) registered with Pakistan Engineering Council in particular category and discipline
- (iii) registered with relevant tax authorities (income/sales tax, wherever applicable)

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 procuring agency 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 all information that may be necessary for preparing the bid and entering into a contract for construction of the works. All cost in this respect shall be at the bidder's own expense.
- 6.2 The bidders and any of their personnel or agents will be granted permission by the procuring agency 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 procuring agency, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

B. BIDDING DOCUMENTS

IB.7 Contents of Bidding Documents (SSP RULE 21)

- 7.1 The bidding documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any addenda issued in accordance with Clause IB.9.
- 1. Instructions to Bidders
 - 2. Bidding Data
 - 3. General Conditions of Contract, Part-I (GCC)
 - 4. Special Conditions of Contract, Part-II (SCC)
 - 5. Specifications
 - 6. Form of Bid and Appendices to Bid
 - 7. Bill of Quantities (Appendix-D to Bid)
 - 8. Form of Bid Security

9. Form of Contract Agreement
10. Forms of Performance Security, Mobilization Advance Guarantee, Integrity Pact and Indenture bond for secured advance
11. Drawings

- 7.2 The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the BD will be rejected.

IB.8 Clarification of Bidding Documents (SSP RULE 23(1))

Any interested bidder requiring any clarification(s) in respect of the bidding documents may notify the procuring agency in writing at the procuring agency's address indicated in the Invitation for Bids/NIT. Procuring agency will respond to any request for clarification provided they are received at least five calendar days prior to the date of opening of bid.

Provided that any clarification in response to query by any bidder; shall be communicated to all parties who have obtained bidding documents.

IB.9 Amendment/ Modification of Bidding Documents

- 9.1 At any time prior to the deadline for submission of bids, the procuring agency may, for any reason, whether at his own initiative or in response to a clarification requested by a interested 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 IB 7.1 hereof and shall be communicated in writing to all bidders. Interested bidders shall acknowledge receipt of each addendum in writing to the procuring agency.
- 9.3 To afford prospective bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may at its discretion extend the deadline for submission of Bids.

C. PREPARATION OF BIDS

IB.10 Language of Bid

- 10.1 The bid and all correspondence and documents related to the bid exchanged by a bidder and the procuring agency shall be in the language stipulated in the bidding data and Special Conditions of the 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 authorization on the letterhead of the bidding firm, authorizing the signatory of the bid to act for and on behalf of the bidder;
 - (b) update the information indicated and listed in the bidding data and previously submitted with the application for prequalification, and continue to meet the minimum criteria set out in the prequalification documents, which as a minimum, would include the following;

- (i) Evidence of access to financial resources along with average annual construction turnover;
- (ii) Financial predictions for the current year and the following two years, including the effect of known commitments;
- (iii) Work commitments since prequalification;
- (iv) Current litigation information; and
- (v) Availability of critical equipment.

And

- (c) furnish a technical proposal taking into account the various Appendices to Bid specially the following:

Appendix-E to Bid	Proposed Construction Schedule
Appendix-F to Bid	Method of Performing the Work
Appendix-G to Bid	List of Major Equipment
Appendix-K to Bid	Organization Chart for Supervisory Staff and other pertinent information such as mobilization programme etc;

11.2 Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:

- (a) 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;
- (b) the bid, and in case of a successful bid, the Form of Contract Agreement shall be signed by the authorized partner so as to be legally binding on all partners;
- (c) the partner-in-charge shall always be duly authorized to deal with the procuring agency regarding all matters related with and/or incidental to the execution of works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para (a) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid);
- (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 procuring agency;

- (f) submission of an alternative Letter of Intent to execute a Joint Venture Agreement shall be mandatory.
- 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 sub- clause IB 1.2 hereof.

IB.12 Bid Price

- 12.1 Unless stated otherwise in the bidding documents, the contract shall be for the whole of the works as described in IB 1.1 hereof, based on the unit rates or prices submitted by the bidder or percentage quoted above or below on the rates of Composite Schedule of Rates (CSR), as the case may be.
- 12.2 The bidders shall fill in rates and prices for all items of the works described in the Bill of Quantities. Items against which no rate or price is entered by a bidder will not be paid for by the procuring agency when executed and shall be deemed to be covered by rates and prices for other items in the Bill of Quantities. In case of Composite Schedule of Rates, if the bidder fails to mention the percentage above or below, it shall be deemed to be at par with the rates of Composite Schedule of Rates.
- 12.3 The bid price submitted by the contractor shall include all rates and prices including the taxes. All duties, taxes and other levies payable by the contractor under the contract, or for any other cause during the currency of the execution of the work or otherwise specified in the contract as on the date seven days prior to the deadline for submission of bids.

Additional / reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed / deducted as per Sub-Clause 13.7 of the General Conditions of Contract Part-I.

- 12.4 The rates and prices quoted by the bidders are subject to adjustment during the performance of the contract in accordance with the provisions of Clause 13.7 of GCC. The bidders shall furnish the prescribed information for the price adjustment formulae in Appendix-C to Bid, and shall submit with their bids such other supporting information as required under the said Clause. Adjustment in prices quoted by bidders shall be allowed as per Sub-Para 4(ii) of Section C of Instructions to bidders and bidding data.

IB.13 Currencies of Bid and Payment

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. A bidder expecting to incur expenditures in other currencies for inputs to the works supplied from outside the procuring agency's country (referred to as the "Foreign Currency Requirements") shall indicate the same in Appendix-B to Bid. The proportion of the bid price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in the bid.
- 13.2 The rates of exchange to be used by the bidder for currency conversion shall be the selling rates published and authorized by the State Bank of Pakistan prevailing on the date, 07 (seven) days prior to the deadline for submission of bids. For the purpose of payments, the exchange rates used in bid preparation shall apply for the duration of the contract.

IB.14 Bid Validity

- 14.1 Bids shall remain valid for the period stipulated in the bidding data from the date of opening of bid specified in clause IB.23.
- 14.2 In exceptional circumstances, prior to expiry of the original, the procuring agency may request the bidders to extend the period of validity for a specified additional period, which shall not be for more than one third of the original period of bid validity. The request and the responses thereto, shall be made in writing. A bidder may refuse the request without the forfeiture of the bid security. In case, a bidder agreed to the request, shall not be required or permitted to modify the bid, but will be required to extend the validity of the bid security for the period of the extension, and in compliance with Clause IB.15 in all respects.

IB.15 Bid Security

- 15.1 Each bidder shall furnish, as part of the bid, a bid security in the amount stipulated in the bidding data in Pak Rupees or an equivalent amount in a freely convertible currency.
- 15.2 The bid security shall be at the option of the bidder, in the form of deposit at call, Pay order or a bank guarantee issued by a Scheduled Bank in Pakistan or from a foreign bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the procuring agency, which should commensurate with the bid validity period. The bank guarantee for bid security shall be acceptable in the manner as provided at Annexure BS-1.
- 15.3 Any bid not accompanied by an acceptable bid security shall be rejected by the procuring agency as non-responsive.
- 15.4 Bid security shall be released to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired.
- 15.5 The bid security of the successful bidder shall 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 IB 22.1
 - (b) if the bidder does not accept the correction of his bid price pursuant to sub- clause IB 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/Bids

- 16.1 Each bidder shall submit only one bid either by himself, or as a member of a joint venture, until and unless they have been requested or permitted for alternative bid, then he has to purchase separate bidding documents and alternate bid shall be treated as separate bid.
- 16.2 Alternate proposals are allowed only for procurement of works where technical complexity is involved and more than one designs or technical solutions are being offered. Two stage

two envelope bidding procedure will be appropriate when alternate proposal is required.

- 16.3 Alternate bid(s) shall contain (a) relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details / conditions, provided that the total sum entered on the Form of Bid shall be that which represents complete compliance with the bidding documents.

IB.17 Pre-Bid Meeting

- 17.1 Procuring agency may, on his own motion or at the request of any bidder, 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, shall be communicated to all bidders. All bidders or their authorized representatives shall be invited to attend such a pre-bid meeting at their own expense.
- 17.2 The bidders are requested to submit questions, if any, in writing so as to reach the Procuring agency not later than seven (7) days before the proposed pre-bid meeting.
- 17.3 Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all bidders. Any modification of the bidding documents listed in sub- clause IB 7.1 hereof, which may become necessary as a result of the pre-bid meeting shall be made by the procuring agency 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 Alteration is not to be made neither 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 without alterations and shall provide an original copy along with photocopies as per the requirement of the procuring agency specified in the bidding data. The original as well as copies of the document shall be clearly marked as "ORIGINAL" and „COPY", as the case may be. If there is any discrepancy between original and copy (ies) then the original shall prevail.
- 18.5 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person(s) duly authorized to sign on behalf of the bidder pursuant to sub- clause IB 11.1(a) hereof. All pages of the bid shall be initialed and stamped by the person(s) signing the bid.
- 18.6 The bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the procuring agency, or as are necessary to correct errors made by the bidder. Such corrections shall be initialed by the person(s) signing the bid.
- 18.7 Bidders shall indicate in the space provided in the Form of Bid their full and proper postal 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 BID

IB.19 Sealing and Marking of Bids

19.1 Each bidder shall submit his bid as under:

- (a) ORIGINAL and COPIES of the bid shall be separately sealed and put in separate envelopes and marked as such.
- (b) The envelopes containing the ORIGINAL and COPIES shall be put in one sealed envelope and addressed as given in sub - clause IB 19.2 hereof.

19.2 The inner and outer envelopes shall:

- (a) be addressed to the procuring agency at the address provided in the bidding data;
- (b) bear the name and identification number of the contract as defined in the bidding data; and
- (c) provide a warning not to open before the time and date for bid opening, as specified in the bidding data.

19.3 In addition to the identification required in sub- clause IB 19.2 hereof, the inner envelope shall indicate the name and postal 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 procuring agency 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 procuring agency at the address specified not 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 shall 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 Procuring Agency may, at its discretion, extend the deadline for submission of bids by issuing an amendment in accordance with IB 09. In such case, all rights and obligations of the procuring agency and the bidders shall remain the same as mentioned in the original deadline.

IB.21 Late Bids

- (a) any bid received by the procuring agency after the deadline for submission of bids prescribed in to clause IB 20 shall be returned unopened to such bidder
- (b) delays in the mail, 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 submit the bid in time

IB.22 Modification, Substitution and Withdrawal of Bids

- 22.1 Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the procuring agency prior to the deadline for submission of bids.
- 22.2 The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.
- 22.3 No bid may be modified by a bidder after the deadline for submission of bids except in accordance with to sub - clauses IB 22.1 and IB 27.2
- 22.4 Withdrawal of a bid during the interval between the deadlines 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 Procuring agency 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 or their representatives who are in attendance shall sign an attendance sheet.
- 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 Procuring agency shall read aloud the name of the bidder, total bid price and price of any Alternate Proposal(s), if any, discounts, bid modifications, substitution and withdrawals, the presence or absence of bid security, and such other details as the procuring agency may consider appropriate, and total amount of each bid, and of any alternative bids if they have been requested or permitted, shall be read aloud and recorded when opened.
- 23.4 Procuring Agency shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with the sub-clause IB.23.3.

IB.24 Process to be Confidential (SPP Rule 53)

- 24.1 Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of bid evaluation report in accordance with the requirements of Rule 45, which states that Procuring agencies shall announce the results of bid evaluation in the form of a report giving reasons for acceptance or rejection of bids. The report shall be hoisted on website

of authority and that of procuring agency if it website exists and intimated to all bidders at least seven (7) days prior to the award of contract. The announcement to all bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the procuring agency'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 as per Rule 31; however mere fact of lodging a complaint shall not warrant suspension of the procurement process.

IB.25 Clarification to Bid (SPP Rule 43)

- 25.1 To assist in the examination, evaluation and comparison of bids, the procuring agency may, at its discretion, ask any bidder for clarification of the 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 procuring agency in the evaluation of the bids in accordance with clause IB 28.

IB.26 Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the procuring agency will determine whether the bidder fulfills all codal requirements of eligibility criteria given in the tender notice such as registration with tax authorities, registration with PEC (where applicable), turnover statement, experience statement, and any other condition mentioned in the NIT and bidding document. If the bidder does not fulfill any of these conditions, it shall not be evaluated further.
- 26.2 Once found to be fulfilling the eligibility criteria, as mentioned in sub-clause 26.1, the bids of eligible bidders will be evaluated for technical responsiveness as per specification and criteria given in the bidding documents. Technical and financial evaluations may be carried out in accordance with single stage-single one envelope, single stage-two envelopes, two stage or two stage-two envelopes bidding procedures depending on the selection procedure adopted by the procuring agency.
- 26.3 A bid will be considered technically responsive if it (i) has been properly signed; (ii) is accompanied by the required bid security; and (iii) 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 affects 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 procuring agency'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.
- 26.4 If a bid has major deviations to the commercial requirements and technical specifications will be considered technically non responsive. As a general rule, major deviations are those that if accepted, would not fulfill the purposes for which the bid is requested, or would prevent a fair comparison or affect the ranking of the bids that are compliant with the bidding documents.

(A). Major (material) Deviations include:-

- (i) has been not properly signed;
- (ii) is not accompanied by the bid security of required amount and manner;

- (iii) stipulating price adjustment when fixed price bids were called for;
- (iv) failing to respond to specifications;
- (v) failing to comply with Mile-stones/Critical dates provided in Bidding Documents;
- (vi) sub-contracting contrary to the Conditions of Contract specified in Bidding Documents;
- (vii) refusing to bear important responsibilities and liabilities allocated in the Bidding Documents, such as performance guarantees and insurance coverage;
- (viii) taking exception to critical provisions such as applicable law, taxes and duties and dispute resolution procedures;
- (ix) a material deviation or reservation is one:
 - (a) which affect in any substantial way the scope, quality or performance of the works
 - (b) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids

(B) Minor Deviations

Bids that offer deviations acceptable to the Procuring Agency and which can be assigned a monetary value may be considered substantially responsive at least as to the issue of fairness. This value would however be added as an adjustment for evaluation purposes only during the detailed evaluation process.

IB.27 Correction of Errors before Financial Evaluation

- 27.1 Bids determined to be substantially responsive will be checked by the procuring agency for any arithmetic errors. Errors will be corrected by the procuring agency 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 procuring agency there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.
- 27.2 The amount stated in the Form of Bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and with the concurrence of the bidders. The amount thus corrected shall be considered as binding upon the bidder. If the bidder does not accept the corrected bid price, his bid will be rejected, and the bid security shall be forfeited in accordance with sub- clause IB 15.6(b) hereof.

IB.28 Financial Evaluation and Comparison of Bids

- 28.1 The procuring agency will evaluate and compare only the Bids determined to be substantially responsive in accordance with clause IB 26.
- 28.2 In evaluating the Bids, the procuring agency 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 (if any), for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
 - (c) making an appropriate adjustment for any other acceptable variation or deviation
- 28.3 The estimated effect of the price adjustment provisions of the conditions of contract, applied over the period of execution of the contract, shall not be taken into account in bid evaluation.
- 28.4 If the bid of the successful bidder is seriously unbalanced in relation to the procuring agency's estimate of the cost of work to be performed under the contract, the procuring agency 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 procuring agency 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 procuring agency against financial loss in the event of default of the successful bidder under the contract.
- 28.5 Bidders may be excluded if involved in **“Corrupt and Fraudulent Practices”** means either one or any combination of the practices given below SPP Rule2(q)
 - (i) **“Coercive Practice”** means any impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party
 - (ii) **“Collusive Practice”** means any arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain
 - (iii) **“Corrupt Practice”** means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain
 - (iv) **“Fraudulent Practice”** means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation
 - (v) **“Obstructive Practice”** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

28.6 Evaluation Report (SPP Rule 45)

After the completion of evaluation process, as described in clauses IB 27 and IB 28, the procuring agency shall announce the results of bid evaluation in the form of report (available on the website of the authority) giving reasons for acceptance and rejection of bid. The report shall be hoisted on website of the authority and that of procuring agencies

if its website exists and intimated to all bidders at least seven (7) days prior to the award of contract.

F. AWARD OF CONTRACT

IB.29 Award (SPP Rule 49)

29.1 Subject to clauses IB 30 and IB 34 and provision of the rule: The procuring agency shall 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, but not necessarily the lowest submitted price, within the original or extended period of bid validity. Provided that such bidder has been determined to be eligible in accordance with the provisions of clause IB 03 and qualify pursuant to sub- clause IB 29.2.

29.2 Procuring agency, at any stage of the bid evaluation, having credible reasons for or having *prima facie* evidence of any deficiency(ies) in contractor's capacities, may require the contractor to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not for the said project.

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

IB.30 Procuring Agency's Right to reject all Bids or Annul/Cancellation the Bidding Process (SPP Rule 25)

Notwithstanding clause IB 29 and provision of the rule: (1) A procuring agency reserves may cancel the bidding process at any time prior to the acceptance of a bid or proposal; (2) The procuring agency shall incur no liability towards bidders solely by virtue of its invoking sub –rule (1); (3) Intimation of the cancellation of bidding process shall be given promptly to all bidders and bid security shall be returned along with such intimation; (4) The procuring agency shall, upon request by any of the bidders, communicate to such bidder, grounds for cancellation of the bidding process, but is not required to justify such grounds.

IB.31 Notification/ Publication of the Award of Contract (SPP Rule 25)

31.1 Prior to expiry of the period of bid validity, including extension, prescribed by the procuring agency, the procuring agency shall notify the successful bidder in writing ("Letter of Acceptance") that his bid has been accepted. This letter shall mention the sum which the procuring agency will pay to the contractor in consideration of the execution and completion of the works by the contractor as prescribed by the contract (hereinafter and in the conditions of contract called the "Contract Price").

31.2 No negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted, however, procuring agency may hold meetings to 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 procuring agency and the bidder till signing of the formal Contract Agreement.

31.4 Upon furnishing by the successful bidder of a Performance Security and signing of the contract, the procuring agency will promptly notify the name of the successful bidder to all bidders and return their bid securities accordingly

31.5 Within seven days of the award of contract, procuring agency shall publish on the website of the Authority and on its own website, if such a website exists, the results of the bidding process, identify the bid through procurement identifying numbers, and the following information:

- (1) Evaluation Report;
- (2) Form of Contract and letter of Award;
- (3) Bill of Quantities or Schedule of Requirement

31.6 Debriefing (SPP Rule 51)

(a) A bidder may ask the procuring agency for reasons for non acceptance of his bid and may request for a debriefing meeting and procuring agency shall give him the reasons for such non acceptance, either in writing or by holding a debriefing meeting with such a bidder.

(b) The requesting bidder shall bear all the costs of attending such a debriefing

IB.32 Performance Security (SPP Rule 39)

32.1 The successful bidder shall furnish to the procuring agency a Performance Security in the form of pay order or demand draft or bank guarantee, and the amount stipulated in the bidding data and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance.

32.2 Failure of the successful bidder to comply with the requirements of Sub-clause IB.32.1 or clauses IB 33 or IB 35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

32.3 Validity of performance security shall extend at least ninety days beyond the date of completion of contract, or as mentioned in the bidding data to cover defects liability period or maintenance period subject to final acceptance by the procuring agency.

IB.33 Signing of Contract Agreement (SPP Rule 39)

33.1 Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the procuring agency 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 procuring agency and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the procuring agency.

33.3 A procurement contract shall come into force when the procuring agency requires signs contract, the date on which the signatures of both the procuring agency and the successful bidder are affixed to the written contract. Such affixing of signatures shall take place within the time prescribed in the bidding documents.

Provided that the procuring agency may reduce the maximum time limit for signing of contract, as and when required, and shall be mentioned in the bidding documents.

33.4 Stamp Duty

The formal Agreement between the Procuring Agency and the successful bidder shall be duly stamped at rate of ----% of bid price (updated from time to time) stated in Letter of Acceptance

IB.34 Stamp Duty

Procuring agency may in case of consistent poor performance of the contractor and his failure to remedy the underperforming contract may take such action as may be deemed appropriate under the circumstances of the case including the rescinding the contract and/or black listing of such contractor and debarring him from participation in future bidding process.

IB.35 Integrity Pact (SPP Rule 89)

The bidder shall sign and stamp the Integrity Pact provided at Appendix-L to the bidding documents for all Provincial/Local Government procurement contracts exceeding Rupees ten million. Failure to provide such Integrity Pact shall make the bidder non-responsive.

IB.36 Instruction not part of Contract

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

IB.37 Arbitration (SPP Rule 34)

Any dispute that is not amicably resolved shall be finally settled, unless otherwise specified in the Contract, under the Arbitration Act 1940 updated from time to time and would be held anywhere in the Province of Sindh at the discretion of procuring agency.

BIDDING DATA SHEET

The following specific data for the Works to be bidden 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.

Instructions to Bidders *Clause Reference*

1.1. Name and address of the Procuring Agency

Project Implementation Unit,
Education City Project
1st Floor, Block-A. Finance & Trade Centre
Shahra-e-Faisal, Karachi

1.2. Name of the Project & Summary of the Works:

Name of the Project :-

Special Technology Zone (STZ), Package 1 Electrical Power Works , Education City, Karachi.

Summary of The Project:-

Laying and development of MV / LV and Street Lighting as specified in the Contract.

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

The Employer has arranged funds from its own sources.

2.1 Amount and type of financing

Not used

3 Eligible Bidders (and Qualification Criteria)

For consideration of the bids following are the key requirements for qualification;

3.1 ELIGIBILITY CRITERIA (MANDATORY REQUIREMENT)

1. General

The technical proposal of the Bidders shall be evaluated for the post-qualification of bidders for construction of the subject project basing as the criteria given in succeeding paras regarding the Applicant's Basic Eligibility, Work Experience, Personnel Capabilities, Equipment Capabilities and Financial Soundness. Sub-contractor's experience and resources shall not be taken into account in determining the applicant's compliance with the qualifying criteria.

2.	Weightage/ Marks
	The weightage/ distribution of the marks shall be as given below:
i.	Company Profile 20
ii.	Company Experience 70
iii.	Personnel Capabilities 35
iv.	Health Safety Environment and Quality 25
v.	Financial Soundness 50

A. MANDATORY

- Undertaking on Stamp Paper of Rs.500/- containing that: - (Mandatory)
 - ☐ Affidavit to the effect that the firm has not been blacklisted previously by any Govt. or Non-Govt. executing agency.
 - ☐ List of litigation (if any) their nature and status/outcomes.
 - ☐ Affidavits to the effect that all documents/particulars/information furnished are true and correct.
- Valid Registration with Income Tax & Sindh Revenue Board (SRB) (Mandatory).
- Valid Registration with Pakistan Engineering Council in PEC Category C-3 with PEC registration in relevant categories of CE10, EE04, EE05 (Mandatory).
- Valid Electrical License issued from Inspectorate of Electrical License Sindh of a similar region with respect to works shown above. (Mandatory).
- K-Electric Prequalification letter or and listed in the active list of KE.

B. EVALUATION CRITERIA BASED ON MARKS / SCORE

Aggregate Qualifying Score is **70%** but it is mandatory to obtain at least 50% in each of the following sections: -

1. Company Profile

20 Marks

(a)	The period since the Firm/ Constructor is in the Construction Business Between 6-10 years Above 10 years Attach your first/old PEC license for reference, as well as your most recent valid PEC license.	20 Marks - Max 10 Marks 20 Marks
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2. Company Experience**70 Marks**

(a)	WORK COMPLETED Project of Similar Nature Composite Civil & Electrical Works (Electricity connection) with Government or Corporate / Private Sector / With KE of Project Worth PKR 200 million or above all over Pakistan during last 05 years. 05-Marks will be given for each Project. (Documentary Evidence with complete address of the Project and Client be attached)	35 Marks
(b)	WORK IN HAND Project of Similar Nature Composite Civil & Electrical Works (Electricity connection) with Government or Corporate / Private Sector / With KE of Project Worth PKR 200 million or above during last 02-years. 10-Marks will be given for each Project (Documentary Evidence with complete address of the Project and Client be attached)	35 Marks

3. Employees Capabilities Required for the Project**35 Marks**

Employed Engineers must have valid registration with the Pakistan Engineering Council (PEC) and active Tax Payer also reflected in the firm's PEC license.

The key technical personnel required at the site and factors for marking are as follows:

Sr.	Description / Position with Minimum Qualification & Experience	Max Marks Assigned	Remarks
1	Project Manager (02 No.) BE (Electrical/Civil) registered with Pakistan Engineer Council (PEC) having experience of 10 years or above.	10	3 Marks For each PE License from PEC 2 Mark For RE License from PEC.
2	Contract Engineer / Cost Engineer (01 No.) B.E. (Electrical) registered with Pakistan Engineering Council (PEC) having experience of 5 years or above.	7	4 Mark Minimum experience between 05-07 years. 7 Marks Experience above 07 years.
3	Site Engineer (Electrical/Civil) Engineer (02 No.) B.E. (Civil / Elect. /Elect /Telecomm /IT) registered with Pakistan Engineering Council (PEC) Min. experience 5 years	6	01 Marks Minimum experience 05. 3 Marks Experience above 05 years.
4	Quantity Surveyor - DAE in Civil (01 No.) DAE in Electrical having relevant experience of Min. 5 years.	4	2 Marks Minimum experience 5 years. 4 Marks Experience More than 5 years.



Sr.	Description / Position with Minimum Qualification & Experience	Max Marks Assigned	Remarks
5	Site Supervisor Elect (01.) DAE in Electrical having relevant experience of 5 years or above.	4	2 Marks Minimum experience of up to 5 years 4 Marks Experience above 5 years.
6	CAD Operator (Electrical) 01 DAE in Electrical having relevant experience of 10 years or above.	4	2 Marks Minimum experience of up to 3 years 4 Marks Experience with 1 similar project.

4. Health, Safety, Environment & Quality

25 marks

- | | |
|--|---------|
| a) Presence of HSEQ Policy | 6 marks |
| b) Presence of HSEQ Management System Manual | 6 Marks |
| c) Presence of ISO 45001 Certificate | 5 Marks |
| d) Presence of ISO 14001 Certificate | 4 Marks |
| e) Presence of ISO 9001 Certificate | 4 Marks |

5. Financial Soundness

50 marks

For the Financial Status assessment, the Applicants have to submit Income tax returns for the last three years and SRB monthly returns. Further, the bidder will provide evidence from the bank to verify the financial soundness of the bidder.

Average Credit Limit

25

Marks

Bank Letter showing credit limit/worth of the firm

- | | | |
|-----|-----------------------|----|
| i. | up to PKR 500 million | 15 |
| | Marks | |
| ii. | Above PKR 500 million | 25 |
| | Marks | |

Turnover for last 03 Years 2022-2024

25 Marks

Turnover for last 03 Years (Income Tax return / Audited financial report)

- | | | |
|-----|-----------------------------------|----------|
| i. | Below 500 million | 15 Marks |
| ii. | Equal to or Above PKR 500 million | 25 Marks |



- 3.3 COMMERCIAL EVALUATION.** It will be examined in detail whether the Bids comply with the commercial/ contractual conditions of the Bid Documents. It is expected that no major deviation/ stipulation shall be taken by the Bidders.

3.4 EVALUATED BID PRICE

In evaluating the Bids, the Employer will determine for each Bid in addition to the Bid Price, the following factors (adjustments) in the manner and to the extent indicated below to determine the Evaluated Bid Price:

- (i) Making any correction for errors pursuant to Sub-Clause 27.2 hereof.
- (ii) Excluding Provisional Sums, if any, but including priced Day work (if applicable)
- (iii) Making an appropriate adjustment for any other acceptable variation or deviation.

4.1 One Bid per Bidder

Out of a parent organization and / or sister organization, only one entity shall submit a Bid. If more than one Bid is submitted by the entities belonging to same parent organization and / or being sister organizations, all such Bids shall be rejected to avoid Conflict of Interest.

8.1. Time limit for clarification

07 Days prior to the deadline for submission of bids.

10.1. Bid language

The same language in which the bid documents are written i.e. English language.

11.1 (A) In continuation with the document mentioned in Clause IB 3.1 hereabove, the Bidder shall also submit with its Technical Bid (Envelope - A) the following documents:

- a). Letter of Technical Bid
- b). Bid Security (IB.15)
- c). Written confirmation authorizing the signatory of the Bid to commit the Bidder (IB.18.5)
- d). Pending litigation information
- e). Special Stipulations (as filled by the Employer) (Appendix - A)
- f). Proposed Construction Schedule (Appendix - E)
- g). Method of Performing the Work (Appendix - F)
- h). Availability of Critical Equipment (Appendix - G)
- i). Construction Camp and Housing Facilities (Appendix - H)
- j). List of Sub-contractors (Appendix - I)
- k). Organization Chart for Supervisory Staff (Separately for Construction & O & M Period) (Appendix - K)
- l). Integrity Pact (Appendix - L)
- m). Financial Competence and Access to financial Resources (appendix - M)
- n). Past Performance, Current Commitment, Qualification and Experience (Documentary Evidences) (Appendix - N)
- o). In separate envelope, the documents in support of Technical Bid as stipulated in Clause IB28.5 of Bidding Data

11.1 (B) The Bidder shall submit with its Financial Bid (Envelope - B) the following documents

- a). Letter of Price Bid
- b). Price Adjustment under Clause 70 (Appendix - C)
- c). Bill of Quantities (Appendix - D)
- d). Proposed Payment Yard Stick (Appendix - J)

11.4 Documents Accompanying the Bid

After issuance of Letter of Acceptance by the Procuring Agency to the successful bidder and prior to signing of Contract, the successful bidder shall provide licensed copy of the General Condition of Contract, duly signed and stamped. The cost of procuring and providing the said General Condition of Contract shall be the bidder's account. The said GCC shall be made part of the contract.

13.1 Currencies of Bid and Payment

The unit rates and prices shall be quoted by the bidder entirely in Pak Rupees and will be paid in Pak Rupees only.

14.1 Period of Bid Validity

Bid shall remain valid and open for acceptance for a period of ninety (90) calendar days after the latest dead line for submission of bid.

15.1 Amount of Bid Security

Each Bidder shall furnish, as part of his bid, a Bid Security in the amount of not less than Rs. 10 million in PKR in the form of Pay Order in favour of Employer or Bank Guarantee from a Schedule Bank of Pakistan . or from a Foreign Bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the Employer.

The Bid Security shall be, at the option of the bidder, in the Form of Deposit at Call or a Bank Guarantee issued by a Scheduled Bank in Pakistan or from a Foreign Bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the Employer.

16 Alternate Proposals by Bidders

Not Allowed

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

Venue : Project Implementation Unit, Education City, 1st Floor, Block-A. Finance & Trade Centre, Shahra-e-Faisal, Karachi

Time :

Date : Will Be Intimated if required

Bidders have to submit their queries in writing for determination of the Pre Bid Meeting.

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

One original and one copy

19.2 (a) Procuring Agency's address for the purpose of Bid submission

Name and address of the Employer is:
Project Implementation Unit,
Education City Project,
1st Floor, Block-A. Finance & Trade Centre
Shahra-e-Faisal, Karachi

19.2 (b) Name and Identification Number of the Contract

Special Technology Zone (STZ), Package 1 Electrical Power Works, Education City, Karachi

BID Reference No. CGDC/PIU/ECP/2025/STZ/PKG1/EPW

20.1 (a) Deadline for submission of bids

As per NIT

22.5 Modification, Substitution and Withdrawal of Bids

No alterations or additions shall be made by the Contractor in the Bill of Quantities and rates must be filled in hand written in ink, both in figures and words clearly and legibly in the columns provided in the schedule of quantities. All corrections must be initiated by the contractors. Any Bid which does not comply with this condition will be liable to be summarily rejected and not taken into account when preparing comparative statement.

23.1 Venue, time, and date of Bid opening

Opening of Technical Proposals:

Venue : Project Implementation Unit, Education City, 1st Floor, Block-A. Finance & Trade Centre, Shahra-e-Faisal, Karachi

Time : _____ **Hours**
Date : _____ **2026**

Opening of Financial Proposals:

Venue : Project Implementation Unit, Education City, 1st Floor, Block-A. Finance & Trade Centre, Shahra-e-Faisal, Karachi

Time : *To be announced after Evaluation of Technical Bids*
Date : *To be announced after Evaluation of Technical Bids*

32 Standard form and amount of Performance Security acceptable to the Employer

Amount of Performance Security shall be per Clause 10.1 of Part II-Conditions of Particulars Application.

33 Signing of Contract Agreement

The agreement would be made on stamp paper of value to be determined at the rate of 0.35 percent of the contract value or as determined by the Inspectorate of Stamp Duty. Cost of stamp duty would be borne by the Contractor before mobilization on site.

FORM OF BID

(LETTER OF OFFER)

Bid Reference No. _____

SUBJECT: SPECIAL TECHNOLOGY ZONE (STZ), PACKAGE 1 ELECTRICAL POWER WORKS , EDUCATION CITY, KARACHI.

To:

1. Having examined the bidding documents including Instructions to Bidders, Bidding Data, and Conditions of Contract, Specifications, Drawings and Bill of Quantities and Addenda Nos.____ for the execution of the above-named work, we/I, the undersigned, offer to execute and complete the work and remedy any defects therein in conformity with the Conditions of Contract, Specifications, Drawings, Bill of Quantities and Addenda for the sum of Rs. _____ (Rupees _____) or such other sum as may be ascertained in accordance with the said conditions
2. We/I 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/I submit herewith a bid security in the amount of Rs. _____ (Rupees _____) drawn in your favour or made payable to procuring agency and valid for a period of _____ days beginning from the date, bid is opened
4. We/I 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/I agree to abide by this bid for the period of _____ days from the date fixed for opening 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.
9. We undertake, if our/my bid is accepted, to execute the Performance Security referred to in Clause 10 of Conditions of Contract for the due performance of the Contract.
10. We confirm, if our bid is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the procuring agency.
(Please delete this in case of Bid form a single bidder)

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

Dated this _____ day of _____, 2025

Signature _____

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

(Name of Bidder in Block Capitals)

(Seal)

Address

Witness:

(Signature) _____

Name: _____

Address:

BA-1
APPENDIX - A TO BID

SPECIAL STIPULATIONS

Clause No.			
	Engineer's Authority to issue Variation in emergency	3.1	2% of the Contract Price stated in the Letter of Acceptance.
	Amount of Performance Security	4.2	5% of Contract Price.
	Time for Furnishing Program	8.3	Within 14 days from the date of receipt of Letter of Acceptance.
	Minimum amount of Third Party Liability Insurance	18.3	Rs. 1,000,000/- for property damage & Rs. 500,000/- for personnel injury/death per occurrence with number of occurrences unlimited.
	Time for Commencement	8.1	Within 07 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.
	Time for Completion	8.2	24 Calendar Months from the date of receipt of Engineer's Notice to Commence.
	Amount of Liquidated Damages/ Delay Damages/ Penalties (LD)	8.7	0.01% Damages per day but total amount will not be more than 10% of Contract Price.
	Defects Liability Period	11.1	12 Calendar Months from the effective date of Substantial Completion/Taking Over of Project.
	Percentage of Retention Money	14.2	10 % of the amount of Interim/Running Payment Certificate.
	Limit of Retention Money	14.2	5 % of Contract Price stated in the Letter of Acceptance.
	Minimum amount of Interim / Running Payment Certificates	14.2	5% of Contract Price, however it's the Engineer's discretion to approve any amount considering the project & site conditions.
	Time of Payment from delivery of Engineer's Interim/Running Payment Certificate to the procuring agency.	14.7	28 working days for issuance date of Interim Payment Certificate (IPC) certified by the Engineer. The Engineer shall certify the IPC within 14 working days of its receipt.
	Mobilization Advance (Interest Free)	*14.2	10% of Contract Price stated in the Letter of Acceptance against Bank Guarantee.

*** Note:** For complete text please Refer related clause in Conditions of Contract

Initials of Signatory of Bid _____

BB-1
APPENDIX-B TO BID

FOREIGN CURRENCY REQUIREMENTS

1. The Bidder may indicate here in below his requirements of foreign currency (if any), with reference to various inputs to the Works.
2. Foreign Currency Requirement as percentage of the Bid Price excluding Provisional Sums [%]
3. Table of Exchange Rates

Not Used	
<i>Unit of Currency</i>	Equivalent in Pak. Rupees
Australian Dollar	-----
Euro	-----
Japanese Yen	-----
U.K. Pound	-----
U.S. Dollars	-----
-----	-----
-----	-----

BC-1
Appendix-C to Bid

**PRICE ADJUSTMENT UNDER CLAUSE 13.8
OF CONDITIONS OF CONTRACT**

A. Weight ages or coefficients are used for price adjustment.

The source of indices and the weight ages or coefficients for use in the adjustment formula under Clause 13.8 shall be as follows:

(To be filled by the procuring agency)

Cost Element	Description	Weight ages	Applicable index
1	2	3	4
(i)	Fixed Portion	0.350	
(ii)	Local Labor		Government of Pakistan (GoP) Federal Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(iii)	Cement – in bags		“ “ “
(iv)	Reinforcing Steel		“ “ “
(v)	High Speed Diesel (HSD)		“ “ “
(vi)	Bricks		“ “ “
(vii)	Bitumen		“ “ “
(viii)			
	Total	1.000	

Notes:

- Indices for “(ii)” to “(vii)” are taken from the Government of Pakistan Federal Bureau of Statistics, Monthly Statistical Bulletin. The base cost indices or prices shall be those applying 15 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
- Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.
- Fixed portion shown here is for typical road project, procuring agency to determine the weight age of Fixed Portion considering only those cost elements having cost impact of seven (7) percent or more on his specific project.

BD-1
Appendix-D to Bid

BILL OF QUANTITIES

A. Preamble

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract (in case of item not mentioned in Bill of Quantities).
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 14 days prior to deadline for submission of Bids in case of ICB/NCB respectively, 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 and shall not be paid separately.
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 13.5 of Part I, General Conditions of Contract.

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 programme for completion of the whole of the works and parts of the works may meet procuring agency'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
a)	Whole Works	_____ days
b)	Part-A	_____ days (If applicable)
c)	Part-B	_____ days (If applicable)
d)	_____	_____ days
e)	_____	_____ days

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.].

BG-2
Appendix-G to Bid

LIST OF MAJOR EQUIPMENT (SAMPLE)

Owned Purchase d or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Conditio n	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

CONSTRUCTION CAMP AND HOUSING FACILITIES

The Contractor in accordance with Clause 6 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.

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

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

1. Site Preparation (clearing, land preparation, etc.).
2. Provision of Services.
 - a) Power (expected power load, etc.).
 - b) Water (required amount and system proposed).
 - c) Sanitation (sewage disposal system, etc.).
3. Construction of Facilities
 - a) Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).
 - b) Warehouses and Storage Areas (area required, type of construction and layout).
 - c) Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).
4. Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).
4. Other Items Proposed (Security services, etc.). The Contractor should mention here what are his proposed environmental measures for the project as per EPA rules like treatment of wastewater and water quality etc. The Contractor shall submit a detailed EMP (Environmental Management Plan) to describe how materials are removed from site and disposed off at a safe location, prevention for the contamination of ground and surface water in neighboring areas etc. including remedial measures for adoption.
6. Detail of testing Lab with testing equipment etc.

BI-1
Appendix-I to Bid

LIST OF SUBCONTRACTORS

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

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

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

BJ-1
Appendix-J to Bid

ESTIMATED PROGRESS PAYMENTS

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

Month	Amounts (1,000 Rs.)
1	2
1 st Quarter	
2 nd Quarter	
3 rd Quarter	
4 th Quarter	

Bid Price	

BK-1
Appendix-K to Bid

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

(To be filled in by the bidder)

BL-1
Appendix-L to Bid

(INTEGRITY PACT)

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC; PAYABLE BY
CONTRACTORS**
(FOR CONTRACTS WORTH RS. 10.00 MILLION OR MORE)

Contract No. _____ Dated _____
Contract Value: _____
Contract Title: _____

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

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

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

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

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

.....
[Procuring Agency]

[Contractor]

BID SECURITY

Security Executed on _____
(Date)

Name of Surety (Bank) with Address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees _____ (Rs. _____)

Bid Reference No. _____

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated _____ for Bid No. _____ for _____ (Particulars of Bid) to the said Employer; and

WHEREAS, the Procuring Agency has required as a condition for considering said bid that the bidder furnishes a bid security in the above said sum from a Scheduled Bank in Pakistan or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan, to the procuring agency, conditioned as under:

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

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

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

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

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

SURETY (BANK)

WITNESS:

Signature _____

1. _____

Name _____

Title _____

Corporate Secretary (Seal)

Corporate Guarantor (Seal)

2. _____

Name, Title & Address

FORM OF PERFORMANCE SECURITY

Guarantee No. _____

Executed on _____

Expiry date _____

[Letter by the Guarantor to the Procuring Agency]

Name of Guarantor (Bank) with address: _____
(Scheduled Bank in Pakistan)Name of Principal (Contractor) with address: _____
Penal Sum of Security (express in words and figures) _____

Letter of Acceptance No. _____ Dated _____

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the procuring agency's above said Letter of Acceptance for _____
(Name of Contract) for the _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the procuring agency, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 49, Defects Liability, of Conditions of Contract are fulfilled.

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

We, _____ (the Guarantor), waiving all objections and defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the procuring agency without delay upon the procuring agency's first written demand without cavil or arguments and without requiring the procuring agency to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the procuring agency's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Procuring Agency's designated Bank & Account Number.

PROVIDED ALSO THAT the procuring agency 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 procuring agency forthwith and without any reference to the Principal or any other person.

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

Guarantor (Bank)

Witness:

1. _____

Signature _____

Name _____

Corporate Secretary (Seal)

Title _____

2. _____

Name, Title & Address

Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the “Agreement”) made on the _____ day of _____ (month) 2025 between _____ (hereafter called the “Procuring Agency”) of the one part and _____ (hereafter called the “Contractor”) of the other part.

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

NOW this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any, except those parts relating to Instructions to bidders shall be deemed to form and be read and construed as part of this Agreement, viz::
 - a). The Contract Agreement;
 - b). The Letter of Acceptance;
 - c). The completed Form of Bid;
 - d). Special Stipulations (Appendix-A to Bid);
 - e). The Special Conditions of Contract – Part II;
 - f). The General Conditions - Part I;
 - g). The priced Bill of Quantities (Appendix-D to Bid)
 - h). The completed Appendices to Bid (B, C, E to L)
 - i). Tender Drawings;
 - j). The Specifications
 - k). _____ (any other)
3. In consideration of the payments to be made by the procuring agency to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the procuring agency to execute and complete the works and remedy defects therein in conformity and in all respects with the provisions of the contract.
4. Procuring agency hereby covenants to pay the contractor, in consideration of the execution and completion of the works as per provisions of the contract, the contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

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

Signature of the Contactor

Signature of Employer

(Seal)

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address)

(Name, Title and Address)

MOBILIZATION ADVANCE GUARANTEE

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Procuring Agency') has entered into a Contract for _____ (Particulars of Contract) with _____ (hereinafter called the "Contractor").

AND WHEREAS, the Procuring Agency 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 Procuring Agency 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) (hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the procuring agency 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 procuring agency for payment not exceeding the aforementioned amount.

Notice in writing of any default, of which the procuring agency shall be the sole and final judge, on the part of the Contractor, shall be given by the procuring agency to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection

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

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

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

GUARANTOR

1. Signature _____
2. Name _____
3. Title _____

WITNESS

1. _____

Corporate Secretary (Seal)

2. _____
(Name Title & Address)

Corporate Guarantor (Seal)

INDENTURE FOR SECURED ADVANCES

(For use in cases in which is contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time).

This INDENTURE made the day of 2025 BETWEEN (hereinafter called "the Contractor" which expression shall where the context so admits or implied be deemed to include his heirs, executors, administrators and assigns) of the one part and _____ (hereinafter called "the Government" of the other part).

WHEREAS by an agreement, dated (hereinafter called the said agreement, the contractor has agreed to perform the under-mentioned works (hereinafter referred to as the said work):-

(Here enter (the description of the works).

AND WHEREAS the contractor has applied to thefor an advance to him of Rupees (Rs.) on the security of materials absolutely belonging to him and brought by him to the site of the said works the subject of the said agreement for use in the construction of such of the said works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charge) AND WHEREAS the Government has agreed to advance to the Contractor the sum of Rupees, (Rs.) on the security of materials the quantities and other particulars of which are detailed in Part II of Running Account Bill (B). the said works signed by the contractor
Fin R.Form.17.A

On and on such covenants and conditions as are hereinafter contained and the Government has reserved to itself the option of marking any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

NOW THIS INDENTURE WTTNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees.....(Rs.) on or before the execution of these presents paid to the Contractor by the Government (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid (all of which advances are hereinafter collectively referred to as the said amount) the Contractor doth hereby assign unto the Government the said materials by way of security for the said amount

And doth hereby covenant and agree with the Government and declare ay follow :-

- (1) That the said sum of Rupees RS.) so advanced by the Government to the Contractor as aforesaid and all or any further sum or sums which may be advanced as aforesaid shall be employed by the contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials detailed in the said Running Account Bill (B) which have been offered to and accepted by (he Government as security for the said amount are absolutely by the Contractors own property free from encumbrances of any kind and the Contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the contractor hereby agrees, at all times, to indemnify and save harmless the Government against all claims whatsoever to any materials in respect of which an advance has been made to him as aforesaid.
- (3) That the said materials detailed in the said Running Account Bill (B) and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Divisional Officer (hereinafter called the Divisional Officer) and in the terms of the said agreement.

-
- (4) That the Contractor shall make at his own cost all necessary and adequate arrangement for the proper watch, safe custody and protection against all risks of the said material and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and at his own risk and on his own responsibility and shall at all times be open to inspection by (he Divisional Officer or any officer authorized by him. In the event of the said materials of any part (hereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof Contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Divisional Officer and the materials so brought to replace the said materials so repaired and made good shall also be considered as security for the said amount.
- (5) 'Hurt the said materials shall not on any account be removed from the site of the said works except with the written permission of the Divisional Officer or an officer authorized by him in that behalf
- (6) That the said amount shall be payable in full when or before the Contractor receives payment, from the Government of the price payable to him for the said works under the terms and provisions of the said agreement PROVIDED THAT if any intermediate payments are made to the contractor on account of work done then on the occasion of each such payment the Government will be at liberty to make a recovery from the Contractors Bill for such payment by deducting there from in the value of the said materials (hen actually used in the construction and in respect of which recovery has not been made previously the value for this purpose being determined in respect of each description of material at (he rates at which the amount of the advances made under these presents were calculated.
- (7) at if the Contractor shall at any time make any default in the performance or observation in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing to the Government shall immediately on the happening of such default be repayable by the Contractor to the Government together with interest thereon at twelve percent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the Government in or for the recovery thereof or the enforcement of this security or otherwise by reason of (he default of the Contractor and any moneys so becoming due and payable shall constitute a debt due from the Contractor to the Government and the Contractor hereby covenants and agrees with the Government to repay and the same respectively to it accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Government of the said sum of Rupees..... (Rs.) and any further sum or sums which may be advanced as aforesaid and all costs charges damages and expenses payable under these present PROVIDED ALWAYS and it is hereby agreed and declared that not, withstanding anything in the said agreement and without prejudice to the powers contained therein if and whether the covenant for payment and repayment hereinbefore contained shall become enforceable and the money owing shall not be paid to accordingly.

Once there with the Government may at any time thereafter adopt all or any of following courses as it may deem best ;-

- (a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor he is to pay the same to the Government on demand.
- (b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable to the Government under these presents and pay over the surplus (if any) to the Contractor.

