

**ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF PUNJAB
LOCAL GOVERNMENT & COMMUNITY
DEVELOPMENT DEPARTMENT**



**LOAN 3562-PAK:
PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT
PROGRAM (PICIIP)**



BIDDING DOCUMENT

NCB-Works/PICIIP-27:

**Civil Works for Parking Sheds at Sahiwal and Sialkot including
Construction of Boundary Wall and Gate, Surveillance and
Security System, Guard / Driver and Equipment, Office Building
and Allied Works at Sahiwal and Sialkot**

-Single-Stage: Two-Envelope Bidding Procedure-

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Procurement of Works

BIDDING DOCUMENT for Procurement of

NCB-Works/PICIIP-27

**Civil Works for Parking Sheds at Sahiwal and
Sialkot including Construction of Boundary Wall
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/ Driver and Equipment, Office Building and Allied
Works at Sahiwal and Sialkot**

Issued on:	<i>13th August 2021</i>
Invitation for Bids No.:	NCB-Works/PICIIP-27
NCB No.:	PICIIP-27-Parking Sheds
Employer:	Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Department Punjab, Lahore
Country:	Pakistan

Preface

This Bidding Document for the Procurement of Works has been prepared by ***Program Management Unit (PMU), Punjab Intermediate Cities Improvement Investment Program (PICIIP), Local Government & Community Development Department, Punjab Pakistan*** and is based on the Standard Bidding Document for the Procurement of Works – Small (*SBD Works-Small*) issued by the Asian Development Bank dated ***December 2016***.

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

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Section 1 - Instructions to Bidders

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Section 1 - Instructions to Bidders

A. General	
1. Scope of Bid	<p>1.1 In connection with the Invitation for Bids (IFB) indicated in the Bid Data Sheet (BDS), the Employer, as indicated in the BDS, issues this Bidding Document for the procurement of the Works as specified in Section 6 (Employer's Requirements). The name, identification, and number of contracts of this bidding are provided in the BDS.</p> <p>1.2 Throughout this Bidding Document,</p> <ul style="list-style-type: none"> (a) the term "in writing" means communicated in written form and delivered against receipt; (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and (c) "day" means calendar day.
2. Source of Funds	<p>2.1 The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.</p> <p>2.2 Payments by ADB will be made only at the request of the Borrower and upon approval by ADB in accordance with the terms and conditions of the Financing Agreement between the Borrower and ADB (hereinafter called "Financing Agreement"), and will be subject in all respects to the terms and conditions of that Financing Agreement. No party other than the Borrower shall derive any rights from the Financing Agreement or have any claim to the funds.</p>
3. Fraud and Corruption	<p>3.1 ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Bidders, Suppliers, and Contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB</p> <p>(a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <ul style="list-style-type: none"> (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party; (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation; (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the

	<p>actions of a party;</p> <p>(iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;</p> <p>(v) "obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents, or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) 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 (e) materially impeding ADB's contractual rights of audit or access to information; and</p> <p>(vi) "integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.</p> <p>(b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;</p> <p>(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation;</p> <p>(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate¹ in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and</p>
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¹ Whether as a Contractor, Nominated Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document). A Nominated Subcontractor is one that either has been (i) included by the Bidder in its prequalification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's prequalification application or the bid; or (ii) appointed by the Employer.

	(e) will have the right to require that a provision be included in bidding documents and in contracts financed by ADB, requiring Bidders, suppliers, and contractors to permit ADB or its representative to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.
	3.2 Furthermore, Bidders shall be aware of the provisions of GCC 28.3 and 73.2 (i).
4. Eligible Bidders	<p>4.1 A Bidder may be a natural person, private entity, or government-owned enterprise subject to ITB 4.5 – or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture. In the case of a Joint Venture:</p> <p>(a) all partners shall be jointly and severally liable; and</p> <p>(b) the Joint Venture shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the Joint Venture during the bidding process and, in the event the Joint Venture is awarded the Contract, during contract execution.</p>
	4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section 5 (Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.
	<p>4.3 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if any of, including but not limited to, the following apply:</p> <p>(a) they have controlling shareholders in common; or</p> <p>(b) they receive or have received any direct or indirect subsidy from any of them; or</p> <p>(c) they have the same legal representative for purposes of this bid; or</p> <p>(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or</p> <p>(e) a Bidder participates in more than one bid in this bidding process, either individually or as a partner in a joint venture, except for alternative offers permitted under ITB 13 of the Bidding Document. This will result in the disqualification of all Bids in which it is involved. However, subject to any finding of a conflict of interest in terms of ITB 4.3 (a) - (d) above, this does not limit the participation of a Bidder as a Subcontractor in another Bid or of a firm as a</p>

	<p>Subcontractor in more than one Bid; or</p> <p>(f) a Bidder or any affiliated entity, participated as a Consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or</p> <p>(g) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the contract.</p>
	<p>4.4 A firm shall not be eligible to participate in any procurement activities under an ADB-financed, -administered, or -supported project while under temporary suspension or debarment by ADB pursuant to its Anticorruption Policy (see ITB 3), whether such debarment was directly imposed by ADB, or enforced by ADB pursuant to the Agreement for Mutual Enforcement of Debarment Decisions. A bid from a temporary suspended or debarred firm will be rejected.</p>
	<p>4.5 Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Employer.</p>
	<p>4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.</p>
	<p>4.7 Firms shall be excluded if by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country or any payments to persons or entities in that country.</p>
	<p>4.8 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.</p>
5. Eligible Materials, Equipment and Services	<p>5.1 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2 above and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment, and services.</p>
	<p>5.2 For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.</p>
B. Contents of Bidding Document	
6. Sections of Bidding Document	<p>6.1 The Bidding Document consist of Parts I, II, and III, which include all the sections indicated below, and should be read in conjunction with</p>

	<p>any addenda issued in accordance with ITB 8.</p> <p>PART I Bidding Procedures Section 1 - Instructions to Bidders (ITB) Section 2 - Bid Data Sheet (BDS) Section 3 - Evaluation and Qualification Criteria (EQC) Section 4 - Bidding Forms (BDF) Section 5 - Eligible Countries (ELC)</p> <p>PART II Requirements Section 6 – Employer’s Requirements (ERQ)</p> <p>PART III Conditions of Contract and Contract Forms Section 7 - General Conditions of Contract (GCC) Section 8 - Particular Conditions of Contract (PCC) Section 9 - Contract Forms (COF)</p>
	6.2 The IFB issued by the Employer is not part of the Bidding Document.
	6.3 The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the IFB.
	6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.
7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting	<p>7.1 A prospective Bidder requiring any clarification on the Bidding Document shall contact the Employer in writing at the Employer’s address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids, within a period given in the BDS. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.</p>
	7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and responsibility, all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder’s own expense.
	7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

	7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
	7.5 The Bidder is requested to submit any questions in writing, to reach the Employer not later than 1 week before the meeting.
	7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
	7.7 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.
8. Amendment of Bidding Document	8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding Document by issuing addenda.
	8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.
	8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.
C. Preparation of Bids	
9. Cost of Bidding	9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
10. Language of Bid	10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.
11. Documents Comprising the Bid	11.1 The Bid shall comprise two envelopes submitted simultaneously, one called the Technical Bid containing the documents listed in ITB 11.2 and the other the Price Bid containing the documents listed in ITB 11.3, both envelopes enclosed together in an outer single envelope.
	11.2 The Technical Bid shall comprise the following:

	<ul style="list-style-type: none"> (a) Letter of Technical Bid; (b) Bid Security or Bid-Securing Declaration, in accordance with ITB 19; (c) alternative Bids, at Bidder's option and if permissible, in accordance with ITB 13; (d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2; (e) documentary evidence in accordance with ITB 17, establishing the Bidder's qualifications to perform the contract; (f) Technical Proposal in accordance with ITB 16; (g) Any other document required in the BDS.
	<p>11.3 The Price Bid shall comprise the following:</p> <ul style="list-style-type: none"> (a) Letter of Price Bid; (b) completed Price Schedules, in accordance with ITB 12 and ITB 14, or as stipulated in the BDS; (c) alternative price Bids, at Bidder's option and if permissible, in accordance with ITB 13; (d) Any other document required in the BDS.
	<p>11.4 In addition to the requirements under ITB 11.2, Bids submitted by a Joint Venture shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all partners and submitted with the Bid, together with a copy of the proposed agreement.</p>
12. Letters of Bid and Schedules	<p>12.1 The Letters of Technical Bid and Price Bid, and the Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms furnished in Section 4 (Bidding Forms). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested and as required in the BDS.</p>
13. Alternative Bids	<p>13.1 Unless otherwise indicated in the BDS, alternative Bids shall not be considered.</p>
	<p>13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different times for completion.</p>
	<p>13.3 When specified in the BDS pursuant to ITB 13.1, and subject to ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.</p>

	13.4 When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section 6 (Employer's Requirements). The method for their evaluation will be stipulated in Section 3 (Evaluation and Qualification Criteria).
14. Bid Prices and Discounts	14.1 The prices and discounts quoted by the Bidder in the Letter of Price Bid and in the Schedules shall conform to the requirements specified below.
	14.2 The Bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section 4 (Bidding Forms). In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
	14.3 The price to be quoted in the Letter of Price Bid shall be the total price of the Bid, excluding any discounts offered. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the Bid.
	14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Price Bid, in accordance with ITB 12.1.
	14.5 Unless otherwise provided in the BDS and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indexes and weightings for the price adjustment formulas in the Table(s) of Adjustment Data in Section 4 (Bidding Forms) and the Employer may require the Bidder to justify its proposed indexes and weightings.
	14.6 If so indicated in ITB 1.1, bids are being invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all contracts are submitted and opened at the same time.
	14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
15. Currencies of Bid and Payment	15.1 The currency(ies) of the Bid and payment shall be as specified in the BDS.
	15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to

	substantiate that the amounts included in the prices shown in the appropriate form(s) of Section 4, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.
16. Documents Comprising the Technical Proposal	16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule, and any other information as stipulated in Section 4 (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.
17. Documents Establishing the Qualifications of the Bidder	17.1 To establish its qualifications to perform the Contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section 4 (Bidding Forms).
	17.2 Domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility in accordance with ITB 35.
18. Period of Validity of Bids	18.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.
	18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended 28 days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its Bid.
19. Bid Security/Bid-Securing Declaration	19.1 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its Bid, in original form, either a Bid-Securing Declaration or a bid security as specified in the BDS. In the case of a bid security, the amount and currency shall be as specified in the BDS.
	19.2 If a Bid-Securing Declaration is required pursuant to ITB 19.1, it shall use the form included in Section 4 (Bidding Forms). The Employer will declare a Bidder ineligible to be awarded a Contract for a specified period of time, as indicated in the BDS, if the Bid-Securing Declaration is executed.
	19.3 If a bid security is specified pursuant to ITB 19.1, the bid security shall be, at the Bidder's option, in any of the following forms: <ul style="list-style-type: none"> (a) an unconditional bank guarantee, (b) an irrevocable letter of credit, or (c) a cashier's or certified check, all from a reputable bank from an eligible country as described in Section 5 (Eligible Countries). In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section 4 (Bidding Forms) or another form acceptable to the Employer. The form must include the complete name of the Bidder.

	The bid security shall be valid for 28 days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.
	19.4 Unless otherwise specified in the BDS, any Bid not accompanied by a substantially compliant bid security or Bid-Securing Declaration, if one is required in accordance with ITB 19.1, shall be rejected by the Employer as nonresponsive.
	19.5 If a bid security is specified pursuant to ITB 19.1, the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 42.
	19.6 If a bid security is specified pursuant to ITB 19.1, the bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.
	19.7 The bid security may be forfeited or the Bid-Securing Declaration executed <ul style="list-style-type: none"> (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid, except as provided in ITB 18.2; or (b) if the successful Bidder fails to <ul style="list-style-type: none"> (i) sign the Contract in accordance with ITB 41; (ii) furnish a performance security in accordance with ITB 42; (iii) accept arithmetical corrections in accordance with ITB 33; or (iv) furnish a domestic preference security, if applicable, in accordance with ITB 42.
	19.8 The bid security or the Bid-Securing Declaration of a Joint Venture shall be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of bidding, the bid security or the Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.
20. Format and Signing of Bid	20.1 The Bidder shall prepare one original set of the Technical Bid and one original of the Price Bid comprising the Bid as described in ITB 11 and clearly mark it "ORIGINAL - TECHNICAL BID" and "ORIGINAL - PRICE BID." Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE." In addition, the Bidder shall submit copies of the Bid in the number specified in the BDS, and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
	20.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization

	<p>must be typed or printed below the signature. All pages of the Bid, except for unamended printed literature, shall be signed or initialed by the person signing the bid. If a Bidder submits a deficient authorization, the Bid shall not be rejected in the first instance. The Employer shall request the Bidder to submit an acceptable authorization within the number of days as specified in the BDS. Failure to provide an acceptable authorization within the prescribed period of receiving such a request shall cause the rejection of the Bid.</p>
	<p>20.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.</p>
<p>D. Submission and Opening of Bids</p>	
<p>21. Sealing and Marking of Bids</p>	<p>21.1 Bidders may always submit their Bids by mail or by hand. When so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Procedures for submission, sealing, and marking are as follows:</p> <p>(a) Bidders submitting Bids by mail or by hand shall enclose the original of the Technical Bid, the original of the Price Bid, and each copy of the Technical Bid and each copy of the Price Bid, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL - TECHNICAL BID," "ORIGINAL - PRICE BID," and "COPY NO... - TECHNICAL BID," and "COPY NO.... - PRICE BID." These envelopes, the first containing the originals and the others containing copies, shall then be enclosed in one single envelope per set. If permitted in accordance with ITB 13, alternative Bids shall be similarly sealed, marked and included in the sets. The rest of the procedure shall be in accordance with ITB 21.2 and ITB 21.3.</p> <p>(b) Bidders submitting Bids electronically shall follow the electronic bid submission procedures specified in the BDS.</p>
	<p>21.2 The inner and outer envelopes shall</p> <p>(a) bear the name and address of the Bidder;</p> <p>(b) be addressed to the Employer as provided in BDS 22.1; and</p> <p>(c) bear the specific identification of this bidding process indicated in the BDS 1.1.</p>
	<p>21.3 The outer envelopes and the inner envelopes containing the Technical Bid shall bear a warning not to open before the time and date for the opening of Technical Bid, in accordance with ITB 25.1.</p>
	<p>21.4 The inner envelopes containing the Price Bid shall bear a warning not to open until advised by the Employer in accordance with ITB 25.7.</p>
	<p>21.5 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.</p>

22. Deadline for Submission of Bids	22.1 Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS.
	22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
23. Late Bids	23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.
24. Withdrawal, Substitution, and Modification of Bids	<p>24.1 A Bidder may withdraw, substitute, or modify its Bid – Technical or Price – after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be</p> <ul style="list-style-type: none"> (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and (b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22. <p>24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.</p> <p>24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid or any extension thereof.</p>
25. Bid Opening	<p>25.1 The Employer shall open the Technical Bids in public at the address, on the date, and time specified in the BDS in the presence of Bidders` designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 21.1, shall be as specified in the BDS. The Price Bids will remain unopened and will be held in custody of the Employer until the specified time of their opening. If the Technical Bid and Price Bid are submitted together in one envelope, the Employer may reject the entire Bid. Alternatively, the Price Bid may be immediately resealed for later evaluation.</p> <p>25.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to</p>

	request the withdrawal and is read out at bid opening.
	<p>25.3 Second, outer envelopes marked "SUBSTITUTION" shall be opened. The inner envelopes containing the Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened, read out, and recorded. Substitution Price Bid will remain unopened in accordance with ITB 25.1. No envelope shall be substituted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.</p>
	<p>25.4 Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Bid and/or Price Bid shall be modified unless the corresponding modification notice contains a valid authorization to request the modification and is read out and recorded at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original and Modification, will remain unopened in accordance with ITB 25.1.</p>
	<p>25.5 All other envelopes holding the Technical Bids shall be opened one at a time, and the following read out and recorded:</p> <ul style="list-style-type: none"> (a) the name of the Bidder; (b) whether there is a modification or substitution; (c) the presence of a bid security or a Bid-Securing Declaration, if required; and (d) any other details as the Employer may consider appropriate. <p>Only Technical Bids and alternative Technical Bids read out and recorded at bid opening shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Technical Bid are to be initialed by at least three representatives of the Employer attending the bid opening. No Bid shall be rejected at the opening of Technical Bids except for late bids, in accordance with ITB 23.1.</p>
	<p>25.6 The Employer shall prepare a record of the opening of Technical Bids that shall include, as a minimum, the name of the Bidder and whether there is a withdrawal, substitution, or modification; alternative proposals; and the presence or absence of a bid security or a Bid-Securing Declaration, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted Bids on time, and posted online when electronic bidding is permitted.</p>
	<p>25.7 At the end of the evaluation of the Technical Bids, the Employer will invite bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the Employer. Bidders shall be given reasonable notice for the opening of Price Bids.</p>

	<p>25.8 The Employer will notify Bidders in writing who have been rejected on the grounds of their Technical Bids being substantially nonresponsive to the requirements of the Bidding Document and return their Price Bids unopened.</p>
	<p>25.9 The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, in the presence of Bidders' representatives who choose to attend at the address, on the date, and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.</p>
	<p>25.10 All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded:</p> <ul style="list-style-type: none"> (a) the name of the Bidder; (b) whether there is a modification or substitution; (c) the Bid Prices, including any discounts and alternative offers; and (d) any other details as the Employer may consider appropriate. <p>Only Price Bids, discounts, and alternative offers read out and recorded during the opening of Price Bids shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Price Bid and Schedules are to be initialed by at least three representatives of the Employer attending the bid opening. No Bid shall be rejected at the opening of Price Bids.</p>
	<p>25.11 The Employer shall prepare a record of the opening of Price Bids that shall include, as a minimum, the name of the Bidder, the Bid Price (per lot if applicable), any discounts, and alternative offers. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted Bids on time, and posted online when electronic bidding is permitted.</p>
E. Evaluation and Comparison of Bids	
26. Confidentiality	<p>26.1 Information relating to the examination, evaluation, comparison, and postqualification of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.</p>
	<p>26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.</p>
	<p>26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.</p>
27. Clarification of	<p>27.1 To assist in the examination, evaluation, and comparison of the</p>

Bids	Technical and Price Bids, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the substance of the Technical Bid or prices in the Price Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Price Bids, in accordance with ITB 33.
	27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.
28. Deviations, Reservations, and Omissions	<p>28.1 During the evaluation of bids, the following definitions apply:</p> <ul style="list-style-type: none"> (a) "Deviation" is a departure from the requirements specified in the Bidding Document; (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.
29. Examination of Technical Bids	29.1 The Employer shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB 11.2 have been provided, and to determine the completeness of each document submitted.
	<p>29.2 The Employer shall confirm that the following documents and information have been provided in the Technical Bid. If any of these documents or information is missing, the offer shall be rejected.</p> <ul style="list-style-type: none"> (a) Letter of Technical Bid; (b) written confirmation of authorization to commit the Bidder; (c) Bid Security or Bid-Securing Declaration, if applicable; and (d) Technical Proposal in accordance with ITB 16.
30. Responsiveness of Technical Bid	30.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.
	<p>30.2 A substantially responsive Technical Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,</p> <ul style="list-style-type: none"> (a) if accepted, would: <ul style="list-style-type: none"> (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or (ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

	30.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section 6 (Employer's Requirements) have been met without any material deviation, reservation, or omission.
	30.4 If a Bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
31. Nonmaterial Nonconformities	31.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid that do not constitute a material deviation, reservation, or omission.
	31.2 Provided that a Technical Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the Price Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
	31.3 Provided that a Technical Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the method indicated in Section 3 (Evaluation and Qualification Criteria).
32. Qualification of the Bidder	32.1 The Employer shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders meet the qualifying criteria specified in Section 3 (Evaluation and Qualification Criteria).
	32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.
	32.3 An affirmative determination shall be a prerequisite for the opening and evaluation of a Bidder's Price Bid. A negative determination shall result into the disqualification of the Bid, in which event the Employer shall return the unopened Price Bid to the Bidder.
33. Correction of Arithmetical Errors	33.1 During the evaluation of Price Bids, the Employer shall correct arithmetical errors on the following basis: <ul style="list-style-type: none"> (a) Only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected. (b) If there is an error in a total corresponding to the addition or

	<p>subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.</p> <p>(c) If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Price Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Price Bid will be corrected.</p> <p>(d) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b) and (c) above.</p>
	33.2 If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its Bid shall be disqualified and its bid security may be forfeited or its Bid-Securing Declaration executed.
34. Conversion to Single Currency	34.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified in the BDS.
35. Margin of Preference	35.1 Unless otherwise specified in the BDS, a margin of preference shall not apply.
36. Evaluation of Price Bids	36.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
	<p>36.2 To evaluate the Price Bid, the Employer shall consider the following:</p> <ul style="list-style-type: none"> (a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts, or Schedule of Prices for lump sum contracts, but including Daywork items, where priced competitively; (b) price adjustment for correction of arithmetic errors in accordance with ITB 33.1; (c) price adjustment due to discounts offered in accordance with ITB 14.4; (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 34; (e) adjustment for nonconformities in accordance with ITB 31.3; and (f) application of all the evaluation factors indicated in Section 3 (Evaluation and Qualification Criteria).
	36.3 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.
	36.4 If this Bidding Document allows Bidders to quote separate prices for different contracts, and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Price Bid, is specified in Section 3 (Evaluation and Qualification

	Criteria).
	36.5 If the Bid for an admeasurement contract, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
37. Comparison of Bids	37.1 The Employer shall compare all substantially responsive Bids to determine the lowest evaluated Bid, in accordance with ITB 36.2.
38. Employer's Right to Accept Any Bid, and to Reject Any or All Bids	38.1 The Employer reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.
F. Award of Contract	
39. Award Criteria	39.1 The Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
40. Notification of Award	40.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted.
	40.2 At the same time, the Employer shall also notify all other Bidders of the results of the bidding. The Employer will publish in an English language newspaper or well-known freely accessible website the results identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful Bidders may request in writing to the Employer for a debriefing seeking explanations on the grounds on which their Bids were not selected. The Employer shall promptly respond in writing to any unsuccessful Bidder who, after publication of contract award, requests a debriefing.
	40.3 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
41. Signing of	41.1 Promptly after notification, the Employer shall send the successful

Contract	Bidder the Contract Agreement.
	41.2 Within 28 days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.
42. Performance Security	42.1 Within 28 days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, subject to ITB 36.5, using for that purpose the Performance Security Form included in Section 9 (Contract Forms), or another form acceptable to the Employer.
	42.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security or execution of the Bid-Securing Declaration. In that event, the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.
	42.3 The above provision shall also apply to the furnishing of a domestic preference security, if so required.

Section 2 - Bid Data Sheet

A. General

ITB 1.1	The number of the Invitation for Bids (IFB) is NCB-Works/PICIIP-27
ITB 1.1	The Employer is: Program Management Unit (PMU), Punjab Intermediate Cities Improvement Investment Program (PICIIP), Local Government & Community Development Department, Punjab, Pakistan
ITB 1.1	The name of the bidding process is: Civil Works for Parking Sheds at Sahiwal and Sialkot including Construction of Boundary Wall and Gate, Surveillance and Security System, Guard / Driver and Equipment, Office Building and Allied Works at Sahiwal and Sialkot. The identification number of the bidding process is NCB-Works/PICIIP-27
ITB 2.1	The Borrower is: Islamic Republic of Pakistan
ITB 2.1	The name of the Project is: Punjab Intermediate Cities Improvement Investment Program (PICIIP)

B. Contents of Bidding Documents

ITB 7.1	<p>For <u>clarification purposes</u> only, the Employer's address is:</p> <table> <tr> <td>Attention:</td><td>Program Director Program Management Unit Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab, Pakistan</td></tr> <tr> <td>Street address:</td><td>40 B-1, Gulberg 3, MM Alam Road</td></tr> <tr> <td>City:</td><td>Lahore</td></tr> <tr> <td>ZIP code:</td><td>54000</td></tr> <tr> <td>Country:</td><td>Islamic Republic of Pakistan</td></tr> <tr> <td>Telephone:</td><td>+92 42 99268484</td></tr> <tr> <td>Fax:</td><td>+92 42 99268483</td></tr> <tr> <td>E-mail address:</td><td>pmu.piciip@punjab.gov.pk</td></tr> </table> <p>Requests for clarification should be received by the Employer no later than: 10 days before the deadline for submission of the Bid.</p>	Attention:	Program Director Program Management Unit Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab, Pakistan	Street address:	40 B-1, Gulberg 3, MM Alam Road	City:	Lahore	ZIP code:	54000	Country:	Islamic Republic of Pakistan	Telephone:	+92 42 99268484	Fax:	+92 42 99268483	E-mail address:	pmu.piciip@punjab.gov.pk
Attention:	Program Director Program Management Unit Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab, Pakistan																
Street address:	40 B-1, Gulberg 3, MM Alam Road																
City:	Lahore																
ZIP code:	54000																
Country:	Islamic Republic of Pakistan																
Telephone:	+92 42 99268484																
Fax:	+92 42 99268483																
E-mail address:	pmu.piciip@punjab.gov.pk																
ITB 7.4	<p>A Pre-Bid meeting shall take place.</p> <table> <tr> <td>Date:</td><td>26th August 2021</td></tr> <tr> <td>Time:</td><td>1100 Hours</td></tr> <tr> <td>Place:</td><td>Office of the Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Address: 40 B-1, Gulberg 3, MM Alam Road, Lahore,</td></tr> </table>	Date:	26th August 2021	Time:	1100 Hours	Place:	Office of the Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Address: 40 B-1, Gulberg 3, MM Alam Road, Lahore,										
Date:	26th August 2021																
Time:	1100 Hours																
Place:	Office of the Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Address: 40 B-1, Gulberg 3, MM Alam Road, Lahore,																

	Pakistan
City:	Lahore
Country:	Islamic Republic of Pakistan
Telephone:	+92 42 99268484
<p>Keeping in mind the convenience of the bidder(s), the bidder(s) can also attend the said meeting through Skype using the ID mentioned below:</p> <p>Skype ID: pmupiciip@gmail.com</p> <p>All bidders are encouraged to physically attend the Pre-Bid Meeting; however, the online platform is also available to facilitate participation.</p> <p>A site visit conducted by the Employer will not be organized.</p>	

C. Preparation of Bids

ITB 10.1	<p>The language of the Bid is: English</p> <p>Bidders are required to submit documentary evidence of below documents in English language. If the documentary evidence are other than in the English language, then the bidder shall submit accurate translation of the relevant passages in the English language duly attested by the notary public of the Bidder's Country/similar legal instrument of authorization as applicable under the laws of the bidder's home country, (specifying the authority for such attestation as per law of the country). Certification by the Foreign Office of the country(ies) of origin of the Bidder(s) is acceptable.</p> <p>All the documentation to be submitted by the Bidder in order to substantiate the information requested in the corresponding Information Sheets, mentioned hereinbelow:</p> <ul style="list-style-type: none"> a) Form EQU: Equipment b) Form ELI – 1: Bidder's Information Sheet c) Form ELI – 2: Joint Venture Information Sheet d) Form FIN – 1: Historical Financial Performance e) Form FIN – 2: Average Annual Construction Turnover f) Form FIN – 3: Availability of Financial Resources g) Form FIN – 4: Financial Requirements for Current Contract Commitments h) Form EXP – 1: Contracts of Similar Size and Nature; as mentioned under Para 2.4.1, Section 3 of the Bidding Documents. i) Form EXP – 2: Construction Experience in Key Activities; as mentioned under Para 2.4.1, Section 3 of the Bidding Documents
ITB 11.2 (g)	Refer to "Technical Proposal" in Section 4 and "Documents (Submission Requirements)" in Section-3.
ITB 11.3 (b)	<p>In accordance with ITB 12 and ITB 14, the following schedules shall be submitted with the bid, including the priced Bill of Quantities for admeasurement contracts and Activity Schedule for lump sum contracts:</p> <p>Not Applicable</p>

ITB 11.3 (d)	The Bidder shall submit with its Price Bid the following additional documents: Not Applicable
ITB 12.1	The units and rates in figures entered into the Bill of Quantities and Daywork Schedule should be typewritten or if written by hand, must be in print form. Bill of Quantities and Daywork Schedule not presented accordingly may be considered nonresponsive.
ITB 13.1	Alternative Bids <u>shall not</u> be permitted.
ITB 13.2	Alternative times for completion <u>shall not</u> be permitted
ITB 13.4	Alternative technical solutions <u>shall not</u> be permitted for any part of the works
ITB 14.5	The price adjustment <u>shall not be applicable.</u>
ITB 15.1	The unit rates and the prices shall be quoted by the Bidder entirely in: Local Currency i.e. Pakistani Rupee (PKR).
ITB 16.1	<p>The Technical Proposal shall also include a Health and Safety COVID-19 Plan, in accordance with the relevant government regulations and guidelines on COVID-19 prevention and control issued by the Government of Pakistan (http://covid.gov.pk/guideline), or in the absence thereof, to international good practice guidelines, such as World Health Organization 2020, Considerations for public health and social measures in the workplace in the context of COVID-19, Geneva available here: https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19.</p> <p>Absence of or incomplete submission may result in rejection of bid.</p>
ITB 18.1	The bid validity period shall be 120 (one hundred and twenty) days.
ITB 19.1	<p>A bid securing declaration shall <u>not</u> be required.</p> <p>The Bidder shall furnish a bid security of amount: PKR 4.60 Million</p> <p>Payable in the same currency in which it was submitted in favor of the Program Director (PD), Program Management Unit (PMU), Punjab Intermediate Cities Improvement Investment Program (PICIIIP), 40 B-1, M M Alam Road, Gulberg 3, Lahore, Pakistan.</p>
ITB 19.2	The ineligibility period will be Not Applicable
ITB 19.3	<p>If the bid security is in the form of unconditional bank guarantee, it shall be issued by scheduled bank of Pakistan or a reputable foreign bank, using the Form included in Section 4 (Bidding Forms), in favour of the Employer. Aside from the forms given in ITB 19.3, other forms of bid security acceptable may be a Call Deposit / Pay Order in favour of the Employer.</p> <p>Bid security in the form of SWIFT message is not acceptable.</p>
ITB 19.4	Subject to the succeeding sentences, any bid not accompanied by an irrevocable and callable bid security shall be rejected by the Employer as nonresponsive. If a Bidder submits a bid security that (i) deviates in form, amount, and/or period of validity, or (ii) does not provide sufficient identification of the Bidder (including, without limitation, failure to indicate the name of the Joint Venture or, where the

	Joint Venture has not yet been constituted, the names of all future Joint Venture Partners), the Employer shall request the Bidder to submit a compliant bid security within seven (07) days of receiving such a request. Failure to provide a compliant bid security within the prescribed period of receiving such a request shall cause the rejection of the Bid.
ITB 20.1	<p>In addition to the original of the Bid (<i>technical and financial bids</i>), the number of hard copies of Bid is: Three (03).</p> <p><i>To facilitate evaluation, bidders are encouraged to submit soft copies [two CDs (Compact Disc) or DVD (Digital Versatile Disc) or USB] one each in PDF format with its Technical Bid and Price Bid (Price Bid & BOQs to be provided in excel format also). The soft copy (CD or DVD or USB) of the Technical Bid shall be enclosed in the envelope containing the hard copy of the Bidder's Original Technical Bid, and the soft copy (CD or DVD or USB) of the Price Bid shall be enclosed in the envelope containing the hard copy of the Bidder's Original Price Bid.</i></p> <p><i>If there is any discrepancy between the data/information in the soft copy (CD or DVD or USB) of the Bidder's Technical Bid and the hard copy of the Bidder's Technical Bid and between the price indicated in the hard copy of the Bidder's Original Price Bid, and in the soft copy (CD or DVD or USB) of the Bidder's Price Bid, the data and information indicated in the hard copy of the Original Technical Bid and the Original Price Bid shall prevail.</i></p> <p>Note: Submission of the CD/DVD/USB is only for reference and shall not constitute electronic bid submission as stipulated in ITB 21.1(b) and its provision in the Data Sheet.</p>
ITB 20.2	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of a board resolution or its equivalent, or power of attorney, which should either be:</p> <ul style="list-style-type: none"> a) notarized, or b) attested to by an appropriate authority in the Bidder's home country, specifying the representative's authority to sign the bid on behalf of the bidder. <p><i>If the bidder is an intended or existing joint venture, such authorization should be signed by all parties and specify the representative's authority to sign the bid on behalf of the intended or existing joint venture.</i></p> <p><i>If the joint venture has not yet been formed, also include written evidence from all proposed members of joint venture of their intent to enter into a joint venture in the event of a contract award.</i></p> <p><i>Only priced Bill of Quantities section must be submitted in typed written form. The remaining parts of the bid shall be typed or written in indelible ink.</i></p>
ITB 20.2	The Bidder shall submit an acceptable authorization within seven (07) days .

D. Submission and Opening of Bids

ITB 21.1	Bidders do not have the option of submitting their Bids electronically.
ITB 21.1 (b)	If Bidders shall have the option of submitting their Bids electronically, the electronic bidding submission procedures shall be: Not Applicable .

ITB 22.1	<p>For <u>bid submission purposes</u> only, the Employer's address is:</p> <table border="1"> <tr> <td>Attention:</td><td>Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab</td></tr> <tr> <td>Street address:</td><td>40 / B-1 Gulberg 3, MM Alam Road, , Lahore, Pakistan</td></tr> <tr> <td>City:</td><td>Lahore</td></tr> <tr> <td>ZIP code:</td><td>54000</td></tr> <tr> <td>Country:</td><td>Islamic Republic of Pakistan</td></tr> </table> <p>The deadline for bid submission is:</p> <table border="1"> <tr> <td>Date:</td><td>13th September 2021</td></tr> <tr> <td>Time:</td><td>1500 Hours</td></tr> </table>	Attention:	Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab	Street address:	40 / B-1 Gulberg 3, MM Alam Road, , Lahore, Pakistan	City:	Lahore	ZIP code:	54000	Country:	Islamic Republic of Pakistan	Date:	13 th September 2021	Time:	1500 Hours
Attention:	Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab														
Street address:	40 / B-1 Gulberg 3, MM Alam Road, , Lahore, Pakistan														
City:	Lahore														
ZIP code:	54000														
Country:	Islamic Republic of Pakistan														
Date:	13 th September 2021														
Time:	1500 Hours														
ITB 25.1	<p>The opening of Technical Bid shall take place at:</p> <table border="1"> <tr> <td colspan="2">Office of the Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab</td></tr> <tr> <td>Street address:</td><td>40 / B-1 Gulberg 3, MM Alam Road, Lahore, Pakistan</td></tr> <tr> <td>City:</td><td>Lahore</td></tr> <tr> <td>ZIP code:</td><td>54000</td></tr> <tr> <td>Country:</td><td>Islamic Republic of Pakistan</td></tr> <tr> <td>Date:</td><td>13th September 2021</td></tr> <tr> <td>Time:</td><td>The technical bids shall be opened immediately after the bid submission deadline.</td></tr> </table>	Office of the Program Director Program Management Unit (PMU) Punjab Intermediate Cities Improvement Investment Program (PICIIP) Local Government & Community Development Department, Punjab		Street address:	40 / B-1 Gulberg 3, MM Alam Road, Lahore, Pakistan	City:	Lahore	ZIP code:	54000	Country:	Islamic Republic of Pakistan	Date:	13 th September 2021	Time:	The technical bids shall be opened immediately after the bid submission deadline.
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City:	Lahore														
ZIP code:	54000														
Country:	Islamic Republic of Pakistan														
Date:	13 th September 2021														
Time:	The technical bids shall be opened immediately after the bid submission deadline.														
ITB 25.1	Electronic bid opening procedure shall be as follows: Not Applicable														
ITB 25.5	The Letter of Technical Bid shall be initialed by at least <u>three (03)</u> representatives of the Employer attending Bid opening.														
ITB 25.10	The Letter of Price Bid and Bill of Quantities shall be initialed by at least <u>three (03)</u> representatives of the Employer attending Bid opening														

E. Evaluation and Comparison of Bids

ITB 34.1	<p>The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into single currency is:</p> <p>Not Applicable</p>
ITB 35.1	A margin of preference <u>shall not</u> apply.

Section 3 - Evaluation and Qualification Criteria

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1. Evaluation

In addition to the criteria listed in ITB 36.2 (a)–(e), other relevant factors are as follows:

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section 6 (Employer's Requirements).

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

1.2 Completion Time

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

– ***Not Applicable*** –

1.3 1.3 Technical Alternatives

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

– ***Not Applicable*** –

1.4 Quantifiable Nonconformities and Omissions

Subject to ITB 14.2 and ITB 36.2, the evaluated cost of quantifiable nonconformities including omissions, is determined as follows:

Pursuant to ITB 31.3, the cost of all quantifiable nonmaterial nonconformities shall be evaluated, including omissions in Daywork where competitively priced but excluding omission of prices in the Bill of Quantities. The Employer will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of bids.

1.5 Margin of Preference (Applicable for ICB only)

If a margin of preference shall apply under ITB 35.1, the procedure will be as follows as:

– ***Not Applicable*** –

1.6 Multiple Contracts

– ***Not Applicable*** –

1.7 Other Criteria

The Employer will take into account the quality of the Health and Safety COVID -19 Plan ('the Plan') attached to the Technical Proposal in its evaluation of the Adequacy of the Technical Proposal.

The bidder should demonstrate in the Plan the health and safety measures they will put in place on site in relation to COVID-19 prevention and controls, including but not limited to, PPE requirements, site set up, training, induction and mobilization of new personnel, equipment and plants cleaning and other hazard management measures while undertaking site work activities, site visitors health and safety protocols, as well as the approach to the monitoring and reporting of the Plan. The Plan should be fit for purpose for the particular construction works of this contract and be aligned with any relevant government regulations and guidelines on COVID-19 prevention and controls, as well as workplace safety requirements, or in the absence thereof, to international good practice guidelines such as World Health Organization 2020. Considerations for public health and social measures in the workplace in the context of COVID-19 Geneva available here: <https://www.who.int/publicationsdetail/considerations-for-public-health-and-social-measures-in-the-workplacein-the-context-of-covid-19>.

2. Qualification

It is the legal entity or entities comprising the Bidder, and not the Bidder's parent companies, subsidiaries, or affiliates, that must satisfy the qualification criteria described below.

2.1 Eligibility

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	

2.1.1 Nationality

Nationality in accordance with ITB Subclause 4.2.	must meet requirement	must meet requirement	must meet requirement	not applicable	Forms ELI – 1; ELI – 2 with attachments
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2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB Subclause 4.3.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
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2.1.3 ADB Eligibility

Not having been declared ineligible by ADB, as described in ITB Subclause 4.4.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
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2.1.4 Government-Owned Enterprise

Bidder required to meet conditions of ITB Subclause 4.5.	must meet requirement	must meet requirement	must meet requirement	not applicable	Forms ELI - 1, ELI - 2 with attachments
--	-----------------------	-----------------------	-----------------------	----------------	---

2.1.5 United Nations Eligibility

Not having been excluded by an act of compliance with a United Nations Security Council resolution in accordance with ITB Subclause 4.7.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
--	-----------------------	-----------------------	-----------------------	----------------	-------------------------

2.1.6 Registration with Pakistan Engineering Council (PEC)

National Bidder must be registered with Pakistan Engineering Council (PEC) and shall have a valid registration Certificate (2020) in category C-3 or above with Specialization in CE10 at the time of bid submission. <i>If the winning bidder includes local firm whose registration expires prior to contract award, the firm shall be given reasonable time to extend such registration.</i>	must meet requirement	not applicable	JV partner must meet requirement as per their respective JV share	must meet requirement	Forms ELI - 1; ELI - 2 with attachments
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2.2 Pending Litigation and Arbitration

Pending litigation and arbitration criterion shall apply.

2.2.1 Pending Litigation and Arbitration

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
All pending litigation and arbitration, if any, shall be treated as resolved against the Bidder and so shall in total not represent more than fifty percent (50%) of the Bidder's net worth calculated as the difference between total assets and total liabilities.	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	Form LIT - 1

2.3 Financial Situation

2.3.1 Historical Financial Performance

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Submission of audited financial statements or, if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, for years 2018, 2019 & 2020 or the <u>latest three years</u> audited financial statement to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year calculated as the difference between total assets and total liabilities should be positive.	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1 with attachments

2.3.2 Average Annual Construction Turnover

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Minimum average annual construction turnover of the amount mentioned below calculated as total certified payments received for contracts in progress or completed, within the last <u>three (03) years:</u> PKR 460 million	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 2

2.3.3 Financial Resources

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<u>For Single Entities:</u> The Bidder must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Contracts of: PKR 86.25 million	must meet requirement	not applicable	not applicable	not applicable	Form FIN – 3 and Form FIN – 4 If the Bidder want to make use of line of credit to meet financial resource requirement, the bidder shall provide dedicated line of credit from the issuing bank by clearly indicating the name of this project.
<u>For Joint Ventures:</u> (1) One partner must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its own current contract commitments defined in FIN - 4, meet or exceed its required share of amount mentioned below from the total requirement for the Subject Contract: PKR 34.50 million AND	not applicable	not applicable	not applicable	must meet requirement	Form FIN – 3 and Form FIN – 4 If the Bidder want to make use of line of credit to meet financial resource requirement, the bidder shall provide dedicated line of credit from the issuing bank by clearly indicating the name of this project.
(2) Each partner must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its own current contract commitments defined in FIN - 4, meet or exceed its required share of amount mentioned below from the total requirement for the Subject Contract. PKR 21.56 million AND	not applicable	not applicable	must meet requirement	not applicable	Form FIN – 3 and Form FIN – 4 If the Bidder want to make use of line of credit to meet financial resource requirement, the bidder shall provide dedicated line of credit from the issuing bank by clearly indicating the name of this project.
(3) The joint venture must demonstrate that the combined financial resources of all partners defined in FIN - 3, less all the	not applicable	must meet requirement	not applicable	not applicable	Form FIN – 3 and Form FIN – 4 If the Bidder want to make use of line of credit to meet

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
partners’ total financial obligations for the current contract commitments defined in FIN - 4, meet or exceed the total requirement for the contracts mentioned below: PKR 86.25 million					financial resource requirement, the bidder shall provide dedicated line of credit from the issuing bank by clearly indicating the name of this project.

2.4 Construction Experience

2.4.1 Contracts of Similar Size and Nature

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been successfully or substantially completed within the last five (05) years and that is similar to the proposed works, where the value of the Bidder's participation in the contract exceeds the amount mentioned below. The similarity of the Bidder's participation shall be based on details/characteristics as described in Section 6 "Employer's Requirements" which require experience in execution Construction of a RCC Frame Structure Building or similar works costing a minimum of. PKR 138 Million	must meet requirement	not applicable	not applicable	must meet requirement	Form EXP – 1 Completion, or Taking Over or substantial completion certificate from the Employer or by the Engineer indicating Employer's name, contract name, value and completion time to demonstrate compliance with the requirements. If the participation was through a JV or as subcontractor, only the respective share will be considered. Also, Using Form EXP-1, the Bidders must specify percent and amount of participation of total contract amount. The Bidders may also provide pertinent information such as JV/subcontract agreement and payment receipts.