- (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
- (9) That except as is expressly provided by the presents interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been hereinbefore expressly provided for the same shall be referred to the Superintending Engineer/Executive District Officer/Officer one grade higher to officer signed the agreement Circle whose decision shall be final and the provisions of the Arbitration Act 1940 for the time being in force so far as they are applicable shall apply to any such reference.

Notes on the Conditions of Contract

The Conditions of Contract comprise two parts:

- (a) Part I - General Conditions of Contract**
- (b) Part II - Special Conditions of Contract**

Over the years, a number of “model” General Conditions of Contract have evolved. The one used in these Standard Bidding Documents was prepared by the International Federation of Consulting Engineers (Federation International des Ingenieurs-Conseils, or FIDIC), and is commonly known as the FIDIC Conditions of Contract. (The used version is the harmonized Edition March 2006).

The FIDIC Conditions of Contract have been prepared for an ad measurement (unit price or unit rate) type of contract, and cannot be used without major modifications for other types of contract, such as lump sum, turnkey, or target cost contracts.

The standard text of the General Conditions of Contract chosen must be retained intact to facilitate its reading and interpretation by bidders and its review by the procuring agency. Any amendments and additions to the General Conditions, specific to the contract in hand, should be introduced in the Particular Conditions of Contract.

The use of standard conditions of contract for all civil works will ensure comprehensiveness of coverage, better balance of rights or obligations between procuring agency and Contractor, general acceptability of its provisions, and savings in time and cost for bid preparation and review, leading to more economic prices.

The FIDIC Conditions of Contract are copyrighted and may not be copied, faxed, or reproduced. Without taking any responsibility of its being accurate, Pakistan Engineering Council with prior consent of FIDIC Secretariat, has reproduced herein the FIDIC General Conditions of Contract for reference purpose only which cannot be used by the users for preparing their bidding documents. The bidding document may include a purchased copy, the cost of which can be retrieved as part of the selling price of the bidding document. Alternatively, the FIDIC Conditions of Contract can be referred to in the bidding documents, and the bidders are advised to obtain copies directly from FIDIC.*

* Add the following text if the bidding documents, as issued, do not include a copy:

“Copies of the FIDIC Conditions of Contract can be obtained from: To request such permission please contact:

FIDIC CASE POSTALE, CH-1215 Switzerland; Tel. +41 22 799 49 00;

Fax; +41 22 799 49 01

E-mail: fidic@fidic.org.

After issuance of Letter of Acceptance by the Procuring Agency to the successful bidder and prior to signing of Contract, the successful bidder shall provide licensed copy of the following General Condition of Contract, duly signed and stamped (as per Clause IB 11.4 Bidding Data). The cost of procuring and providing the said General Condition of Contract shall be the bidder’s account. The said GCC shall be made part of the contract.

Conditions of Contract for CONSTRUCTION

FOR BUILDING AND ENGINEERING
WORKS DESIGNED BY THE EMPLOYER

Multilateral Development Bank Harmonized Edition
March 2006

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FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS
INTERNATIONAL FEDERATION OF CONSULTING ENGINEERS
INTERNATIONALE VEREINIGUNG BERATENDER INGENIEURE
FEDERACION INTERNACIONAL DE INGENIEROS CONSULTORES



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1.1

Definitions

In the Conditions of Contract ("these Conditions"), which include Particular Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise

1.1.1

The Contract

1.1.1.1 "Contract" means the Contract Agreement, the Letter of Acceptance, the Letter of Tender, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.

1.1.1.2 "Contract Agreement" means the contract agreement referred to in Sub- Clause 1.6 [Contract Agreement].

1.1.1.3 "Letter of Acceptance" means the letter of formal acceptance, signed by the Employer, of the Letter of Tender, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression "Letter of Acceptance" means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.

1.1.1.4 "Letter of Tender" means the document entitled letter of tender or letter of bid, which was completed by the Contractor and includes the signed offer to the Employer for the Works.

1.1.1.5 "Specification" means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

1.1.1.6 "Drawings" means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract.

1.1.1.7 "Schedules" means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Tender, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

1.1.1.8 "Tender" means the Letter of Tender and all other documents which the Contractor submitted with the Letter of Tender, as included in the Contract.

1.1.1.9 "Bill of Quantities", "Daywork Schedule" and "Schedule of Payment Currencies" mean the documents so named (if any) which are comprised in the Schedules.

1.1.1.10 "Contract Data" means the pages completed by the Employer entitled contract data which constitute Part A of the Particular Conditions.

1.1.2

Parties and Persons

1.1.2.1 "Party" means the Employer or the Contractor, as the context requires.

1.1.2.2 "Employer" means the person named as employer in the Contract Data and the legal successors in title to this person.

1.1.2.3 "Contractor" means the person(s) named as contractor in the Letter of Tender accepted by the Employer and the legal successors in title to this person(s).

1.1.2.4 “Engineer” means the person appointed by the Employer to act as the Engineer for the purposes of the Contract and named in the Contract Data, or other person appointed from time to time by the Employer and notified to the Contractor under Sub-Clause 3.4 [Replacement of the Engineer].

1.1.2.5 “Contractor’s Representative” means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 [Contractor’s Representative], who acts on behalf of the Contractor.

1.1.2.6 “Employer’s Personnel” means the Engineer, the assistants referred to in Sub-Clause 3.2 [Delegation by the Engineer] and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer’s Personnel.

1.1.2.7 “Contractor’s Personnel” means the Contractor’s Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

1.1.2.8 “Subcontractor” means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.

1.1.2.9 “DB” means the person or three persons appointed under Sub-Clause 20.2 [Appointment of the Dispute Board] or Sub-Clause 20.3 [Failure to Agree on the Composition of the Dispute Board].

1.1.2.10 “FIDIC” means the Fédération Internationale des Ingénieurs-Conseils, the international federation of consulting engineers.

1.1.2.11 “Bank” means the financing institution (if any) named in the Contract Data.

1.1.2.12 “Borrower” means the person (if any) named as the borrower in the Contract Data.

1.1.3

Dates, Tests, Periods and Completion

1.1.3.1 “Base Date” means the date 28 days prior to the latest date for submission and completion of the Tender.

1.1.3.2 “Commencement Date” means the date notified under Sub-Clause 8.1 [Commencement of Works].

1.1.3.3 “Time for Completion” means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2 [Time for Completion], as stated in the Contract Data (with any extension under Sub-Clause 8.4 [Extension of Time for Completion]), calculated from the Commencement Date.

1.1.3.4 “Tests on Completion” means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Employer.

1.1.3.5 “Taking-Over Certificate” means a certificate issued under Clause 10 [Employer’s Taking Over].

1.1.3.6 “Tests after Completion” means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Employer.

1.1.3.7 “Defects Notification Period” means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [Completion of Outstanding

Work and Remedying Defects], which extends over twelve months except if otherwise stated in the Contract Data (with any extension under Sub-Clause 11.3 [Extension of Defects Notification Period]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [Taking Over of the Works and Sections].

1.1.3.8 “Performance Certificate” means the certificate issued under Sub-Clause 11.9 [Performance Certificate].

1.1.3.9 “day” means a calendar day and “year” means 365 days.

1.1.4

Money and Payments

1.1.4.1 “Accepted Contract Amount” means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

1.1.4.2 “Contract Price” means the price defined in Sub-Clause 14.1 [The Contract Price], and includes adjustments in accordance with the Contract.

1.1.4.3 “Cost” means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

1.1.4.4 “Final Payment Certificate” means the payment certificate issued under Sub-Clause 14.13 [Issue of Final Payment Certificate].

1.1.4.5 “Final Statement” means the statement defined in Sub-Clause 14.11 [Application for Final Payment Certificate].

1.1.4.6 “Foreign Currency” means a currency in which part (or all) of the Contract Price is payable, but not the Local Currency.

1.1.4.7 “Interim Payment Certificate” means a payment certificate issued under Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.

1.1.4.8 “Local Currency” means the currency of the Country.

1.1.4.9 “Payment Certificate” means a payment certificate issued under Clause 14 [Contract Price and Payment].

1.1.4.10 “Provisional Sum” means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [Provisional Sums].

1.1.4.11 “Retention Money” means the accumulated retention moneys which the Employer retains under Sub-Clause 14.3 [Application for Interim Payment Certificates] and pays under Sub-Clause 14.9 [Payment of Retention Money].

1.1.4.12 “Statement” means a statement submitted by the Contractor as part of an application, under Clause 14 [Contract Price and Payment], for a payment certificate.

1.1.5

Works and Goods

1.1.5.1 “Contractor’s Equipment” means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor’s Equipment excludes Temporary Works, Employer’s Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

1.1.5.2 “Goods” means Contractor’s Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

1.1.5.3 “Materials” means things of all kinds (other than Plant) intended to form or forming

part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

1.1.5.4 "Permanent Works" means the permanent works to be executed by the Contractor under the Contract.

1.1.5.5 "Plant" means the apparatus, machinery and vehicles intended to form or forming part of the Permanent Works, including vehicles purchased for the Employer and relating to the construction or operation of the Works.

1.1.5.6 "Section" means a part of the Works specified in the Contract Data as a Section (if any).

1.1.5.7 "Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

1.1.5.8 "Works" mean the Permanent Works and the Temporary Works, or either of them as appropriate.

1.1.6

Other Definitions

1.1.6.1 "Contractor's Documents" means the calculations, computer programs and other software, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

1.1.6.2 "Country" means the country in which the Site (or most of it) is located, where the Permanent Works are to be executed.

1.1.6.3 "Employer's Equipment" means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Employer.

1.1.6.4 "Force Majeure" is defined in Clause 19 [Force Majeure].

1.1.6.5 "Laws" means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.

1.1.6.6 "Performance Security" means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security].

1.1.6.7 "Site" means the places where the Permanent Works are to be executed, including storage and working areas, and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.

1.1.6.8 "Unforeseeable" means not reasonably foreseeable by an experienced contractor by the Base Date.

1.1.6.9 "Variation" means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

1.2

Interpretation

In the Contract, except where the context requires otherwise:

- (a) words indicating one gender include all genders;
- (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) provisions including the word "agree", "agreed" or "agreement" require the agreement to be record in writing;
- (d) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and
- (e) the word "tender" is synonymous with "bid", and "tenderer" with "bidder" and the

words "tender documents" with "bidding documents".

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

In these Conditions, provisions including the expression "Cost plus profit" require this profit to be one-twentieth (5%) of this Cost unless otherwise indicated in the Contract Data.

1.3

Communications

Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

(a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Contract Data; and

(b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Contract Data. However:

(i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and

(ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

1.4

Law and Language

The Contract shall be governed by the law of the country or other jurisdiction stated in the Contract Data.

The ruling language of the Contract shall be that stated in the Contract Data.

The language for communications shall be that stated in the Contract Data. If no language is stated there, the language for communications shall be the ruling language of the Contract.

1.5

Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (a) the Contract Agreement (if any),
- (b) the Letter of Acceptance,
- (c) the Tender,
- (d) the Particular Conditions - Part A,
- (e) the Particular Conditions - Part B,
- (f) these General Conditions,
- (g) the Specification,
- (h) the Drawings, and
- (i) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction

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20.2	Appointment of the Dispute Board / Notification of the Committee
20.3	Failure to agree on the composition of the Dispute Board.
20.4	Obtaining Dispute Board's Decision
20.5	Amicable Settlement.
20.6	Arbitration
20.7	Failure to comply with Dispute Board's Decision
20.8	Expiry of Dispute Board's Appointment

PART II - SPECIAL /PARTICULAR CONDITIONS OF CONTRACT

1.1 Definitions

1.1.1.4 "Form of Bid" is synonymous with "Letter of Tender".

1.1.1.5 "Bid" is synonymous with "Tender".

1.1.1.10 "Bidding" is synonymous with "contract".

The following paragraph is added:

1.1.1.11 "Programme" means the programme to be submitted by the contractor in accordance with Sub-Clause 8.3 and any approved revisions thereto.

1.1.2.4 The Engineer is **CGD Consulting Pvt Ltd**, or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer. Provided always that except in cases of professional misconduct, the outgoing Engineer to formulate his certifications / recommendations in relation to all outstanding matter, disputes and claims relating to the execution of the Works during his tenure.

1.12.2 "Employer" is synonymous with "Procuring Agency"

1.1.2.9 "DB" is synonymous with "Committee".

1.1.3.1 Replace 28 days by 7 days in LCB and 15 days in ICB.

1.1.3.7 "Defects notification Period" is synonymous with "Defects liability Period".

1.15 Inspections and Audit by the Procuring Agency

The Contractor shall give access to Procuring Agency or its representative to its record and audit to verify the funds of the project has been used for the purposes intended in the Tender documents.

1.4 Law and Language(s)

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

1.5 Priority of Contract Documents

Add following paragraph at the end of Sub-clause:

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.

3.1 Engineer's Duties and Authority

The following paragraph is added after duties:

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

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

- (i) Consenting to the sub-letting of any part of the Works under Sub Clause 4.4 "Subcontracting".
- (ii) Certifying additional cost determined under Sub-Clause 4.12 "Not Foreseeable Physical Obstructions or Conditions".
- (iii) Any action under Sub-Clause 4.2 "Performance Security" and Clause 18 "Insurance" of sorts.
- (iv) Any action under Clause 16 "Suspension".
- (v) Any action under Clause 8.4 "Extension of Time for Completion".
- (vi) Any action under Clause 8.7 "Delay Damages" or Payment of Bonus for Early Completion of Works.
- (vii) Issuance of "Taking-Over Certificate" under Clause 10.
- (viii) Issuing a Variation Order under Clause 13, except:
 - a) in an emergency* situation, as stated here below, and
 - b) if such variation would increase the Contract Price by less than the amount stated in the Appendix-A to Bid.
- (ix) Fixing rates or prices under Clause 13.3.
- (x) Extra payment as a result of Contractor's claims under Clause 20.
- (xi) Release of Retention Money to the Contractor under Sub-Clause 14.9 "Payment of Retention Money".
- (xii) Issuance of "Final Payment Certificate" under Sub-Clause 14.11 & 14.13.
- (xiii) Issuance of "Defect Liability Certificate" under Sub-Clause 11.

* (The Contractor shall notify the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the work, and if in the opinion of the Engineer an emergency occurs (whether notified by the Contractor or not) 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 13 and shall notify the Contractor accordingly, with a copy to the Procuring Agency.)

The following sub-clause 3.6 is added in (GCC):

3.6 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.

4.2 Performance Security

Delete and replace **'28' days** with **'14' days** wherever found in the sub-clause.

Add the following text at the end;

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

4.3 Contractor's Representative

The following text is to be added after last line:

The contractor's authorized representative or Project Manager must be a graduate civil engineer i.e. BE or B.Sc. (Civil) registered with the Pakistan Engineering Council as Professional Engineer having at least 20 years' experience in the relevant field and should not be more than 50 years old. The Project Manager should be authorized to take instruction from the Engineer and direct contractor's team to complete the works in accordance with the specifications. In case the Contractor fails to appoint his representative / PM and other staff, as stated above & as indicated in Appendix-K to bid, the Engineer may order to stop complete or appropriate portion of work at site until Contractor fulfills the requirement of staff employment.

Following are added after sub clause 4.24;

4.25 Vesting of Contractor's Plant, Equipment Temporary Works and Materials:

(a) Definitions

For the purpose of Sub-Clause 4.17.

- (i) The expression "Construction Plant" shall be deemed to exclude vehicles engaged in transporting any labour equipment or materials to or from the site.
- (ii) The expression "Essential Hired Plant" shall mean all Constructional Plant, Equipment Temporary Works and materials of Temporary Work the withdrawal of which in the event of termination under Sub-Clause 15.2 hereof might (having regard to the methods of construction employed prior to the termination) endanger the safety or stability of or result in serious disturbance to the execution of any part of the Works and which are held by the Contractor under any agreement for hire thereof.
- (iii) The expression "Hired Plant" shall mean any Constructional Plant, Equipment, Temporary Works (other than essential hired plant) held by the Contractor under any agreement for hire thereof.
- (iv) The expression "Agreement for Hire" shall be deemed not to include an agreement for hire purchase with an option to purchase or for conditional sale either of which is herein referred to as an "agreement for the purchase".
- (v) The expression "Hire Purchase Plant" shall mean any Constructional Plant, Equipment, Temporary Works held by the Contractor under an agreement for hire purchase thereof.
- (vi) The expression "owner" means the owner of the plant and equipment of any Hire Purchase Plant.

(b) **Vesting of Certain Plant**

All Constructional Plant, Equipment, Temporary Works and material owned by the Contractor or by any company in which the Contractor has a controlling interest shall when brought on to the site (or in the case of hire purchase plant upon becoming the property of the Contractor) and shall be deemed to become the property of the Procuring Agency.

(c) **Conditions of Hire of Certain Plant**

With a view to securing in the event of termination Sub-Clause 15.2 hereof the continued availability for the purpose of executing the Works of any essential hired plant and equipment the Contractor shall not bring on to the Site any essential hired plant unless the agreement for hire thereof contains a provision that the owner will on request in writing made by the Procuring Agency within 7 days after the date on which any such termination has become effective and on the Procuring Agency undertaking to pay all hire charges in respect thereof on the same terms in all respects as the same was hired to the contractor save that the Procuring Agency shall be entitled to permit the use thereof by any other contractor employed by it for the purposes of completing the works under the terms of Sub-Clause 15.2 hereof.

(d) **Costs for purpose of Approval of Materials not implied**

In the event of the Procuring Agency entering into any agreement for hire of essential hired plant pursuant to the contract provisions, all sums properly paid by the Procuring Agency under the provisions of any such agreement and all expenses incurred by it (including stamp duties) in entering into such agreement shall be deemed for the purpose of Sub-Clause 15.2 hereof to be part of the cost of completing the Works.

(e) **Contractor's Certificate as to Hiring Provisions**

The Contractor shall upon request made by the Engineer at any time in relation to any item of essential hired plant forthwith notify to the Engineer in writing the name and address of the owner and shall certify that the agreement for the hire thereof contains a provision in accordance with the requirements of Approval of Materials not Implied. The Contractor shall also upon request as aforesaid give a like notification (but without certificate) in regard to any hire purchase plant.

(f) **Hire Purchase Payment by the Procuring Agency**

The Procuring Agency shall in order to avoid seizure by the owner of any hire purchase plant be entitled to pay to such owner the amount of any overdue installment or other sum payable optionally or otherwise under any Agreement of hire purchase and in the event of his doing so any amount so paid by him shall be debt due from the Contractor to the Procuring Agency and may be deducted by the Procuring Agency from any moneys due or that may become due to the Contractor under the Contract or may be recovered by the Procuring Agency from the Contractor at law.

(g) **Irrevocability of Certain Plant etc.**

No Constructional Plant, Equipment Temporary Works or materials or any part thereof shall be removed from the site without the written consent of the Engineer which consent shall not be unreasonably withheld where the same is no longer immediately required for the purposes of completion of the Works but the Procuring Agency will permit the Contractor the exclusive use of all such Constructional Plant, Equipment, Temporary Works and materials in and for the completion of the Works until the occurrence of any event which gives the

Procuring Agency the right to expel the Contractor from the site and proceed with the completion of the Works.

(h) Re-vesting and Removal of Plant

Upon the removal with the consent of the Engineer of any such Constructional Plant Equipment, Temporary Works or materials as have been deemed to have become the property of the Procuring Agency, the property therein shall be deemed to re-vest in the Contractor and, upon completion of the Works the property in the remainder of such Constructional Plant, Equipment, Temporary Works and materials as aforesaid shall subject to the provisions of Sub-Clause 15.2 be deemed to re-vest in the Contractor who shall remove the same together with any essential hired plant or hire purchase plant. If the Contractor shall fail to remove any Constructional Plant, Equipment, Temporary Works or materials as aforesaid or any essential hire plant or hire purchase plant within such reasonable time after completion of the Works as may be allowed by the Engineer then the Procuring Agency may:

- i) sell any such Constructional Plant, Equipment, Temporary Works and materials as aforesaid, and
- ii) return at the Contractor's expenses to the person firm or company from whom any Essential Hired Plant or any Hire Purchase Plant was held by the Contractor such essential hired plant or hire purchase plant, and after deducting from any proceeds of sale, the costs, charges and expenses of and in connection with such sale and return as aforesaid shall pay the balance (if any) to the Contractor but to the extent that the proceeds of any sale are insufficient to meet all such cost, charges and expenses the excess shall be a debt due from the Contractor to the Procuring Agency and shall be deductible or recoverable by the Procuring Agency accordingly as aforesaid.

(j) Liability for loss or injury to plant

The Procuring Agency shall not at any time be liable for the loss of or injury to any of the Constructional plant, Temporary Works or materials which have been deemed to become the property of the Procuring Agency, hereof save as mentioned in Sub-Clause 20 hereof.

(k) Incorporation of Sub-Clause in Sub-Contracts

The Contractor shall when entering into any sub-contract for the execution of any part of the Works incorporate in such sub-contract (by reference or otherwise) the provisions of this Sub-Clause in relation to Constructional Plant, Temporary Works and materials. Essential Hired Plant and Hire Purchase Plant to be brought on the Site by the subcontractor.

(l) Approval of Materials etc., not implied

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

6.9 Engineer at Liberty to Object

The following is added at the end of sub clause in General Conditions of Contract: If the Procuring Agency asks the Engineer to direct Contractor to remove a person who is a member of his staff or workforce stating the reasons the Contractor shall ensure that the person leaves the site immediately and has no further connection with the work in the Contract.

6.10 Records of Contractor's Personnel and Equipment

The following paragraph is added:

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

Add the following sub-clause at the end of 6.22 in (GCC)

6.23 Compliance by Subcontractors

The Contractor shall be responsible for compliance by his Subcontractors of the provisions of this Clause. The following sub-clause 7.9 is added in (GCC)

The following sub-clause 7.9 is added in (GCC):

7.9 Use of Pakistani Materials and Services

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

8.1 Commencement of Works

The last para 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.

8.3 Programme

The following paragraphs are added:

The program/schedule shall be submitted in the form of Critical Path Method (CPM) identifying the critical path/activities, in hard form as well as in soft form in latest version of MS Project or as agreed with the Engineer.

- a) The Contractor shall submit to the Engineer detailed programme for the following:
 - (1) Execution of Works;
 - (2) Key Deliverables and submittals
 - (3) Labour Resources;
 - (4) Local Material Procurement;
 - (5) Material Imports, if any; and
 - (6) Other details as required by the Engineer.

- b) If Contractor fails to submit updated work schedule within the time instructed by the Engineer/Project Manager, the Engineer/Project Manager may withhold an amount at his discretion from next due amount and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.
- c) During the period of the Contract, the Contractor shall submit to the Engineer no later than the 8th day of the following month, 04 copies each of Monthly Progress Reports covering:
 - (1) Progress update of the project program/schedule indicating the monthly progress in percentages with actual start and finish dates;
 - (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; and
 - (5) Information about problems and difficulties encountered, if any, and proposals to overcome the same.
- d) 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.
- e) The detailed Cash Flow Estimate shall be submitted within 21 days from the date of receipt of Letter of Acceptance.

8.11 Prolonged Suspension

Replace 84 days by 120 days.

13.1 Right to vary

In the last line of Para, after the word "Variation", the word "in writing" is added.

13.3 Variation procedure

In the second line, after the words "as soon as practicable" following is added: "and within a period not exceeding one-eighth of the completion time"

13.8 Adjustment for changes in cost

Sub-Clause 13.8 is deleted in its entirety, and substituted with the following:

The amounts payable to the Contractor, pursuant to Sub-Clause 14.6, shall be adjusted in respect of the rise or fall in the cost of labor, materials, and other inputs to the Works, by applying to such amount the formula prescribed in this Sub-Clause.

(a) Other Changes in Cost

To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.

(b) Formula for Price Adjustment

1. The formula mentioned below is in its generalized form. The Employer/ user shall determine the proportions of A, b, c, d, by appropriate rate analysis following the procedure enumerated herein below:

$$P_n = A + b \frac{L_n}{L_o} + c \frac{M_n}{M_o} + d \frac{E_n}{E_o} + \dots$$

where,

“P_n” is the Price Adjustment factor for the work carried out in the period “n”.

“A” is a constant or the Non-Adjustable Portion of the Price Adjustment Factor to be specified in Appendix-C to Bid, representing the Non-Adjustable Portion of the Contract Price.

“b, c, d.....” are Coefficients or weightages of the order of 0.xx (i.e., fractions rounded off to two decimals) for each specified element of adjustment in the Contract.

The sum of A, b, c, d, etc., shall be one.

“L_o, M_o, E_o.....” are the Base Date Prices/ Indices for the specified (adjustable) elements.

“L_n, M_n, E_n.....” are the Current Date Prices/ Indices of the specified (adjustable) elements for the period “n”.

If “P” is the amount payable (prior to adjustment) at the rates entered in the Price Schedule of the work carried out in period “n” then, Adjusted amount payable to the Contractor for the work carried out in the period “n” shall be equal to **P_n × P**.

For the purpose of calculating **P_n**, the coefficient for each eligible element shall be used irrespective of the actual constituents of the work performed during the billing period.

2. Base Date Prices and Current Date Prices

The Base Date Prices and Current Date Prices of the specified elements shall be obtained from the sources specified in the Amendment to the contract.

3. Elements for Price Adjustment

The Specific Elements for highway and bridge construction would typically be:

- (i) POL (HSD);
- (ii) Labour;
- (iii) Cement;
- (iv) Steel;
- (v) Bitumen;
- (vi) Aggregate ; and
- (vii) Other major elements depending on the nature of the project.

Similarly, the specified elements for building construction would typically be:

- (i) POL (HSD);
- (ii) Labour ;
- (iii) Cement;
- (iv) Steel;
- (v) Bricks;
- (vi) Tiles;

- (vii) Cables;
- (viii) Conduits (all types);
- (ix) Pipes (all types);
- (x) Steel Sheet (all types);
- (xi) Steel Sections (all types);
- (xii) Aluminum Sections (all types);
- (xiii) Electric Switch Gears; and
- (xiv) Other major elements depending upon the nature of the project.

Similarly, major specified elements for other types of projects can be specified in the Amendment to the Contract in addition to or instead of the specified elements as enumerated above.

4. Coefficients or Weightages

The coefficient for each specified adjustable element shall be determined by the user proportionate to its ratio in the Contract Price, in accordance with the procedure D-1 given under Part-1. The sum of these coefficients shall form the adjustable portion of the Contract, which shall not exceed 0.70.

5. Adjustable Portion of the Contract

The adjustable portion of the Contract shall be computed as provided in foregoing Procedures.

6. Sources of Prices

Sources of Base Date Prices and Current Date Prices shall be as stipulated at item D-4 under Part-1. The sources shall be clearly stated in the Amendment to the Contract.

14.1 The Contract Price

Sub-para (d) is deleted.

14.2 Advance Payment

The Text is deleted and replaced with following:

Advance Payment/Mobilization Advance shall be made available to the Contractor by the procuring agency on following conditions:

Mobilization Advance/Advance Payment

- (i) Mobilization advance up to 10% of the Contract Price may be paid by the procuring agency to the Contractor on the works costing Rs2.5 million or above on following conditions:
 - a. on 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, acceptable to the procuring agency;
 - b. contractor shall pay interest on the mobilization advance at the rate of 10% per annum on the advance; and

- (ii) This Advance including the interest shall be recovered in 5 equal installments from the 5 R.A bills and in case the number of bills is less than 5 then 1/5 of the advance inclusive of the interest thereon shall be recovered from each bill and the balance together with interest be recovered from the final bill. It may be insured that there is sufficient amount in the final bill to enable recovery of the Mobilization Advance.

14.3 Application for Interim Payment Certificate

Following para is added at the end of sub-clause 14.3:

The Contractor shall submit a certificate signed and stamped by the contractor, certifying that the Contractor has paid all dues of the materials, suppliers, workmen and subcontractors for the works whose payment is claimed in this Application of Interim Payment.

14.5 Plants and Materials intended for Works

Add the following paragraph as sub-clause 14.5 (d) for Secured Advance on non – perishable materials and sub-clauses (a), (b) and (c) will be applicable for plants only :-

- (l) The Contractor shall be entitled to receive from the procuring agency Secured Advance against an INDENTURE BOND in Public Works Account Form No.31 (Fin. R. Form No. 2) acceptable to the procuring agency of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the site but not yet incorporated in the Permanent Works provided that:
 - i) The materials are in accordance with the specifications for the permanent works;
 - ii) Such materials have been delivered to the site and are properly stored and protected against loss or damage or deterioration to the satisfaction and verification of the Engineer/Assistant Engineer but at the risk and cost of the Contractor;
 - iii) The Contractor's records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records shall be available for inspection by the Engineer;
 - iv) The Contractor shall submit with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefore;
 - v) Ownership of such materials shall be deemed to vest in the procuring agency and these materials shall not be removed from the site or otherwise disposed of without written permission of the procuring agency;
 - vi) The sum payable for such materials on site shall not exceed 75 % of the (i) landed cost of imported materials, or (ii) ex-factory / ex-warehouse price of locally manufactured or produced materials, or (iii) market price of stands other materials;
 - vii) Secured Advance shall not be allowed unless and until the previous advance, if any, is fully recovered;
 - viii) Detailed account of advances must be kept in part II of running account bill or a separate statement; and

- ix) Secured Advance may be permitted only against materials/quantities anticipated to be consumed / utilized on the work within a period of 3 months from the date of issue of secured advance and in no case for full quantities of materials for the entire work/contract.

(II) Recovery of Secured Advance:

Secured Advance paid on non-perishable materials to the Contractor under the above provisions shall be effected from the monthly payments on actual consumption basis, but not later than period specified in the rules not more than three months (even if unutilized);

14.7 Payment

For Payment of Interim Payment Certificates, delete and replace 56 days with 42 days, out of which 14 days shall be maximum time for Engineer's review and verification from the date it is submitted in complete with all supporting documents as per agreed format and 28 days' time for the payment to contractor by Procuring agency.

14.8 Delayed Payment

Second Para is replaced with following text:

In the event of the failure of the Procuring Agency to make the payment within the time stated, the procuring agency shall pay to the contractor in case of ICB contracts only, the compensation at rate of KIBOR+2% per annum in local currency and Libor+1% for foreign currency, upon all sums to be paid from the date of which the same would have been paid.

15.2 Termination by Employer

The following Para is added at the end of the sub-clause:

Provided further, that in addition to the action taken by the procuring agency against the Contractor under this Clause, the procuring agency 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.

15.6 Corrupt and fraudulent Practices

The following text is to be added as 3rd paragraph:

Successful Contractor has to provide Integrity Pact (for contracts worth Rs.10.0 million and above).

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 procuring agency 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 procuring agency 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 15.2 & 15.5 and the payment under Sub-Clause 15.4 shall be made after having deducted the amounts due to the procuring agency under Sub-Para (a) and (c) of this Sub-Clause.

16.4 Payment on Termination

Sub-paragraph (c) is deleted.

17.3 Employer's/ Procuring Agency's Risks

Sub-Clause 17.3 (h) is deleted.

The following text is added in Clause 18.1 (GCC):

18.1 General Requirements for Insurance

The contractor shall be obliged to place all insurances relating to the contract (including, but not limited to, the insurances referred to in Clauses 18.1,18.2,18.3,18.4) with Insurance Company having at least AA rating from PACRA/JCR in favour of the Procuring Agency/Procuring Agency valid for a period 28 days after the Bid Validity date. Costs of such insurances shall be borne by the contractor.

The Contractor shall insure with any one of the insurance companies approved for this purpose by the Procuring Agency. The insurance policies shall be in the joint names of the Procuring Agency, and the Contractor against all losses or damages as stated in the General Conditions of Contract Part I and as stated herein. Notwithstanding the responsibilities of the Contractor for indemnities and insurances as described in General Conditions of Contract Part I, the Contractor before commencing work on Site, must discuss fully with the Engineer and the Procuring Agency the insurance coverage provided under any general policies which are to be applied to this Contract to ensure that there are no contingencies left uncovered and to reduce, as far as practicable, duplication of coverage. Should any areas of omission be discovered that are not covered by definition of responsibilities set out in these conditions, the addition or reduction in premiums required to give such insurance coverage will be paid by the Contractor. Such policies shall be obtained by the Contractor with consent of the Engineer/Procuring Agency.

The Contractor shall be responsible for deductibles and losses/damages not covered by insurances other than the excepted risks.

The insurance losses shall not affect the Procuring Agency's or the Contractor's rights and obligations under the Contract. The Contractor shall be responsible for compliance by his sub-contractors of insurances specified in these Sub-Clauses. Before each sub-contractor starts work, the Contractor shall provide the Procuring Agency proof that the sub-contractor(s) are covered by insurances specified herein for the Contractor.

All policies shall state that:

- i) The Procuring Agency shall receive at least 30 days written notice of intended Cancellation or change affecting coverage.

- ii) The Contractor is fully protected so as to provide full indemnity to Procuring Agency in respect of liability against losses or damages assumed by the Contractor under the Contract.
- iii) The inclusion of more than one insured shall not affect the rights of any other insured.
- iv) If a loss occurs the Contractor and the Procuring Agency shall be paid in relation of their share of the loss.
- v) The Insurer has no subrogation rights against any person, corporation, or organization including directors, officers, employees, servants' agents thereof which:
 - is an insured under the policy or
 - is Controlled by, Owned by, or associated with an insured, or
 - is a sub-contractor on the works, or has, before or a loss occurs, been released from liability by an insured.

Hold harmless provisions: The Procuring Agency, the Engineer and the Contractor shall be indemnified against all losses.

Procuring Agency use or occupancy: If the Procuring Agency uses or occupies all or part of the works during the life of the insurance policy, the Contractor shall ensure that the policy continues in full force and the Procuring Agency shall pay any resulting extra cost of insurance.

Loss Procedure: If a loss occurs the Contractor shall, on behalf of the Procuring Agency and himself negotiate the value of the loss with the insurer. Unless directed otherwise by the Engineer, when agreement is reached the Contractor shall repair all damages and the Procuring Agency shall pay him in accordance with the Engineer's Certificates for that part of the repairs which is the Procuring Agency's responsibility.

If directed by the Engineer, instead of carrying out repairs, the Contractor shall pay to the party suffering the loss that part of the agreed value of the loss which is the Contractor's responsibility.

The provisions of this Sub-Clause shall be applicable to other insurance covered by Clauses 18 of General Conditions of Contract Part-I.

Automobile Liability Insurance: The Contractor shall also provide automobile liability insurance of all licensed vehicles owned, hired and operated by the Contractor at the Site and the risk insured shall be bodily injury, death of person and property damage or loss.

There shall be no obligation for the insurances to include loss or damage caused by the risks listed under Procuring Agency's risk.

19.6 Optional Termination, Payment and release by the Employer

Sub-clauses (c), (d) and (e) are deleted.

20.6 Arbitration

Text will be replaced as under;

Any dispute in respect of which:

- (a) the decision, of the Dispute Board has not become final and binding pursuant to sub- clause 20.2, and

- (b) amicable settlement has not been reached within the period stated in sub-clause 20.5, shall be finally settled, under the provisions of the Arbitration Act, 1940 as amended or any statutory modification/ Rules of Conciliation and Arbitration PEC Islamabad or re-enactment thereof for the time being in force.

The place of arbitration shall be Karachi in Sindh Province.

Following Sub-Clause 21.1 is added;

22.1 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 Procuring Agency 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.

2.2 Notice to Procuring Agency and Engineer

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

a) The Procuring Agency:

Project Implementation Unit,
Education City Project
1st Floor, Block-A. Finance & Trade Centre
Shahra-e-Faisal, Karachi

b) The Engineer:

CGD Consulting Pvt Ltd
7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, Dha Karachi.

The following Sub-Clauses 23.1 is added:

23.1 Payment of Taxes including GST

The Contractor, Subcontractors and their employees shall be responsible for payment of all their Income Tax, GST 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. As per Government of Pakistan (GoP) regulations, the income tax of the contractor will be deducted at source i.e. Procuring Agency.

The Contractor firm is required to provide details & all relevant documentation/evidence of its registration with relevant registration authorities like FBR &/or Sindh Revenue Board.

Annex PROCEDURAL RULES

Procuring Agency retains SPPRA rules without changes, in case of contracts under Project, Bank and donor's program.

SPECIFICATIONS - SPECIAL PROVISIONS

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SPECIFICATIONS - SPECIAL PROVISIONS

1. DESCRIPTION OF PROJECT

1.1. General

The Employer intends to the Extension of Approach Road at Special Technology Zone (STZ), Education City, Karachi.

2. THE SITE

2.1. Site of Works

The Site of the Works is the area for construction lying within the right-of-way lines, boundaries and limits shown on the Drawings and any such additional areas adjacent thereto as may be designated by the Engineer subject to approval of Employer from time to time for the construction to be performed under the Contract, and all such areas and additional areas shall be comprised in the Site as defined in Clause 1 of the Conditions of Contract.

The Employer will give to the Contractor possession of the area designated and defined as the Site and shown on the drawing as may be required to implement as much of the Works, when the Engineer's Notice to Commence the Works is given.

3. THE WORKS UNDER THE CONTRACT

3.1. General Description

The Contract comprises to construct the work in all respect with the provision of plant/equipment, labor and material required for execution, completion, the execution and completion of the Works, remedying of any defects therein, maintenance of utility services and everything whether of a temporary or permanent nature required in and for such execution, completion, remedying and maintenance so far as the necessity for providing the same is specified or can reasonably be inferred from the Contract.

The following description of the Works to be performed under this Contract is general in nature and is not intended to describe all of the facilities to be provided under this Contract.

4. GENERAL RULES OF SPECIFICATIONS

a) Specification or as Specified

"Specification" or "as specified" refers to the specifications outlined in these Documents and where no specifications are available for any work or where the same are found not applicable then the relevant applicable ASTM or BSS specifications or equivalent standards shall apply in the same order.

Any item for which no specifications are outlined but which are identified on drawings, shall be completed according to the standards as per ASTM / BSS, these include items that may be added in the future. The Employer / Employer's Representative may supplement such specifications during the progress of work. All materials and processes used for these items shall be subjected to standard testing and, if found below the pertinent ASTM / BSS standards, shall be removed from the site immediately at Contractor's expense.

b) Standards and Codes

Wherever reference is made in the specifications to the respective standards and codes in accordance to which goods and materials are to be furnished, and work is to be performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly set forth in the Contract.

c) Materials and Processes

All goods and materials to be incorporated in the Works shall be new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

d) Equivalent Materials, Processes, etc.

Where specific materials, processes, etc. are specified and the same are not available other alternative materials and processes which ensure an equal or higher quality than those specified will be accepted subject to the Employer / Employer's Representative's prior review and written approval. Differences between those specified and the proposed alternatives must be fully described in writing by the Contractor and submitted to the Employer / Employer's Representative at least 30 days prior to the date when the Contractor desires the Employer / Employer's Representative's approval who may give such approval after determining that the alternative proposed ensures equal or higher quality.

e) Approved, Directed, Instructed

Approved, directed, instructed means the approval, etc. of the Employer / Employer's Representative unless otherwise stated.

f) Alternatives

Where alternative materials, processes etc., are specified the selection will depend on local conditions and discretion rests with the Employer / Employer's Representative whose decision shall be final and binding.

g) Catalogues / Standards / Manufacturer's Instructions, etc.

Wherever the manufacturer's/supplier's instructions, manuals, guarantees and ASTM/BSS Standards are referred to in the specifications and details of Bills of Quantities; all such literature shall be submitted by the Contractor to the Employer / Employer's Representative for due checking, approval and record.

h) Applicability

Unless stated or specified else-where to the contrary these General Rules shall apply to all sections of work irrespective of their sequence, location and description.

5. DRAWINGS

5.1. Bid Drawings

Bid Drawings issued with the Bid Documents, called the Tender Drawings, show scope of the work to be performed by the Contractor. The Drawings are generally in sufficient detail so as to be used as a basis for construction, fabrication and for placing orders for materials subject to corrections based on the future issue of supplementary Drawings as provided under Sub-Clause 5.2 hereof.

5.2. Construction Drawings, Supplementary Drawings

After award of Contract, the Contractor shall carry out “Joint Survey” at Site of Works in pursuance to Sub-Clause 6.4, Specifications - Special Provisions. The Contractor shall submit to the Engineer “Joint Survey”, duly signed, dated and stamped by the representatives of the Employer, Consultant and Contractor.

Simultaneously, the Contractor shall submit to the Engineer detailed “Work Programme” in terms of Sub-Clause 14.1 Conditions of Contract.

After receipt of “Joint Survey” and “Work Programme” from the Contractor, the Engineer will start issuing Construction Drawings to the Contractor. The Engineer shall have authority to issue to the Contractor, from time to time, such Supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall follow these Drawings.

The Contractor shall give notice to the Engineer regarding the part of the Drawings which in his opinion contain discrepancies or are not clear. The Engineer shall issue necessary clarifications or Supplementary Drawings in greater details as required to execute the Works. These Supplementary Drawings showing changes from the Bid Drawings, in the opinion of the Contractor, shall be reviewed by the Engineer for his determination of adjustment of the Contract Price under Clause 51 and 52 of the Conditions of Contract.

5.3. Definition of Term Drawings

The term Drawings as used in the Specifications means the Drawings referred in Clauses 5.1 and 5.2 hereof.

5.4. Checking of Drawings

The Contractor shall check all Drawings carefully as soon as practicable after receipt thereof, and shall promptly notify the Engineer of any errors discovered.

5.5. Copies of Drawings

Drawings will be issued to the Contractor and the Employer as described below.

5.5.1. Bid Drawings

One (1) set each of the Bid Drawings will be issued to the Contractor and Employer along with Bid Documents. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

5.5.2. Construction Drawings / Supplementary Drawings

One (1) print of each Construction Drawings / Supplementary Drawing will be issued to the Contractor and Employer free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

5.6. Drawings to be furnished by the Contractor / As-Built Drawings

The Contractor shall submit to the Engineer for review of such drawings as required under the Contract, sufficiently in advance of the work intended to be executed.

The Contractor shall, at all times, keep on Site a separate set of prints on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. The

Subcontractor(s) for plumbing, mechanical and electrical shall, at all times, keep on Site, a separate set of prints of the drawings (showing their parts of the Works) on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. Such drawings shall show the exact physical location and configuration of the works as actually installed.

The Contractor shall, within fourteen (14) days of issuance Taking-Over Certificate for whole of the Works, furnish to the Engineer for his approval two (2) copies of such marked up drawings. One (1) copy of each of the marked up drawings approved by the Engineer shall be returned to the Contractor by the Engineer and these shall be used for the preparation of the As - Built Drawings.

The Contractor shall furnish to the Engineer six (6) complete sets of all As -Built Drawings as well as AutoCAD soft copy within thirty (30) days of receipt of drawings stated above, from the Engineer.

5.7 Shop Drawings & Design

The Contractor to prepare and provide detailed shop drawings & design, for all the required items as per the instructions and approval of the Employer/ Engineer and as mentioned in Bidding documents and drawings including but not limited to Architectural, Structural, Road works, Hard & Soft Landscaping, Electrical, Water Supply, Drainage, ICT or any related electro-mechanical works apart from Bar-bending schedule, etc. All drawings should be prepared based on the rules, regulation and requirements of the concerned departments and should be prepared electronically on latest version of AutoCAD, hard copies along with soft copies on CD's shall be submitted for the approval of Engineer as per the Nos. required in Scope of Work.

Any item which is neither shown on the drawing not mentioned in the Bill of Quantities or Specification but is a pre-requisite to carryout, the contractor is required to prepare shop drawing of the missing/ required items, distributed among the rates and prices entered for the related items of works and shall be considered to be included in the contract price. The decision of the Engineer shall be final and binding on the Contractor unless before the deadline for submission of Bids, such discrepancies are to be clarified. The clarifications in either case would be sent to all bidders as an Addendum.

6. SETTING OUT OF WORK AND SURVEY

6.1. Reference Points, Lines

The Contractor shall establish bench marks and / or reference line at the Site in accordance with the instructions of the Engineer. The Contractor shall set out its work from these bench marks and / or lines.

6.2. Verification

The Engineer and the Employer may make checks as the work progress to verify lines and grades established by the Contractor and to determine the conformance of the work as it progresses with the requirements of the Drawings and Specifications. 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.

6.3. Survey Instruments

The Contractor shall maintain at the Site the requisite surveying instruments in perfect working conditions for the use of the Engineer's Representative to check levels and lines

of the work at all times. These instruments shall include (but not limited to) One Total Station, Adequate nos. of Levels, theodolites, Tapes, etc.

6.4. No work without Joint Survey

The Contractor shall not start the excavation and / or embankment works until the Joint Survey has been done to establish the existing/ original ground levels (i.e. National Surface Level or NSL).

7. APPROVAL OF MATERIALS AND PLANT

7.1. Quality of Materials

All materials, fixtures, fittings, supplies and plant furnished under the Contract shall be new and unused, standard first grade quality and of the best workmanship and design. No inferior or low-grade materials, supplies or articles will be either approved or accepted, and all work of assembly and construction shall be done in a first-class and workmanlike manner. In asking for prices for materials intended for delivery to the Site and incorporation in the Works under any portion of these Specifications, the Contractor shall provide the manufacturer or supplier with complete information as may be necessary to secure compliance to this Clause and, in every case, he shall quote this Clause in full to each such manufacturer or supplier.

The Employer will select the manufacturer of his choice and approval will be conveyed to the Engineer and Contractor.

7.2. Submission of Samples and Data

As soon as practicable after award of Contract, the Contractor shall submit for the approval of the Engineer drawings, catalogues, diagrams and other descriptive data for all mechanical, electrical, architectural and such other materials and plant designated by the Engineer subject to approval of Employer, which the Contractor proposes for use under this Contract. For certain materials and plant, data may be required to be submitted in accordance with a detail form furnished by the Engineer. Samples of materials (1 set) each shall be submitted by the Contractor to the Engineer and the Employer at Contractor's cost for approval sufficiently in advance of the materials intended to be incorporated in the Works.

7.3. Testing

Testing, except as otherwise specified herein, shall be performed by a testing agency as proposed by the Contractor and approved by the Engineer, at no extra cost to the Employer. The Engineer/ Employer may require all testing to be carried out under their supervision only.

The quality control testing shall be performed by the Contractor's competent personnel in accordance with a site testing as approved by the Engineer/ Employer.

The Contractor shall keep a complete record of all quality tests programme performed on Site.

7.4. Testing Laboratory Certificates

The Engineer may accept a certificate from a commercial testing laboratory, satisfactory to him, certifying that the product has been tested within a period acceptable to the Engineer and that it conforms to the requirements of these Specifications. The Employer may carryout testing from independent laboratory at the cost of the Contractor.

7.5. Inspection

All material and Plant furnished and all work performed under this Contract will be subject to inspection by the Engineer/ Employer or Employer's Representative 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, labour and materials reasonably needed for performing such inspection and testing as may be required by the Engineer/ the Employer or Employer's Representative.

7.6. Approved Sample at Site

The Contractor shall, at all times, keep on the Site approved samples. All such samples shall be made available to the Engineer/ Employer as and when required.

7.7. Site Laboratory

The Contractor shall establish a site laboratory for the purpose of necessary testing. The cost of equipment and salaries of the manpower required will be borne by the Contractor.

8. CONSTRUCTION SCHEDULE

8.1. Submittal Date

The programme of Works submitted by the Contractor in accordance with Clause 14" Programme to be Submitted", of the Conditions of Contract shall be submitted in the form of a CPM schedule based on Primavera Project Planner or Microsoft Project covering all construction activities indicating critical activities with critical path, total and free float, interdependencies between the construction activities and resource scheduling for Contractor's Equipment, material and labour, within the period stated in the Appendix A to Tender. All milestones shall be clearly identified.

If the Contractor fails to submit the construction schedule indicating all the details as listed above within 30 days of Notice of Commencement a penalty of Rs 30,000/- per week will be charged on the Contractor.

8.2. Requirements

The detailed submittal shall consist of schedules, network analysis tabulations and narrative descriptions of the proposed construction programme.

Each summary or detailed schedule shall consist of a bar chart and a time -scaled network. The scheduled start and finish times for all activities on the bar chart shall agree with those on the network. All inter-relationships and inter-dependencies between structures shall be clearly indicated on the schedules.

The network shall show the order and interdependence of activities planned by the Contractor, and shall be time-scaled according to calendar dates.

8.3. Monthly Reports

Each month, the Contractor shall submit a report consisting of:

- Copies of the bar charts for the current phase with both actual progress and scheduled progress shown.
- Network analysis tabulations as in Sub-Clause 8.3 above, reflecting actual start and finish dates where applicable.

- A narrative report discussing any significant deviations from the schedule and, if necessary, explaining the steps proposed to be taken to maintain the approved schedule.

9. Not used

10. SITE OFFICE AND TEMPORARY FACILITIES PROVIDED BY THE CONTRACTOR

10.1. Contractor's Office, Facilities etc.

The Contractor shall establish and maintain a Site office. The Contractor shall provide all facilities in connection with the execution, completion, of the Works, remedying defects therein and maintenance of the utilities services. The facilities shall, not be limited to, the Contractor's Site Office, labour camps, workyard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection and fire fighting equipment etc. The Contractor shall be solely responsible for arranging the facilities.

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

10.2. Notice Board

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer, 3 Sign Boards 4.45 M height and 2 M wide for writing the name of Work, name of Employer, name of Consultants, name of Contractor and Project Cost. The notice board shall comprise of the following;

- Frame of 3" dia GI Pipe properly painted as per the direction of the Consultants/ Engineer and as per drawing.
- 2 Nos. Posts of 3" dia GI Pipe 4.45M above ground and 1M below ground embedded in 1:2:4 CC 2'x2'x4' with proper arrangements of anchorage and brasses. Pipes painted with anti-rust as directed by the Engineer.
- 4 Nos. Steel Sheets 0.6M high and 2M wide fixed on both sides with 50mm gap between each. The background of plates is of white color whereas the writing would be black or red color (as approved by the Engineer)
- White imported 3M sheet used as background. The color of monogram would be, green, red or black etc. (as approved by the Engineer)
- Alphabets of appropriate size as approved by the Engineer in 3M reflective sheet in blue/ black color.

The Contractor shall maintain the display of the notice boards at his own cost throughout the length of the project.

11. FACILITIES FOR ENGINEER'S PERSONNEL PROVIDED BY THE CONTRACTOR

11.1 Engineer Facilities

The Contractor shall provide, operate and maintain the following facilities within 14 days of the Engineer's Order to Commence the Works for the Engineer:

- a). Contractor shall establish a container office accommodation complex (Approx. 500 sft) as per provided drawing. One office container of 40 feet with partition fully Air-Conditioned and maintain the same facility for Engineer, till the completion of the project (including) DLP, including all costs of washroom, electricity, telephone, water supply,

sewerage, janitorial services, provision of stationery / consumable / supplies (as per the requirement of the Engineer).

- b). Contractor shall provide 01 No office boy, 02 Nos. Security Guards etc. Contractor shall be responsible for all salaries, benefits etc. of the appointed people. Cost of all the above works are deemed to be included in the contract price and no additional payment shall be made by the Employer to the Contractor under any circumstances.
- c). Contractor shall provide all tea items for use in Engineer office.
- d). 01 Nos. **Desktop** - Core i7 10th Gen or Higher, 32/64 GB Ram, Latest Intel Motherboard as required by the processor & GPU, Nvidia GPU RTX 3000 Series or Higher, 1TB HDD + 256 SSD, Keyboard, Mouse, DVD Writer, 21" LED, Licensed Windows 10/11, Ms Office latest version, USB 3.0 64 GB, Latest UPS for backup.
- e). Contractor shall provide and maintain with cartridge etc., 01 Nos. **HP Color Printer** with Scanner (All in one) latest model throughout the contract period including DLC period.
- f). Contractor shall provide One no. of vehicles detailed as under, to be used by the Engineer at site. The Contractor shall pay the POL maintenance and driver charges and no additional payment shall be made by the Engineer to the Contractor under any circumstances. The vehicle shall be returned to the Contractor after completion of the project on as is where is basis. Details of the vehicles are as under:
 - (i) 01 Nos. Toyota Corolla Altis 1600 Cc (full options with Driver)
- g). Contractor should also provide all protective gear like Helmet, goggles, safety boots to the Engineer staff at site.
- h). Providing all stationery and consumable items like pen, pencils, papers, binder cards, plastics, staples, etc. as per requirement.
- i). The Contractor shall provide an average cost of Rupees Twenty -Five Thousand only (Rs. 25,000/-) per month pertaining to mobile & telephone use.

The above equipment shall be in use of the Engineer and shall become property of the Employer and as-such will be handed-over to the Engineer in good working condition on completion of the project.

In case of non-provision of facilities mentioned above, the same shall be arranged by the Employer / Engineer and be deducted from any monies due / becoming due to the Contractor by the Employer along with 10% overheads till these facilities are provided satisfactorily to the Engineer.

Cost of all above facilities are deemed to be included in the contract price and no additional payment shall be made by the Engineer to the Contractor under any circumstances.

The vehicle should be brand new and latest model. The vehicles are for the exclusive use of the Engineer / Engineer's supervision team to meet their transportation needs. The use of such transportation facilities shall be exclusively under the control of the Engineer and the contractor shall be wholly responsible for furnishing at all times above said facilities. The said facility shall be provided within 14 days of Engineer's issue of commencement letter and shall continue un-interrupted till the completion of works. The said vehicles shall be handed-over back to the Contractor on completion of work.

- a). The Contractor shall furnish, supply and provide, without specific direction of the Engineer all lubricants, tyres, other supplies, regular service and maintenance at all times for the above vehicles till the issue of the Completion Certificate of the contract.

- b). The Contractor shall provide an amount equivalent to, 1 x 600 liters for Toyota Corolla Altis, Petrol / diesel per month to the Engineer & Employer by 5th of each month in advance for complete duration of work including any extended period.

In case of non-provision of facilities mentioned above, the same shall be arranged by the Employer / Engineer and be deducted from any monies due / becoming due to the Contractor by the Employer alongwith 10% overheads till these facilities are provided satisfactorily to the Engineer.

Cost of all above facilities are deemed to be included in the contract price and no additional payment shall be made by the Engineer to the Contractor under any circumstances.

12. SAFETY

12.1. Accident Prevention, Protective Equipment

The Contractor shall comply and enforce compliance by all his Subcontractors with the highest standards of safety and accident prevention in compliance with all applicable laws, ordinance and statutory provisions.

Where overhead work is being carried out, warning signs shall be installed at ground level clearly warning of the overhead work.

All warning signs shall be in two languages, English and Urdu, and shall at all times be maintained in a clean and legible condition, to the satisfaction of the Engineer.

Trash shall be removed at frequent intervals to the satisfaction of the Engineer.

If, safety precautions/ warning signs are not installed by the Contractor, employer will charge an amount of Rs. 10,000/- per site per day for the period.

13. PAYMENT FOR WORK REQUIRED BY SPECIAL PROVISIONS

Unless otherwise specifically stated in the Contract, the price of all work required by the Special Provisions shall be considered to be included in the Contract Price.

- 14.** The Bided Rates shall be inclusive of all lead and lift
- 15.** No alterations or additions shall be made by the Contractor in the Bill of Quantities and rates must be filled in ink or typed out both in figures and words clearly and legibly in the columns provided in the schedule of quantities. All corrections must be initialed by the contractors. Any Tender which does not comply with this condition will be liable to be summarily rejected and not taken into account when preparing comparative statement.
- 16.** Materials obtained from excavations will be the property of the Employer. Serviceable materials are to be stacked in places pointed out by Engineer-in-charge. The Contractor undertakes to have the site clean and free from rubbish to the satisfaction of the Engineer. All surplus materials, rubbish, etc., will be removed to places to be fixed by the Engineer and nothing extra will be paid for this.
- 17.** On completion of the work or earlier as directed by the Engineer, the Contractor shall remove all temporary structure (Godowns, site offices, etc.), erected by him at the site of work. He shall fill tanks dug out by him at site, remove all debris and other materials like surplus sand, stone ballast, rubbish, etc.; and in short, shall leave the site in a neat and tidy condition.

18. The contractors in the course of their works should understand that all material (e.g., stone and other materials) obtained in the work or dismantling, excavation, etc., will be considered as Employer's property and issued to the contractors (if they require the same for their own use) at rates approved by the Engineer. If the materials are not required by them they will be disposed off in the interest of Employer.
19. The contractor shall inspect the site of works and acquaint himself with the nature and requirements of the work, facilities of access for materials, removal of rubbish, cost of carriage, nature of strata, etc., before submitting his Bid.
20. The contractor shall have to make temporary approach roads, etc., at his own cost to facilitate movement of materials, such approach roads shall be aligned in a manner approved by the Engineer.
21. The contractor shall have to make proper arrangements for road crossing barriers during working hours in the day time as well as in the night when danger lights will have to be provided on either ends at his own cost and no extra cost will be paid. Sufficient barricades and red lights will be provided by the Contractor where required to avoid the chances of accidents. In case an accident occurs for failure on the part of the contractor, he shall be entirely responsible for the consequences.
22. The Contractor shall have to make arrangements for diversions for traffic wherever necessary and shall have to provide diversion and caution boards as per directions of the Engineer at his own cost for which no extra cost will be paid. The diversion shall be watered and consolidated as per directions of the Engineer.
23. No material shall be removed from the site without the written permission of the Engineer.
24. Dewatering including shoring wherever so required for any foundation area, pumping, bailing out water, drainage of water within plot areas if any shall be deemed to have been included in the rates quoted by the bidders and no extra payment will be made. The rates shall be deemed inclusive of such incidental charges.
25. The Contractors shall execute all works at their own cost for diversion of water away from the plot as per site requirements to have full satisfaction of Engineer and no additional payment will be made on this account.
26. The Engineer, subject to approval of the Employer, reserves the right to select all materials and the type, grade, heating capacity and quantity of proportion of any or all materials as required for a particular work. The decision of Employer in this respect shall be final and binding on the Contractor. The rejects on materials must be carted at his own cost. If the rejected materials are not re moved within one month of its rejection the materials will become the property of the Employer or will be removed at Contractors cost.

27. ATTENDANCE OF MEETINGS

The Contractor shall attend and shall cause his Sub-Contractors to attend any or all meetings when called by the Employer or the Engineer or his Representative to discuss progress of the work and other matters related to the work and the Contract, without any compensation from the Employer.

- 27.1. The Contractor shall bear all expenses of the Employer and his agents and representatives and the Engineer, his agents and representatives if requested by the Contractor for any meetings, instructions and approvals away from the Site.

- 27.2.** The proceedings of the meetings shall be recorded by the Engineer which shall be circulated to all the participants including those of the Contractor. All decisions taken in the meetings shall be binding on the Contractor and shall form part of the Contract.

28. DOCUMENTS NOT TO BE ALTERED OR MUTILATED

No alteration or mutilation (other than filling in all the blanks intended to be filled in) shall be made in the form of Bid or in any of the documents attached to it. Any comments which it is desired to make shall not be placed on any of the documents attached hereto, but shall take the form of a separate statement which shall be as brief as possible and referenced to items, clauses and pages of the annexed documents.

Such statements shall not qualify the acceptance of the Bid based upon a proposed change or changes in the annexed documents, nor shall be binding upon the Employer in any way in making the award. Alterations of already written prices must be signed in the place of alteration by the Bidder or his legally authorized representative.

29. PERSONAL LIABILITY OF PUBLIC OFFICIALS OR ENGINEER

In carrying out any of the provisions of these specifications, or in exercising any power of authority granted to them by or within the scope of the Contract, there shall be no liability upon the Employer or his authorized representatives or the Engineer or his authorized representatives their personally or in their official capacity, it being understood that in all matters they act solely as agents and representatives of the Employer.

30. ACCESS AND EXISTING ROADS

If the Contractor finds it necessary or elects to use existing roads, the Contractor shall make all necessary arrangements and obtain all permits from the relevant departments for travel over and use of such roads. The Contractor shall observe all rules regulations of the concerned department regarding the use of said roads. The cost of maintaining all necessary safety measures and temporary structures and making any necessary repairs, replacements or similar operations and all or any other costs required by reason of his use of such roads shall be borne by the Contractor and the Contractor shall save harmless and indemnify the Employer in respect of all claims, demands proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such operation or interference.

31. FIRST AID FACILITIES

The Contractor shall provide and maintain adequate First Aid Facilities at all times, convenient to the Site to the approval of the Employer.

32. FINAL HAND-OVER

At the end of the Defect Liability Period stipulated in the contract, the Employer and the Engineer on application of the Contractor, shall decide the members of the final hand over committee and announce the same to the Contractor. The committee, after inspection of Work, if satisfied that there are no deficiencies or defects due to work of the Contractor shall certify the final hand-over, and the Employer will then issue a final Certificate of Completion of Work within thirty (30) calendar days thereafter.

Once completion has been formalized and endorsed both by the contractor as well as controlling officer, the work will be regarded as completed for all purpose as per contract

agreement although the accounts may not have been settled, no further new works will be authorized against the sanctioned project and not further supplementary estimates or claims may be accepted.

33. EMPLOYER AND ENGINEER NOT PERSONALLY LIABLE

No member or officer of the Government or the Employer or the Employer's Representative or the Engineer or his representatives or any one of their respective staffs or their employees shall be in anyway personally bound or liable for the acts or obligations of the contractor under the contract or answerable for any default or omission in the observance or performance of any of the acts, matters or things which are herein, contained.

34. PROGRESS PHOTOGRAPHS

The contractor shall furnish to the Employer and to the Engineer every two weeks at least six photographs to clearly show the progress of construction. The photographs shall be submitted in glossy prints 20 cm x 20 cm. Each print shall be marked on the back with the date and serial number. There shall be no writing, lettering or marking on the face of the photographs. The set of photographs of the Engineer should accompany respective negatives.

35. SITE ORDER BOOK

The Contractor shall maintain site order book {of triplicate leaves} at the Site, for taking down instructions of the Engineer and/ or the Employers, with out any obligation and charges to the Employer / Engineer.

36. REPORT ON PROGRESS OF WORK AND PHOTOGRAPHS

The Contractor shall, during the execution of the work, submit to the Employer (3 copies) and Engineer (2 copies) so as to reach them in the first week of every calendar month, a report on the actual progress of the works attained by him during the preceding month fully supported with colour photographs of (5" x 7") size, at least 15, depicting the complete stages of the works. Each photograph should be properly pasted on A-4 size paper, indicating the location and other relevant information of the area photographed. The report will be submitted on the standard format to be supplied later on. In case the Supervision Engineer are different from the Design Engineer, one copy each of photographs should be sent to both the Engineer.

The set of photographs for the Design Engineer should be submitted with respective negatives.

LIST OF APPROVED VENDORS FOR ELECTRICAL WORKS

IMPORTANT NOTES:- Consultant Engineer has the right to select any vendor from the list of approved vendors

Approved Manufacturer/Supplier					
LV Circuit Breakers	Terasaki(Japan)	Schneider (Europe)	ABB (Europe)		Or other equivalent approved by consultant Engineer
PVC/PE Pipe and Conduits	Dadex	Galco	Jeddah	Civic Pipes	Or other equivalent approved by consultant Engineer
MV Power Cables	Fast Cables	Pakistan Cables	Pioneer Cables	GM Cables and Pipes Pvt. Ltd.	Or other equivalent approved by consultant Engineer
LV Cables	Fast Cables	Pakistan Cables	Pioneer Cables	GM Cables and Pipes Pvt. Ltd.	Or other equivalent approved by consultant Engineer
MV/LV Cables Terminations	Raychem (USA)	3M (USA)	Secam (France)		Or other equivalent approved by consultant Engineer
Switches and Socket	Clipsal	Legrand	Schneider	Pakistan Cables	Or other equivalent approved by consultant Engineer
Numerical Relays	Fanox	Schneider	ABB		Or other equivalent approved by consultant Engineer
MV Circuit Breakers	Shneider	Westinghouse	ABB		Or other equivalent approved by consultant Engineer
LV Switchgears	IMS Electric	Electric gears	HRA		Or other equivalent approved by consultant Engineer
Oil type Transformer	PEL	Transfopower	Hammad Engineering		Or other equivalent approved by consultant Engineer
Pad Mounted Unit	PEL	Transfopower	Validus		Or other equivalent approved by consultant Engineer
Ring Main Units (outdoor type)	Lucy	Siemens	ABB		Or other equivalent approved by consultant Engineer
Synchronisation Modules	ComAp	Deepsea	-		Or other equivalent approved by consultant Engineer
Lighting Fitures	NVC (USA)	Osram (Germany)	Luceco (UK)	Signify	Or other equivalent approved by consultant Engineer
Rubber Insulation Mat	Imported	-	-		Or other equivalent approved by consultant Engineer
CTs/PTs	FICO	Metelex	PEL		Or other equivalent approved by consultant Engineer
Diesel Generators	Cummins (UK)	Caterpillar (USA)	FG Wilson (UK)	MTU	Or other equivalent approved by consultant Engineer
GI Conduit	IIL	Steelex	-		Or other equivalent approved by consultant Engineer
Back Boxes/Junction Boxes	Hussain & Co.	Clipsal	Master		Or other equivalent approved by consultant Engineer
Lighting poles	Jamal Pipe	Solid Industries	Bashir Pipe		Or other equivalent approved by consultant Engineer
Earthing	Furse (UK)	LPI (Australia)	Wallis (UK)		Or other equivalent approved by consultant Engineer
Control Relays	Finder	GE	-		Or other equivalent approved by consultant Engineer



EDUCATION CITY

INFRASTRUCTURE DEVELOPMENT OF EDUCATION CITY, KARACHI

Special Technology Zone Package 1 Electrical Power Works

VOLUME - I

CONDITIONS OF CONTRACT



GOVERNMENT OF SINDH



CGD CONSULTING

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No. _____

Dated: _____

INVITATION TO BIDDERS

SUBJECT: Special Technology Zone (STZ), Package 1 Electrical power Works Education City, Karachi.

1. The Employer invites sealed bids under Single Stage-Two Envelope bidding procedure from eligible firms licensed by the Pakistan Engineering Council valid for the year 2025-2026 in Category C-3 with specialization codes CE-10, EE-04, EE05. The company must be registered with FBR and SRB.
2. Tender documents containing detailed Bill of Quantity (BoQ), evaluation criteria and scope of services can be downloaded from SPPRA website <https://portalsindh.eprocure.gov.pk> through EPAD (E Procurement) System and Education City website www.educationcity.gos.pk from _____, 2025 till _____, 2025 on or before _____ hrs. Interested bidders are required to submit a Pay Order / Demand Draft of Rs. 10,000/- (non-refundable) in favor of "Project Implementation Unit, Education City Project" as the cost of tender documents.
3. All interested bidders must upload their Bids (Technical and Financial) via the SPPRA EPADs portal at <https://portalsindh.eprocure.gos.pk>. Financial proposals must be accompanied by a bid security of **2%** of the total bid amount (refundable) in the form of a Pay Order / Bank Draft / Bank Guarantee issued by a scheduled bank of Pakistan. The bid security should remain Valid for at least 90 days beyond the bid validity date and be made in favor of "Education City Project". Note: One hard copy of both technical and financial proposals (in separate sealed envelopes), identical to the documents uploaded on SPPRA EPADs, must be submitted along with the required bid security at the address (Project Implementation Unit, 1st Floor, Block A, FTC Building, Shahrah-e-Faisal Karachi) of the procuring agency is mandatory.
4. Bids must be uploaded via the SPPRA E-Procurement Portal on or before _____ hrs. on _____, 2025 and same will be opened on same date at _____ hrs. through SPPRA's E-pad portal. All designated committee members and interested bidders are required to be online during the opening and evaluation, Bidders who fail to appear online during the opening session will be marked as absent, and their bids will be rejected.
5. The procuring agency reserves the right to reject any or all bids as per the relevant provisions of SPPRA Rules 2010, specifically Rule 25(1). Further, any false or misleading information submitted by a firm/company/agency will result in immediate disqualification at any stage of the process.
6. Date of opening of Financial Bids of Technically qualified bidders shall be notified at later date after Evaluation of the Technical Bids.
7. The blue ink shall be used to fill all the form/ BOQ.
8. Join Venture will not be allowed.
9. Any work executed under for mode shall not be considered as an experience.
10. Performance shall be given to than bidders who are ISO certify.

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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 Source of Funds

- 1.1 Procuring agency as defined in the bidding data hereinafter called “the procuring agency” wishes to receive bids for the construction and completion of works as described in these bidding documents, and summarized in the bidding data hereinafter referred to as the “Works”.
- 1.2 The successful bidder will be expected to complete the works within the time specified in Appendix-A to Bid.

IB.2 Source of Funds

- 2.1 Procuring agency has received/allocated/] applied for loan/grant/ Federal/ Provincial/Local Government funds from the source(s) indicated in the bidding data in various currencies towards the cost of the project /scheme specified in the bidding data, and it is intended that part of the proceeds of this loan/grant/funds will be applied to eligible payments under the contract for which these bidding documents are issued.

IB.3 Eligible Bidders

- 3.1 This Invitation for Bids is open to all interested bidders who are eligible under provisions of Sindh Public Procurement Rules as mentioned below and the criteria given in the Notice Inviting Tender (NIT)/ Bidding Document.

Firms and individuals, national or international, may be allowed to bid for any project where international competitive bidding is feasible. Any conditions for participation shall be limited to those that are essential to ensure the bidder's capability to fulfill the contract in question.

(a) Bidders may be excluded if;

- (i) as a matter of law or official regulations, commercial relations are prohibited with the bidder's country by the federal government in case of ICB, or
- (ii) a firm is blacklisted/ debarred by the procuring agency and the matter has been reported to the Authority, subject to Rule 30 of Sindh Public Procurement Rules 2010.

(b) Government-owned enterprises or institutions may participate only if they can establish that they are;

- (i) legally and financially autonomous, and
- (ii) operate under commercial law

Provided that where government-owned universities or research centers in the country are of a unique and exceptional nature, and their participation is critical to project implementation, they may be allowed to participate; and

Bidders shall include all those contractors who are registered or incorporated in Pakistan, irrespective of the nationality of their owners and professional staff, or

(c) Bidders are:-

- (i) pre-qualified with procuring agency for particular project/scheme;
- (ii) registered with Pakistan Engineering Council in particular category and discipline
- (iii) registered with relevant tax authorities (income/sales tax, wherever applicable)

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 procuring agency 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 all information that may be necessary for preparing the bid and entering into a contract for construction of the works. All cost in this respect shall be at the bidder's own expense.
- 6.2 The bidders and any of their personnel or agents will be granted permission by the procuring agency 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 procuring agency, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

B. BIDDING DOCUMENTS

IB.7 Contents of Bidding Documents (SSP RULE 21)

- 7.1 The bidding documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any addenda issued in accordance with Clause IB.9.
- 1. Instructions to Bidders
 - 2. Bidding Data
 - 3. General Conditions of Contract, Part-I (GCC)
 - 4. Special Conditions of Contract, Part-II (SCC)
 - 5. Specifications
 - 6. Form of Bid and Appendices to Bid
 - 7. Bill of Quantities (Appendix-D to Bid)
 - 8. Form of Bid Security

9. Form of Contract Agreement
10. Forms of Performance Security, Mobilization Advance Guarantee, Integrity Pact and Indenture bond for secured advance
11. Drawings

- 7.2 The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the BD will be rejected.

IB.8 Clarification of Bidding Documents (SSP RULE 23(1))

Any interested bidder requiring any clarification(s) in respect of the bidding documents may notify the procuring agency in writing at the procuring agency's address indicated in the Invitation for Bids/NIT. Procuring agency will respond to any request for clarification provided they are received at least five calendar days prior to the date of opening of bid.

Provided that any clarification in response to query by any bidder; shall be communicated to all parties who have obtained bidding documents.

IB.9 Amendment/ Modification of Bidding Documents

- 9.1 At any time prior to the deadline for submission of bids, the procuring agency may, for any reason, whether at his own initiative or in response to a clarification requested by a interested 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 IB 7.1 hereof and shall be communicated in writing to all bidders. Interested bidders shall acknowledge receipt of each addendum in writing to the procuring agency.
- 9.3 To afford prospective bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may at its discretion extend the deadline for submission of Bids.

C. PREPARATION OF BIDS

IB.10 Language of Bid

- 10.1 The bid and all correspondence and documents related to the bid exchanged by a bidder and the procuring agency shall be in the language stipulated in the bidding data and Special Conditions of the 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 authorization on the letterhead of the bidding firm, authorizing the signatory of the bid to act for and on behalf of the bidder;
 - (b) update the information indicated and listed in the bidding data and previously submitted with the application for prequalification, and continue to meet the minimum criteria set out in the prequalification documents, which as a minimum, would include the following;

- (i) Evidence of access to financial resources along with average annual construction turnover;
- (ii) Financial predictions for the current year and the following two years, including the effect of known commitments;
- (iii) Work commitments since prequalification;
- (iv) Current litigation information; and
- (v) Availability of critical equipment.

And

- (c) furnish a technical proposal taking into account the various Appendices to Bid specially the following:

Appendix-E to Bid	Proposed Construction Schedule
Appendix-F to Bid	Method of Performing the Work
Appendix-G to Bid	List of Major Equipment
Appendix-K to Bid	Organization Chart for Supervisory Staff and other pertinent information such as mobilization programme etc;

11.2 Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:

- (a) 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;
- (b) the bid, and in case of a successful bid, the Form of Contract Agreement shall be signed by the authorized partner so as to be legally binding on all partners;
- (c) the partner-in-charge shall always be duly authorized to deal with the procuring agency regarding all matters related with and/or incidental to the execution of works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para (a) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid);
- (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 procuring agency;

- (f) submission of an alternative Letter of Intent to execute a Joint Venture Agreement shall be mandatory.
- 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 sub- clause IB 1.2 hereof.

IB.12 Bid Price

- 12.1 Unless stated otherwise in the bidding documents, the contract shall be for the whole of the works as described in IB 1.1 hereof, based on the unit rates or prices submitted by the bidder or percentage quoted above or below on the rates of Composite Schedule of Rates (CSR), as the case may be.
- 12.2 The bidders shall fill in rates and prices for all items of the works described in the Bill of Quantities. Items against which no rate or price is entered by a bidder will not be paid for by the procuring agency when executed and shall be deemed to be covered by rates and prices for other items in the Bill of Quantities. In case of Composite Schedule of Rates, if the bidder fails to mention the percentage above or below, it shall be deemed to be at par with the rates of Composite Schedule of Rates.
- 12.3 The bid price submitted by the contractor shall include all rates and prices including the taxes. All duties, taxes and other levies payable by the contractor under the contract, or for any other cause during the currency of the execution of the work or otherwise specified in the contract as on the date seven days prior to the deadline for submission of bids.
- Additional / reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed / deducted as per Sub-Clause 13.7 of the General Conditions of Contract Part-I.
- 12.4 The rates and prices quoted by the bidders are subject to adjustment during the performance of the contract in accordance with the provisions of Clause 13.7 of GCC. The bidders shall furnish the prescribed information for the price adjustment formulae in Appendix-C to Bid, and shall submit with their bids such other supporting information as required under the said Clause. Adjustment in prices quoted by bidders shall be allowed as per Sub-Para 4(ii) of Section C of Instructions to bidders and bidding data.

IB.13 Currencies of Bid and Payment

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. A bidder expecting to incur expenditures in other currencies for inputs to the works supplied from outside the procuring agency's country (referred to as the "Foreign Currency Requirements") shall indicate the same in Appendix-B to Bid. The proportion of the bid price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in the bid.
- 13.2 The rates of exchange to be used by the bidder for currency conversion shall be the selling rates published and authorized by the State Bank of Pakistan prevailing on the date, 07 (seven) days prior to the deadline for submission of bids. For the purpose of payments, the exchange rates used in bid preparation shall apply for the duration of the contract.

IB.14 Bid Validity

- 14.1 Bids shall remain valid for the period stipulated in the bidding data from the date of opening of bid specified in clause IB.23.
- 14.2 In exceptional circumstances, prior to expiry of the original, the procuring agency may request the bidders to extend the period of validity for a specified additional period, which shall not be for more than one third of the original period of bid validity. The request and the responses thereto, shall be made in writing. A bidder may refuse the request without the forfeiture of the bid security. In case, a bidder agreed to the request, shall not be required or permitted to modify the bid, but will be required to extend the validity of the bid security for the period of the extension, and in compliance with Clause IB.15 in all respects.

IB.15 Bid Security

- 15.1 Each bidder shall furnish, as part of the bid, a bid security in the amount stipulated in the bidding data in Pak Rupees or an equivalent amount in a freely convertible currency.
- 15.2 The bid security shall be at the option of the bidder, in the form of deposit at call, Pay order or a bank guarantee issued by a Scheduled Bank in Pakistan or from a foreign bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the procuring agency, which should commensurate with the bid validity period. The bank guarantee for bid security shall be acceptable in the manner as provided at Annexure BS-1.
- 15.3 Any bid not accompanied by an acceptable bid security shall be rejected by the procuring agency as non-responsive.
- 15.4 Bid security shall be released to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired.
- 15.5 The bid security of the successful bidder shall 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 IB 22.1
 - (b) if the bidder does not accept the correction of his bid price pursuant to sub- clause IB 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/Bids

- 16.1 Each bidder shall submit only one bid either by himself, or as a member of a joint venture, until and unless they have been requested or permitted for alternative bid, then he has to purchase separate bidding documents and alternate bid shall be treated as separate bid.
- 16.2 Alternate proposals are allowed only for procurement of works where technical complexity is involved and more than one designs or technical solutions are being offered. Two stage

two envelope bidding procedure will be appropriate when alternate proposal is required.

- 16.3 Alternate bid(s) shall contain (a) relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details / conditions, provided that the total sum entered on the Form of Bid shall be that which represents complete compliance with the bidding documents.

IB.17 Pre-Bid Meeting

- 17.1 Procuring agency may, on his own motion or at the request of any bidder, 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, shall be communicated to all bidders. All bidders or their authorized representatives shall be invited to attend such a pre-bid meeting at their own expense.
- 17.2 The bidders are requested to submit questions, if any, in writing so as to reach the Procuring agency not later than seven (7) days before the proposed pre-bid meeting.
- 17.3 Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all bidders. Any modification of the bidding documents listed in sub- clause IB 7.1 hereof, which may become necessary as a result of the pre-bid meeting shall be made by the procuring agency 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 Alteration is not to be made neither 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 without alterations and shall provide an original copy along with photocopies as per the requirement of the procuring agency specified in the bidding data. The original as well as copies of the document shall be clearly marked as "ORIGINAL" and „COPY", as the case may be. If there is any discrepancy between original and copy (ies) then the original shall prevail.
- 18.5 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person(s) duly authorized to sign on behalf of the bidder pursuant to sub- clause IB 11.1(a) hereof. All pages of the bid shall be initialed and stamped by the person(s) signing the bid.
- 18.6 The bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the procuring agency, or as are necessary to correct errors made by the bidder. Such corrections shall be initialed by the person(s) signing the bid.
- 18.7 Bidders shall indicate in the space provided in the Form of Bid their full and proper postal 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 BID

IB.19 Sealing and Marking of Bids

19.1 Each bidder shall submit his bid as under:

- (a) ORIGINAL and COPIES of the bid shall be separately sealed and put in separate envelopes and marked as such.
- (b) The envelopes containing the ORIGINAL and COPIES shall be put in one sealed envelope and addressed as given in sub - clause IB 19.2 hereof.

19.2 The inner and outer envelopes shall:

- (a) be addressed to the procuring agency at the address provided in the bidding data;
- (b) bear the name and identification number of the contract as defined in the bidding data; and
- (c) provide a warning not to open before the time and date for bid opening, as specified in the bidding data.

19.3 In addition to the identification required in sub- clause IB 19.2 hereof, the inner envelope shall indicate the name and postal 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 procuring agency 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 procuring agency at the address specified not 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 shall 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 Procuring Agency may, at its discretion, extend the deadline for submission of bids by issuing an amendment in accordance with IB 09. In such case, all rights and obligations of the procuring agency and the bidders shall remain the same as mentioned in the original deadline.

IB.21 Late Bids

- (a) any bid received by the procuring agency after the deadline for submission of bids prescribed in to clause IB 20 shall be returned unopened to such bidder
- (b) delays in the mail, 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 submit the bid in time

IB.22 Modification, Substitution and Withdrawal of Bids

- 22.1 Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the procuring agency prior to the deadline for submission of bids.
- 22.2 The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.
- 22.3 No bid may be modified by a bidder after the deadline for submission of bids except in accordance with to sub - clauses IB 22.1 and IB 27.2
- 22.4 Withdrawal of a bid during the interval between the deadlines 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 Procuring agency 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 or their representatives who are in attendance shall sign an attendance sheet.
- 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 Procuring agency shall read aloud the name of the bidder, total bid price and price of any Alternate Proposal(s), if any, discounts, bid modifications, substitution and withdrawals, the presence or absence of bid security, and such other details as the procuring agency may consider appropriate, and total amount of each bid, and of any alternative bids if they have been requested or permitted, shall be read aloud and recorded when opened.
- 23.4 Procuring Agency shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with the sub-clause IB.23.3.

IB.24 Process to be Confidential (SPP Rule 53)

- 24.1 Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of bid evaluation report in accordance with the requirements of Rule 45, which states that Procuring agencies shall announce the results of bid evaluation in the form of a report giving reasons for acceptance or rejection of bids. The report shall be hoisted on website

of authority and that of procuring agency if it website exists and intimated to all bidders at least seven (7) days prior to the award of contract. The announcement to all bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the procuring agency'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 as per Rule 31; however mere fact of lodging a complaint shall not warrant suspension of the procurement process.

IB.25 Clarification to Bid (SPP Rule 43)

- 25.1 To assist in the examination, evaluation and comparison of bids, the procuring agency may, at its discretion, ask any bidder for clarification of the 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 procuring agency in the evaluation of the bids in accordance with clause IB 28.

IB.26 Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the procuring agency will determine whether the bidder fulfills all codal requirements of eligibility criteria given in the tender notice such as registration with tax authorities, registration with PEC (where applicable), turnover statement, experience statement, and any other condition mentioned in the NIT and bidding document. If the bidder does not fulfill any of these conditions, it shall not be evaluated further.
- 26.2 Once found to be fulfilling the eligibility criteria, as mentioned in sub-clause 26.1, the bids of eligible bidders will be evaluated for technical responsiveness as per specification and criteria given in the bidding documents. Technical and financial evaluations may be carried out in accordance with single stage-single one envelope, single stage-two envelopes, two stage or two stage-two envelopes bidding procedures depending on the selection procedure adopted by the procuring agency.
- 26.3 A bid will be considered technically responsive if it (i) has been properly signed; (ii) is accompanied by the required bid security; and (iii) 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 affects 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 procuring agency'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.
- 26.4 If a bid has major deviations to the commercial requirements and technical specifications will be considered technically non responsive. As a general rule, major deviations are those that if accepted, would not fulfill the purposes for which the bid is requested, or would prevent a fair comparison or affect the ranking of the bids that are compliant with the bidding documents.

(A). Major (material) Deviations include:-

- (i) has been not properly signed;
- (ii) is not accompanied by the bid security of required amount and manner;

- (iii) stipulating price adjustment when fixed price bids were called for;
- (iv) failing to respond to specifications;
- (v) failing to comply with Mile-stones/Critical dates provided in Bidding Documents;
- (vi) sub-contracting contrary to the Conditions of Contract specified in Bidding Documents;
- (vii) refusing to bear important responsibilities and liabilities allocated in the Bidding Documents, such as performance guarantees and insurance coverage;
- (viii) taking exception to critical provisions such as applicable law, taxes and duties and dispute resolution procedures;
- (ix) a material deviation or reservation is one:
 - (a) which affect in any substantial way the scope, quality or performance of the works
 - (b) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids

(B) Minor Deviations

Bids that offer deviations acceptable to the Procuring Agency and which can be assigned a monetary value may be considered substantially responsive at least as to the issue of fairness. This value would however be added as an adjustment for evaluation purposes only during the detailed evaluation process.

IB.27 Correction of Errors before Financial Evaluation

- 27.1 Bids determined to be substantially responsive will be checked by the procuring agency for any arithmetic errors. Errors will be corrected by the procuring agency 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 procuring agency there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.
- 27.2 The amount stated in the Form of Bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and with the concurrence of the bidders. The amount thus corrected shall be considered as binding upon the bidder. If the bidder does not accept the corrected bid price, his bid will be rejected, and the bid security shall be forfeited in accordance with sub- clause IB 15.6(b) hereof.

IB.28 Financial Evaluation and Comparison of Bids

- 28.1 The procuring agency will evaluate and compare only the Bids determined to be substantially responsive in accordance with clause IB 26.
- 28.2 In evaluating the Bids, the procuring agency 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 (if any), for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
 - (c) making an appropriate adjustment for any other acceptable variation or deviation
- 28.3 The estimated effect of the price adjustment provisions of the conditions of contract, applied over the period of execution of the contract, shall not be taken into account in bid evaluation.
- 28.4 If the bid of the successful bidder is seriously unbalanced in relation to the procuring agency's estimate of the cost of work to be performed under the contract, the procuring agency 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 procuring agency 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 procuring agency against financial loss in the event of default of the successful bidder under the contract.
- 28.5 Bidders may be excluded if involved in **“Corrupt and Fraudulent Practices”** means either one or any combination of the practices given below SPP Rule2(q)
- (i) **“Coercive Practice”** means any impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party
 - (ii) **“Collusive Practice”** means any arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain
 - (iii) **“Corrupt Practice”** means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain
 - (iv) **“Fraudulent Practice”** means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation
 - (v) **“Obstructive Practice”** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

28.6 Evaluation Report (SPP Rule 45)

After the completion of evaluation process, as described in clauses IB 27 and IB 28, the procuring agency shall announce the results of bid evaluation in the form of report (available on the website of the authority) giving reasons for acceptance and rejection of bid. The report shall be hoisted on website of the authority and that of procuring agencies

if its website exists and intimated to all bidders at least seven (7) days prior to the award of contract.

F. AWARD OF CONTRACT

IB.29 Award (SPP Rule 49)

29.1 Subject to clauses IB 30 and IB 34 and provision of the rule: The procuring agency shall 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, but not necessarily the lowest submitted price, within the original or extended period of bid validity. Provided that such bidder has been determined to be eligible in accordance with the provisions of clause IB 03 and qualify pursuant to sub- clause IB 29.2.

29.2 Procuring agency, at any stage of the bid evaluation, having credible reasons for or having *prima facie* evidence of any deficiency(ies) in contractor's capacities, may require the contractor to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not for the said project.

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

IB.30 Procuring Agency's Right to reject all Bids or Annul/Cancellation the Bidding Process (SPP Rule 25)

Notwithstanding clause IB 29 and provision of the rule: (1) A procuring agency reserves may cancel the bidding process at any time prior to the acceptance of a bid or proposal; (2) The procuring agency shall incur no liability towards bidders solely by virtue of its invoking sub –rule (1); (3) Intimation of the cancellation of bidding process shall be given promptly to all bidders and bid security shall be returned along with such intimation; (4) The procuring agency shall, upon request by any of the bidders, communicate to such bidder, grounds for cancellation of the bidding process, but is not required to justify such grounds.

IB.31 Notification/ Publication of the Award of Contract (SPP Rule 25)

31.1 Prior to expiry of the period of bid validity, including extension, prescribed by the procuring agency, the procuring agency shall notify the successful bidder in writing ("Letter of Acceptance") that his bid has been accepted. This letter shall mention the sum which the procuring agency will pay to the contractor in consideration of the execution and completion of the works by the contractor as prescribed by the contract (hereinafter and in the conditions of contract called the "Contract Price").

31.2 No negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted, however, procuring agency may hold meetings to 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 procuring agency and the bidder till signing of the formal Contract Agreement.

31.4 Upon furnishing by the successful bidder of a Performance Security and signing of the contract, the procuring agency will promptly notify the name of the successful bidder to all bidders and return their bid securities accordingly

31.5 Within seven days of the award of contract, procuring agency shall publish on the website of the Authority and on its own website, if such a website exists, the results of the bidding process, identify the bid through procurement identifying numbers, and the following information:

- (1) Evaluation Report;
- (2) Form of Contract and letter of Award;
- (3) Bill of Quantities or Schedule of Requirement

31.6 Debriefing (SPP Rule 51)

(a) A bidder may ask the procuring agency for reasons for non acceptance of his bid and may request for a debriefing meeting and procuring agency shall give him the reasons for such non acceptance, either in writing or by holding a debriefing meeting with such a bidder.

(b) The requesting bidder shall bear all the costs of attending such a debriefing

IB.32 Performance Security (SPP Rule 39)

32.1 The successful bidder shall furnish to the procuring agency a Performance Security in the form of pay order or demand draft or bank guarantee, and the amount stipulated in the bidding data and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance.

32.2 Failure of the successful bidder to comply with the requirements of Sub-clause IB.32.1 or clauses IB 33 or IB 35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

32.3 Validity of performance security shall extend at least ninety days beyond the date of completion of contract, or as mentioned in the bidding data to cover defects liability period or maintenance period subject to final acceptance by the procuring agency.

IB.33 Signing of Contract Agreement (SPP Rule 39)

33.1 Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the procuring agency 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 procuring agency and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the procuring agency.

33.3 A procurement contract shall come into force when the procuring agency requires signs contract, the date on which the signatures of both the procuring agency and the successful bidder are affixed to the written contract. Such affixing of signatures shall take place within the time prescribed in the bidding documents.

Provided that the procuring agency may reduce the maximum time limit for signing of contract, as and when required, and shall be mentioned in the bidding documents.

33.4 Stamp Duty

The formal Agreement between the Procuring Agency and the successful bidder shall be duly stamped at rate of ----% of bid price (updated from time to time) stated in Letter of Acceptance

IB.34 Stamp Duty

Procuring agency may in case of consistent poor performance of the contractor and his failure to remedy the underperforming contract may take such action as may be deemed appropriate under the circumstances of the case including the rescinding the contract and/or black listing of such contractor and debarring him from participation in future bidding process.

IB.35 Integrity Pact (SPP Rule 89)

The bidder shall sign and stamp the Integrity Pact provided at Appendix-L to the bidding documents for all Provincial/Local Government procurement contracts exceeding Rupees ten million. Failure to provide such Integrity Pact shall make the bidder non-responsive.

IB.36 Instruction not part of Contract

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

IB.37 Arbitration (SPP Rule 34)

Any dispute that is not amicably resolved shall be finally settled, unless otherwise specified in the Contract, under the Arbitration Act 1940 updated from time to time and would be held anywhere in the Province of Sindh at the discretion of procuring agency.

BIDDING DATA SHEET

The following specific data for the Works to be bidden 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.

Instructions to Bidders Clause Reference

1.1. Name and address of the Procuring Agency

Project Implementation Unit,
Education City Project
1st Floor, Block-A. Finance & Trade Centre
Shahra-e-Faisal, Karachi

1.2. Name of the Project & Summary of the Works:

Name of the Project :-

Special Technology Zone (STZ), Package 1 Electrical Power Works , Education City, Karachi.

Summary of The Project:-

Laying and development of MV / LV and Street Lighting as specified in the Contract.

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

The Employer has arranged funds from its own sources.

2.1 Amount and type of financing

Not used

3 Eligible Bidders (and Qualification Criteria)

For consideration of the bids following are the key requirements for qualification;

3.1 ELIGIBILITY CRITERIA (MANDATORY REQUIREMENT)

1. General

The technical proposal of the Bidders shall be evaluated for the post-qualification of bidders for construction of the subject project basing as the criteria given in succeeding paras regarding the Applicant's Basic Eligibility, Work Experience, Personnel Capabilities, Equipment Capabilities and Financial Soundness. Sub-contractor's experience and resources shall not be taken into account in determining the applicant's compliance with the qualifying criteria.

2.	Weightage/ Marks
	The weightage/ distribution of the marks shall be as given below:
i. Company Profile	20
ii. Company Experience	70
iii. Personnel Capabilities	35
iv. Health Safety Environment and Quality	25
v. Financial Soundness	50

A. MANDATORY

- Undertaking on Stamp Paper of Rs.500/- containing that: - (Mandatory)
 - ☐ Affidavit to the effect that the firm has not been blacklisted previously by any Govt. or Non-Govt. executing agency.
 - ☐ List of litigation (if any) their nature and status/outcomes.
 - ☐ Affidavits to the effect that all documents/particulars/information furnished are true and correct.
- Valid Registration with Income Tax & Sindh Revenue Board (SRB) (Mandatory).
- Valid Registration with Pakistan Engineering Council in PEC Category C-3 with PEC registration in relevant categories of CE10, EE04, EE05 (Mandatory).
- Valid Electrical License issued from Inspectorate of Electrical License Sindh of a similar region with respect to works shown above. (Mandatory).
- K-Electric Prequalification letter or and listed in the active list of KE.

B. EVALUATION CRITERIA BASED ON MARKS / SCORE

Aggregate Qualifying Score is **70%** but it is mandatory to obtain at least 50% in each of the following sections: -

1. Company Profile

20 Marks

(a)	The period since the Firm/ Constructor is in the Construction Business Between 6-10 years Above 10 years Attach your first/old PEC license for reference, as well as your most recent valid PEC license.	20 Marks - Max 10 Marks 20 Marks
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2. Company Experience**70 Marks**

(a)	WORK COMPLETED Project of Similar Nature Composite Civil & Electrical Works (Electricity connection) with Government or Corporate / Private Sector / With KE of Project Worth PKR 200 million or above all over Pakistan during last 05 years. 05-Marks will be given for each Project. (Documentary Evidence with complete address of the Project and Client be attached)	35 Marks
(b)	WORK IN HAND Project of Similar Nature Composite Civil & Electrical Works (Electricity connection) with Government or Corporate / Private Sector / With KE of Project Worth PKR 200 million or above during last 02-years. 10-Marks will be given for each Project (Documentary Evidence with complete address of the Project and Client be attached)	35 Marks

3. Employees Capabilities Required for the Project**35 Marks**

Employed Engineers must have valid registration with the Pakistan Engineering Council (PEC) and active Tax Payer also reflected in the firm's PEC license.

The key technical personnel required at the site and factors for marking are as follows:

Sr.	Description / Position with Minimum Qualification & Experience	Max Marks Assigned	Remarks
1	Project Manager (02 No.) BE (Electrical/Civil) registered with Pakistan Engineer Council (PEC) having experience of 10 years or above.	10	3 Marks For each PE License from PEC 2 Mark For RE License from PEC.
2	Contract Engineer / Cost Engineer (01 No.) B.E. (Electrical) registered with Pakistan Engineering Council (PEC) having experience of 5 years or above.	7	4 Mark Minimum experience between 05-07 years. 7 Marks Experience above 07 years.
3	Site Engineer (Electrical/Civil) Engineer (02 No.) B.E. (Civil / Elect. /Elect /Telecomm /IT) registered with Pakistan Engineering Council (PEC) Min. experience 5 years	6	01 Marks Minimum experience 05. 3 Marks Experience above 05 years.
4	Quantity Surveyor - DAE in Civil (01 No.) DAE in Electrical having relevant experience of Min. 5 years.	4	2 Marks Minimum experience 5 years. 4 Marks Experience More than 5 years.