2.4.2 Construction Experience in Key Activities

(May be complied with by the Bidder or by Specialist Subcontractor. If Specialist Subcontractors are proposed by the Bidder for key activities, each Specialist Subcontract must have experience in related key activity as a single entity.

If the key activity is to be undertaken by a Specialist Subcontractor, the Employer shall require evidence of the subcontracting agreement from the Bidder.)

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
For the above or other contracts executed during the period stipulated in 2.4.1 above, a minimum construction experience in the following key activities:	must meet requirements	must meet requirements	not applicable	not applicable	Form EXP – 2 IPCs or Completion/Substantial completion / taking over certificate or certificate of execution of activities from the Employer of completed / substantially completed projects to substantiate experience in Key Activities
Building Works (Brick Masonry / Concrete Work) <i>[minimum 10,000 cft]</i>					
Road or Street Pavements of Concrete, Asphalt or Tiles / Bricks. <i>[minimum 50,000 cft]</i>					
Installation of steel structure building including steel columns <i>[minimum 25,000 sq.ft.]</i>					

Section 4 - Bidding Forms

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Letter of Technical Bid

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

Date: _____

NCB No.: **PICIIP-27-Parking Sheds**

Invitation for Bid No.: **NCB-Works/PICIIP-27**

To:

Program Director (PD)
Program Management Unit (PMU)
Punjab Intermediate City Improvement Investment Program (PICIIP)
Local Government & Community Development Department, Punjab,
40 B-1, Gulberg 3, MM Alam Road, Lahore 54000
Islamic Republic of Pakistan
Phone: +92 42 99268484, +92 42 99268483
Email: pmu.piciip@punjab.gov.pk

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works:

“Civil Works for Parking Sheds at Sahiwal and Sialkot including Construction of Boundary Wall and Gate, Surveillance and Security System, Guard / Driver and Equipment, Office Building and Allied Works at Sahiwal and Sialkot”.

- (c) Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of **120 (one hundred and twenty) days** from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (d) Our firm, including any Subcontractors or Suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.
- (e) We, including any Subcontractors or Suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.
- (f) We are not participating, as a Bidder in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (g) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by ADB, under the Employer's country laws or

official regulations or by an act of compliance with a decision of the United Nations Security Council.

- (h) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].¹
- (i) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.
- (j) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section 6 (Employer's Requirements) and our technical proposal, or as otherwise agreed with the Employer.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

¹ Use one of the two options as appropriate.

Letter of Price Bid

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

Date: _____

NCB No.: **PICIIP-27-Parking Sheds**

Invitation for Bid No.: **NCB-Works/PICIIP-27**

To:

Program Director (PD)
Program Management Unit (PMU)
Punjab Intermediate City Improvement Investment Program (PICIIP)
Local Government & Community Development Department, Punjab,
40 B-1, Gulberg 3, MM Alam Road, Lahore 54000
Islamic Republic of Pakistan
Phone: +92 42 99268484, +92 42 99268483
Email: pmu.piciip@punjab.gov.pk

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works:
“Civil Works for Parking Sheds at Sahiwal and Sialkot including Construction of Boundary Wall and Gate, Surveillance and Security System, Guard / Driver and Equipment, Office Building and Allied Works at Sahiwal and Sialkot”.
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:

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

The total bid price from the Summary of Bill of Quantities for admeasurement contracts or Activity Schedule for lump sum contracts should be entered by the bidder inside this box. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the bid.

- (d) The discounts offered and the methodology for their application are as follows: [. . . insert discounts and methodology for their application if any . . .]
- (e) Our Bid shall be valid for a period of **120 (one hundred and twenty) days** from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

- (f) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents.
- (g) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: ¹

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

- (h) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (j) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

¹ If none has been paid or is to be paid, indicate "None".

Bid Security Bank Guarantee

Bank's name, and address of issuing branch or office¹

Beneficiary: *Name and address of the employer*

Date:

Bid Security No.:

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

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

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

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

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

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

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.²

..... *Authorized signature(s) and bank's seal (where appropriate)*

Note

In case of a joint venture, the bid security must be in the name of all partners to the joint venture that submits the bid.

¹ All italicized text is for use in preparing this form and shall be deleted from the final document.

² Or 758 as applicable.

Bid-Securing Declaration

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

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

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

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

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration. We accept that we will automatically be suspended from being eligible for bidding in any contract with the Employer for the period of time of *[insert the number of months or years indicated in the ITB of the BDS]* starting on the date that we receive a notification from the Employer, if we are in breach of our obligation(s) under the bid conditions, because we

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Technical Bid and Letter of Price Bid; or
- (b) do not accept the correction of errors in accordance with the Instruction to Bidders (hereinafter “the ITB”); or
- (c) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required, (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB, or (iii) fail or refuse to furnish the Domestic Preference Security, if required.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) 28 days after the expiration of our Bid.

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

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

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

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

Dated on _____ day of _____, _____

Corporate Seal **[where appropriate]**

Note

In case of a joint venture, the Bid-Securing Declaration must be in the name of all partners to the joint venture that submits the bid.

Technical Proposal

Personnel

Form PER – 1: Proposed Personnel

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

1.	Title of position*
	Name
2.	Title of position*
	Name
3.	Title of position*
	Name
4.	Title of position*
	Name
etc.	Title of position*
	Name

-- Note --

* As listed in Section 6 (Employer's Requirements).

Form PER – 2: Resume of Proposed Personnel

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

Position		
Personnel information	Name	Date of birth
	Professional qualifications	
Present employment	Name of employer	
	Address of employer	
	Telephone	Contact (manager / personnel officer)
	Fax	E-mail
	Job title	Years with present employer

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

From	To	Company / Project / Position / Relevant Technical and Management Experience

Equipment

Form EQU: Equipment

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

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

Omit the following information for equipment owned by the Bidder.

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

Technical Proposal

Personnel

Equipment

Site Organization

Method Statement

Traffic Diversion Plan

Mobilization Schedule

Construction Schedule

COVID-19 Specific Site Health and Safety Management Plan in accordance with ITB 16.1

NOTE: The bidder should demonstrate in the Plan the health and safety measures they will put in place on site in relation to COVID-19 prevention and controls, including but not limited to, PPE requirements, site set up, training, induction and mobilization of new personnel, equipment and plants cleaning and other hazard management measures while undertaking site work activities, site visitors health and safety protocols, as well as the approach to the monitoring and reporting of the Plan. The Plan should be fit for purpose for the particular construction works of this contract and be aligned with any relevant government regulations and guidelines on COVID-19 prevention and controls, as well as workplace safety requirements, or in the absence thereof, to international good practice guidelines such as World Health Organization 2020. Considerations for public health and social measures in the workplace in the context of COVID- 19 Geneva available here:

<https://www.who.int/publicationsdetail/considerations-for-public-health-and-social-measures-in-the-workplacein-the-context-of-covid-19>.

Other Documents in accordance with ITB 11.2(g) of Section 2-Bid Data Sheet, as under:

- (i) Quality Control Methods for Building Construction Works
- (ii) Health & Safety management plan.
- (iii) Environment safety plan.
- (iv) Bidders are encouraged to submit colored photographs of project sites as optional.

Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI - 1: Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
In case of a Joint Venture, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone number(s), fax number(s), e- mail address)	
Attached are copies of the following documents. <ul style="list-style-type: none"> <input type="checkbox"/> 1. In case of a single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In case of a Joint Venture, a letter of intent to form a Joint Venture or Joint Venture agreement, in accordance with ITB 4.1. <input type="checkbox"/> 4. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5. 	

Form ELI - 2: Joint Venture Information Sheet

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

Joint Venture / Specialist Subcontractor Information	
Bidder's legal name	
Joint Venture Partner's or Specialist Subcontractor's legal name	
Joint Venture Partner's or Specialist Subcontractor's country of constitution	
Joint Venture Partner's or Specialist Subcontractor's year of constitution	
Joint Venture Partner's or Specialist Subcontractor's legal address in country of constitution	
Joint Venture Partner's or Specialist Subcontractor's authorized representative information (name, address, telephone number(s), fax number(s), e-mail address)	
Attached are copies of the following documents. <input type="checkbox"/> 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In the case of a government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5.	

A Specialist Subcontractor is a specialist enterprise engaged for highly specialized processes that cannot be provided by the main Contractor.

Form LIT – 1: Pending Litigation and Arbitration

Each Bidder must fill out this form if so required under Criterion 2.2 of Section 3 (Evaluation and Qualification Criteria) to describe any pending litigation or arbitration formally commenced against it.

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

Joint Venture Partner: _____

Pending Litigation and Arbitration			
<p>Choose one of the following:</p> <p><input type="checkbox"/> No pending litigation and arbitration.</p> <p><input type="checkbox"/> Below is a description of all pending litigation and arbitration involving the Bidder (or each Joint Venture member if Bidder is a Joint Venture).</p>			
Year	Matter in Dispute	Value of Pending Claim in PKR Equivalent	Value of Pending Claim as a Percentage of Net Worth
	<p><i>Following information to be provided against each dispute:</i></p> <p>Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i></p> <p>Name of Employer: <i>[insert full name]</i></p> <p>Address of Employer: <i>[insert street/city/country]</i></p> <p>Matter of Dispute: <i>[indicate full description of dispute]</i></p> <p>Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i></p> <p>Status: <i>[indicate status of dispute]</i></p>		

- Note -

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

Form FIN - 1: Historical Financial Performance

Each Bidder must fill out this form.

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

Joint Venture Partner: _____

Financial Data for Previous ____ Years [PKR]		
Year 1:	Year 2:	Year 3:

Information from Balance Sheet

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

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

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

☐ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last ____ years, as indicated above, complying with the following conditions.

- Unless otherwise required by Section 3 of the Bidding Document, all such documents reflect the financial situation of legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.
- Historical financial statements must be audited by a certified accountant.
- Historical financial statements must be complete, including all notes to the financial statements.
- Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Form FIN - 2: Average Annual Construction Turnover

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder or each member of a Joint Venture in terms of the amounts billed to clients for each year for work in progress or completed.

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

Joint Venture Partner: _____

Annual Turnover Data for the Last ____ Years (Construction only)			
Year	Amount Currency	Exchange Rate	PKR
Average Annual Construction Turnover			

Form FIN – 3: Availability of Financial Resources

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

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

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

Joint Venture Partner: _____

Financial Resources		
No.	Source of financing	Amount (PKR)
1	Working Capital (to be taken from FIN - 1)	
2	Credit Line ^a	
3	Other Financial Resources	
	Total Available Financial Resources	

“ To be substantiated by a letter from the bank issuing the line of credit. Line of credited (specific to this project) confirmed by issuing bank within last one month (prior to submission of the bid) clearly indicating the name of this project. i.e “Civil Works for Parking Sheds at Sahiwal and Sialkot including Construction of Boundary Wall and Gate, Surveillance and Security System, Guard / Driver and Equipment, Office Building and Allied Works at Sahiwal and Sialkot”.

Form FIN- 4: Financial Resources Requirement

Bidders (or each Joint Venture partner) should provide information on their current commitments on **all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.**

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

Joint Venture Partner: _____

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

^a Remaining outstanding contract values to be calculated from 28 days prior to the bid submission deadline (PKR).

^b Remaining contract period to be calculated from 28 days prior to bid submission deadline.

Form FIN - 5: Self-Assessment Tool for Bidder's Compliance to Financial Resources (Criterion 2.3.3 of Section 3)

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

Form FIN - 5A: For Single Entities

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

Form FIN - 5B: For Joint Ventures

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

Form FIN – 5 is made available for use by the bidder as a self-assessment tool, and by the employer as an evaluation work sheet, to determine compliance with the financial resources requirement as stated in 2.3.3. Failure to submit Form FIN - 5 by the Bidder shall not lead to bid rejection.

Form EXP – 1: Contracts of Similar Size and Nature

Fill up one (1) form per contract.

Contract of Similar Size and Nature			
Contract No of	Contract Identification		
Award Date		Completion Date	
Total Contract Amount	PKR		
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone/Fax Number E-mail			
Description of the Similarity in Accordance with Criterion 2.4.1 of Section 3 (Evaluation and Qualification Criteria)			
<p>Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been successfully or substantially completed within the last five (05) years and that is similar to the proposed works, where the value of the Bidder's participation in the contract exceeds the amount mentioned below. The similarity of the Bidder's participation shall be based on details/characteristics as described in Section 6 "Employer's Requirements" which require experience in execution of Construction of a RCC Frame Structure Building or similar works costing a minimum of;</p> <p>PKR 138 Million</p>	<p>Documentary evidences may include the following, as mentioned in Para 2.4.1. of the Section 3 of the Bidding Documents:</p> <p><i>Completion, or Taking Over or substantial completion certificate from the Employer or by the Engineer indicating Employer's name, contract name, value and completion time to demonstrate compliance with the requirements.</i></p> <p><i>If the participation was through a JV or as subcontractor, only the respective share will be considered. Also, Using Form EXP-1, the Bidders must specify percent and amount of participation of total contract amount. The Bidders may also provide pertinent information such as JV/subcontract agreement and payment receipts.</i></p>		

Form EXP - 2: Construction Experience in Key Activities

Fill up one (1) form per contract.

Contract with Similar Key Activities			
Contract No of	Contract Identification		
Award Date		Completion Date	
Total Contract Amount	PKR		
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone Number Fax Number E-mail			
Description of the Key Activities in Accordance with Criterion 2.4.2 of Section 3 (Evaluation and Qualification Criteria)			
Building Works (Brick Masonry / Concrete Work) [minimum 10,000 cft]	<p>Documentary evidences may include the following, as mentioned in Para 2.4.2. of the Section 3 of the Bidding Documents:</p> <p><i>IPCs or Completion/Substantial completion / taking over certificate or certificate of execution of activities from the Employer of completed / substantially completed projects to substantiate experience in Key Activities.</i></p>		
Road or Street Pavements of Concrete, Asphalt or Tiles / Bricks. [minimum 50,000 cft]			
Installation of steel structure building including steel columns [minimum 25,000 sq.ft.]			

Schedules

Schedule of Payment Currencies

Forinsert name of Section of the Works

Separate tables may be required if the various sections of the Works (or of the Bill of Quantities) will have substantially different foreign and local currency requirements. In such a case, the Employer should prepare separate tables for each Section of the Works.

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

-- Note --

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

Table(s) of Adjustment Data

To be entered by the bidder

Table A - Local Currency

Index Code	Index Description	Source of Index *	Base Value and Date	Bidder's Local Currency Amount	Bidder's Proposed Weighting (coefficient)
	Nonadjustable	—	—	—	a: <u>(by Employer)</u> b: _____ c: _____ d: _____ e: _____
Total					1.00

Table B - Foreign Currency

Name of Currency:

Insert name of currency. If the bidder wishes to quote in more than one foreign currency, but in no case more than three, this table should be repeated for each foreign currency.

To be entered by the bidder

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Currency in Type/Amount	Equivalent in FC1	Bidder's Proposed Weighting (coefficient)
	Nonadjustable	—	—	—		a: <u>(by Employer)</u> b: _____ c: _____ d: _____ e: _____
Total						1.00

-- Note --

"Base Date" means the date 28 days prior to the deadline for submission of bids.

Tables of Adjustment Data shall only be included if prices are to be quoted as adjustable prices in accordance with ITB 14.5.

Bill of Quantities

A. Preamble

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Technical Specifications, and Drawing
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 Project Manager 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 Project Manager may fix as per the Contract.
3. The rates and prices entered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed covered by other rates and prices entered in the Bill of Quantities. The units and rates in figures entered into the Bill of Quantities should be typewritten or if written by hand, must be in print form. Bill of Quantities not presented accordingly may be considered nonresponsive
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works.
6. Complete description of items of works in the Bill of Quantities, general directions, conditions and limitations of works, location and place of works, applicable methods, means to be adopted, type and quality of materials, use of tools, plant, and machinery are not necessarily repeated not summarized in the Bill of Quantities. Reference to the relevant sections of the Contract documentation, Technical Specifications and Drawings shall be made before entering prices against each item in the priced Bill of Quantities
7. Provisional sums if included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Project Manager in accordance with the Conditions of Contract.
8. The "Ref Specs" mentioned in the Bill of Quantities indicates the Technical Specifications section number(s) which are to be followed during execution of item of work in accordance with the applicable drawings.
9. Unless otherwise stated in the text of the priced Bill of Quantities, the quantities have to be measured and paid in accordance with the Measurement and Payment Clauses given in

the relevant Technical Specifications or in accordance with implied meaning of the specifications. Any special method of measurement stated in the text of priced Bill of Quantities is limited to the concerned items only.

10. All rates and amounts are in Pakistani Rupees.

List of Materials for Secured Advance (Reference Sub-Clause 49.7 SCC)

Sr. No.	Type of Material	Limit for Payment*
1	Pre-Engineered or Pre-Fabricated Steel Building Materials	PKR 20 Million
2	Steel Reinforcement (Grade 60)	PKR 20 Million

* prescribes upper limit for net amount of payment, at any time, which shall not exceed in any certification by the Project Manager against Contractor's Statement in accordance with SCC 49.7; the Project Manager shall, however, make sure that the quantities stored and accepted for payments do not exceed their consumption requirements for execution and completion of Works particularly when the Works are in advanced stage / nearing completion.

Section 5 - Eligible Countries

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

Note: The list of current member countries is also available at <http://www.adb.org/about/members>

Section 6 – Employer's Requirements

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

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Specifications

Attached as Annexure-A

NOTE:

The Contractor shall submit a Site-Specific Environmental Management Plan (SSEMP) and Site-Specific Health and Safety Management Plan (SSHSMP) in compliance with PCC 81 and GCC 24.2 respectively in Section-8.

Drawings Attached as Annexure-B

Supplementary Information Regarding Works to Be Procured

The bidder shall be required to comply with relevant government regulations and guidelines on COVID-19 prevention and control issued by the Government of Pakistan (<http://covid.gov.pk/guideline>), or in the absence thereof, to international good practice guidelines, such as World Health Organization 2020, Considerations for public health and social measures in the workplace in the context of COVID-19, Geneva available here: <https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19>.

The EMP / IEE for the project is attached.

Initial Environmental Examination (IEE) / Environmental Management Plan (EMP)

Attached as Annexure-C

Personnel Requirements

S/No.	Position	No	Total Work Experience [years]	Experience In Similar Work [years]
1	Project Manager	02	10	07
2	Site Engineer	02	07	05
3	Construction Supervisor	02	07	05
4	Environmentalist/Health & Safety Officer	02	07	05
5	Surveyor	02	07	05
6	Quantity Surveyor	02	07	05
7	Lab Technician	02	05	03
8	Electrician	02	05	03

Equipment Requirements

S/No.	Equipment Type and Characteristics	Minimum Number Required
1	Tractor with Front Blade and Trolley	02
2	Dumpers	03
3	Hand Roller	02
4	Power Roller	02
5	Concrete Mixer	06
6	Loaders	02
7	Vibrators	09
8	Water Sprinkler and Water Tanker	03
9	Wheel Excavator	03
10	Crane	03
11	Generator	03
12	Mobile Heavy-Duty Light	03
13	Pneumatic Tire Rollers	02
14	Welding Plants	06
15	Grader	02

Section 7 - General Conditions of Contract

***Program Management Unit
Punjab Intermediate Cities Improvement Investment Program (PICIIP)
Local Government & Community Development Department, Punjab,
Pakistan - 40 B-1, Gulberg 3, MM Alam Road
Lahore, Pakistan***

[Name of Employer]

***NCB-Works/PICIIP-27: Civil Works for Parking Sheds at Sahiwal and Sialkot
including Construction of Boundary Wall and Gate, Surveillance and Security
System, Guard / Driver and Equipment, Office Building and Allied Works at
Sahiwal and Sialkot***

[Name of Contract]

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General Conditions of Contract

A. General	
1. Definitions	<p>1.1 Boldface type is used to identify defined terms.</p> <ul style="list-style-type: none"> (a) The 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. (b) The Activity Schedule is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events. (c) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 29.1 [Appointment of Adjudicator] hereunder. (d) Bank means the financing institutions named in the Particular Conditions of Contract (PCC). (e) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid. (f) Compensation Events are those defined in GCC 51.1 [Compensation Events] hereunder. (g) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 69.1 [Completion]. (h) The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 below. (i) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer. (j) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer. (k) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract. (l) Days are calendar days; months are calendar months. (m) Dayworks are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant. (n) A Defect is any part of the Works not completed in accordance with the Contract. (o) The Defects Liability Certificate is the certificate issued by the Project Manager upon correction of defects by the

	Contractor.
(p)	The Defects Liability Period is the period calculated from the Completion Date where the Contractor remains responsible for remedying defects.
(q)	Drawings include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
(r)	The Employer is the party who employs the Contractor to carry out the Works, as specified in the PCC .
(s)	Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
(t)	Force Majeure means an exceptional event or circumstance: which is beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.
(u)	In writing or written means hand-written, type-written, printed or electronically made, and resulting in a permanent record.
(v)	The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.
(w)	The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the PCC . The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
(x)	Letter of Acceptance means the formal acceptance by the Employer of the Bid and denotes the formation of the Contract at the date of acceptance.
(y)	Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.
(z)	Party means the Employer or the Contractor, as the context requires.
(aa)	PCC means Particular Conditions of Contract.
(bb)	Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
(cc)	The Project Manager is the person named in the PCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
(dd)	Retention Money means the aggregate of all monies retained by the Employer pursuant to GCC 55.1 [Retention].
(ee)	Schedules means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of

	<p>Tender, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.</p> <p>(ff) The Site is the area defined as such in the PCC.</p> <p>(gg) Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.</p> <p>(hh) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.</p> <p>(ii) The Start Date is given in the PCC. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.</p> <p>(jj) A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.</p> <p>(kk) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.</p> <p>(ll) A Variation is an instruction given by the Project Manager which varies the Works.</p> <p>(mm) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the PCC.</p>
2. Interpretation	<p>2.1 In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.</p>
	<p>2.2 If sectional completion is specified in the PCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).</p>
	<p>2.3 The documents forming the Contract shall be interpreted in the following order of priority:</p> <ul style="list-style-type: none"> (a) Contract Agreement, (b) Letter of Acceptance, (c) Letter of Bid, (d) Particular Conditions of Contract, (e) the List of Eligible Countries that was specified in Section 5 of the bidding document,

	<ul style="list-style-type: none"> (f) General Conditions of Contract, (g) Specifications, (h) Drawings, (i) Completed Activity Schedules or Bill of Quantities, and (j) any other document listed in the PCC as forming part of the Contract.
3. Language and Law	<p>3.1 The language of the Contract and the law governing the Contract are stated in the PCC.</p> <p>3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when</p> <ul style="list-style-type: none"> (a) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from, or any payments to, a particular country, person, or entity. Where the borrower's country prohibits payments to a particular firm or for particular goods by such an act of compliance, that firm may be excluded.
4. Contract Agreement	<p>4.1 The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless the Particular Conditions establish otherwise. The Contract Agreement shall be based upon the attached Contract forms in Section 8. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.</p>
5. Assignment	<p>5.1 Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party</p> <ul style="list-style-type: none"> (a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party; and (b) may, as security in favor of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.
6. Care and Supply of Documents	<p>6.1 The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.</p>
	<p>6.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents.</p>
	<p>6.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of</p>

	<p>access to all these documents at all reasonable times.</p> <p>6.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.</p>
7. Confidential Details	<p>7.1 The Contractor's and the Employer's Personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow its proper implementation.</p>
	<p>7.2 Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.</p>
	<p>7.3 Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this Clause.</p>
8. Compliance with Laws	<p>8.1 The Contractor shall, in performing the Contract, comply with applicable Laws.</p>
	<p>8.2 Unless otherwise stated in the Particular Conditions,</p> <ul style="list-style-type: none"> (a) the Employer shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the [Employer's Country or country where the Site is located] which (i) such authorities or undertakings require the Employer to obtain in the Employer's name, and (ii) are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract; (b) the Contractor shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the [Employer's Country or country where the Site is located] which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals, and/or licenses that are not the responsibility of the Employer under Subclause 8.2(a) hereof and that are necessary for the

	<p>performance of the Contract. The Contractor shall indemnify and hold harmless the Employer from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the Employer or its personnel, including the Subcontractors and their personnel, but without prejudice to Subclause 8.1 hereof.</p>
9. Joint and Several Liability	<p>9.1 If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally liable to the Employer for the fulfillment of the provisions of the Contract, and shall designate one of such persons to act as a leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.</p>
10. Project Manager's Decisions	<p>10.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.</p>
11. Delegation	<p>11.1 The Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.</p>
12. Communications	<p>12.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.</p>
13. Subcontracting	<p>13.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.</p>
14. Other Contractors	<p>14.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the PCC. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.</p>
15. Personnel and Equipment	<p>15.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid to carry out the functions stated in the Schedule or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.</p>
	<p>15.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within 7 days and has no further connection with the work in the Contract.</p> <p>15.3 If the Employer, Project Manager, or Contractor determines, that any</p>

	employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or other prohibited practices during the execution of the Works, then that employee shall be removed in accordance with Clause 15.2 above.
16. Employer's and Contractor's Risks	16.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
17. Employer's Risks	<p>17.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:</p> <ul style="list-style-type: none"> (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to <ul style="list-style-type: none"> (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works, or (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor. (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.
	<p>17.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to</p> <ul style="list-style-type: none"> (a) a Defect which existed on the Completion Date, (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or (c) the activities of the Contractor on the Site after the Completion Date.
18. Contractor's Risks	18.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks, are Contractor's risks.
19. Insurance	<p>19.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the PCC for the following events, which are due to the Contractor's risks:</p> <ul style="list-style-type: none"> (a) loss of or damage to the Works, Plant, and Materials; (b) loss of or damage to Equipment; (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and (d) personal injury or death.

	19.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
	19.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance, which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
	19.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.
	19.5 Both parties shall comply with any conditions of the insurance policies.
20. Site Investigation Reports	20.1 The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the PCC , supplemented by any information available to the Contractor.
21. Contractor to Construct the Works	21.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
22. The Works to Be Completed by the Intended Completion Date	22.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
23. Designs by Contractor and Approval by the Project Manager	23.1 The Contractor shall carry out design to the extent specified in the PCC . The Contractor shall promptly submit to the Employer all designs prepared by him. Within 14 days of receipt, the Employer shall notify any comments. The Contractor shall not construct any element of the permanent work designed by him within 14 days after the design has been submitted to the Employer or where the design for that element has been rejected. Design that has been rejected shall be promptly amended and resubmitted. The Contractor shall resubmit all designs commented on, taking these comments into account as necessary.
	23.2 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings..
	23.3 The Contractor shall be responsible for design of Temporary Works.
	23.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

	23.5 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
	23.6 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.
24. Safety	24.1 The Contractor shall be responsible for the safety of all activities on the Site.
25. Discoveries	25.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
26. Possession of the Site	26.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the PCC , the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.
27. Access to the Site	27.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
28. Instructions, Inspections, and Audits	<p>28.1 The Contractor shall carry out all instructions of the Project Manager, which comply with the applicable laws where the Site is located.</p> <p>28.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub consultants to keep accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.</p>
	28.3 The Contractor shall permit ADB to inspect the Contractor's accounts, records, and other documents relating to the submission of bids and contract performance and to have them audited by auditors appointed by ADB. The Contractor shall maintain all documents and records related to the Contract for a period of three (3) years after completion of the Works. The Contractor shall provide any documents necessary for the investigation of allegations of fraud, collusion, coercion, or corruption and require its employees or agents with knowledge of the Contract to respond to questions from ADB.
29. Appointment of the Adjudicator	29.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the PCC , to appoint the Adjudicator within 14 days of receipt of such request.
	29.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of

	disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 14 days of receipt of such request.
30. Procedure for Disputes	30.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.
	30.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.
	30.3 The Adjudicator shall be paid by the hour at the rate specified in the PCC , together with reimbursable expenses of the types specified in the PCC , and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.
	30.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified in the PCC .
B. Staff and Labor	
31. Forced Labor	31.1 The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor–contracting arrangements.
32. Child Labor	32.1 The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where national laws have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.
33. Workers' Organizations	33.1 In countries where national law recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively, the Contractor shall comply with national law. Where national law substantially restricts workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. In either case described above, and where national law is silent, the Contractor shall not discourage the Contractor's Personnel from forming or joining workers' organizations of their choosing or from bargaining

	collectively, and shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and bargain collectively. The Contractor shall engage with such workers representatives. Worker organizations are expected to fairly represent the workers in the workforce.
34. Nondiscrimination and Equal Opportunity	34.1 The Contractor shall not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment relationship on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. In countries where national law provides for non-discrimination in employment, the Contractor shall comply with national law. When national laws are silent on nondiscrimination in employment, the Contractor shall meet this Sub clause's requirements. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination.
C. Time Control	
35. Program	35.1 Within the time stated in the PCC , after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.
	35.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
	35.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the PCC . If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the PCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.
	35.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.
36. Extension of the Intended Completion	36.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion

Date	Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
	36.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.
37. Acceleration	37.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.
	37.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.
38. Delays Ordered by the Project Manager	38.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
39. Management Meetings	39.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
	39.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
40. Early Warning	40.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
	40.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

D. Quality Control	
41. Identifying Defects	41.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
42. Tests	42.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.
43. Correction of Defects	43.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the PCC . The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
	43.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.
44. Uncorrected Defects	44.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.
E. Cost Control	
45. Contract Price	45.1 In the case of an admeasurement contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
	45.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.
46. Changes in the Contract Price	46.1 In the case of an admeasurement contract: <ul style="list-style-type: none"> (a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25%, provided the change exceeds 1% of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. (b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15%, except with the prior approval of the Employer.

	(c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
	46.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.
47. Variations	47.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.
	47.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
	47.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
	47.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
	47.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
	47.6 In the case of an admeasurement contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC 46.1 [Changes in the Contract Price] or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.
48. Cash Flow Forecasts	48.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
49. Payment Certificates	49.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

	49.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
	49.3 The value of work executed shall be determined by the Project Manager.
	49.4 The value of work executed shall comprise, <ul style="list-style-type: none"> (a) in the case of an admeasurement contract, the value of the quantities of work in the Bill of Quantities that have been completed; or (b) in the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule.
	49.5 The value of work executed shall include the valuation of Variations and Compensation Events.
	49.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
50. Payments	50.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.
	50.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
	50.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
	50.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.
51. Compensation Events	51.1 The following shall be Compensation Events: <ul style="list-style-type: none"> (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC 26.1 [Possession of the Site]. (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract. (c) The Project Manager orders a delay or does not issue

	<p>Drawings, Specifications, or instructions required for execution of the Works on time.</p> <p>(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.</p> <p>(e) The Project Manager unreasonably does not approve a subcontract to be let.</p> <p>(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to Bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.</p> <p>(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.</p> <p>(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.</p> <p>(i) The advance payment is delayed.</p> <p>(j) The effects on the Contractor of any of the Employer's Risks.</p> <p>(k) The Project Manager unreasonably delays issuing a Certificate of Completion.</p>
	<p>51.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.</p>
	<p>51.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.</p>
	<p>51.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.</p>
52. Tax	<p>52.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are</p>

	not already reflected in the Contract Price or are a result of GCC 54.1 [Price Adjustment].
53. Currencies	53.1 Where payments are made in currencies other than the currency of the Employer's country specified in the PCC , the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.
54. Price Adjustment	<p>54.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the PCC. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:</p> $P_c = A_c + B_c \text{ Imc/loc}$ <p>where:</p> <p>P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."</p> <p>A_c and B_c are coefficients¹ specified in the PCC, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and</p> <p>Imc is a consolidated index prevailing at the end of the month being invoiced and loc is the same consolidated index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."</p>
	54.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.
55. Retention	55.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the PCC until Completion of the whole of the Works.
	55.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 69.1 [Completion], half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" bank guarantee.
56. Liquidated Damages	56.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the PCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of

¹ The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulas for all currencies, since coefficient A_c , for the nonadjustable portion of the payments, is a very approximate figure (usually 0.10 ~ 0.20) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency is added to the Contract Price.

	liquidated damages shall not exceed the amount defined in the PCC . The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.
	56.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC 50.1 [Payments].
57. Bonus	57.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day stated in the PCC for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.
58. Advance Payment	58.1 The Employer shall make advance payment to the Contractor of the amounts stated in the PCC by the date stated in the PCC , against provision by the Contractor of an unconditional bank guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.
	58.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
	58.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.
59. Securities	59.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the PCC , by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a bank guarantee.
60. Dayworks	60.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid

	for in that way.
	60.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within 2 days of the work being done.
	60.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.
61. Cost of Repairs	61.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.
F. Force Majeure	
62. Definition of Force Majeure	<p>62.1 In this Clause, "Force Majeure" means an exceptional event or circumstance,</p> <ul style="list-style-type: none"> (a) which is beyond a Party's control; (b) which such Party could not reasonably have provided against before entering into the Contract; (c) which, having arisen, such Party could not reasonably have avoided or overcome; and (d) which is not substantially attributable to the other Party.
	<p>62.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:</p> <ul style="list-style-type: none"> (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies; (b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war; (c) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel; (d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity; and (e) natural catastrophes such as earthquake, hurricane, typhoon, or volcanic activity.
63. Notice of Force Majeure	63.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

	63.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
	63.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.
64. Duty to Minimize Delay	64.1 Each Party shall at all times use all reasonable endeavours to minimize any delay in the performance of the Contract as a result of Force Majeure.
	64.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
65. Consequences of Force Majeure	<p>65.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC Subclause 63 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to GCC Subclause 30.1 [Procedure for Disputes] to</p> <ul style="list-style-type: none"> (a) an extension of time for any such delay, if completion is or will be delayed, under GCC Subclause 36 [Extension of the Intended Completion Date]; and (b) if the event or circumstance is of the kind described in subparagraphs (a) to (d) of GCC Subclause 62.2 [Definition of Force Majeure] and, in the case of subparagraphs (b) to (d), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC Subclause 19 [Insurance].
	65.2 After receiving this notice, the Project Manager shall proceed in accordance with GCC Subclause 10 [Project Manager's Decisions] to agree or determine these matters.
66. Force Majeure Affecting Subcontractor	66.1 If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader Force Majeure events or circumstances shall not excuse the Contractor's nonperformance or entitle him to relief under this Clause.
67. Optional Termination, Payment and Release	67.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under GCC Subclause 63 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with GCC Subclause 73.5 [Termination].

	<p>67.2 Upon such termination, the Project Manager shall determine the value of the work done and issue a Payment Certificate, which shall include</p> <ul style="list-style-type: none"> (a) the amounts payable for any work carried out for which a price is stated in the Contract; (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal; (c) other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works; (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and (e) the Cost of repatriation of the Contractor's staff and labor employed wholly in connection with the Works at the date of termination.
68. Release from Performance	<p>68.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises, which makes it impossible or unlawful for either or both Parties to fulfill its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance,</p> <ul style="list-style-type: none"> (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract; and (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under GCC Subclause 67 [Optional Termination, Payment and Release] if the Contract had been terminated under GCC Subclause 67.
G. Finishing the Contract	
69. Completion	<p>69.1 The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed.</p>
70. Taking Over	<p>70.1 The Employer shall take over the Site and the Works within 7 days of the Project Manager's issuing a certificate of Completion.</p>
71. Final Account	<p>71.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of</p>

	<p>receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.</p>
72. Operating and Maintenance Manuals	<p>72.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the PCC.</p>
	<p>72.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the PCC pursuant to GCC 72.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the PCC from payments due to the Contractor.</p>
73. Termination	<p>73.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.</p>
	<p>73.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager; (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days; (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation; (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate; (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager; (f) the Project Manager gives two consecutive Notices to update the Program and accelerate the works to ensure compliance with GCC Subclause 22.1 [The Works to be Completed by the Intended Completion Date] and the Contractor fails to update the Program and demonstrate acceleration of the works within a reasonable period of time determined by the Project Manager; (g) the Contractor does not maintain a Security, which is required; (h) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the PCC; and (i) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC 74.1 [Fraud and

	Corruption].
	73.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC 73.2 above, the Project Manager shall decide whether the breach is fundamental or not.
	73.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.
	73.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.
74. Fraud and Corruption	<p>74.1 ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Contractors, Subcontractors, Manufacturers, and Consultants under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the ADB</p> <p>(a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <ul style="list-style-type: none"> (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party; (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation; (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party; (iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party; (v) "obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents, or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) 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 (e) materially impeding ADB's contractual rights of audit or access to information; and (vi) "integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB

	<p>sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.</p> <p>(b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;</p> <p>(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation; and</p> <p>(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate² in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations.</p>
75. Payment upon Termination	<p>75.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the PCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.</p>
	<p>75.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.</p>
76. Property	<p>76.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the</p>

² Whether as a Contractor, Nominated Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document). A Nominated Subcontractor is one which either has been (i) included by the Bidder in its prequalification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the Bidder's prequalification application or the bid; or (ii) appointed by the Employer.

	Contract is terminated because of the Contractor's default.
77. Release from Performance	77.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterward to which a commitment was made.
78. Suspension of ADB Loan or Credit	78.1 In the event that ADB suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made, <ul style="list-style-type: none"> (a) the Employer is obligated to notify the Contractor, with copy to the Project Manager, of such suspension within 7 days of having received ADB's suspension notice. (b) if the Contractor has not received sums due it within the 28 days for payment provided for in GCC 50.1 [Payments], the Contractor may immediately issue a 14-day termination notice.
79. Eligibility	79.1 The Contractor shall have the nationality of an eligible country as specified in Section 5 [Eligible Countries] of the bidding document. The Contractor shall be deemed to have the nationality of a country if the Contractor is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.
	79.2 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as specified in Section 5 [Eligible Countries] of the bidding document and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment, and services.
	79.3 For purposes of GCC 79.2, "origin" means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

Section 8 - Particular Conditions of Contract

The following Particular Conditions of Contract shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

Particular Conditions of Contract

A. General	
GCC 1.1 (d)	The financing institutions is Asian Development Bank
GCC 1.1 (r)	<p>The Employer is Local Government & Community Development Department, Government of Punjab</p> <p>Authorized Representative:</p> <p>Program Management Unit, (PMU), Punjab Intermediate Cities Improvement Investment Program (PICIP), Local Government & Community Development Department, Punjab, Pakistan</p>
GCC 1.1 (w)	<p>The Intended Completion Date for the whole of the Works shall be:</p> <p>Two Hundred and Forty Four (244) days</p>
GCC 1.1 (cc)	<p>The Project Manager is the Deputy Team Leader/SRE nominated by the Project Engineering Procurement and Construction Management Consultants (EPCM).</p> <p>Authorized Representative: Resident Engineer</p>
GCC 1.1 (ff)	The Site is located in Sahiwal and Sialkot.
GCC 1.1 (ii)	The Start Date shall be Twenty-One (21) days from signing of the Contract
GCC 1.1 (mm)	<p>The Works consist of:</p> <p>Civil Works for Parking Sheds at Sahiwal and Sialkot including Construction of Boundary Wall and Gate, Surveillance and Security System, Guard / Driver and Equipment, Office Building and Allied Works at Sahiwal and Sialkot</p> <p>Which include execution of all the items identified in the Drawings, Specifications, BOQ and Contract documents</p>
GCC 2.2	Sectional Completions are: Not Applicable
GCC 2.3 (j)	<p>The following documents also form part of the Contract:</p> <ul style="list-style-type: none"> a. Site Specific Environmental Management Plan (SSEMP) b. Site Specific Health and Safety Management Plan (SSHSMP) c. Details of Personnel d. Details of Equipment e. Method statement and Implementation Schedule (including mobilization and construction schedule) f. COVID-19 Specific Site Health and Safety Management Plan
GCC 3.1	<p>The language of the contract is English.</p> <p>The law that applies to the Contract is the law of Islamic Republic of Pakistan</p>
GCC 10	<p>Add a second paragraph:</p> <p><i>"The Project Manager shall provide within 5 working days the following information, as prepared by the Project Manager and/or received from the Contractor, to the</i></p>

	<p><i>Employer's Authorized Representative:</i></p> <ul style="list-style-type: none"> <i>i. Proposal for Extension of the Intended Completion Date prepared under Clause 36;</i> <i>ii. Early Warning received from Contractor under Clause 40;</i> <i>iii. Changes in the Contract Price determined by the Project Manager under Clause 46;</i> <i>iv. Variations Requested by the Project Manager, quotations received from the Contractor and determined by the Project Manager under Clause 47;</i> <i>v. Compensation Event determined by the Project Manager under Clause 51;</i> <i>vi. Request for issuing the Completion certificate requested by the Contractor under Clause 69"</i>
GCC 11.1	The Project Manager may delegate any of his/her duties and responsibilities subject to prior approval of the Employer.
GCC 14.1	Schedule of other contractors: Not Applicable
GCC 19.1	<p>The minimum insurance amounts and deductibles shall be:</p> <ul style="list-style-type: none"> (a) for loss or damage to the Works, Plant and Materials: 110% of the contract price (b) for loss or damage to Equipment: Full Replacement Value (c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract: 100% of the loss occurred (d) for personal injury or death: <ul style="list-style-type: none"> (i) of the Contractor's employees: PKR 500,000/- in case of the injury for each occurrence and PKR 2,000,000/- in case of death for each occurrence. (Occurrences unlimited) (ii) of other people: same as above (iii) The maximum deductible amount shall be "PKR Five (5) Million" against event under Para (a) herein above whereas "Nil" against events under Para (b), (c) and (d). The insurance will be from the companies rated "A" or higher by Pakistan Credit Rating Agency Limited.
GCC 20.1	Site Investigation Reports are: Nil
GCC 22.1	<p>Please add the following at the end Sub-Clause 22.1</p> <p><i>"The Contractor shall adequately record the condition of roads, adjoining land and other infrastructure prior to the start of transporting materials, goods and equipment, and construction."</i></p>
GCC 23.1	The following shall be designed by the Contractor: Not Applicable
GCC 24.1	<p><i>Following shall replace text under Sub-Clause 24.1:</i></p> <p><i>"The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel and to provide a safe work environment to both female and male workers.</i></p> <p><i>The Contractor shall: (a) comply with applicable core labor standards and labor laws, and incorporate applicable workforce occupational safety norms; (b) comply</i></p>