Sr.	Description / Position with Minimum Qualification & Experience	Max Marks Assigned	Remarks
5	Site Supervisor Elect (01.) DAE in Electrical having relevant experience of 5 years or above.	4	2 Marks Minimum experience of up to 5 years 4 Marks Experience above 5 years.
6	CAD Operator (Electrical) 01 DAE in Electrical having relevant experience of 10 years or above.	4	2 Marks Minimum experience of up to 3 years 4 Marks Experience with 1 similar project.

4. Health, Safety, Environment & Quality

25 marks

- | | |
|--|---------|
| a) Presence of HSEQ Policy | 6 marks |
| b) Presence of HSEQ Management System Manual | 6 Marks |
| c) Presence of ISO 45001 Certificate | 5 Marks |
| d) Presence of ISO 14001 Certificate | 4 Marks |
| e) Presence of ISO 9001 Certificate | 4 Marks |

5. Financial Soundness

50 marks

For the Financial Status assessment, the Applicants have to submit Income tax returns for the last three years and SRB monthly returns. Further, the bidder will provide evidence from the bank to verify the financial soundness of the bidder.

Average Credit Limit

25

Marks

Bank Letter showing credit limit/worth of the firm

- | | | |
|-----|-----------------------|----|
| i. | up to PKR 500 million | 15 |
| | Marks | |
| ii. | Above PKR 500 million | 25 |
| | Marks | |

Turnover for last 03 Years 2022-2024

25 Marks

Turnover for last 03 Years (Income Tax return / Audited financial report)

- | | | |
|-----|-----------------------------------|----------|
| i. | Below 500 million | 15 Marks |
| ii. | Equal to or Above PKR 500 million | 25 Marks |



- 3.3 COMMERCIAL EVALUATION.** It will be examined in detail whether the Bids comply with the commercial/ contractual conditions of the Bid Documents. It is expected that no major deviation/ stipulation shall be taken by the Bidders.

3.4 EVALUATED BID PRICE

In evaluating the Bids, the Employer will determine for each Bid in addition to the Bid Price, the following factors (adjustments) in the manner and to the extent indicated below to determine the Evaluated Bid Price:

- (i) Making any correction for errors pursuant to Sub-Clause 27.2 hereof.
- (ii) Excluding Provisional Sums, if any, but including priced Day work (if applicable)
- (iii) Making an appropriate adjustment for any other acceptable variation or deviation.

4.1 One Bid per Bidder

Out of a parent organization and / or sister organization, only one entity shall submit a Bid. If more than one Bid is submitted by the entities belonging to same parent organization and / or being sister organizations, all such Bids shall be rejected to avoid Conflict of Interest.

8.1. Time limit for clarification

07 Days prior to the deadline for submission of bids.

10.1. Bid language

The same language in which the bid documents are written i.e. English language.

11.1 (A) In continuation with the document mentioned in Clause IB 3.1 hereabove, the Bidder shall also submit with its Technical Bid (Envelope - A) the following documents:

- a). Letter of Technical Bid
- b). Bid Security (IB.15)
- c). Written confirmation authorizing the signatory of the Bid to commit the Bidder (IB.18.5)
- d). Pending litigation information
- e). Special Stipulations (as filled by the Employer) (Appendix - A)
- f). Proposed Construction Schedule (Appendix - E)
- g). Method of Performing the Work (Appendix - F)
- h). Availability of Critical Equipment (Appendix - G)
- i). Construction Camp and Housing Facilities (Appendix - H)
- j). List of Sub-contractors (Appendix - I)
- k). Organization Chart for Supervisory Staff (Separately for Construction & O & M Period) (Appendix - K)
- l). Integrity Pact (Appendix - L)
- m). Financial Competence and Access to financial Resources (appendix - M)
- n). Past Performance, Current Commitment, Qualification and Experience (Documentary Evidences) (Appendix - N)
- o). In separate envelope, the documents in support of Technical Bid as stipulated in Clause IB28.5 of Bidding Data

11.1 (B) The Bidder shall submit with its Financial Bid (Envelope - B) the following documents

- a). Letter of Price Bid
- b). Price Adjustment under Clause 70 (Appendix - C)
- c). Bill of Quantities (Appendix - D)
- d). Proposed Payment Yard Stick (Appendix - J)

11.4 Documents Accompanying the Bid

After issuance of Letter of Acceptance by the Procuring Agency to the successful bidder and prior to signing of Contract, the successful bidder shall provide licensed copy of the General Condition of Contract, duly signed and stamped. The cost of procuring and providing the said General Condition of Contract shall be the bidder's account. The said GCC shall be made part of the contract.

13.1 Currencies of Bid and Payment

The unit rates and prices shall be quoted by the bidder entirely in Pak Rupees and will be paid in Pak Rupees only.

14.1 Period of Bid Validity

Bid shall remain valid and open for acceptance for a period of ninety (90) calendar days after the latest dead line for submission of bid.

15.1 Amount of Bid Security

Each Bidder shall furnish, as part of his bid, a Bid Security in the amount of not less than Rs. 10 million in PKR in the form of Pay Order in favour of Employer or Bank Guarantee from a Schedule Bank of Pakistan . or from a Foreign Bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the Employer.

The Bid Security shall be, at the option of the bidder, in the Form of Deposit at Call or a Bank Guarantee issued by a Scheduled Bank in Pakistan or from a Foreign Bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the Employer.

16 Alternate Proposals by Bidders

Not Allowed

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

Venue : Project Implementation Unit, Education City, 1st Floor, Block-A. Finance & Trade Centre, Shahra-e-Faisal, Karachi

Time :

Date : Will Be Intimated if required

Bidders have to submit their queries in writing for determination of the Pre Bid Meeting.

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

One original and one copy

19.2 (a) Procuring Agency's address for the purpose of Bid submission

Name and address of the Employer is:
Project Implementation Unit,
Education City Project,
1st Floor, Block-A. Finance & Trade Centre
Shahra-e-Faisal, Karachi

19.2 (b) Name and Identification Number of the Contract

Special Technology Zone (STZ), Package 1 Electrical Power Works, Education City, Karachi

BID Reference No. CGDC/PIU/ECP/2025/STZ/PKG1/EPW

20.1 (a) Deadline for submission of bids

As per NIT

22.5 Modification, Substitution and Withdrawal of Bids

No alterations or additions shall be made by the Contractor in the Bill of Quantities and rates must be filled in hand written in ink, both in figures and words clearly and legibly in the columns provided in the schedule of quantities. All corrections must be initiated by the contractors. Any Bid which does not comply with this condition will be liable to be summarily rejected and not taken into account when preparing comparative statement.

23.1 Venue, time, and date of Bid opening

Opening of Technical Proposals:

Venue : Project Implementation Unit, Education City, 1st Floor, Block-A. Finance & Trade Centre, Shahra-e-Faisal, Karachi

Time : _____ **Hours**
Date : _____ **2026**

Opening of Financial Proposals:

Venue : Project Implementation Unit, Education City, 1st Floor, Block-A. Finance & Trade Centre, Shahra-e-Faisal, Karachi

Time : *To be announced after Evaluation of Technical Bids*
Date : *To be announced after Evaluation of Technical Bids*

32 Standard form and amount of Performance Security acceptable to the Employer

Amount of Performance Security shall be per Clause 10.1 of Part II-Conditions of Particulars Application.

33 Signing of Contract Agreement

The agreement would be made on stamp paper of value to be determined at the rate of 0.35 percent of the contract value or as determined by the Inspectorate of Stamp Duty. Cost of stamp duty would be borne by the Contractor before mobilization on site.

FORM OF BID

(LETTER OF OFFER)

Bid Reference No. _____

SUBJECT: SPECIAL TECHNOLOGY ZONE (STZ), PACKAGE 1 ELECTRICAL POWER WORKS , EDUCATION CITY, KARACHI.

To:

1. Having examined the bidding documents including Instructions to Bidders, Bidding Data, and Conditions of Contract, Specifications, Drawings and Bill of Quantities and Addenda Nos.____ for the execution of the above-named work, we/I, the undersigned, offer to execute and complete the work and remedy any defects therein in conformity with the Conditions of Contract, Specifications, Drawings, Bill of Quantities and Addenda for the sum of Rs. _____ (Rupees _____) or such other sum as may be ascertained in accordance with the said conditions
2. We/I 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/I submit herewith a bid security in the amount of Rs. _____ (Rupees _____) drawn in your favour or made payable to procuring agency and valid for a period of _____ days beginning from the date, bid is opened
4. We/I 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/I agree to abide by this bid for the period of _____ days from the date fixed for opening 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.
9. We undertake, if our/my bid is accepted, to execute the Performance Security referred to in Clause 10 of Conditions of Contract for the due performance of the Contract.
10. We confirm, if our bid is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the procuring agency.
(Please delete this in case of Bid form a single bidder)

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

Dated this _____ day of _____, 2025

Signature _____

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

(Name of Bidder in Block Capitals)

(Seal)

Address

Witness:

(Signature) _____

Name: _____

Address:

BA-1
APPENDIX - A TO BID

SPECIAL STIPULATIONS

Clause No.			
	Engineer's Authority to issue Variation in emergency	3.1	2% of the Contract Price stated in the Letter of Acceptance.
	Amount of Performance Security	4.2	5% of Contract Price.
	Time for Furnishing Program	8.3	Within 14 days from the date of receipt of Letter of Acceptance.
	Minimum amount of Third Party Liability Insurance	18.3	Rs. 1,000,000/- for property damage & Rs. 500,000/- for personnel injury/death per occurrence with number of occurrences unlimited.
	Time for Commencement	8.1	Within 07 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.
	Time for Completion	8.2	24 Calendar Months from the date of receipt of Engineer's Notice to Commence.
	Amount of Liquidated Damages/ Delay Damages/ Penalties (LD)	8.7	0.01% Damages per day but total amount will not be more than 10% of Contract Price.
	Defects Liability Period	11.1	12 Calendar Months from the effective date of Substantial Completion/Taking Over of Project.
	Percentage of Retention Money	14.2	10 % of the amount of Interim/Running Payment Certificate.
	Limit of Retention Money	14.2	5 % of Contract Price stated in the Letter of Acceptance.
	Minimum amount of Interim / Running Payment Certificates	14.2	5% of Contract Price, however it's the Engineer's discretion to approve any amount considering the project & site conditions.
	Time of Payment from delivery of Engineer's Interim/Running Payment Certificate to the procuring agency.	14.7	28 working days for issuance date of Interim Payment Certificate (IPC) certified by the Engineer. The Engineer shall certify the IPC within 14 working days of its receipt.
	Mobilization Advance (Interest Free)	*14.2	10% of Contract Price stated in the Letter of Acceptance against Bank Guarantee.

*** Note:** For complete text please Refer related clause in Conditions of Contract

Initials of Signatory of Bid _____

BB-1
APPENDIX-B TO BID

FOREIGN CURRENCY REQUIREMENTS

1. The Bidder may indicate here in below his requirements of foreign currency (if any), with reference to various inputs to the Works.
2. Foreign Currency Requirement as percentage of the Bid Price excluding Provisional Sums [%]
3. Table of Exchange Rates

Not Used	
<i>Unit of Currency</i>	Equivalent in Pak. Rupees
Australian Dollar	-----
Euro	-----
Japanese Yen	-----
U.K. Pound	-----
U.S. Dollars	-----
-----	-----
-----	-----

BC-1
Appendix-C to Bid

**PRICE ADJUSTMENT UNDER CLAUSE 13.8
OF CONDITIONS OF CONTRACT**

A. Weight ages or coefficients are used for price adjustment.

The source of indices and the weight ages or coefficients for use in the adjustment formula under Clause 13.8 shall be as follows:

(To be filled by the procuring agency)

Cost Element	Description	Weight ages	Applicable index
1	2	3	4
(i)	Fixed Portion	0.350	
(ii)	Local Labor		Government of Pakistan (GoP) Federal Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(iii)	Cement – in bags		“ “ “
(iv)	Reinforcing Steel		“ “ “
(v)	High Speed Diesel (HSD)		“ “ “
(vi)	Bricks		“ “ “
(vii)	Bitumen		“ “ “
(viii)			
	Total	1.000	

Notes:

- Indices for “(ii)” to “(vii)” are taken from the Government of Pakistan Federal Bureau of Statistics, Monthly Statistical Bulletin. The base cost indices or prices shall be those applying 15 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
- Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.
- Fixed portion shown here is for typical road project, procuring agency to determine the weight age of Fixed Portion considering only those cost elements having cost impact of seven (7) percent or more on his specific project.

BD-1
Appendix-D to Bid

BILL OF QUANTITIES

A. Preamble

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract (in case of item not mentioned in Bill of Quantities).
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 14 days prior to deadline for submission of Bids in case of ICB/NCB respectively, 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 and shall not be paid separately.
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 13.5 of Part I, General Conditions of Contract.

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 programme for completion of the whole of the works and parts of the works may meet procuring agency'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
a)	Whole Works	_____ days
b)	Part-A	_____ days (If applicable)
c)	Part-B	_____ days (If applicable)
d)	_____	_____ days
e)	_____	_____ days

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.].

BG-2
Appendix-G to Bid

LIST OF MAJOR EQUIPMENT (SAMPLE)

Owned Purchase d or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Conditio n	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

CONSTRUCTION CAMP AND HOUSING FACILITIES

The Contractor in accordance with Clause 6 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.

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

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

1. Site Preparation (clearing, land preparation, etc.).
2. Provision of Services.
 - a) Power (expected power load, etc.).
 - b) Water (required amount and system proposed).
 - c) Sanitation (sewage disposal system, etc.).
3. Construction of Facilities
 - a) Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).
 - b) Warehouses and Storage Areas (area required, type of construction and layout).
 - c) Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).
4. Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).
4. Other Items Proposed (Security services, etc.). The Contractor should mention here what are his proposed environmental measures for the project as per EPA rules like treatment of wastewater and water quality etc. The Contractor shall submit a detailed EMP (Environmental Management Plan) to describe how materials are removed from site and disposed off at a safe location, prevention for the contamination of ground and surface water in neighboring areas etc. including remedial measures for adoption.
6. Detail of testing Lab with testing equipment etc.

BI-1
Appendix-I to Bid

LIST OF SUBCONTRACTORS

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

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

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

BJ-1
Appendix-J to Bid

ESTIMATED PROGRESS PAYMENTS

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

Month	Amounts (1,000 Rs.)
1	2
1 st Quarter	
2 nd Quarter	
3 rd Quarter	
4 th Quarter	

Bid Price	

BK-1
Appendix-K to Bid

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

(To be filled in by the bidder)

BL-1
Appendix-L to Bid

(INTEGRITY PACT)

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC; PAYABLE BY
CONTRACTORS**
(FOR CONTRACTS WORTH RS. 10.00 MILLION OR MORE)

Contract No. _____ Dated _____
Contract Value: _____
Contract Title: _____

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

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

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

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

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

.....
[Procuring Agency]

[Contractor]

BID SECURITY

Security Executed on _____
(Date)

Name of Surety (Bank) with Address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees _____ (Rs. _____)

Bid Reference No. _____

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated _____ for Bid No. _____ for _____ (Particulars of Bid) to the said Employer; and

WHEREAS, the Procuring Agency has required as a condition for considering said bid that the bidder furnishes a bid security in the above said sum from a Scheduled Bank in Pakistan or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan, to the procuring agency, conditioned as under:

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

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

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

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

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

SURETY (BANK)

WITNESS:

Signature _____

1. _____

Name _____

Title _____

Corporate Secretary (Seal)

Corporate Guarantor (Seal)

2. _____

Name, Title & Address

FORM OF PERFORMANCE SECURITY

Guarantee No. _____

Executed on _____

Expiry date _____

[Letter by the Guarantor to the Procuring Agency]

Name of Guarantor (Bank) with address: _____
(Scheduled Bank in Pakistan)Name of Principal (Contractor) with address: _____
Penal Sum of Security (express in words and figures) _____

Letter of Acceptance No. _____ Dated _____

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the procuring agency's above said Letter of Acceptance for _____
(Name of Contract) for the _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the procuring agency, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 49, Defects Liability, of Conditions of Contract are fulfilled.

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

We, _____ (the Guarantor), waiving all objections and defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the procuring agency without delay upon the procuring agency's first written demand without cavil or arguments and without requiring the procuring agency to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the procuring agency's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Procuring Agency's designated Bank & Account Number.

PROVIDED ALSO THAT the procuring agency 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 procuring agency forthwith and without any reference to the Principal or any other person.

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

Guarantor (Bank)

Witness:

1. _____

Signature _____

Name _____

Title _____

Corporate Secretary (Seal)

2. _____

Name, Title & Address

Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the “Agreement”) made on the _____ day of _____ (month) 2025 between _____ (hereafter called the “Procuring Agency”) of the one part and _____ (hereafter called the “Contractor”) of the other part.

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

NOW this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any, except those parts relating to Instructions to bidders shall be deemed to form and be read and construed as part of this Agreement, viz::
 - a). The Contract Agreement;
 - b). The Letter of Acceptance;
 - c). The completed Form of Bid;
 - d). Special Stipulations (Appendix-A to Bid);
 - e). The Special Conditions of Contract – Part II;
 - f). The General Conditions - Part I;
 - g). The priced Bill of Quantities (Appendix-D to Bid)
 - h). The completed Appendices to Bid (B, C, E to L)
 - i). Tender Drawings;
 - j). The Specifications
 - k). _____ (any other)
3. In consideration of the payments to be made by the procuring agency to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the procuring agency to execute and complete the works and remedy defects therein in conformity and in all respects with the provisions of the contract.
4. Procuring agency hereby covenants to pay the contractor, in consideration of the execution and completion of the works as per provisions of the contract, the contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

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

Signature of the Contactor

Signature of Employer

(Seal)

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address)

(Name, Title and Address)

MOBILIZATION ADVANCE GUARANTEE

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Procuring Agency') has entered into a Contract for _____ (Particulars of Contract) with _____ (hereinafter called the "Contractor").

AND WHEREAS, the Procuring Agency 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 Procuring Agency 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) (hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the procuring agency 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 procuring agency for payment not exceeding the aforementioned amount.

Notice in writing of any default, of which the procuring agency shall be the sole and final judge, on the part of the Contractor, shall be given by the procuring agency to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection

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

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

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

GUARANTOR

1. Signature _____
2. Name _____
3. Title _____

WITNESS

1. _____
Corporate Secretary (Seal)

2. _____
(Name Title & Address)

Corporate Guarantor (Seal)

INDENTURE FOR SECURED ADVANCES

(For use in cases in which is contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time).

This INDENTURE made the day of 2025 BETWEEN (hereinafter called "the Contractor" which expression shall where the context so admits or implied be deemed to include his heirs, executors, administrators and assigns) of the one part and _____ (hereinafter called "the Government" of the other part).

WHEREAS by an agreement, dated (hereinafter called the said agreement, the contractor has agreed to perform the under-mentioned works (hereinafter referred to as the said work):-

(Here enter (the description of the works).

AND WHEREAS the contractor has applied to thefor an advance to him of Rupees (Rs.) on the security of materials absolutely belonging to him and brought by him to the site of the said works the subject of the said agreement for use in the construction of such of the said works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charge) AND WHEREAS the Government has agreed to advance to the Contractor the sum of Rupees, (Rs.) on the security of materials the quantities and other particulars of which are detailed in Part II of Running Account Bill (B). the said works signed by the contractor
Fin R.Form.17.A

On and on such covenants and conditions as are hereinafter contained and the Government has reserved to itself the option of marking any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

NOW THIS INDENTURE WTTNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees.....(Rs.) on or before the execution of these presents paid to the Contractor by the Government (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid (all of which advances are hereinafter collectively referred to as the said amount) the Contractor doth hereby assign unto the Government the said materials by way of security for the said amount

And doth hereby covenant and agree with the Government and declare ay follow :-

- (1) That the said sum of Rupees RS.) so advanced by the Government to the Contractor as aforesaid and all or any further sum or sums which may be advanced as aforesaid shall be employed by the contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials detailed in the said Running Account Bill (B) which have been offered to and accepted by (he Government as security for the said amount are absolutely by the Contractors own property free from encumbrances of any kind and the Contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the contractor hereby agrees, at all times, to indemnify and save harmless the Government against all claims whatsoever to any materials in respect of which an advance has been made to him as aforesaid.
- (3) That the said materials detailed in the said Running Account Bill (B) and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Divisional Officer (hereinafter called the Divisional Officer) and in the terms of the said agreement.

-
- (4) That the Contractor shall make at his own cost all necessary and adequate arrangement for the proper watch, safe custody and protection against all risks of the said material and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and at his own risk and on his own responsibility and shall at all times be open to inspection by (he Divisional Officer or any officer authorized by him. In the event of the said materials of any part (hereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof Contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Divisional Officer and the materials so brought to replace the said materials so repaired and made good shall also be considered as security for the said amount.
- (5) 'Hurt the said materials shall not on any account be removed from the site of the said works except with the written permission of the Divisional Officer or an officer authorized by him in that behalf
- (6) That the said amount shall be payable in full when or before the Contractor receives payment, from the Government of the price payable to him for the said works under the terms and provisions of the said agreement PROVIDED THAT if any intermediate payments are made to the contractor on account of work done then on the occasion of each such payment the Government will be at liberty to make a recovery from the Contractors Bill for such payment by deducting there from in the value of the said materials (then actually used in the construction and in respect of which recovery has not been made previously the value for this purpose being determined in respect of each description of material at (he rates at which the amount of the advances made under these presents were calculated.
- (7) at if the Contractor shall at any time make any default in the performance or observation in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing to the Government shall immediately on the happening of such default be repayable by the Contractor to the Government together with interest thereon at twelve percent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the Government in or for the recovery thereof or the enforcement of this security or otherwise by reason of (he default of the Contractor and any moneys so becoming due and payable shall constitute a debt due from the Contractor to the Government and the Contractor hereby covenants and agrees with the Government to repay and the same respectively to it accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Government of the said sum of Rupees..... (Rs.) and any further sum or sums which may be advanced as aforesaid and all costs charges damages and expenses payable under these present PROVIDED ALWAYS and it is hereby agreed and declared that not, withstanding anything in the said agreement and without prejudice to the powers contained therein if and whether the covenant for payment and repayment hereinbefore contained shall become enforceable and the money owing shall not be paid to accordingly.

Once there with the Government may at any time thereafter adopt all or any of following courses as it may deem best ;-

- (a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor he is to pay the same to the Government on demand.
- (b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable to the Government under these presents and pay over the surplus (if any) to the Contractor.

- (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
- (9) That except as is expressly provided by the presents interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been hereinbefore expressly provided for the same shall be referred to the Superintending Engineer/Executive District Officer/Officer one grade higher to officer signed the agreement Circle whose decision shall be final and the provisions of the Arbitration Act 1940 for the time being in force so far as they are applicable shall apply to any such reference.

Notes on the Conditions of Contract

The Conditions of Contract comprise two parts:

- (a) Part I - General Conditions of Contract**
- (b) Part II - Special Conditions of Contract**

Over the years, a number of “model” General Conditions of Contract have evolved. The one used in these Standard Bidding Documents was prepared by the International Federation of Consulting Engineers (Federation International des Ingenieurs-Conseils, or FIDIC), and is commonly known as the FIDIC Conditions of Contract. (The used version is the harmonized Edition March 2006).

The FIDIC Conditions of Contract have been prepared for an ad measurement (unit price or unit rate) type of contract, and cannot be used without major modifications for other types of contract, such as lump sum, turnkey, or target cost contracts.

The standard text of the General Conditions of Contract chosen must be retained intact to facilitate its reading and interpretation by bidders and its review by the procuring agency. Any amendments and additions to the General Conditions, specific to the contract in hand, should be introduced in the Particular Conditions of Contract.

The use of standard conditions of contract for all civil works will ensure comprehensiveness of coverage, better balance of rights or obligations between procuring agency and Contractor, general acceptability of its provisions, and savings in time and cost for bid preparation and review, leading to more economic prices.

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* Add the following text if the bidding documents, as issued, do not include a copy:

“Copies of the FIDIC Conditions of Contract can be obtained from: To request such permission please contact:

FIDIC CASE POSTALE, CH-1215 Switzerland; Tel. +41 22 799 49 00;

Fax; +41 22 799 49 01

E-mail: fidic@fidic.org.

After issuance of Letter of Acceptance by the Procuring Agency to the successful bidder and prior to signing of Contract, the successful bidder shall provide licensed copy of the following General Condition of Contract, duly signed and stamped (as per Clause IB 11.4 Bidding Data). The cost of procuring and providing the said General Condition of Contract shall be the bidder’s account. The said GCC shall be made part of the contract.

Conditions of Contract for CONSTRUCTION

FOR BUILDING AND ENGINEERING
WORKS DESIGNED BY THE EMPLOYER

Multilateral Development Bank Harmonized Edition
March 2006

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FEDERATION INTERNATIONALE DES INGENIEURS-CONSEILS
INTERNATIONAL FEDERATION OF CONSULTING ENGINEERS
INTERNATIONALE VEREINIGUNG BERATENDER INGENIEURE
FEDERACION INTERNACIONAL DE INGENIEROS CONSULTORES



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1.1

Definitions

In the Conditions of Contract ("these Conditions"), which include Particular Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise

1.1.1

The Contract

1.1.1.1 "Contract" means the Contract Agreement, the Letter of Acceptance, the Letter of Tender, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.

1.1.1.2 "Contract Agreement" means the contract agreement referred to in Sub- Clause 1.6 [Contract Agreement].

1.1.1.3 "Letter of Acceptance" means the letter of formal acceptance, signed by the Employer, of the Letter of Tender, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression "Letter of Acceptance" means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.

1.1.1.4 "Letter of Tender" means the document entitled letter of tender or letter of bid, which was completed by the Contractor and includes the signed offer to the Employer for the Works.

1.1.1.5 "Specification" means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

1.1.1.6 "Drawings" means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract.

1.1.1.7 "Schedules" means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Tender, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

1.1.1.8 "Tender" means the Letter of Tender and all other documents which the Contractor submitted with the Letter of Tender, as included in the Contract.

1.1.1.9 "Bill of Quantities", "Daywork Schedule" and "Schedule of Payment Currencies" mean the documents so named (if any) which are comprised in the Schedules.

1.1.1.10 "Contract Data" means the pages completed by the Employer entitled contract data which constitute Part A of the Particular Conditions.

1.1.2

Parties and Persons

1.1.2.1 "Party" means the Employer or the Contractor, as the context requires.

1.1.2.2 "Employer" means the person named as employer in the Contract Data and the legal successors in title to this person.

1.1.2.3 "Contractor" means the person(s) named as contractor in the Letter of Tender accepted by the Employer and the legal successors in title to this person(s).

1.1.2.4 “Engineer” means the person appointed by the Employer to act as the Engineer for the purposes of the Contract and named in the Contract Data, or other person appointed from time to time by the Employer and notified to the Contractor under Sub-Clause 3.4 [Replacement of the Engineer].

1.1.2.5 “Contractor’s Representative” means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 [Contractor’s Representative], who acts on behalf of the Contractor.

1.1.2.6 “Employer’s Personnel” means the Engineer, the assistants referred to in Sub-Clause 3.2 [Delegation by the Engineer] and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer’s Personnel.

1.1.2.7 “Contractor’s Personnel” means the Contractor’s Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

1.1.2.8 “Subcontractor” means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.

1.1.2.9 “DB” means the person or three persons appointed under Sub-Clause 20.2 [Appointment of the Dispute Board] or Sub-Clause 20.3 [Failure to Agree on the Composition of the Dispute Board].

1.1.2.10 “FIDIC” means the Fédération Internationale des Ingénieurs-Conseils, the international federation of consulting engineers.

1.1.2.11 “Bank” means the financing institution (if any) named in the Contract Data.

1.1.2.12 “Borrower” means the person (if any) named as the borrower in the Contract Data.

1.1.3

Dates, Tests, Periods and Completion

1.1.3.1 “Base Date” means the date 28 days prior to the latest date for submission and completion of the Tender.

1.1.3.2 “Commencement Date” means the date notified under Sub-Clause 8.1 [Commencement of Works].

1.1.3.3 “Time for Completion” means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2 [Time for Completion], as stated in the Contract Data (with any extension under Sub-Clause 8.4 [Extension of Time for Completion]), calculated from the Commencement Date.

1.1.3.4 “Tests on Completion” means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Employer.

1.1.3.5 “Taking-Over Certificate” means a certificate issued under Clause 10 [Employer’s Taking Over].

1.1.3.6 “Tests after Completion” means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Employer.

1.1.3.7 “Defects Notification Period” means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [Completion of Outstanding

Work and Remedying Defects], which extends over twelve months except if otherwise stated in the Contract Data (with any extension under Sub-Clause 11.3 [Extension of Defects Notification Period]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [Taking Over of the Works and Sections].

1.1.3.8 “Performance Certificate” means the certificate issued under Sub-Clause 11.9 [Performance Certificate].

1.1.3.9 “day” means a calendar day and “year” means 365 days.

1.1.4

Money and Payments

1.1.4.1 “Accepted Contract Amount” means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

1.1.4.2 “Contract Price” means the price defined in Sub-Clause 14.1 [The Contract Price], and includes adjustments in accordance with the Contract.

1.1.4.3 “Cost” means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

1.1.4.4 “Final Payment Certificate” means the payment certificate issued under Sub-Clause 14.13 [Issue of Final Payment Certificate].

1.1.4.5 “Final Statement” means the statement defined in Sub-Clause 14.11 [Application for Final Payment Certificate].

1.1.4.6 “Foreign Currency” means a currency in which part (or all) of the Contract Price is payable, but not the Local Currency.

1.1.4.7 “Interim Payment Certificate” means a payment certificate issued under Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.

1.1.4.8 “Local Currency” means the currency of the Country.

1.1.4.9 “Payment Certificate” means a payment certificate issued under Clause 14 [Contract Price and Payment].

1.1.4.10 “Provisional Sum” means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [Provisional Sums].

1.1.4.11 “Retention Money” means the accumulated retention moneys which the Employer retains under Sub-Clause 14.3 [Application for Interim Payment Certificates] and pays under Sub-Clause 14.9 [Payment of Retention Money].

1.1.4.12 “Statement” means a statement submitted by the Contractor as part of an application, under Clause 14 [Contract Price and Payment], for a payment certificate.

1.1.5

Works and Goods

1.1.5.1 “Contractor’s Equipment” means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor’s Equipment excludes Temporary Works, Employer’s Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

1.1.5.2 “Goods” means Contractor’s Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

1.1.5.3 “Materials” means things of all kinds (other than Plant) intended to form or forming

part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

1.1.5.4 "Permanent Works" means the permanent works to be executed by the Contractor under the Contract.

1.1.5.5 "Plant" means the apparatus, machinery and vehicles intended to form or forming part of the Permanent Works, including vehicles purchased for the Employer and relating to the construction or operation of the Works.

1.1.5.6 "Section" means a part of the Works specified in the Contract Data as a Section (if any).

1.1.5.7 "Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

1.1.5.8 "Works" mean the Permanent Works and the Temporary Works, or either of them as appropriate.

1.1.6

Other Definitions

1.1.6.1 "Contractor's Documents" means the calculations, computer programs and other software, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

1.1.6.2 "Country" means the country in which the Site (or most of it) is located, where the Permanent Works are to be executed.

1.1.6.3 "Employer's Equipment" means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Employer.

1.1.6.4 "Force Majeure" is defined in Clause 19 [Force Majeure].

1.1.6.5 "Laws" means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.

1.1.6.6 "Performance Security" means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security].

1.1.6.7 "Site" means the places where the Permanent Works are to be executed, including storage and working areas, and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.

1.1.6.8 "Unforeseeable" means not reasonably foreseeable by an experienced contractor by the Base Date.

1.1.6.9 "Variation" means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

1.2

Interpretation

In the Contract, except where the context requires otherwise:

- (a) words indicating one gender include all genders;
- (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) provisions including the word "agree", "agreed" or "agreement" require the agreement to be record in writing;
- (d) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and
- (e) the word "tender" is synonymous with "bid", and "tenderer" with "bidder" and the

words "tender documents" with "bidding documents".

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

In these Conditions, provisions including the expression "Cost plus profit" require this profit to be one-twentieth (5%) of this Cost unless otherwise indicated in the Contract Data.

1.3

Communications

Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

(a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Contract Data; and

(b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Contract Data. However:

(i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and

(ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

1.4

Law and Language

The Contract shall be governed by the law of the country or other jurisdiction stated in the Contract Data.

The ruling language of the Contract shall be that stated in the Contract Data.

The language for communications shall be that stated in the Contract Data. If no language is stated there, the language for communications shall be the ruling language of the Contract.

1.5

Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (a) the Contract Agreement (if any),
- (b) the Letter of Acceptance,
- (c) the Tender,
- (d) the Particular Conditions - Part A,
- (e) the Particular Conditions - Part B,
- (f) these General Conditions,
- (g) the Specification,
- (h) the Drawings, and
- (i) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction

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PART II - SPECIAL /PARTICULAR CONDITIONS OF CONTRACT

1.1 Definitions

1.1.1.4 "Form of Bid" is synonymous with "Letter of Tender".

1.1.1.5 "Bid" is synonymous with "Tender".

1.1.1.10 "Bidding" is synonymous with "contract".

The following paragraph is added:

1.1.1.11 "Programme" means the programme to be submitted by the contractor in accordance with Sub-Clause 8.3 and any approved revisions thereto.

1.1.2.4 The Engineer is **CGD Consulting Pvt Ltd**, or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer. Provided always that except in cases of professional misconduct, the outgoing Engineer to formulate his certifications / recommendations in relation to all outstanding matter, disputes and claims relating to the execution of the Works during his tenure.

1.12.2 "Employer" is synonymous with "Procuring Agency"

1.1.2.9 "DB" is synonymous with "Committee".

1.1.3.1 Replace 28 days by 7 days in LCB and 15 days in ICB.

1.1.3.7 "Defects notification Period" is synonymous with "Defects liability Period".

1.15 Inspections and Audit by the Procuring Agency

The Contractor shall give access to Procuring Agency or its representative to its record and audit to verify the funds of the project has been used for the purposes intended in the Tender documents.

1.4 Law and Language(s)

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

1.5 Priority of Contract Documents

Add following paragraph at the end of Sub-clause:

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.

3.1 Engineer's Duties and Authority

The following paragraph is added after duties:

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

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

- (i) Consenting to the sub-letting of any part of the Works under Sub Clause 4.4 "Subcontracting".
- (ii) Certifying additional cost determined under Sub-Clause 4.12 "Not Foreseeable Physical Obstructions or Conditions".
- (iii) Any action under Sub-Clause 4.2 "Performance Security" and Clause 18 "Insurance" of sorts.
- (iv) Any action under Clause 16 "Suspension".
- (v) Any action under Clause 8.4 "Extension of Time for Completion".
- (vi) Any action under Clause 8.7 "Delay Damages" or Payment of Bonus for Early Completion of Works.
- (vii) Issuance of "Taking-Over Certificate" under Clause 10.
- (viii) Issuing a Variation Order under Clause 13, except:
 - a) in an emergency* situation, as stated here below, and
 - b) if such variation would increase the Contract Price by less than the amount stated in the Appendix-A to Bid.
- (ix) Fixing rates or prices under Clause 13.3.
- (x) Extra payment as a result of Contractor's claims under Clause 20.
- (xi) Release of Retention Money to the Contractor under Sub-Clause 14.9 "Payment of Retention Money".
- (xii) Issuance of "Final Payment Certificate" under Sub-Clause 14.11 & 14.13.
- (xiii) Issuance of "Defect Liability Certificate" under Sub-Clause 11.

* (The Contractor shall notify the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the work, and if in the opinion of the Engineer an emergency occurs (whether notified by the Contractor or not) 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 13 and shall notify the Contractor accordingly, with a copy to the Procuring Agency.)

The following sub-clause 3.6 is added in (GCC):

3.6 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.

4.2 Performance Security

Delete and replace **'28' days** with **'14' days** wherever found in the sub-clause.

Add the following text at the end;

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

4.3 Contractor's Representative

The following text is to be added after last line:

The contractor's authorized representative or Project Manager must be a graduate civil engineer i.e. BE or B.Sc. (Civil) registered with the Pakistan Engineering Council as Professional Engineer having at least 20 years' experience in the relevant field and should not be more than 50 years old. The Project Manager should be authorized to take instruction from the Engineer and direct contractor's team to complete the works in accordance with the specifications. In case the Contractor fails to appoint his representative / PM and other staff, as stated above & as indicated in Appendix-K to bid, the Engineer may order to stop complete or appropriate portion of work at site until Contractor fulfills the requirement of staff employment.

Following are added after sub clause 4.24;

4.25 Vesting of Contractor's Plant, Equipment Temporary Works and Materials:

(a) Definitions

For the purpose of Sub-Clause 4.17.

- (i) The expression "Construction Plant" shall be deemed to exclude vehicles engaged in transporting any labour equipment or materials to or from the site.
- (ii) The expression "Essential Hired Plant" shall mean all Constructional Plant, Equipment Temporary Works and materials of Temporary Work the withdrawal of which in the event of termination under Sub-Clause 15.2 hereof might (having regard to the methods of construction employed prior to the termination) endanger the safety or stability of or result in serious disturbance to the execution of any part of the Works and which are held by the Contractor under any agreement for hire thereof.
- (iii) The expression "Hired Plant" shall mean any Constructional Plant, Equipment, Temporary Works (other than essential hired plant) held by the Contractor under any agreement for hire thereof.
- (iv) The expression "Agreement for Hire" shall be deemed not to include an agreement for hire purchase with an option to purchase or for conditional sale either of which is herein referred to as an "agreement for the purchase".
- (v) The expression "Hire Purchase Plant" shall mean any Constructional Plant, Equipment, Temporary Works held by the Contractor under an agreement for hire purchase thereof.
- (vi) The expression "owner" means the owner of the plant and equipment of any Hire Purchase Plant.

(b) Vesting of Certain Plant

All Constructional Plant, Equipment, Temporary Works and material owned by the Contractor or by any company in which the Contractor has a controlling interest shall when brought on to the site (or in the case of hire purchase plant upon becoming the property of the Contractor) and shall be deemed to become the property of the Procuring Agency.

(c) Conditions of Hire of Certain Plant

With a view to securing in the event of termination Sub-Clause 15.2 hereof the continued availability for the purpose of executing the Works of any essential hired plant and equipment the Contractor shall not bring on to the Site any essential hired plant unless the agreement for hire thereof contains a provision that the owner will on request in writing made by the Procuring Agency within 7 days after the date on which any such termination has become effective and on the Procuring Agency undertaking to pay all hire charges in respect thereof on the same terms in all respects as the same was hired to the contractor save that the Procuring Agency shall be entitled to permit the use thereof by any other contractor employed by it for the purposes of completing the works under the terms of Sub-Clause 15.2 hereof.

(d) Costs for purpose of Approval of Materials not implied

In the event of the Procuring Agency entering into any agreement for hire of essential hired plant pursuant to the contract provisions, all sums properly paid by the Procuring Agency under the provisions of any such agreement and all expenses incurred by it (including stamp duties) in entering into such agreement shall be deemed for the purpose of Sub-Clause 15.2 hereof to be part of the cost of completing the Works.

(e) Contractor's Certificate as to Hiring Provisions

The Contractor shall upon request made by the Engineer at any time in relation to any item of essential hired plant forthwith notify to the Engineer in writing the name and address of the owner and shall certify that the agreement for the hire thereof contains a provision in accordance with the requirements of Approval of Materials not Implied. The Contractor shall also upon request as aforesaid give a like notification (but without certificate) in regard to any hire purchase plant.

(f) Hire Purchase Payment by the Procuring Agency

The Procuring Agency shall in order to avoid seizure by the owner of any hire purchase plant be entitled to pay to such owner the amount of any overdue installment or other sum payable optionally or otherwise under any Agreement of hire purchase and in the event of his doing so any amount so paid by him shall be debt due from the Contractor to the Procuring Agency and may be deducted by the Procuring Agency from any moneys due or that may become due to the Contractor under the Contract or may be recovered by the Procuring Agency from the Contractor at law.

(g) Irrevocability of Certain Plant etc.

No Constructional Plant, Equipment Temporary Works or materials or any part thereof shall be removed from the site without the written consent of the Engineer which consent shall not be unreasonably withheld where the same is no longer immediately required for the purposes of completion of the Works but the Procuring Agency will permit the Contractor the exclusive use of all such Constructional Plant, Equipment, Temporary Works and materials in and for the completion of the Works until the occurrence of any event which gives the

Procuring Agency the right to expel the Contractor from the site and proceed with the completion of the Works.

(h) Re-vesting and Removal of Plant

Upon the removal with the consent of the Engineer of any such Constructional Plant Equipment, Temporary Works or materials as have been deemed to have become the property of the Procuring Agency, the property therein shall be deemed to re-vest in the Contractor and, upon completion of the Works the property in the remainder of such Constructional Plant, Equipment, Temporary Works and materials as aforesaid shall subject to the provisions of Sub-Clause 15.2 be deemed to re-vest in the Contractor who shall remove the same together with any essential hired plant or hire purchase plant. If the Contractor shall fail to remove any Constructional Plant, Equipment, Temporary Works or materials as aforesaid or any essential hire plant or hire purchase plant within such reasonable time after completion of the Works as may be allowed by the Engineer then the Procuring Agency may:

- i) sell any such Constructional Plant, Equipment, Temporary Works and materials as aforesaid, and
- ii) return at the Contractor's expenses to the person firm or company from whom any Essential Hired Plant or any Hire Purchase Plant was held by the Contractor such essential hired plant or hire purchase plant, and after deducting from any proceeds of sale, the costs, charges and expenses of and in connection with such sale and return as aforesaid shall pay the balance (if any) to the Contractor but to the extent that the proceeds of any sale are insufficient to meet all such cost, charges and expenses the excess shall be a debt due from the Contractor to the Procuring Agency and shall be deductible or recoverable by the Procuring Agency accordingly as aforesaid.

(j) Liability for loss or injury to plant

The Procuring Agency shall not at any time be liable for the loss of or injury to any of the Constructional plant, Temporary Works or materials which have been deemed to become the property of the Procuring Agency, hereof save as mentioned in Sub-Clause 20 hereof.

(k) Incorporation of Sub-Clause in Sub-Contracts

The Contractor shall when entering into any sub-contract for the execution of any part of the Works incorporate in such sub-contract (by reference or otherwise) the provisions of this Sub-Clause in relation to Constructional Plant, Temporary Works and materials. Essential Hired Plant and Hire Purchase Plant to be brought on the Site by the subcontractor.

(l) Approval of Materials etc., not implied

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

6.9 Engineer at Liberty to Object

The following is added at the end of sub clause in General Conditions of Contract: If the Procuring Agency asks the Engineer to direct Contractor to remove a person who is a member of his staff or workforce stating the reasons the Contractor shall ensure that the person leaves the site immediately and has no further connection with the work in the Contract.

6.10 Records of Contractor's Personnel and Equipment

The following paragraph is added:

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

Add the following sub-clause at the end of 6.22 in (GCC)

6.23 Compliance by Subcontractors

The Contractor shall be responsible for compliance by his Subcontractors of the provisions of this Clause. The following sub-clause 7.9 is added in (GCC)

The following sub-clause 7.9 is added in (GCC):

7.9 Use of Pakistani Materials and Services

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

8.1 Commencement of Works

The last para 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.

8.3 Programme

The following paragraphs are added:

The program/schedule shall be submitted in the form of Critical Path Method (CPM) identifying the critical path/activities, in hard form as well as in soft form in latest version of MS Project or as agreed with the Engineer.

- a) The Contractor shall submit to the Engineer detailed programme for the following:
 - (1) Execution of Works;
 - (2) Key Deliverables and submittals
 - (3) Labour Resources;
 - (4) Local Material Procurement;
 - (5) Material Imports, if any; and
 - (6) Other details as required by the Engineer.

- b) If Contractor fails to submit updated work schedule within the time instructed by the Engineer/Project Manager, the Engineer/Project Manager may withhold an amount at his discretion from next due amount and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.
- c) During the period of the Contract, the Contractor shall submit to the Engineer no later than the 8th day of the following month, 04 copies each of Monthly Progress Reports covering:
 - (1) Progress update of the project program/schedule indicating the monthly progress in percentages with actual start and finish dates;
 - (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; and
 - (5) Information about problems and difficulties encountered, if any, and proposals to overcome the same.
- d) 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.
- e) The detailed Cash Flow Estimate shall be submitted within 21 days from the date of receipt of Letter of Acceptance.

8.11 Prolonged Suspension

Replace 84 days by 120 days.

13.1 Right to vary

In the last line of Para, after the word "Variation", the word "in writing" is added.

13.3 Variation procedure

In the second line, after the words "as soon as practicable" following is added: "and within a period not exceeding one-eighth of the completion time"

13.8 Adjustment for changes in cost

Sub-Clause 13.8 is deleted in its entirety, and substituted with the following:

The amounts payable to the Contractor, pursuant to Sub-Clause 14.6, shall be adjusted in respect of the rise or fall in the cost of labor, materials, and other inputs to the Works, by applying to such amount the formula prescribed in this Sub-Clause.

(a) Other Changes in Cost

To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.

(b) Formula for Price Adjustment

1. The formula mentioned below is in its generalized form. The Employer/ user shall determine the proportions of A, b, c, d, by appropriate rate analysis following the procedure enumerated herein below:

$$P_n = A + b \frac{L_n}{L_o} + c \frac{M_n}{M_o} + d \frac{E_n}{E_o} + \dots$$

where,

“P_n” is the Price Adjustment factor for the work carried out in the period “n”.

“A” is a constant or the Non-Adjustable Portion of the Price Adjustment Factor to be specified in Appendix-C to Bid, representing the Non-Adjustable Portion of the Contract Price.

“b, c, d.....” are Coefficients or weightages of the order of 0.xx (i.e., fractions rounded off to two decimals) for each specified element of adjustment in the Contract.

The sum of A, b, c, d, etc., shall be one.

“L_o, M_o, E_o.....” are the Base Date Prices/ Indices for the specified (adjustable) elements.

“L_n, M_n, E_n.....” are the Current Date Prices/ Indices of the specified (adjustable) elements for the period “n”.

If “P” is the amount payable (prior to adjustment) at the rates entered in the Price Schedule of the work carried out in period “n” then, Adjusted amount payable to the Contractor for the work carried out in the period “n” shall be equal to **P_n × P**.

For the purpose of calculating **P_n**, the coefficient for each eligible element shall be used irrespective of the actual constituents of the work performed during the billing period.

2. Base Date Prices and Current Date Prices

The Base Date Prices and Current Date Prices of the specified elements shall be obtained from the sources specified in the Amendment to the contract.

3. Elements for Price Adjustment

The Specific Elements for highway and bridge construction would typically be:

- (i) POL (HSD);
- (ii) Labour;
- (iii) Cement;
- (iv) Steel;
- (v) Bitumen;
- (vi) Aggregate ; and
- (vii) Other major elements depending on the nature of the project.

Similarly, the specified elements for building construction would typically be:

- (i) POL (HSD);
- (ii) Labour ;
- (iii) Cement;
- (iv) Steel;
- (v) Bricks;
- (vi) Tiles;

- (vii) Cables;
- (viii) Conduits (all types);
- (ix) Pipes (all types);
- (x) Steel Sheet (all types);
- (xi) Steel Sections (all types);
- (xii) Aluminum Sections (all types);
- (xiii) Electric Switch Gears; and
- (xiv) Other major elements depending upon the nature of the project.

Similarly, major specified elements for other types of projects can be specified in the Amendment to the Contract in addition to or instead of the specified elements as enumerated above.

4. Coefficients or Weightages

The coefficient for each specified adjustable element shall be determined by the user proportionate to its ratio in the Contract Price, in accordance with the procedure D-1 given under Part-1. The sum of these coefficients shall form the adjustable portion of the Contract, which shall not exceed 0.70.

5. Adjustable Portion of the Contract

The adjustable portion of the Contract shall be computed as provided in foregoing Procedures.

6. Sources of Prices

Sources of Base Date Prices and Current Date Prices shall be as stipulated at item D-4 under Part-1. The sources shall be clearly stated in the Amendment to the Contract.

14.1 The Contract Price

Sub-para (d) is deleted.

14.2 Advance Payment

The Text is deleted and replaced with following:

Advance Payment/Mobilization Advance shall be made available to the Contractor by the procuring agency on following conditions:

Mobilization Advance/Advance Payment

- (i) Mobilization advance up to 10% of the Contract Price may be paid by the procuring agency to the Contractor on the works costing Rs2.5 million or above on following conditions:
 - a. on 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, acceptable to the procuring agency;
 - b. contractor shall pay interest on the mobilization advance at the rate of 10% per annum on the advance; and

- (ii) This Advance including the interest shall be recovered in 5 equal installments from the 5 R.A bills and in case the number of bills is less than 5 then 1/5 of the advance inclusive of the interest thereon shall be recovered from each bill and the balance together with interest be recovered from the final bill. It may be insured that there is sufficient amount in the final bill to enable recovery of the Mobilization Advance.

14.3 Application for Interim Payment Certificate

Following para is added at the end of sub-clause 14.3:

The Contractor shall submit a certificate signed and stamped by the contractor, certifying that the Contractor has paid all dues of the materials, suppliers, workmen and subcontractors for the works whose payment is claimed in this Application of Interim Payment.

14.5 Plants and Materials intended for Works

Add the following paragraph as sub-clause 14.5 (d) for Secured Advance on non – perishable materials and sub-clauses (a), (b) and (c) will be applicable for plants only :-

- (l) The Contractor shall be entitled to receive from the procuring agency Secured Advance against an INDENTURE BOND in Public Works Account Form No.31 (Fin. R. Form No. 2) acceptable to the procuring agency of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the site but not yet incorporated in the Permanent Works provided that:
 - i) The materials are in accordance with the specifications for the permanent works;
 - ii) Such materials have been delivered to the site and are properly stored and protected against loss or damage or deterioration to the satisfaction and verification of the Engineer/Assistant Engineer but at the risk and cost of the Contractor;
 - iii) The Contractor's records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records shall be available for inspection by the Engineer;
 - iv) The Contractor shall submit with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefore;
 - v) Ownership of such materials shall be deemed to vest in the procuring agency and these materials shall not be removed from the site or otherwise disposed of without written permission of the procuring agency;
 - vi) The sum payable for such materials on site shall not exceed 75 % of the (i) landed cost of imported materials, or (ii) ex-factory / ex-warehouse price of locally manufactured or produced materials, or (iii) market price of stands other materials;
 - vii) Secured Advance shall not be allowed unless and until the previous advance, if any, is fully recovered;
 - viii) Detailed account of advances must be kept in part II of running account bill or a separate statement; and

- ix) Secured Advance may be permitted only against materials/quantities anticipated to be consumed / utilized on the work within a period of 3 months from the date of issue of secured advance and in no case for full quantities of materials for the entire work/contract.

(II) Recovery of Secured Advance:

Secured Advance paid on non-perishable materials to the Contractor under the above provisions shall be effected from the monthly payments on actual consumption basis, but not later than period specified in the rules not more than three months (even if unutilized);

14.7 Payment

For Payment of Interim Payment Certificates, delete and replace 56 days with 42 days, out of which 14 days shall be maximum time for Engineer's review and verification from the date it is submitted in complete with all supporting documents as per agreed format and 28 days' time for the payment to contractor by Procuring agency.

14.8 Delayed Payment

Second Para is replaced with following text:

In the event of the failure of the Procuring Agency to make the payment within the time stated, the procuring agency shall pay to the contractor in case of ICB contracts only, the compensation at rate of KIBOR+2% per annum in local currency and Libor+1% for foreign currency, upon all sums to be paid from the date of which the same would have been paid.

15.2 Termination by Employer

The following Para is added at the end of the sub-clause:

Provided further, that in addition to the action taken by the procuring agency against the Contractor under this Clause, the procuring agency 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.

15.6 Corrupt and fraudulent Practices

The following text is to be added as 3rd paragraph:

Successful Contractor has to provide Integrity Pact (for contracts worth Rs.10.0 million and above).

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 procuring agency 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 procuring agency 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 15.2 & 15.5 and the payment under Sub-Clause 15.4 shall be made after having deducted the amounts due to the procuring agency under Sub-Para (a) and (c) of this Sub-Clause.

16.4 Payment on Termination

Sub-paragraph (c) is deleted.

17.3 Employer's/ Procuring Agency's Risks

Sub-Clause 17.3 (h) is deleted.

The following text is added in Clause 18.1 (GCC):

18.1 General Requirements for Insurance

The contractor shall be obliged to place all insurances relating to the contract (including, but not limited to, the insurances referred to in Clauses 18.1,18.2,18.3,18.4) with Insurance Company having at least AA rating from PACRA/JCR in favour of the Procuring Agency/Procuring Agency valid for a period 28 days after the Bid Validity date. Costs of such insurances shall be borne by the contractor.

The Contractor shall insure with any one of the insurance companies approved for this purpose by the Procuring Agency. The insurance policies shall be in the joint names of the Procuring Agency, and the Contractor against all losses or damages as stated in the General Conditions of Contract Part I and as stated herein. Notwithstanding the responsibilities of the Contractor for indemnities and insurances as described in General Conditions of Contract Part I, the Contractor before commencing work on Site, must discuss fully with the Engineer and the Procuring Agency the insurance coverage provided under any general policies which are to be applied to this Contract to ensure that there are no contingencies left uncovered and to reduce, as far as practicable, duplication of coverage. Should any areas of omission be discovered that are not covered by definition of responsibilities set out in these conditions, the addition or reduction in premiums required to give such insurance coverage will be paid by the Contractor. Such policies shall be obtained by the Contractor with consent of the Engineer/Procuring Agency.

The Contractor shall be responsible for deductibles and losses/damages not covered by insurances other than the excepted risks.

The insurance losses shall not affect the Procuring Agency's or the Contractor's rights and obligations under the Contract. The Contractor shall be responsible for compliance by his sub-contractors of insurances specified in these Sub-Clauses. Before each sub-contractor starts work, the Contractor shall provide the Procuring Agency proof that the sub-contractor(s) are covered by insurances specified herein for the Contractor.

All policies shall state that:

- i) The Procuring Agency shall receive at least 30 days written notice of intended Cancellation or change affecting coverage.

- ii) The Contractor is fully protected so as to provide full indemnity to Procuring Agency in respect of liability against losses or damages assumed by the Contractor under the Contract.
- iii) The inclusion of more than one insured shall not affect the rights of any other insured.
- iv) If a loss occurs the Contractor and the Procuring Agency shall be paid in relation of their share of the loss.
- v) The Insurer has no subrogation rights against any person, corporation, or organization including directors, officers, employees, servants' agents thereof which:
 - is an insured under the policy or
 - is Controlled by, Owned by, or associated with an insured, or
 - is a sub-contractor on the works, or has, before or a loss occurs, been released from liability by an insured.

Hold harmless provisions: The Procuring Agency, the Engineer and the Contractor shall be indemnified against all losses.

Procuring Agency use or occupancy: If the Procuring Agency uses or occupies all or part of the works during the life of the insurance policy, the Contractor shall ensure that the policy continues in full force and the Procuring Agency shall pay any resulting extra cost of insurance.

Loss Procedure: If a loss occurs the Contractor shall, on behalf of the Procuring Agency and himself negotiate the value of the loss with the insurer. Unless directed otherwise by the Engineer, when agreement is reached the Contractor shall repair all damages and the Procuring Agency shall pay him in accordance with the Engineer's Certificates for that part of the repairs which is the Procuring Agency's responsibility.

If directed by the Engineer, instead of carrying out repairs, the Contractor shall pay to the party suffering the loss that part of the agreed value of the loss which is the Contractor's responsibility.

The provisions of this Sub-Clause shall be applicable to other insurance covered by Clauses 18 of General Conditions of Contract Part-I.

Automobile Liability Insurance: The Contractor shall also provide automobile liability insurance of all licensed vehicles owned, hired and operated by the Contractor at the Site and the risk insured shall be bodily injury, death of person and property damage or loss.

There shall be no obligation for the insurances to include loss or damage caused by the risks listed under Procuring Agency's risk.

19.6 Optional Termination, Payment and release by the Employer

Sub-clauses (c), (d) and (e) are deleted.

20.6 Arbitration

Text will be replaced as under;

Any dispute in respect of which:

- (a) the decision, of the Dispute Board has not become final and binding pursuant to sub- clause 20.2, and

- (b) amicable settlement has not been reached within the period stated in sub-clause 20.5, shall be finally settled, under the provisions of the Arbitration Act, 1940 as amended or any statutory modification/ Rules of Conciliation and Arbitration PEC Islamabad or re-enactment thereof for the time being in force.

The place of arbitration shall be Karachi in Sindh Province.

Following Sub-Clause 21.1 is added;

22.1 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 Procuring Agency 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.

2.2 Notice to Procuring Agency and Engineer

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

a) The Procuring Agency:

Project Implementation Unit,
Education City Project
1st Floor, Block-A. Finance & Trade Centre
Shahra-e-Faisal, Karachi

b) The Engineer:

CGD Consulting Pvt Ltd
7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, Dha Karachi.

The following Sub-Clauses 23.1 is added:

23.1 Payment of Taxes including GST

The Contractor, Subcontractors and their employees shall be responsible for payment of all their Income Tax, GST 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. As per Government of Pakistan (GoP) regulations, the income tax of the contractor will be deducted at source i.e. Procuring Agency.

The Contractor firm is required to provide details & all relevant documentation/evidence of its registration with relevant registration authorities like FBR &/or Sindh Revenue Board.

Annex PROCEDURAL RULES

Procuring Agency retains SPPRA rules without changes, in case of contracts under Project, Bank and donor's program.

SPECIFICATIONS - SPECIAL PROVISIONS

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SPECIFICATIONS - SPECIAL PROVISIONS

1. DESCRIPTION OF PROJECT

1.1. General

The Employer intends to the Extension of Approach Road at Special Technology Zone (STZ), Education City, Karachi.

2. THE SITE

2.1. Site of Works

The Site of the Works is the area for construction lying within the right-of-way lines, boundaries and limits shown on the Drawings and any such additional areas adjacent thereto as may be designated by the Engineer subject to approval of Employer from time to time for the construction to be performed under the Contract, and all such areas and additional areas shall be comprised in the Site as defined in Clause 1 of the Conditions of Contract.

The Employer will give to the Contractor possession of the area designated and defined as the Site and shown on the drawing as may be required to implement as much of the Works, when the Engineer's Notice to Commence the Works is given.

3. THE WORKS UNDER THE CONTRACT

3.1. General Description

The Contract comprises to construct the work in all respect with the provision of plant/equipment, labor and material required for execution, completion, the execution and completion of the Works, remedying of any defects therein, maintenance of utility services and everything whether of a temporary or permanent nature required in and for such execution, completion, remedying and maintenance so far as the necessity for providing the same is specified or can reasonably be inferred from the Contract.

The following description of the Works to be performed under this Contract is general in nature and is not intended to describe all of the facilities to be provided under this Contract.

4. GENERAL RULES OF SPECIFICATIONS

a) Specification or as Specified

"Specification" or "as specified" refers to the specifications outlined in these Documents and where no specifications are available for any work or where the same are found not applicable then the relevant applicable ASTM or BSS specifications or equivalent standards shall apply in the same order.

Any item for which no specifications are outlined but which are identified on drawings, shall be completed according to the standards as per ASTM / BSS, these include items that may be added in the future. The Employer / Employer's Representative may supplement such specifications during the progress of work. All materials and processes used for these items shall be subjected to standard testing and, if found below the pertinent ASTM / BSS standards, shall be removed from the site immediately at Contractor's expense.

b) Standards and Codes

Wherever reference is made in the specifications to the respective standards and codes in accordance to which goods and materials are to be furnished, and work is to be performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly set forth in the Contract.

c) Materials and Processes

All goods and materials to be incorporated in the Works shall be new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

d) Equivalent Materials, Processes, etc.

Where specific materials, processes, etc. are specified and the same are not available other alternative materials and processes which ensure an equal or higher quality than those specified will be accepted subject to the Employer / Employer's Representative's prior review and written approval. Differences between those specified and the proposed alternatives must be fully described in writing by the Contractor and submitted to the Employer / Employer's Representative at least 30 days prior to the date when the Contractor desires the Employer / Employer's Representative's approval who may give such approval after determining that the alternative proposed ensures equal or higher quality.

e) Approved, Directed, Instructed

Approved, directed, instructed means the approval, etc. of the Employer / Employer's Representative unless otherwise stated.

f) Alternatives

Where alternative materials, processes etc., are specified the selection will depend on local conditions and discretion rests with the Employer / Employer's Representative whose decision shall be final and binding.

g) Catalogues / Standards / Manufacturer's Instructions, etc.

Wherever the manufacturer's/supplier's instructions, manuals, guarantees and ASTM/BSS Standards are referred to in the specifications and details of Bills of Quantities; all such literature shall be submitted by the Contractor to the Employer / Employer's Representative for due checking, approval and record.

h) Applicability

Unless stated or specified else-where to the contrary these General Rules shall apply to all sections of work irrespective of their sequence, location and description.

5. DRAWINGS

5.1. Bid Drawings

Bid Drawings issued with the Bid Documents, called the Tender Drawings, show scope of the work to be performed by the Contractor. The Drawings are generally in sufficient detail so as to be used as a basis for construction, fabrication and for placing orders for materials subject to corrections based on the future issue of supplementary Drawings as provided under Sub-Clause 5.2 hereof.

5.2. Construction Drawings, Supplementary Drawings

After award of Contract, the Contractor shall carry out “Joint Survey” at Site of Works in pursuance to Sub-Clause 6.4, Specifications - Special Provisions. The Contractor shall submit to the Engineer “Joint Survey”, duly signed, dated and stamped by the representatives of the Employer, Consultant and Contractor.

Simultaneously, the Contractor shall submit to the Engineer detailed “Work Programme” in terms of Sub-Clause 14.1 Conditions of Contract.

After receipt of “Joint Survey” and “Work Programme” from the Contractor, the Engineer will start issuing Construction Drawings to the Contractor. The Engineer shall have authority to issue to the Contractor, from time to time, such Supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall follow these Drawings.

The Contractor shall give notice to the Engineer regarding the part of the Drawings which in his opinion contain discrepancies or are not clear. The Engineer shall issue necessary clarifications or Supplementary Drawings in greater details as required to execute the Works. These Supplementary Drawings showing changes from the Bid Drawings, in the opinion of the Contractor, shall be reviewed by the Engineer for his determination of adjustment of the Contract Price under Clause 51 and 52 of the Conditions of Contract.

5.3. Definition of Term Drawings

The term Drawings as used in the Specifications means the Drawings referred in Clauses 5.1 and 5.2 hereof.

5.4. Checking of Drawings

The Contractor shall check all Drawings carefully as soon as practicable after receipt thereof, and shall promptly notify the Engineer of any errors discovered.

5.5. Copies of Drawings

Drawings will be issued to the Contractor and the Employer as described below.

5.5.1. Bid Drawings

One (1) set each of the Bid Drawings will be issued to the Contractor and Employer along with Bid Documents. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

5.5.2. Construction Drawings / Supplementary Drawings

One (1) print of each Construction Drawings / Supplementary Drawing will be issued to the Contractor and Employer free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

5.6. Drawings to be furnished by the Contractor / As-Built Drawings

The Contractor shall submit to the Engineer for review of such drawings as required under the Contract, sufficiently in advance of the work intended to be executed.

The Contractor shall, at all times, keep on Site a separate set of prints on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. The

Subcontractor(s) for plumbing, mechanical and electrical shall, at all times, keep on Site, a separate set of prints of the drawings (showing their parts of the Works) on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. Such drawings shall show the exact physical location and configuration of the works as actually installed.

The Contractor shall, within fourteen (14) days of issuance Taking-Over Certificate for whole of the Works, furnish to the Engineer for his approval two (2) copies of such marked up drawings. One (1) copy of each of the marked up drawings approved by the Engineer shall be returned to the Contractor by the Engineer and these shall be used for the preparation of the As - Built Drawings.

The Contractor shall furnish to the Engineer six (6) complete sets of all As -Built Drawings as well as AutoCAD soft copy within thirty (30) days of receipt of drawings stated above, from the Engineer.

5.7 Shop Drawings & Design

The Contractor to prepare and provide detailed shop drawings & design, for all the required items as per the instructions and approval of the Employer/ Engineer and as mentioned in Bidding documents and drawings including but not limited to Architectural, Structural, Road works, Hard & Soft Landscaping, Electrical, Water Supply, Drainage, ICT or any related electro-mechanical works apart from Bar-bending schedule, etc. All drawings should be prepared based on the rules, regulation and requirements of the concerned departments and should be prepared electronically on latest version of AutoCAD, hard copies along with soft copies on CD's shall be submitted for the approval of Engineer as per the Nos. required in Scope of Work.

Any item which is neither shown on the drawing not mentioned in the Bill of Quantities or Specification but is a pre-requisite to carryout, the contractor is required to prepare shop drawing of the missing/ required items, distributed among the rates and prices entered for the related items of works and shall be considered to be included in the contract price. The decision of the Engineer shall be final and binding on the Contractor unless before the deadline for submission of Bids, such discrepancies are to be clarified. The clarifications in either case would be sent to all bidders as an Addendum.

6. SETTING OUT OF WORK AND SURVEY

6.1. Reference Points, Lines

The Contractor shall establish bench marks and / or reference line at the Site in accordance with the instructions of the Engineer. The Contractor shall set out its work from these bench marks and / or lines.

6.2. Verification

The Engineer and the Employer may make checks as the work progress to verify lines and grades established by the Contractor and to determine the conformance of the work as it progresses with the requirements of the Drawings and Specifications. 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.

6.3. Survey Instruments

The Contractor shall maintain at the Site the requisite surveying instruments in perfect working conditions for the use of the Engineer's Representative to check levels and lines

of the work at all times. These instruments shall include (but not limited to) One Total Station, Adequate nos. of Levels, theodolites, Tapes, etc.

6.4. No work without Joint Survey

The Contractor shall not start the excavation and / or embankment works until the Joint Survey has been done to establish the existing/ original ground levels (i.e. National Surface Level or NSL).

7. APPROVAL OF MATERIALS AND PLANT

7.1. Quality of Materials

All materials, fixtures, fittings, supplies and plant furnished under the Contract shall be new and unused, standard first grade quality and of the best workmanship and design. No inferior or low-grade materials, supplies or articles will be either approved or accepted, and all work of assembly and construction shall be done in a first-class and workmanlike manner. In asking for prices for materials intended for delivery to the Site and incorporation in the Works under any portion of these Specifications, the Contractor shall provide the manufacturer or supplier with complete information as may be necessary to secure compliance to this Clause and, in every case, he shall quote this Clause in full to each such manufacturer or supplier.

The Employer will select the manufacturer of his choice and approval will be conveyed to the Engineer and Contractor.

7.2. Submission of Samples and Data

As soon as practicable after award of Contract, the Contractor shall submit for the approval of the Engineer drawings, catalogues, diagrams and other descriptive data for all mechanical, electrical, architectural and such other materials and plant designated by the Engineer subject to approval of Employer, which the Contractor proposes for use under this Contract. For certain materials and plant, data may be required to be submitted in accordance with a detail form furnished by the Engineer. Samples of materials (1 set) each shall be submitted by the Contractor to the Engineer and the Employer at Contractor's cost for approval sufficiently in advance of the materials intended to be incorporated in the Works.

7.3. Testing

Testing, except as otherwise specified herein, shall be performed by a testing agency as proposed by the Contractor and approved by the Engineer, at no extra cost to the Employer. The Engineer/ Employer may require all testing to be carried out under their supervision only.

The quality control testing shall be performed by the Contractor's competent personnel in accordance with a site testing as approved by the Engineer/ Employer.

The Contractor shall keep a complete record of all quality tests programme performed on Site.

7.4. Testing Laboratory Certificates

The Engineer may accept a certificate from a commercial testing laboratory, satisfactory to him, certifying that the product has been tested within a period acceptable to the Engineer and that it conforms to the requirements of these Specifications. The Employer may carryout testing from independent laboratory at the cost of the Contractor.

7.5. Inspection

All material and Plant furnished and all work performed under this Contract will be subject to inspection by the Engineer/ Employer or Employer's Representative 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, labour and materials reasonably needed for performing such inspection and testing as may be required by the Engineer/ the Employer or Employer's Representative.

7.6. Approved Sample at Site

The Contractor shall, at all times, keep on the Site approved samples. All such samples shall be made available to the Engineer/ Employer as and when required.

7.7. Site Laboratory

The Contractor shall establish a site laboratory for the purpose of necessary testing. The cost of equipment and salaries of the manpower required will be borne by the Contractor.

8. CONSTRUCTION SCHEDULE

8.1. Submittal Date

The programme of Works submitted by the Contractor in accordance with Clause 14" Programme to be Submitted", of the Conditions of Contract shall be submitted in the form of a CPM schedule based on Primavera Project Planner or Microsoft Project covering all construction activities indicating critical activities with critical path, total and free float, interdependencies between the construction activities and resource scheduling for Contractor's Equipment, material and labour, within the period stated in the Appendix A to Tender. All milestones shall be clearly identified.

If the Contractor fails to submit the construction schedule indicating all the details as listed above within 30 days of Notice of Commencement a penalty of Rs 30,000/- per week will be charged on the Contractor.

8.2. Requirements

The detailed submittal shall consist of schedules, network analysis tabulations and narrative descriptions of the proposed construction programme.

Each summary or detailed schedule shall consist of a bar chart and a time -scaled network. The scheduled start and finish times for all activities on the bar chart shall agree with those on the network. All inter-relationships and inter-dependencies between structures shall be clearly indicated on the schedules.

The network shall show the order and interdependence of activities planned by the Contractor, and shall be time-scaled according to calendar dates.

8.3. Monthly Reports

Each month, the Contractor shall submit a report consisting of:

- Copies of the bar charts for the current phase with both actual progress and scheduled progress shown.
- Network analysis tabulations as in Sub-Clause 8.3 above, reflecting actual start and finish dates where applicable.

- A narrative report discussing any significant deviations from the schedule and, if necessary, explaining the steps proposed to be taken to maintain the approved schedule.

9. Not used

10. SITE OFFICE AND TEMPORARY FACILITIES PROVIDED BY THE CONTRACTOR

10.1. Contractor's Office, Facilities etc.

The Contractor shall establish and maintain a Site office. The Contractor shall provide all facilities in connection with the execution, completion, of the Works, remedying defects therein and maintenance of the utilities services. The facilities shall, not be limited to, the Contractor's Site Office, labour camps, workyard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection and fire fighting equipment etc. The Contractor shall be solely responsible for arranging the facilities.

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

10.2. Notice Board

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer, 3 Sign Boards 4.45 M height and 2 M wide for writing the name of Work, name of Employer, name of Consultants, name of Contractor and Project Cost. The notice board shall comprise of the following;

- Frame of 3" dia GI Pipe properly painted as per the direction of the Consultants/ Engineer and as per drawing.
- 2 Nos. Posts of 3" dia GI Pipe 4.45M above ground and 1M below ground embedded in 1:2:4 CC 2'x2'x4' with proper arrangements of anchorage and brasses. Pipes painted with anti-rust as directed by the Engineer.
- 4 Nos. Steel Sheets 0.6M high and 2M wide fixed on both sides with 50mm gap between each. The background of plates is of white color whereas the writing would be black or red color (as approved by the Engineer)
- White imported 3M sheet used as background. The color of monogram would be, green, red or black etc. (as approved by the Engineer)
- Alphabets of appropriate size as approved by the Engineer in 3M reflective sheet in blue/ black color.

The Contractor shall maintain the display of the notice boards at his own cost throughout the length of the project.

11. FACILITIES FOR ENGINEER'S PERSONNEL PROVIDED BY THE CONTRACTOR

11.1 Engineer Facilities

The Contractor shall provide, operate and maintain the following facilities within 14 days of the Engineer's Order to Commence the Works for the Engineer:

- a). Contractor shall establish a container office accommodation complex (Approx. 500 sft) as per provided drawing. One office container of 40 feet with partition fully Air-Conditioned and maintain the same facility for Engineer, till the completion of the project (including) DLP, including all costs of washroom, electricity, telephone, water supply,

sewerage, janitorial services, provision of stationery / consumable / supplies (as per the requirement of the Engineer).

- b). Contractor shall provide 01 No office boy, 02 Nos. Security Guards etc. Contractor shall be responsible for all salaries, benefits etc. of the appointed people. Cost of all the above works are deemed to be included in the contract price and no additional payment shall be made by the Employer to the Contractor under any circumstances.
- c). Contractor shall provide all tea items for use in Engineer office.
- d). 01 Nos. **Desktop** - Core i7 10th Gen or Higher, 32/64 GB Ram, Latest Intel Motherboard as required by the processor & GPU, Nvidia GPU RTX 3000 Series or Higher, 1TB HDD + 256 SSD, Keyboard, Mouse, DVD Writer, 21" LED, Licensed Windows 10/11, Ms Office latest version, USB 3.0 64 GB, Latest UPS for backup.
- e). Contractor shall provide and maintain with cartridge etc., 01 Nos. **HP Color Printer** with Scanner (All in one) latest model throughout the contract period including DLC period.
- f). Contractor shall provide One no. of vehicles detailed as under, to be used by the Engineer at site. The Contractor shall pay the POL maintenance and driver charges and no additional payment shall be made by the Engineer to the Contractor under any circumstances. The vehicle shall be returned to the Contractor after completion of the project on as is where is basis. Details of the vehicles are as under:
 - (i) 01 Nos. Toyota Corolla Altis 1600 Cc (full options with Driver)
- g). Contractor should also provide all protective gear like Helmet, goggles, safety boots to the Engineer staff at site.
- h). Providing all stationery and consumable items like pen, pencils, papers, binder cards, plastics, staples, etc. as per requirement.
- i). The Contractor shall provide an average cost of Rupees Twenty -Five Thousand only (Rs. 25,000/-) per month pertaining to mobile & telephone use.

The above equipment shall be in use of the Engineer and shall become property of the Employer and as-such will be handed-over to the Engineer in good working condition on completion of the project.

In case of non-provision of facilities mentioned above, the same shall be arranged by the Employer / Engineer and be deducted from any monies due / becoming due to the Contractor by the Employer along with 10% overheads till these facilities are provided satisfactorily to the Engineer.

Cost of all above facilities are deemed to be included in the contract price and no additional payment shall be made by the Engineer to the Contractor under any circumstances.

The vehicle should be brand new and latest model. The vehicles are for the exclusive use of the Engineer / Engineer's supervision team to meet their transportation needs. The use of such transportation facilities shall be exclusively under the control of the Engineer and the contractor shall be wholly responsible for furnishing at all times above said facilities. The said facility shall be provided within 14 days of Engineer's issue of commencement letter and shall continue un-interrupted till the completion of works. The said vehicles shall be handed-over back to the Contractor on completion of work.

- a). The Contractor shall furnish, supply and provide, without specific direction of the Engineer all lubricants, tyres, other supplies, regular service and maintenance at all times for the above vehicles till the issue of the Completion Certificate of the contract.

- b). The Contractor shall provide an amount equivalent to, 1 x 600 liters for Toyota Corolla Altis, Petrol / diesel per month to the Engineer & Employer by 5th of each month in advance for complete duration of work including any extended period.

In case of non-provision of facilities mentioned above, the same shall be arranged by the Employer / Engineer and be deducted from any monies due / becoming due to the Contractor by the Employer alongwith 10% overheads till these facilities are provided satisfactorily to the Engineer.

Cost of all above facilities are deemed to be included in the contract price and no additional payment shall be made by the Engineer to the Contractor under any circumstances.

12. SAFETY

12.1. Accident Prevention, Protective Equipment

The Contractor shall comply and enforce compliance by all his Subcontractors with the highest standards of safety and accident prevention in compliance with all applicable laws, ordinance and statutory provisions.

Where overhead work is being carried out, warning signs shall be installed at ground level clearly warning of the overhead work.

All warning signs shall be in two languages, English and Urdu, and shall at all times be maintained in a clean and legible condition, to the satisfaction of the Engineer.

Trash shall be removed at frequent intervals to the satisfaction of the Engineer.

If, safety precautions/ warning signs are not installed by the Contractor, employer will charge an amount of Rs. 10,000/- per site per day for the period.

13. PAYMENT FOR WORK REQUIRED BY SPECIAL PROVISIONS

Unless otherwise specifically stated in the Contract, the price of all work required by the Special Provisions shall be considered to be included in the Contract Price.

- 14.** The Bided Rates shall be inclusive of all lead and lift
- 15.** No alterations or additions shall be made by the Contractor in the Bill of Quantities and rates must be filled in ink or typed out both in figures and words clearly and legibly in the columns provided in the schedule of quantities. All corrections must be initialed by the contractors. Any Tender which does not comply with this condition will be liable to be summarily rejected and not taken into account when preparing comparative statement.
- 16.** Materials obtained from excavations will be the property of the Employer. Serviceable materials are to be stacked in places pointed out by Engineer-in-charge. The Contractor undertakes to have the site clean and free from rubbish to the satisfaction of the Engineer. All surplus materials, rubbish, etc., will be removed to places to be fixed by the Engineer and nothing extra will be paid for this.
- 17.** On completion of the work or earlier as directed by the Engineer, the Contractor shall remove all temporary structure (Godowns, site offices, etc.), erected by him at the site of work. He shall fill tanks dug out by him at site, remove all debris and other materials like surplus sand, stone ballast, rubbish, etc.; and in short, shall leave the site in a neat and tidy condition.

18. The contractors in the course of their works should understand that all material (e.g., stone and other materials) obtained in the work or dismantling, excavation, etc., will be considered as Employer's property and issued to the contractors (if they require the same for their own use) at rates approved by the Engineer. If the materials are not required by them they will be disposed off in the interest of Employer.
19. The contractor shall inspect the site of works and acquaint himself with the nature and requirements of the work, facilities of access for materials, removal of rubbish, cost of carriage, nature of strata, etc., before submitting his Bid.
20. The contractor shall have to make temporary approach roads, etc., at his own cost to facilitate movement of materials, such approach roads shall be aligned in a manner approved by the Engineer.
21. The contractor shall have to make proper arrangements for road crossing barriers during working hours in the day time as well as in the night when danger lights will have to be provided on either ends at his own cost and no extra cost will be paid. Sufficient barricades and red lights will be provided by the Contractor where required to avoid the chances of accidents. In case an accident occurs for failure on the part of the contractor, he shall be entirely responsible for the consequences.
22. The Contractor shall have to make arrangements for diversions for traffic wherever necessary and shall have to provide diversion and caution boards as per directions of the Engineer at his own cost for which no extra cost will be paid. The diversion shall be watered and consolidated as per directions of the Engineer.
23. No material shall be removed from the site without the written permission of the Engineer.
24. Dewatering including shoring wherever so required for any foundation area, pumping, bailing out water, drainage of water within plot areas if any shall be deemed to have been included in the rates quoted by the bidders and no extra payment will be made. The rates shall be deemed inclusive of such incidental charges.
25. The Contractors shall execute all works at their own cost for diversion of water away from the plot as per site requirements to have full satisfaction of Engineer and no additional payment will be made on this account.
26. The Engineer, subject to approval of the Employer, reserves the right to select all materials and the type, grade, heating capacity and quantity of proportion of any or all materials as required for a particular work. The decision of Employer in this respect shall be final and binding on the Contractor. The rejects on materials must be carted at his own cost. If the rejected materials are not re moved within one month of its rejection the materials will become the property of the Employer or will be removed at Contractors cost.

27. ATTENDANCE OF MEETINGS

The Contractor shall attend and shall cause his Sub-Contractors to attend any or all meetings when called by the Employer or the Engineer or his Representative to discuss progress of the work and other matters related to the work and the Contract, without any compensation from the Employer.

- 27.1. The Contractor shall bear all expenses of the Employer and his agents and representatives and the Engineer, his agents and representatives if requested by the Contractor for any meetings, instructions and approvals away from the Site.

- 27.2.** The proceedings of the meetings shall be recorded by the Engineer which shall be circulated to all the participants including those of the Contractor. All decisions taken in the meetings shall be binding on the Contractor and shall form part of the Contract.

28. DOCUMENTS NOT TO BE ALTERED OR MUTILATED

No alteration or mutilation (other than filling in all the blanks intended to be filled in) shall be made in the form of Bid or in any of the documents attached to it. Any comments which it is desired to make shall not be placed on any of the documents attached hereto, but shall take the form of a separate statement which shall be as brief as possible and referenced to items, clauses and pages of the annexed documents.

Such statements shall not qualify the acceptance of the Bid based upon a proposed change or changes in the annexed documents, nor shall be binding upon the Employer in any way in making the award. Alterations of already written prices must be signed in the place of alteration by the Bidder or his legally authorized representative.

29. PERSONAL LIABILITY OF PUBLIC OFFICIALS OR ENGINEER

In carrying out any of the provisions of these specifications, or in exercising any power of authority granted to them by or within the scope of the Contract, there shall be no liability upon the Employer or his authorized representatives or the Engineer or his authorized representatives their personally or in their official capacity, it being understood that in all matters they act solely as agents and representatives of the Employer.

30. ACCESS AND EXISTING ROADS

If the Contractor finds it necessary or elects to use existing roads, the Contractor shall make all necessary arrangements and obtain all permits from the relevant departments for travel over and use of such roads. The Contractor shall observe all rules regulations of the concerned department regarding the use of said roads. The cost of maintaining all necessary safety measures and temporary structures and making any necessary repairs, replacements or similar operations and all or any other costs required by reason of his use of such roads shall be borne by the Contractor and the Contractor shall save harmless and indemnify the Employer in respect of all claims, demands proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such operation or interference.

31. FIRST AID FACILITIES

The Contractor shall provide and maintain adequate First Aid Facilities at all times, convenient to the Site to the approval of the Employer.

32. FINAL HAND-OVER

At the end of the Defect Liability Period stipulated in the contract, the Employer and the Engineer on application of the Contractor, shall decide the members of the final hand over committee and announce the same to the Contractor. The committee, after inspection of Work, if satisfied that there are no deficiencies or defects due to work of the Contractor shall certify the final hand-over, and the Employer will then issue a final Certificate of Completion of Work within thirty (30) calendar days thereafter.

Once completion has been formalized and endorsed both by the contractor as well as controlling officer, the work will be regarded as completed for all purpose as per contract

agreement although the accounts may not have been settled, no further new works will be authorized against the sanctioned project and not further supplementary estimates or claims may be accepted.

33. EMPLOYER AND ENGINEER NOT PERSONALLY LIABLE

No member or officer of the Government or the Employer or the Employer's Representative or the Engineer or his representatives or any one of their respective staffs or their employees shall be in anyway personally bound or liable for the acts or obligations of the contractor under the contract or answerable for any default or omission in the observance or performance of any of the acts, matters or things which are herein, contained.

34. PROGRESS PHOTOGRAPHS

The contractor shall furnish to the Employer and to the Engineer every two weeks at least six photographs to clearly show the progress of construction. The photographs shall be submitted in glossy prints 20 cm x 20 cm. Each print shall be marked on the back with the date and serial number. There shall be no writing, lettering or marking on the face of the photographs. The set of photographs of the Engineer should accompany respective negatives.

35. SITE ORDER BOOK

The Contractor shall maintain site order book {of triplicate leaves} at the Site, for taking down instructions of the Engineer and/ or the Employers, with out any obligation and charges to the Employer / Engineer.

36. REPORT ON PROGRESS OF WORK AND PHOTOGRAPHS

The Contractor shall, during the execution of the work, submit to the Employer (3 copies) and Engineer (2 copies) so as to reach them in the first week of every calendar month, a report on the actual progress of the works attained by him during the preceding month fully supported with colour photographs of (5" x 7") size, at least 15, depicting the complete stages of the works. Each photograph should be properly pasted on A-4 size paper, indicating the location and other relevant information of the area photographed. The report will be submitted on the standard format to be supplied later on. In case the Supervision Engineer are different from the Design Engineer, one copy each of photographs should be sent to both the Engineer.

The set of photographs for the Design Engineer should be submitted with respective negatives.

LIST OF APPROVED VENDORS FOR ELECTRICAL WORKS

IMPORTANT NOTES:- Consultant Engineer has the right to select any vendor from the list of approved vendors

Approved Manufacturer/Supplier					
LV Circuit Breakers	Terasaki(Japan)	Schneider (Europe)	ABB (Europe)		Or other equivalent approved by consultant Engineer
PVC/PE Pipe and Conduits	Dadex	Galco	Jeddah	Civic Pipes	Or other equivalent approved by consultant Engineer
MV Power Cables	Fast Cables	Pakistan Cables	Pioneer Cables	GM Cables and Pipes Pvt. Ltd.	Or other equivalent approved by consultant Engineer
LV Cables	Fast Cables	Pakistan Cables	Pioneer Cables	GM Cables and Pipes Pvt. Ltd.	Or other equivalent approved by consultant Engineer
MV/LV Cables Terminations	Raychem (USA)	3M (USA)	Secam (France)		Or other equivalent approved by consultant Engineer
Switches and Socket	Clipsal	Legrand	Schneider	Pakistan Cables	Or other equivalent approved by consultant Engineer
Numerical Relays	Fanox	Schneider	ABB		Or other equivalent approved by consultant Engineer
MV Circuit Breakers	Shneider	Westinghouse	ABB		Or other equivalent approved by consultant Engineer
LV Switchgears	IMS Electric	Electric gears	HRA		Or other equivalent approved by consultant Engineer
Oil type Transformer	PEL	Transfopower	Hammad Engineering		Or other equivalent approved by consultant Engineer
Pad Mounted Unit	PEL	Transfopower	Validus		Or other equivalent approved by consultant Engineer
Ring Main Units (outdoor type)	Lucy	Siemens	ABB		Or other equivalent approved by consultant Engineer
Synchronisation Modules	ComAp	Deepsea	-		Or other equivalent approved by consultant Engineer
Lighting Fitures	NVC (USA)	Osram (Germany)	Luceco (UK)	Signify	Or other equivalent approved by consultant Engineer
Rubber Insulation Mat	Imported	-	-		Or other equivalent approved by consultant Engineer
CTs/PTs	FICO	Metelex	PEL		Or other equivalent approved by consultant Engineer
Diesel Generators	Cummins (UK)	Caterpillar (USA)	FG Wilson (UK)	MTU	Or other equivalent approved by consultant Engineer
GI Conduit	IIL	Steelex	-		Or other equivalent approved by consultant Engineer
Back Boxes/Junction Boxes	Hussain & Co.	Clipsal	Master		Or other equivalent approved by consultant Engineer
Lighting poles	Jamal Pipe	Solid Industries	Bashir Pipe		Or other equivalent approved by consultant Engineer
Earthing	Furse (UK)	LPI (Australia)	Wallis (UK)		Or other equivalent approved by consultant Engineer
Control Relays	Finder	GE	-		Or other equivalent approved by consultant Engineer



EDUCATION CITY

INFRASTRUCTURE DEVELOPMENT OF EDUCATION CITY, KARACHI

Special Technology Zone Package 1 Electrical Power Works

VOLUME - II

TECHNICAL SPECIFICATIONS



GOVERNMENT OF SINDH



CGD CONSULTING

STZ – 50 Acre

Tender Specifications

STREET LIGHTING & MV CABLE

June – 2026

Ver. 1

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SECTION – E – 1

SPECIFICATION FOR MATERIALS AND EQUIPMENT

GENERAL:

The Contract shall include the supply of equipment and materials installation, completion, testing and commissioning of the individual components of electrical system and finally the complete installation of electrical system in accordance with the conditions of contract, specifications, drawings, bill of quantities and as per applicable International Codes & Standards.

General Electrical Requirements

The Contractor shall carry out all the work in accordance with the specification and in conformity with the Electricity Act and Rules as adopted in PAKISTAN and the latest edition of the British Standard Specifications and Wiring Rules of the Institute of Electrical Engineers (London) hereinafter referred to as the (I.E.E. Wiring Rules). Where these specifications differ from the rules stated, these specifications shall be followed:

The entire electrical installation/work shall be carried out by the licensed contractor, authorized to undertake such work under the provisions of Electricity Act and The Electricity Rules as adopted and modified up to date by the Government of PAKISTAN. The licensed contractor must be registered with PAKISTAN Engineering Council (PEC).

Any special requirements of the Local Electrical Inspector shall be complied with by the contractor, and all works shall be to the entire satisfaction of the Government Inspector/Engineer / Power Supply provided (KE).

The Contractor shall be responsible for completing all formalities and submitting the test certificates as per prevailing rules and regulations and shall have the installation passed by the Government Electric Inspector of that region and by Power supply authorities (KE).

If during preparation of the bid, the Contractor finds any error /discrepancies /omission / ambiguity/ uncertainty that need clarification, the same shall be referred to the consultant.

- a.** Any installation not complying with the specification shall be corrected/ replaced
- b.** It shall be the responsibility of the Contractor to protect equipment and materials (installed or stored) from damage till final taking over by the Employer.
- c.** The materials shall be purchased from approved supplier / manufacturer.
- d.** The Contractor shall produce comprehensive documentation of individual testing, calibration and installation together with an overall record of the state of completion to the client as per tender conditions.
- e.** It will be the responsibility of the Contractor to coordinate between other agencies and client shall accommodate other utilities/services.
- f.** The work shall be carried out in accordance with the B.S.S, I.E.C and I.E.E. Rules and Regulations as adopted in PAKISTAN, to satisfy the requirements of the client.
- g.** The Contractor shall ensure at his own cost the permanent availability of this specification, drawings and Contract agreement on site.

- h. The quantities set out in the bill of quantities are the estimated quantities and they shall not be taken as actual and correct quantities of work to be executed by the Contractor. The Contractor shall carry out work as per approved drawings.

ELECTRICAL EQUIPMENT AND MATERIALS

- a. The Contractor shall supply all materials, tools, plants, equipment, scaffolding, hardware, supports and fixing as necessary to complete the installation satisfactorily.
- b. All material and equipment supplied by the Contractor shall be new and in all respects conform to the high standards of Engineering design, workmanship, performance, quality and function as here in specified and fully meet the quality level and requirements of the specifications and shall be purchased from approved sources.
- c. The Contractor shall be solely responsible for ensuring proper functional requirements of various equipment.
- d. Where any materials in the Contractor's supply are specified on the drawings or in Bill of Quantities, the same shall form part of the specification.
- e. Where equipment, materials or articles are referred to in the specifications as "Equal to" any particular standard, the choice and approval of the same shall rest with the client.
- f. Approval of the Contractor's supplied equipment / installation works shall not relieve the Contractor of any of his obligations or liabilities under the Contract, except insofar as provided under the conditions of the Contract.
- g. The Contractor shall supply all small installation and consumable materials without any extra cost such as nuts, bolts, washers, shims, angles, levelling materials, insulation tape, PVC strap-on or heat shrinkable type cable tags, cable ties, bushes, sealing compound, AVO meter, electrical testing and measuring instruments, etc., and all such other material not listed in BOQ, required for complete installation as intended by the specification and scope of works.

CODES AND STANDARDS

- a. The latest published rules British Standards (BS), International Electro Technical Commission (IEC), Institute of Electrical Engineers (IEE) and National Standards. Rules and Regulations of Provincial/Local Authorities shall be considered included as part of these specifications and all their requirements shall be fully met.
- b. The entire installation shall be free from improper grounds, open and short circuit faults. Tests shall be made in accordance with Section "E" of IEE Regulations for the electrical equipment of building 17th Edition. Each panel shall be tested with mains connected to the riser, branches connected, switches off, all fixtures in place and permanently connected, and lamps removed or omitted, sockets and wall switches closed. Each individual power line shall be tested with the power equipment connected for proper and intended operation. In no case shall the insulation resistance be less than that allowed by the Regulations for electrical equipment of buildings and manufacturer's recommendations based on British standards. Failure shall be corrected in a manner satisfactory to the client.

- c. It shall be the responsibility of the Contractor to test all systems of the entire electrical installation as well as those installations where sequence in operation is required. The electrical contractor shall test for proper sequence and the consultant shall leave the entire electrical installation in satisfactory working condition.
- d. The Contractor shall guarantee that the electrical systems including all components and accessories used therein are free of all grounds, shorts and open circuit faults, defective workmanship and materials.

ALTERATIONS

The location of various items indicated on the drawings are presumed to be approximately correct, but it is to be understood, however, that the small scale drawings are necessarily diagrammatic and that such locations as are shown, are subject to slight revision, the work is in progress or equipment is installed, which may be necessary to accommodate local construction condition or interference with other services. No major changes shall be made without the approval in writing of the client. On obtaining client approval, the position of any point may be altered without extra charge being made. The location of poles/LCP shown in the systematic plans should be considered as approximately correct.

PROTECTION

The Contractor shall effectively protect the work from damage during and as may be necessary, after installation and he shall likewise protect adjoining work of other trades from damage resulting from installation of electrical work.

OPERATION AND MAINTENANCE MANUALS

The contractor shall submit the operation & maintenance manual for all equipments, which were supplied by vendors. The completion of document and preparing a comprehensive manual shall be the responsibility of contractor.

DRAWING AND DATA TO BE FURNISHED BY THE CONTRACTOR

- a) **Shop Drawings:** The location, routing and installation heights of the equipment etc., which are given on the detailed approved drawings, are approximate. These drawings depict only the position of various fixtures and outlets. All the detailed planning for electrical system including conduit routes etc. shall be carried out well in advance of the actual execution of work, by the Contractor to the satisfaction of the client. For this purpose the Contractor shall prepare three (3) sets of “Shop drawings” prior to installation duly coordinated with other services and submitted to the client for approval.

- b) **As-built Drawings:** Clearly annotated As-Built electrical drawings and diagrams shall be maintained up to date on site on completion of the project. Contractor shall submit four (4) sets of “**As built**” drawings to the client after completion of works.

SECTION – E – 2

LOW VOLTAGE CABLES AND WIRES

1.0 GENERAL

This item shall consist of supplying, laying, testing, connecting and commissioning of all material and services of Low Voltage (LV) cables and wires and the accessories according to the specifications, bill of quantities, drawings and/or as directed by the Engineer. The Cables shall be supplied from the approved supplier, as specified in approved manufacture list for the LV cables.

The Contractor shall discuss the electrical layout with client and coordinate at site with others for exact route, location and positions of LV cables.

The LV Works shall comply with requirements of relevant IEC and British Standards, the LV cables and wires with accessories shall also comply with the requirements of BOQ Item.