	<p><i>with the applicable provisions of the Gender Action Plan, including equal pay to men and women for the same type of work and enabling working conditions for female workers; (c) to the extent possible, maximize employment of local poor and disadvantaged persons for project construction purposes, provided that the requirement for job and efficiency are adequately met; and (d) provide safe working conditions.</i></p> <p><i>The Contractor shall disseminate information (in local languages) on the risks of sexually-transmitted diseases, including HIV/AIDs, in health and safety program for all construction works at campsites. Compliance to the foregoing will be strictly monitored by the Employer.</i></p> <p><i>In particular, the Contractor is responsible for providing site workers with safe and healthy working conditions and establish an operating system to prevent accidents, injuries, and disease.</i></p>
GCC 24.2	<p><i>Please add the following as Sub-Clause 24.2:</i></p> <p><i>“The Contractor is responsible for establishment of preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks of the construction site work to the health and safety of local communities.</i></p> <p><i>Within 14 days of the Start Date the Contractor shall submit a detailed Site-Specific Health and Safety Management Plan (SSHSMP) for the Project Manager’s no objection showing how he/she intends to comply with the local Health and Safety laws and regulations and other specific requirements prescribed in the Contract, taking into account the Supplementary Information in Section 6- Employer’s Requirements. Work shall not commence on the Site until the confirmation of no objection of the SSHSMP has been obtained from the Project Manager and is being implemented. Such confirmation of no objection by the Project Manager shall not relieve the Contractor of any of his/her obligations or responsibilities under the Contract.</i></p> <p><i>Where unanticipated health and safety hazards or risks become apparent during the Contract, the Contractor is required to update the SSHSMP to outline the potential impacts to site works and associated mitigation measures for the Project Manager’s no objection.</i></p> <p><i>The Contractor shall comply with the approved SSHSMP and any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor the implementation of the project EMP through the SSHSMP.</i></p> <p><i>In particular, the Contractor is required to provide all personnel on site including Employer’s Personnel and visitors with personal protective equipment, including protection for feet (safety boots), head, eyes, ears (safety helmets) and hands, etc. in accordance with the Contractor’s SSHSMP. The Contractor should ensure that his Subcontractors comply with the SSHSMP and provide all such necessary equipment to their personnel.</i></p> <p><i>The Contractor shall bear the costs to ensure that such measures, requirements and actions are carried out.</i></p> <p><i>The Contractor shall submit semi-annual reports on the compliance of such measures to the Employer.</i></p> <p><i>In the event of a significant injury involving medical treatment or hospitalization and fatal accident the Contractor shall notify the Project Manager immediately by verbal communication and submit a formal report as soon as practicable after its</i></p>

	<i>occurrence. For all accidents, whether fatal or not, the Contractor shall also notify the appropriate local authorities in accordance with the Laws of the Country."</i>
GCC 26.1	The Site Possession Date(s) shall be: within Fourteen (14) days from signing of the Contract. The Contractor shall sign and handover the site possession certificate to the Employer within Five (5) days of information by the Employer that site is ready to be taken over.
GCC 27.2	Please add the following as Sub-Clause 27.2: <i>"The Contractor shall comply with (i) the measures and requirements relevant to the Contractor which are set forth in the Resettlement Plan ("RP"), to the extent it concerns impacts on affected people during construction; and (ii) any corrective or preventive actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the resettlement plan.</i> <i>The Contractor shall allocate a budget for compliance with these measures, requirements and actions."</i>
GCC 29.1	Appointing Authority for the Adjudicator: Pakistan Engineering Council, Islamabad
GCC 30.3	The Adjudicator shall be paid by the hour at the rate of: PKR 2,000 (two thousand) The reimbursable expenses are: Actual transportation expenses incurred. Transportation expenses should be by economy class travel whether by air or land. Adjudicator shall be entitled to a per diem of PKR Ten thousand (10,000) per day.
GCC 30.4	Institution whose arbitration procedures shall be used: Arbitration shall be carried out in accordance with the rules and provision of Arbitration Act 1940 of Islamic Republic of Pakistan . The place of arbitration shall be "Lahore, Punjab, Islamic Republic of Pakistan".
GCC 32.1	Please add the following at the end of Sub-Clause 32.1: <i>"'Child' means a child below the statutory minimum age of 14 under applicable national, provincial or law of Pakistan."</i>
GCC 34.2	Following new sub clause is added as Sub-Clause 34.2: The Contractor shall (i) comply with Pakistan's (a) labour laws and regulations applicable to the Contractors Personnel, including male and female staff, consultants, contractors, and agents; and (b) incorporate workplace occupational safety norms; and (ii) allow freedom of association and effectively recognize the right to collective bargaining. Employment opportunities shall be offered to women, as skilled or unskilled workers. The Contractor shall offer incentives to attract women as unskilled workers under cash-for work program to the extent possible. These incentives could include widely announcing employment opportunities and recruitment notices through the most appropriate communication means to target local women. Equal pay for equal work and basic facilities (separate toilets, clean water) are provided for women." The Contractor shall ensure that its employees and Subcontractors observe the highest ethical standards and refrain from any form of bullying, discrimination, misconduct and harassment, including sexual harassment and shall, at all times,

	<p>behave in a manner that creates an environment free of unethical behavior, bullying, misconduct and harassment, including sexual harassment. The Contractor shall take appropriate action against any employees or Subcontractors, including suspension or termination of employment or sub-contract, if any form of unethical or inappropriate behavior is identified.</p> <p>The Contractor shall conduct training programs for its employees and Subcontractors to raise awareness on and prevent any form of bullying, discrimination, misconduct and harassment including sexual harassment, and to promote a respectful work environment. The Contractor shall keep an up-to-date record of its employees and Subcontractors who have attended and completed such training programs and provide such records to the Employer or the Project Manager at their first written request.</p>
C. Time Control	
GCC 35.1	<p>The Contractor shall submit for approval a Program for the Works within Twenty-Eight (28) days from the date of the Letter of Acceptance. The program shall be submitted in the form of MS Project or other similar software (3 Nos. hard and soft copies) by allocating the equipment and other resources, moreover, the critical activities shall be identified. The program shall include information on equipment for the Contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail as advised and approved by the Project Manager. The Contractor shall include as part of its program submitted, a detail forecasted cash flow in a format acceptable to the Project Manager.</p>
GCC 35.3	<p>The period between Program updates is Fourteen (14) days. If the progress of works is slow, or an acceleration of work is required, or unforeseeable circumstances warrant/require an increase in progress then the Project Manager may also instruct the Contractor to submit the update within a period of Seven (7) days.</p> <p>The amount to be withheld for late submission of an updated Program is PKR Five Hundred Thousand (500,000).</p> <p>Following is added:</p> <p>The Contractor shall provide the Employer with quarterly reports of its activities, including each of its obligations under Sub-Clauses 8, 24, and 34.</p>
D. Quality Control	
GCC 40.1	<p>Following text is added;</p> <p><i>"In addition to the foregoing, the Contractor shall provide the Project Manager with a written notice of any unanticipated environmental or resettlement risks or impacts on both women and men that arise during construction, implementation or operation of the Permanent Works, which were not considered in the Initial Environmental Examination, the Environmental Management Plan or the Resettlement Plan"</i></p>
GCC 43.1	<p>The Defects Liability Period from the Completion Date is: Three Hundred and Sixty Five (365) days</p>
E. Cost Control	

SCC 49.7	<p>Please add following as the new Sub-Clause 49.7:</p> <p>“</p> <p>(a) <i>The Contractor shall be entitled to receive from the Employer an amount for Materials as “Secured Advance” against an indemnity bond acceptable to the Employer (Form provided in Section 9) of such sum as the Project Manager may consider proper in respect of the Materials (listed in the Schedules for payment and) delivered to the Site but not yet incorporated in the Permanent Works provided that:</i></p> <ul style="list-style-type: none"> <i>i. The Materials are in accordance with the Specifications for the Works;</i> <i>ii. Such Materials have been delivered to the Site and are properly stored and protected against loss or damage or deterioration to the satisfaction of the Project Manager but at the risk and cost of the Contractor;</i> <i>iii. The Contractor’s records of the requirements, orders, receipts and use of Materials are kept in a form approved by the Project Manager, and such records shall be available for inspection by the Project Manager;</i> <i>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 Project Manager for the purpose of valuation of Materials and providing evidence of ownership and payment therefore;</i> <i>v. Ownership of such Materials shall be deemed to vest in the Employer and these Materials shall not be removed from the Site or otherwise disposed off without written permission of the Employer; and</i> <i>vi. The sum payable for such Materials on Site shall not exceed 80% 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 other Materials, also keeping in view value of the Materials under the Contract taking into account the unit rates of the corresponding items of payment in the Bills of Quantity.</i> <p>(b) <i>The “Secured Advance” paid to the Contractor under the above provisions shall be recovered through deductions from the monthly payments on actual consumption basis.</i></p> <p>”</p>
GCC 53.1	The currency of the Employer’s country is: Pakistani Rupees (PKR).
GCC 54.1	The Contract is not subject to price adjustment in accordance with GCC Clause 54, and the following information regarding coefficients does not apply.
GCC 55.1	The proportion of payments retained is: Five Percent (5%).
GCC 56.1	<p>The liquidated damages for the whole of the Works are 0.1% per day of the Final Contract Price.</p> <p>The maximum amount of liquidated damages for the whole of the Works is Ten Percent (10%) of the final Contract Price.</p>
GCC 57.1	The Bonus for the whole of the Works is Not Applicable.
GCC 58.1	The Advance Payments shall be Fifteen Percent (15%) of the Accepted Contract amount and shall be paid to the Contractor no later than Twenty Eight (28) days from the date the corresponding bank guarantee delivered by the Contractor and

	<p>has been verified by the Employer from the issuing bank.</p> <p>The bifurcation of Fifteen Percent (15%) advance payment is as follows; 10% After Signing of Contract and remaining 5% could be paid after confirmation of Mobilization of Contractors resources, Machinery, Human Resource at sites by the Project Manager.</p>
GCC 58.3	Repayment of the Advance Payments shall be: Twenty Percent (20%) from each payment certificate.
GCC 59.1	<p>The Performance Security amount is Ten Percent (10%) of the accepted contract amount. In case of Joint Venture, the performance security must be in the name of Joint Venture.</p> <p>The Performance Security shall be issued either (a) By a reputable bank, which may include scheduled banks, located in the Country, or (b) by a reputable foreign bank, selected by the Contractor and acceptable to the Employer. If the bank issuing the Performance Security furnished by the Contractor is outside the Country, the issuer shall have a correspondent bank in the Country to make it enforceable in the Country. The Performance Security shall be in the form annexed to the Bidding Document.</p>
G. Finishing the Contract	
GCC 69.2	<p>Please add the following as Sub-Clause 69.2:</p> <p><i>"Upon the completion of construction, the Contractor shall fully reinstate pathways, other local infrastructure to at least their pre-project condition as recorded by the Contractor in consonance with its obligation in Clause 22."</i></p>
GCC 71.1	<p>Add the following at the end of this sub-clause:</p> <p>On expiry of the Defects Liability Period, the Employer / Employer's representative shall constitute a committee comprising of Project Manager / Project Manager's representative, Employer / Employer's representative and the Contractor / Contractor's representative. The committee shall conduct a detailed inspection of the Works to ascertain the completion of any outstanding Work stated in Completion Certificate and remedying of defects to ascertain to the Project Manager for issuance of Defects Liability Certificate or otherwise.</p>
GCC 72.1	<p>The date by which operating and maintenance manuals are required is Twenty Eight (28) days after issuance of the Completion Certificate.</p> <p>The date by which "as built" drawings are required is within Twenty Eight (28) days after issuance of the Completion Certificate.</p>
GCC 72.2	The amount to be withheld for failing to produce "as built" drawings by the date required in GCC 72.1 is PKR Five Hundred Thousand (500,000) .
GCC 73.2 (h)	The maximum number of days is: One Hundred (100) days
GCC 75.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is Fifteen Percent (15%) of the final Contract Price .
PCC 80	<p>Please add the following as new sub-paragraph 80:</p> <p><i>"The Contractor shall provide the Employer with quarterly reports of its activities,</i></p>

	including each of its obligations in Sub-Clauses 22, 24, 27,34, 69 and 81.
PCC 81	<p>Please add the following as new Sub-Clause 81:</p> <p><u>“Protection of the Environment:</u></p> <p><i>The Contractor shall comply with all applicable national, provincial, and local environmental laws and regulations.</i></p> <p><i>The Contractor shall also comply with all reasonable requests of the national and local authorities responsible for enforcing environmental controls. Within 14 days of the Start Date the Contractor shall submit a detailed Site Specific Environmental Management Plan (SSEMP) for the Project Manager’s no objection showing how he/she intends to comply with environmental laws and regulations and other specific requirements prescribed in the Contract, addressing all the monitoring and mitigation measures set forth in the Environmental Impact Assessment (“EIA”) or Initial Environmental Examination (“IEE”) and the Environmental Management Plan (“EMP”) of the project attached in Section 6- Employer’s Requirements. Work shall not commence on the Site until the no objection of SSEMP has been obtained from the Project Manager and is being implemented. Such acceptance by the Project Manager shall not relive the Contractor of any of his obligations or responsibilities under the Contract.</i></p> <p><i>The Contractor shall (a) establish an operational system for managing environmental impacts, (b) comply with the approved SSEMP and any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor the implementation of the project EMP through the SSEMP, (c) allocate the budget required to ensure that such measures, requirements and actions are carried out, (d) submit semi-annual reports on the compliance of such measures to the Employer.</i></p> <p><i>Where unanticipated environmental risks or impacts become apparent during the Contract, the Contractor is required to update the SSEMP to outline the potential impacts to site works and associated mitigation measures for the Project Manager’s approval”</i></p>
PCC 82	<p>Please add following as the new Sub-Clause 82:</p> <p><u>“Labor Laws:</u></p> <p><i>The Contractor, its Personnel, and subcontractors shall comply with the following at all times during the period of the Contract (together, the Labor Requirements):</i></p> <p><i>(a) all the relevant Laws in force, in Pakistan, which are applicable to the Contractor and its Personnel, including but not limited to, Laws applying to their employment, health, safety, welfare, immigration and emigration, and shall allow them the exercise of all their legal rights, and Laws concerning the prevention of sexual harassment, abuse, assault and sexual exploitation of, or by, the Contractor’s Personnel at or in the vicinity of the Site, or any accommodation, amenities and facilities provided under the Contract;</i></p> <p><i>(b) (i) the Standard Operating Procedures as may be issued by the Employer (SOPs) to the Contractor with respect to the conditions of the place of employment, health and safety measures to be taken to protect the health, safety and welfare of the Contractor’s Personnel; and (ii) the core labor standards which prohibits the use child labor, discrimination of workers in respect of employment and occupation, the use of forced or compulsory labor, and allows the freedom of association and effectively recognizes the right to collective bargaining (CLS); and</i></p> <p><i>(c) the requirements on health and safety set out in Clause 24.</i></p>

	<p><i>If the Contractor or any of its Personnel or sub-contractors becomes aware of any breach, or suspected breach, of the Labor Requirements by the Contractor or any of its Personnel or sub-contractors (the Labor Requirements Non-Compliance), it shall immediately report it to the Employer's Representative in writing, giving details of the nature of the breach and the time-frame within which such Labor Requirements Non-Compliance will be rectified. If the Employer becomes aware of any Labor Requirements Non- Compliance, the Employer's Representative (or any other person nominated by the Employer) shall deliver a written notice to the Contractor's Representative (Employer's Notice of Non-Compliance), giving details of the nature of the breach and the time-frame within which such breach must be rectified by the Contractor. The notice shall also require the Contractor to explain in writing its response to the alleged finding of a Labor Requirements Non-Compliance. The Contractor shall be given 7 calendar days to submit its written response to the Employer's Notice of Breach of Labor Requirements. If the Contractor fails to rectify the Labor Requirements Non-Compliance within the prescribed period, and if the Employer determines that the breach is of such materiality and gravity that in the opinion of the Employer (acting reasonably), it merits a stoppage of Works (as specified in the Schedule), the Employer shall be entitled to declare a stoppage of Works for a period of time to be determined by the Employer. The Contractor shall not be entitled to an extension of time for, or payment or reimbursement for any costs incurred in, rectifying the Labor Requirements Non-Compliance. The Contractor shall be solely responsible and liable for all consequences and liabilities arising from such stoppage of Works and the Labor Requirements Non-Compliance. Any action taken by the Employer pursuant to an Employer's Notice of Non-Compliance shall be without prejudice to the Employer's rights under the Contract, including without limitation the Employer's rights to terminate the Contract under GCC 73."</i></p>
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Section 9 - Contract Forms

This section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

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Notification of Award

---- on letterhead paper of the employer ----

Letter of Acceptance

..... date.

To: Name and address of the contractor

Subject: Notification of Award Contract No.

This is to notify you that your Bid dated date for execution of thename of the contract and identification number, as given in the Bid Data Sheet for the Accepted Contract Amount of the equivalent ofamount in words and figures and name of currency, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section 9 (Contract Forms) of the Bidding Document.

[Choose one of the following statements:]

We accept that [insert the name of adjudicator proposed by the bidder] be appointed as the Adjudicator.

[or]

We do not accept that [insert the name of the adjudicator proposed by the bidder] be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to [insert name of the appointing authority], the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with GCC 29.1.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made the day of, between *name of the employer*. (hereinafter "the Employer"), of the one part, and *name of the contractor*. (hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as *name of the contract*. should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) the Contract Agreement,
 - (b) the Letter of Acceptance,
 - (c) the Letters of Technical Bid and Price Bid,
 - (d) the Particular Conditions of Contract,
 - (e) the List of Eligible Countries that was specified in Section 5 of the bidding document,
 - (f) the General Conditions of Contract,
 - (g) the Specifications,
 - (h) the Drawings,
 - (i) the Bill of Quantities, and
 - (j) any other documents shall be added here.¹
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, 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 in accordance with the laws of *name of the borrowing country*. on the day, month and year indicated above.

¹ Tables of Adjustment Data may be added if the contract provides for price adjustment (see GCC 54.1).

Signed by
for and on behalf of the Employer

Signed by
for and on behalf the Contractor

in the presence of:

in the presence of:

Witness, Name, Signature, Address, Date

Witness, Name, Signature, Address, Date

Performance Security

Bank's name, and address of issuing branch or office¹

Beneficiary: *Name and address of the employer*

Date:

Performance Guarantee No.:

We have been informed that *name of the contractor*. (hereinafter called "the Contractor") has entered into Contract No. *reference number of the contract*. dated with you, for the execution of *name of contract and brief description of works*. (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we *name of the bank*. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *name of the currency and amount in words* ² (*amount in figures*.) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of ³, and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded. ⁴

.....
Signature(s) and seal of bank (where appropriate)

-- Note to Bidder --

If the institution issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

¹ All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

² The guarantor shall insert an amount representing the percentage of the contract price specified in the contract and denominated either in the currency(ies) of the contract or a freely convertible currency acceptable to the employer. If the bank issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer.

³ Insert the date 28 days after the expected completion date. The employer should note that in the event of an extension of the time for completion of the contract, the employer would need to request an extension of this guarantee from the guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

⁴ Or the same or similar to this clause specified in the Uniform Rules for Demand Guarantees, ICC Publication No. 758 where applicable.

Advance Payment Security

Bank's name, and address of issuing branch or office¹

Beneficiary: *Name and address of the employer*

Date:

Advance Payment Guarantee No.:

We have been informed that *name of the contractor*. (hereinafter called "the Contractor") has entered into Contract No. *reference number of the contract*. dated with you, for the execution of *name of contract and brief description of works*. (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum *name of the currency and amount in words* ². (*amount in figures*.) is to be made against an advance payment guarantee.

At the request of the Contractor, we *name of the bank*. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *name of the currency and amount in words* ³. (*amount in figures*.) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number *contractor's account number*. at *name and address of the bank*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty percent (80%) of the Contract Price has been certified for payment, or on the ... day of ⁴, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458 (*or ICC Publication No. 758 as applicable*).

.....
Signature(s) and seal of bank (where appropriate)

-- Note to Bidder --

If the institution issuing the advance payment security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

¹ All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

² The guarantor shall insert an amount representing the amount of the advance payment denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the employer.

³ Footnote 2.

⁴ Insert the expected expiration date of the time for completion. The employer should note that in the event of an extension of the time for completion of the contract, the employer would need to request an extension of this guarantee from the guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

**INDEMNITY BOND
FOR SECURED ADVANCE
AGAINST MATERIALS BROUGHT AT SITE
(ON PAK RUPESS 500 JUDICIAL STAMP PAPER)**

This Deed of Indemnity is issued by M/s. _____

(Name of the Contractor) in favor of Local Government & Community Development Department, Government of Punjab (hereinafter referred to as the Employer).

Whereas the Employer has paid the Secured Advance against the cost of Materials through any Bank or like agency by any other method by virtue of the terms of the Contract existing between the Parties. The details of the Materials and their price for which Secured Advance is sought for the period _____ till consumption of the Materials is as under:

1. _____ at Rs. _____ per _____ = Rs.
2. _____ at Rs. _____ per _____ = Rs.

THEREFORE, THIS DEED OF INDEMNITY WITNESSETH AS FOLLOWS:

I/We _____ of M/s _____ do hereby indemnify the Employer for all losses due to thefts, arson, pilferage, loss due to flood and inundation, shortage, deterioration and depreciation etc. through any act of Man or God or slump in the Market of any or all the Materials financed or paid by the Employer on our request for financing payment against Materials.

I/We _____ shall indemnify the Employer against any or all claims and damages arising out of or resulting to the said Materials.

I/We _____ further declare that we will faithfully abide by the above declaration and solemnly affirm that we will not remove, sell, pilferage any of the Materials against which the Employer has paid us such a Secured Advance and will not pledge the same with any Bank, Finance Corporation, Firm, Company, Individual or the like agency or create any change whereon in any from what so ever, except incorporating in the Permanent Works under the Contract.

I/We _____ do hereby also declare that in the event of my/our infringement of the declaration made above the Employer will be entitled to forfeit all such Materials and also proceed against me/us according to the relevant clause pertaining to breach of Contract and further invoke the power or seek any remedies secured of any kind under the Contract signed with us or otherwise available under the Law.

Place _____ Dated _____

Contractor _____ (Signature)
Name and CNIC/Passport (copy attached) number _____

**BILL OF
QUANTITIES
(BOQ)**

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT SAHIWAL AND SIALKOT
BILL OF QUANTITIES
GRAND SUMMARY

SR NO	DESCRIPTION	AMOUNT (Rs.)
1	MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL	
2	MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD SIALKOT	
3	MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN SIALKOT	
4	ENVIRONMENTAL MANAGEMENT PLAN	2,472,000
TOTAL COST (Rs.)		

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL
BILL OF QUANTITIES
SUMMARY

Bill No.	Description	Amount (Rs.)
B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS		
1	BRICK MASONARY BOUNDRY WALL	
2	OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)	
3	GUARD ROOM	
4	ENTRY GATE	
5	PREFABRICATED STEEL STUCTURES	
6	PARKING SHEDS PEDESTAL	
7	DRAIN	

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL
BILL OF QUANTITIES
SUMMARY

Bill No.	Description	Amount (Rs.)
B-1.2 ELECTRIFICATION WORKS		
	INTERNAL AND EXTERNAL ELECTRIFICATION WORKS FOR PARKING SHEDS	
B-1.3 SURVEILLIANCE SYSTEM		
	CCTV CAMERAS AND SCADA WORKS FOR PARKING SHEDS	
B-1.4 TRANSPORTATION WORKS		
	ROAD WORKS FOR PARKING SHEDS	
B-1.5 PLUMBING AND DRAINAGE WORKS		
	PLUMBING WORKS FOR BUILDING	
	PLUMBING WORKS FOR BUILDING AND WATER SUPPLY SYSTEM FOR PARKING SHED	
TOTAL COST (1)		

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

BRICK MASONARY BOUNDARY WALL

BILL OF QUANTITIES

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 BRICK MASONARY BOUNDARY WAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and rammiing lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	7/30	b) upto 5 ft. (1.5 m)in ordinary soil Select Fill for specifications see the geotechnical recommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	50,245.65			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Per Cft	25,122.83			
4	6/6(a)(i)(3)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.): (a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi with ratio(1:2:4)	Cft	1,932.53			
			Per Cft	698.41			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

BRICK MASONARY BOUNDARY WALL

BILL OF QUANTITIES

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 BRICK MASONARY BOUNDARY WAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
6	6/6(a)(ii)(3)	(a) (ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi with ratio(1:2:4)	Per Cft	1,174.01			
7	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-					
8	7/4(i)	('c) Deformed bars (Grade-60) Pacca brick work in foundation and plinth in:- (Plinth protection) i) Cement, sand mortar:- Ratio 1:3	Tons	4.42			
9	7/5(i)	Pacca brick work in ground floor:-i) Cement, sand mortar:- Ratio 1:3	Cft	9,659.40			
10	11/8 C	Cement plaster 1:3 upto 20' (6.00 m) heightc) ¾" (20 mm) thick	Cft	5,797.45			
			Sft	7,730.47			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**BRICK MASONARY BOUNDARY WALL
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 BRICK MASONARY BOUNDARY WAL

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
11	11/16 B	Cement pointing flush upto 20' (6.00 m) height b) ratio 1:3	Sft	10,306.80			
12	25/50	Providing and fixing barbed wire fencing on compound wall, consisting of 1½"x1½"x3/16" (40x40x5mm) angle iron post 3' (900 mm) long, 4' (1200 mm) apart embedded in cement concrete 1:4:8 base of size 6"x6"x9" (150x150x225 mm) and 4 rows of barbed wire, including binding wire, painting posts, etc. complete in all respects.	Rft	1,227.00			
Total Amount							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	7/30	b) upto 5 ft. (1.5 m) in ordinary soil Select Fill for specifications see the geotechnical recommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	9,129.82			
			Cft	9,129.82			
3	26/42	TERMITE CONTROL TREATMENT Termite control treatment around/under foundations and floors complete in all respects as shown on the drawings/specifications and/or as directed by the Engineer. (Spraying anti-termite liquid mixed with water in the ratio of 1:40)	SFT	8041			
4	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	462.26			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(ii)(3)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					
5A		(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	1,153.79			
5B	6/6(a)(i)(3)	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	1,197.25			
6	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	Tons	5.05			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
7	7/4(i)	Pacca brick work in foundation and plinth in:- (Plinth protection) i) Cement, sand mortar:- Ratio 1:3	Cft	3,001.24			
8	6/33(b)(i)	Damp Proof Course Providing and laying damp proof course (1.5" Thick) of cement concrete 1:2: 4(using cement, sand and shingle), including bitumen coating (2 Coats of Bitumen)	Sft	563.46			
9	6/35(b)(ii)b	Providing and laying vertical damp proof course with cement sand plaster (3/4" thick with 1:3 ratio) and bitumen coating (2 Coats of Bitumen)	Sft	497.18			
10	3/15 (i)	Filling, watering and ramming earth under floors:- with surplus earth from foundation, etc.	1000 Cft.	5.00			
11	3/17 (a, b,c,d)	Transportation of Earth all types when the total distance including the lead covered in the item of work, is more than 1000 ft.(300 m)	1000 Cft.	7.00			
12	3/24 (a, b-i)	Compaction of Earthwork (soft, ordinary or hard soil) :-	1000 Cft.	7.00			
13	7/30	Supplying and filling sand under floor ; or plugging in wells.	100 Cft.	8.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
14		Cement Concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)					
	6/5 (i)	<i>Ratio 1:4:8 (under floor.)</i>	<i>100 Cft.</i>	7.00			
	6/5 (f)	<i>Ratio 1:2:4 (under floor.)</i>	<i>100 Cft.</i>	2.00			
15		Brickwork.					
	7/5.(i)	Pacca brick work in ground floor:-Cement, sand mortar:- Ratio 1:5	100 Cft.	26.00			
	7/5.(i)	Pacca brick work in ground floor:-Cement, sand mortar:- Ratio 1:4	100 Cft.	2.00			
16	9/5-9/12	Roofing. Providing and laying 9" x 4½" x 1½" (225mm x 113mm x 40 mm) brick tiles grouted with cement sand 1:3, laid over 4" (100 mm) (average) thick earth with 1" (25 mm) mud plaster without Bhoosaw, grouted with cement sand 1:3 on top of RCC roof slab, excluding cost of 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.					
		<i>First Floor</i>	<i>100 Sft.</i>	20.00			
17	26/37 (ii)	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc. <i>500 gauge</i>	<i>Sft.</i>	3,929.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
18	9/45 (c)	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M3, compressive strength 250-400 kpa, R-value 5 per inch thickness and water absorption (1% by volume, cell structure colored cell) i/c cutting and placing in position complete in all respect. <i>2" thick</i>	100 Sft.	20.00			
19	9/15	Construction of Khuras on roof 2' x 2' x 6" Flooring.	Each.	2.00			
20	10/15 (e)	Providing and laying 2" thick topping of cement concrete 1:2:4, including surface finishing and dividing in panels.	100 Sft.	7.00			
21	10/42 (a)	Providing and fixing size 1½" x 3/8" (40 x 10 mm) marble strip of any shade for dividing the mosaic flooring into panels.	Rft.	427.00			
22	11/10 (b)	Surface Rendering. Cement plaster ratio 1:3 under soffit of R.C.C. roof slabs only, upto 20' height. 3/8" (10 mm) thick.	100 Sft.	17.00			
23	11/9 (b)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ½" (13 mm) thick.	100 Sft.	29.00			
24	11/9 (c)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	19.00			
25	11/9 (c)	Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	39.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
26	12/27 (b)	Wood Work. Providing and fixing chowkat for doors , windows and C.windows, including holdfast, etc. Deodar wood	Sft.	119.00			
27	12/50	Providing and fixing 1½" thick solid core flush door shutter sterling make or equivalent with commercial ply (5 mm thick) on both sides double pressed and deodar wood lipping 1½" x ¾" around shutter including chromium plated fitting, iron hinges without aluminium kick plate 22 SWG on both sides and finger plate complete in all respect.	Sft.	307.00			
28	12/58 (b)	Providing and fixing ornamental wooden architrave 3" x (1½" tapered to ¼") all along the door frame complete in all respect. <i>Deodar wood architrave</i>	Sft.	375.00			
29	12/21	Providing and fixing, approved quality mortice lock complete in all respect.	Each.	15.00			
30	12/18 (i)	Providing and fixing Iron sliding bolt , 10" long complete in all respect.	Each.	8.00			
31	13/7 (a)	Painting & Varnishing. French polishing complete:- on new work	100 Sft.	3.00			
32	13/5 (c)	Preparing surface and painting of doors and windows any type (including edges):- 03-coats	100 Sft.	1.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
33	13/31	Preparing surface and painting with three (03) coats Emulsion paint complete in all respect.	100 Sft.	52			
34	13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (02-Coats)	100 Sft.	39.00			
35	25/51	Iron Work. Providing and fixing all types of partly fixed and partly openable glazed anodised bronze colour aluminium doors , using deluxe section, having chowkat frame of size 40 x 100 mm (1½" x 4") and leaf frame of 60x40mm (2½"x1½") wide all of aluminium section thickness 1.6mm thick including 5mm thick imported tinted sections glass with aluminium triangular gola and rubber gasket to support the glass and leaf edging, using approved standard fittings, locks, 3" (75 mm) wide long handles etc., and hardware any required as approved by the engineer in-charge	Sft.	108.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
36	25/53 (b)	Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100 mm x 30 mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size 45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminium jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush channel angle joint and hardware etc. complete in all respect. (2 mm thick)	Sft.	191.00			
MRSTotal							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
37		Demolition of Existing Structures including disposal of salvage materials upto any lift & lead, including Stacking/ Handing over re-useable material to the Employer , complete in all respects or as directed by the Engineer. (Composite Rate Building Covered Area)	Sft.	3,120.00			
38		Provide and apply 2-coats of cold applied rubberized bitumen of approved manufacture's @ 1kg/m ² /coat over 0.75kg/m ² primer coat (mixed with 6% water) respectively, over well prepared surfaces complete in all respects and /or as directed by the Engineer in charge.	Sft.	1,965.00			
39		Flooring. Providing and laying 8"x10"x1/4" thick, Ceramic Matt Tiles pre-polished (Local Origin) on floor in approved patterns over a bedding mortar of ¾" thick 1:2 cement sand mortar and jointing/filling with matching colour grout of white cement and colour pigment, complete in all respects as per the approval of the Engineer.	Sft.	414.00			
40		Providing and laying 8"x10"x1/4" thick, Ceramic Glazed Tiles pre-polished (Local Origin) Skirting/ Dado , in approved patterns laid in pigment over 1:2 cement sand mortar ¾" thick, including jointing/filling with matching colour grout of white cement and colour pigment, complete in all respects as per the approval of the Engineer.	Sft.	1,357.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
41		Providing and laying 12"x12"x¾" thick China Verona Marble of approved quality, colour, shade and texture, on floor laid over ¾" thick bedding of cement sand mortar 1:2, including grinding and chemical polishing, jointed and grouted with white cement mixed with imported matching colour pigment, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	1,243.00			
42		Providing and fixing of 12"x4"x½" Skirting China Verona Marble , set with neat cement paste over ¾" thick 1:2 cement sand base plaster, including grinding and chemical polishing, jointed and grouted with white cement mixed with pigment. complete in all respects as per the approval of the Engineer.	Sft.	109.00			
43		Providing and laying pre-polished China Verona Slab ¾" thick (single piece) of approved quality, colour, shade and texture for stair treads set over ¾" thick 1:2 cement sand mortar i/c rendering-off 2 No. non-skidding grooves (¾" wide and ¼" deep) in each steps, rounding-off front edge complete in all respect as shown in the drawings and/or as directed by the Engineer.	Sft.	37.00			
44		Providing and laying ½" thick pre polished China Verona Slab of approved quality, colour, shade and texture for stair risers laid over ¾" thick 1:2 cement sand mortar, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	19.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
45		<p>Providing and laying pre-polished China Verona Slab ¾" thick rendered with bevelled edges on counter top set over ¾" thick 1:2 cement sand mortar and exposed joints filled with matching colour grout of white cement and colour pigment. complete in all respect as shown on the drawings and/or as directed by the Engineer.</p> <p>Surface Rendering.</p> <p>Wood Work.</p> <p>Painting & Varnishing.</p>	Sft.	69.00			
46		<p>Iron Work.</p> <p><i>(Before execution of below mentioned itemized works the Contractor shall provide the shop drawings for the prior approval of the Engineer)</i></p> <p>Providing and fixing Diamond Mesh (24 SWG), with concrete nails at location of concrete interfacing masonry complete in all respect as shown on the drawings, and/ or as directed by the Engineer.</p>	Sft.	485.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
47		Providing, fabricating and fixing 16 SWG M.S. Sheet hollow pressed jamb frame (factory primed) for doors welded with M.S. flat 10"x1½"x1/8" hold fasts i/c welding/ screwing 4" long iron hinges, filling 1:4 cement sand mortar for the jamb frame and embedding hold fast in the adjoining walls with 1:2:4 concrete, enamel painting etc. complete in all respects as shown on the drawings and/ or as directed by the Engineer, in-conformance with following sizes; 10½" x 2½"	Sft.	162.00			
48		Providing, fabricating and fixing 16 SWG M.S. Sheet hollow pressed jamb frame (factory primed) for doors welded with M.S. flat size 6"x1"x1/8", hold fasts i/c welding/ screwing 4" long iron hinges, filling concrete for the jamb frame and embedding hold fast in the adjoining walls with 1:2:4 concrete, enamel painting etc. complete in all respects as shown on the drawings and/ or as directed by the Engineer, in-conformance with following sizes. 5½"x2½"	Sft.	25.73			
49		Providing, fabricating and fixing M.S Steel grill for windows neat to lines shown on the drawings, specifications and/ or as directed by the Engineer.	Kg.	522.00			
		Total Non MRS					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
50		Recovery of dismantled works					
		MATERIAL					
		Bricks	No.	45,000.00	4.00		-180,000
		Bats	cft	2,500.00	25.00		-62,500
		Steel	Ton	2.25	94,700.00		-213,075
		Wood	kg	2,500.00	20.00		-50,000
		Total Recovery of dismantled works					-505,575
		Net Total Non MRS					
		Total (MRS + Non-MRS)					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	7/30	b) upto 5 ft. (1.5 m) in ordinary soil Select Fill for specifications see the geotechnical recommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	656.90			
			Cft	656.90			
3	26/42	TERMITE CONTROL TREATMENT and floors complete in all respects as shown on the drawings/specifications and/or as directed by the Engineer. (Spraying anti -termite liquid mixed with water in the ratio of 1:40)	Sft	508.20			
4	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	41.09			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(ii)(3)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					
	6/6(a)(i)(3)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4) (a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	115.17			
			Per Cft	87.56			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
6	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- ('c) Deformed bars (Grade-60)	Tons	0.42			
7	7/4(i)	Pacca brick work in foundation and plinth in:- (Plinth protection) i) Cement, sand mortar:- Ratio 1:3	Cft	175.25			
8	6/33(b)(i)	Damp Proof Course Providing and laying damp proof course (1.5" Thick) of cement concrete 1:2: 4(using cement, sand and shingle), including					
9	6/35(b)(ii)b	bitumen coating (2 Coats of Bitumen) Providing and laying vertical damp proof course with cement sand plaster (3/4" thick with 1:3 ratio) and bitumen coating (2 Coats of Bitumen)	Sft	27.56			
			Sft	73.50			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
10	3/15 (i)	Filling, watering and ramming earth under floors:- with surplus earth from foundation, etc.					
11	3/17 (a, b,c,d)	Transportation of Earth all types when the total distance including the lead covered in the item of work, is more than 1000 ft.(300 m)	1000 Cft.	0.10			
12	3/24 (a, b-i)	Compaction of Earthwork (soft, ordinary or hard soil) :-	1000 Cft.	0.20			
13	7/30	Supplying and filling sand under floor ; or plugging in wells.	1000 Cft.	0.20			
14		Sub total: Earthwork Cement	100 Cft.	0.30			
		Concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)					
	6/5 (i)	<i>Ratio 1:4:8 (under floor.)</i>	100 Cft.	0.50			
	6/5 (f)	<i>Ratio 1:2:4 (under floor.)</i>	100 Cft.	0.10			
		Sub total: Concrete					
		Brickwork.					
15	7/5.(i)	Pacca brick work in ground floor:-:Cement, sand mortar:- Ratio 1:5 Sub total: Brickwork Roofing.	100 Cft.	2.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
16	9/5-9/12	Providing and laying 9" x 4½" x 1½" (225mm x 113mm x 40 mm) brick tiles grouted with cement sand 1:3, laid over 4" (100 mm) (average) thick earth with 1" (25 mm) mud plaster without Bhoosaw, grouted with cement sand 1:3 on top of RCC roof slab, excluding cost of 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.					
		<i>First Floor</i>	100 Sft.	1.00			
17	26/37 (ii)	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.					
		<i>500 gauge</i>	Sft.	142.00			
18	9/45 (c)	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M3, compressive strength 250-400 kpa, R-value 5 per inch thickness and water absorption (1% by volume, cell structure colored cell) i/c cutting and placing in position complete in all respect.					
		<i>2" thick</i>	100 Sft.	1.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
19	9/15	Construction of Khuras on roof 2' x 2' x 6"	Each.	1.00			
20	10/15 (e)	Sub total: Roofing Flooring.					
		Providing and laying 2" thick topping of cement concrete 1:2:4, including surface finishing and dividing in panels.					
21	10/42 (a)	Providing and fixing size 1½" x 3/8" (40 x 10 mm) marble strip of any shade for dividing the mosaic flooring into panels.	100 Sft.	1.00			
		Sub total: Flooring	Rft.	53.00			
		Surface Rendering.					
22	11/10 (b)	Cement plaster ratio 1:3 under soffit of R.C.C. roof slabs only, upto 20' height. 3/8" (10 mm) thick.	100 Sft.	1.00			
23	11/9 (b)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ½" (13 mm) thick.	100 Sft.	2.00			
24	11/9 (c)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	1.00			
25	11/9 (c)	Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	2.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
26	11/18 (a)	Cement pointing struck joints , on walls, upto 20' (6.00 m) hieght:- ratio 1:2	100 Sft.	4.00			
27	13/31	Sub total: Surface Rendering Wood Work. Painting & Varnishing. Preparing surface and painting with three (03) coats Emulsion paint complete in all respect.	100 Sft.	4.00			
28	13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (02-Coats)	100 Sft.	2.00			
29	25/53 (b)	Sub total: Painting & Varnishing Iron Work.					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
		Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100 mm x 30 mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size 45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminium jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush channel angle joint and hardware etc. complete in all respect. (2 mm thick)					
			Sft.	34.00			
MRS Total for Two Guard Room							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
30		Provide and apply 2-coats of cold applied rubberized bitumen of approved manufacture's @ 1kg/m ² /coat over 0.75kg/m ² primer coat (mixed with 6% water) respectively, over well prepared surfaces complete in all respects and /or as directed by the Engineer in charge.	Sft.	71.00			
31		Flooring. Providing and laying 12"x12"x³/₄" thick China Verona Marble of approved quality, colour, shade and texture, on floor laid over ³ / ₄ " thick bedding of cement sand mortar 1:2, including grinding and chemical polishing, jointed and grouted with white cement mixed with imported matching colour pigment, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	69.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**GUARD ROOM
BILL OF QUANTITIES**

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
32		Providing and fixing of 12"x4"x½" Skirting China Verona Marble , set with neat cement paste over ¾" thick 1:2 cement sand base plaster, including grinding and chemical polishing, jointed and grouted with white cement mixed with pigment. complete in all respects as per the approval of the Engineer.	Sft.	8.00			
33		Providing and laying pre-polished China Verona Slab ¾" thick (single piece) of approved quality, colour, shade and texture for stair treads set over ¾" thick 1:2 cement sand mortar i/c rendering-off 2 No.	Sft.	9.00			
34		Providing and laying ½" thick pre polished China Verona Slab of approved quality, colour, shade and texture for stair risers laid over ¾" thick 1:2 cement sand mortar, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	5.00			

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
35		Providing and fixing <i>Diamond Mesh (24 SWG)</i> , with concrete nails at location of concrete interfacing masonry complete in all respect as shown on the drawings, and/ or as directed by the Engineer.	Sft.	32.00			
36		Providing, fabricating and fixing <i>M.S Steel grill</i> for windows neat to lines shown on the drawings, specifications and/ or as directed by the Engineer.	Kg.	92.00			
37		Providing and fixing of 16 SWG M.S. Sheet panel door comprising of M.S frame & shutter (factory primmed) welded with 1½"x1½"x¼" M.S angle frame, i/c locking arrangement, erylsl, hinges, enamel painting etc. complete in all respects as per drawings and specifications and/or as directed by the Engineer.	Sft.	18.00			
Non MRS for Two Guard Room							
Total (MRS + Non-MRS) for Two Guard Room							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

ENTRY GATE
BILL OF QUANTITIES

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 4 ENTRY GATE

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
			in Figure		in Figure	in words	
		MRS ITEMS					
		Surface Rendering.					
1	11/9 (c)	Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	2.00			
		Painting & Varnishing.					
2	13/5 (d)	Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:- (03-Coats)	100 Sft.	2.00			
3	13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (02-Coats)	100 Sft.	2.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

ENTRY GATE
BILL OF QUANTITIES

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 4 ENTRY GATE

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
			in Figure		in Figure	in words	
4	25/9, 25/11	Iron Work. Small <i>iron work</i> , such as gusset plates, knees, bends, stirrups, straps, rings, etc. including cutting, drilling, riveting, handling, assembling and fixing; including erection in position. TOTAL FOR 01-NOS ENT GATES TOTAL FOR 03-NOS ENT GATES	100 Kg.	6.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL

PRE-ENGINEERED PARKING SHED BUTTERFLY STYLE

BILL OF QUANTITIES

B - 1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 Cost of prefabricated Steel Structre, Sahiwal

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 30'-0" x 15'-0" clear height)	Sft	960.00			
2	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x10), Rafter (Rafter web size 525 x300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 75'-0" x 15'-0" clear height)	Sft	2,400.00			
3	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x165'-0" x 15'-0" clear height)	Sft	5,280.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL

PRE-ENGINEERED PARKING SHED BUTTERFLY STYLE

BILL OF QUANTITIES

B - 1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 Cost of prefabricated Steel Structre, Sahiwal

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
4	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 450 x 4 & column flange size 175 x 8), Rafter (Rafter web size 450 x 250 x 4 & Rafter flange size 150 x 6), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (25'-0" x 168'-0" x 15'-0" clear height)	Sft	4,200.00			
5	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 350 x 4 & column flange size 150 x 6), Rafter (Rafter web size 350 x 200 x 4 & Rafter flange size 150 x 6), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (16'-0" x 96'-0" x 10'-0" clear height)	Sft	1,536.00			
	TOTAL NON-MRS ITEMS					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

PARKING SHEDS PADESTAL

BILL OF QUANTITIES

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 6 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and rammiing lead upto one chain (30 m) and lift upto 5 ft. (1.5 m) b) upto 5 ft. (1.5 m)in ordinary soil	Cft	5190.41			
2	3/41	Select Fill for specifications will be reffered by geotechnical division * (Supplying clean and screened river or pit sand within 5chains (150 m).	SFT	7497.26			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	497.76			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

PARKING SHEDS PADESTAL

BILL OF QUANTITIES

B-1.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 6 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
4	6/6(a)(ii)(2)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					
	6/6(a)(i)(2)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 3000psi (Ratio 1:1.5:3)	Per Cft	2,767.27			
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 3000psi (Ratio 1:1.5:3)	Per Cft	543.51			

BILL OF QUANTITIES

Bill No. 6 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/9('c)	<p>Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-</p> <p>('c) Deformed bars (Grade-60)</p>	Tons	10.21			
TOTAL MRS ITEMS							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL

DRAIN

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 7 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/41	Select Fill for specifications will be referred by geotechnical division * (Supplying clean and screened river or pit sand within 5chains (150 m).	Cft	9776.81			
2	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	626.72			
3	6/6(a)(ii)(2)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 3000psi	Per Cft	1337.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

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DRAIN

BILL OF QUANTITIES

B-1.1 ARCHITECTURAL AND STRUCTURAL WORKS

Bill No. 7 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
4	6/6(a)(i)(2)	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 3000psi	Per Cft	4011.00			
5	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	Tons	14.56			
6	6/28	Providing embedding 10" (250 mm) wide ¼" (6 mm) thick rubber water stopper in expansion joints of R.C.C. roof slab complete in all respect	ft	2005.50			
7	22/9	Providing and fixing Structural Steel angle section 2.5x2.5x1/4	Kg	546.28			

BILL OF QUANTITIES

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
8	25 / 32	Making and fixing grating in opening, including fixing at site with flat iron 2"x3/8" (50x10 mm) and 3/4" (19 mm) square bars, at 4" (100 mm) centre to centre.					
9	13/9(i)	Bitumen coating to plastered or cement concrete surface:- rate is multily by 2 for two coats i)20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	Sft	1910.00			
			Sft	7353.50			
Total Amount of Drain							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
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ELECTRIFICATION WORKS
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B-1.2 ELECTRIFICATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.0		<u>WIRING AND ACCESSORIES</u>					
1.1	10(a-ii)/24, 3(iii)/24, 14(i)/24, 32(ii)/24	Wiring of light or fan point from switch board/dimmer to the point with 3x1.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25 mm PVC conduit/pipe concealed in walls, columns and slabs including accessories, PVC box, 10 Amp. gang switch 1 or 2 way as required, one for each light or fan and installed as in specifications complete in all respects.	Each	58			
1.2	10(a-iii)/24, 3(iii)/24	Circuit wiring from DB MCBs to gang switches board and from switch board to another switch board with 3x2.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	16			
1.3	10(a-ii)/24, 3(iii)/24	The same as item No. 1.1(a) but from one light point to another light point.	Each	36			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.4	10(a-iv)/24, 14(ii)/24, 36(i)/24, 3(iii)/24	10/13 Amp 3 pin universal flush mounting switch socket outlet wired from DB MCBs to first outlet with 3x4 mm ² (P+N+E) single core cable stranded (away from switch board) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	7			
1.5	10(a-iii)/24, 3(iii)/24	The same as item No.1.4 but wiring from one socket outlet to another socket outlet with 3x2.5 mm ² (P+N+E) single core stranded cable in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	11			
1.6	10(a-v)/24, 3(iii)/24, 36(ii)/24, 14(ii)/24	20 Amp 3 pin universal flush mounting switch socket outlet wired from DB MCBs to independent socket outlet with 3x6 mm ² (P+N+E) single core stranded cable (away from switchboard) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	8			
		TOTAL MRS					

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	IMPORTANT NOTES (Applicable to all Electrical Items) All electrical items given below shall be read in conjunction with parts of the Specifications and electrical drawings except otherwise indicated. The Electrical Works include design, supply, transportation, installation, testing and commissioning of the following items of works as mentioned in this BOQ (unless specifically stated otherwise) including all material, labour, tools, accessories, related civil works, etc., as required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates. Bid price shall be final. No Separate payment will be made for any such material. The Contractor shall be bond to provided any such material after award of this contract for proper completion of the Electrical Installation Works.) Contractor is also advised to inform missing items (if any) in BoQ at time submitting the tender.					