All cables shall be certified by the manufacturer as suitable for installation in Pakistan.

All materials shall be procured from approved Vendor. Only products with a proven record of performance, efficiency and long life will be considered for approval.

All works, equipment and materials shall comply with statutory and other regulations, Codes of Practice and Standards current at the date of Tender.

2.0 MATERIAL REQUIREMENTS

All multicore and single core wires shall be as per Bill of Quantities. All single and three core sheathed cables shall be of 450 / 750 volt grade. Power cables for main feeders, main to sub main feeders, power equipment, etc., armored or unarmored shall be of 600 / 1000 volts grade. Armoring of cables shall be done with appropriate size galvanized steel wire as per codes.

The conductors shall be stranded, high conductivity, soft annealed copper. Conductor of single core cables shall be circular, whereas of multicore cables may be circular or shaped according to standard practices and codes. The PVC insulation shall be extruded with a PVC compound having good flexibility, resistance to aging and ability to withstand the ambient temperatures.

All the cables shall be suitable for operation in 400 / 220 Volts; 50 Hz three phase multiple neutral and Earthed Distribution System. The Electrical cable should be suitable for direct burial, for installation in air or running in the ducts/conduits. The maximum Ambient Temperature shall be 50°C.

3.0 Standards

Particular reference shall be made to:

- BS 6004 / 6346 PVC insulated cables for lighting and power.
- BS 6746 PVC insulation for electrical cables.
- BS 6360 Copper conductors
- BS 6500 Insulated flexible cords.

Any other standard referred to in above standards or these specifications

4.0 CONSTRUCTION REQUIREMENTS

The lighting and control cables shall be furnished and installed in accordance with the routes and requirements shown on the drawings.

The Voltage grade of the multi core LV Power cables shall be of 600/1000 volts.

All multi core cables shall be provided with identifications colour scheme, i.e. red, yellow, blue for phases and black for neutral. The insulated earth continuity conductors shall be having Green or green Yellow colour.

The ends of each length of multicore armored or un-armored cables shall be properly marked for clockwise and anti clock-wise sequence of core colors.

The armoured cables shall comprise of shaped stranded copper conductor, PVC insulated taped bedding, galvanized steel wire armour and PVC over sheath.

The insulation resistances of the cables shall conform to the relevant British Standard and these specifications.

All cable accessories shall be provided for the complete cabling and wiring system without any additional cost, unless specifically mentioned in BOQ. These shall include but not limited to the items such as saddles, clamps, fixing channels, connectors, cable joints (where necessary and approved by the Engineer), clips, lugs, tapes, solder, identification tags, bushes, Cable glands, etc.

Embossed marking on the over sheath at 3 meters intervals shall give the following information:

- Name of Manufacturer
- Year of Manufacture
- Size of cable in sq.mm.
- Voltage grade
- Type of cable i.e. Cu., PVC/SWA/PVC
- Project/ Client name (if required)

5.0 INSTALLATION OF LV CABLES

Cable shall be laid as shown on the drawing, if the laying is effected by others utility services, the contractor shall test the cable characteristics insulation and continuity, of all phases and these shall communicate in a report to the Engineer/Client.

If cable is crossing the road extra protection of bricks, uPVC pipe class "D" other than mentioned in underground cable laying detail shall be provided.

The cables shall be spaced by categories along their entire length as well as upon penetration into buildings and in their interiors, according to their following rated voltages:

- 30 cm at least between a cable carrying 1 kV – 30kV and other cables.
- 20 cm at least between a cable carrying voltages between 50V - 500V, and any power or control
- 10 cm at least between a cable carrying voltages lower than 50V and telephone or these possible being grouped.

All installation material, labor, tools and accessories for cable installation shall be furnished by the Contractor. The cable and accessories shall be installed as described in accordance with these specifications, drawings and manufacturer's instructions.

6.0 INSTALLATION OF LV CABLES LAID DIRECT IN THE GROUND / PIPE

All the cables shall be laid in the trenches/duct according to the drawings or as directed by the Engineer. For burial of cables in ground, the following instruction shall be followed:

- a) The Contractor shall plan and take special care to prevent any damage to existing underground facilities such as underground piping, cables, foundations, etc. The Contractor shall notify the client of any obstruction encountered and shall provide protective support or removal of such obstructions as instructed by the client. Excavation adjacent to existing facilities, such as foundations manholes, ducts, underground pipelines and paving shall be braced and / or shored properly to protect those facilities during excavation and construction or elsewhere as designated, they shall be drawn into underground pipe ducts.

Where cables

- ❖ cross roads or other paved areas with vehicular access
- ❖ cross unpaved areas regularly used by vehicles
- ❖ Pass through corrosive soils.

A steel draw wire or nylon or polypropylene cord shall be inserted in each duct run immediately after its installation. A 2m surplus shall be left at each end of each run, neatly coiled and attached to a cross bar preventing the wire or cord from being drawn into the duct.

Underground pipe ducts shall be Heavy gauge un-plasticized PVC conduits with tapered sleeve or spigot and socket joints.

All ducts shall have a nominal internal diameter of 100 mm unless designated otherwise.

All dual systems shall be installed so that no undue strain is placed on cables when pulled in.

All underground cable ducts shall so far as possible, be run in straight lines.

Duct runs crossing roads shall be straight and, wherever possible, perpendicular to the axis of the road.

Except in the case of short isolated duct runs such as road crossings, underground cable duct runs shall terminate in draw pits.

Cable ducts passing under roads carrying heavy vehicles shall be completely surrounded with lean concrete to a minimum radial thickness of 150 mm.

Ducts shall be laid so as to drain naturally towards one or both ends, where adequate provision of drainage shall be made. Adequate precautions shall be taken to prevent the

cable duct system acting as storm water or ground water drainage system. A minimum fall of 1 in 200 shall be provided for drainage purposes.

Any work carried out requiring the use of split ducts shall be carried out in such a manner as to preserve the withdraw ability of the cables concerned.

If two or more cables are to be installed in the same duct, the aggregate of their cross sectional areas shall not exceed 30% of the cross-sectional area of the duct.

All trenches excavated for the laying of cable ducts shall be completely backfilled and rammed before cable installation work begins.

Immediately following the installation of any duct run, the interior of the duct shall be thoroughly cleaned by twice drawing through the ducts a suitable brush once in each direction. Following this, the ends of each run shall be sealed with a suitable hardwood or plastic sealing plug which shall be left in position until cable laying is about to begin.

Before any cables are installed in the ducts, each duct shall be proved by drawing through it a polished hardwood mandrel 300 mm long having spherical ends and a diameter 6mm less than the nominal duct diameter.

Sufficient slack shall be left in cables for this purpose that cut lengths of cables shall allow about 3% more in the measured lengths between terminations.

Cables, whether installed underground or in concrete trenches, shall not be bent to a radius less than 12 times the diameter of the cable or as recommended by the cable manufacturer, whichever is higher.

All cables shall be marked at least at each end, switch gear and equipment termination, where cable enter or leave underground cable trenches or channels, where cable rises from one level to another, at 30M intervals with predetermined identification numbers, by means of proprietary non-deteriorating type, PVC, heat shrinkable, strap-on type or equivalent, for the identification of cable and circuit. These shall be indelibly marked with cable number and securely fixed to the cable. Where conductors are left to be terminated by another party or left to be connected later, they shall be identified. The earth continuity conductor shall be laid in the trench with the cables. When crossing road the cable must be drawn through pipes, which should extend upto the unpaved area..

- b) Low voltage cables shall be laid in PVC conduit at a depth of not less than 900 mm or as shown on the drawings. For external cabling, trenches shall be excavated as per the details shown on the drawings or as directed by the Engineer.
- c) The bottom of the trench shall be covered with clean sand or soft soil of minimum 100 mm thickness before laying the cables. After laying the cables they shall be covered with clean sand. The clean sand shall be placed well punned over and around the cables to a level of 100 mm above the uppermost cable. Mechanical punnets shall not be used. Protective cable tiles shall be carefully covered over each cable as per drawing. Polyethylene warning tapes with danger sign shall be laid below 300mm of finished ground level along the route of buried cables.
- d) It is the responsibility of the Contractor to take actual measurements of cable length, required between two termination points, as per drawings and site conditions and install single length of cables without joints of any nature.

7.0 CABLE TERMINATION AND JOINTS

Cables shall be terminated in a safe, neat and approved manner at the associated equipment, included that erected by others.

Compression type connectors (lugs) shall be of the correct size and approved type for the conductors concerned. Compression tools shall be used for installation of Lugs. After compression, the conductor and terminal shall form a solid mass ensuring good conducting properties and mechanical strength. The Engineer or his representative before use must approve the compression jointing system used throughout the installation.

The Contractor shall be responsible for all drilling and if necessary, tapping entries where these have not been provided by others.

When preparing cables prior to fitting glands, the gland manufacturer's instructions for cable preparation shall be observed. In all cases where armored cables are used, care shall be taken to ensure that the lay of the armor is maintained after the gland is completely fitted.

Termination and joints shall be suitably insulated for the voltage of the circuits in which they are used.

Every compression joint shall be of a type, which has been the subject of a test certificate as described in BS 4579.

Cable ends, which are not terminated immediately after cutting, shall be sealed effectively to prevent ingress of moisture and shall be protected from damage until termination.

For all cables in section, if a substantial mechanical clamp is not provided a compression type lug or socket shall be provided. At all equipment, cable shall be installed and terminated so that no strain is imposed on the cable or gland and due allowance made to counter the effect of vibration. At all termination, an ample length of 'tail' shall be left.

Where joints in cable conductors and bare conductors are required, they shall be mechanically and electrically sound and they shall be accessible for inspection. Joints in non-flexible cables shall be made either by soldering or by means of mechanical clamps or compression type socket, which shall securely retain all the wires of the conductors.

Any joint in flexible cable shall be affected by means of cable coupler. Cable couplers and connectors shall be mechanically and electrically sound and shrouded in metal, which can be earthed. Where the apparatus to be connected require earthing every cable coupler shall have adequate provision for maintaining earth continuity.

SECTION – E – 3

LOW VOLTAGE (LV) FEEDER PILLAR (LCP/FP)

1.0 GENERAL

The work under this section consists of design, manufacturing, fabricating, supplying, installing, connecting, testing and commissioning of all material and services of the complete indoor and outdoor type LV, Feeder Pillar (FP) as specified herein and shown on drawings and stated in Bill of Quantities.

2.0 APPLICABLE STANDARDS / CODES

The latest editions of the following standards and codes shall be applicable for the materials specified within the scope of this Section:

kV	BS 4752-1	-	Triple Pole Moulded Case Circuit Breaker
	IEC 60947	-	Low Voltage Switchgear and Control Gear
	IEC 60439	-	Factory Built Assemblies of LV Switchgear
	IEC 60475-2	-	Switchgear & Control Gear for Voltages up to & including 1
	BS 88	-	HRC Fuses
	IEC 60073	-	Colors for indicator lights and push buttons
	IEC 60446	-	Identification of insulated / bare conductors

Any other standard referred to in above standards or these specifications.

3.0 INSTALLATION AND SERVICE CONDITIONS

Outdoor FP shall be installed on floor on pad as per drawing. The equipment shall be capable of operation under the prevailing ambient conditions without any deleterious effect of any kind. Distribution board shall be suitable for continuous operation at full load rating under combined variation of both voltage and frequency.

Transient voltage depression down to 80% of rated voltage shall not affect the performance of the equipment.

5.0 ACCESSIBILITY

Distribution Board shall preferably be arranged for bottom cable entries. Adequate space must be provided for cable entries and termination.

Adequate space shall be provided for installation and clamping of cables inside the Distribution Board. Position of terminals and cables shall allow use of clamp ammeter.

Power and Control cable termination shall avoid obstruction to other cable termination and provide easy access for terminating cables. Cable supports shall be provided to avoid undue strain on cable termination. Easily accessible locations shall be reserved in the compartment for measuring transformers.

6.0 MECHANICAL DESIGN

6.1 General Construction

- a) The Feeder Pillar Box shall have the rod type mechanism doors both in front and the back with suitable Pad Locking arrangement with master key. The Feeder Pillar Box enclosure shall comply with IP 54 Protection.
- b) The housing material of Feeder Pillar Box shall be Sheet Molding Compound (SMC) having high quality insulation properties; non-corrosive, fire retardant, smoke free and non-toxic material with wall thickness of minimum 5 mm. Inner and outer surface of enclosure shall be smooth and free from burs etc.
- c) The Base of Feeder Pillar Box shall be provided from the inner side with 6 rag bolts arrangement to anchor the enclosure on the floor.
- d) The feeder pillar box shall have the non-flammable classifications as per standard UL94- V1 (min) for Safety of Flammability of Plastic Material.
- e) The material must have excellent anti-aging property with a minimum lifetime of 20 years.
- f) The feeder pillar box shall have suitable Handling & Means of Transportation. Components shall be easily accessible for maintenance/replacing in case of any fault.
- g) Minimum two number of SS lifting hooks (S316L grade) shall be provided on top of the Feeder Pillar Box to handle it easily.
- h) All door hinges and locks shall be of Stain less steel (S316L – nonmagnetic grade) and all the Nut & Bolts shall be of class 8.8 with washers where required.
- i) Door locks with pad lock arrangement shall be of TPRE approved.
- j) Ventilation louver shall be IP54 compliant with suitable removable filters and/or stainless-steel wire mesh inside. Ventilation louvers shall be provided in such manner to facilitate flow of cross air for ventilation. The number and location of louvers can be proposed by OEM/vendor, complying with temperature rise requirements as per IEC standard.
- k) Transparent Plexiglass sheet shall be provided on front of all busbars (phases) to avoid accidental touch during operation/service. The width of plexiglass sheet should be at least 150 mm and thickness of 3 mm.

6.2 LABELING

On the front side, a nameplate shall be provided at the top to indicate the name of manufacturer, system voltage and frequency and the current carrying capacity of switchboard.

Each breaker shall have a circuit identification label fitted below the breaker aperture or as suitable.

Drawing indicating the branch circuit names, breaker elements, cable sizes and connecting services shall be placed in a clear plastic pocket provided at the back of the front access.

Labels described shall have block letters 7 mm high on a white background, to be made from trifoliate and be fixed with screws.

Each incoming and outgoing circuit shall also be labeled with nameplate 75 mm x 15 mm, as described above on the front side of door.

The Distribution Board shall be supplied fitted with warning labels.

7.0 COMPONENT OF LV, FEEDER PILLAR

The LV, FP shall be provided with all components as specified or shown on the Drawings and as necessary for the satisfactory operation of the LCP and of the electrical system. Typical specifications are given hereunder:

7.1 BUS BARS

Bus bars shall be made of 99.9% high conductivity hard drawn electrolytic tinned copper, completely isolated and mechanically braced and rated to withstand the specified fault level.

Bus bars shall be clearly marked with their respective colors and these shall be red, yellow and blue for phases and white for neutral. The earth bus bar shall be green. Bus bars shall be provided for three phases, neutral and multi- terminal earth. The temperature rise shall not exceed 45 degree centigrade at rated current. Neutral bus assembly shall consist of outgoing screw terminals with one terminal for every MCCB / MCB.

Horizontal bus bars shall be of the same current rating throughout their length.

7.2 MOLDED CASE CIRCUIT BREAKER

These shall be triple pole 400/500 volts or single phase 250 volts of current rating shown on the drawings. The breakers shall have both time delay over current and instantaneous short circuit protection.

The MCCBs shall be installed such that their switching levers are accessible through the dead front plate for operation. Circuit numbers / designation on all circuits shall be conspicuously marked to facilitate connection and maintenance.

The triple pole MCCBs shall have short circuit rupturing capacity suitable for distribution system as approved by the Engineer or as shown on the drawings. The MCCBs shall be suitable for lighting and power circuits.

The breaker shall have quick make - quick break toggle mechanism with positive 'ON', 'OFF' and intermediate ' Tripped ' positions.

Trip mechanism shall be trip free on overload or short circuit ensuring that the breaker will not close / remain close even if the close command is given while the circuit breaker has tripped due to short circuit or continuing overload.

7.3 AIR BREAK CONTACTORS

The contactors shall be air break, triple pole, 400 VAC and suitable for the type of duty to be performed. The main contacts shall be silver tipped, butt type with double break per pole. Each contactor shall be provided with single phase 230 VAC operating coil, one 5 watt 230 Volt red color signaling lamp, control fuse and two normally open and two normally closed auxiliary contacts wired up to terminals for electrical interlocking.

7.4 CURRENT TRANSFORMERS

Current transformers shall comply with the requirements of IEC 60185 (or equivalent).

Current Transformers shall be polyester resin insulated, ring type, air-cooled having transformation ratio as indicated on the drawings. The Current Transformers shall be of suitable burden having accuracy class 1.0. The Current Transformers shall have rated secondary current 5A / 1A as required.

Current Transformers shall mechanically and thermally withstand the specified short circuit capacity.

7.5 PILOT LAMPS

Distribution Board shall be provided with phase indicating pilot lamps. The lamps shall be rated for 230 volts supply and suitable for flush mounting. The front of the lamps shall have colored rosettes for identification of phases.

7.6 LINEUP TERMINALS

Line up terminals wherever provided for Control or Power circuits shall be suitable for voltage and size of conductors as indicated on drawings. The Line up terminals for controls shall be suitable for channel mounting. All necessary accessories such as end plates, fixing clips, transparent label holder caps and label sheets with marking shall be provided.

7.7 AC VOLT METERS/AMPERE METERS

Shall be Digital type and shall be suitable for flush mounting on front door of the LV Switchboards. The front dimensions shall be as per standard. The voltmeters shall have 3-1/2 digit, 0.55 inch display.

7.8 VOLTMETER SELECTOR SWITCH:

The voltmeter reading shall be RY-YB-BR-OFF-RN-YN-BN positions.

7.9 SECONDARY WIRING

All wiring shall be copper conductor, thermoplastic insulated, at least 1.5 sq. mm flexible, neatly arranged and clipped in-groups.

Each conductor and its termination are to be identified and marked with numbered ferrules. All live terminals are to be shrouded.

Secondary wiring for Current Transformers shall be carried out with not less than 2.5-sq. mm. Terminals shall be specially marked to avoid opening of the circuit by accident.

7.10 TIMER SWITCH FOR STREET LIGHTING CONTROL

Timer Switch Operated shall be suitable for automatically switching street light ON & OFF. It should be possible to put it in service for any required time within 24 hours. The operating voltage shall be 220 volts between phase neutral, 50 cycle / Sec.

7.11 DAY LIGHT SWITCH FOR STREET LIGHTING CONTROL

The street lighting circuits shall be controlled by photo-electric daylight sensitive switches. The Day light Switch shall be suitable for automatically switching street light ON & OFF.

The operational level shall be factory preset for "ON" at a light level of approximately 54 lux and "OFF" at approximately 100 lux. Voltage variations shall not materially affect the operational levels.

A time delay of not less than 15 seconds shall be provided to prevent the unit from functioning due to short period changes in illumination.

The unit shall be effectively safeguarded against voltage surges by means of a suitable surge protector which shall preferably form an integral part of the unit.

8.0 FOLLOWING PROTECTION SHALL BE PROVIDED

- Triple pole series connected adjustable bimetallic over current release.
- Triple pole magnetic short circuit release.

Before procurement and installation the detailed shop drawings with make and type of the components shall be submitted to the Engineer for approval.

The manufacturer's recommendations shall be followed while installing the Lighting Control Panel. The FP Lighting Control Panel shall be tested and commissioned in the presence of the Engineer.

9.0 TESTS AND INSPECTION

The following tests and inspections shall be performed in accordance with relevant engineering standards:

- a) Visual inspection of appearance, construction, dimensions and workmanship, and
- b) Electrical and Mechanical operation tests.

10.0 OPERATION AND MAINTENANCE MANUAL

1. Prior to delivery of the equipment the Vendor shall submit three (3) sets of manuals for all equipment supplied under the contract. The manual shall be A4 size bound in a loose leaf binder or booklets suitably enclosed and shall include the following:
 - a) A complete set of all corrected drawings prepared by the supplier and approved, by the Engineer. All drawings included shall be folded to fit within the binders.
 - b) Setting up, commissioning and operation instructions.
 - c) Trouble shooting procedure.
 - d) Maintenance instructions including schedules for preventive maintenance.

- e) Complete recommended spare parts list including manufacturer's name and catalogue number with all required ordering information.
- 2. Operation and maintenance manuals shall be prepared to allow the purchaser and operators to truly understand the product, its theory of operations, its application and performance.

SECTION – E – 4

LIGHTING POLES AND LIGHTING FIXTURES

1.0 GENERAL

The work under this section consists of supply, storage, installation, testing & commissioning of Corridor / Road lighting system read together with drawings & bill of quantity. The Contractor shall furnish all labour, materials, services, and skilled supervision necessary for the construction, erection, installation, and connection of all equipment. The extent of work specified herein and/or shown on the drawings represents the minimum requirements.

Electrical Work Generally is to be in accordance with the requirements of the Specification Road lighting including luminaries, columns, related power distribution and control, protective earthing and related works including column foundations and cables etc.

2.0 STANDARDS:

Luminaries generally are to comply with IEC 60598 standards and recommendations. Manufacturer is to verify compliance with these standards and the applicable local regulations and design standards.

3.0 TECHNICAL REQUIREMENTS:

Minor deviations from the Drawings may be considered for improvement in construction details, but no changes are to be made without the written approval of the client/Engineer.

4.0 AMBIENT CONDITIONS:

Unless otherwise specified, equipment is to be designed and derated for continuous and trouble-free service at 50 °C ambient temperature and 100% relative humidity, with temperature reaching 70 °C in direct sunlight and with high content of ultra-violet rays. Equipment is to withstand full load operation whilst exposed to sun.

5.0 EQUIPMENT DATA:

Contractor shall submit complete data for approval including, but not limited to, the following:

- Detailed literature, in English, for each type of luminaire or fixture, lamp and control gear including manufacturer's name, catalogue number, rating, material specification, overall dimensions, operating characteristics and principles, and any modification to a standard product if applicable
- Detailed specification and drawings for each column type including shape, base/mounting flanges, bolts, nuts etc, cross-sections, design criteria and calculations, brackets, finishes, provisions for cabling, cut- out or circuit-breaker etc.
- Photometric data for lighting calculations including polar curves, coefficients of utilization efficiency and depreciation factors.

6.0 SHOP AND CONSTRUCTION DRAWINGS:

Contractor shall submit drawings for approval including, but not limited to, the following:

- a) Layout of equipment in exact positions.
- b) Cabling and wiring diagrams, single line drawings, loads, phase distribution, protection and control, earthing.

7.0 SAMPLES:

Submit fully equipped sample of luminaire or other materials or components if required by the Engineer.

8.0 WARRANTY

The supplier shall provide the full warranty on all equipment supplied during the period specified below. The warranty shall cover all parts and all costs, which are directly attributable to the supplier. Warranty coverage shall begin on the date that the equipment is received. The warranty period shall be 3 years.

9.0 O & M DOCUMENTATION

An Operation, Instruction and Maintenance Manual, in English and in the local language, shall be provided by the Supplier/Contractor. The following minimum details must be provided in the Manual:

- (a) About Photovoltaic
- (b) About White LED lighting system - its components and expected performance
- (c) About White LED Lights. The make, model number, country of origin and technical characteristics of LEDs should be stated in the product data sheet and furnished to the test centres.
- (e) DO's and DONT's
- (f) Name and address of the person or service centre to be contacted in case of failure or complaint.

10 PRODUCTS AND MATERIALS

10.1 LED STREET LIGHTING SYSTEM

The Road light operates from **Dusk to Dawn** i.e., the lamp automatically switches ON after the sunset and switches OFF after sunrise. The LED light should have programmable driver.

The light fixture shall be posted on single or double arm pole as shown in drawings. The luminaire shall be fixed on to the Pole and are interconnected through the cables. The street light operates in the stand alone mode.

The Street Lighting system components consist of:

- a) LED Luminaire
- b) Pole

- c) Interconnecting cables
- d) Terminal box & Circuit Breaker

10.4 LED LUMINAIRE

Luminaire with transparent acrylic cover, housing a high efficiency LED lamp shall be fitted with gasket and accessories for weather and insect proof operation. The light fixture shall be posted on single or double arm pole as shown in drawings. The light fixture should be fully comply with safety norms according to :

- IEC 62471 photo biological safety of lamps and lamp systems including luminaires.
- EN 61347-2-13:2006 ; Safety testing for LEDs.
- EN 60598-1 and EN 60598-2 ; Luminaires safety testing.

- a. **BODY CONSTRUCTION:** The Road light LED Luminaire shall be as per international standard and made of non-corrosive high pressure molded die cast aluminum housing and Tempered Flat glass with minimal glare. The surface must be finished with powder coating paint. The body should be aerodynamic profiled to give least air resistance. The Luminaire shall be consist of Heat Sink, One-piece cast, low-copper (<0.4% Cu) aluminum alloy. Which shall be effectively spreads heat to ensure long component life of LEDs and electronic components and provides precise alignment of LEDs and lenses. The Lamp compartment must be IP 66 with lens replaceable possibility.

b. **SOURCE OF LIGHT OUTPUT:**

The light source shall be of white LED type. Single lamp or multiple lamps can be used. View angles of a minimum of 120 or above. The luminous performance of individual LED used should not be less than 120 lumen / watt, when measured luminaire as a whole. The colour temperature of white LEDs used in the system should be in the range of 4000K – 5000K. Use of LEDs which emit ultraviolet light will not permitted.

The light output from the white LED light source should be constant throughout the duty cycle. The Supplier shall ensure that LED working life shall be >50,000 Hrs. and Color Index (CRI) Ra >75.

The make, model number, country of origin and technical characteristics of white LEDs used in the lighting system must be furnished by the supplier/manufacturer.

In absence of these above data the Road lighting fixture will not be accepted by the Engineer.

- c. **LED MODULES:** The LED modules utilize an aluminium metal-clad board for maximum heat transfer, leading to longer life. The product shall be enabling Pending Aimed Optics, which allows the direction and intensity of the light to be tightly controlled. This control of the LEDs allow fixtures to maintain light levels equal to or greater than that of MH and HPS fixtures at a much lower energy consumption levels.
- d. **LENS:** The LED's Lens shall be High impact molded, UV-stabilized, Profile Acrylic lens, for maximum efficiency of light transmission.

- e. **LED DRIVER:** The LED driver, with high output current accuracy of $\pm 1.5\%$, with a high power factor correction to maximize power utilization shall be required. The driver should be comply UL 1310 / UL48 Class 2 with a built-in over-temperature protection.
- f. **FINISH/COLOR:** Thermally set polyester powder-coated for durability with 3 mils nominal paint thickness and corrosion resistant rated 500 hours salt spray endurance.
- g. **FULL CUT OFF:** The Luminaire should meet IEC standards for full cut-off luminaires.

11 LIGHTING POLE

- a. **CONSTRUCTION:** Columns are to have octagonal section, tapered, formed sheet steel, electrically welded, and of height specified in the drawing. Columns height are to be one piece section. Columns are to have minimum wall thickness of 4 mm at base. Sheet steel is to have minimum rupturing resistance of 490 to 610 N/mm² and minimum yield strength of 355 N/mm². The Columns shall be hot dipped galvanized with min 80 microns. The manufacturer shall provide quality assurance certificate. Contactor should submit the Shop drawing / design details of Poles.
- b. **TOP OF COLUMN:** is to be designed to receive single or double arm brackets or other arrangement required, to support number of luminaires shown on the Drawings. Bracket arrangement is to be designed to ensure that failure, due to wind induced oscillations, does not occur and that rotation from desired alignment is not possible.
- c. **COLUMN DESIGN:** Column cross-section, thickness of steel, joints, welds, bolts etc. are to be designed to withstand gust wind velocity of 160 km/hr blowing in the most unfavourable direction at a height 20 m above ground level, with column fully equipped. Fatigue of steel is in no case to exceed half elasticity limit, taking into account dynamic stresses due to vibrations. Steel flange plate, of adequate thickness, is to be solidly welded onto lower edge of column as shown on the drawings, and is to have specified number of holes for holding down bolts together with central cable access hole not less than 150 mm diameter.
- d. **ACCESS DOOR:** of weatherproof construction is to be positioned hinged at column base and is to be suitably sized to insert and service the supply cable terminations and protective device. Door is to be flush fitting with retaining mechanism and positive locking arrangement with removable hexagonal key. Column is to be reinforced at door opening. Opposite each door, a non-hygroscopic baseboard of suitable size to accept appropriate equipment is to be fixed to inside of column by purpose-made brackets. Stainless steel earthing stud with washers and nuts is to be welded inside the column near the access door.
- e. **LIGHT BRACKET:** The road light bracket shall be made of Galvanized M.S pipe bent to shape as shown on the drawing. The light fixture bracket shall be fixed on pole, by means of bolt. The dimensions of the bracket shall be as shown on the drawing.
- f. **FINISH:** Welds are to be smooth with spatter removed, inside and outside surfaces of column are to be cleaned by pickling or blasting and are to be free of grease. Steel components of columns are to be hot-dip galvanized after fabrication. Minimum thickness of zinc coating is to be 500 g/m² on both inside and outside surfaces of column. Galvanizing is to be to NFA 91121 and NFA 91 122 (June 1958) or BS 729. Any damage to galvanizing is to be rectified during erection by wire brushing affected area and treating with approved rust converter to the satisfaction of the Engineer. Flange plate and inside and outside of column base are to be Galvanized.

TECHNICAL DATA SHEET FOR ROAD LIGHTING

DESCRIPTION :	SPECIFICATION
Road light :	
Light Source	LED light
lamp for LED light	Refer BoQ
Heat dissipater	Air Convection radiator
LED luminous efficiency	>120 lm/w
LED Illumination flux	Min 18000lm
Working Temperature	55 ° C
Lamp's Output Ratio/ Efficiency	>= 90%
P.F of LED Street/Flood Lighting	>= 0.90
Color Temperature(CCT)	As per engineers / consultant approval
Surge Protection	Min surge protection 15kV
Color Index(CRI)	As per consultant / engineer approval
Beam Angle	Vertical Axis:70°, Horizontal Axis: 140°
Lifespan	50,000hrs life, 3yrs warranty minimum
IP Rating	IP66
Illumination time	12 hours per day,

The Contractor shall provide following certificates with LED Light Fixture Sample for the approval from Consultant/Client.

- LM 80 certificate for Chips
- LM 79
- LM 82 -12
- ENEC Certificate @ 50 C

Following manufacturer declaration and submission should be provided with the Tender submission.

S. No.	Parameters.	Technical Specifications.	Documents to be provided.
1	System Voltage	220V to 240V 50 Hz	Laboratory Test Report
2	Power Factor	Not less than 0.90	Laboratory Test Report
3	Surge Protection.	15KV	Laboratory Test Report
4	LED Driver	Programmable for Dimming with 1-10V DC DALI On board standalone program	Manufacturer's Declaration
5	Lumen Maintenance	L70 at 50000hours or better	LM80 test report & TM21 Projection
6	Colour Temperature	Neutral White ~ 4000K $\pm$ 275K	Manufacturer's Declaration LM 79 Test report
7	Colour Rendering index	70 + / - 10	Manufacturer's Declaration LM 79 Test report
8	Ambient Temperature	50 Degrees Celsius	Manufacturer's Declaration with Thermal report
9	IP Rating	$\geq$ IP66 without glue	IEC 60596-1 Test report
10	IK Rating	$\geq$ IK08	IEC 60598-1 or IEC 62262 Test report
11	Cover	Transparent & weather resistant grade polycarbonate optic cover	Manufacturer's Declaration Material Datasheet Material UL94 rating of V2 (Minimum).
12	Housing	High Pressure Die Cast Aluminum with heat management system	Manufacturer's Declaration
13	Maintenance	Tool less Driver Cavity opening Tool less Gear Tray Change	Manufacturer's Declaration
14	Tel. management Controls.	Integrated Antenna or communication equipment in to luminaire housing	Manufacturer's Declaration and Evidence to show capability.

15	3rd Party Test Report	Laboratory facility must be accredited according to ISO 17025 & recognized by ILAC /APLAC for testing of LED products.	IEC60598 Report (IEC 60598-2-3) EMC Test Report (EN55015,EN61547,61000-3-2) Photo biological Safety Test Report (IEC62471) EMF Test Report (IEC 62493) SPD Test (IEC 61643-1-2005 & IEC 61347-2-11) Factory Certificates (ISO 14001, ISO9001,OHSAS18001) Certificates for Test Laboratory (ISO 17025)
16	3rd Party Driver Test Report	Laboratory facility must be accredited according to ISO 17025.	IEC 61347-1,-2-13 Test Report. IEC 62384 Test Report.
17	Additional Test Report	Manufacturer's Test Report or from accredited lab.	Salt Spray Test Report (Minimum 500Hours Natural Salt Spray) as per ISO 9227 & ISO 10289 Vibration Test Report. Road Lighting simulations based on given configurations.

SECTION – E – 5

EARTHING SYSTEM

1. GENERAL

The work covered under this section of the specifications consist of furnishing all labour, equipment, appliances and materials and in performing of all operations in connection with providing, installing, connecting, testing the earthing system complete in accordance with this section of specifications and drawings. The earth pits on the drawings are only indicative and these will be located as directed by the Engineer.

2. APPLICABLE STANDARDS AND CODES

- BS 951 - EARTHING CLAMPS
- BS 7430 - EARTHING
- BS 2874 - NUTS,BOLT,WASHER,SCREW & RIVETS FOR USE ON COPPER
- BS 1433 - HARD DRAWN BARE COPPER CONDUCTOR FOR EATHING.
- BS 6346 - PVC INSULATED CABLES.

The maximum values of resistance of equipment earthing systems to the body of earth shall be as follow:

- General Electrical Earthing 1Ω
- Earthing For Static Discharge 1000Ω
- Earthing For Lightning Protection 10Ω
- Instrument Clean Earth 1Ω

3. EARTHING ACCESSORIES

The Earthing system shall be consist of Earth electrodes, Earthing leads, Earth connecting point, Earth continuity conductor and all accessories necessary for the satisfactory operation of the associated electrical system.

a. Earthing by Earth Copper Plate

The earth electrode Copper plate shall consist of 600mm x 600mm x 3mm thick 99.9% high conductivity electrolytic tinned copper plate. The plate shall have four terminals for connecting the earthing leads as shown on the drawings.

b. Earthing by Earth Copper Rods

The earth copper rod shall be installed for Lighting poles as indicated in drawings. The copper rods shall be of 3m length and 20mm dia with high conductivity electrolytic copper. This shall be driven into the ground to the full length as shown in drawing.

c. Earthing Lead

The earthing lead shall connect the earth electrode to earth connecting point or equipment. It shall be round hard drawn bare electrolytic copper of size shown on the drawings. The cost of earthing leads deemed to have been included in the price of earth electrode & no separate pavement shall be made for it.

d. Earth Continuity Conductor

Earth continuity conductor (E.C.C) shall be hard drawn bare copper wire or single core PVC insulated copper conductor cable of sizes indicated on the drawings or BOQ. All thimbles, lugs, sockets, nuts, washers and other accessories necessary for the complete installation of ECC shall be provided by the Contractor without any extra cost. PVC insulated cables when used as E.C.C. shall be green or green yellow.

e. Earth Connecting Points

When copper plates or copper rods are used as earth electrodes, the earthing leads from the plate or rod shall terminate at the earth connecting points which shall be of tinned copper bar, rectangular in shape, having dimensional 500mm x 50mm x 10mm, installed in the wall of the inspection chamber at the ground level. Further connections to respective locations shall be made from this bar by earth conductors of various sizes as shown on the drawings.

f. Inspection Chamber

At the ground level an inspection chamber shall be provided size shown on the drawing. The inspection chamber shall have 50mm x 50mm angle iron frame at the top to accommodate an approved quality heavy duty cast iron or concrete cover with handle. The cover shall have "EARTH BELOW" inscribed on its top. The Contractor shall provide and install the cover flush with the ground level.

4. EARTH INSTALLATION

Complete earthing systems as shown on the drawing shall be installed by the Contractor. The earthing system shall give earth resistance, including resistance of soil, earth leads and E.C.C. equal to less than one ohm, this without ground pits water spraying.

The earthing system shall be loop connected with earthing cables at least 300 mm away from telephone cables. The concept of the main loops and the way they are connected shall be such that equipment / apparatus can be easily removed without requiring a complex disconnection operation nor risking interruption of / or damage to the loop itself. The fastening of the earthing conductors shall be made on a sufficient length so as to prevent crushing or cross section weakening. The parts on which they are connected shall be conveniently cleansed and surface.

Leads sheaths or steel tape armours are not permitted as grounding conductors. The earthing system shall be installed to ensure that when any part of the earthing system is disconnected for the purpose of carrying out periodic testing an alternative path to earth is available.

At all connections of earth continuity conductor to MV/LV Switchboard, LV Distribution Board or any other metallic body, proper size or brass sockets, thimbles or lugs shall be used to which the copper wire shall be connected by copper brazing. The soldering of copper wire at joints or termination shall not be allowed. All tee-off connections shall be by copper brazing using suitable socket and clamps. After brazing, the jointed surface shall be protected by oxide inhibiting compound of low electrical resistance. For connections to metallic body, the surface shall be thoroughly cleaned before bolting the lug or socket.

The earth continuity conductor shall be in general run in cable trench or in conduits / pipes as shown on the drawings. Where laid along underground cables these shall be laid directly under ground in unpaved areas and in pipes under paved areas.

The earth connecting point shall be installed at locations shown on the drawings. It shall be fixed on wall surface by means of brass screws with nuts, washers and other insulating material as instructed by the Engineer.

The earth continuity conductor of sizes shown on the drawing shall be installed all along the cable runs and connected to the earthing bar / terminals provided in the equipment. The body of all Switchboards shall be connected to earth by specified size of E.C.C. All metal work shall also be connected to earth by specified size of E.C.C.

At any joint or termination, the E.C.C. shall be connected using proper accessories. No connection shall be made by twisting of earth conductors.

▪ **Installation of Earth Electrode (Copper Plate)**

The installation of earth electrode (copper plate), a pit of appropriate diameter and up to the depth of 4 m or (as directed at site) shall be first excavated in the bare ground. The earth electrode shall be installed upright in the pit and shall be surrounded by **mixture of lime and charcoal** around the electrode as shown on the drawings and packed hard. From the plate earthing leads of 2x70mm² bare Cu. Conductor shall be taken to the bus bar in the inspection chamber through 50mm G.I pipe for watering purpose.

▪ **Installation of Earth Electrode (Copper Rod)**

The earthing system by copper rod shall consist of 20mm dia and 3 meter long copper rods. These shall be of 99.9% purity copper. These shall have screw able head to accommodate other rods in series with the help of dowel as is shown in the drawings. The driven head shall consist of a hardened tip. These rods shall be connected to the earthing lead whose other end shall be connected to the earth connecting points to be provided in the inspection chamber. From the earth connecting points earth connection shall be made to individual point as marked in drawing.

▪ **Installation of Earth Electrode where the condition not suitable for Earthing**

Where the rock lie just below the surface or water table are very deep then earth electrode shall be installed through drilling or digging method. Due to certain ground conditions make it difficult to obtain a reliable earth resistance, whilst particular installations may require a very low resistance. In such cases, **Marconite concrete** shall be used as backfill for a conventional earth rod achieve a lower earth electrode resistance.

5. Equipment Grounding

a. Non-current carrying metal parts:

Bond and ground non-current carrying metal parts of electrical apparatus and equipment provided under work of any section of specifications.

b. Grounding of Fence:

All metallic fences shall be grounded by driving earth rods at a distance of 50 meter.

6. Inspection and Test

Earth resistance test shall be made by the Contractor on the complete earthing system in the presence of the Engineer. The test result shall conform to BS 7430 (formerly CP 1013) and BS 6651 (Formerly CP 326). To obtain the desired result more earth rods shall be provided

SECTION – E – 6

Medium Voltage (11kV) Cable

1. Applicable Standards

- IEC 60502-2 (Power cables from 6kV to 30kV)
- IEC 60228 (Conductors)
- IEC 60840 (MV cable testing where applicable)
- IEC 60332 (Flame retardant)
- IEC 60754 (Halogen-free tests if LSZH specified)
- IEC 61034 (Smoke density)
- K-Electric Distribution Standards and approved manufacturer requirements.

2. Voltage Rating

- System Voltage: 11kV
- Rated Voltage: 6.35/11 (12) kV
- Frequency: 50 Hz
- System Earthing: Effectively earthed neutral.

3. Conductor

- Material: Stranded compacted Copper or Aluminium (as per BoQ)
- Class 2 conductor as per IEC 60228
 - 240 mm²
 - 300 mm²
 - 400 mm²
 - 500 mm².

4. Insulation

- XLPE (Cross-Linked Polyethylene)
- Maximum continuous conductor temperature: 90°C
- Short circuit temperature: 250°C (1 second).

5. Screening

- Extruded semi-conducting conductor screen
- XLPE insulation
- Extruded semi-conducting insulation screen
- Copper wire screen and/or copper tape screen.

6. Armour

- Single Core: Aluminium Wire Armour (AWA)
- Three Core: Galvanized Steel Wire/Strip Armour (SWA/STA).

7. Outer Sheath

- PVC ST2 or HDPE/MDPE
- UV Resistant
- Black color
- Anti-termite and moisture resistant.

8. Electrical Requirements

- Power Frequency Voltage Test: 25.5 kV
- Partial Discharge Test as per IEC
- Insulation Resistance Test
- Conductor Resistance Test
- High Voltage Routine Test before dispatch.

9. Installation Requirements

- Minimum burial depth: 900 mm to 1000 mm
- Sand bedding above and below cable
- Warning tape and cable tiles
- Route markers at suitable intervals.

10. Shop Drawings and Coordination Documents:

The Contractor shall prepare and submit detailed Shop Drawings to the Engineer for review and written approval prior to the commencement of any material procurement or installation of cable.

11. Field Coordination:

The Contractor is solely responsible for coordinating the cable routing with all other trades prior to submittal. Any installation commenced without approved shop drawings shall be subject to removal and reinstallation at the Contractor's sole expense

SECTION – E – 7

TESTING OF ELECTRICAL EQUIPMENT

GENERAL

Upon completion of the installation the Contractor shall perform field tests on all equipment, material and systems all tests shall be conducted in the presence of the Consultant/client's Engineer for the purpose of demonstrating equipment or system compliance with specifications. The contractor shall submit test protocol for approval atleast two weeks before conducting the test.

The Contractor shall furnish, install and maintain all tools, instruments, test equipment, material, connections, etc and furnish all personnel including supervision and "Standby" labour required for the testing, setting and adjustment of all electrical facilities and their component parts, including putting the same into operation.

All tests shall be made with the proper regard for the protection of the equipment and the Contractor shall be responsible for adequate protection to all personnel during such tests.

The Contractor shall record all test values of the tests made by him on all equipment, giving both "as found" and "as left" conditions. Three (3) copies of all test result shall be given to the Engineer Incharge for record purposes.

The witnessing of any test by the Engineer In charge does not relieve the Contractor of his guarantees for materials, equipment and workmanship as specified in the Conditions of Contract.

INSULATION RESISTANCE TEST

Insulation resistance tests shall be made on all electrical equipment, using a self-contained instrument such as the direct indicating ohm-meter of the generator type Direct current potentials shall be used in these tests and shall be as follows:

Circuit under 230 volts – 500 volts test

Circuit 230 volts to 400 volts – 1000 volts test

The minimum acceptable insulation resistance value will be 5 Mega ohms.

The test equipment for insulation testing will be furnished by Contractor.

Before making connections at the ends of each cable run, the insulation resistance test of each cable shall be made. Each conductor of a multicore cable shall be tested individually to each other conductor of the group and also to earth. If insulation resistance test readings are found to be less than the specified minimum in any conductor, the entire cable shall be replaced and the new cable shall installed/laid.

All switch gear shall be given an insulation resistance measurement test to ground after installation but before any wiring is energized Insulation tests shall be made between open contacts of circuit breakers, switches and between each phase and earth.

If the insulation resistance of the circuit under test is less than that specified above the cause of the low reading shall be determined and removed. Corrective measures shall include dry out procedure by means of heaters if equipment is found to contain moisture. Where corrective measures have been necessary and the insulation resistance reading taken after the correction has been made it should satisfy the requirements specified herein. Repeated insulation resistance test shall be made twice and at least 12 hours apart. The maximum range for each reading on the 3 successive tests shall not exceed 12 hours apart and 20% of the average value. After all tests have been made successfully, the equipment shall be reconnected.

EARTH RESISTANCE TESTS

Each resistance test shall be made by the Contractor on the earthing system, separating and reconnecting each earth connection as may be required by the Engineer Incharge. If it is indicated that soil treatment or other corrective measures are required to lower the ground resistance values, the Engineer Incharge will determine the extent of such corrective measures.

The electrical resistance of the ECC together with the resistance of the earthing lead measured from the connection with earth electrode to any other position in the completed installation shall not exceed one ohm.

Earth resistance test shall be performed as per Electrical Inspector's requirements. Where more than one earthing sets are installed, the earth resistance test between two sets shall be measured by means of Resistance Bridge Instrument. The earth resistance between two sets shall not exceed one ohm.

OPERATING TESTS

Current load measurement shall be made on all electrical equipment.

The current reading shall be taken in each wire and in each neutral wire while the circuit or equipment is operating under actual load conditions. Clip-on ammeters may be used to take current readings.

All light fittings shall be tested electrically and mechanically to check whether they comply with the standard of specifications. Light fittings shall be tested so that when functioning properly no flickering is observed or choke noise is heard.

After any equipment has been tested, checked for operation etc, and is accepted by the Project Engineer's representative the Contractor shall be responsible for the proper protection of such equipment for assurance that subsequent testing of other equipment of systems do not disturb the completed work.

VISUAL INSPECTION

Visual Inspection to verify that the Electrical equipment has been correctly installed in accordance with the design with correctly rated protection devices and bonding that no visible damage exists.

SECTION – E – 8

DOCUMENTS TO BE SUBMITTED

The contractor shall submit following documents at the time of bidding or as per Instruction of the Engineer.

1. Documents and certificate to be submitted for approval, including.
 - Information to be provided with the bid.
 - Document to be provided by the owner.
 - Documentation.
2. Warranty.
3. Packing and delivery.
4. Marking.
5. Testing, including :
 - Type tests.
 - Routine Tests.
 - Special test.
6. Technical data sheet
7. Maintenance and operation manual
8. Training Program

SECTION – E – 9

LIST OF APPROVED MANUFACTURERS/SOURCES OF ELECTRICAL EQUIPMENT

* All Equipment shall be procured from Principal Authorized agents / distributors / resellers

The Bidder shall fill the name of only one manufacturer for each equipment/material on which the tender is based. He shall be bound to supply the equipment from the same manufacturer. In case, the Bidder gives names of more than one manufacturer against any equipment, the Engineer / Owner can ask the Bidder supply the equipment from any one of them.

At the evaluation stage if it is noted that any material offered by the bidder does not meet the specification requirements, the Engineer / Owner reserves the right to ask the bidder to replace his choice of equipment supplier meeting the required quality and specification requirement.

During the execution stage if the material from any supplier is found defective / substandard the Engineer / Owner reserves the right to ask the successful bidder to replace his choice of manufacturer / supplier for that particular equipment.

Any change in manufacturer / supplier shall only be entertained if there is sufficient reason that adhering to the original choice of manufacturer / supplier shall be detrimental to either the project quality or project timeline. Proper approval shall have to be sought for change in the choice manufacturer / supplier at least 1 month before the equipment is to be procured.

Bidder is required to mark the proposed Manufacturer / supplier and country of origin for each item below.

S.No	Equipment	Manufacturer/Supplier	✓	Country of Origin	✓
1.	L.V FRP Feeder Pillar (FP) / DBs	i. Electric Gears corporation		Pakistan	
		ii. Unicorn electric		Pakistan	
		iii. MOBASCO		Pakistan	
2.	LV Circuit Breakers	i. Schneider Electric.		France	
		ii. Siemens		Germany	
		iii. ABB		France	
3.	C.T, Relays & instruments	i. Schneider Electric.		France	
		ii. Siemens		Germany	
		iii. Fico		Pakistan	
		iv. Revalco		Italy	
4.	MV/LV Cables and Wires/ Earthing Cable	i. Fast Cables		Pakistan	
		ii. Pakistan Cables		Pakistan	
		iii. Newage Cables		Pakistan	
5.	UPVC Conduits / Pipes and Accessories	i. Galco		Pakistan	
		ii. Dadex		Pakistan	
		iii. Jeddah Polymer		Pakistan	
		iv. Civic		Pakistan	

S.No	Equipment	Manufacturer/Supplier		✓	Country of Origin	✓
6.	Cable Glands, Lugs, Terminals and Accessories	i.	Cembre		UK	
		ii.	Hubbell / Hawke		UK	
		iii.	Hensel		Germany	
7.	LED Light Fixture	i.	nVc		China / USA	
		ii.	ST Lighting		Pakistan / China	
		iii.	Fast Lights		Pakistan	
		iv.	Osram		Germany	
8.	LED Chip (LED Light Fixture)	i.	Philips Lumi led		Netherlands	
		ii.	Cree		USA	
		iii.	Nichia		Japan	
		iv.	Osram		Germany	
9.	LED Driver (LED Light Fixture)	i.	TCI		Italy	
		ii.	Philips		Netherlands	
		iii.	Lumotech		Belgium	
		iv.	Vossloh Schwabe		Germany	
10	Lighting Pole	i.	Jamal Pipes		Pakistan	
		ii.	Farhan Mechanical		Pakistan	
		iii.	Alfazal Engineering		Pakistan	
		iv.	Britlite Engineering (for Decorative pole)		Pakistan	
		v.			Pakistan	
11	LED Driver (LED Light Fixture)	v.	TCI		Italy	
		vi.	Philips		Netherlands	
		vii.	Lumotech		Belgium	
		viii.	Vossloh Schwabe		Germany	
12	MV Cables Accessories (Jointing & Termination Kits)	i.	3M		USA	
		ii.	Raychem		USA	
		iii.				

EDUCATION CITY

INFRASTRUCTURE DEVELOPMENT OF EDUCATION CITY, KARACHI

Special Technology Zone Package 1 Electrical Power Works

VOLUME - III

Tender Drawings

JUNE 2026



GOVERNMENT OF SINDH



CGD CONSULTING

EDUCATION CITY SPECIAL TECHNOLOGY ZONE (STZ)

ELECTRICAL DRAWINGS FOR MV CABLE & STREET LIGHT (ISSUED FOR TENDER)

CONSULTANT:



CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
21-C 5th Zamzama Lane Phase V
D H A Karachi - Pakistan

S#	DRAWING NO.	DRAWING TITLE
GE - GENERAL & DETAIL DRAWINGS		
1	GE-MP-STZ-01	List of Drawings
2	GE-MP-STZ-02	Legend General Notes & Other Details
3	GE-MP-STZ-03	Lighting Pole and Miscellaneous Details (01 of 02)
4	GE-MP-STZ-04	Lighting Pole and Miscellaneous Details (02 of 02)
5	GE-MP-STZ-05	Single Line Diagram
STREET LIGHTING LAYOUT PLAN		
6	EL-MP-STZ-STL-00	Street Lighting Layout Overall Plan
7	EL-MP-STZ-STL-01	Street Lighting Layout Sheet 01 of 07
8	EL-MP-STZ-STL-02	Street Lighting Layout Sheet 02 of 07
9	EL-MP-STZ-STL-03	Street Lighting Layout Sheet 03 of 07
10	EL-MP-STZ-STL-04	Street Lighting Layout Sheet 04 of 07
11	EL-MP-STZ-STL-05	Street Lighting Layout Sheet 05 of 07
12	EL-MP-STZ-STL-06	Street Lighting Layout Sheet 06 of 07
13	EL-MP-STZ-STL-07	Street Lighting Layout Sheet 07 of 07
MV CABLE LAYOUT PLAN		
14	EL-MP-STZ-MV-00	MV Cable Layout Overall Plan
15	EL-MP-STZ-MV-01	MV Cable Layout Sheet 01 of 08
16	EL-MP-STZ-MV-02	MV Cable Layout Sheet 02 of 08
17	EL-MP-STZ-MV-03	MV Cable Layout Sheet 03 of 08
18	EL-MP-STZ-MV-04	MV Cable Layout Sheet 04 of 08
19	EL-MP-STZ-MV-05	MV Cable Layout Sheet 05 of 08
20	EL-MP-STZ-MV-06	MV Cable Layout Sheet 06 of 08
21	EL-MP-STZ-MV-07	MV Cable Layout Sheet 07 of 08
22	EL-MP-STZ-MV-08	MV Cable Layout Sheet 08 of 08

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	
PROJECT: EDUCATION CITY PROJECT			
CLIENT:  PROJECT IMPLEMENTATION UNIT			
NAME OF WORK: EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT			
DRAWING STATUS: TENDER			
DISCIPLINE: TOWN PLANNING			
DRAWING TITLE: LIST OF DRAWING			
CONSULTANT:  CGD CONSULTING ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT Plot # 7-C,5th Zulfikar Commercial Street, Phase VIII-A, DHA,Karachi - Pakistan			
Designed By: A.H	Checked By: K.I	Date: DEC-2025	
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No:	Sheet 1 of 1
DRAWING No: GE-MP-STL-01		Revision 00	

GENERAL NOTES

ALL LOCATIONS OF LIGHT POLES AND CABLE ROUTES SHOWN ON THE DRAWING ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE CO-ORDINATED ON SITE BEFORE INSTALLATION. FULLY CO-ORDINATED SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEERS FOR APPROVAL BEFORE COMMENCEMENT OF WORK.

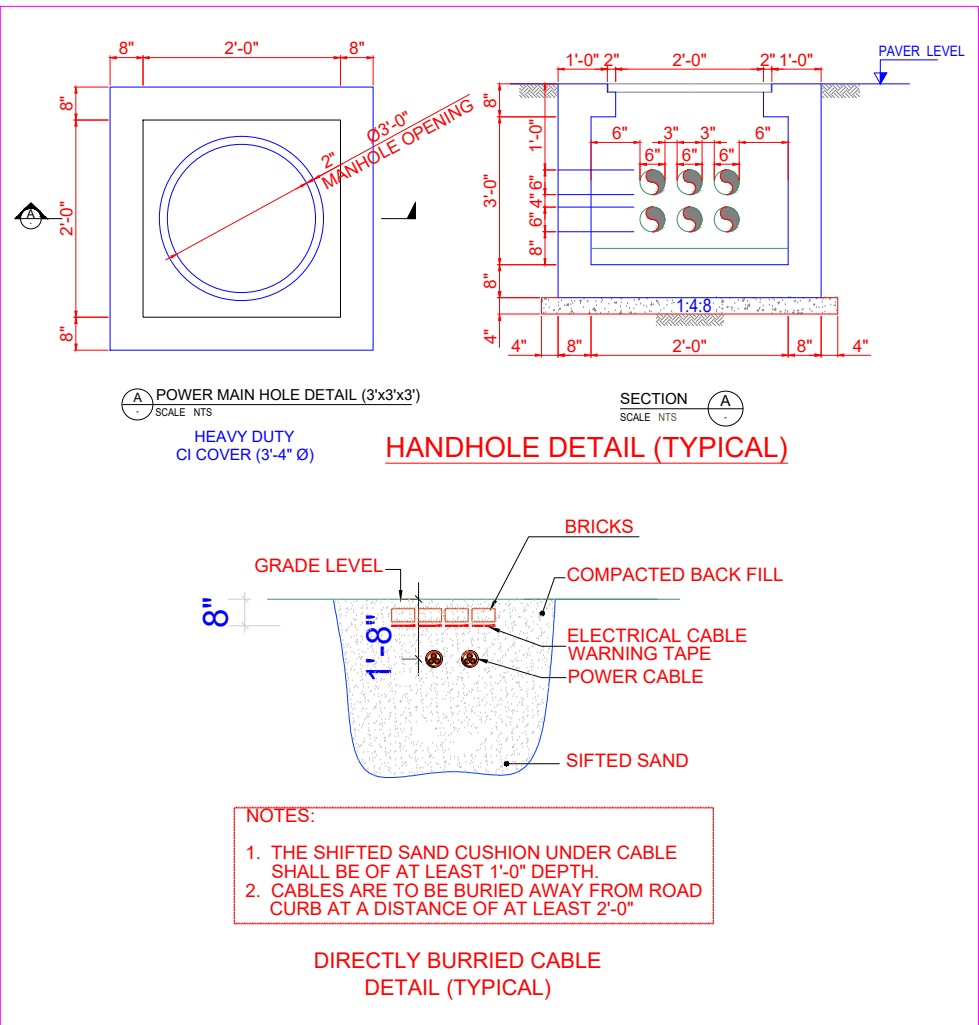
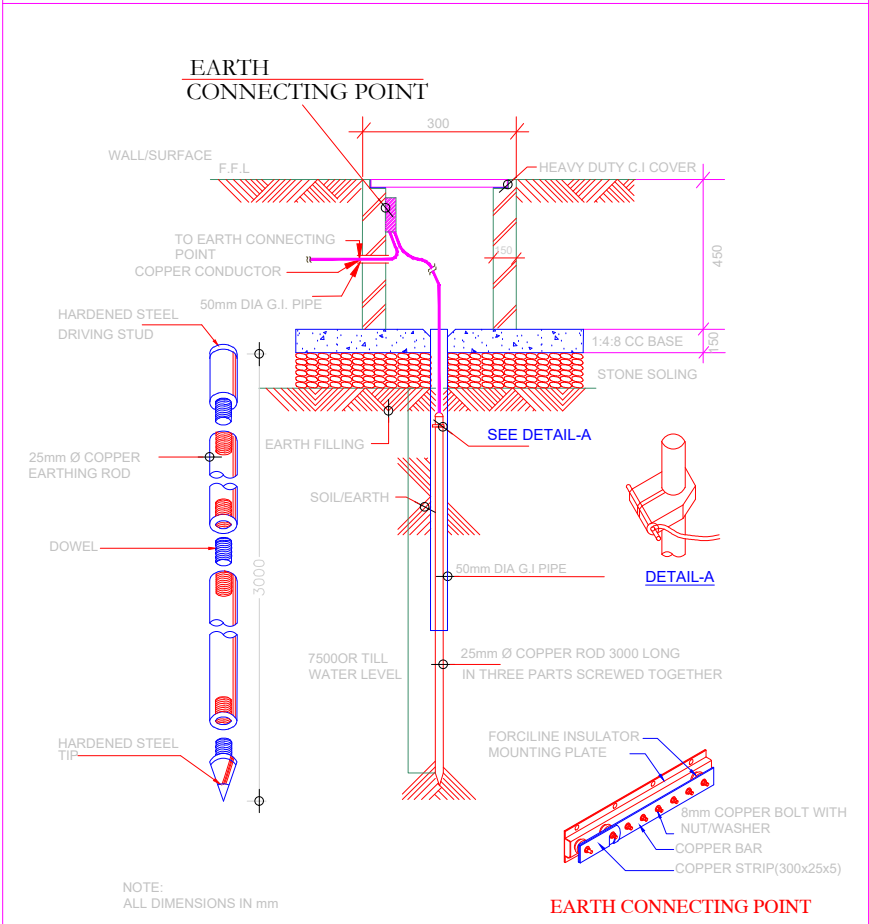
ALL LIGHTING POLE SPECIFIED SHALL COMPRISE OF RAIL MOUNTED 10A MCB IN THE CABLE CONNECTION BOX.

THE ELECTRICAL CONTRACTOR SHALL BACKFILL WITH SAND THE MANHOLES AND DRAWPITS TO COMPLY TO SPECIFICATION.

INTERNAL WIRING OF LUMINARIES SHALL BE CARRIED OUT WITH HEAT-RESISTANT CABLES, & ADDITIONAL PROTECTIVE SLEEVES APPLIES AT CRITICAL POINTS.

S.NO.	SYMBOL	DESCRIPTION
01		SINGLE ARM POLE LED LIGHT
02		DOUBLE ARM POLE LED LIGHT
03		DECORATIVE LED LIGHT
04		10Sqmm & 6Sqmm POWER CABLE
05		50SqmmØ U/PVC CONDUIT FOR FIBER
06		2'X2 HAND HOLE
07		FEEDER PILLAR

EARTHING DETAILS



REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:  **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT**

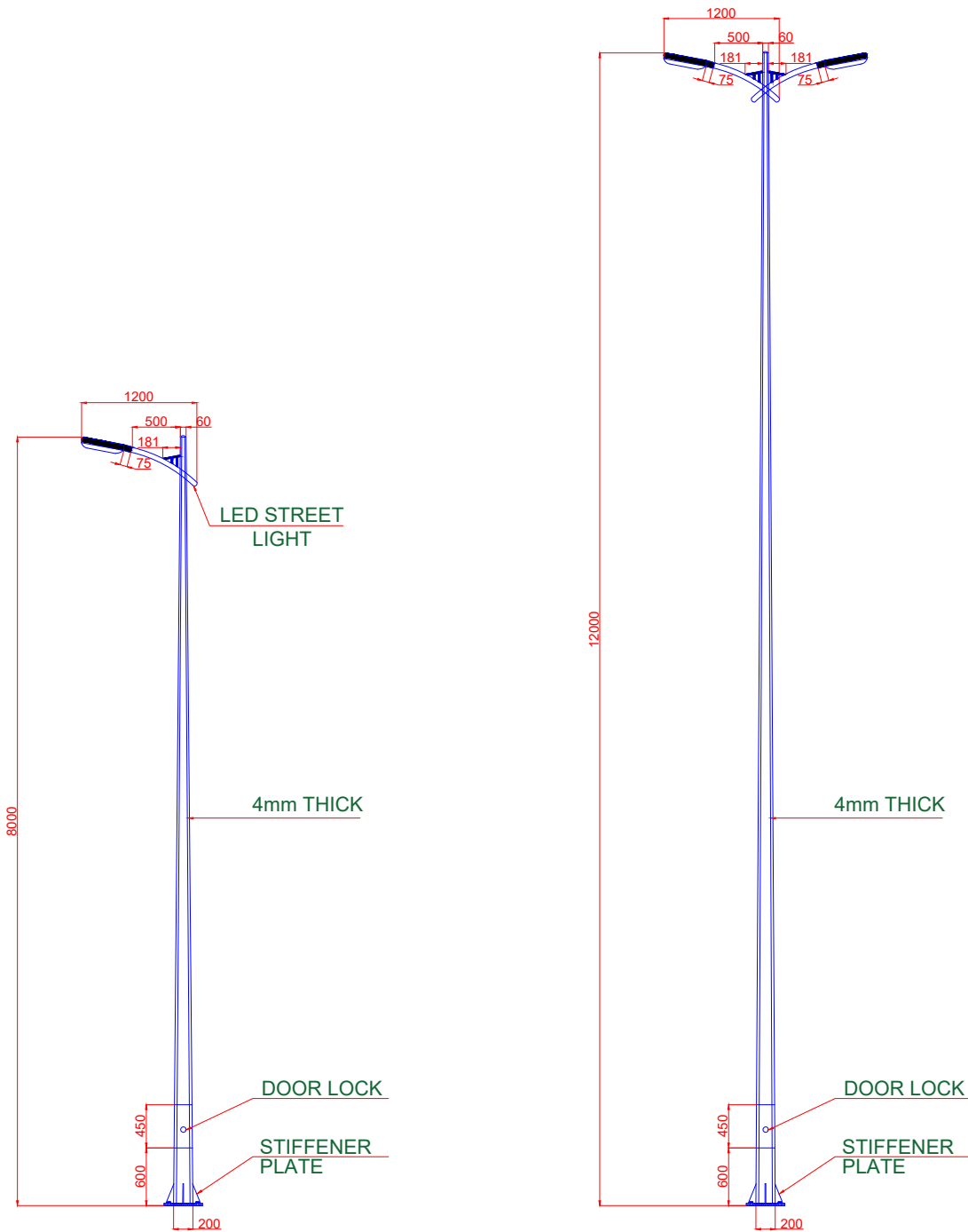
DRAWING STATUS: **TENDER**

DISCIPLINE: **TOWN PLANNING**

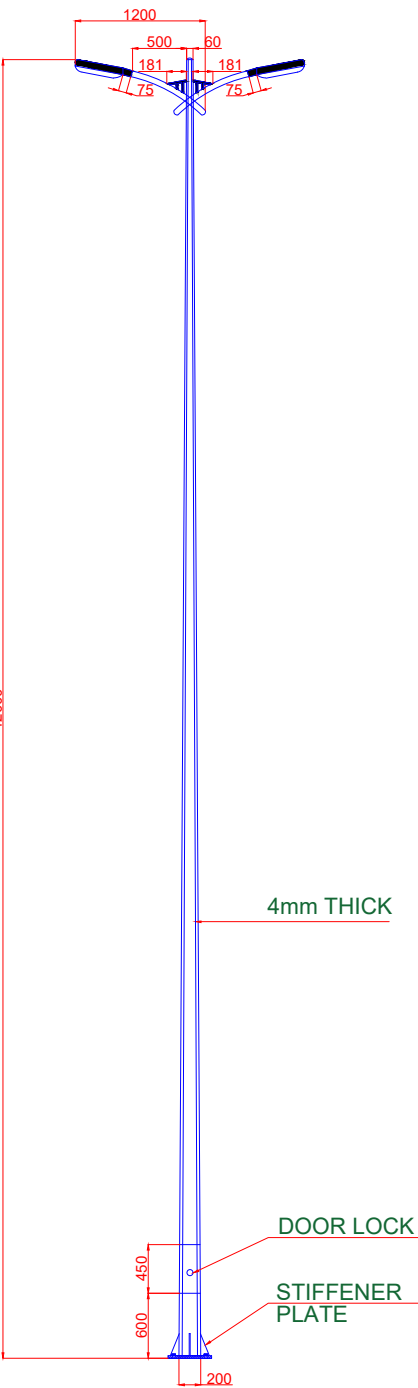
DRAWING TITLE: **LEGEND, GENERAL NOTES & DETAILS**

CONSULTANT:  **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

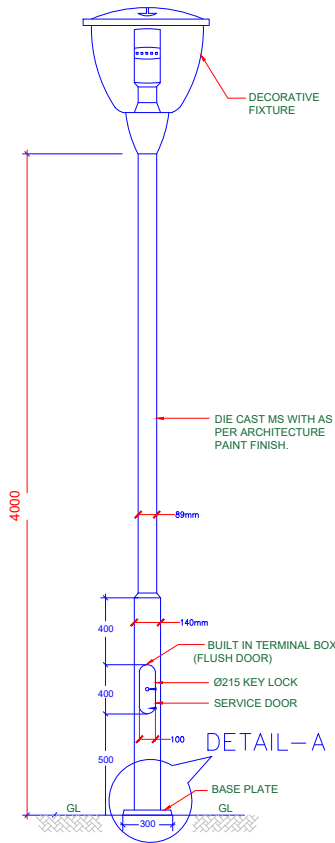
Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By: A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet 1 of 1
DRAWING No: GE-MP-STZ-02	Revision 00	



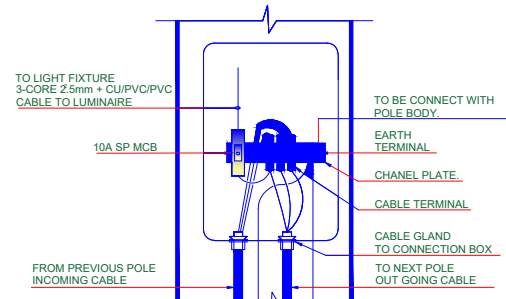
8M SINGLE ARM
HOT DIPPED GALVANIZED FROM
INSIDE & OUTSIDE OCTAGONAL POLE



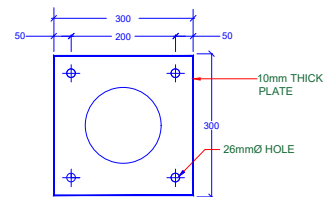
12M DOUBLE ARM
HOT DIPPED GALVANIZED FROM
INSIDE & OUTSIDE OCTAGONAL POLE



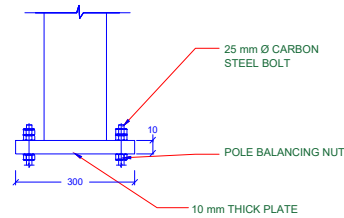
04 METER HIGH
DECORATIVE POLE DETAIL



TERMINAL BOX INSTALLATION
DETAIL IN LIGHTING POLE



FLAT FLANGE PLATE
FOR POLE



DETAIL-A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. POLE DESIGN & DIMENSION ARE SHOWN FOR REFERENCE, CONTRACTOR SHOULD SUBMIT SHOP DRAWING WITH ALL RELEVANT DETAILS FOR APPROVAL.
3. POLE DESIGN IS SHOWN FOR REFERENCE ONLY.
4. THIS POLE SHALL BE INSTALLED AS PER THE POLE LAYOUT SHOWN IN THE DRAWING. THIS POLE IS PROVIDED ONLY AS A REFERENCE, THEREFORE ALL DIMENSIONS, ALIGNMENT, AND POSITION MUST BE FOLLOWED EXACTLY AS INDICATED IN THE DRAWING
2. FEEDER PILLAR (FP) & POLE DIMENSIONS ARE TENTATIVE / APPROXIMATE ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH ALL RELEVANT DETAILS TO THE ENGINEER FOR APPROVAL.
3. WALL THICKNESS OF POLE SHALL BE 4 mm MINIMUM .
4. FOR FOUNDATION DETAILS OF POLES; REFER TO STRUCTURAL DRAWINGS.
5. FP SHALL BE OUTDOOR WEATHER PROOF (IP-65) RATED.
6. ALL FINISHES OF LIGHT FIXTURES AND COLOUR TEMPERATURE OF LAMPS SHALL BE SUBJECT TO ARCHITECT'S APPROVAL .

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:
EDUCATION CITY PROJECT

CLIENT:
**PROJECT
IMPLEMENTATION UNIT**

NAME OF WORK:
**EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT**

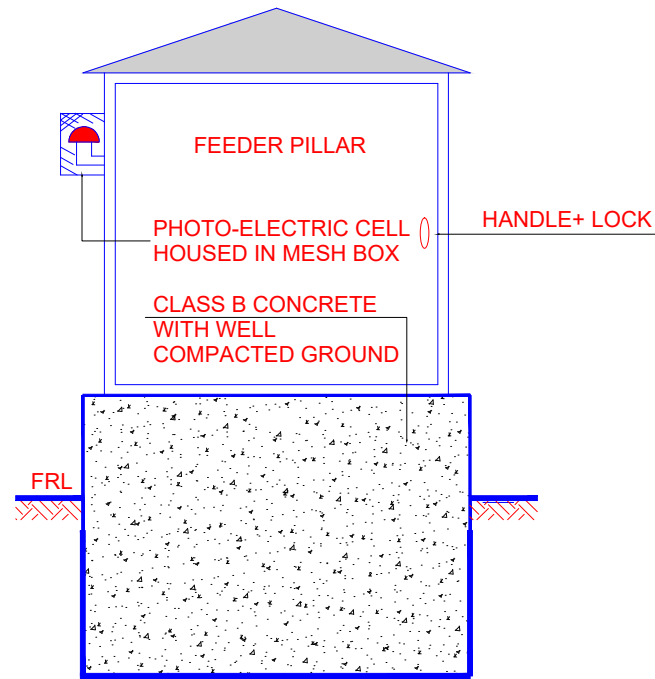
DRAWING STATUS:
TENDER

DISCIPLINE:
TOWN PLANNING

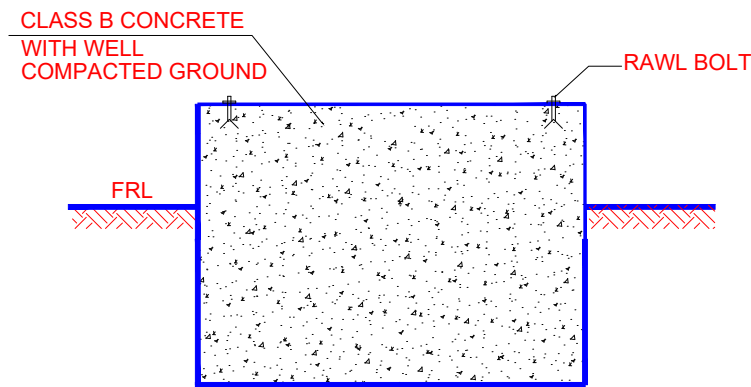
DRAWING TITLE:
**MISCELLANEOUS DETAIL
(01 OF 02)**

CONSULTANT:
**CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfikar Commercial Street,
Phase VIII-A, DHA,Karachi - Pakistan

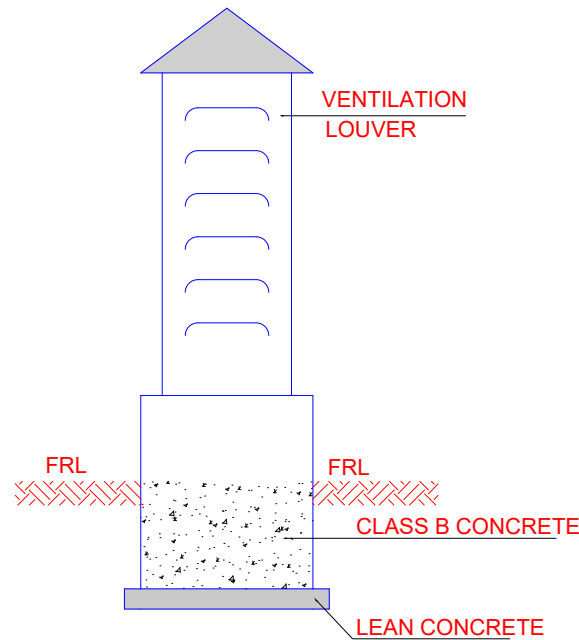
Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet 1 of 2
DRAWING No: GE-MP-STZ-03		Revision 00



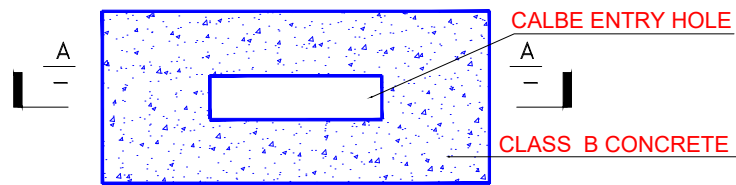
LIGHT CONTROL PANEL
FRONT VIEW
(AS PER MANUFACTURER
RECOMMENDATION)



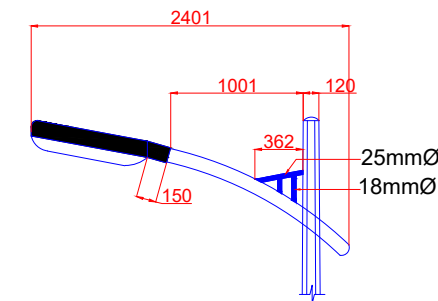
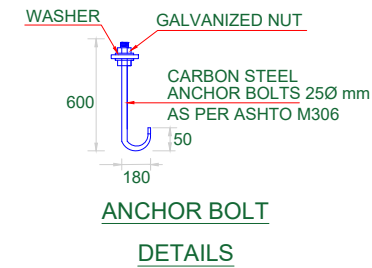
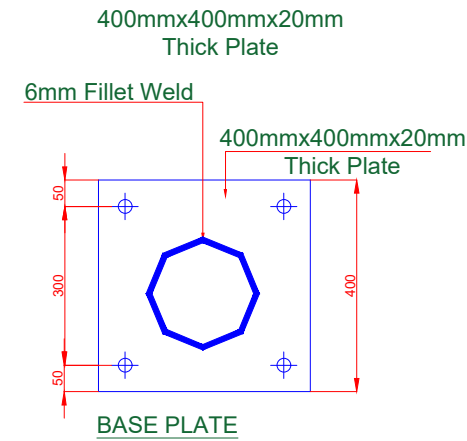
SECTION A-A



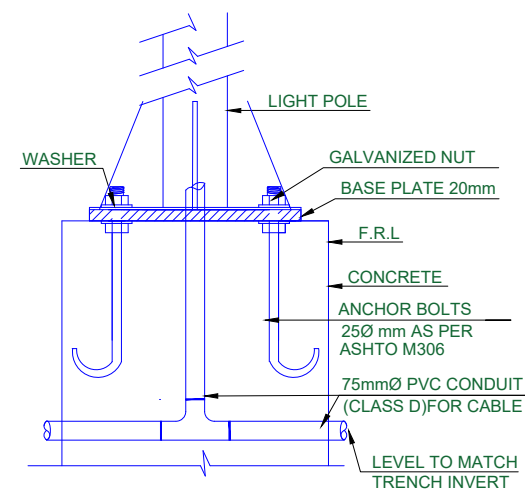
SIDE VIEW



LIGHT CONTROL PANEL
FOUNDATION DETAIL
TOP VIEW



BLOWUP ARM DETAIL



CABLE INCOMING DETAILS
OF LIGHTING POLE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. POLE DESIGN & DIMENSION ARE SHOWN FOR REFERENCE, CONTRACTOR SHOULD SUBMIT SHOP DRAWING WITH ALL RELEVANT DETAILS FOR APPROVAL.
3. POLE DESIGN IS SHOWN FOR REFERENCE ONLY.
4. THIS POLE SHALL BE INSTALLED AS PER THE POLE LAYOUT SHOWN IN THE DRAWING. THIS POLE IS PROVIDED ONLY AS A REFERENCE, THEREFORE ALL DIMENSIONS, ALIGNMENT, AND POSITION MUST BE FOLLOWED EXACTLY AS INDICATED IN THE DRAWING.
2. FEEDER PILLAR (FP) & POLE DIMENSIONS ARE TENTATIVE / APPROXIMATE ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH ALL RELEVANT DETAILS TO THE ENGINEER FOR APPROVAL.
3. WALL THICKNESS OF POLE SHALL BE 4 mm MINIMUM
4. FOR FOUNDATION DETAILS OF POLES; REFER TO STRUCTURAL DRAWINGS.
5. FP SHALL BE OUTDOOR WEATHER PROOF (IP-65) RATED.
6. ALL FINISHES OF LIGHT FIXTURES AND COLOUR TEMPERATURE OF LAMPS SHALL BE SUBJECT TO ARCHITECT'S APPROVAL .

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:  **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS: **TENDER**

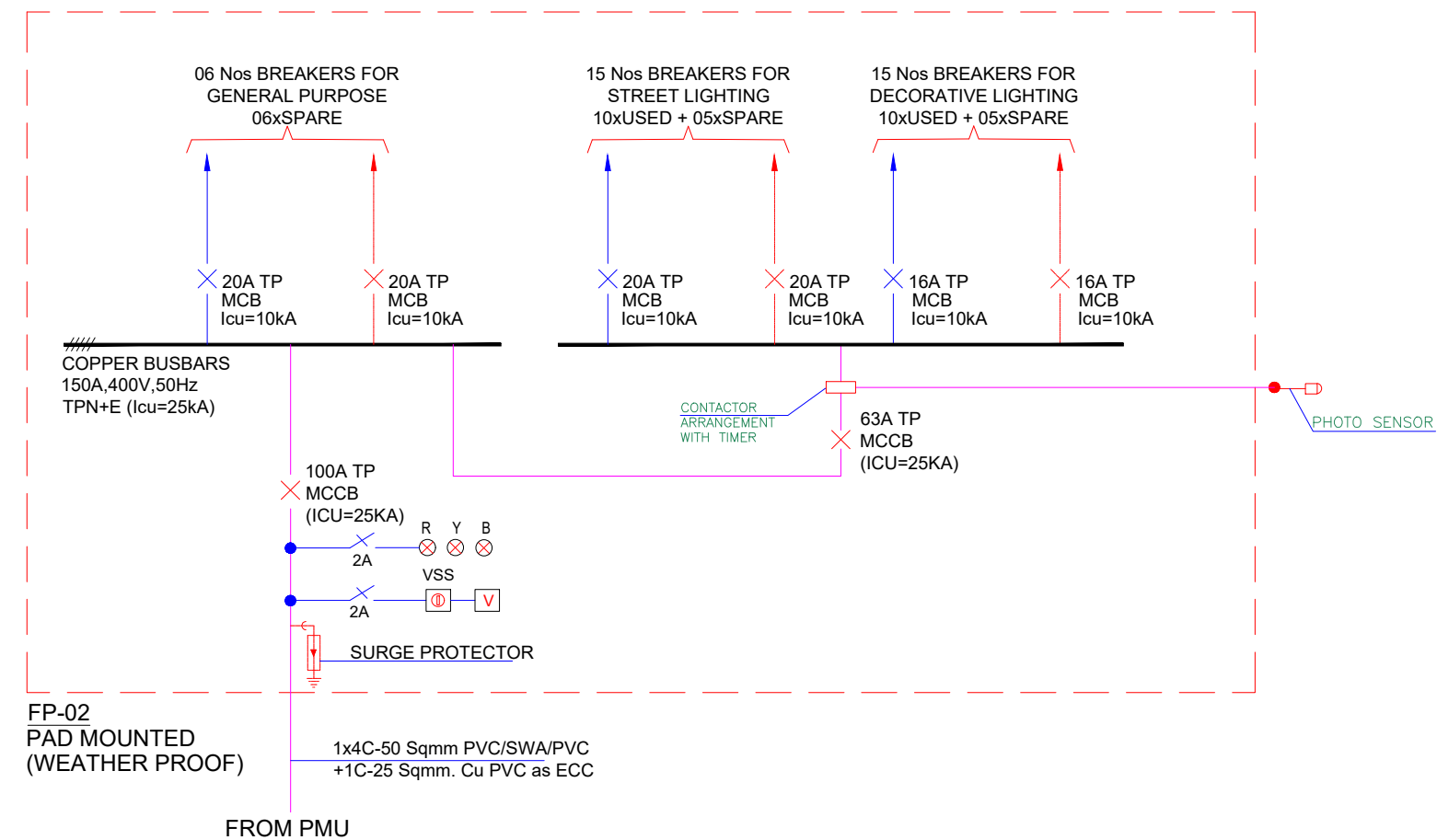
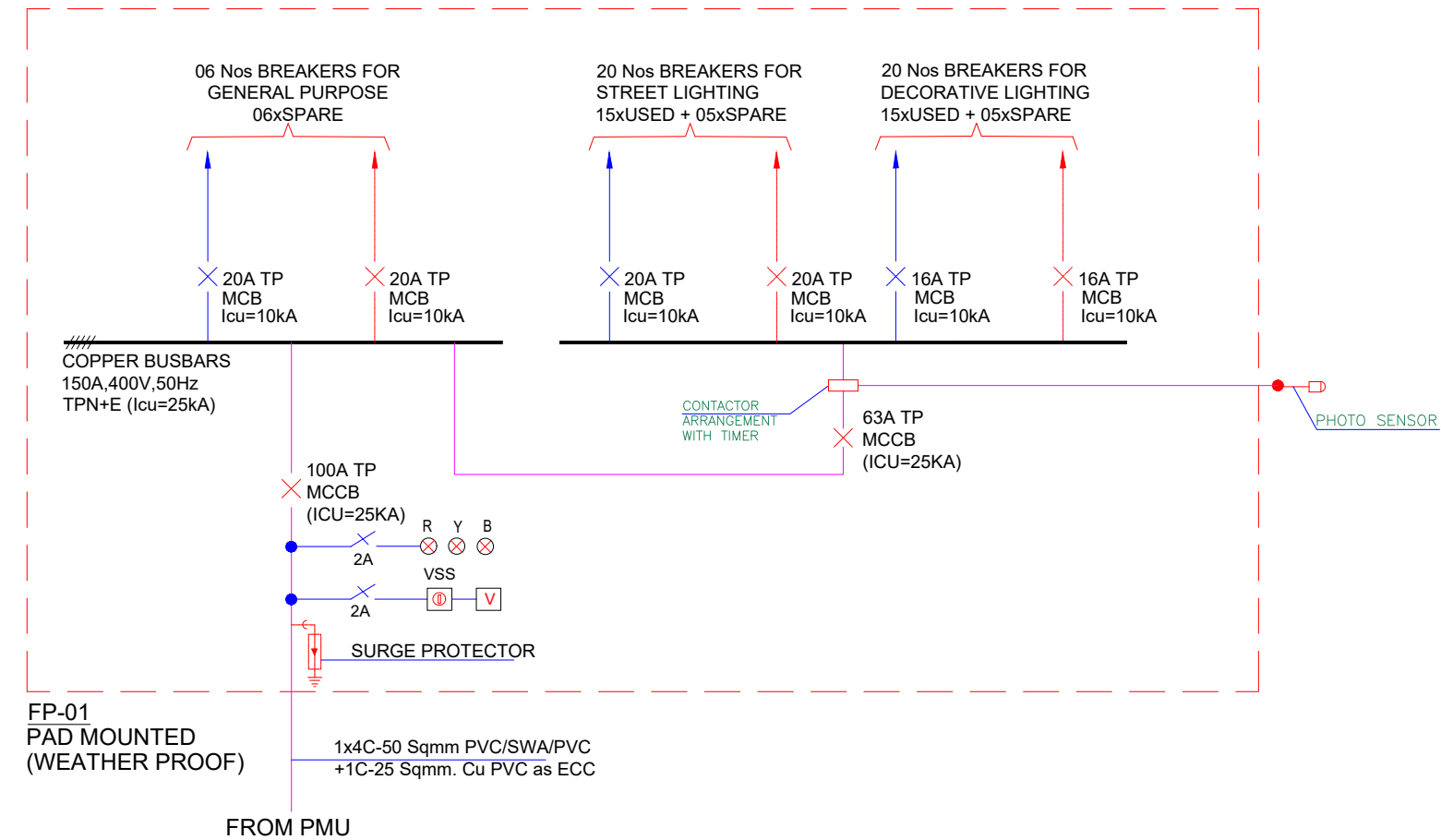
DISCIPLINE: **TOWN PLANNING**

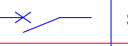
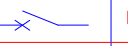
DRAWING TITLE: **MISCELLANEOUS DETAIL (02 OF 02)**

CONSULTANT:  **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet 2 of 2

DRAWING No:	GE-MP-STZ-04	Revision 00
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LEGENDS	
SYMBOL	DESCRIPTION
 	DIGITAL / ANALOG VOLTS METER WITH SELECTOR SWITCH
 	DIGITAL / ANALOG AMPS METER WITH SELECTOR SWITCH
  	PHASE INDICATION LAMPS (R,Y,B)
	ENERGY ANALYZER
	SINGLE POLE MINIATURE CIRCUIT BREAKER (MCB)
	MOULDED CASE CIRCUIT BREAKER (MCCB)
	CURRENT TRANSFORMER (CT)
	FUSE
	EARTH PIT WITH EARTH ROD
	MOTORIZED BREAKER

SINGLE LINE SYMBOLS FOR MISC. DEVICES

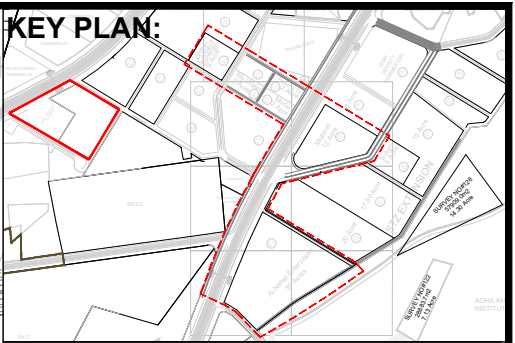
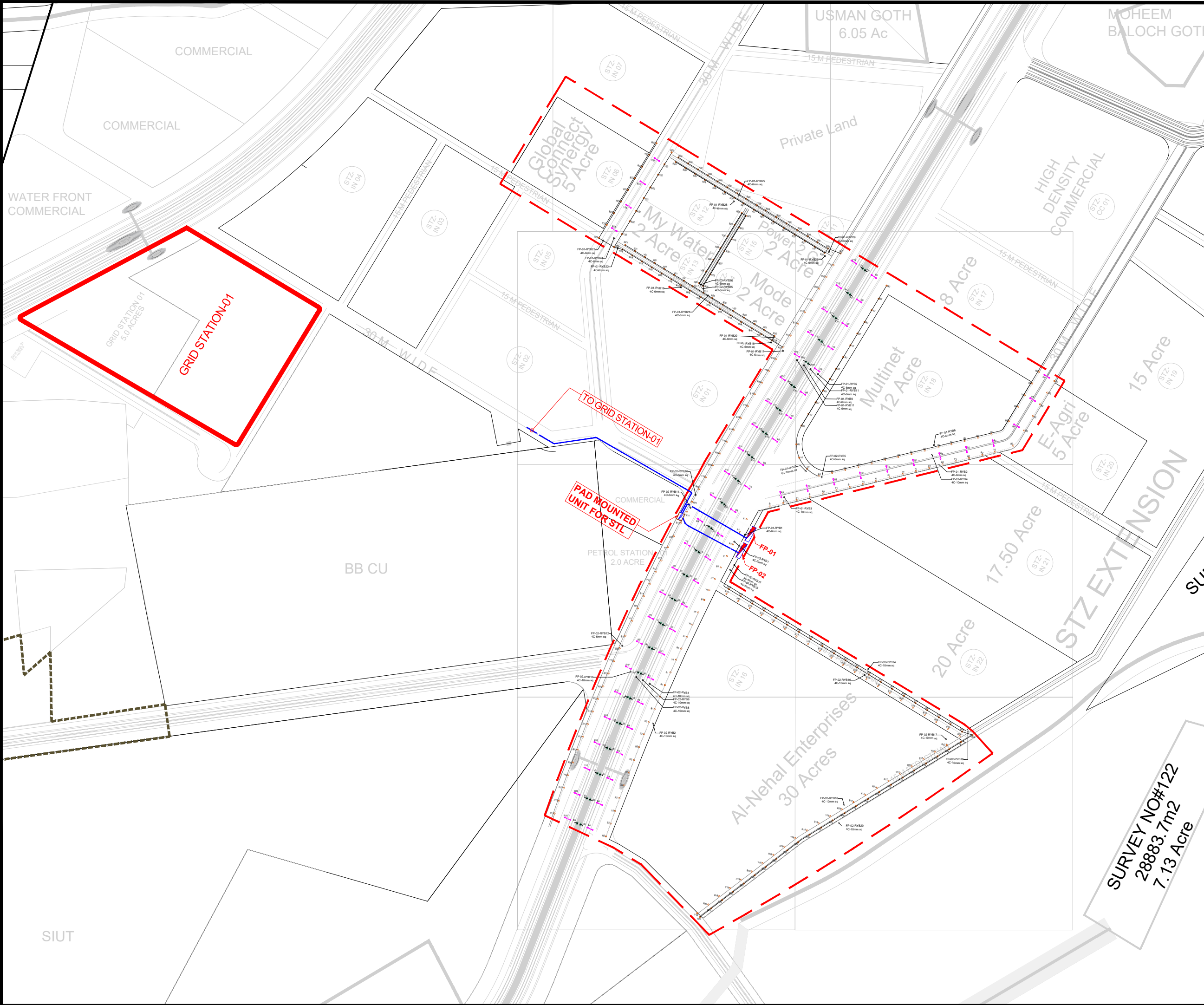
SYMBOL	DESCRIPTION
 	DIGITAL VOLTMETER / SELECTOR SWITCH
	PHOTO SENSOR
  	PHASE INDICATION LAMPS (R,Y,B)
	SINGLE POLE MINIATURE CIRCUIT BREAKER (MCB)
	MOULDED CASE CIRCUIT BREAKER (MCCB)
	CONTACTOR ARRANGEMENT
	SURGE PROTECTIONS
	EARTH PIT WITH EARTH ROD

NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ELECTRICAL LOAD BALANCING AND LABELING OF ALL EQUIPMENT AND SWITCHBOARDS THROUGHOUT THE INSTALLATION.
2. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING OF ALL CABLE PENETRATION OPENINGS BETWEEN FLOOR SLAB, MANHOLE AND WALLS ETC. WITH APPROVED FIRE RATING MATERIAL/CONSULTING ENGINEER'S APPROVAL.
3. ALL DISTRIBUTION BOARDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARD AND CONTRACTOR SHOULD SUBMIT SHOP DRAWINGS WITH ALL RELEVANT DETAILS TO THE CONSULTANT FOR APPROVAL. THEY SHALL BE PAINTED WITH A COAT OF ANTI-RUST PAINT AND TWO COATS OF SEMI-GLOSS TEAK PAINT OF BEST QUALITY TO THE APPROVAL OF THE ARCHITECT.