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1 (A)	Supply, transportaion, storage at site, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, accessories, etc. required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates. <u>POWER CABLE</u>					
1.1 (A)	Copper conductor PVC/PVC 600/1000V cables including sockets and connections at both ends with Cu/Brass glands, lugs ets alongwith all accessories. The cable shall be drawn in cable trench or clipped on the wall or pulled in cable tray/PVC pipes or as required or as shown on drawings. (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing)					
a)	2 core 10 mm ² (For Security Guard Room)	Rft.	450			
b)	4 core 10 mm ² (For Area Lighting)	Rft.	4,500			
c)	4 core 25 mm ² From MPB to DB-Office Building	Rft.	90			
d)	4 core 50 mm ² From Transformer to MPB	Rft.	400			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1.2(A)	PVC insulated 450/750 Volt grade (Green - Yellow) unarmoured copper cable laid direct in ground, pulled in PVC pipe already laid, on surface of wall or cable trays etc. sockets and connections at both ends with Cu/Brass, glands, lugs ets alongwith all accessories all accessories as required or as shown on drawings (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) as earth continuity conductor (ECC/CPC).					
a)	1 core 10 mm ²	Rft.	4,950			
b)	1 core 16 mm ²	Rft.	90			
c)	1 core 25 mm ²	Rft.	600			
2.0	<u>LIGHT FITTINGS AND FANS</u>					
2.1	Following LED Luminaries of suitable wattage make Philips, GE, Pierlite or approved equivalent suitable for the project requirements. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements. The fitting shall be approved by the Engineer.					

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
a)	Light Fixture Type LED Batten Ceiling/Wall/surface mounted, 18W complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	13			
b)	Light Fixture Type LED Batten Wall/surface mounted, 10W above mirror in toilets complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	9			
c)	20W LED Water tight light fixture IP 65 complete in all respect with all allied accessories or approved equivalent. The fitting shall be approved by the Engineer.	Each	8			
d)	Light Fixture Type LED Ceiling/surface mounted surface mounted down lighter, 18W complete in all respect with allied accessories . The fitting shall be approved by the Engineer.	Each	32			
e)	Wall bracket Light Fixture Type LED 18W energy saving lamp with holder and complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	9			
f)	56" ceiling fan sweep (Climax, Pak, Millat) make or approved equivalent.	Each	6			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
g)	Wall bracket fan 20" sweep make (Royal, Pak, Millat or approved equivalent) capacitor type, copper winding complete with all accessories or approved equivalent. The fitting shall be approved by the Engineer.	Each	4			
h)	Exhaust fan 12" sweep make (Royal, Pak, Millat or approved equivalent) capacitor type, copper winding complete with Plastic body and all accessories etc.	Each	7			
3.0	<u>POLES & ACCESSORIES</u>					
a)	10 m high single arm conical octagonal (hot dip) galvanized steel pole with extension arm luminaire arrangement, base plate, 2 Amp. SP MCB, (RC=10KA) circuit breaker, 05 Nos. Terminal block including end caps, base connection plates & end stopper etc. as shown on drawing.	Each	9			
b)	Road Lighting Pole Foundation (Bitchmen Coating)	Each	9			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
c)	Road Lighting LED Luminaries 90 Watt make Philips, GE, or approved equivalent, fully in compliance with the specified requirements suitable for the project requirements, fully IP 66 with corrosion resistant die cast aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection and all accessories/ components required for the proper operation of the system. The luminaries shall be fully flexible for future upgrades and easy replacements for maintenance purposes. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements.	Each	9			
d)	LED Luminaries Flood lights Tango LED 30W or approved equivalent fully IP 65 with corrosion resistant die cast aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection and all accessories/ components required for the proper operation of the system.	Each	15			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
e)	PVC Junction box size 08"x06"x04" (for Flood Light connection) with frame claded 16 SWG, having high quality powder coated paint, color RAL 7032. suitable for connections with IP44 protection class, door, locking arrangement etc. and all other accessories as required for quality work.	Each	15			
f)	Junction box size 08"x06"x04" (for Flood Light connection) - 01 No. 2 Amp. SP MCB, 6 kA - 05 Nos. Terminal block alongwith all accessories etc., 3 Nos. 1 core 2.5 mm ² Cu/PVC 450/750 Voltage grade cable (stranded conductor) (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) from pole junction box to the light fixture through the hollow of pole. - 40 ft. cable is required for each pole and the unit is taken as No. Price per No.	Each	9			
g)	Locally manufactured decorative gate light with 100W LED complete in all respect with allied accessories make Philips, GE, Pierlite or approved equivalent. The fitting shall be approved by the Engineer.	Each	4			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
4.0	<u>uPVC PIPE</u>					
4.1	PVC pipe conduit with accessories suitable for laying single/multi-core cables.					
a)	50 mm dia (Class-D)	Rft.	1,400			
b)	100 mm dia (Class-B)	Rft.	1,450			
c)	100 mm dia (Class-D)	Rft.	700			
5.0	<u>DISTRIBUTION BOARDS</u>					
5.1	D.Bs with TP incoming adjustable moulded case circuit breaker and SP miniature outgoing circuit breakers, Panel box SWG 16 powder coated RAL colour 7032, IP class 44/ 54 and with all accessories. alongwith all installation and operational accessories as per specification or as shown on the drawings.					
(a)	<u>DB- Office Building</u>					
	<u>MATERIAL</u>	No.	1			
	- 01 No. 50 Amps (Adj.) MCCB TP, RC=25kA, Icu=100%Ics					
	- 08 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%Ics					
	- 07 Nos.outgoing 20A, MCB, SP, RC=10 kA, Icu=100%Ics					
	- 03 Nos. Spare 10/20A, MCB, SP, RC=10 kA, Icu=100%Ics					
	- 03 Nos. Space for 10/20A, MCB					

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	Indication lights, push buttons, digital ammeter with selector switch, digital voltmeter with selector switch, - Panel box SWG 16 powder coated RAL colour 7032, P class 44/ 54 and with all accessories.					
b)	<u>DB- Work Shop</u> MATERIAL 01 No. 25 Amps (Adj.) MCCB TP, RC=18kA, Icu=100% - 01 No. 16 Amps (Adj.) MCCB TP, RC=18kA, Icu=100%Ics - 02 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%Ics - 02 Nos.outgoing 20A, MCB, SP, RC=10 kA, Icu=100%Ics - 02 Nos. Spare 10/20A, MCB, SP, RC=10 kA, Icu=100%Ics - 03 Nos. Space for 10/20A, MCB Indication lights, push buttons, digital ammeter with selector switch, digital voltmeter with selector switch, - Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories.	No.	1			
c)	D.Bs with DP incoming MCB breaker and SP miniature circuit breakers as shown. <u>DB- Security Guard Room</u> MATERIAL - 01 No. Incoming 32 Amp MCB , DP, RC= 10 kA - 02 Nos. Outgoing 10 Amp MCB, SP, RC=10 kA - 01 No. Outgoing 20 Amp MCB, SP, RC=10 kA - 02 Nos. spare 10/20 Amp MCB, SP, RC=10 kA - 02 Nos. space 10/20 Amp MCB, SP, RC=10 kA	Each	2			

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	- Indication lights, digital voltmeter, digital ammeter, Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories.					
6.0	<u>LV SWITCHGEAR / MAIN PANEL BOARD (MPB)</u>					
6.1	LV Switchgear Panel/Main Panel Board of 14 SWG, IP class 44/54 & RAL 7032 including I/C and O/G following electrical items, foundation/base frame with all installation and operational accessories as per site requirements, as per tender specifications and drawings and as directed by the Engineer.					
(a)	MPB INCOMING	No.	1			
	- 01 No. 100 Amps TP (adj.) MCCB, RC= 25 kA, Icu=100%Ics					
	- 01 No. VSS (07 position)					
	- 01 No. 0-600 Volts AC DIGITAL Voltmeter					
	- 03 Nos. 100/5 Amps Current Transformers					
	- 01 No. ASS (R-Y-B-OFF)					
	- 01 No. 0-100 Amps AC DIGITAL Ammeter					
	- 06 Nos. RYB and ON OFF TRIP LED indication lights					
	- 14 SWG steel sheet Panel RAL 7032, IP= 44/54 and all other accessories,					
	OUTGOING					
	- 01 No. 50Amps., TP(adj.) MCCB, RC=18 kA, Icu=100%Ics (Office Building)					

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	<ul style="list-style-type: none"> - 01 No. 25Amps., TP(adj.) MCCB, RC=18 kA, Icu=100%Ics (Work Shop) - 02 Nos. 16 Amp MCCB TP, (Adj.) RC=18kA, Icu=100%Ics with 25 Amp. Magnetic Contactor including Push button (ON/OFF) & Indication lights for Area / Shed Lighting. - 02 Nos. 32Amp MCB DP, (Adj.) RC=10kA, Icu=100%Ics (Security guard Room) - 01 No. Spare 50 Amp MCCB TP, (Adj.) RC=18kA , Icu=100%Ics - 01 No. Spare 25 Amp MCCB TP, (Adj.) RC=18kA , Icu=100%Ics - 01 Nos. Spare 16 Amp MCCB TP, (Adj.) RC=18kA, Icu=100%Ics with 25 Amp. Magnetic Contactor including Push button (ON/OFF) & Indication lights for Area / Shed Lighting. - 01 No. Spare 32Amp MCB DP, (Adj.) RC=10kA, Icu=100%Ics - 02 No. MCCB 25Amps TP, space - All other accessories required for completion of the quality works including Cable gland and lugs etc. - Electrolytic copper bus bar with electrical grade PVC mountings 3 for each, nuts, bolts and washers, control MCB etc. (200 Amps. R+Y+B N, 50 Hz, 415 V, AC) including cable glands at top/bottom entry for cable) 					

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B-1.2 ELECTRIFICATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	- Contractor shall submit the genuine certificate from the manufacturer/authorized agent clear by indicating the project name make/model/rating of MCCB, MCB, magnetic contactors, terminal blocks and voltmeters/ammeter alongwith warranties.					
7.0	<u>EARTHING</u>					
7.1	Earth point comprising of 10 ft. 5/8" dia. (16 mm dia) copper coated M.S. rods driven in ground. The earthing rods shall be completed with fixing clamps etc.	No.	10			
8.0	<u>TRANSFORMER</u>					
8.1	11/0.415 kV Pole mounted Transformer complete with all accessories as per WAPDA specifications and practice including all required works for proper completion of civil/material works as per specification.					
a)	50 kVA	Job	1			
TOTAL NON-MRS						
TOTAL (MRS + NON-MRS)						

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

PARKING SHEDS AT FREED TOWN SAHIWALL

BILL OF QUANTITIES

B-1.3. SURVEILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	Supply, wiring, tagging, termination, design, installation, testing and commissioning of following system complete in all respects including all material, labor, tools, accessories etc. as per latest applicable international standards and technical specificaitons attached herewith					
1	Fixed Bullet Camera Image Sensor : 5 MPX CMOS sensor 1/2.7" Lens Type : motor-zoom, IR Range : 45 meter Enclosure : aluminium outdoor housing	No	17			
2	Poles 5m with Foundation	No.	11			
3	32CH NVR (Network Video Recorder) with Supported protocols: ONVIF, RTSP, Recording speed up to 960 fps at 3840 x 2160, Supports resolution up to 3840 x 2160, Recorded stream size: 256 Mb/s in total from all cameras, Internal HDDs mount: 8, Monitor outputs: 3 (HDMI (4K UltraHD), HDMI, VGA), Intelligent image analysis.	No.	1			
4	Hard Disk 6TB Surveillance SATA 3.5"	No.	1			
5	FHD LED Display unit 55 inch including all accessories, wall mounting brackets, software and hardware	No.	1			
6	Operator Workstation with VDU	No.	1			
7	A4 size Color Printer	No.	1			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

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B-1.3. SURVEILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
8	8-PORT PoE+ Managed Switch 8 PoE Ethernet ports of 10/100 Mbps which shall support IEEE 802.2af/at standards. PoE network port with IEEE802.3 af/at standards and shall have 2 x 1000Mbps optical fiber port SFPs	No	5			
9	8 ports SFP Slot & 1 port 10/100/1000 Gigabit Optical Fiber Switch	No.	1			
10	UTP CAT-6 4-Pair Data Cable	m	150			
11	HDPE pipe • size 40mm • outer dia 40mm • wall thickness 3.5mm • standard length: 125m/250m/1000m	m	430			
12	27 U Data Cabinet for CCR with fan, lock and glass door	No	1			
13	12U Data Cabinet with fan, lock and glass door	No.	5			
14	Hand Hole 0.9mx0.9mx0.9m	No.	9			
15	24 Core Fiber Optic Cable , Standard G652-D, • Cable type Single Mode • Cable construction Loose tube • Layer of Aramid Yarn 5mm • Wavelength 1300/1550 nm • Max attenuation 0.36 db/km Excavation duct price with all accessories shall be included	m	430			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

PARKING SHEDS AT FREED TOWN SAHIWALL

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B-1.3. SURVEILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
16	<p>24-Port ODF with coupler, pigtails and Patch cords, complete accessories. Housing Material :Steel</p> <p>Allow for any other item required for completion of system not covered in BOQ or specifications / drawings in accordance with the same standards and brands shown and approved by consultant. All such items shall be covered in this item but complete description, item rates, quantity required and brands shall be mentioned separately and to be attached with the BOQ.</p> <p>Note:</p> <p>1) The Bidder shall provide the all BoQ items as per Technical Specificationtem of Bidding Documents brands shown and approved by consultant.</p> <p>2) Contractor is advised to confirm the cable running lengths as per site conditions before commencement of work.The Payment of cable shall be paid as per Running meter.</p>	No	1			
Total Amount						

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL

BILL OF QUANTITIES

B-1.4 TRANSPORTATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1.1	Earthwork in ordinary soil for embankments, including ploughing and mixing with blade grade or disc harrow or other suitable equipment, and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- i) 95% to 100% maximum modified AASHO dry density. (Material from Borrow excavation including 8km lead & lift)	Cft	144,210			
1.2	Compaction of earthwork with power road roller, including ploughing, mixing, moistening earth to optimum moisture content in layers, etc.complete: i) 95% to 100% maximum modified AASHO dry density.	Cft	24,040			
1.3	Providing and laying subbase course of crushed stone aggregate of approved quality and grade, including placing, mixing, spreading and compaction of subbase material to required depth, camber, grade to achieve 100% maximum modified AASHO dry density, (Including carriage of all material to site of work from Sikhanwali Quarry Sargodha)	Cft	24,040			

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MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL

BILL OF QUANTITIES

B-1.4 TRANSPORTATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1.4	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-	Cft	25,240			
	(a) (ii) Reinforced cement concrete in slabod raft / strip foundation,base slab of coloum and retaining walls, etc and other structural member other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal 4000psi Concrete - Joint Reinforced Concrete Pavement (J.R.C.P)					
1.5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) Ratio 1: 4: 8	Cft	16,030			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FAREED TOWN SAHIWAL

BILL OF QUANTITIES

B-1.4 TRANSPORTATION WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1.6	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars): (c) Deformed bars (Grade-60)	TON	43.00			
1.7	Providing and laying expansion joint of neoprine strip 4"x¼" (100 mmx 6 mm) and plastic bitumen.	Rft	6,810			
	Sub Total: MRS Items (1)					
2	NON MRS ITEMS					
	Pre-Cast Concrete (Non-Mountable) Kerb	Rft	370			
	Providing and fixing Road Safety Convex Mirror (32" / 80cm) complete with frame and fixing clamps.	No	3			
	Sub Total: Non MRS Items (2)					
	Total (MRS+Non MRS Items):					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

OFFICE BUILDING SAHIWAL

BILL OF QUANTITIES

B - 1.5 PLUMBING WORKS

Sr. No.	MRS 2nd Bi- Annual 2020 Ch / Item	Description	Unit	Quantity	Rate (Rs)		Amount (Rs.)
					in Figure	in words	
I		MRS ITEMS					
A		INTERNAL PLUMBING					
		PLUMBING FIXTURES					
1	19/27	Providing and fixing chromium plated tee stop cock 15 mm (1/2").	No.	15.00			
2	19/23	Providing and fixing chromium plated pillar-cock, heavy:- 1.5 cm (1/2")	No.	2.00			
3	19/29	Providing and fixing chromium plated mixing valve, for wash hand basin, sink or shower.	No.	1.00			
4	19/1(i)	Providing and fitting glazed earthen ware water closet european type, excluding seat and cover,	No.	3.00			
5	19/11(i)	Providing and fitting glazed earthen ware made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete in all respects.	No.	3.00			
6	19/2(i)	Providing and fixing, double seat and cover only, bakelite.	No.	3.00			
7	19/3(i)	Providing and fitting glazed earthen ware water closet, squatter type (orissa pattern), combined with foot rest, white.	No.	4.00			
8	19/12(i)	Providing and fitting plastic made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete in all respects.	No.	4.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

OFFICE BUILDING SAHIWAL

BILL OF QUANTITIES

B - 1.5 PLUMBING WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Ch / Item	Description	Unit	Quantity	Rate (Rs)		Amount (Rs.)
					in Figure	in words	
9		Providing and fitting glazed earthen ware wash hand basin 56 x 40 cm (22" x 16") including bracket set, waste pipe and waste coupling, etc.					
	19/6(iii)	i) white, without pedestal	No.	7.00			
10	19/5(ii)	Providing and fixing chromium plated bottle trap with waste pipe, etc. complete:- 4 cm (1½").	No.	7.00			
11	19/15	Providing and fixing, chromium plated soap dish.	No.	5.00			
12	19/17	Providing and fixing chromium plated toilet paper holder.	No.	3.00			
13	19/7(i)	Providing and fixing 1.5 cm (1/2") dia connection, including check nuts, etc; plastic rubber connection.	No.	15.00			
B		EXTERNAL PLUMBING					
14	3/44	Excavation of trenches in all kinds of soil except cutting rock for water supply pipelines upto 5 ft depth from ground level including trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints complete in all respects.	1000Cft	0.74			
15	7/30	Supplying & filling sand under floor; or plugging in wells.	100Cft	0.82			
		SEWERAGE AND DRAINAGE					
16	19/35	Providing and fitting, 4" gully trap including cement concrete ,cost of PVC grating (6" x 6") and masonry chamber (12" x 12").	No.	4.00			
17		Earthwork excavation in open cutting for sewers and manholes as shown in drawings including shuttering and timbering, dressing to correct section and dimensions according to templates and levels and removing surface water in all types of soil except shingle gravel and rock upto:					
	3/42 (i)	i) 0 to 7 ft	1000 Cf	1.62			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

OFFICE BUILDING SAHIWAL

BILL OF QUANTITIES

B - 1.5 PLUMBING WORKS

Sr. No.	MRS 2nd Bi- Annual 2020 Ch / Item	Description	Unit	Quantity	Rate (Rs)		Amount (Rs.)
					in Figure	in words	
18	3/13a	Rehandling of earthwork, lead upto a single throw of kassi, phaorah or shovel.	1000Cft	1.30			
19	3/24 (a)	Mixing moistening earth to optimum moisture content in layers for compaction etc., complete.	1000Cft	1.30			
20	3/24 (b) (ii)	Compaction of earthwork by rolling with animal driven roller/hand rammed for ordinary soil.	1000Cft	1.30			
21	7/30	Supplying & filling sand under floor; or plugging in walls.	100Cft	2.36			
22	21/17	Providing and fixing, 6" (150 mm) thick R.C.C. manhole cover with 3"x3"x¼" (75x75x6mm) angle iron frame, 22" (550 mm) i/d as per standard drawing STD/PD No. 7 of 1977, complete in all respects.	Set	3.00			
		Sub total: MRS ITEMS					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

OFFICE BUILDING SAHIWAL

BILL OF QUANTITIES

B - 1.5 PLUMBING WORKS

Sr. No.	MRS 2nd Bi- Annual 2020 Ch / Item	Description	Unit	Quantity	Rate (Rs)		Amount (Rs.)
					in Figure	in words	
II		NON MRS ITEMS					
A		INTERNAL PLUMBING					
		WATER SUPPLY					
23		Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes of approved quality, for cold water as per DIN 8077-8078, PN-20 for pipes and DIN 16962, PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials					
		i) 25 mm O.D	Rft	141.00			
		ii) 32 mm O.D	Rft	40.00			
		iii) 40 mm O.D	Rft	39.00			
24		Providing and installing Brass Ball/ Handle valves of approved quality of following nominal dia, including jointing, fitting, painting, testing, complete in all respects to match with PPR/uPVC pipes of following diameters.					
		i) 63 mm O.D	No.	1.00			
		ii) 50 mm O.D	No.	2.00			
		iii) 40 mm O.D	No.	1.00			
		iv) 25 mm O.D	No.	1.00			
25		Supply and installation of Instant Gas geysers of following capacity , including ball valves on inlet and outlet connections complete in all respects.					
		i) 10 L/Min	No.	1.00			
26		Providing and fixing Muslim Shower with double bib cock complete in all respects.	No.	7.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

**OFFICE BUILDING SAHIWAL
BILL OF QUANTITIES**

B - 1.5 PLUMBING WORKS

Sr. No.	MRS 2nd Bi- Annual 2020 Ch / Item	Description	Unit	Quantity	Rate (Rs)		Amount (Rs.)
					in Figure	in words	
27		SEWERAGE AND DRAINAGE Providing, fixing, cutting, jointing and testing uPVC drainage pipes of approved quality, including uPVC drainage fittings with solvent cement jointing "Type B" or approved equal, rates include cost of clamping to walls and ceiling, hangers, supports, complete in all respect					
		i) 2" i/d	Rft	39.00			
		ii) 3" i/d	Rft	193.00			
		iii) 4" i/d	Rft	111.00			
28		Providing and fixing uPVC Floor Trap of approved quality including PVC grating and cover & P Trap.	No.	11.00			
29		Providing and fixing Vent cowel make of approved quality.	No.	4.00			
30		Providing and fixing angle drain for 3" or 4" dia	No.	2.00			
31		Providing and fixing looking glass of approved make, 5mm thick complete with frame and fixing clamps.	Sft.	41.30			
B		EXTERNAL PLUMBING NON MRS ITEMS WATER SUPPLY					
32		Providing, fixing, jointing and testing Polyethylene Pipes (PE 100) of class PN 10 of approved manufacturer for cold water including fittings and specials complete in all respects.					
		i) 63 mm	Rft	30.00			
		ii) 50 mm	Rft	120.00			
		v) 40 mm	Rft	75.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

OFFICE BUILDING SAHIWAL

BILL OF QUANTITIES

B - 1.5 PLUMBING WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Ch / Item	Description	Unit	Quantity	Rate (Rs)		Amount (Rs.)
					in Figure	in words	
33		Providing and fixing Water Tank of (Tuff/Dura) or equivalent Fiber Double ply having 500 gallons capacity (Vertical), complete in all respect.	No.	1.00			
		SEWERAGE AND DRAINAGE					
34		Supplying, laying, jointing, testing of non-pressure uPVC pipes (SN-08, SDR 34) conforming to EN:1401, including uPVC pipes fittings and accessories complete in all respects as per drawings and specifications as per approved manufacturer.					
		i) 6" i/d	Rft	143.00			
35		Providing and fixing uPVC P-Trap of approved quality.	No.	4.00			
36		Construction of square masonry manhole 2.5 x 2.5 ft, including cover and frame.					
		i) upto 5 ft depth	No.	4.00			
37		Providing and fixing malleable cast iron step (10" Approx. Weight 7.5kg) in manhole chambers, including carriage and setting the same in work, to correct lines and levels as per drawing and specifications.	No.	14.00			
38		Supplying and fixing 2" dia G.I air vent on roof of Septic Tank.	No.	3.00			
		Sub total: NON MRS ITEMS					
		SUB TOTAL (MRS+Non MRS)					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**OFFICE BUILDING
BILL OF QUANTITIES**

B - 1.5 PLUMBING WORKS FOR BUILDING AND WATER SUPPLY SYSTEM FOR PARKING SHED

Bill No. 2 WATER SUPPLY SYSTEM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	4/45	Dismantling and removing road metalling. (Provisional Quantity)	100Cft	0.47			
2	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead 30 metre). (Base, Sub Base, soling and tuff Paver etc.) (Provisional Quantity)	100Cft	2.26			
3	4/19	c) Dismantling cement concrete 1:2:4 plain. (Provisional Quantity)	100Cft	0.20			
4	3/44	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines upto 5 ft. (1.5 m) depth from ground level, including trimming, dressing sides, levelling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000Cft	2.80			

OFFICE BUILDING BILL OF QUANTITIES

Bill No. 2 WATER SUPPLY SYSTEM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	3/13	Rehandling of earthwork: a) Lead upto a single throw of Kassi, phaorah or shovel.	1000Cft	2.78			
6	3/24	Compaction of earthwork (soft, ordinary or hard soil) : (Backfilling) a) Mixing, moistening earth to optimum moisture content in layers for compaction, etc. complete. c) Ramming earthwork (all types of soil). (Backfilling and sand in bedding)	1000Cft	2.78			
			1000Cft	3.18			
7	7/30	Supplying and filling sand under floor; or plugging in wells (in bedding) (Around pipes along road cuts Provisional Quantity)	100Cft	4.08			
Total Amount (MRS Items)							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT FREED TOWN SAHIWAL

**OFFICE BUILDING
BILL OF QUANTITIES**

B - 1.5 PLUMBING WORKS FOR BUILDING AND WATER SUPPLY SYSTEM FOR PARKING SHED

Bill No. 2 WATER SUPPLY SYSTEM

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1	Providing, transportation, laying, cutting, butt fusion jointing, testing, commissioning & disinfecting the High Density Polyethylene Pipe (HDPE) PE-100, (PN-10) SDR 17 conforming to ISO 4427 or DN8074/8075 or equivalent to the satisfaction of Engineer. The pipe shall be from reputable manufacturer approved by the Engineer.) 63 mm o/d	Rft.	462			
Total Amount (NON MRS Items)						
Total (MRS + Non-MRS)						

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD SIALKOT

**BILL OF QUANTITIES
SUMMARY**

Bill No.	Description	Amount (Rs.)
B-2.1 ARCHITECTUAL AND STRUCTURAL WORKS		
1	BRICK MASONARY BOUNDRY WALL (Scheduled Items)	
2	OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)	
3	GUARD ROOM	
4	ENTRY GATE (Scheduled Items)	
5	PREFABRICATED STEEL STUCTURES (Non-Scheduled Items)	
6	PARKING SHEDS PEDESTAL (Scheduled Items)	
7	DRAIN (Scheduled Items)	

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD SIALKOT

**BILL OF QUANTITIES
SUMMARY**

Bill No.	Description	Amount (Rs.)
	B-2.2 ELECTRIFICATION WORKS	
	B-2.3 SURVEILLIANCE SYSTEM	
	B-2.4 TRANSPORTATION WORKS	
	B-2.5 PLUMBING AND DRAINAGE WORKS	
1	PLUMBING WORKS FOR BUILDING	
2	WATER SUPPLY SYSTEM FOR PARKING SHED	
TOTAL COST (2)		

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
BRICK MASONRY BOUNDARY WALL
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 BRICK MASONRY BOUNDARY WALL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	7/30	b) upto 5 ft. (1.5 m) in ordinary soil Select Fill for specifications see the geotechnical recommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	48,157.20			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Per Cft	24,078.60			
4	6/6(a)(i)(3)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi with ratio(1:2:4)	Cft	1,852.20			
			Per Cft	657.62			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
BRICK MASONRY BOUNDARY WALL
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 BRICK MASONRY BOUNDARY WALL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(ii)(3)	(a) (ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi with ratio(1:2:4)	Per Cft	1,125.21			
6	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-					
7	7/4(i)	('c) Deformed bars (Grade-60) Pacca brick work in foundation and plinth in:- (Plinth protection) i) Cement, sand mortar:-	Tons	4.20			
8	7/5(i)	Ratio 1:3 Pacca brick work in ground floor:-i) Cement, sand mortar:-	Cft	8,566.45			
9	11/8 C	Ratio 1:3 Cement plaster 1:3 upto 20' (6.00 m) heightc) ¾" (20 mm) thick	Cft	5,554.60			
10	11/16 B	Cement pointing flush upto 20' (6.00 m) height b) ratio 1:3	Sft	7,408.80			
			Sft	9,882.90			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
BRICK MASONARY BOUNDARY WALL
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 BRICK MASONARY BOUNDARY WALL

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
11	25/50	Providing and fixing barbed wire fencing on compound wall, consisting of 1½"x1½"x3/16" (40x40x5mm) angle iron post 3' (900 mm) long, 4' (1200 mm) apart embedded in cement concrete 1:4:8 base of size 6"x6"x9" (150x150x225 mm) and 4 rows of barbed wire, including binding wire, painting posts, etc. complete in all respects.	RFT	1,176.00			
Total Amount							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and rammiing lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	7/30	b) upto 5 ft. (1.5 m)in ordinary soil Select Fill for specifications see the geotechnical rcommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	19,679.03			
			Cft	9,839.52			
3	26/42	TERMITE CONTROL TREATMENT Termite control treatment around/under foundations and floors complete in all respects as shown on the drawings/specifications and/or as directed by the Engineer. (Spraying anti -termi te liquid mixed with water in the ratio of 1:40)					
4	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	SFT	12,138.39			
			Cft	488.74			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5		Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					
5A	6/6(a)(ii)(3)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	1,217.57			
5B	6/6(a)(i)(3)	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	1,355.57			
6	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	Tons	6.13			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
7	7/4(i)	Pacca brick work in foundation and plinth in:- (Plinth protection)					
8	6/33(b)(i)	i) Cement, sand mortar:- Ratio 1:3 Damp Proof Course Providing and laying damp proof course (1.5" Thick) of cement concrete	Cft	2,758.68			
	6/35(b)(ii)b	1:2: 4(using cement, sand and shingle), including bitumen coating (2 Coats of Bitumen) Providing and laying vertical damp proof course with cement sand plaster (3/4" thick with 1:3 ratio) and bitumen coating (2 Coats of Bitumen)	Sft	196.28			
10	3/15 (i)	Filling, watering and ramming earth under floors:- with surplus earth from foundation, etc.	Sft	523.43			
			1000 Cft.	3.00			
11	3/17 (a, b,c,d)	Transportation of Earth all types when the total distance including the lead covered in the item of work, is more than 1000 ft.(300 m)	1000 Cft.	4.00			
12	3/24 (a, b-i)	Compaction of Earthwork (soft, ordinary or hard soil) :-	1000 Cft.	4.00			
13	7/30	Supplying and filling sand under floor ; or plugging in wells.	100 Cft.	9.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
14	6/5 (i)	Cement Concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)					
		<i>Ratio 1:4:8 (under floor.)</i>	100 Cft.	8.00			
	6/5 (f)	<i>Ratio 1:2:4 (under floor.)</i>	100 Cft.	2.00			
		Sub total: Concrete					
15	7/5.(i)	Pacca brick work in ground floor:-:Cement, sand mortar:- Ratio 1:5	100 Cft.	25.00			
16	7/5.(i)	Pacca brick work in ground floor:-:Cement, sand mortar:- Ratio 1:4	100 Cft.	2.00			
17	9/5-9/12	Providing and laying 9" x 4½" x 1½" (225mm x 113mm x 40 mm) brick tiles grouted with cement sand 1:3, laid over 4"(100 mm) (average) thick earth with 1" (25 mm) mud plaster without Bhoosaw, grouted with cement sand 1:3 on top of RCC roof slab, excluding c ost of 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.					
		<i>First Floor</i>	100 Sft.	20.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 2 OFFICE BUILDING (STAFF OFFICE, DRIVER ROOM & TOILETS)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
18	26/37 (ii)	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc. <i>500 gauge</i>	Sft.	3,906.00			
19	9/45 (c)	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M3, compressive strength 250-400 kpa, R-value 5 per inch thickness and water absorption (1% by volume, cell structure colored cell) i/c cutting and placing in position complete in all respect. <i>2" thick</i>	100 Sft.	20.00			
20	9/15	Construction of Khuras on roof 2' x 2' x 6"	Each.	2.00			
21	10/15 (e)	Providing and laying 2" thick topping of cement concrete 1:2:4, including surface finishing and dividing in panels.	100 Sft.	7.00			
22	10/42 (a)	Providing and fixing size 1½" x 3/8" (40 x 10 mm) marble strip of any shade for dividing the mosaic flooring into panels.	Rft.	450.00			
23	11/10 (b)	Cement plaster ratio 1:3 under soffit of R.C.C. roof slabs only, upto 20' height. 3/8" (10 mm) thick.	100 Sft.	18.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
24	11/9 (b)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ½" (13 mm) thick.	100 Sft.	38.00			
25	11/9 (c)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	25.00			
26	11/9 (c)	Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	41.00			
27	12/27 (b)	Providing and fixing chowkat for doors , windows and C.windows, including holdfast, etc. Deodar wood	Sft.	119.00			
28	12/50	Providing and fixing 1½" thick solid core flush door shutter sterling make or equivalent with commercial ply (5 mm thick) on both sides double pressed and deodar wood lipping 1½" x ¾" around shutter including chromium plated fitting, iron hinges without aluminium kick plate 22 SWG on both sides and finger plate complete in all respect.	Sft.	329.00			
29	12/58 (b)	Providing and fixing ornamental wooden architrave 3" x (1½" tapered to ¼") all along the door frame complete in all respect. <i>Deodar wood architrave</i>	Sft.	419.00			
30	12/21	Providing and fixing, approved quality mortice lock complete in all respect.	Each.	16.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
31	12/18 (i)	Providing and fixing Iron sliding bolt , 10" long complete in all respect.	Each.	9.00			
32	13/7 (a)	French polishing complete:- on new work	100 Sft.	3.00			
33	13/5 (c)	Preparing surface and painting of doors and windows any type (including edges):- 03-coats	100 Sft.	1.00			
34	13/31	Preparing surface and painting with three (03) coats Emulsion paint complete in all respect.	100 Sft.	66.00			
35	13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (02-Coats)	100 Sft.	41.00			
36	25/51	Providing and fixing all types of partly fixed and partly openable glazed anodised bronze colour aluminium doors , using deluxe section, having chowkat frame of size 40 x 100 mm (1½" x 4") and leaf frame of 60x40mm (2½"x1½") wide all of aluminium section thickness 1.6mm thick including 5mm thick imported tinted sections glass with aluminium triangular gola and rubber gasket to support the glass and leaf edging, using approved standard fittings, locks, 3" (75 mm) wide long handles etc., and hardware any required as approved by the engineer in-charge	Sft.	108.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
37	25/53 (b)	Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100 mm x 30 mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size 45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminium jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush channel angle joint and hardware etc. complete in all respect. (2 mm thick)	Sft.	216.00			
		Total MRS					

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
38		Demolition of Existing Structures including disposal of salvage materials upto any lift & lead, including Stacking/ Handling over re-useable material to the Employer , complete in all respects or as directed by the Engineer. (Composite Rate Building Covered Area)	Sft.	1,033.00			
39		Demolition of Existing Structures including disposal of salvage materials upto any lift & lead, including stacking/ handling over re-useable material to the employer, complete in all respects or as directed by the Engineer. (Plat form Area)	Sft.	1,195.00			
40		Provide and apply 2-coats of cold applied rubberized bitumen of approved manufacture's @ 1kg/m ² /coat over 0.75kg/m ² primer coat (mixed with 6% water) respectively, over well prepared surfaces complete in all respects and /or as directed by the Engineer in charge.	Sft.	1,953.00			
41		Providing and laying 8"x10"x1/4" thick, Ceramic Matt Tiles pre-polished (Local Origin) on floor in approved patterns over a bedding mortar of ¾" thick 1:2 cement sand mortar and jointing/filling with matching colour grout of white cement and colour pigment, complete in all respects as per the approval of the Engineer.	Sft.	450.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
42		Providing and laying 8"x10"x1/4" thick, Ceramic Glazed Tiles pre-polished (Local Origin) Skirting/ Dado , in approved patterns laid in pigment over 1:2 cement sand mortar 3/4" thick, including jointing/filling with matching colour grout of white cement and colour pigment, complete in all respects as per the approval of the Engineer.	Sft.	1,502.00			
43		Providing and laying 12"x12"x3/4" thick China Verona Marble of approved quality, colour, shade and texture, on floor laid over 3/4" thick bedding of cement sand mortar 1:2, including grinding and chemical polishing, jointed and grouted with white cement mixed with imported matching colour pigment, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	1,360.00			
44		Providing and fixing of 12"x4"x1/2" Skirting China Verona Marble , set with neat cement paste over 3/4" thick 1:2 cement sand base plaster, including grinding and chemical polishing, jointed and grouted with white cement mixed with pigment. complete in all respects as per the approval of the Engineer.	Sft.	117.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
45		Providing and laying pre-polished China Verona Slab $\frac{3}{4}$ " thick (single piece) of approved quality, colour, shade and texture for stair treads set over $\frac{3}{4}$ " thick 1:2 cement sand mortar i/c rendering-off 2 No. non-skidding grooves ($\frac{3}{4}$ " wide and $\frac{1}{4}$ " deep) in each steps, rounding-off front edge complete in all respect as shown in the drawings and/or as directed by the Engineer.	Sft.	37.00			
46		Providing and laying $\frac{1}{2}$ " thick pre polished China Verona Slab of approved quality, colour, shade and texture for stair risers laid over $\frac{3}{4}$ " thick 1:2 cement sand mortar, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	19.00			
47		Providing and laying pre-polished China Verona Slab $\frac{3}{4}$ " thick rendered with bevelled edges on counter top set over $\frac{3}{4}$ " thick 1:2 cement sand mortar and exposed joints filled with matching colour grout of white cement and colour pigment. complete in all respect as shown on the drawings and/or as directed by the Engineer. (Before execution of below mentioned itemized works the Contractor shall provide the shop drawings for the prior approval of the Engineer)	Sft.	69.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
48		Providing and fixing Diamond Mesh (24 SWG) , with concrete nails at location of concrete interfacing masonry complete in all respect as shown on the drawings, and/ or as directed by the Engineer.	Sft.	627.00			
49		Providing, fabricating and fixing 16 SWG M.S. Sheet hollow pressed jamb frame (factory primed) for doors welded with M.S. flat 10"x1½"x1/8" hold fasts i/c welding/ screwing 4" long iron hinges, filling 1:4 cement sand mortar for the jamb frame and embedding hold fast in the adjoining walls with 1:2:4 concrete, enamel painting etc. complete in all respects as shown on the drawings and/ or as directed by the Engineer, in-conformance with following sizes: 10½" x 2½"	Sft.	165.00			
50		Providing, fabricating and fixing 16 SWG M.S. Sheet hollow pressed jamb frame (factory primed) for doors welded with M.S. flat size 6"x1"x1/8", hold fasts i/c welding/ screwing 4" long iron hinges, filling concrete for the jamb frame and embedding hold fast in the adjoining walls with 1:2:4 concrete, enamel painting etc. complete in all respects as shown on the drawings and/ or as directed by the Engineer, in-conformance with following sizes. 5½"x2½"	Sft.	44.10			
51		Providing, fabricating and fixing M.S Steel grill for windows neat to lines shown on the drawings, specifications and/ or as directed by the Engineer.	Kg.	590.00			
		Total Non MRS					