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT: EDUCATION CITY PROJECT			
CLIENT: PROJECT IMPLEMENTATION UNIT			
NAME OF WORK: EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT			
DRAWING STATUS: TENDER			
DISCIPLINE: TOWN PLANNING			
DRAWING TITLE: SINGLE LINE DIAGRAM			
CONSULTANT:  CGD CONSULTING ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT Plot # 7-C, 5th Zulfikar Commercial Street, Phase VIII-A, DHA, Karachi - Pakistan			
Designed By: A.H	Checked By: K.I	Date: DEC-2025	
Drawn By: A.S	Scale: N.T.S	Job No:	Sheet
DRAWING No: GE-MP-STZ-05			Revision 00



LEGEND :		
SYMBOL	DESCRIPTION	
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE	
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE	
	DECORATION LIGHT POLE	

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:  **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS: **TENDER**

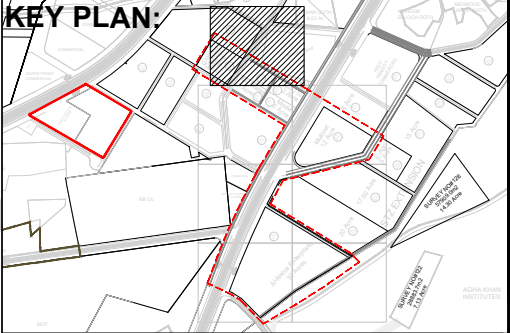
DISCIPLINE: **TOWN PLANNING**

DRAWING TITLE: **Street Lighting Layout Overall Plan**

CONSULTANT:  **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By: A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-00	Revision 00	

EL-MP-STZ-STL-01



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:



PROJECT IMPLEMENTATION UNIT

NAME OF WORK: **EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS: **TENDER**

DISCIPLINE: **TOWN PLANNING**

DRAWING TITLE: **Street Lighting Layout
Sheet 01 of 07**

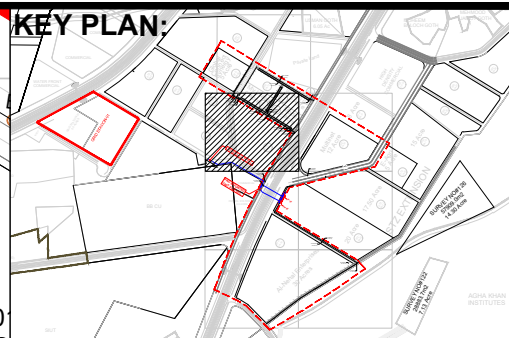
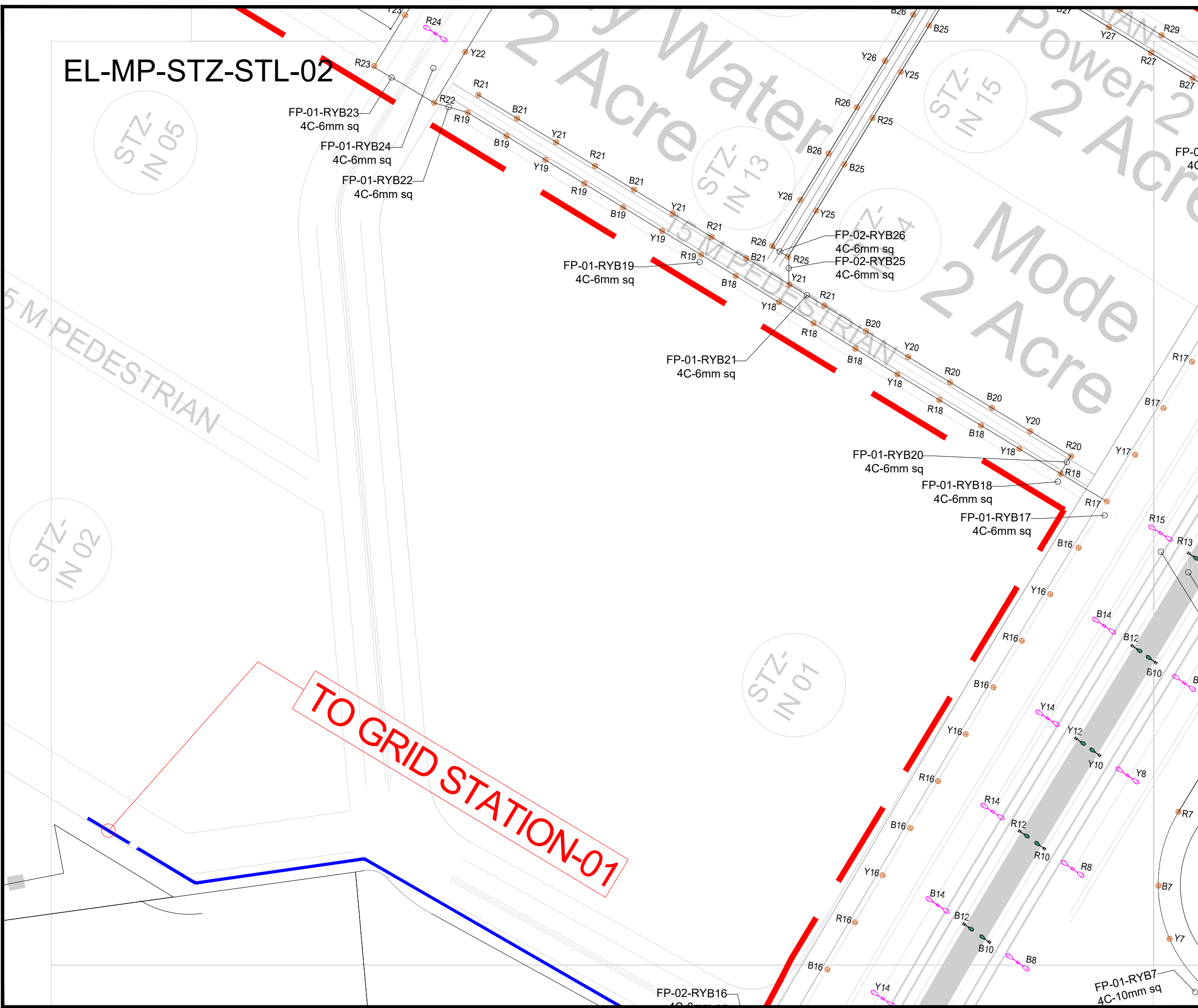
CONSULTANT:



CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfiqar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-01		Revision 00

EL-MP-STZ-STL-02



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT:
EDUCATION CITY PROJECT

CLIENT:
 PROJECT IMPLEMENTATION UNIT

NAME OF WORK:
EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT

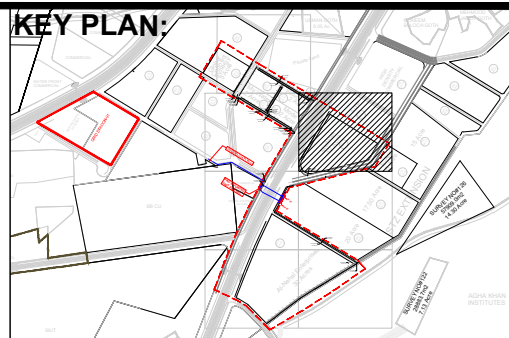
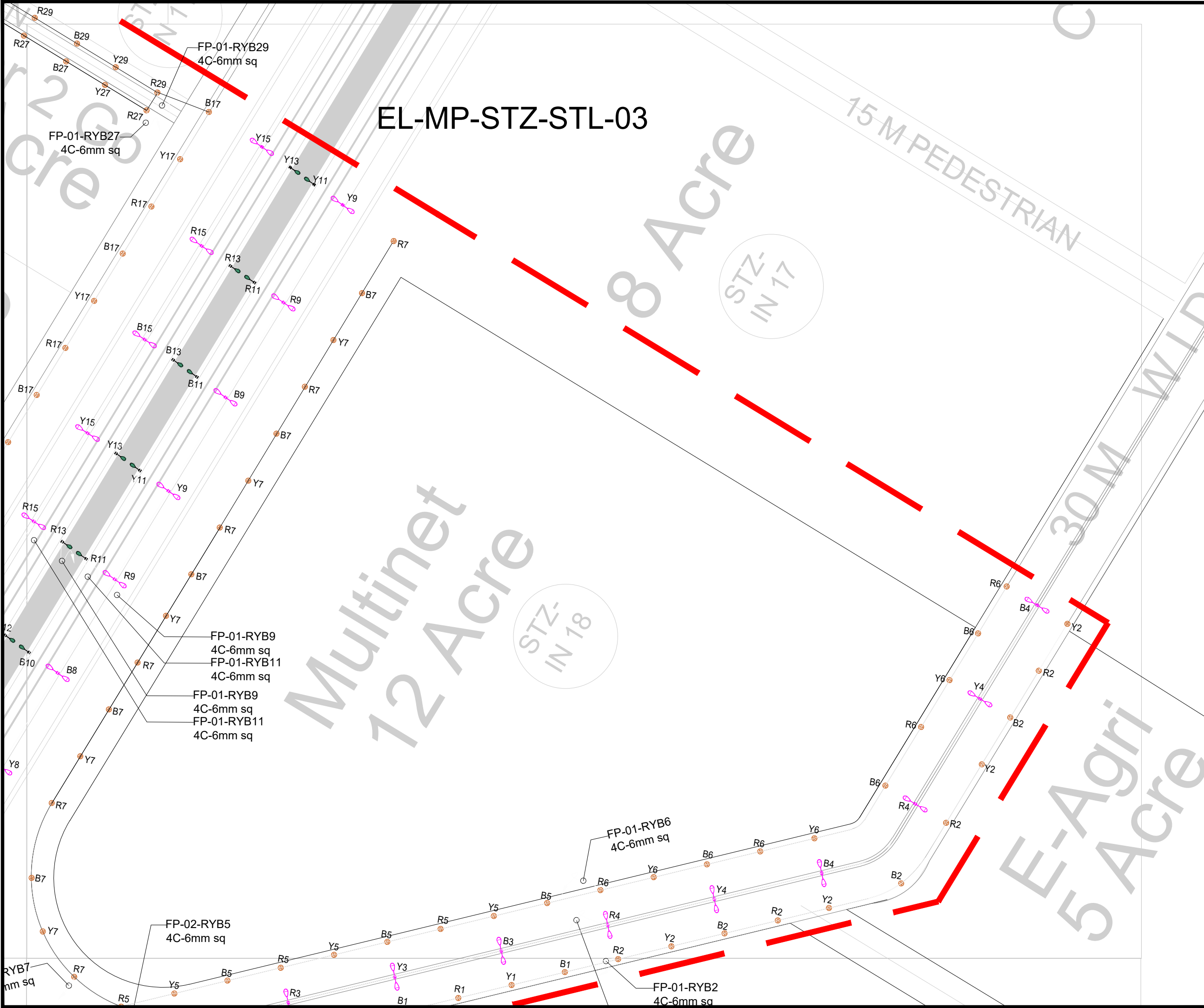
DRAWING STATUS:
TENDER

DISCIPLINE:
TOWN PLANNING

DRAWING TITLE:
Street Lighting Layout
Sheet 02 of 07

CONSULTANT:
 CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By: A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-02		Revision 00



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT:
EDUCATION CITY PROJECT

CLIENT:

PROJECT IMPLEMENTATION UNIT

NAME OF WORK:
**EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS:
TENDER

DISCIPLINE:
TOWN PLANNING

DRAWING TITLE:
**Street Lighting Layout
Sheet 03 of 07**

CONSULTANT:

CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By: A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet

DRAWING No: EL-MP-STZ-STL-03	Revision 00
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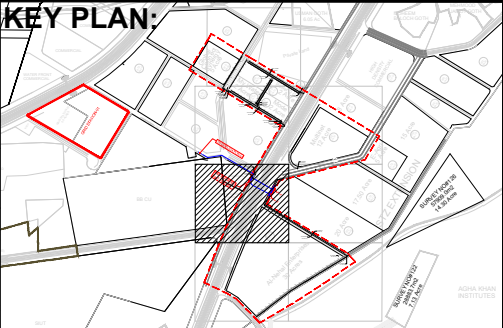
EL-MP-STZ-STL-04

PAD MOUNTED
UNIT FOR STL

COMMERCIAL

PETROL STATION-01
2.0 ACRE

STZ-
IN 16



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:

IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:  **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT**

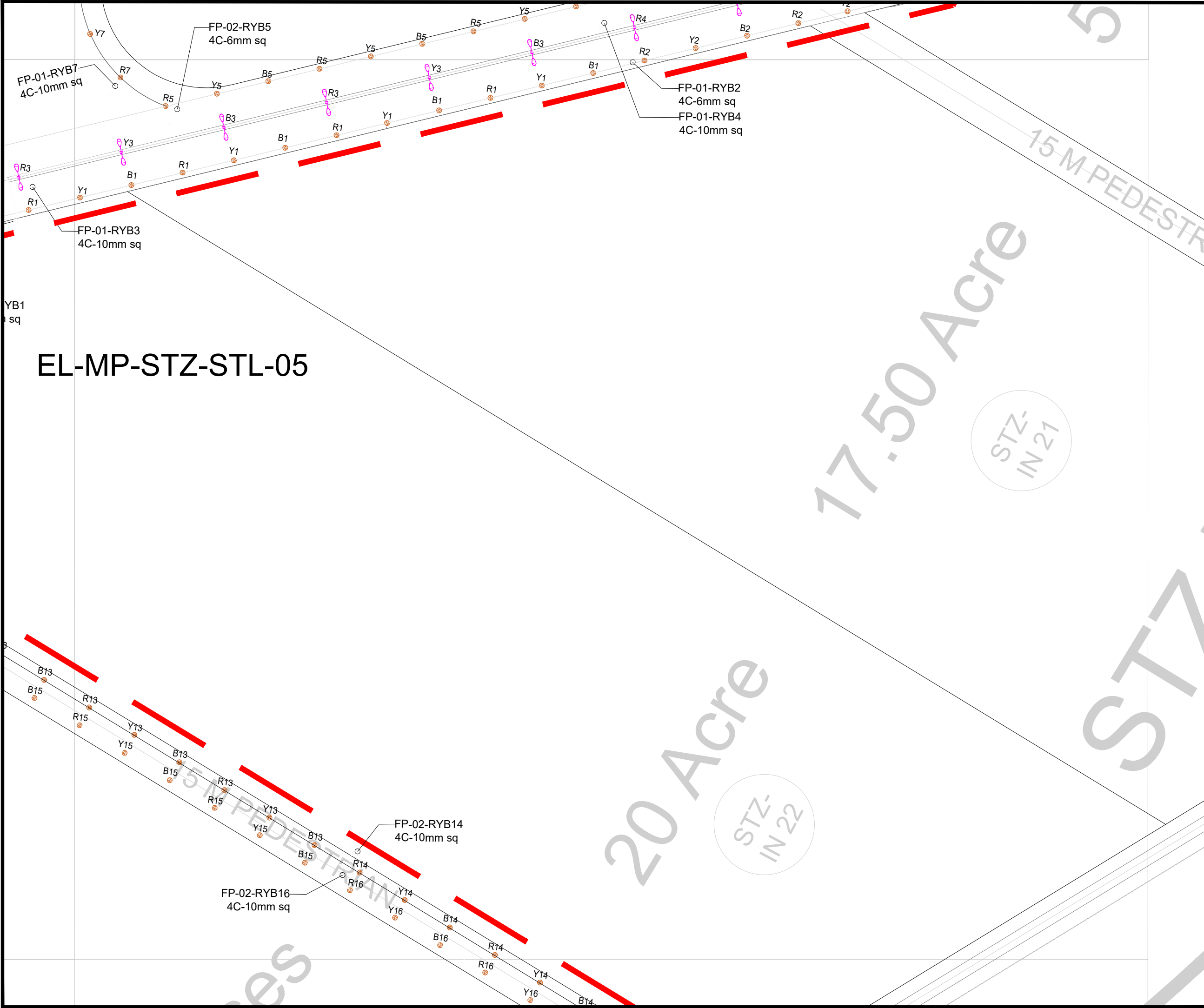
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DISCIPLINE: **TOWN PLANNING**

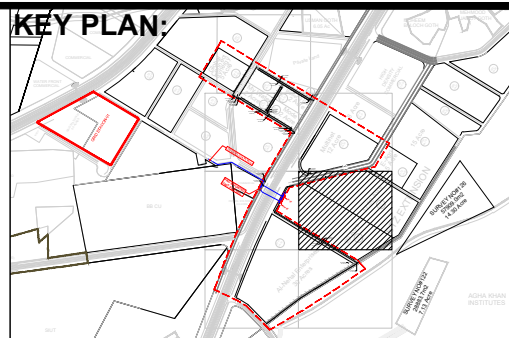
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CONSULTANT:  **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By: A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-04	Revision 00	



EL-MP-STZ-STL-05



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT: EDUCATION CITY PROJECT

CLIENT: **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT

DRAWING STATUS: TENDER

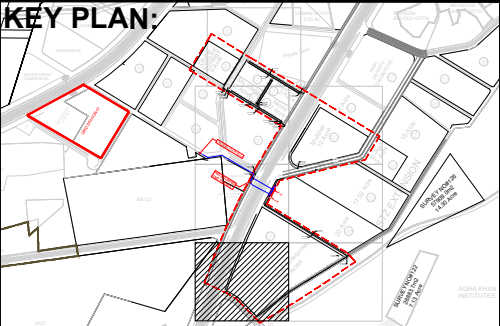
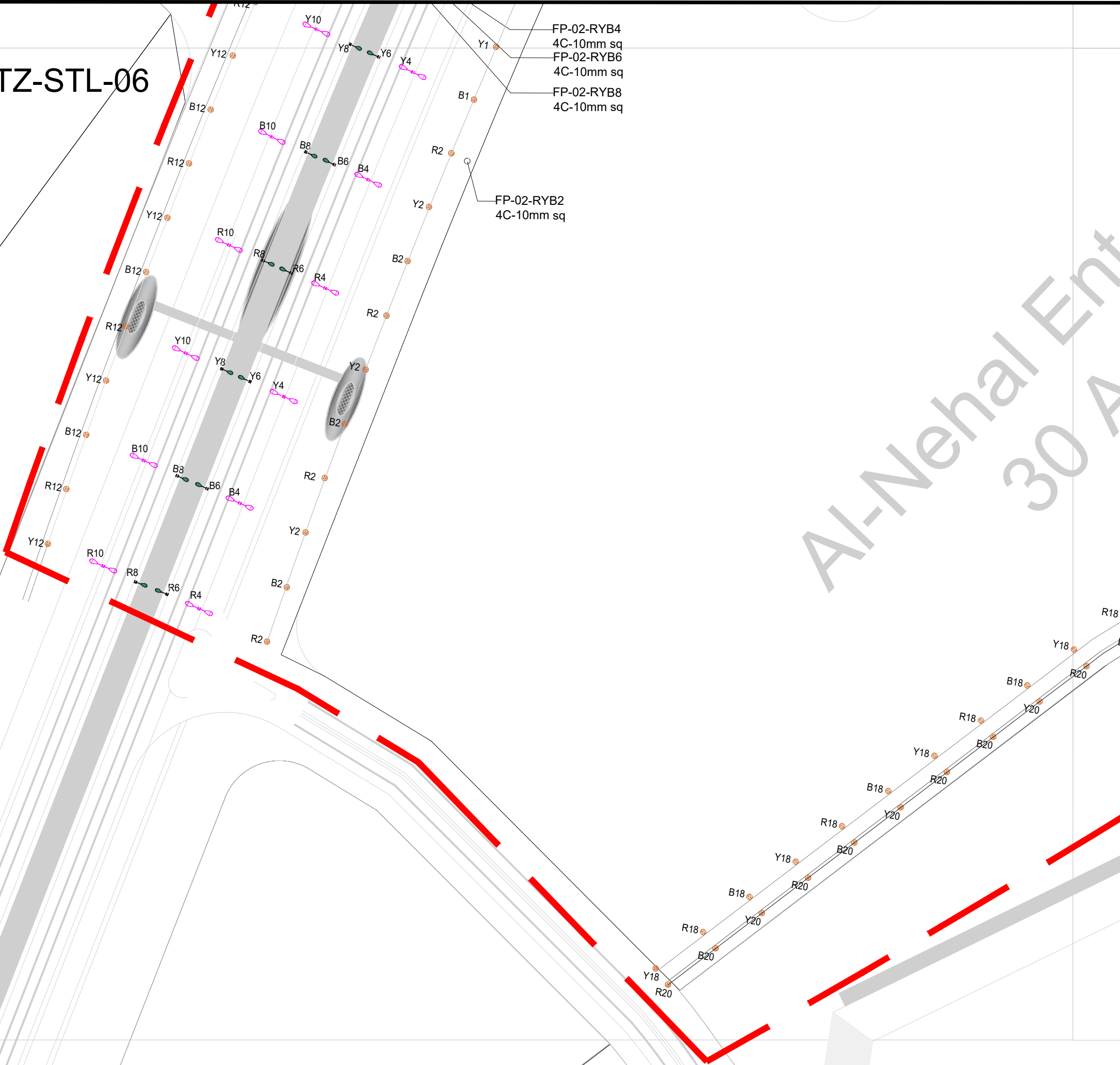
DISCIPLINE: TOWN PLANNING

DRAWING TITLE: Street Lighting Layout Sheet 05 of 07

CONSULTANT: **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street, Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By: A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-05		Revision 00

EL-MP-STZ-STL-06



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
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PROJECT: **EDUCATION CITY PROJECT**

CLIENT:  **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS: **TENDER**

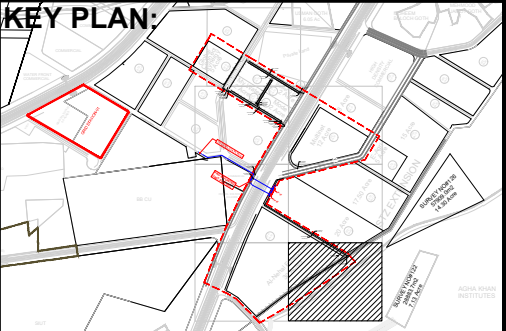
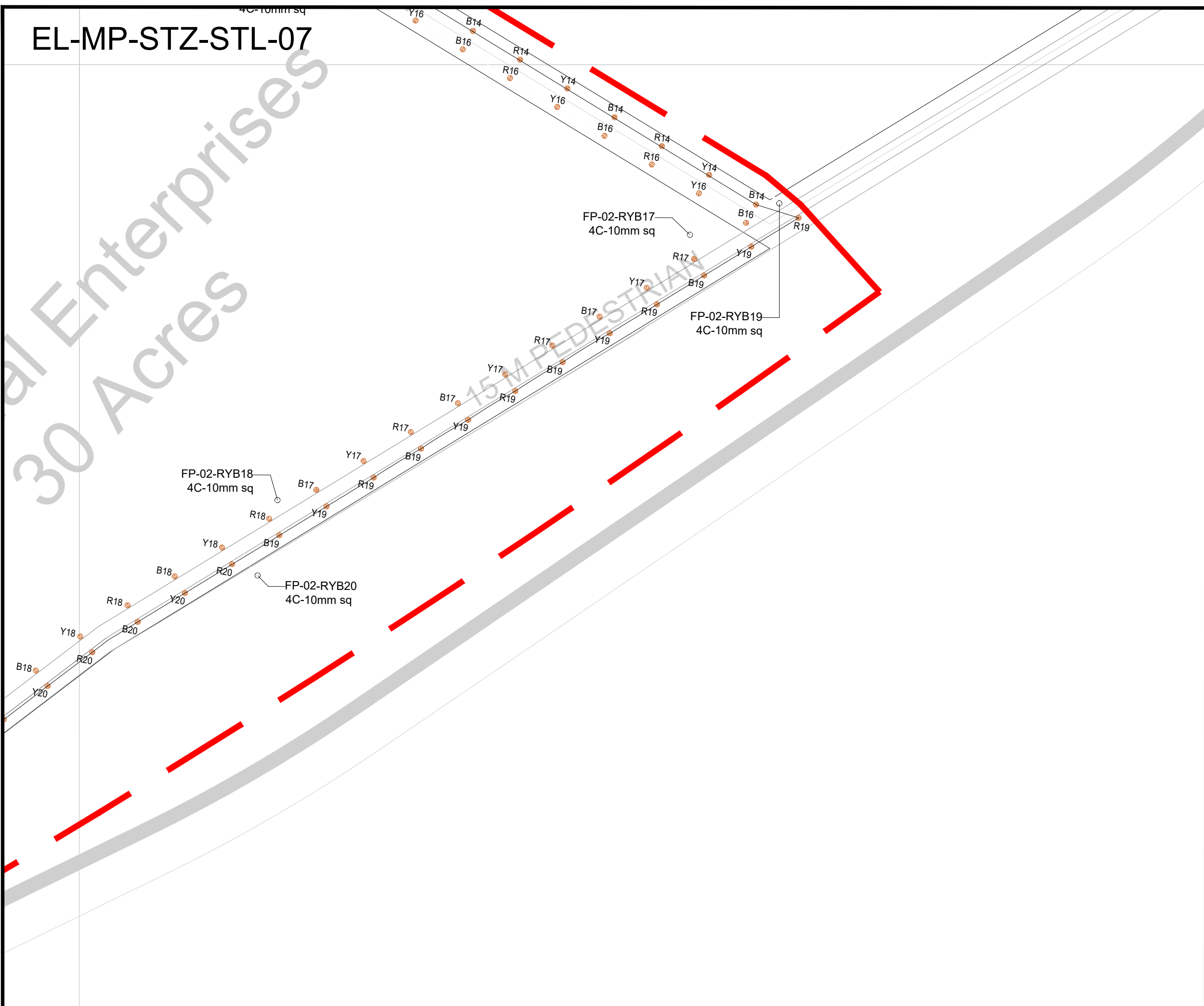
DISCIPLINE: **TOWN PLANNING**

DRAWING TITLE: **Street Lighting Layout Sheet 06 of 07**

CONSULTANT:  **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfiqar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-06	Revision 00	

EL-MP-STZ-STL-07



LEGEND :

SYMBOL	DESCRIPTION
	12 METER HIGH DOUBLE ARM STREET LIGHT POLE WITH 2 x 150 WATT LED LIGHT FIXTURE
	8 METER HIGH SINGLE ARM STREET LIGHT POLE WITH 1 x 150 WATT LED LIGHT FIXTURE
	DECORATION LIGHT POLE

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:
IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT:
EDUCATION CITY PROJECT

CLIENT:



**PROJECT
IMPLEMENTATION UNIT**

NAME OF WORK:
**EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS:
TENDER

DISCIPLINE:
TOWN PLANNING

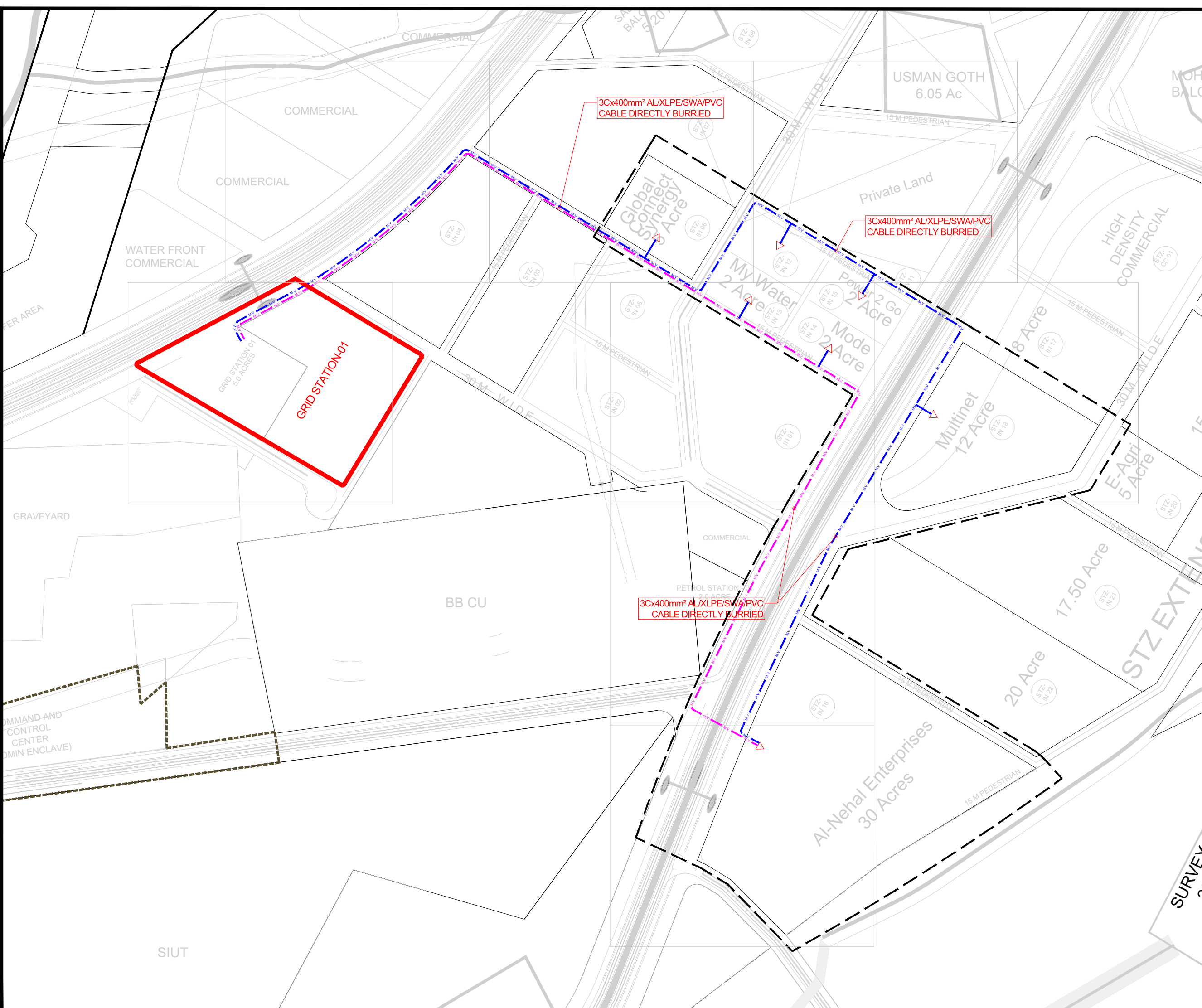
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**Street Lighting Layout
Sheet 07 of 07**

CONSULTANT:

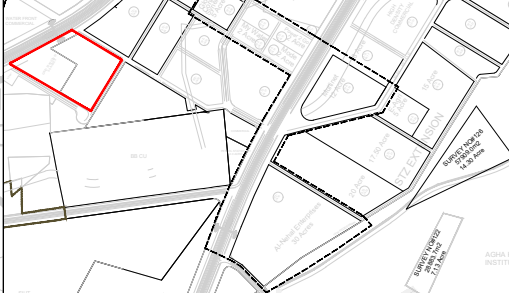


CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C, 5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: 1:100 Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-STL-07		Revision 00



KEY PLAN:



LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

NOTE:

IMAGE ARE SHOWN FOR REFERENCE ONLY

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:  **PROJECT IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS: **TENDER**

DISCIPLINE: **TOWN PLANNING**

DRAWING TITLE: **MV Cable Route Layout Overall Plan**

CONSULTANT:  **CGD CONSULTING**
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfikar Commercial Street,
Phase VIII-A, DHA,Karachi - Pakistan

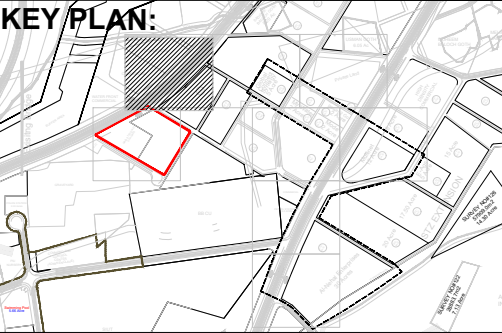
Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet

DRAWING No: EL-MP-STZ-MV-00	Revision 00
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EL-MP-STZ-MV-01

COMMERCIAL

COMMERCIAL



LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT: **EDUCATION CITY PROJECT**

CLIENT:



**PROJECT
IMPLEMENTATION UNIT**

NAME OF WORK: **EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT**

DRAWING STATUS: **TENDER**

DISCIPLINE: **TOWN PLANNING**

DRAWING TITLE: **MV Cable Route Layout
SHEET 01 OF 08**

CONSULTANT:



CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfikar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

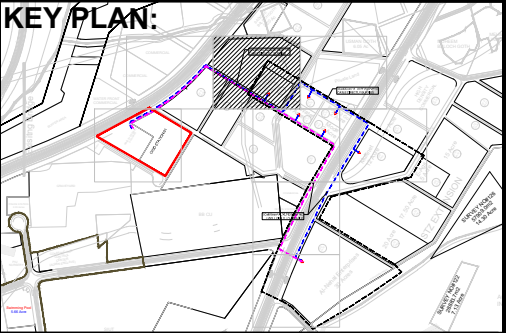
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Drawn By : A.S	Scale: N.T.S	Job No:	Sheet
DRAWING No: EL-MP-STZ-MV-01		Revision 00	

STZ-
IN 04

15 M

EL-MP-STZ-MV-02

3Cx400mm² AL/XLPE/SWA/PVC
CABLE DIRECTLY BURRIED



LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm ² AL/XLPE/SWA/PVC CABLE
	3Cx400mm ² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:					
EDUCATION CITY PROJECT					
CLIENT:					
		PROJECT IMPLEMENTATION UNIT			
NAME OF WORK:					
EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT					
DRAWING STATUS:					
TENDER					
DISCIPLINE:					
TOWN PLANNING					
DRAWING TITLE:					
MV Cable Route Layout SHEET 02 OF 08					
CONSULTANT:					
		CGD CONSULTING ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT Plot # 7-C,5th Zulfikar Commercial Street, Phase VIII-A, DHA,Karachi - Pakistan			
Designed By:		Checked By:		Date:	
A.H		K.I		DEC-2025	
Drawn By :		Scale:		Job No:	Sheet
A.S		Paper Size: A3			
DRAWING No:				Revision	
EL-MP-STZ-MV-02				00	

EL-MP-STZ-MV-03

USMAN GOTH
6.05 Ac

30 M WIDE

15 M PEDESTRIAN

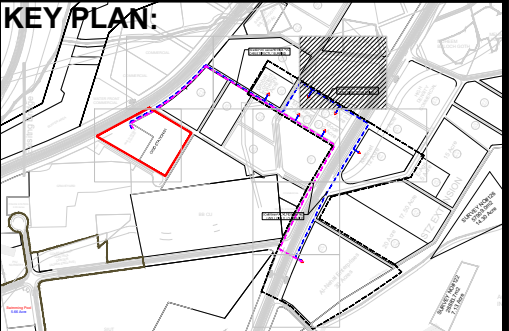
Private Land

3Cx400mm² AL/XLPE/SWA/PVC
CABLE DIRECTLY BURRIED

STZ-
IN 12

15 M PEDESTRIAN

STZ-
IN 11



LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm ² AL/XLPE/SWA/PVC CABLE
	3Cx400mm ² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

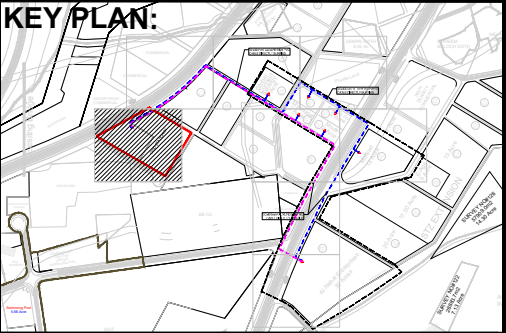
REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:		EDUCATION CITY PROJECT			
CLIENT:		 PROJECT IMPLEMENTATION UNIT			
NAME OF WORK:		EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT			
DRAWING STATUS:		TENDER			
DISCIPLINE:		TOWN PLANNING			
DRAWING TITLE:		MV Cable Route Layout SHEET 03 OF 08			
CONSULTANT:		 CGD CONSULTING ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT Plot # 7-C,5th Zulfikar Commercial Street, Phase VIII-A, DHA,Karachi - Pakistan			
Designed By:	A.H	Checked By:	K.I	Date:	DEC-2025
Drawn By :	A.S	Scale:	N.T.S	Job No:	Sheet
		Paper Size:	A3		
DRAWING No:		EL-MP-STZ-MV-03		Revision	00

EL-MP-STZ-MV-04

GRID STATION 01
5.0 ACRES

GRID STATION-01

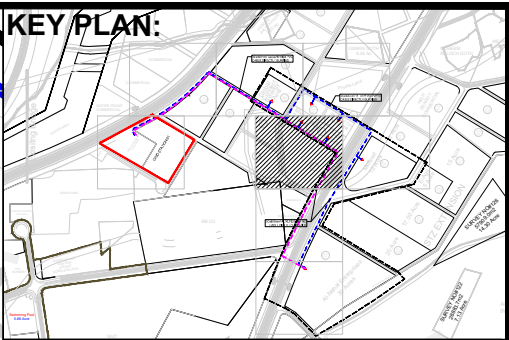
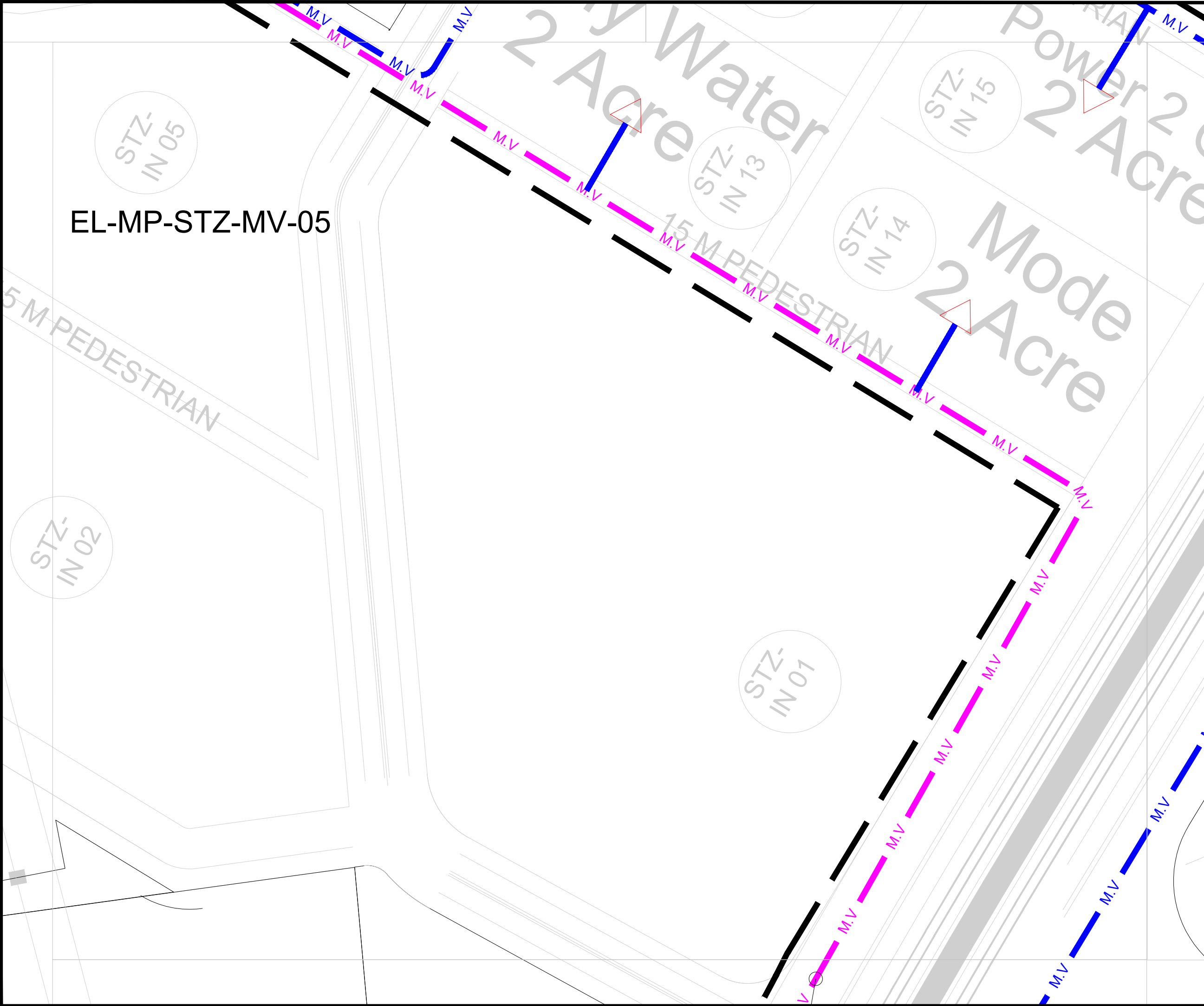


LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:			EDUCATION CITY PROJECT		
CLIENT:			 PROJECT IMPLEMENTATION UNIT		
NAME OF WORK:			EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT		
DRAWING STATUS:			TENDER		
DISCIPLINE:			TOWN PLANNING		
DRAWING TITLE:			MV Cable Route Layout SHEET 04 OF 08		
CONSULTANT:			 CGD CONSULTING ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT Plot # 7-C,5th Zulfikar Commercial Street, Phase VIII-A, DHA,Karachi - Pakistan		
Designed By: A.H		Checked By: K.I		Date: DEC-2025	
Drawn By : A.S		Scale: N.T.S Paper Size: A3		Job No:	Sheet
DRAWING No:				Revision 00	
EL-MP-STZ-MV-04					



LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:

EDUCATION CITY PROJECT

CLIENT:

PROJECT IMPLEMENTATION UNIT

NAME OF WORK:

EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT

DRAWING STATUS:

TENDER

DISCIPLINE:

TOWN PLANNING

DRAWING TITLE:

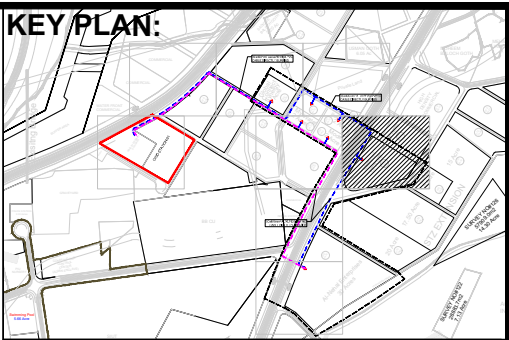
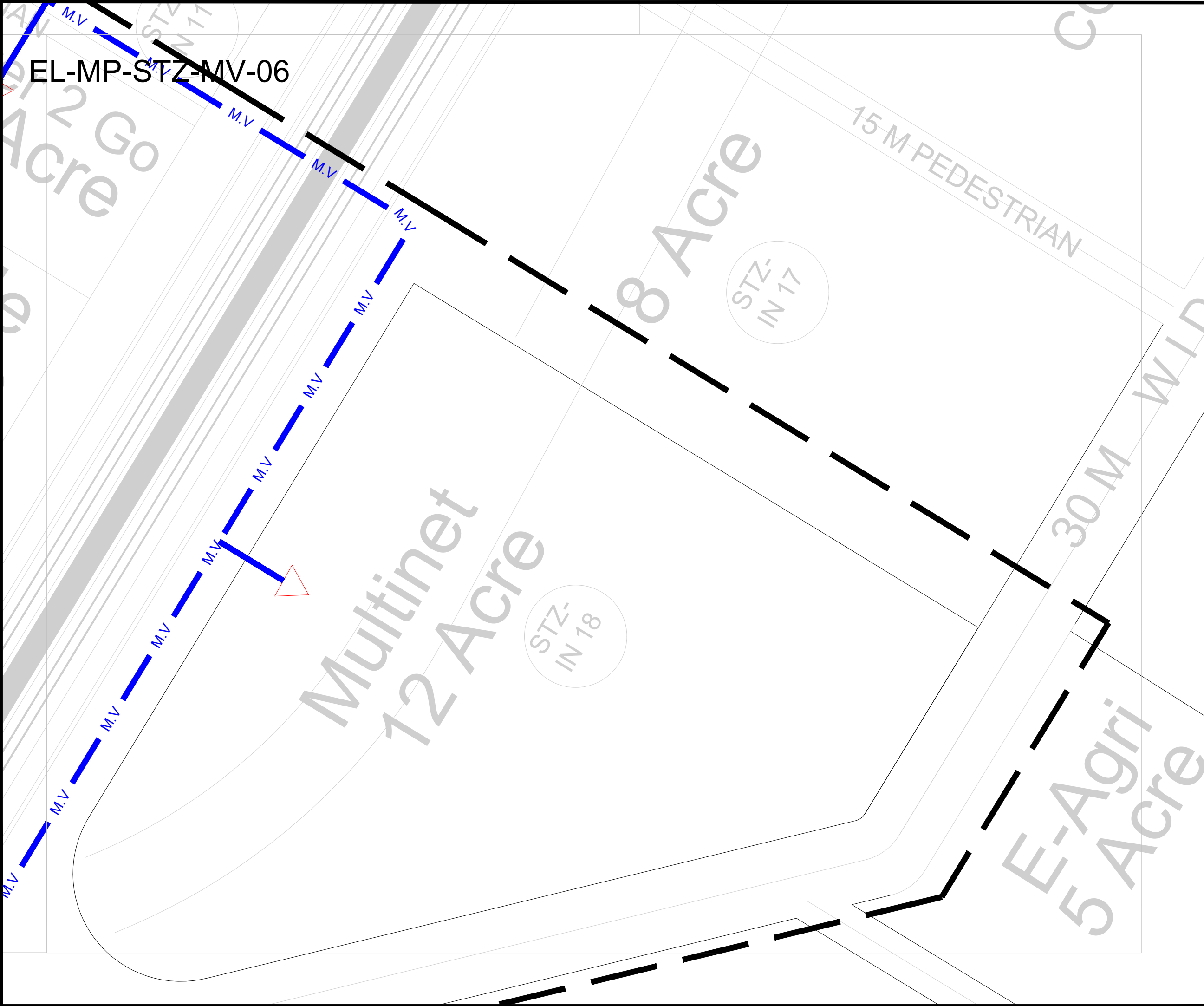
MV Cable Route Layout
SHEET 05 OF 08

CONSULTANT:

CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfiqar Commercial Street,
Phase VIII-A, DHA, Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet

DRAWING No:	EL-MP-STZ-MV-05	Revision 00	
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LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:

EDUCATION CITY PROJECT

CLIENT:

PROJECT IMPLEMENTATION UNIT

NAME OF WORK:

EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT

DRAWING STATUS:

TENDER

DISCIPLINE:

TOWN PLANNING

DRAWING TITLE:

MV Cable Route Layout
SHEET 06 OF 08

CONSULTANT:

CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfiqar Commercial Street,
Phase VIII-A, DHA,Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet

DRAWING No:	EL-MP-STZ-MV-06	Revision 00	
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EL-MP-STZ-MV-07

COMMERCIAL

PETROL STATION - 01
2.0 ACRE

3Cx400mm² AL/XLPE/SWA/PVC
CABLE DIRECTLY BURIED

STZ-
IN 16

KEY PLAN:

LEGEND :

SYMBOL	DESCRIPTION
	3Cx400mm ² AL/XLPE/SWA/PVC CABLE
	3Cx400mm ² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT: EDUCATION CITY PROJECT

CLIENT:  PROJECT IMPLEMENTATION UNIT

NAME OF WORK: EDUCATION CITY
SPECIAL TECHNOLOGY ZONE -EXT

DRAWING STATUS: TENDER

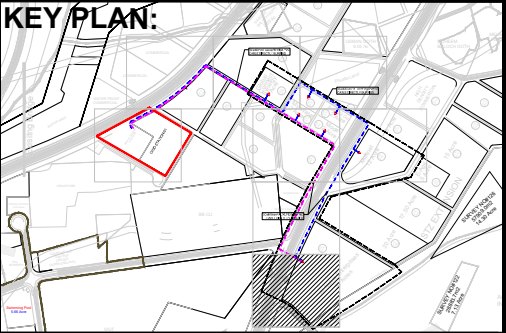
DISCIPLINE: TOWN PLANNING

DRAWING TITLE: MV Cable Route Layout
SHEET 07 OF 08

CONSULTANT:  CGD CONSULTING
ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT
Plot # 7-C,5th Zulfikar Commercial Street,
Phase VIII-A, DHA,Karachi - Pakistan

Designed By: A.H	Checked By: K.I	Date: DEC-2025
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No: Sheet
DRAWING No: EL-MP-STZ-MV-07	Revision 00	

EL-MP-STZ-MV-08



LEGEND :	
SYMBOL	DESCRIPTION
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	3Cx400mm² AL/XLPE/SWA/PVC CABLE
	CONNECTION POINT

REVISION	DATE	DESCRIPTION	NAME
00	10-06-2026	ISSUE FOR TENDER	

PROJECT:		EDUCATION CITY PROJECT	
CLIENT:		 PROJECT IMPLEMENTATION UNIT	
NAME OF WORK:		EDUCATION CITY SPECIAL TECHNOLOGY ZONE -EXT	
DRAWING STATUS:		TENDER	
DISCIPLINE:		TOWN PLANNING	
DRAWING TITLE:		MV Cable Route Layout SHEET 08 OF 08	
CONSULTANT:		 CGD CONSULTING ARCHITECTURE-ENGINEERING-PLANNING-MANAGEMENT Plot # 7-C,5th Zulfiqar Commercial Street, Phase VIII-A, DHA,Karachi - Pakistan	

Designed By: A.H	Checked By: K.I	Date: DEC-2025	
Drawn By : A.S	Scale: N.T.S Paper Size: A3	Job No:	Sheet
DRAWING No: EL-MP-STZ-MV-08		Revision 00	