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
52		Recovery of dismantalled works					
		MATERIAL					
		Bricks	No.	12,000.00	4.00		-48,000
		Bats	cft	750.00	25.00		-18,750
		Steel	Ton	0.75	94,700.00		-71,025
		Wood	kg	7,500.00	10.00		-75,000
		Total Recovery of dismantalled works					-212,775
		Net Total Non MRS					
		Total (MRS + Non-MRS)					

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B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM (02 Nos)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and rammiing lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	7/30	b) upto 5 ft. (1.5 m)in ordinary soil Select Fill for specifications see the geotechnical rcommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	656.91			
3	26/42	TERMITE CONTROL TREATMENT Termite control treatment around/under foundations and floors complete in all respects as shown on the drawings/specifications and/or as directed by the Engineer. (Spraying anti -termi te liquid mixed with water in the ratio of 1:40)	SFT	508.20			
4	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	41.10			
5	6/6(a)(ii)(3)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
6	6/6(a)(i)(3)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	115.17			
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	87.56			
7	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	Tons	0.43			
8	7/4(i)	Pacca brick work in foundation and plinth in:- (Plinth protection) i) Cement, sand mortar:- Ratio 1:3	Cft	175.26			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
9	6/33(b)(i)	Damp Proof Course Providing and laying damp proof course (1.5" Thick) of cement concrete 1:2: 4(using cement, sand and shingle), including bitumen coating (2 Coats of Bitumen)	Sft	27.56			
10	6/35(b)(ii)b	Providing and laying vertical damp proof course with cement sand plaster (3/4" thick with 1:3 ratio) and bitumen coating (2 Coats of Bitumen)	Sft	36.75			
11	3/15 (i)	Filling, watering and ramming earth under floors:- with surplus earth from foundation, etc.	1000 Cft.	0.10			
12	3/17 (a, b,c,d)	Transportation of Earth all types when the total distance including the lead covered in the item of work, is more than 1000 ft.(300 m)	1000 Cft.	0.20			
13	3/24 (a, b-i)	Compaction of Earthwork (soft, ordinary or hard soil) :-	1000 Cft.	0.20			
14	7/30	Supplying and filling sand under floor ; or plugging in wells.	100 Cft.	0.30			
15	6/5 (i)	Concrete. Cement Concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate) <i>Ratio 1:4:8 (under floor.)</i>	100 Cft.	0.50			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
	6/5 (f)	<i>Ratio 1:2:4 (under floor.)</i>	100 Cft.	0.10			
		Brickwork.					
16	7/5.(i)	Pacca brick work in ground floor:-:Cement, sand mortar:- Ratio 1:5	100 Cft.	2.00			
17	9/5-9/12	Roofing. Providing and laying 9" x 4½" x 1½" (225mm x 113mm x 40 mm) brick tiles grouted with cement sand 1:3, laid over 4"(100 mm) (average) thick earth with 1" (25 mm) mud plaster without Bhoosaw, grouted with cement sand 1:3 on top of RCC roof slab, excluding cost of 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded .					
		<i>First Floor</i>	100 Sft.	1.00			
18	26/37 (ii)	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.					
		<i>500 gauge</i>	Sft.	142.00			

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					in Figure	in words	
19	9/45 (c)	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M3, compressive strength 250-400 kpa, R-value 5 per inch thickness and water absorption (1% by volume, cell structure colored cell) i/c cutting and placing in position complete in all respect. <i>2" thick</i>	100 Sft.	1.00			
20	9/15	Construction of Khuras on roof 2' x 2' x 6"	Each.	1.00			
21	10/15 (e)	Flooring. Providing and laying 2" thick topping of cement concrete 1:2:4, including surface finishing and dividing in panels.	100 Sft.	1.00			
22	10/42 (a)	Providing and fixing size 1½" x 3/8" (40 x 10 mm) marble strip of any shade for dividing the mosaic flooring into panels.	Rft.	53.00			
23	11/10 (b)	Surface Rendering. Cement plaster ratio 1:3 under soffit of R.C.C. roof slabs only, upto 20' height. 3/8" (10 mm) thick.	100 Sft.	1.00			
24	11/9 (b)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ½" (13 mm) thick.	100 Sft.	2.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
25	11/9 (c)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	1.00			
26	11/9 (c)	Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	2.00			
27	13/18 (a)	Cement pointing struck joints , on walls, upto 20' (6.00 m) height:- ratio 1:2	100 Sft.	4.00			
28	13/31	Wood Work. Painting & Varnishing. Preparing surface and painting with three (03) coats Emulsion paint complete in all respect.	100 Sft.	4.00			
29	13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (02-Coats)	100 Sft.	2.00			

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
30	25/53 (b)	Iron Work. Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100 mm x 30 mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size 45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminium jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush channel angle joint and hardware etc. complete in all respect. (2 mm thick)	Sft.	34.00			
		TOTAL MRS ITEMS FOR 01					
		TOTAL MRS ITEMS FOR 02					

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Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
II		NON MRS ITEMS					
31		Roofing. Provide and apply 2-coats of cold applied rubberized bitumen of approved manufacture's @ 1kg/m ² /coat over 0.75kg/m ² primer coat (mixed with 6% water) respectively, over well prepared surfaces complete in all respects and /or as directed by the Engineer in charge.	Sft.	71.00			
32		Flooring. Providing and laying 12"x12"x¾" thick China Verona Marble of approved quality, colour, shade and texture, on floor laid over ¾" thick bedding of cement sand mortar 1:2, including grinding and chemical polishing, jointed and grouted with white cement mixed with imported matching colour pigment, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	69.00			
33		Providing and fixing of 12"x4"x½" Skirting China Verona Marble , set with neat cement paste over ¾" thick 1:2 cement sand base plaster, including grinding and chemical polishing, jointed and grouted with white cement mixed with pigment. complete in all respects as per the approval of the Engineer.	Sft.	8.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM (02 Nos)

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
34		Providing and laying pre-polished China Verona Slab ¾" thick (single piece) of approved quality, colour, shade and texture for stair treads set over ¾" thick 1:2 cement sand mortar i/c rendering-off 2 No. non-skidding grooves (¾" wide and ¼" deep) in each steps, rounding-off front edge complete in all respect as shown in the drawings and/or as directed by the Engineer.	Sft.	9.00			
35		Providing and laying ½" thick pre polished China Verona Slab of approved quality, colour, shade and texture for stair risers laid over ¾" thick 1:2 cement sand mortar, complete in all respect as shown on the drawings and/or as directed by the Engineer. Iron Work. <i>(Before execution of below mentioned itemized works the Contractor shall provide the shop drawings for the prior approval of the Engineer)</i>	Sft.	5.00			
36		Providing and fixing Diamond Mesh (24 SWG) , with concrete nails at location of concrete interfacing masonry complete in all respect as shown on the drawings, and/ or as directed by the Engineer.	Sft.	32.00			
37		Providing, fabricating and fixing M.S Steel grill for windows neat to lines shown on the drawings, specifications and/ or as directed by the Engineer.	Kg.	92.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 GUARD ROOM (02 Nos)

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
38		Providing and fixing of 16 SWG M.S. Sheet panel door comprising of M.S frame & shutter (factory primmed) welded with 1½"x1½"x¼" M.S angle frame, i/c locking arrangement, eryls, hinges, enamel painting etc. complete in all respects as per drawings and specifications and/or as directed by the Engineer.	Sft.	18.00			
		TOTAL NON-MRS ITEMS FOR 01					
		TOTAL NON-MRS ITEMS FOR 02					
		TOTAL (MRS + Non-MRS) FOR 02					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 4 Entry Gate

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
I		MRS ITEMS					
		Surface Rendering.					
1	11/9 (c)	Cement plaster 1:4 on external walls upto	100 Sft.	2.00			
		Painting & Varnishing.					
2	13/5 (d)	Preparing surface and painting guard bars,	100 Sft.	2.00			
3	13/32A	Providing and applying weather shield paint	100 Sft.	2.00			
		Iron Work.					
4	25/9, 25/11	Small iron work , such as gusset plates,	100 Kg.	6.00			
		TOTAL FOR 01-NOS ENT GATES					
		TOTAL FOR 02-NOS ENT GATES					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
PRE-ENGINEERED PARKING SHED BUTTERFLY STYLE
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 Cost of prefabricated Steel Structure

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 105'-0" x 15'-0" clear height)	Sft	3,360.00			
2	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 240'-0" x 15'-0" clear height)	Sft	7,680.00			
3	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 165'-0" x 15'-0")	Sft	5,280.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
PRE-ENGINEERED PARKING SHED BUTTERFLY STYLE
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 Cost of prefabricated Steel Structure

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
4	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 500 x 4 & column flange size 175 x 8), Rafter (Rafter web size 450 x 250 x 4 & Rafter flange size 150 x 6), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (25'-0" x 165'-0" x 15'-0")	Sft	4,125.00			
5	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 30'-0" x 15'-0" clear height)	Sft	960.00			
6	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 350 x 4 & column flange size 150 x 6), Rafter (Rafter web size 350 x 200 x 4 & Rafter flange size 150 x 6), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (16'-0" x 96'-0" x 10'-0" clear height)	Sft	1,536.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
PRE-ENGINEERED PARKING SHED BUTTERFLY STYLE
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 Cost of prefabricated Steel Structre

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
7	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 350 x 4 & column flange size 150 x 6), Rafter (Rafter web size 350 x 200 x 4 & Rafter flange size 150 x 6), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (16'-0" x 56'-0" x 10'-0")	Sft	896.00			
	TOTAL NON-MRS ITEMS					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAKPURA CAPITAL ROAD, SIALKOT
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS
Bill No. 6 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1		Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	3/21(b)	b) upto 5 ft. (1.5 m) in ordinary soil	Cft	30,958.20			
	3/41	Select Fill for specifications see the geotechnical recommendations * (Supplying clean and screened river or pit sand within 5 chains (150 m)).	Cft	14905.8			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	1,020.34			
4		Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAKPURA CAPITAL ROAD, SIALKOT
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS
Bill No. 6 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(ii)(3)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	4,504.50			
	6/6(a)(i)(3)	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	972.56			
	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	Tons	17.28			
Total Amount							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAKPURA CAPITAL ROAD, SIALKOT
DRAIN
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 7 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
		b) upto 5 ft. (1.5 m) in ordinary soil	Cft	9,766.58			
2	7/30	Select Fill for specifications see the geotechnical recommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	6,511.05			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):					
		(i) 1500 psi Ratio (1:3:6)	Cft	417.38			
4	6/6(a)(ii)(2)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					
		(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-					
		3000psi	Per Cft	890.40			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAKPURA CAPITAL ROAD, SIALKOT
DRAIN
BILL OF QUANTITIES

B - 2.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 7 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-					
	6/6(a)(i)(2)	3000psi	Per Cft	2,671.20			
6	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-					
		('c) Deformed bars (Grade-60)	Tons	9.70			
7	22/9 6/28	Providing and fixing structural steel Providing embedding 10" (250 mm) wide ¼" (6 mm) thick rubber water stopper in expansion joints of R.C.C. roof slab complete in all respect	Kg	363.80			
			ft	1,332.60			
8	13/9(i)	Bitumen coating to plastered or cement concrete surface:- rate is multiply by 2 for two coats i)20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	Sft	4,894.30			
Total Amount of Drain							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS

MRS ITEMS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.0		<u>WIRING AND ACCESSORIES</u>					
1.1	10(a-ii)/24, 3(iii)/24, 14(i)/24, 32(ii)/24	Wiring of light or fan point from switch board/dimmer to the point with 3x1.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25 mm PVC conduit/pipe concealed in walls, columns and slabs including accessories, PVC box, 10 Amp. gang switch 1 or 2 way as required, one for each light or fan and installed as in specifications complete in all respects.	Each	60			
1.2	10(a-iii)/24, 3(iii)/24	Circuit wiring from DB MCBs to gang switches board and from switch board to another switch board with 3x2.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	12			
1.3	10(a-ii)/24, 3(iii)/24	The same as item No. 1.1(a) but from one light point to another light point.	Each	42			
1.4	10(a-iv)/24, 14(ii)/24, 36(i)/24, 3(iii)/24	10/13 Amp 3 pin universal flush mounting switch socket outlet wired from DB MCBs to first outlet with 3x4 mm ² (P+N+E) single core cable stranded (away from switch board) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	7			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS

MRS ITEMS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.5	10(a-iii)/24, 3(iii)/24	The same as item No.1.4 but wiring from one socket outlet to another socket outlet with 3x2.5 mm ² (P+N+E) single core stranded cable in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	11			
1.6	10(a-v)/24, 3(iii)/24, 36(ii)/24, 14(ii)/24	20 Amp 3 pin universal flush mounting switch socket outlet wired from DB MCBs to independent socket outlet with 3x6 mm ² (P+N+E) single core stranded cable (away from switchboard) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	8			
TOTAL FOR MRS ITEMS							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	<p>All electrical items given below shall be read in conjunction with parts of the Specifications and electrical drawings except otherwise indicated.</p> <p>The Electrical Works include design, supply, transportation, installation, testing and commissioning of the following items of works as mentioned in this BOQ (unless specifically stated otherwise) including all material, labour, tools, accessories, related civil works, etc., as required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates. Bid price shall be final. No Separate payment will be made for any such material. The Contractor shall be bond to provided any such material after award of this contract for proper completion of the Electrical Installation Works.) Contractor is also advised to inform missing items (if any) in BoQ at time submitting the tender.</p>					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1 (A)	Supply, transportaion, storage at site, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, accessories, etc. required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates.					
	<u>POWER CABLE</u>					
	Copper conductor PVC/PVC 600/1000V cables including sockets and connections at both ends with Cu/Brass glands, lugs ets alongwith all accessories. The cable shall be drawn in cable trench or clipped on the wall or pulled in cable tray/PVC pipes or as required or as shown on drawings. (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing)					
	1.1 (A)					
	a) 2 core 10 mm ² (For Security Guard Room)	Rft.	700			
	b) 4 core 10 mm ² (For Area Lighting)	Rft.	5,100			
	c) 4 core 25 mm ² From MPB to DB-Office Building	Rft.	90			
	d) 4 core 50 mm ² From Transformer to MPB	Rft.	400			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1.2 (A)	PVC insulated 450/750 Volt grade (Green - Yellow) unarmoured copper cable laid direct in ground, pulled in PVC pipe already laid, on surface of wall or cable trays etc. sockets and connections at both ends with Cu/Brass, glands, lugs ets alongwith all accessories all accessories as required or as shown on drawings (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) as earth continuity conductor (ECC/CPC).					
a)	1 core 10 mm ²	Rft.	5,800			
b)	1 core 16 mm ²	Rft.	90			
c)	1 core 25 mm ²	Rft.	740			
2.0	<u>LIGHT FITTINGS AND FANS</u>					
2.1	Following LED Luminaries of suitable wattage make Philips, GE, Pierlite or approved equivalent suitable for the project requirements. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements. The fitting shall be approved by the Engineer.					

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MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
a)	Light Fixture Type LED Batten Ceiling/Wall/surface mounted, 18W complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	17			
b)	Light Fixture Type LED Batten Wall/surface mounted, 10W above mirror in toilets complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	10			
c)	20W LED Water tight light fixture IP 65 complete in all respect with all allied accessories or approved equivalent. The fitting shall be approved by the Engineer.	Each	8			
d)	Light Fixture Type LED Ceiling/surface mounted/surface mounted down lighter, 18W complete in all respect with allied accessories . The fitting shall be approved by the Engineer.	Each	25			
e)	Wall bracket Light Fixture Type LED 18W energy saving lamp with holder and complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	10			
f)	56" ceiling fan sweep (Climax, Pak, Millat) make or approved equivalent.	Each	7			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	g) Wall bracket fan 20" sweep make (Royal, Pak, Millat or approved equivalent) capacitor type, copper winding complete with all accessories or approved equivalent. The fitting shall be approved by the Engineer.	Each	3			
	h) Exhaust fan 12" sweep make (Royal, Pak, Millat or approved equivalent) capacitor type, copper winding complete with Plastic body and all accessories etc.	Each	7			
3.0	<u>POLES & ACCESSORIES</u>					
a)	10 m high single arm conical octagonal (hot dip) galvanized steel pole with extension arm luminaire arrangement, base plate, 2 Amp. SP MCB, (RC=10KA) circuit breaker, 05 Nos. Terminal block including end caps, base connection plates & end stopper etc. as shown on drawing.	Each	12			
b)	Road Lighting Pole Foundation (Bitchmen Coating)	Each	12			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	c) Road Lighting LED Luminaries 90 Watt make Philips, GE, or approved equivalent, fully in compliance with the specified requirements suitable for the project requirements, fully IP 66 with corrosion resistant die cast aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection and all accessories/ components required for the proper operation of the system. The luminaries shall be fully flexible for future upgrades and easy replacements for maintenance purposes. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements.	Each	12			
	d) LED Luminaries Flood lights Tango LED 30W or approved equivalent fully IP 65 with corrosion resistant die cast aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection and all accessories/ components required for the proper operation of the system.	Each	21			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	PVC Junction box size 08"x06"x04" (for Flood Light connection) with frame claded 16 SWG, having high quality powder coated paint, color RAL 7032. suitable e) for connections with IP44 protection class, door, locking arrangement etc. and all other accessories as required for quality work.	Each	21			
	- Junction box size 08"x06"x04" (for Flood Light connection) - 01 No. 2 Amp. SP MCB, 6 kA - 05 Nos. Terminal block alongwith all accessories etc.,					
	f) 3 Nos. 1 core 2.5 mm ² Cu/PVC 450/750 Voltage grade cable (stranded conductor) (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) from junction box to the fitting through the hollow of pole. - 40 ft. cable is required for each pole and the unit is taken as No. Price per No.	Each	12			
	g) Locally manufactured decorative gate light with 100W LED complete in all respect with allied accessories make Philips, GE, Pierlite or approved equivalent. The fitting shall be approved by the Engineer.	Each	4			

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ELECTRICAL WORKS (NON-MRS ITEMS)
BILL OF QUANTITIES

B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
4.0	<u>uPVC PIPE</u>					
4.1	PVC pipe conduit with accessories suitable for laying single/multi-core cables.					
a)	50 mm dia (Class-D)	Rft.	1,950			
b)	100 mm dia (Class-B)	Rft.	1,600			
c)	100 mm dia (Class-D)	Rft.	500			
5.0	<u>DISTRIBUTION BOARDS</u>					
5.1	D.Bs with TP incoming adjustable moulded case circuit breaker and SP miniature outgoing circuit breakers, Panel box SWG 16 powder coated RAL colour 7032, IP class 44/ 54 and with all accessories. alongwith all installation and operational accessories as per specification or as shown on the drawings.					
(a)	<u>DB- Office Building</u>					
	MATERIAL	No.	1			
	- 01 No. 50 Amps (Adj.) MCCB TP, RC=25kA, Icu=100%Ics					
	- 08 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%Ics					
	- 09 Nos.outgoing 20A, MCB, SP, RC=10 kA, Icu=100%Ics					

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B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	- 04 Nos. Spare 10/20A, MCB, SP, RC=10 kA, Icu=100%Ics - 03 Nos. Space for 10/20A, MCB Indication lights, push buttons, digital ammeter with selector switch, digital voltmeter with selector switch, - Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories. b) D.Bs with DP incoming MCB breaker and SP miniature circuit breakers as shown. <u>DB- Security Guard Room</u> MATERIAL - 01 No. Incoming 32 Amp MCB , DP, RC=10 kA - 02 Nos. Outgoing 10 Amp MCB, SP, RC=10 kA - 01 No. Outgoing 20 Amp MCB, SP, RC=10 kA - 02 Nos. spare 10/20 Amp MCB, SP, RC=10 kA - 02 Nos. space 10/20 Amp MCB, SP, RC=10 kA Indication lights, digital voltmeter, digital ammeter, - Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories.	Each	2			

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B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
6.0	<u>LV SWITCHGEAR / MAIN PANEL BOARD (MPB)</u>					
6.1	LV Switchgear Panel/Main Panel Board of 14 SWG, IP class 44/54 & RAL 7032 including I/C and O/G following electrical items, foundation/base frame with all installation and operational accessories as per site requirements, as per tender specifications and drawings and as directed by the Engineer.					
(a)	<u>MPB</u>					
	INCOMING	No.	1			
	- 01 No. 100 Amps TP (adj.) MCCB, RC= 25 kA, Icu=100%Ics					
	- 01 No. VSS (07 position)					
	- 01 No. 0-600 Volts AC DIGITAL Voltmeter					
	- 03 Nos. 100/5 Amps Current Transformers					
	- 01 No. ASS (R-Y-B-OFF)					
	- 01 No. 0-100 Amps AC DIGITAL Ammeter					
	- 06 Nos. RYB and ON OFF TRIP LED indication lights					
	- 14 SWG steel sheet Panel RAL 7032, IP= 44/54 and all other accessories,					
	OUTGOING					
	- 01 No. 50A TP(adj.) MCCB, RC=18 kA, Icu=100%Ics (Office Building)					

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B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	02 Nos. 16 Amp MCCB TP, (Adj.) RC=18kA, Icu=100%Ics with 25 Amp. Magnetic Contactor including Push button (ON/OFF) & Indication lights for Area / Shed Lighting. 02 Nos. 32Amp MCB DP, (Adj.) RC=10kA, Icu=100%Ics (Security guard Room) 01 No. Spare 50 Amp MCCB TP, (Adj.) RC=25kA , Icu=100%Ics 01 No. Spare 16 Amp MCCB TP, (Adj.) RC=18kA, Icu=100%Ics with 25 Amp. Magnetic Contactor including Push button (ON/OFF) & Indication lights for Area / Shed Lighting. 01 No. Spare 32Amp MCB DP, (Adj.) RC=10kA, Icu=100%Ics 02 No. MCCB 25Amps TP, space All other accessories required for completion of the quality works including Cable gland and lugs etc. Electrolytic copper bus bar with electrical grade PVC mountings 3 for each, nuts, bolts and washers, control MCB etc. (200 Amps. R+Y+B N, 50 Hz, 415 V, AC) including cable glands at top/bottom entry for cable)					

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B - 2.2 ELECTRICAL WORKS
NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	Contractor shall submit the genuine certificate from the manufacturer/authorized agent clear by indicating the project name make/model/rating of MCCB, MCB, magnetic contactors, terminal blocks and voltmeters/ammeter alongwith warranties.					
7.0	<u>EARTHING</u>					
7.1	Earth point comprising of 10 ft. 5/8" dia. (16 mm dia) copper coated M.S. rods driven in ground. The earthing rods shall be completed with fixing clamps etc.	No.	12			
8.0	<u>TRANSFORMER</u>					
8.1	11/0.415 kV Pole mounted Transformer complete with all accessories as per WAPDA specifications and practice including all required works for proper completion of civil/material works as per specification.					
a)	50 kVA	Job	1			
TOTAL FOR NON-MRS ITEMS						
TOTAL (MRS+ Non-MRS)						

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT
BILL OF QUANTITIES

B-2.3 SUREILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1	Fixed Bullet Camera Image Sensor : 5 MPX CMOS sensor 1/2.7" Lens Type : motor-zoom, IR Range : 45 meter Enclosure : aluminium outdoor housing	No	20			
2	Poles 5m with Foundation	No.	12			
3	32CH NVR (Network Video Recorder) with Supported protocols: ONVIF, RTSP, Recording speed up to 960 fps at 3840 x 2160, Supports resolution up to 3840 x 2160, Recorded stream size: 256 Mb/s in total from all cameras, Internal HDDs mount: 8, Monitor outputs: 3 (HDMI (4K UltraHD), HDMI, VGA), Intelligent image analysis.	No.	1			
4	Hard Disk 6TB Surveillance SATA 3.5"	No.	1			
5	FHD LED Display unit 55 inch including all accessories, wall mounting brackets, software and hardware	No.	1			
6	Operator Workstation with VDU	No.	1			
7	A4 size Color Printer	No.	1			
8	8-PORT PoE Access Switch 8 PoE Ethernet ports which shall support IEEE 802.2af/at standards. PoE network port with IEEE802.3af/at standards and shall have 2 x 1000Mbps optical fiber port SFPs	No	5			
9	Managed distribution switch • 8 ports SFP slot & 1 port 10/100/1000 Gigabit Optical Fiber Switch	No.	1			
10	UTP CAT-6 4-Pair Data Cable	m	150			
11	HDPE pipe • size 40mm • outer dia 40mm • wall thickness 3.5mm • standard length: 125m/250m/1000m	m	430			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT
BILL OF QUANTITIES

B-2.3 SUREILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
12	27 U Data Cabinet for Superintendent office with fan, lock and glass door	No	1			
13	12U Data Cabinet with fan, lock and glass door	No.	4			
14	Hand Hole 0.9mx0.9mx0.9m	No.	11			
15	24 Core Fiber Optic Cable , Standard G652-D, • Cable type Single Mode • Cable construction Loose tube • Layer of Aramid Yarn 5mm • Wavelength 1310/1550 nm • Max attenuation 0.36 db/km including Excavation/Backfilling and duct with all accessories	m	430			
16	24-Port ODF with coupler, pigtails and Patch cords, complete accessories. Housing Material :Steel Allow for any other item required for completion of system not covered in BOQ or specifications / drawings in accordance with the same standards and brands shown and approved by consultant. All such items shall be covered in this item but complete description, item rates, quantity required and brands shall be mentioned separately and to be attached with the BOQ. Note: 1) The Bidder shall provide the all BoQ items as per Technical Specificationtem of Bidding Documents brands shown and approved by consultant. 2) Contractor is advised to confirm the cable running lengths as per site conditions before commencement of work.The Payment of cable shall be paid as per Running meter.	No	1			
	Total					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAKPURA CAPITAL ROAD, SIALKOT
BILL OF QUANTITIES

B-2.4 TRANSPORTATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1		MRS ITEMS ROAD WORKS					
1.1	Ch. 3 Item 5 (i) + Ch.3 Item 17 (a,b,c)	Earthwork in ordinary soil for embankments, including ploughing and mixing with blade grade or disc harrow or other suitable equipment, and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- i) 95% to 100% maximum modified AASHO dry density.(Material from Borrow excavation including 8km lead & lift)	Cft	185,350			
1.2	Ch. 3 Item 25 (i)	Compaction of earthwork with power road roller, including ploughing, mixing, moistening earth to optimum moisture content in layers, etc.complete: i) 95% to 100% maximum modified AASHO dry density.	Cft	30,900			
1.3	18/3 (a-ii), 1/1	Providing and laying subbase course of crushed stone aggregate of approved quality and grade, including placing, mixing, spreading and compaction of subbase material to required depth, camber, grade to achieve 100% maximum modified AASHO dry density, (Including carriage of all material to site of work from Sikhanwali Quarry Sargodha) .	Cft	30,900			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
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B-2.4 TRANSPORTATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.4	Ch. 6 item 6(a)(ii) 2 + 1-1	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) (ii) Reinforced cement concrete in slabod raft / strip foundation,base slab of coloum and retaining walls, etc and other structural member other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal 4000psi Concrete - Joint Reinforced Concrete Pavement (J.R.C.P)	Cft	40,680			
1.5	Ch. 6 / 5(i) + 1-1	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) Ratio 1: 4: 8	Cft	20,600			
1.6	Ch. 6 / 9(c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars): (c) Deformed bars (Grade-60)	TON	70.00			
1.7	Ch. 18 / 16	Providing and laying expansion joint of neoprine strip 4"x¼" (100 mmx 6 mm) and plastic bitumen.	Rft	8,680			
Sub Total: MRS Items (1)							

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B-2.4 TRANSPORTATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
2		NON MRS ITEMS					
1		Pre-Cast Concrete (Non-Mountable) Kerb	Rft	420			
2		Providing and fixing Road Safety Convex Mirror (32" / 80cm) complete with frame and fixing clamps.	No	3			
		Sub Total: Non MRS Items (2)					
		Total (MRS +Non MRS Items):					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
PLUMBING WORKS FOR OFFICE BUILDING
BILL OF QUANTITIES

B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
I A		MRS ITEMS INTERNAL PLUMBING PLUMBING FIXTURES					
1	19/27	Providing and fixing chromium plated tee stop cock 15 mm (1/2").	17	No.			
2	19/23	Providing and fixing chromium plated pillar-cock, heavy:- 1.5 cm (½")	2	No.			
3	19/29	Providing and fixing chromium plated mixing valve, for wash hand basin, sink or shower.	2	No.			
4	19/1(i)	Providing and fitting glazed earthen ware water closet european type, excluding seat and cover, white.	4	No.			
5	19/11(i)	Providing and fitting glazed earthen ware made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete in all respects.	4	No.			
6	19/2(i)	Providing and fixing, double seat and cover only, bakelite.	4	No.			

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MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
PLUMBING WORKS FOR OFFICE BUILDING
BILL OF QUANTITIES

B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
7	19/3(i)	Providing and fitting glazed earthen ware water closet, squatter type (orissa pattern), combined with foot rest, white.	3	No.			
8	19/12(i)	Providing and fitting plastic made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete in all respects.	3	No.			
9		Providing and fitting glazed earthen ware wash hand basin 56 x 40 cm (22" x 16") including bracket set, waste pipe and waste coupling, etc.					
	19/6(iii)	i) white, without pedestal	8	No.			
10	19/5(ii)	Providing and fixing chromium plated bottle trap with waste pipe, etc. complete:- 4 cm (1½").	8	No.			
11	19/15	Providing and fixing, chromium plated soap dish.	6	No.			
12	19/17	Providing and fixing chromium plated toilet paper holder.	4	No.			
13	19/7(i)	Providing and fixing 1.5 cm (1/2") dia connection, including check nuts, etc; plastic rubber connection.	17	No.			

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PLUMBING WORKS FOR OFFICE BUILDING
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B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
B		EXTERNAL PLUMBING					
14	3/44	Excavation of trenches in all kinds of soil except cutting rock for water supply pipelines upto 5 ft depth from ground level including trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints complete in all respects.	0.74	1000Cft			
15	7/30	Supplying & filling sand under floor; or plugging in walls.	0.82	100Cft			
16	19/35	SEWERAGE AND DRAINAGE Providing and fitting, 4" gully trap including cement concrete ,cost of PVC grating (6" x 6") and masonry chamber (12" x 12").	4	No.			
17		Earthwork excavation in open cutting for sewers and manholes as shown in drawings including shuttering and timbering, dressing to correct section and dimensions according to templates and levels and removing surface water in all types of soil except shingle gravel and rock upto:					
18	3/42 (i) 3/13a	i) 0 to 7 ft Rehandling of earthwork, lead upto a single throw of kassi, phaorah or shovel.	1.39	1000Cft			
19	3/24 (a)	Mixing moistening earth to optimum moisture content in layers for compaction etc., complete.	1.11	1000Cft			

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PLUMBING WORKS FOR OFFICE BUILDING
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B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
20	3/24 (b) (ii)	Compaction of earthwork by rolling with animal driven roller/hand rammed for ordinary soil.	1.11	1000Cft			
21	7/30	supplying & filling sand under floor; or plugging in walls	2.03	100Cft			
		Sub total: MRS ITEMS					

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PLUMBING WORKS FOR OFFICE BUILDING
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B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
II A		NON MRS ITEMS					
		INTERNAL PLUMBING					
22		WATER SUPPLY Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes of approved quality, for cold water as per DIN 8077-8078, PN-20 for pipes and DIN 16962, PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials					
		i) 25 mm O.D	141.00	Rft			
		ii) 32 mm O.D	55.00	Rft			
		iii) 40 mm O.D	39.00	Rft			
23		Providing and installing Brass Ball/ Handle valves of approved quality of following nominal dia, including jointing, fitting, painting, testing, complete in all respects to match with PPR/uPVC pipes of following diameters.					
		i) 63 mm O.D	1.00	No.			
		ii) 50 mm O.D	2.00	No.			
		iii) 40 mm O.D	1.00	No.			
		iv) 32 mm O.D	1.00	No.			
24		Supply and installation of Instant Gas geysers of					
		i) 10 L/Min	2	No.			

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PLUMBING WORKS FOR OFFICE BUILDING
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B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
25		Providing and fixing Muslim Shower with double bib cock complete in all respects.	7	No.			
		SEWERAGE AND DRAINAGE					
26		Providing, fixing, cutting, jointing and testing uPVC					
		i) 2" i/d	39.00	Rft			
		ii) 3" i/d	193.00	Rft			
		iii) 4" i/d	111.00	Rft			
27		Providing and fixing uPVC Floor Trap of approved quality including PVC grating and cover & P Trap.	11	No.			
28		Providing and fixing Vent cowel make of approved quality.	4	No.			
29		Providing and fixing angle drain for 3" or 4" dia rainwater pipe with brass top complete in all respects.	2	No.			
30		Providing and fixing looking glass of approved make, 5mm thick complete with frame and fixing clamps.	82.50	Sft.			
B		EXTERNAL PLUMBING					
		NON MRS ITEMS					

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BILL OF QUANTITIES

B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
31		WATER SUPPLY Providing, fixing, jointing and testing Polyethylene Pipes (PE 100) of class PN 10 of approved manufacturer for cold water including fittings and specials complete in all respects.					
		i) 63 mm	50	Rft			
		ii) 50 mm	120	Rft			
		v) 40 mm	75	Rft			
32		Providing and fixing Water Tank of (Tuff/Dura) or equivalent Fiber Double ply having 500 gallons capacity (Vertical), complete in all respect.	1	No.			
33		SEWERAGE AND DRAINAGE Supplying, laying, jointing, testing of non-pressure uPVC pipes (SN-08, SDR 34) conforming to EN:1401, including uPVC pipes fittings and accessories complete in all respects as per drawings and specifications as per approved manufacturer.					
		i) 6" i/d	123.00	Rft			
34		Providing and fixing uPVC P-Trap of approved	4	No.			
35		Construction of square masonry manhole 2.5 x 2.5 ft, including cover and frame.					
		i) upto 5 ft depth	4	No.			

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B-2.5.1 PLUMBING WORKS FOR BUILDING

Sr. No.	MRS 2nd Bi- Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
36		Providing and fixing malleable cast iron step (10" Approx. Weight 7.5kg) in manhole chambers, including carriage and setting the same in work, to correct lines and levels as per drawing and specifications.	14	No.			
37		Supplying and fixing 2" dia G.I air vent on roof of Septic Tank.	3	No.			
		Sub total: NON MRS ITEMS					
		SUB TOTAL (MRS + Non-MRS)					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
WATERSUPPLY NETWORK
BILL OF QUANTITIES

B-2.5.2 WATER SUPPLY SYSTEM FOR PARKING SHED

MRS ITEMS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	4/45	Dismantling and removing road metalling. (Provisional Quantity)	100Cft	0.27			
2	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead 30 metre). (Base, Sub Base, soling and tuff Paver etc.) (Provisional Quantity)	100Cft	1.29			
3	4/19	c) Dismantling cement concrete 1:2:4 plain. (Provisional Quantity)	100Cft	0.11			
4	3/44	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines upto 5 ft. (1.5 m) depth from ground level, including trimming, dressing sides, levelling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000Cft	1.59			
5	3/13	Rehandling of earthwork: a) Lead upto a single throw of Kassi, phaorah or shovel.	1000Cft	1.59			
6	3/24	Compaction of earthwork (soft, ordinary or hard soil) : (Backfilling) a) Mixing, moistening earth to optimum moisture content in layers for compaction, etc. complete. c) Ramming earthwork (all types of soil). (Backfilling and sand in bedding)	1000Cft	1.59			
			1000Cft	1.82			
7	7/30	Supplying and filling sand under floor; or plugging in wells (in bedding) (Around pipes along road cuts Provisional Quantity)	100Cft	2.35			
Total Amount (MRS Items)							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT MUBARAK PURA CAPITAL ROAD, SIALKOT
WATERSUPPLY NETWORK
BILL OF QUANTITIES

B-2.5.2 WATER SUPPLY SYSTEM FOR PARKING SHED

NON- MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
8	NON MRS ITEMS Providing, transportation, laying, cutting, butt fusion jointing, testing, commissioning & disinfecting the High Density Polyethylene Pipe (HDPE) PE-100, (PN-10) SDR 17 conforming to ISO 4427 or DN8074/8075 or equivalent to the satisfaction of Engineer. The pipe shall be from reputable manufacturer approved by the Engineer.) 63 mm o/d	Rft.	264			
Total Amount (NON MRS Items)						
Total Amount (MRS +NON MRS Items)						

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN SIALKOT

**BILL OF QUANTITIES
SUMMARY**

Bill No.	Description	Amount (Rs.)
B-3.1 ARCHITECTUAL AND STRUCTURAL WORKS		
	GUARD ROOOM	
	ENTRY GATE	
	PREFABRICATED STEEL STUCTURES	
	PARKING SHEDS PEDESTAL	
	DRAIN	
B- 3.2 ELECTRIFICATION WORKS		
B-3.3 SURVEILLIANCE SYSTEM		
	CCTV CAMERAS FOR PARKING SHEDS	
B-3.4 TRANSPORTATION WORKS		
TOTAL COST (3)		

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and rammiing lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	3/41	b) upto 5 ft. (1.5 m)in ordinary soil Select Fill for specifications see the geotechnical rcommendations * (Supplying clean and screened river or pit sand within 5chains (150 m).	Cft	656.91			
3	26/42	TERMITE CONTROL TREATMENT Termite control treatment around/under foundations and floors complete in all respects as shown on the drawings/specifications and/or as directed by the Engineer. (Spraying anti -termi te liquid mixed with water in the ratio of 1:40)					
4	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	SFT	508.20			
			Cft	41.10			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(ii)(3)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	115.17			
6	6/6(a)(i)(3)	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	87.56			
7	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	Tons	0.43			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
8	7/4(i)	Pacca brick work in foundation and plinth in:- (Plinth protection) i) Cement, sand mortar:- Ratio 1:3 Damp Proof Course	Cft	175.26			
9	6/33(b)(i)	Providing and laying damp proof course (1.5" Thick) of cement concrete 1:2: 4(using cement, sand and shingle), including bitumen coating (2 Coats of Bitumen)	Sft	27.56			
10	6/35(b)(ii)b	Providing and laying vertical damp proof course with cement sand plaster (3/4" thick with 1:3 ratio) and bitumen coating (2 Coats of Bitumen)	Sft	36.75			
11	3/15 (i)	Filling, watering and ramming earth under floors:- with surplus earth from foundation, etc.	1000 Cft.	0.10			
12	3/17 (a, b,c,d)	Transportation of Earth all types when the total distance including the lead covered in the item of work, is more than 1000 ft.(300 m)	1000 Cft.	0.20			
13	3/24 (a, b-i)	Compaction of Earthwork (soft, ordinary or hard soil) :-	1000 Cft.	0.20			
14	7/30	Supplying and filling sand under floor ; or plugging in wells. Concrete.	100 Cft.	0.30			
15	6/5 (i)	Cement Concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate) <i>Ratio 1:4:8 (under floor.)</i>	100 Cft.	0.50			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
	6/5 (f)	<i>Ratio 1:2:4 (under floor.)</i>	100 Cft.	0.10			
16	7/5.(i)	Brickwork. Pacca brick work in ground floor:-:Cement, sand mortar:- Ratio 1:5	100 Cft.	2.00			
17	9/5-9/12	Providing and laying 9" x 4½" x 1½" (225mm x 113mm x 40 mm) brick tiles grouted with cement sand 1:3, laid over 4" (100 mm) (average) thick earth with 1" (25 mm) mud plaster without Bhoosaw, grouted with cement sand 1:3 on top of RCC roof slab, excluding cost of 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.					
		<i>First Floor</i>	100 Sft.	1.00			
18	26/37 (ii)	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.					
		<i>500 gauge</i>	Sft.	142.00			
19	9/45 (c)	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M3, compressive strength 250-400 kpa, R-value 5 per inch thickness and water absorption (1% by volume, cell structure colored cell) i/c cutting and placing in position complete in all respect.					
		<i>2" thick</i>	100 Sft.	1.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
20	9/15	Construction of Khuras on roof 2' x 2' x 6"	Each.	1.00			
21	10/15 (e)	Flooring. Providing and laying 2" thick topping of cement concrete 1:2:4, including surface finishing and dividing in panels.	100 Sft.	1.00			
22	10/42 (a)	Providing and fixing size 1½" x 3/8" (40 x 10 mm) marble strip of any shade for dividing the mosaic flooring into panels.	Rft.	53.00			
23	11/10 (b)	Surface Rendering. Cement plaster ratio 1:3 under soffit of R.C.C. roof slabs only, upto 20' height. 3/8" (10 mm) thick.	100 Sft.	1.00			
24	11/9 (b)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ½" (13 mm) thick.	100 Sft.	2.00			
25	11/9 (c)	Cement plaster 1:4 on internal walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	1.00			
26	11/9 (c)	Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.	100 Sft.	2.00			
27	13/18 (a)	Cement pointing struck joints , on walls, upto 20' (6.00 m) hieght:- ratio 1:2	100 Sft.	4.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
28	13/31	Wood Work. Painting & Varnishing. Preparing surface and painting with three (03) coats Emulsion paint complete in all respect.	100 Sft.	4.00			
29	13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (02-Coats)	100 Sft.	2.00			
30	25/53 (b)	Iron Work. Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100 mm x 30 mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size 45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminium jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush channel angle joint and hardware etc. complete in all respect. (2 mm thick)	Sft.	34.00			
		TOTAL MRS ITEMS					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
II		NON MRS ITEMS					
31		Roofing. Provide and apply 2-coats of cold applied rubberized bitumen of approved manufacture's @ 1kg/m ² /coat over 0.75kg/m ² primer coat (mixed with 6% water) respectively, over well prepared surfaces complete in all respects and /or as directed by the Engineer in charge.	Sft.	71.00			
32		Flooring. Providing and laying 12"x12"x¼" thick China Verona Marble of approved quality, colour, shade and texture, on floor laid over ¾" thick bedding of cement sand mortar 1:2, including grinding and chemical polishing, jointed and grouted with white cement mixed with imported matching colour pigment, complete in all respect as shown on the drawings and/or as directed by the Engineer.	Sft.	69.00			
33		Providing and fixing of 12"x4"x½" Skirting China Verona Marble , set with neat cement paste over ¾" thick 1:2 cement sand base plaster, including grinding and chemical polishing, jointed and grouted with white cement mixed with pigment. complete in all respects as per the approval of the Engineer.	Sft.	8.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
34		Providing and laying pre-polished China Verona Slab $\frac{3}{4}$ " thick (single piece) of approved quality, colour, shade and texture for stair treads set over $\frac{3}{4}$ " thick 1:2 cement sand mortar i/c rendering-off 2 No. non-skidding grooves ($\frac{3}{4}$ " wide and $\frac{1}{4}$ " deep) in each steps, rounding-off front edge complete in all respect as shown in the drawings and/or as directed by the Engineer.	Sft.	9.00			
35		Providing and laying $\frac{1}{2}$ " thick pre polished China Verona Slab of approved quality, colour, shade and texture for stair risers laid over $\frac{3}{4}$ " thick 1:2 cement sand mortar, complete in all respect as shown on the drawings and/or as directed by the Engineer. Iron Work. <i>(Before execution of below mentioned itemized works the Contractor shall provide the shop drawings for the prior approval of the Engineer)</i>	Sft.	5.00			
36		Providing and fixing Diamond Mesh (24 SWG) , with concrete nails at location of concrete interfacing masonry complete in all respect as shown on the drawings, and/ or as directed by the Engineer.	Sft.	32.00			
37		Providing, fabricating and fixing M.S Steel grill for windows neat to lines shown on the drawings, specifications and/ or as directed by the Engineer.	Kg.	92.00			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 1 GUARD ROOM

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
38		Providing and fixing of 16 SWG M.S. Sheet panel door comprising of M.S frame & shutter (factory primmed) welded with 1½"x1½"x¼" M.S angle frame, i/c locking arrangement, eryls, hinges, enamel painting etc. complete in all respects as per drawings and specifications and/or as directed by the Engineer.	Sft.	18.00			
		TOTAL NON-MRS ITEMS					
		<i>TOTAL (MRS+ Non-MRS) FOR 01-NOS SECURITY GUARD ROOM</i>					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
GUARD ROOM
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 2 Entry Gate

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
I		MRS ITEMS					
		Surface Rendering.					
1	11/9 (c)	Cement plaster 1:4 on external walls upto	100 Sft.	2.00			
		Painting & Varnishing.					
2	13/5 (d)	Preparing surface and painting guard bars,	100 Sft.	2.00			
3	13/32A	Providing and applying weather shield paint	100 Sft.	2.00			
		Iron Work.					
4	25/9, 25/11	Small iron work , such as gusset plates,	100 Kg.	6.00			
		TOTAL FOR 01-NOS ENT GATES					
		TOTAL FOR 02-NOS ENT GATES					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

PRE-ENGINEERED PARKING SHED BUTTERFLY STYLE

BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 3 Cost of prefabricated Steel Structre

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
8	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 525 x 5 & column flange size 200 x 10), Rafter (Rafter web size 525 x 300 x 4 & Rafter flange size 175 x 8), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (32'-0" x 120'-0" x 15'-0" clear height)	Sft	3,840.00			
9	Supply, installation and transportation of pre-engineered steel building including steel coloumn (column web size 350 x 4 & column flange size 150 x 6), Rafter (Rafter web size 350 x 200 x 4 & Rafter flange size 150 x 6), Roof Purlins (Purlin section size 60 x 200 x 1.5mm), 0.5 mm thick pre-painted sheet at roof area and nut bolt etc complete in all respect. (16'-0" x 64'-0" x 10'-0" clear height)	Sft	1,024.00			
	TOTAL NON-MRS ITEMS					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS
Bill No. 4 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1		Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)					
2	3/21(b)	b) upto 5 ft. (1.5 m) in ordinary soil	Cft	8,037.22			
	3/41	Select Fill for specifications see the geotechnical recommendations * (Supplying clean and screened river or pit sand within 5 chains (150 m)).	Cft	3869.77			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	264.47			
4		Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					

B - 3.1 ARCHITECTURAL AND STRUCTURAL WORKS
Bill No. 4 PARKING SHEDS PADESTAL

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(ii)(3)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	1,165.50			
	6/6(a)(i)(3)	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 2500psi (Ratio 1:2:4)	Per Cft	255.94			
	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- ('c) Deformed bars (Grade-60)	Tons	4.50			
Total Amount							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
DRAIN
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1	3/21(b)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m) b) upto 5 ft. (1.5 m) in ordinary soil	Cft	9,290.53			
2	7/30	Select Fill for specifications see the geotechnical recommendations * (Supplying and filling sand under floor or plugging in wells).	Cft	6,193.69			
3	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) 1500 psi Ratio (1:3:6)	Cft	397.03			
4	6/6(a)(ii)(2)	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

DRAIN
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
5	6/6(a)(i)(2)	(a)(ii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in 5(a) (i) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 3000psi	Per Cft	847.00			
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- 3000psi	Per Cft	2,541.00			
6	6/9('c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	100 kg	9.22			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

DRAIN
BILL OF QUANTITIES

B - 3.1 ARCHITECTUAL AND STRUCTURAL WORKS

Bill No. 5 DRAIN

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
7	22/9 6/28	Providing and fixing structural steel	Kg	346.07			
		Providing embedding 10" (250 mm) wide ¼" (6 mm) thick rubber water stopper in expansion joints of R.C.C. roof slab complete in all respect	ft	1,270.50			
8	13/9(i)	Bitumen coating to plastered or cement concrete surface:- rate is multiply by 2 for two coats i)20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	Sft	4,658.50			
Total Amount of Drain							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 1 MRS ITEMS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.0		<u>WIRING AND ACCESSORIES</u>					
1.1	10(a-ii)/24, 3(iii)/24, 14(i)/24, 32(ii)/24	Wiring of light or fan point from switch board/dimmer to the point with 3x1.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25 mm PVC conduit/pipe concealed in walls, columns and slabs including accessories, PVC box, 10 Amp. gang switch 1 or 2 way as required, one for each light or fan and installed as in specifications complete in all respects.	Each	4			
1.2	10(a-iii)/24, 3(iii)/24	Circuit wiring from DB MCBs to gang switches board and from switch board to another switch board with 3x2.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	2			
1.3	10(a-ii)/24, 3(iii)/24	The same as item No. 1.1(a) but from one light point to another light point.	Each	2			
1.4	10(a-iv)/24, 14(ii)/24, 36(i)/24, 3(iii)/24	10/13 Amp 3 pin universal flush mounting switch socket outlet wired from DB MCBs to first outlet with 3x4 mm ² (P+N+E) single core cable stranded (away from switch board) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	1			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 1 MRS ITEMS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.5	10(a-iii)/24, 3(iii)/24	The same as item No.1.4 but wiring from one socket outlet to another socket outlet with 3x2.5 mm ² (P+N+E) single core stranded cable in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	1			
1.6	10(a-v)/24, 3(iii)/24, 36(ii)/24, 14(ii)/24	20 Amp 3 pin universal flush mounting switch socket outlet wired from DB MCBs to independent socket outlet with 3x6 mm ² (P+N+E) single core stranded cable (away from switchboard) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	1			
TOTAL FOR MRS ITEMS							

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	The Electrical Works include design, supply, transportation, installation, testing and commissioning of the following items of works as mentioned in this BOQ (unless specifically stated otherwise) including all material, labour, tools, accessories, related civil works, etc., as required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates. Bid price shall be final. No Separate payment will be made for any such material. The Contractor shall be bond to provided any such material after award of this contract for proper completion of the Electrical Installation Works.) Contractor is also advised to inform missing items (if any) in BoQ at time submitting the tender.					
1(A)	<u>POWER CABLE</u> Supply, transportaion, storage at site, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, accessories, etc. required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates.					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
1.1(A)	Copper conductor PVC/PVC 600/1000V cables including sockets and connections at both ends with Cu/Brass glands, lugs ets alongwith all accessories. The cable shall be drawn in cable trench or clipped on the wall or pulled in cable tray/PVC pipes or as required or as shown on drawings. (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing)					
a)	2 core 10 mm ² (For Security Guard Room)	Rft.	100			
b)	4 core 10 mm ² (For Area Lighting)	Rft.	2,950			
c)	4 core 16 mm ² From Transformer to MPB	Rft.	250			
1.2(A)	PVC insulated 450/750 Volt grade (Green - Yellow) unarmoured copper cable laid direct in ground, pulled in PVC pipe already laid, on surface of wall or cable trays etc. sockets and connections at both ends with Cu/Brass, glands, lugs ets alongwith all accessories all accessories as required or as shown on drawings (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) as earth continuity conductor (ECC/CPC).					
a)	1 core 10 mm ²	Rft.	3,050			
b)	1 core 16 mm ²	Rft.	250			
c)	1 core 25 mm ²	Rft.	150			
2.0	<u>LIGHT FITTINGS AND FANS</u>					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
2.1	Following LED Luminaries of suitable wattage make Philips, GE, Pierlite or approved equivalent suitable for the project requirements. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements. The fitting shall be approved by the Engineer.					
a)	Light Fixture Type LED Batten Ceiling/Wall/surface mounted, 18W complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	2			
b)	Wall bracket Light Fixture Type LED 18W energy saving lamp with holder and complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	1			
c)	Wall bracket fan 20" sweep make (Royal, Pak, Millat or approved equivalent) capacitor type, copper winding complete with all accessories or approved equivalent. The fitting shall be approved by the Engineer.	Each	1			
3.0	<u>POLES & ACCESSORIES</u>					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
a)	10 m high single arm conical octagonal (hot dip) galvanized steel pole with extension arm luminaire arrangement, base plate, 2 Amp. SP MCB, (RC=10KA) circuit breaker, 05 Nos. Terminal block including end caps, base connection plates & end stopper etc. as shown on drawing.	Each	11			
b)	Road Lighting Pole Foundation (Bitchmen Coating)	Each	11			
c)	Road Lighting LED Luminaries 90 Watt make Philips, GE, or approved equivalent, fully in compliance with the specified requirements suitable for the project requirements, fully IP 66 with corrosion resistant die cast aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection and all accessories/ components required for the proper operation of the system. The luminaries shall be fully flexible for future upgrades and easy replacements for maintenance purposes. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements.	Each	11			
d)	LED Luminaries Flood lights Tango LED 30W or approved equivalent fully IP 65 with corrosion resistant die cast aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection and all accessories/ components required for the proper operation of the system.	Each	6			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
e)	PVC Junction box size 08"x06"x04" (for Flood Light connection) with frame claded 16 SWG, having high quality powder coated paint, color RAL 7032. suitable for connections with IP44 protection class, door, locking arrangement etc. and all other accessories as required for quality work.	Each	6			
-	Junction box size 08"x06"x04" (for Flood Light connection)					
-	01 No. 2 Amp. SP MCB, 6 kA					
-	05 Nos. Terminal block alongwith all accessories etc.,					
f)	3 Nos. 1 core 2.5 mm ² Cu/PVC 450/750 Voltage grade cable (stranded conductor) (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) from junction box to the fitting through the hollow of pole.	Each	11			
-	40 ft. cable is required for each pole and the unit is taken as No. Price per No.					
g)	Locally manufactured decorative gate light with 100W LED complete in all respect with allied accessories make Philips, GE, Pierlite or approved equivalent. The fitting shall be approved by the Engineer.	Each	2			
4.0	<u>uPVC PIPE</u>					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
4.1	PVC pipe conduit with accessories suitable for laying single/multi-core cables.					
a)	50 mm dia (Class-D)	Rft.	800			
b)	100 mm dia (Class-B)	Rft.	1,400			
c)	100 mm dia (Class-D)	Rft.	400			
5.0	<u>DISTRIBUTION BOARDS</u>					
5.1	D.Bs with DP incoming and SP outgoing miniature circuit breakers, Panel box SWG 16 powder coated RAL colour 7032, IP class 44/ 54 and with all accessories. alongwith all installation and operational accessories as per specification or as shown on the drawings.					
a)	<u>DB- Security Guard Rooom</u>					
	MATERIAL					
	- 01 No. Incoming 32 Amp MCB , DP, RC=10 kA	Each	1			
	- 02 Nos. Outgoing 10 Amp MCB, SP, RC=10 kA					
	- 01 No. Outgoing 20 Amp MCB, SP, RC=10 kA					
	- 02 Nos. spare 10/20 Amp MCB, SP, RC=10 kA					
	- 02 Nos. space 10/20 Amp MCB, SP, RC=10 kA					
	- Indication lights, digital voltmeter, digital ammeter, Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories.					
6.0	<u>LV SWITCHGEAR / MAIN PANEL BOARD (MPB)</u>					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
6.1	LV Switchgear Panel/Main Panel Board of 14 SWG, IP class 44/54 & RAL 7032 including I/C and O/G following electrical items, foundation/base frame with all installation and operational accessories as per site requirements, as per tender specifications and drawings and as directed by the Engineer.					
(a)	<u>MPB</u> INCOMING - 01 No. 50 Amps TP (adj.) MCCB, RC= 25 kA, Icu=100%Ics - 01 No. VSS (07 position) - 01 No. 0-60 Volts AC DIGITAL Voltmeter - 03 Nos. 60/5 Amps Current Transformers - 01 No. ASS (R-Y-B-OFF) - 01 No. 0-60 Amps AC DIGITAL Ammeter - 06 Nos. RYB and ON OFF TRIP LED indication lights 14 SWG steel sheet Panel RAL 7032, IP= 44/54 and all other accessories, OUTGOING	No.	1			
	- 02 Nos. 16 Amp MCCB TP, (Adj.) RC=18kA, Icu=100%Ics with 25 Amp. Magnetic Contactor including Push button (ON/OFF) & Indication lights for Area / Shed Lighting. 01 No. 32Amp MCB DP, (Adj.) RC=10kA, Icu=100%Ics (for Gurad Room) 01 No. Spare 16 Amp MCCB TP, (Adj.) RC=25kA , Icu=100%Ics - 01 No. Spare 16 Amp MCCB TP, (Adj.) RC=18kA, Icu=100%Ics with 25 Amp. Magnetic Contactor including Push button (ON/OFF) & Indication lights for Area / Shed Lighting.					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	01 No. Spare 32Amp MCB DP, (Adj.) RC=10kA, Icu=100%Ics - 02 No. MCCB 25Amps TP, space - All other accessories required for completion of the quality works including Cable gland and lugs etc. - Electrolytic copper bus bar with electrical grade PVC mountings 3 for each, nuts, bolts and washers, control MCB etc. (100 Amps. R+Y+B N, 50 Hz, 415 V, AC) including cable glands at top/bottom entry for cable) Contractor shall submit the genuine certificate from the manufacturer/authorized agent clear by indicating the project name make/model/rating of MCCB, MCB, magnetic contactors, terminal blocks and voltmeters/ammeter alongwith warranties.					
7.0	<u>EARTHING</u>					
7.1	Earth point comprising of 10 ft. 5/8" dia. (16 mm dia) copper coated M.S. rods driven in ground. The earthing rods shall be completed with fixing clamps etc.	No.	6			
8.0	<u>TRANSFORMER</u>					
8.1	11/0.415 kV Pole mounted Transformer complete with all accessories as per WAPDA specifications and practice including all required works for proper completion of civil/material works as per specification.					
a)	25 kVA	Job	1			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

ELECTRICAL WORKS (NON-MRS ITEMS)

BILL OF QUANTITIES

B - 3.2 ELECTRICAL WORKS

Bill No. 2 NON-MRS ITEMS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
TOTAL FOR NON-MRS ITEMS						
TOTAL (MRS + Non-MRS)						

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
BILL OF QUANTITIES

B-3.3 SURVEILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	Supply, wiring, tagging, termination, design, installation, testing and commissioning of following system complete in all respects including all material, labor, tools, accessories etc. as per latest applicable international standards and technical specificaitons attached herewith					
1	Fixed Bullet Camera Image Sensor : 5 MPX CMOS sensor 1/2.7" Lens Type : motor-zoom, IR Range : 45 meter Enclosure : aluminium outdoor housing	No	8			
2	Poles 5m with Foundation	No.	5			
3	16CH NVR (Network Video Recorder) with Supported protocols: ONVIF, RTSP, Recording speed up to 480 fps at 3840 x 2160, Supports resolution up to 3840 x 2160, Recorded stream size: 80 Mb/s in total from all cameras, Internal HDDs mount: 1, Monitor outputs: 1 (HDMI (4K UltraHD), HDMI, VGA), Intelligent image analysis.	No.	1			
4	Hard Disk 6TB Surveillance SATA 3.5"	No.	1			
5	FHD LED Display unit 55 inch including all accessories, wall mounting brackets, software and hardware	No.	1			
6	Operator Workstation with VDU	No.	1			
7	A4 size Color Printer	No.	1			
8	8-PORT PoE Access Switch 8 PoE Ethernet ports which shall support IEEE 802.2af/at standards. PoE network port with IEEE802.3 af/at standards and shall have 2 x 1000Mbps optical fiber port SFPs	No	4			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
BILL OF QUANTITIES

B-3.3 SURVEILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
9	Managed distribution switch • 8 ports SFP slot & 1 port 10/100/1000 Gigabit Optical Fiber Switch	No.	1			
10	UTP CAT-6 4-Pair Data Cable	m	130			
11	HDPE pipe • size 40mm • outer dia 40mm • wall thickness 3.5mm • standard length: 125m/250m/1000m	m	430			
12	27 U Data Cabinet for Superintendent office with fan, lock and glass door	No	1			
13	12U Data Cabinet with fan, lock and glass door	No.	4			
14	Hand Hole 0.9mx0.9mx0.9m	No.	5			
15	24 Core Fiber Optic Cable , Standard G652-D, • Cable type Single Mode • Cable construction Loose tube • Layer of Aramid Yarn 5mm • Wavelength 1310/1550 nm • Max attenuation 0.36 db/km including Excavation/Backfilling and duct with all accessories	m	430			
16	24-Port ODF with coupler, pigtails and Patch cords, complete accessories. Housing Material :Steel Allow for any other item required for completion of system not covered in BOQ or specifications / drawings in accordance with the same standards and brands shown and approved by consultant. All such items shall be covered in this item but complete description, item rates, quantity required and brands shall be mentioned separately and to be attached with the BOQ.	No	1			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)
COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT
BILL OF QUANTITIES

B-3.3 SURVEILLIANCE SYSTEM WORKS

Sr. No.	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
				in Figure	in words	
	Note: 1) The Bidder shall provide the all BoQ items as per Technical Specificationtem of Bidding Documents brands shown and approved by consultant. 2) Contractor is advised to confirm the cable running lengths as per site conditions before commencement of work.The Payment of cable shall be paid as per Running meter.					
	Total					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

BILL OF QUANTITIES

B-3.4 TRANSPORTATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.2	Ch. 3 Item 25 (i)	Compaction of earthwork with power road roller, including ploughing, mixing, moistening earth to optimum moisture content in layers, etc.complete:	Cft	14,570			
1.3	18/3 (a-ii), 1/1	Providing and laying subbase course of crushed stone aggregate of approved quality and grade, including placing, mixing, spreading and compaction of subbase material to required depth, camber, grade to achieve 100% maximum modified AASHO dry density, (Including carriage of all material to site of work from Sikhanwali Quarry Sargodha).	Cft	14,570			
1.4	Ch. 6 item 6(a)(ii) 2 + 1-1	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) (ii) Reinforced cement concrete in slabod raft / strip foundation,base slab of coloum and retaining walls, etc and other structural member <u>other than those mentioned in 5(a) (i) above not</u>	Cft	13,380			
1.5	Ch. 6 / 5(i) + 1-1	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) Ratio 1: 4: 8	Cft	9,710			

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

BILL OF QUANTITIES

B-3.4 TRANSPORTATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
1.6	Ch. 6 / 9(c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars): (c) Deformed bars (Grade-60)	TON	23.00			
1.7	Ch. 18 / 16	Providing and laying expansion joint of neoprime strip 4"x1¼" (100 mmx 6 mm) and plastic bitumen.	Rft	4,050			
		Sub Total: MRS Items (1)					

PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT

BILL OF QUANTITIES

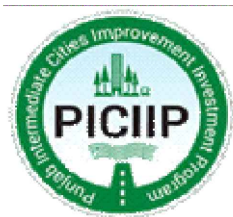
B-3.4 TRANSPORTATION WORKS

Sr. No.	MRS 2nd Bi-Annual 2020 Chap#/Item#	Description	Unit	Quantity	Rate (Rs)		Amount (Rs)
					in Figure	in words	
2		NON MRS ITEMS					
1	-	Pre-Cast Concrete (Non-Mountable) Kerb	Rft	420			
2	-	Providing and fixing Road Safety Convex Mirror (32" / 80cm) complete with frame and fixing clamps.	No	2			
		Sub Total: Non MRS Items (2)					
		Total (MRS+Non MRS Items):					

PICIIP-27 Civil Works for Parking Sheds
Environmental Management Plan (EMP)
Bill of Quantities (BOQs) - Provisional Sum

1	General Mitigation Measures	Unit	Quantity	Rate per Unit (PKR)	Total Amount (PKR)
a	<u>Water Bowsers for Water Sprinkling</u>	P.S.	-	-	15,000
b	<u>PPEs for Contractor Staff:</u>	-	-	-	-
b.i	Gloves	P.S.	-	-	60,000
b.ii	Helmets	P.S.	-	-	90,000
b.iii	Safety Shoes	P.S.	-	-	90,000
b.iv	Protective Eyewear	P.S.	-	-	45,000
b.v	Safety Harnesses	P.S.	-	-	90,000
b.vi	Face Masks	P.S.	-	-	2,000
c	<u>Spill Trays to prevent Oil/chemical contamination</u>	P.S.	-	-	35,000
d	<u>Waste Bins at Work Sites & Worker Camps for Housekeeping</u>	P.S.	-	-	50,000
e	<u>Metal Drums for storing of hazardous and non-hazardous materials from Work Sites & Worker Camps</u>	P.S.	-	-	75,000
		-	-	-	-
2	Environmental Monitoring Personnel	P.S.	-	-	960,000
3	Annual Environmental Laboratory Monitoring Costs	-	-	-	-
a	<u>Pre-Construction Phase ('One time' before Construction starts at 3 locations)</u>	-	-	-	-
a.i	24 hrly Air quality Monitoring (NEQS Parameters)	P.S.	-	-	90,000
a.ii	24 hrly Noise Monitoring (NEQS Parameters)	P.S.	-	-	90,000
		-	-	-	-
b	<u>Construction Phase (Quarterly basis at 3 locations)</u>	-	-	-	-
b.i	24 hrly Air quality Monitoring (NEQS Parameters)	P.S.	-	-	360,000
b.ii	24 hrly Noise Monitoring (NEQS Parameters)	P.S.	-	-	360,000
4	Capacity Development & Training Programme	-	-	-	-
a	<u>Pre-Construction Phase</u>	-	-	-	-
	Short Courses on EMP implementation	P.S.	-	-	30,000
b	<u>Construction Phase</u>	-	-	-	-
	Short Seminars on Environmental Monitoring	P.S.	-	-	30,000

Sub Total EMP BOQ = 2,472,000



PROGRAM MANAGEMENT UNIT PICIIP (LG&CD DEPARTMENT)



PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP)

MISCELLANEOUS CIVIL WORKS FOR PARKING SHEDS
FOR SOLID WASTE MACHINERY IN SAHIWAL AND SIALKOT CITY

ANNEXURE-B DRAWINGS



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**PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT
INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY
DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)**

**CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT
AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.**

PACKAGE NO. PICIIP-CONS 2

PARKING SHEDS & ALLIED STRUCTURES AT SAHIWAL & SIALKOT (CITY)

LIST OF DRAWINGS

SR. NO.	DRAWING NO.	TITLE
FAREED TOWN, SAHIWAL		
Architectural & Structural Works		
01	3976/033/TD/G001	Covered Parking Shed At Fareed Town, Sahiwal General Notes
02	3976/033/TD/3G01	Covered Parking Shed at Fareed Town, Sahiwal Boundary Wall (Foundation & Sections)
03	3976/033/TD/2G01	Covered Parking Sheds at Fareed Town, Sahiwal Office Building - Foundation Plan & Sections (Concrete Outline & Reinforcement)
04	3976/033/TD/2G02	Covered Parking Sheds at Fareed Town, Sahiwal Office Building - Roof Slab Plan & Sections (Concrete Outline & Reinforcement)
05	3976/033/TD/1G01	Covered Parking Shed at Fareed Town, Sahiwal Storm Drain Concrete Outline & Reinforcement
06	3976/311/TD/B01a	Parking Sheds & Allied Structures Fareed Town, Sahiwal Layout Plan
07	3976/311/TD/B01	Parking Sheds & Allied Structures Fareed Town, Sahiwal Layout Plan
08	3976/311/TD/B02	Office Building Covered Parking Shed at Fareed Town, Sahiwal (Plan, Elevation & Section)
09	3976/311/TD/B03	Office Building Covered Parking Shed at Fareed Town, Sahiwal Doors & Windows Details
10	3976/311/TD/B04	Parking Sheds & Allied Structures Fareed Town, Sahiwal Plan & Elevation of Main Gate
11	3976/311/TD/B05	Parking Sheds & Allied Structures Fareed Town, Sahiwal Details of Sec. Guard Room & Boundary Wall
Electrification Works		
12	3976/161/TD/5E001	Covered Parking Shed at Fareed Town, Sahiwal Legends, General Notes Lighting Fitting for Schedule and Earth Point Details
13	3976/161/TD/5E002	Covered Parking Shed at Fareed Town, Sahiwal Single Line Diagram
14	3976/161/TD/5E003	Covered Parking Shed at Fareed Town, Sahiwal Office Building Electrification Layout Plan
15	3976/161/TD/5E004	Covered Parking Shed at Fareed Town, Sahiwal Area Lighting Layout Plan
16	3976/161/TD/5E005	Covered Parking Shed at Fareed Town, Sahiwal Guard Room Electrification Layout Plan
17	3976/161/TD/5E006	Covered Parking Shed at Fareed Town, Sahiwal Details of 10M Conical Octagonal Lighting Pole Single Arm
Scada & Telecom Works		
18	3976/166/TD/IS001	Covered Parking Shed at Fareed Town, Sahiwal IP Based Video Surveillance System
19	3976/166/TD/IS002	Covered Parking Shed at Fareed Town, Sahiwal IP Based Video Surveillance System
20	3976/166/TD/IS003	Covered Parking Shed at Fareed Town, Sahiwal Office Building
Transportation Works		
21	3976/102/PC-1/XS01	Covered Parking Shed at Fareed Town, Sahiwal Plan of Typical X-Section
22	3976/102/PC-1/XS02	Covered Parking Shed at Fareed Town, Sahiwal Typical X-Section
Plumbing Water Supply System & Drainage Works		
23	3976/11/TD/4J00	Covered Parking Sheds at Fareed Town, Sahiwal Office Building (Legends & Notes)
24	3976/11/TD/4J01	Covered Parking Sheds at Fareed Town, Sahiwal Office Building Water Supply System
25	3976/11/TD/4J02	Covered Parking Sheds at Fareed Town, Sahiwal Office Building Sewerage System
26	3976/11/TD/4J03	Covered Parking Sheds at Fareed Town, Sahiwal Office Building Septic Tank
27	3976/11/TD/4J04	Covered Parking Sheds at Fareed Town, Sahiwal Office Building Miscellaneous Plumbing Details
28	3976/11/TD/4J05	Covered Parking Sheds at Fareed Town, Sahiwal Office Building Miscellaneous Plumbing Details
29	3976/11/TD/3J00	Covered Parking Sheds at Fareed Town, Sahiwal (Legends & Notes)
30	3976/11/TD/3J01	Covered Parking Sheds at Fareed Town, Sahiwal Storm Water Drainage System (Layout Plan and Levels)
31	3976/11/TD/3J02	Covered Parking Sheds Miscellaneous Details
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Architectural & Structural Works		
32	3976/033/TD/G001	Covered Parking Sheds & Allied Structures Mubarakpura Capital Road, Sialkot General Notes
33	3976/033/TD/3G01	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Boundary Wall (Foundation & Sections)
34	3976/033/TD/2G01	Covered Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Foundation Plan & Section (Concrete Outline & Reinforcement)
35	3976/033/TD/2G02	Covered Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Roof Slab Plan & Section (Concrete Outline & Reinforcement)
36	3976/033/TD/2G01	Covered Parking Shed Mubarakpura Capital Road, Sialkot Storm Drain Concrete Outline & Reinforcement
37	3976/311/TD/B01a	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Topographic Survey
38	3976/311/TD/B01	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Layout Plan
39	3976/311/TD/B02	Office Building Covered Parking Shed at Mubarakpura Capital Road, Sialkot (Plan, Elevation & Section)

SR. NO.	DRAWING NO.	TITLE
40	3976/311/TD/B03	Office Building Covered Parking Shed at Mubarakpura Capital Road, Sialkot Doors & Windows Details
41	3976/311/TD/B04	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Plan & Elevation of Main Gate
42	3976/311/TD/B05	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Details of Sec. Guard Room & Boundary Wall
Electrification Works		
43	3976/161/TD/5E001	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Legends, General Notes Lighting Fitting for Schedule and Earth Point Details
44	3976/161/TD/5E002	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Office Building Electrification Layout Plan
45	3976/161/TD/5E003	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Office Building Electrification Layout Plan
46	3976/161/TD/5E004	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Area Lighting Layout Plan
47	3976/161/TD/5E005	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Guard Room Electrification Layout Plan
48	3976/161/TD/5E006	Parking Sheds & Allied Structures at Mubarakpura Capital Road, Sialkot Details of 10M Conical Octagonal Lighting Pole Single Arm
Scada & Telecom Works		
49	3976/166/TD/IS001	Covered Parking Shed at Mubarakpura Capital Road, Sialkot Office Building IP Based Video Surveillance System
50	3976/166/TD/IS002	Covered Parking Shed at Mubarakpura Capital Road, Sialkot Office Building IP Based Video Surveillance System
51	3976/166/TD/IS003	Covered Parking Shed at Mubarakpura Capital Road, Sialkot Office Building Office Building
Transportation Works		
52	3976/102/PC-1/XS05	Covered Parking Shed at Mubarakpura Capital Road, Sialkot Plan of Typical X-Section
53	3976/102/PC-1/XS06	Covered Parking Shed at Mubarakpura Capital Road, Sialkot Typical X-Section
Plumbing Water Supply System & Drainage Works		
54	3976/11/TD/4J00	Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building (Legends & Notes)
55	3976/11/TD/4J01	Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Water supply System
56	3976/11/TD/4J02	Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Sewerage System
57	3976/11/TD/4J03	Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Septic Tank
58	3976/11/TD/4J04	Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Miscellaneous Plumbing Details
59	3976/11/TD/4J05	Parking Sheds at Mubarakpura Capital Road, Sialkot Office Building Miscellaneous Plumbing Details
60	3976/11/TD/3J00	Covered Parking Sheds Storm Water Drainage System (Legends & Notes)
61	3976/11/TD/3J01	Parking Sheds & Allied Structures Mubarakpura Capital Road, Sialkot Storm Water Drainage System (Layout Plan and Levels)
62	3976/11/TD/3J02	Covered Parking Sheds Miscellaneous Details
ALLAMA IQBAL TOWN, SIALKOT		
Architectural & Structural Works		
63	3976/033/TD/G001	Covered Parking Sheds & Allied Structures Allama Iqbal Town, Sialkot General Notes
64	3976/033/TD/3G01	Covered Parking Shed Allama Iqbal Town, Sialkot Storm Drain Concrete Outline & Reinforcement
65	3976/311/TD/B01a	Parking Sheds & Allied Structures Allama Iqbal Town, Sialkot Topographic Survey
66	3976/311/TD/B01	Parking Shed & Allied Structures at Allama Iqbal Town, Sialkot Layout Plan
67	3976/311/TD/B02	Parking Shed & Allied Structures at Allama Iqbal Town, Sialkot Plan & Elevation of Main Gate
68	3976/311/TD/B03	Parking Shed & Allied Structures at Allama Iqbal Town, Sialkot Sec. Guard Room Plan, Elevation, Sections & Details
Electrification Works		
69	3976/161/TD/5E001	Covered Parking Shed Allama Iqbal Town, Sialkot Legends, General Notes Lighting Fitting for Schedule and Earth Point Details
70	3976/161/TD/5E002	Covered Parking Shed at Allama Iqbal Town, Sialkot Single Line Diagram
71	3976/161/TD/5E003	Covered Parking Shed at Allama Iqbal Town, Sialkot Area Lighting Layout Plan
72	3976/161/TD/5E004	Covered Parking Shed at Allama Iqbal Town, Sialkot Guard Room Electrification Layout Plan
73	3976/161/TD/5E005	Covered Parking Shed at Allama Iqbal Town, Sialkot Details of 10M Conical Octagonal Lighting Pole Single Arm
Transportation Works		
74	3976/102/PC-1/XS03	Covered Parking Shed at Allama Iqbal Town, Sialkot Plan of Typical X-Section
75	3976/102/PC-1/XS04	Covered Parking Shed at Allama Iqbal Town, Sialkot Typical X-Section
Drainage System		
76	3976/11/TD/3J02	Covered Parking Sheds at Allama Iqbal Town, Sialkot Storm Water Drainage System (Layout Plan and Levels)

GENERAL NOTES

1. GENERAL

- ALL LEVELS AND DIMENSIONS ARE IN FEET & INCHES UNLESS OTHERWISE NOTED.
- ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING/SEWERAGE, MECHANICAL, ELECTRICAL AND ANY OTHER RELEVANT DRAWING.
- NOTES GIVEN ON THIS DRAWING ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHERWISE. NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERRED.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATIONS OF THE CONTRACT DOCUMENTS. IN THE ABSENCE OF ANY SPECIFICATIONS, ALL MATERIALS & WORKMANSHIP SHALL CONFORM TO THE RELEVANT A.C.I. BRITISH OR PAKISTANI CODES & STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURES DURING CONSTRUCTION. HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.
- THE CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL AND VARIOUS SERVICE DRAWINGS FOR SIZES & LOCATION OF ALL STRUCTURAL MEMBERS, FLOORS, WALLS, OPENINGS, FLOOR FINISHES, PIPES etc.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF DEWATERING SYSTEM WHERE SO REQUIRED DURING CONSTRUCTION.
- TERMITE CONTROL TREATMENT SHALL BE CARRIED OUT AS PER SPECIFICATIONS.
- DO NOT SCALE THE DRAWINGS. DIMENSIONS, GIVEN ON THE DRAWINGS, SHALL GOVERN.
- ALL FABRICATION, PAINTING, ERECTION AND QUALITY CONTROL IS TO BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE A.C.I./AISC/BRITISH SPECIFICATIONS.
- BACK FILLING AROUND FOUNDATIONS & WALLS SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES TO AVOID ANY LATERAL DISPLACEMENT. BACK FILLING UNDER FLOORS AND AROUND FOUNDATIONS SHALL BE DONE IN LAYERS NOT EXCEEDING 6 in. IN THICKNESS AND COMPACTED UP TO 95% M.P.D.
- DEWATERING SHALL BE DONE BY CONTRACTOR IF REQUIRED WITH THE PRIOR APPROVAL OF THE ENGINEER.

2. FOUNDATIONS

- FOUNDATIONS HAVE BEEN DESIGNED BASED ON NET ALLOWABLE BEARING CAPACITY AS SPECIFIED IN GEO-TECHNICAL INVESTIGATION REPORT.
- IF SOFT/LOOSE POCKET OF SOIL IS ENCOUNTERED AT FOUNDATION BASE, IT SHOULD BE COMPLETELY REMOVED AND REPLACED WITH SELECT FILL MATERIAL. THE SELECT FILL SHOULD BE A-3 AS PER AASHTO SOIL CLASSIFICATIONS. THE SELECT FILL MATERIAL SHOULD BE REPLACED AND COMPACTED IN LAYERS OF THICKNESS APPROPRIATE TO TYPE AND SIZE OF COMPACTED EQUIPMENT TO AT LEAST 75% AT RELATIVE DENSITY (95% MODIFIED PROCTOR DENSITY) AS APPROPRIATE. THE ON SITE SOIL AT FOUNDATION EXCAVATION BASE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SELECT FILL.
- ALL FOUNDATIONS SHALL BE PLACED ON COMPETENT LOAD BEARING STRATA. IF ACCEPTABLE BEARING STRATA IS NOT FOUND AT INDICATED DEPTHS OF FOUNDATION, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR HIS INSTRUCTIONS. ALL COLUMN FOOTING THAT MAY LIE IN THE FILL AREA SHOULD BE SUPPORTED ON THE NATURAL SOIL UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- THE BED OF FOUNDATION SHALL BE THOROUGHLY COMPACTED PRIOR TO LAYING FOUNDATION. ANY LOOSE, WET, SOFT SOIL PATCH SHALL BE REPLACED WITH WELL-COMPACTED SELECT GRANULAR FILL COMPACTED TO 95% MODIFIED AASHTO DENSITY.
- THE FOUNDATION BED SOIL SHALL BE PROTECTED FROM INGRESS OF MOISTURE FROM ANY SOURCE BY PROVIDING ADEQUATE SURFACE DRAINAGE SYSTEM AND ENSURING LEAK PROOF JOINTING OF SEWERAGE AND WATER SUPPLY LINES. EXCESSIVE AND UNCONTROLLED WATERING FOR CURING AND COMPACTION OF BACK FILL MATERIAL SHALL BE AVOIDED.
- ALL FOUNDATIONS SHALL BE PLACED ON COMPETENT LOAD BEARING STRATA. IF ACCEPTABLE BEARING STRATA IS NOT FOUND AT INDICATED DEPTHS OF FOUNDATION, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR HIS INSTRUCTIONS. THE BED OF FOUNDATION SHALL BE THOROUGHLY COMPACTED PRIOR TO LAYING FOUNDATION. ANY LOOSE, WET, SOFT SOIL PATCH SHALL BE REPLACED WITH WELL-COMPACTED SELECT GRANULAR FILL COMPACTED TO 95% MODIFIED AASHTO DENSITY OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

CONCRETE

3.1 STRENGTH

- STRUCTURAL DESIGN IS BASED ON THE AMERICAN CONCRETE INSTITUTE CODE OF REINFORCED CONCRETE, ACI 318 AND UNIFORM BUILDING CODE.
- ALL STRUCTURAL CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE (ACI) REQUIREMENTS.
- THE MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS FOR VARIOUS STRUCTURES SHALL BE AS GIVEN IN THE FOLLOWING TABLE.

STRUCTURE/STRUCTURAL ELEMENT	MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS (psi)
BUILDING CONCRETE/PLAIN CONCRETE	1500 (1:3:6)
SLABS, BEAMS & ALL OTHER STRUCTURAL ELEMENTS	2500 (1:2:4)
COLUMNS	3000 (1:1.5:3)
WATER RETAINING STRUCTURES	4000 (1:1:2)

3.2 MIX DESIGN

THE MIX DESIGN FOR THE SPECIFIED GRADES OF CONCRETE MEETING ALL REQUIREMENTS OF STRENGTH, WORKABILITY AND DURABILITY, SHALL BE CARRIED OUT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR HIS APPROVAL. CHEMICAL ADDITIVES SUCH AS RETARDERS/SUPER PLASTICIZERS MAY BE USED SUBJECT TO THE APPROVAL BY THE ENGINEER.

3.3 AGGREGATE SIZE

MAXIMUM AGGREGATE SIZE SHALL BE AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

STRUCTURAL ELEMENT	MAX. AGGREGATE SIZE (Inch)
FOUNDATION MATS, RAFTS AND FOOTINGS UP TO 3.0 FT. THICK	1 1/2"
COLUMNS AND BEAMS	3/4"
WALLS	3/4"
SLABS	3/4"

3.4 CONSTRUCTION JOINTS

- GENERALLY, THE CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS WILL BE FOLLOWED. HOWEVER THE CONTRACTOR MAY USE AN ALTERNATE CONSTRUCTION JOINTS ARRANGEMENT TO SUIT HIS REQUIREMENTS, WITH PRIOR APPROVAL OF THE ENGINEER. FOR THIS PURPOSE, THE CONTRACTOR SHALL SUBMIT HIS PROPOSAL FOR THE APPROVAL OF THE ENGINEER TWO WEEKS IN ADVANCE OF HIS SCHEDULED CONCRETE POURING DATE. ALL CONSTRUCTION JOINTS SHALL BE TREATED AS PER SPECIFICATIONS.
- CONSTRUCTION JOINTS IN FLOOR SLABS AND BEAMS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER. HORIZONTAL CONSTRUCTION JOINTS IN RAFTS, SLABS AND BEAMS ARE NOT PERMITTED EXCEPT AS SPECIFICALLY INDICATED ON STRUCTURAL DRAWINGS.
- SURFACE OF CONCRETE CONSTRUCTION JOINTS SHALL BE ROUGHENED, CLEANED AND LANTANCE REMOVED AS PER SPECIFICATIONS.
- CONSTRUCTION JOINTS SHALL BE SO MADE AND LOCATED AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE. THEY SHALL BE LOCATED AT THE ONE THIRD OF THE SPANS OF SLABS, BEAMS & JOISTS. IN WALLS & COLUMNS SHALL BE AT THE UNDER SIDE OF FLOORS, SLABS OR BEAMS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS.
- WATERSTOP SHALL BE PROVIDED AT CONSTRUCTION JOINTS WHERE REQUIRED WITH PRIOR APPROVAL OF THE ENGINEER.

3.5 EMBEDDED ITEMS

BEFORE PLACING CONCRETE, IT SHALL BE ENSURED THAT ALL EMBEDDED ITEMS ARE IN POSITION AND SECURELY FASTENED/WELDED IN PLACE ACCORDING TO THE DRAWINGS. EMBEDDED ITEMS SHALL BE FREE OF OIL AND OTHER FOREIGN MATTER SUCH AS LOOSE COATING OF RUST. ALL EMBEDDED ITEMS REQUIRED FOR DOORS AND WINDOWS SHALL BE SUPPLIED AND PLACED IN POSITION BY CIVIL CONTRACTOR. ALL EMBEDDED ITEMS REQUIRED FOR PIPING, ELECTRICAL AND MECHANICAL EQUIPMENTS SHALL BE SUPPLIED BY OTHERS. HOWEVER SUCH ITEMS SHALL BE PLACED AND HELD IN POSITION BY THE CIVIL CONTRACTOR BY HIS OWN SUPPORTING ARRANGEMENT APPROVED BY THE ENGINEER.

3.6 FINISHES

FINISHES OF CONCRETE SURFACES SHALL BE AS PER SPECIFICATIONS.

3.7 CONCRETE POURING

THE CONTRACTOR SHALL SUBMIT CONCRETE POURING SCHEDULE FOR ENGINEER'S APPROVAL. NO CONCRETE SHALL BE PLACED UNTIL WRITTEN PERMISSION IS GIVEN BY THE ENGINEER DURING CONSTRUCTION. STACKING OF CONSTRUCTION MATERIALS, BRICKS etc. SHALL BE AVOIDED ON SLAB PANELS.

4. REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO THE LATEST ASTM A615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF 60,000 PSI.

4.1 CONCRETE PROTECTION TO REINFORCEMENT

MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.

STRUCTURAL ELEMENT	COVER (Inch)
1- FOUNDATION IN CONTACT WITH SOIL & WATER	3"
2- FOUNDATIONS NOT IN CONTACT WITH SOIL	2"
3- WALLS (INCLUDING RETAINING WALLS)	2"
4- FACE EXPOSED TO WEATHER OR EARTH	1 1/2"
5- FACE NOT EXPOSED TO WEATHER OR EARTH	1 1/2"
6- FACE EXPOSED TO WATER	3"
7- SLABS	3/4"
8- COLUMNS AND BEAMS	1 1/2"

4.2 DETAILING OF REINFORCEMENT

ADDITIONAL BARS EQUAL TO 1/2 REINFORCING BARS AREA, INTERRUPTED BY OPENING, SHALL BE PROVIDED AT EACH SIDE OF OPENING AND SHALL EXTEND EQUAL TO SPLICE LENGTH (3'-0" MIN.) BEYOND OPENING. MIN. 2-#5 BARS ON EACH SIDE AND FACE SHALL BE USED. FOR OPENINGS LESS THAN 12"x12", OFFSET THE REINFORCEMENT TO CLEAR OPENING AND NO ADDITIONAL REINFORCEMENT SHALL BE PROVIDED.

A. ACCESSORIES

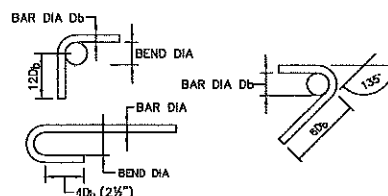
BAR SUPPORTS, SPACERS AND OTHER ACCESSORIES ARE NOT SHOWN ON THE DRAWINGS. THE RECOMMENDATIONS OF ACI-315 OR OTHER SUPPORTING SYSTEM AS APPROVED BY THE ENGINEER MAY BE USED.

B. STANDARD REINFORCEMENT DETAILS

a) MINIMUM BEND DIAMETERS

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

BAR SIZE	MINIMUM DIAMETER OF BEND
#3 Through #5	4Db
#6 Through #8	6Db
#9, #10 and #11	8Db



STANDARD HOOKS FOR REINFORCEMENT OTHER THAN STIRRUPS, TIES & HOOPS

STANDARD HOOKS FOR STIRRUPS TIES AND HOOPS

b) DEVELOPMENT LENGTH

UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM BASIC DEVELOPMENT LENGTH FOR $F_y = 60,000$ PSI (GRADE 60) SHALL BE AS FOLLOWS:

(a) TOP BARS										
Bar Size		DEVELOPMENT LENGTH 'Inch' (Fy=60000 psi)								
f'c (psi)		#3	#4	#5	#6	#7	#8	#9	#10	#11
3000 (1:1.5:3)		21	30	36	42	63	72	81	90	89
4000 (1:1:2)		18	24	33	36	54	63	69	78	84

(b) BOTTOM BARS										
Bar Size	DEVELOPMENT LENGTH 'inch' (Fy=60000 psi)									
f_c' (psi)	#3	#4	#5	#6	#7	#8	#9	#10	#11	
3000 (1:1.5:3)	18	21	27	33	48	54	63	59	75	
4000 (1:1:2)	15	18	24	30	42	48	54	60	66	

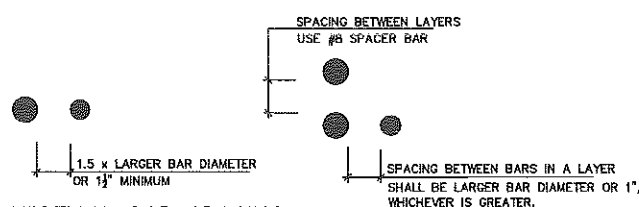
c) SPLICE/LAP LENGTH

- WELDED WIRE FABRIC MESH SHALL BE LAPPED OVER ADJACENT SHEET BY 12 INCH.
- BARS SHALL BE SPLICED ONLY WHERE INDICATED, OR AT LOCATIONS SPECIFICALLY APPROVED BY THE ENGINEER.
- THE LAP'S SHOULD BE STAGGERED.
- UNLESS OTHERWISE STATED ON THE DRAWINGS THE FOLLOWING LAP LENGTHS SHALL BE PROVIDED.

(a) TOP BARS										
Bar Size f_c' (psi)	SPLICE/LAP LENGTH "inch" ($F_y=60000$ psi)									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
3000 (1:1.5:3)	27	39	48	54	81	93	105	114	129	
4000 (1:1:2)	24	33	42	48	72	81	90	102	111	

(b) BOTTOM BARS										
Bar Size f'_c (psi)	SPUCE/LAP LENGTH "inch" (Fy=60000 psi)									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
3000 (1:1.5:3)	21	27	36	42	63	72	81	90	99	
4000 (1:1:2)	18	24	30	36	54	63	72	78	84	

BEAM SPLICE (TYP.) COLUMN SPLICE (TYP.)



VERTICAL BAR SPACING IN COLUMNS

BAR SPACING IN BEAM

- ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND HELD FIRMLY IN PLACE BEFORE & DURING THE PLACEMENT OF CONCRETE, BY MEANS OF WIRE AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION.
- DISTRIBUTION REINFORCEMENT SHALL BE PROVIDED AS #3@10" c/c UNLESS OTHERWISE SPECIFIED.

5. FORMWORK

- THE DESIGN AND ENGINEERING OF THE FORMWORK, AS WELL AS ITS CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE FORMWORK SHALL BE DESIGNED CONFORMING TO THE REQUIREMENTS OF ACI 301 AND CONTRACT SPECIFICATIONS.
- THE FORMWORK SHALL HAVE SUFFICIENT STRENGTH TO WITHSTAND THE PRESSURE RESULTING FROM PLACEMENT AND VIBRATION OF CONCRETE AND SHALL HAVE SUFFICIENT RIGIDNESS TO MAINTAIN THE TOLERANCE SPECIFIED IN ACI 301 AND CONTRACT SPECIFICATIONS.

6. SHOP DRAWINGS

- SHOP DRAWINGS FOR FORMWORK, CONCRETE AND REINFORCEMENT SHOWING ALL FABRICATION DIMENSIONS AND LOCATION SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED FOR THE ENGINEER'S APPROVAL.
- THE CONTRACTOR SHALL ALSO PREPARE BAR BENDING SCHEDULES AND SUBMIT THESE FOR APPROVAL OF THE ENGINEER.
- IT WILL BE PREFERABLE THAT CUTTING AND BENDING OF REINFORCING STEEL BE CARRIED OUT IN WORKSHOP WITH CUTTING BENDING MACHINE.

7. SHORING AND BRACING

- SHORE & BRACE ALL PARTS OF THE BUILDING DURING CONSTRUCTION, TO THE EXTENT NECESSARY TO ENSURE COMPLETE SAFETY, STRENGTH & SERVICEABILITY OF ALL STRUCTURAL ELEMENTS UNDER ALL CONDITIONS OF LOADS, WHICH MAY OCCUR DURING CONSTRUCTION. SUCH SHORING & BRACING IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND IS NOT SHOWN ON STRUCTURAL DRAWINGS OR SPECIFIED IN THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE ADJACENT EXISTING STRUCTURES AND SHALL PROVIDE SHORING AND BRACING DURING EXCAVATION AND CONSTRUCTION, WHEREVER AND WHENEVER REQUIRED TO THE SATISFACTION OF THE ENGINEER.

8. BRICK WORK

- ALL BRICK WORK SHALL CONFORM TO SPECIFICATIONS GIVEN IN THE CONTRACT DOCUMENT.
- ALL BRICKS SHALL BE SOUND, HARD, WELL BURNED AND OF UNIFORM SIZE, COLOUR AND TEXTURE. DIMENSIONAL VARIATION IN SIZES SHALL NOT EXCEED 1/8".
- ALL BRICK WORK SHALL BE ERECTED PLUMB AND TRUE TO LINE AND LEVEL. THE MAXIMUM VARIATION IN ANY STRETCH OR ANY LENGTH OF WALL SHALL BE 1/8" IN 10', OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF NOT LESS THAN 1800 Psi AND SHALL CONFORM TO ASTM C270, COMPRESSIVE STRENGTH OF MASONRY AT 28 DAYS SHALL NOT BE LESS THAN 1150 Psi.
- ALL DESIGN, DETAILING, MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH RELEVANT A.C.I. ASTM, AND UBC CODE AND STANDARDS.
- TESTING OF COMPRESSIVE STRENGTH OF MASONRY SHALL BE DONE, IF SO DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ASTM C67 OR PAKISTAN STANDARD-208.
- THE AVERAGE COMPRESSIVE STRENGTH OF TWELVE HALF BRICKS SHALL BE NOT LESS THAN 2000 psi AND SHALL BE NOT LESS THAN 1800 psi FOR ANY INDIVIDUAL BRICK.
- BRICK SHALL BE LAID "FROG" UPWARD WITH MORTAR JOINT AND IN ENGLISH AND FLEMISH BOND OR AS DIRECTED BY THE ENGINEER.
- TESTING OF COMPRESSIVE STRENGTH OF MASONRY SHALL BE DONE, IF SO DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ASTM C67 OR PAKISTAN STANDARD-208.

9. TOLERANCES AND DIMENSIONS

BEFORE THE FORMWORK IS LAID AT SITE THE CONTRACTOR MUST VERIFY AND CHECK OVERALL DIMENSIONS/ELEVATIONS OF THE STRUCTURE GIVEN IN THE STRUCTURAL DRAWINGS TO SEE IF THE FINISHED DIMENSIONS/ELEVATIONS GIVEN ON THE DRAWINGS TALLY AFTER PROVIDING THE REQUIRED FINISH. THE ENGINEER'S REPRESENTATIVE SHALL VERIFY THE MEASUREMENTS OF STRUCTURAL SIZE AND ELEVATIONS TO BE RECORDED IN THE RELEVANT POUR STEPS. PERMISSION TO PROCEED SHALL NOT BE GRANTED IF DEVIATIONS ARE MORE THAN PERMISSIBLE TOLERANCES, AS STIPULATED IN THE SPECIFICATIONS.

10. LOCAL ADJUSTMENTS

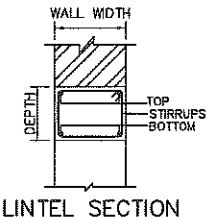
LOCAL ADJUSTMENTS TO ACCOMMODATE FIXTURES/EMBEDMENTS/OPENINGS MAY BE MADE AT SITE, SUBJECT TO THE APPROVAL OF THE ENGINEER, AS LONG AS IT DOES NOT MATERIALLY AFFECT THE DESIGN.

11. STRUCTURAL STEEL

- ALL STRUCTURAL STEEL SECTIONS SHALL CONFORM TO ASTM A36M OR EQUIVALENT WITH MINIMUM YIELD STRENGTH OF 248 MPa (36,000 psi). ALL ANCHORS, BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325M. ALL STEEL PLATES, TUBES AND BUILT-UP SECTIONS SHALL CONFORM TO HR 235.
- ALL STEEL SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE.
- ALL WELDING ELECTRODES SHALL CONFORM TO E 70XX.
- MINIMUM SIZE OF FILLET WELD SHALL BE 7mm EXCEPT OTHERWISE NOTED.
- ALL STRUCTURAL STEEL SECTIONS SHALL BE GIVEN TWO COATS OF RED-OXIDE PAINT. ALL EXPOSED STEEL SURFACES SHALL BE PAINTED WITH APPROVED PAINT AND COLOUR AS DIRECTED BY THE ENGINEER.
- THE BASE PLATES OF THE COLUMNS SHALL BE LEVELED AND THEN GROUTED WITH APPROVED NON-SHRINK GROUT USING STANDARD APPROVED PROCEDURE.
- ALL ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED.
- NUTS AND BOLTS FOR CLAMPS SHALL BE SPOT WELDED AFTER TIGHTENING.

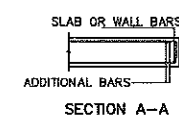
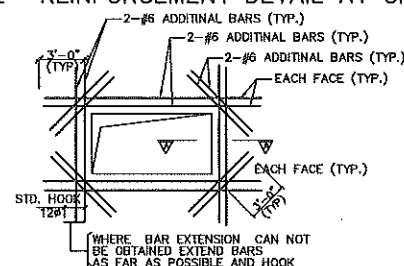
TABLE FOR LINTEL REINFORCEMENT

OPENING WIDTH	DEPTH	BOTTOM	TOP	STIRRUPS
3'-0" TO 4'-0"	6"	2#4	2#3	#3@6"
4'-1" TO 6'-0"	9"	3#4	3#3	#3@6"
6'-1" TO 10'-0"	9"	2#6	2#4	#3@6"

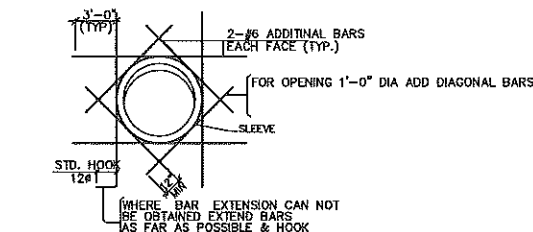


LINTEL SECTION

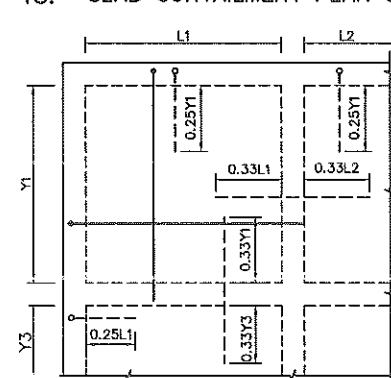
12- REINFORCEMENT DETAIL AT OPENING IN SLAB/SLEEVES.



NOTES
- FOR OPENING WITH MAXIMUM DIMENSION OVER 5'-0" REFER TO OTHER DETAILS.
- USE THESE DETAILS IF NOT SHOWN IN DESIGN DRAWINGS.



13. SLAB CURTAILMENT PLAN & CORNER REINFORCEMENT END



TYPICAL SLAB REINFORCEMENT (CUT OFF POINTS)

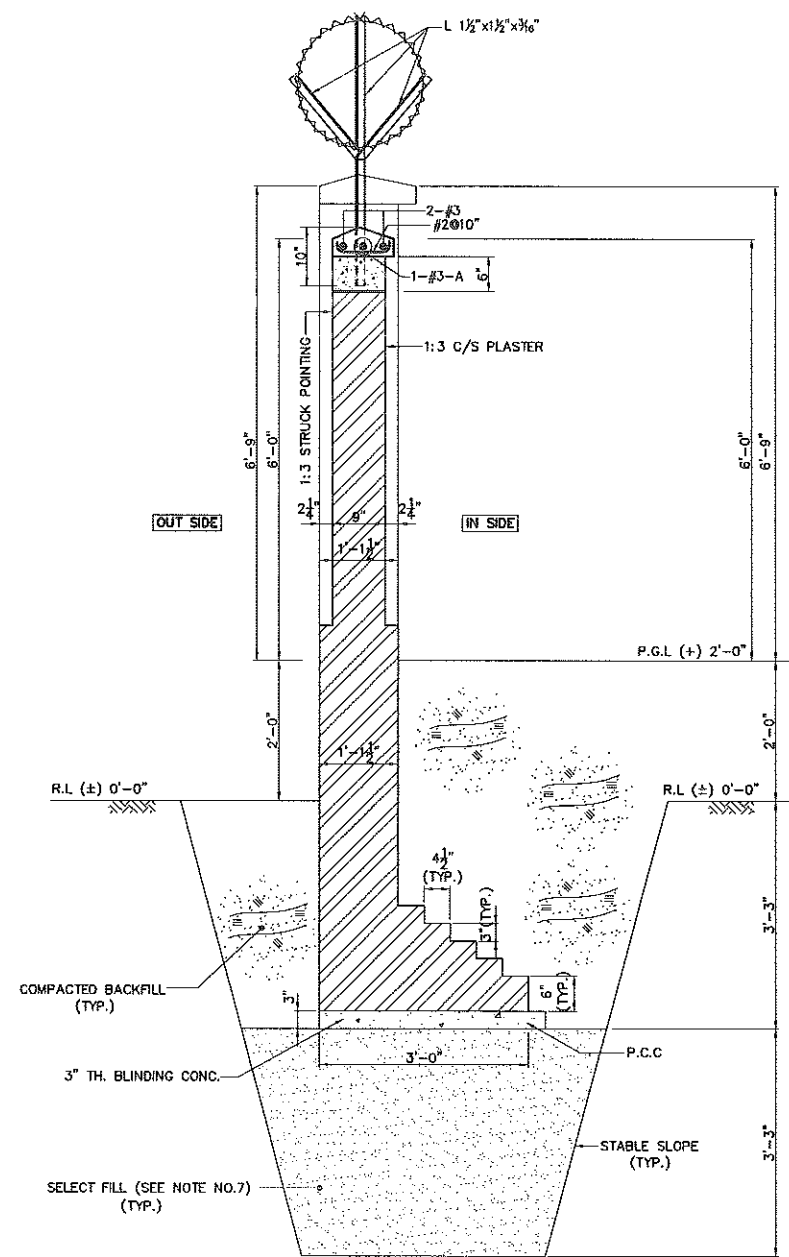
NOTE: TOP REINFORCEMENT OF SLAB AT CONTINUOUS EDGE SHALL BE GREATER OF THE ADJACENT SPAN.

TENDER DRAWING

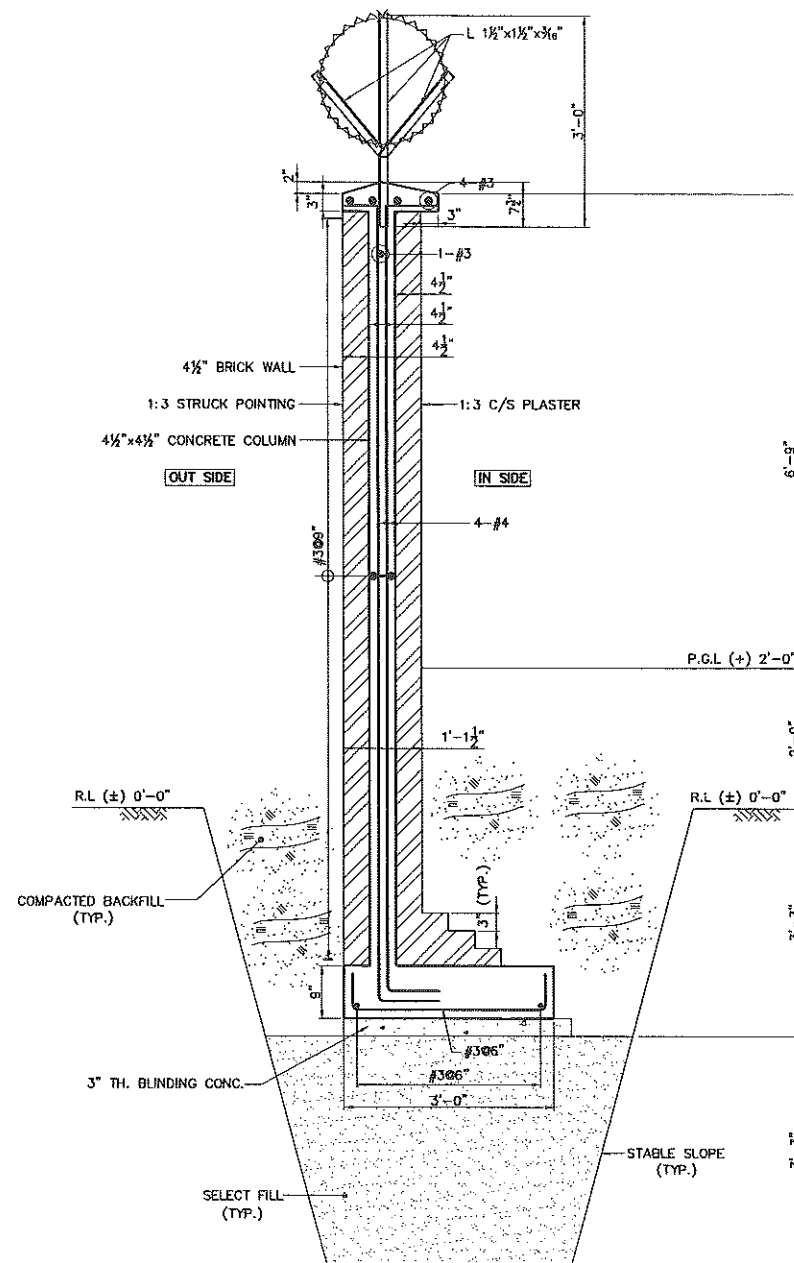
NOT TO BE USED FOR CONSTRUCTION FOR TENDER PURPOSE ONLY

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL			
GENERAL NOTES			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER./CRD: [Signature]	APPROVED: [Signature]
DWN: GHULAM M.	DATE: AUG 2020	DRAWING NO. 3978/033/TD/G001	REV. 0
CKD: [Signature]			
SUBM: [Signature]			

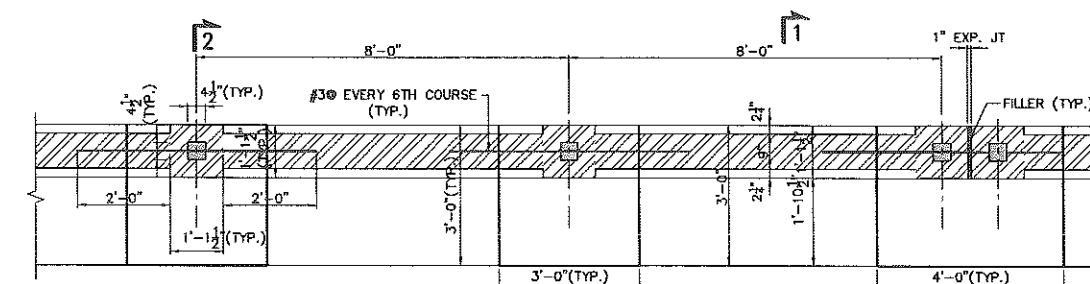
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD	APPR



SECTION 1-1
SCALE 3/4"=1'-0"



SECTION 2-2
SCALE 3/4"=1'-0"

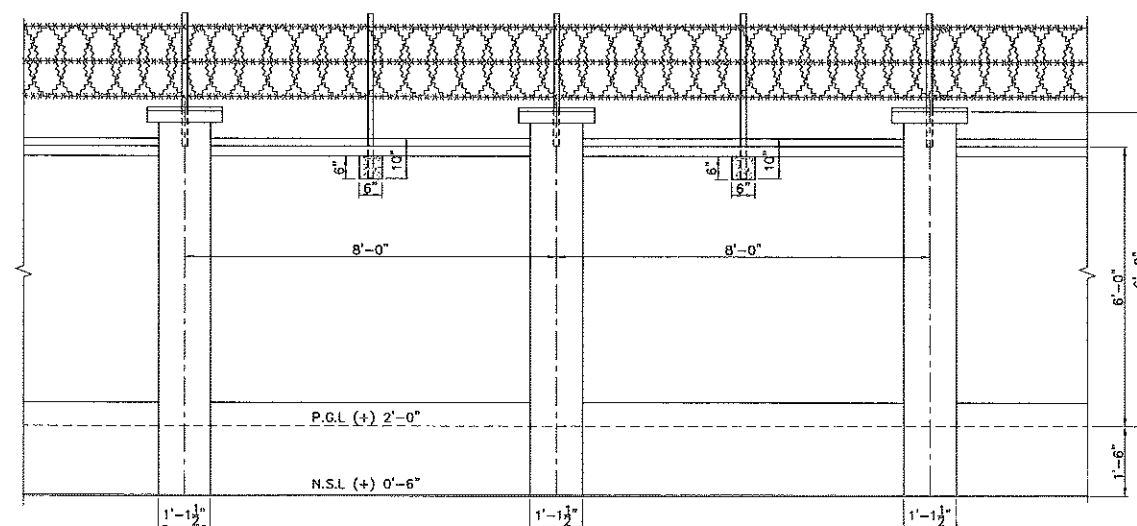
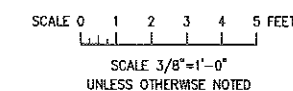


FOUNDATION PLAN
SCALE 1/2"=1'-0"

NOTES:

1. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
2. FOR GENERAL NOTES REFER DRAWING NO. 3976/033/TD/G001.
3. BACK FILLING AROUND FOUNDATIONS & WALLS SHALL BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES TO AVOID ANY LATERAL DISPLACEMENT. BACK FILLING UNDER FLOORS AND AROUND FOUNDATIONS SHALL BE DONE IN LAYERS NOT EXCEEDING 6 in.
4. THE AREA AROUND THE WALL SHALL BE PROPERLY DRAINED DURING AND AFTER CONSTRUCTION OF THE BOUNDARY WALL.
5. MORTAR USED IN MASONRY CONSTRUCTION (1:3) SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF NOT LESS THAN 1800 Psi AND SHALL CONFORM TO ASTM C270, COMPRESSIVE STRENGTH OF MASONRY AT 28 DAYS SHALL NOT BE LESS THAN 1150 Psi.
6. EXPANSION JOINT IN BOUNDARY WALLS SHALL BE FURNISHED AFTER EVERY 10 PANELS INTERVAL IN STRAIGHT WALL.
7. THE SELECT FILL SHOULD BE A-3 AS PER AASHTO SOIL CLASSIFICATIONS. THE SELECT FILL MATERIAL SHOULD BE REPLACED AND COMPACTED IN LAYERS OF THICKNESS APPROPRIATE TO TYPE AND SIZE OF COMPACTED EQUIPMENT TO AT LEAST 75% AT RELATIVE DENSITY OR 95% MODIFIED PROCTOR DRY DENSITY, AS APPROPRIATE. THE ON SITE SOIL AT FOUNDATION EXCAVATION BASE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SELECT FILL/FOUNDATION.

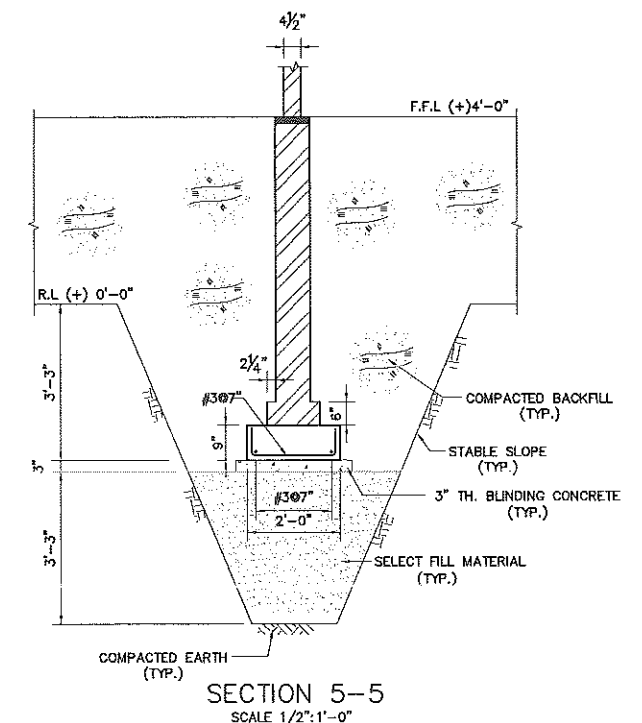
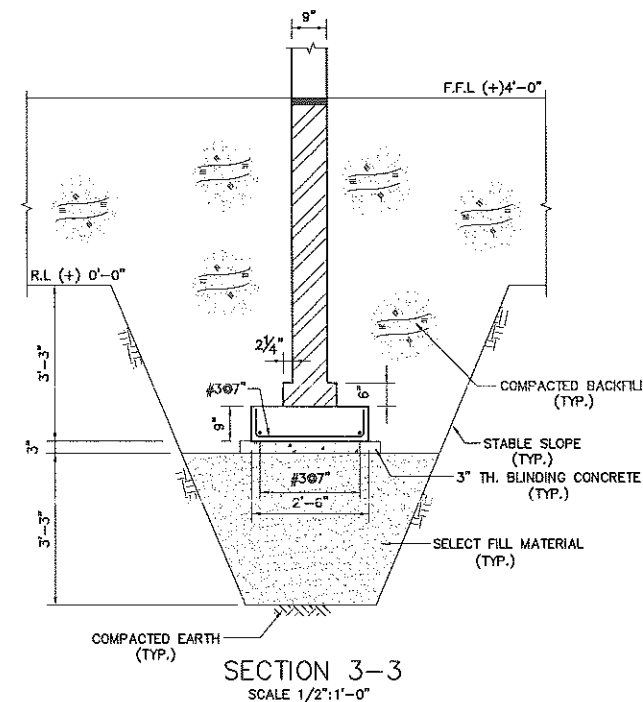
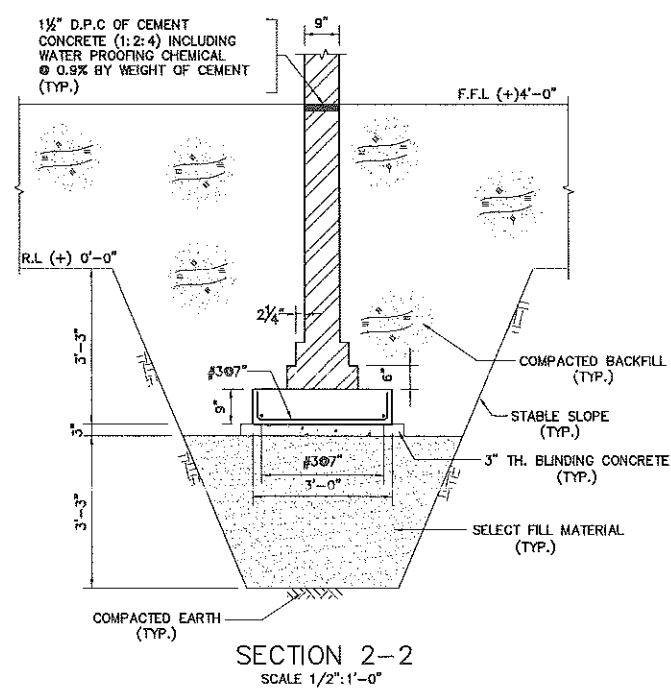
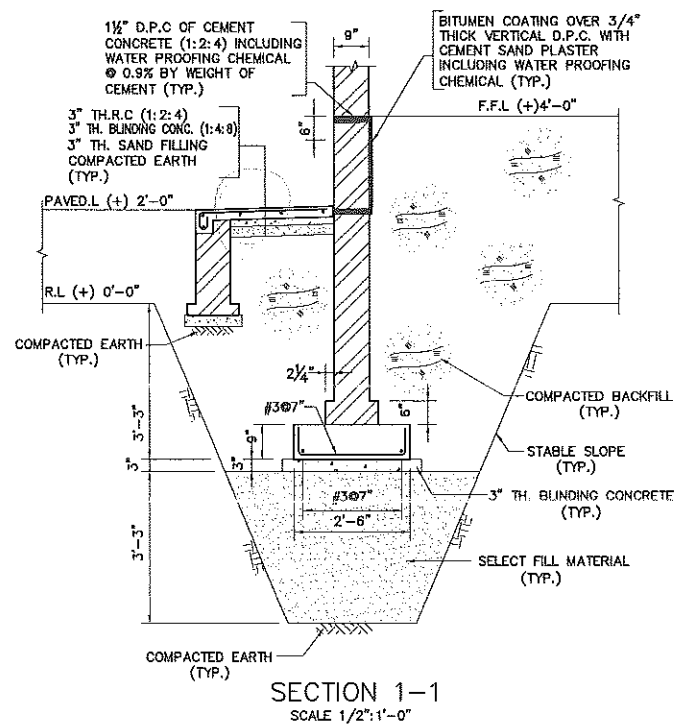
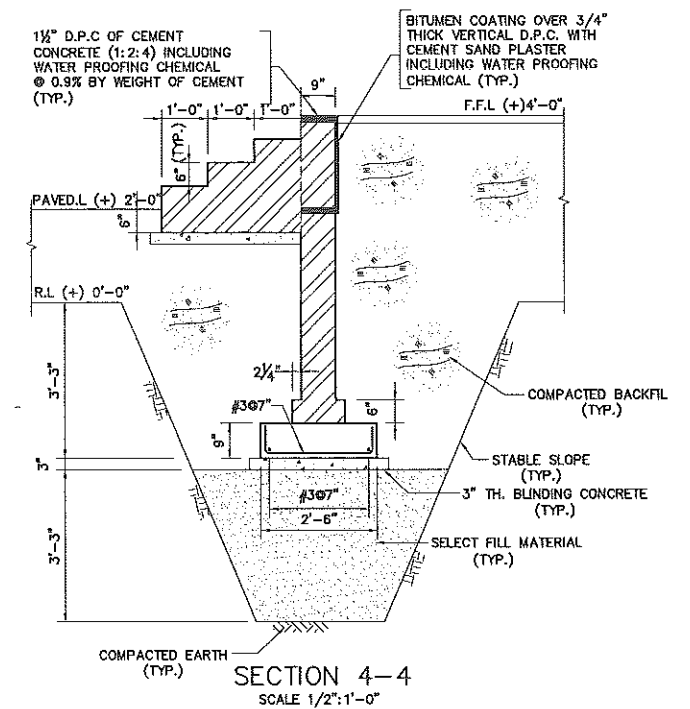
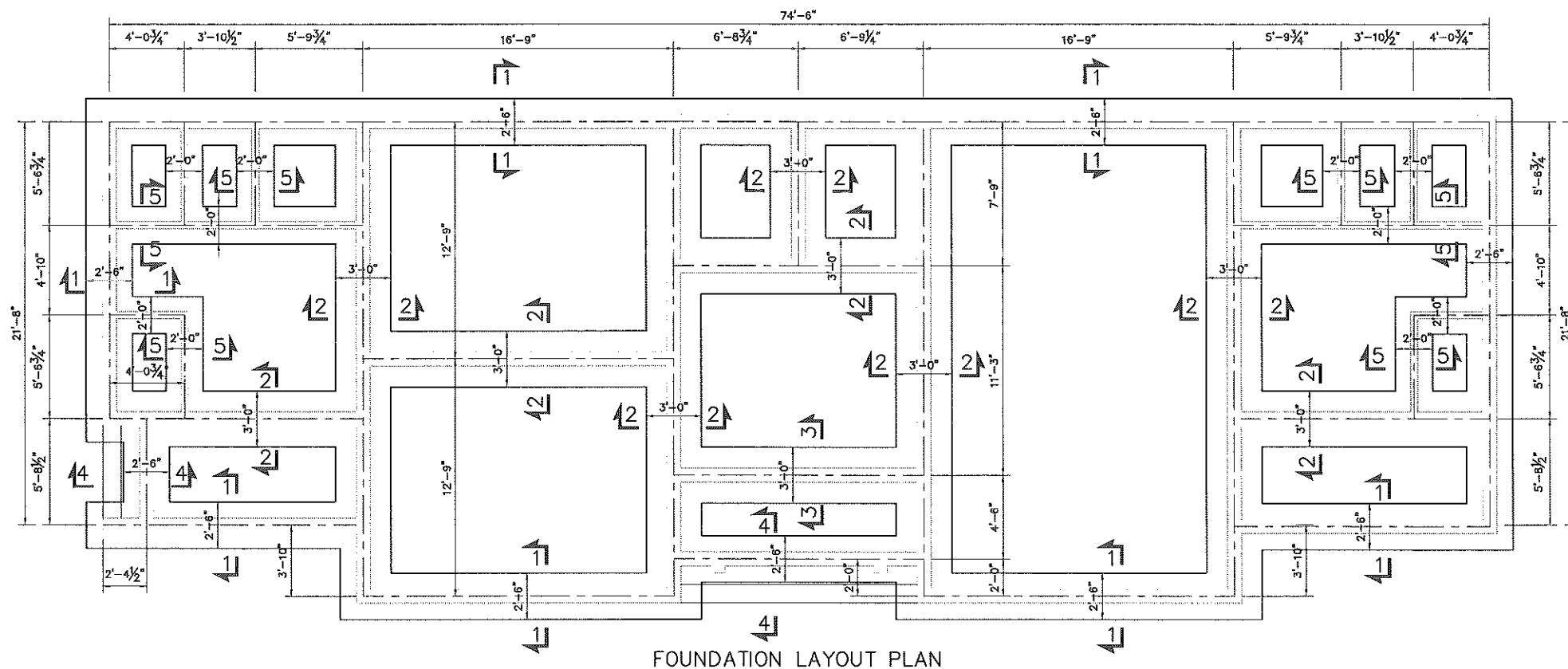
NOT TO BE USED FOR CONSTRUCTION
FOR TENDER PURPOSE ONLY



TYPICAL WALL ELEVATION
SCALE 1/2"=1'-0"

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHK	APPR

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT			
COVERED PARKING SHED AT FREED TOWN, SAHIWAL BOUNDARY WALL (FOUNDATION & SECTIONS)			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESN. NESPAK DWN. M.ASIM/TARIQ FILE CKD. SUBM.	RECOMMENDED DATE AUG. 2020	VER./CKD. APPROVED DATE AUG. 2020	DRAWING NO. 3976/033/TD/G001







SCALE 0 5 10 FEET
SCALE 3/16"=1'-0"
UNLESS OTHERWISE NOTED

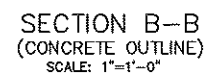
NOTE

1. FOR GENERAL NOTES PREFER DWG. 3976/033/C/G001

TENDER DRAWING

NOT TO BE USED FOR CONSTRUCTION
FOR ESTIMATION PURPOSE ONLY

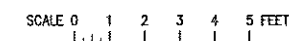
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CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING-FOUNDATION PLAN & SECTIONS (CONCRETE OUTLINE & REINFORCEMENT)				
				
NESPAK - ARTELIA JOINT VENTURE (JV)				
DESIGN	NESPAK	RECOMMENDED	VER./CHKD.	APPROVED
DWN.	SAFED			
FILE				
CHKD.				
SUBM.		DATE	DRAWING NO.	REV.
		AUG, 2020	3976/033/TD/2G01	0







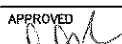
NOT TO BE USED FOR CONSTRUCTION
FOR ESTIMATION PURPOSE ONLY

NOTES:

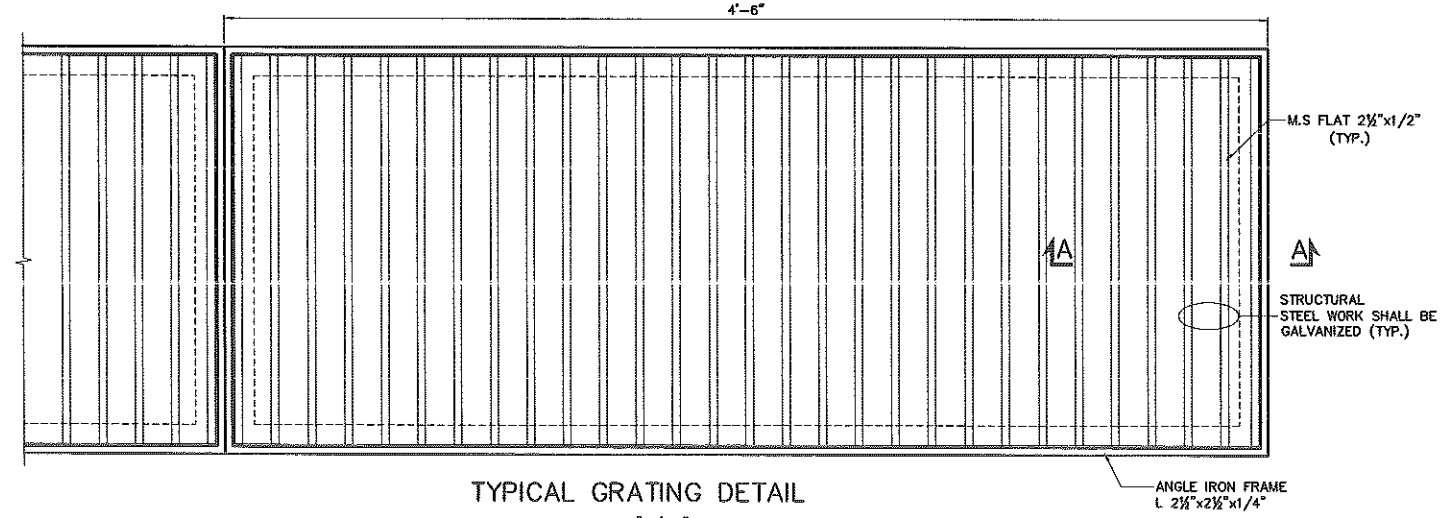
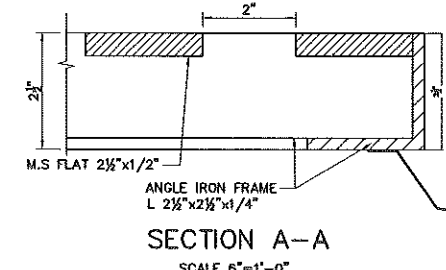
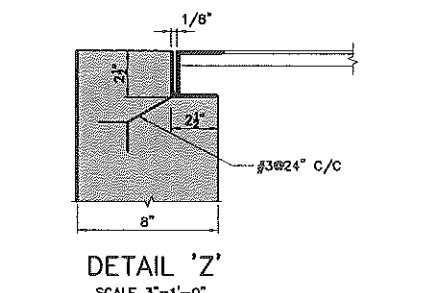
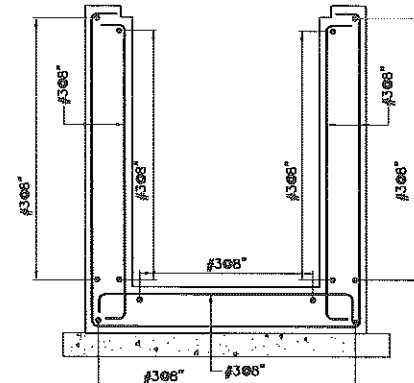
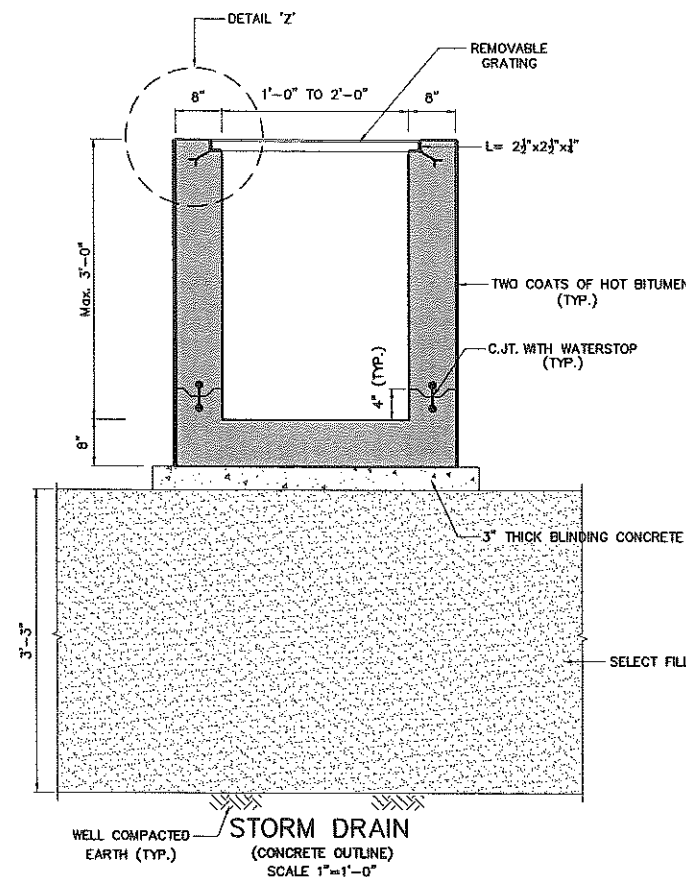
1. FOR GENERAL NOTES REFER DRAWING NO. 3976/033/C/G001.



SCALE 3/8"=1'-0"
UNLESS OTHERWISE NOTED

	PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (L.G & CD) DEPARTMENT, PUNJAB				
	REHABILITATION / IMPROVEMENT OF SEWERAGE SYSTEM, IN NORTH ZONE, SAHIVAL				
COVERED PARKING SHEDS AT FREED TOWN, SAHIVAL OFFICE BUILDING- ROOF SLAB PLAN & SECTIONS (CONCRETE OUTLINE & REINFORCEMENT)					
附圖 目錄		NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN.	NESPAK	RECOMMENDED	VER./CHKD.	APPROVED	
DWN.	SAEED				
FILE					
CKD.		DATE	DRAWING NO.		RI
SUBM.		AUG, 2020	3976/033/TD/G202		

[illegible]



NOTES

- ALL DIMENSIONS AND ELEVATIONS ARE IN FEET & INCHES.
- READ THIS DRAWING IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
- REINFORCED CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH OF 3000 Psi AT 28 DAYS UNLESS OTHERWISE NOTED.
- BLINDING CONCRETE / PCC SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH OF 1500 Psi AT 28 DAYS.
- ALL REINFORCEMENT SHALL BE DEFORMED BARS CONFORMING TO ASTM A 615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF 60,000 Psi.
- THE FOLLOWING MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE PROVIDED, UNLESS OTHERWISE SPECIFIED ON THE DRAWING.

STRUCTURAL ELEMENT	COVER (IN)
(i) BASE SLAB	1"
(ii) WALL	1"
- THE ONSITE SOIL AT FOUNDATION EXCAVATION BASE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SELECT FILL / FOUNDATION.
- OPEN AREAS ADJACENT TO FOUNDATIONS MUST BE PROTECTED AGAINST PENETRATION OF SURFACE WATER, WHICH SHOULD BE DRAINED AWAY FROM THE CONSTRUCTED AREAS.
- THE CONTRACTOR SHALL PREPARE BAR BENDING SCHEDULES AND SUBMIT THESE FOR APPROVAL OF THE ENGINEER.
- BACKFILLING AROUND THE FOUNDATIONS SHOULD BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES OF THE WALL/FOUNDATIONS.
- BACKFILLING AROUND FOUNDATIONS SHALL BE WELL COMPACTED (95%MPD) AND SHALL BE DONE IN LAYERS NOT EXCEEDING 8 INCHES IN THICKNESS.
- ALL STRUCTURAL STEEL SECTIONS SHALL CONFORM TO ASTM A36M OR EQUIVALENT WITH MINIMUM YIELD STRENGTH OF 248 MPa (36,000 psi). ALL ANCHORS, BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325M. ALL STEEL PLATES, TUBES AND BUILT-UP SECTIONS SHALL CONFORM TO HR 235.
- ALL WELDS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE. ALL WELDING ELECTRODES SHALL CONFORM TO E 70XX.
- MINIMUM SIZE OF FILLET WELD SHALL BE 6mm EXCEPT OTHERWISE NOTED.

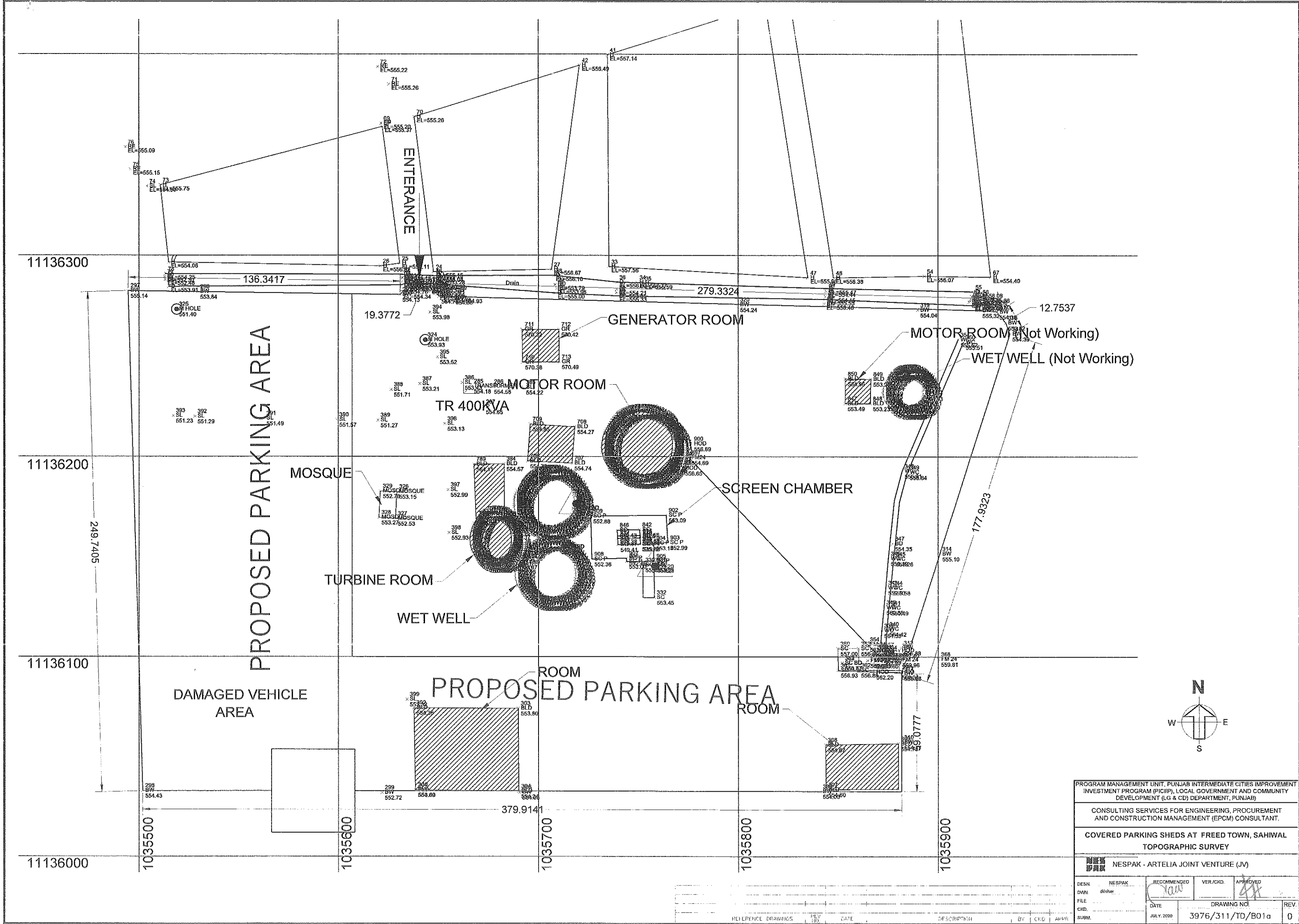
TENDER DRAWING

NOT TO BE USED FOR CONSTRUCTION
FOR TENDER PURPOSE ONLY

INCHES 0 1 2 3 4 FEET
SCALE: 3/8"=1'-0"
UNLESS OTHERWISE NOTED

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL			
CONCRETE OUTLINE & REINFORCEMENT			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER./CHKD.:	APPROVED: [Signature]
DWN. M.ASIM	DATE: SEP. 2020	DRAWING NO.:	REV.:
CKD.:	SEP. 2020	3976/033/TD/1601	6
SUBM.:			

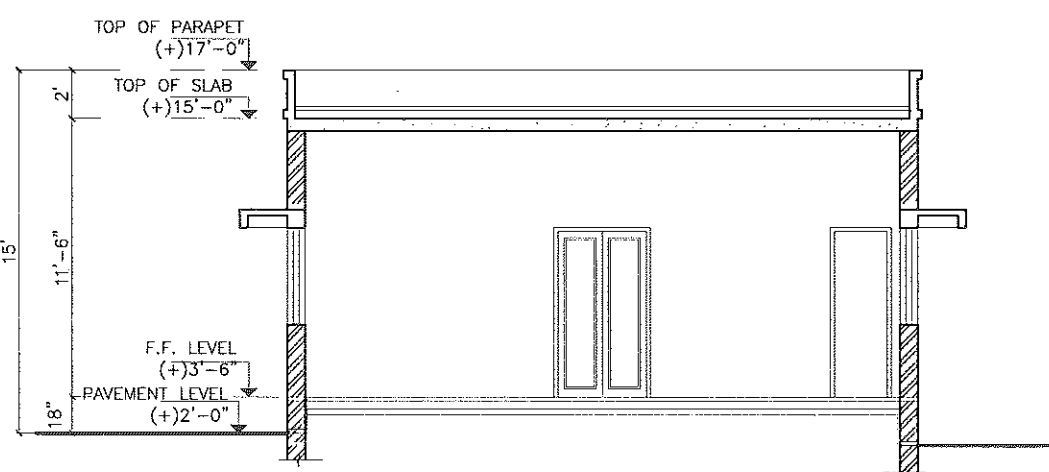
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.



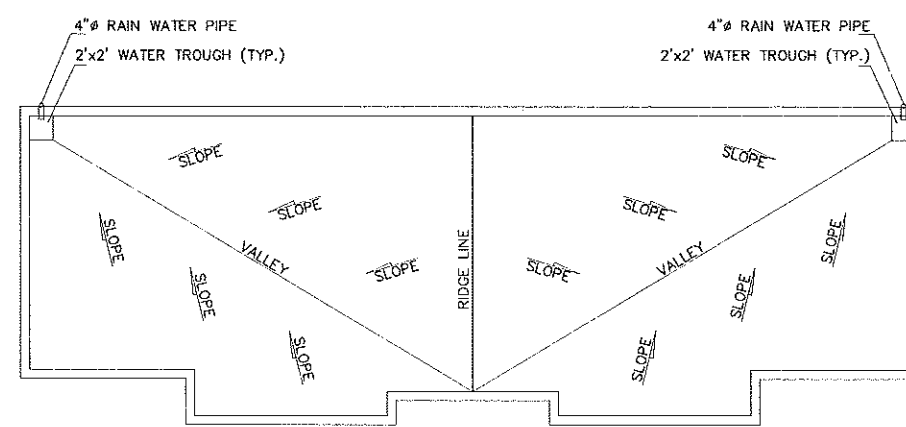
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL TOPOGRAPHIC SURVEY			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAK	RECOMMENDED	VER/CHKD
DWN.	disher		
FILE			
CKD.			
SUBM.			
DATE	JULY 2020	DRAWING NO.	3976/311/TD/B01a
REV.			0



1 ELEVATION
SCALE: 1/4"=1'-0"



A SECTION
SCALE: 1/4"=1'-0"

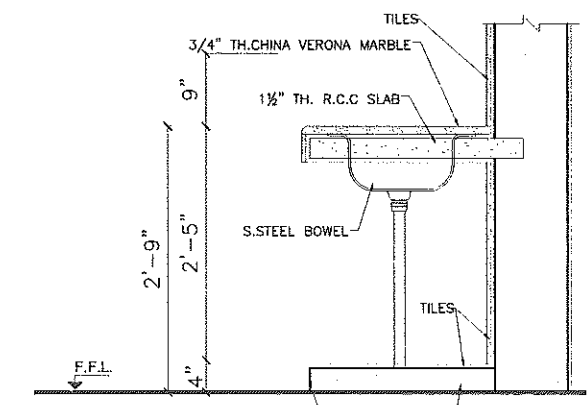


ROOF PLAN

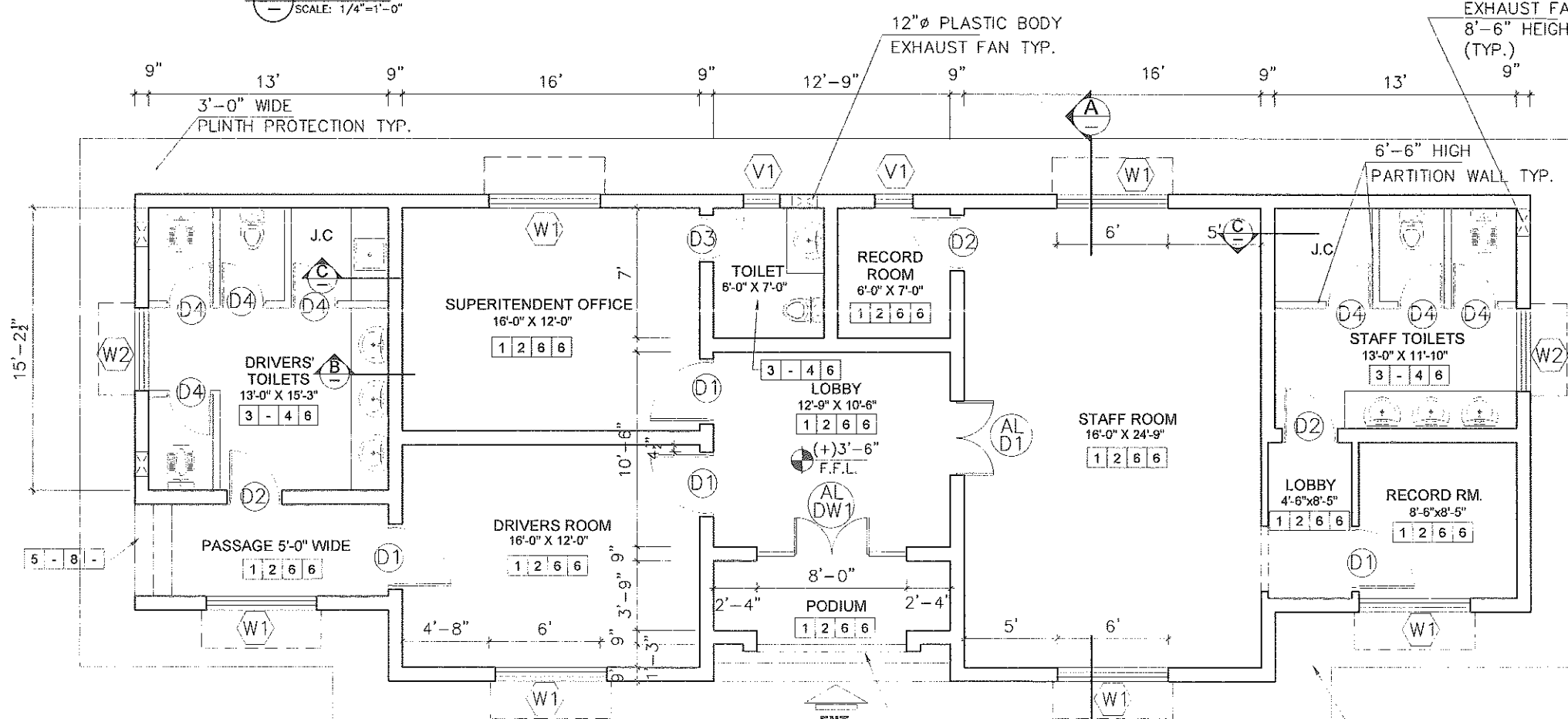
SCHEDULE OF INTERNAL AND EXTERNAL FINISHES

LEGEND

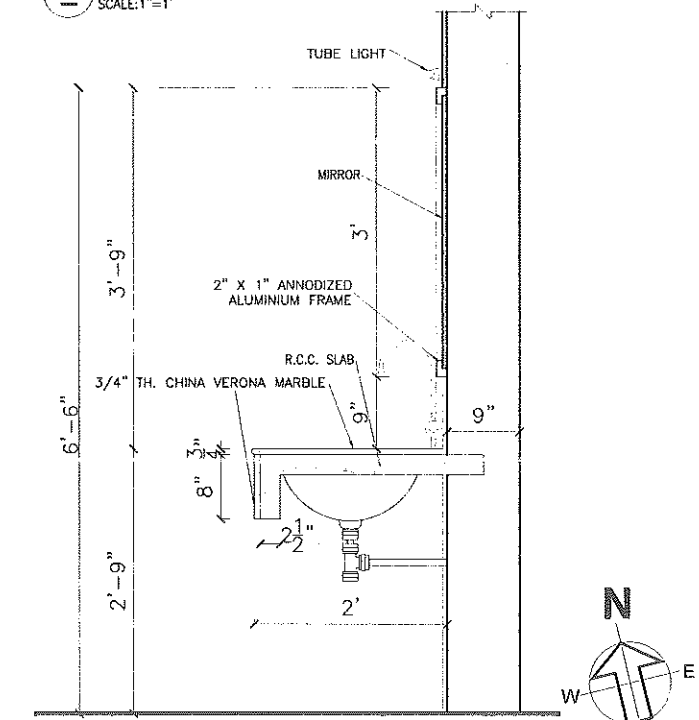
- ① 12"x12"x3/4" CHINA VERONA MARBLE
- ② 4"x12"x1/2" CHINA VERONA MARBLE SKIRTING
- ③ LOCAL MATT CERAMIC TILES (APPROVED MAKE & SHADE))
- ④ LOCAL GLAZED CERAMIC TILES OF (APPROVED MAKE & SHADE) 6'-6" HIGH FOR BATH ROOMS WITH VINYL EMULSION PAINT(OF APPROVED MAKE & SHADE) ABOVE UPTO CEILING
- ⑤ SINGLE PIECE 3/4" THICK VERONA MARBLE SLAB FOR TREADS SINGLE PIECE 1/2" THICK VERONA MARBLE SLAB FOR RISERS
- ⑥ VINYL EMULSION PAINT ON C.S PLASTER (APPROVED MAKE & SHADE)
- ⑦ 2" THICK P.C.C (1:2:4)
- ⑧ WEATHER SHIELD PAINT OF APPROVED (APPROVED MAKE & SHADE)



C SECTION
SCALE: 1"=1'



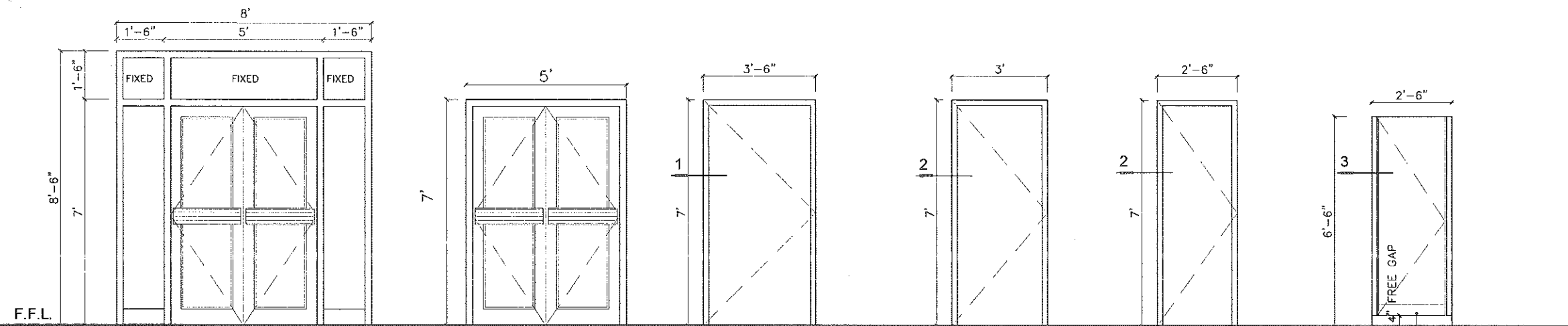
PLAN
SCALE: 1/4"=1'-0"
COVERED AREA = 1850 SFL



B SECTION
SCALE: 1"=1'

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
OFFICE BUILDING COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL PLAN, ELEVATION & SECTION			
NESPAC - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAC	RECOMMENDED: [Signature]	VER./CHKD: [Signature]	APPROVED: [Signature]
DWN: [Signature]	DATE: AUGUST, 2020	DRAWING NO: 3976/311/TD/B02	REV: 0
FILE: [Signature]			
CKD: [Signature]			
SUBM: [Signature]			

REFERENCE DRAWINGS	REV	DATE	DESCRIPTION	Dr	CHKD	APPR



ALDW 1
ALUMINUM GLAZED DOOR WINDOW

ALD1
ALUMINUM OPENABLE GLASS DOOR

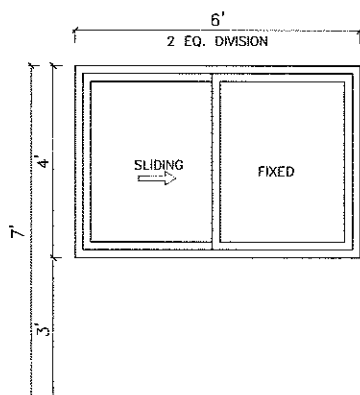
D1
SOLID CORE FLUSH DOOR
WITH DEODAR PLY BOTH SIDE
(POLISHED)

D2
SOLID CORE FLUSH DOOR
WITH DEODAR PLY OUTSIDE (POLISHED)
INSIDE (ENAMEL PAINTED)

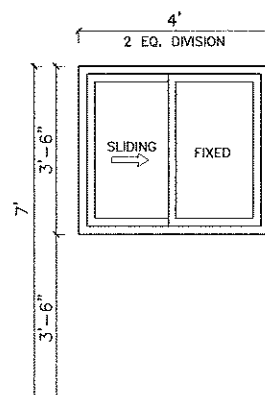
D3
SOLID CORE FLUSH DOOR
WITH DEODAR PLY OUTSIDE (POLISHED)
INSIDE (ENAMEL PAINTED)

D4
SOLID CORE FLUSH DOOR
FORMICA PRESSED ON BOTH SIDES
OVER COMMERCIAL PLY.

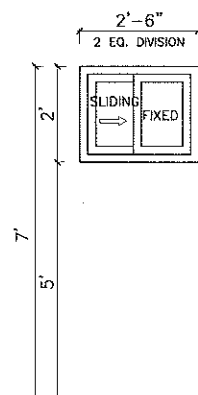
4" WIDE S.S.
SHEET ON BOTH SIDES



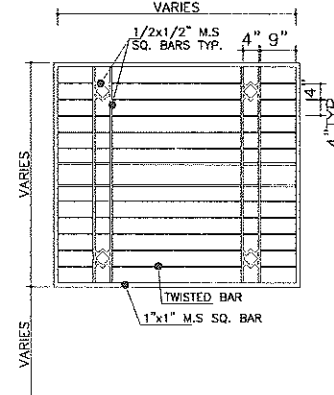
W 1
ALUMINUM GLAZED WINDOW



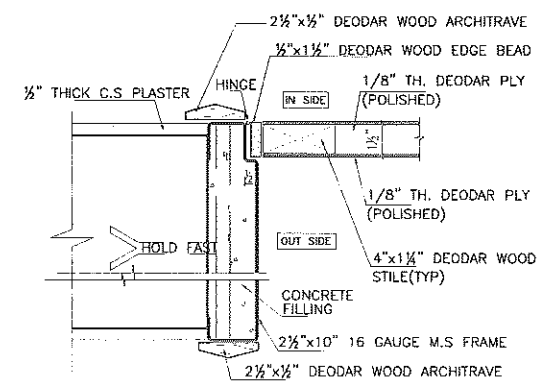
W 2
ALUMINUM GLAZED WINDOW



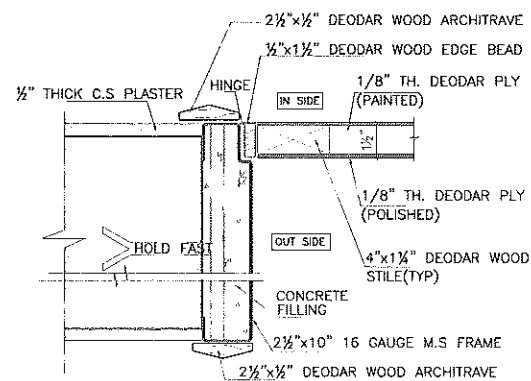
V1
ALUMINUM GLAZED VENTILATOR



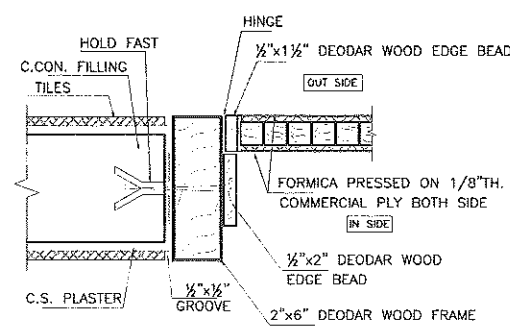
**TYPICAL DETAIL
OF STEEL GRILL**



SECTION -1
SCALE 3"=1'-0"



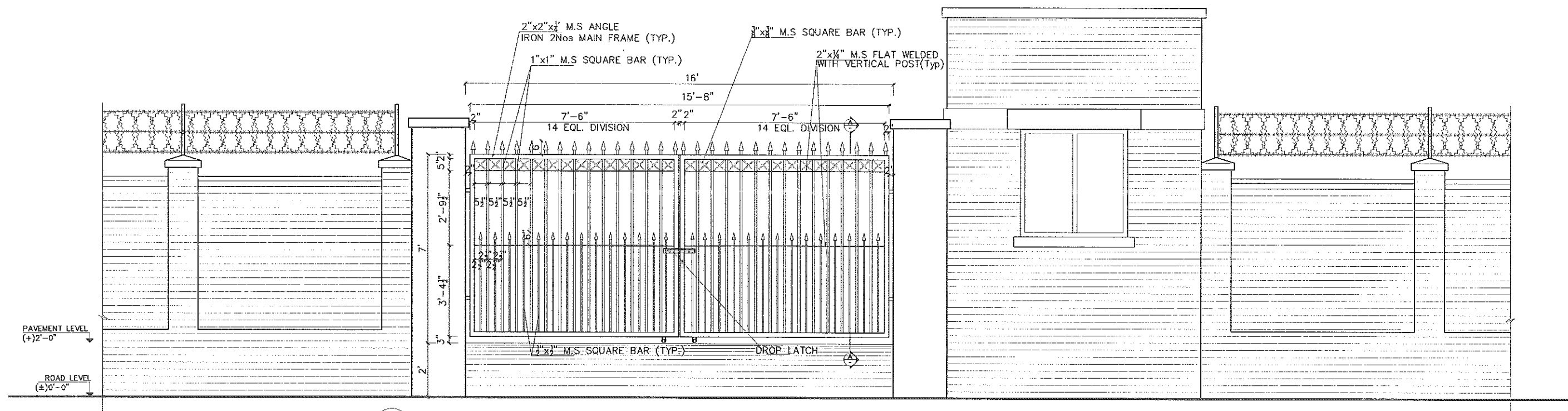
SECTION -2
SCALE 3"=1'-0"



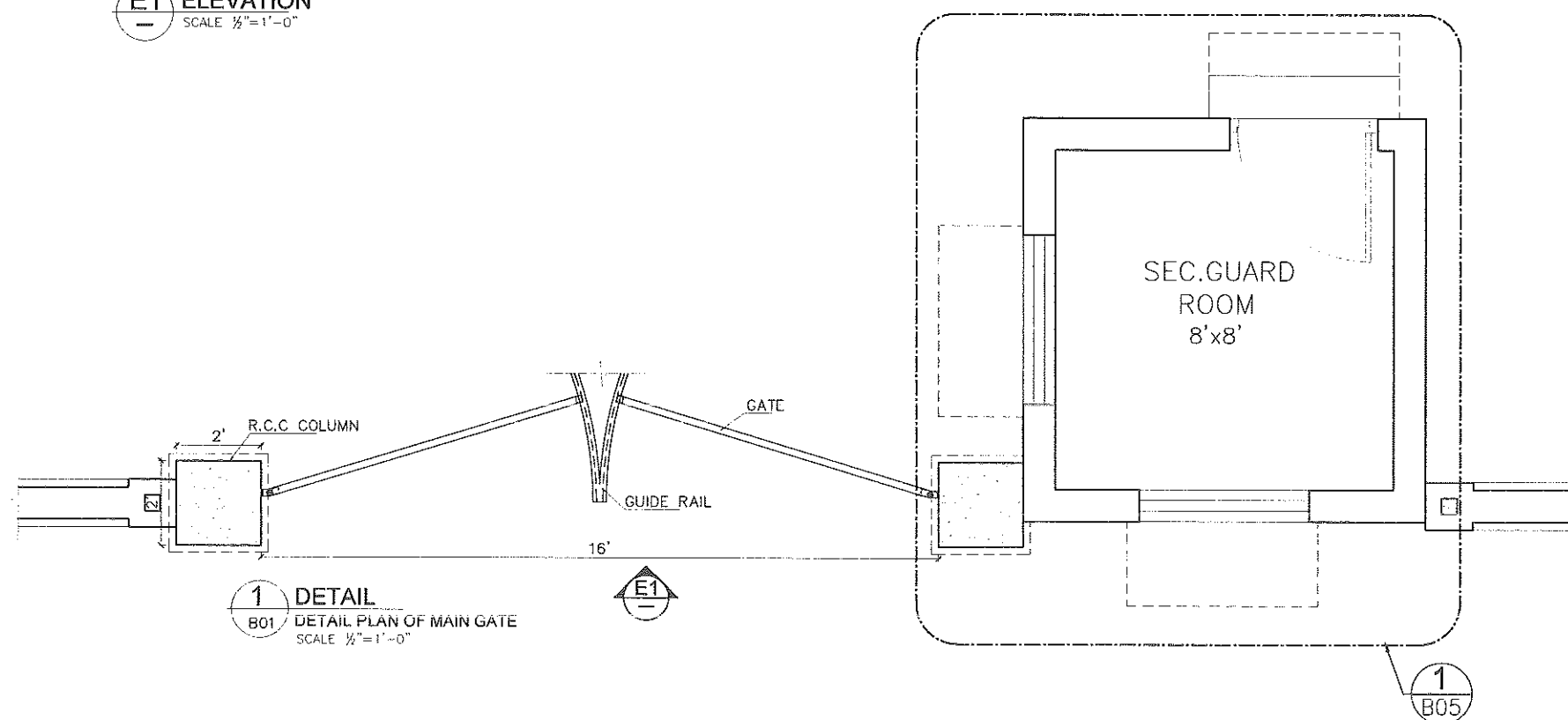
SECTION -3
SCALE 3"=1'-0"

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
OFFICE BUILDING COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL DOORS AND WINDOWS DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]
DRAWN: [Signature]	DATE: AUGUST, 2020	DRAWING NO: 3976/311/TD/B03	REV: 0
FILE: [Signature]			
CHKD: [Signature]			
SUBM: [Signature]			

REFERENCE DRAWINGS	DATE	DESCRIPTION	BY	CHKD	APPR

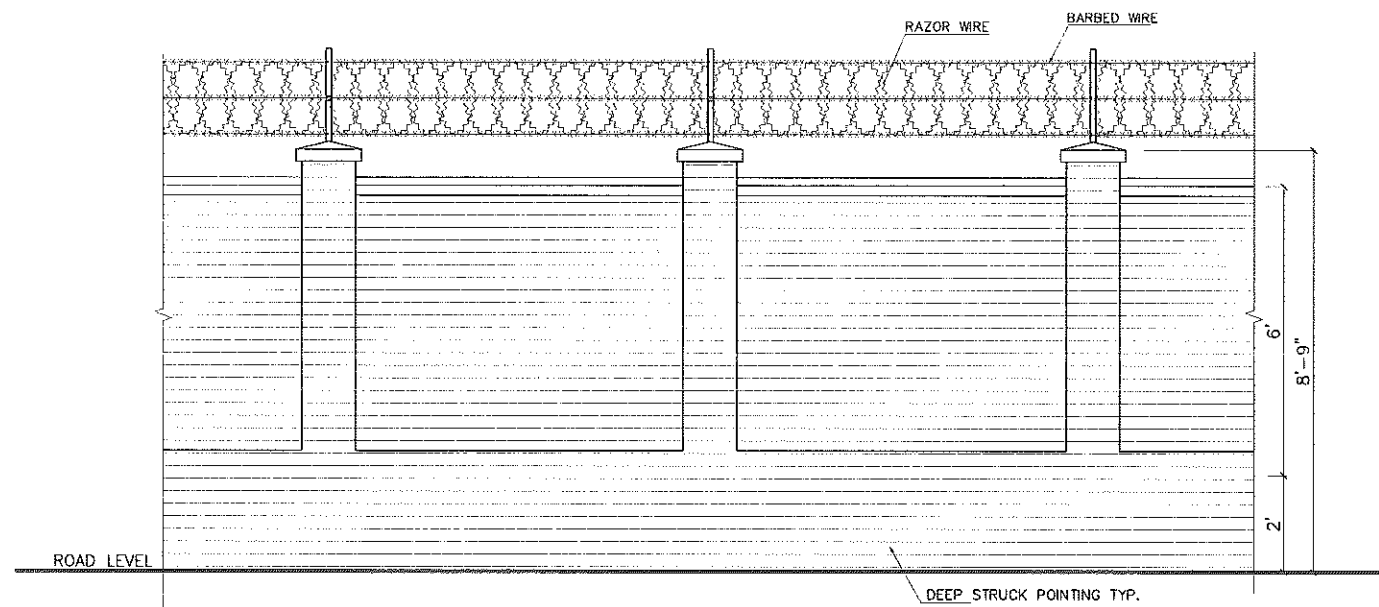


E1 ELEVATION
SCALE 1/2"=1'-0"



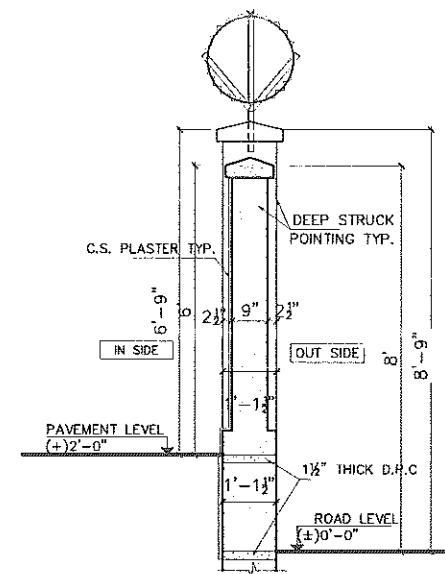
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB				
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
PARKING SHEDS & ALLIED STRUCTURES FREED TOWN, SAHIWAL PLAN & ELEVATION OF MAIN GATE				
NESPAK - ARTELIA JOINT VENTURE (JV)				
DESIGN: NESPAK	RECOMMENDED: <i>da</i>	VER/CKD: <i>da</i>	APPROVED: <i>da</i>	
DWN: <i>da</i>	DATE: JULY 2020	DRAWING NO. 3976/311/TD/B04	REV. 0	
FILE: <i>da</i>				
CKD: <i>da</i>				
SUBM: <i>da</i>				

REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

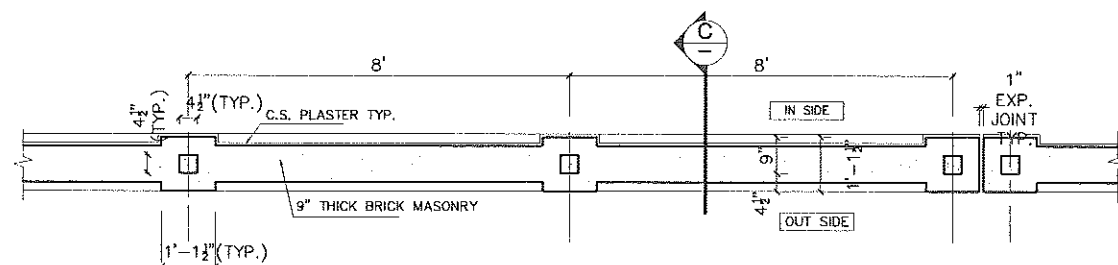


TYPICAL ELEVATION OF BOUNDARY WALL (OUT SIDE)

SCALE 3/8"=1'-0"

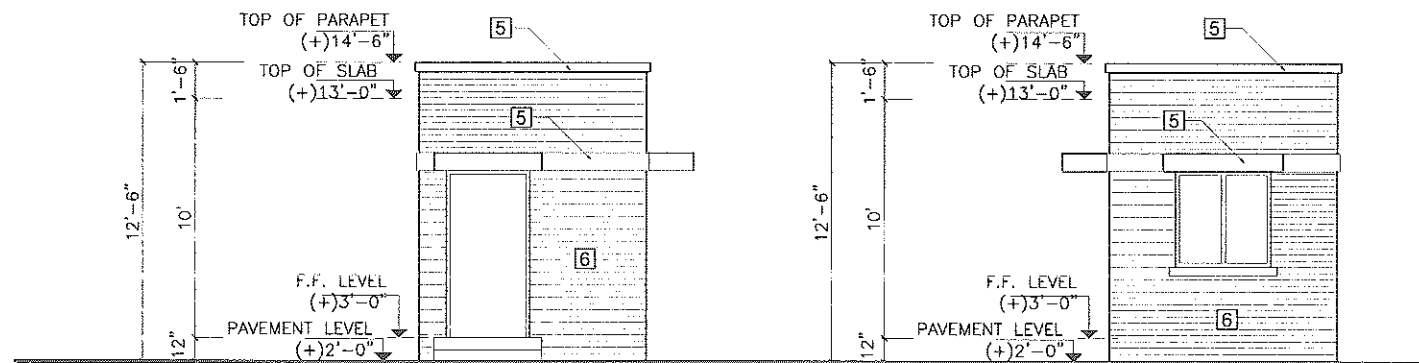


SECTION (BOUNDARY WALL)



BOUNDARY WALL PLAN (TYP.)

SCALE 3/8"=1'-0"

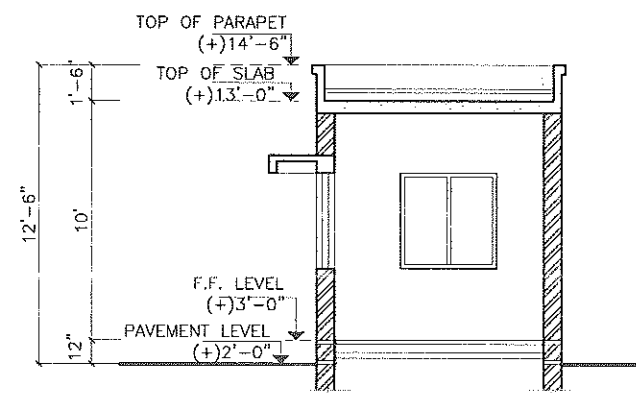


1 ELEVATION

SCALE: 1/4"=1'-0"

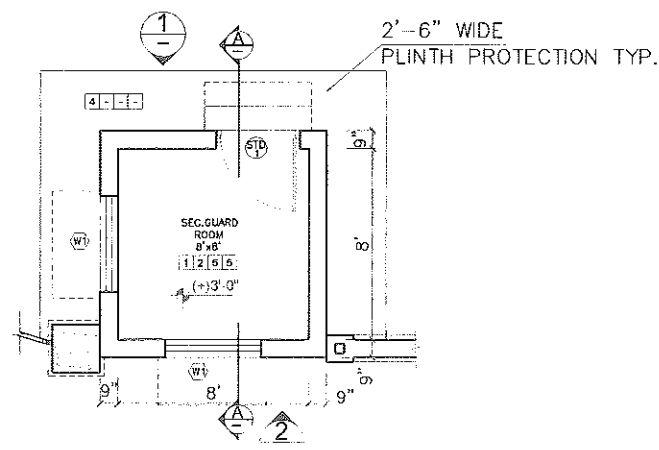
2 ELEVATION

SCALE: 1/4"=1'-0"



A SECTION

SCALE: 1/4"=1'-0"

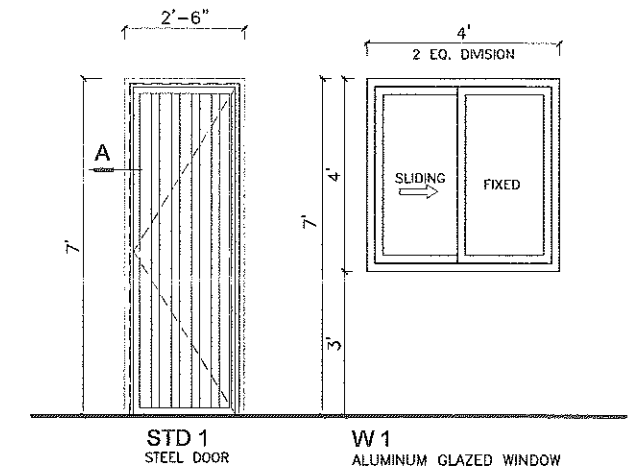


1 DETAIL PLAN

B04

SEC. GUARD ROOM

SCALE: 1/4"=1'-0"

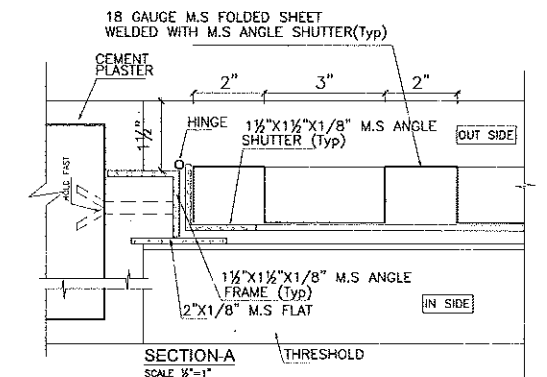


STD 1

STEEL DOOR

W 1

ALUMINUM GLAZED WINDOW

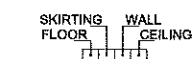


SECTION-A

SCALE 1/8"=1"

SCHEDULE OF INTERNAL AND EXTERNAL FINISHES

LEGEND



- ① 12"x12"x3/4" CHINA VERONA MARBLE
- ② 4"x12"x1/2" CHINA VERONA MARBLE SKIRTING
- ③ VINYL EMULSION PAINT ON C.S. PLASTER (APPROVED MAKE & SHADE)
- ④ 2" THICK P.C.C (1:2:4)
- ⑤ WEATHER SHIELD PAINT OF APPROVED (APPROVED MAKE & SHADE)
- ⑥ DEEP STRUCK POINTING OF CEMENT SURKHI

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES FREED TOWN, SAHIWAL DETAILS OF SEC. GUARD ROOM & BOUNDARY WALL			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER/CKD: [Signature]	APPROVED: [Signature]
DWN: [Signature]	DATE: JULY 2020	DRAWING NO: 3976/311/TD/B05	REV: 0
FILE: [Signature]			
CHK: [Signature]			
SUBM: [Signature]			

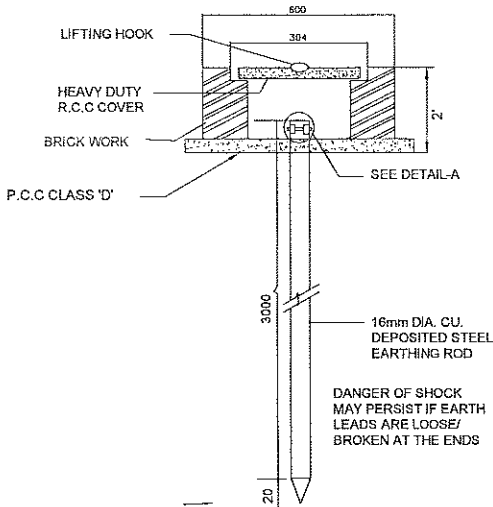
REFERENCE DRAWINGS	REV	DATE	DESCRIPTION	B	CHK	APPR

GENERAL NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATION
2. THIS DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS
3. THE MINIMUM SIZE OF THE PVC CONDUIT SHALL BE 25mm (1") DIA.
4. LIGHT CIRCUIT WIRING SHALL BE WITH 3 x 2.5 mm Sq & LIGHT POINT WIRING SHALL BE WITH 3x1.5 mm. Sq SINGLE CORE STRANDED CU. PVC CABLES
5. ALL POWER SOCKETS (15/20Amp) SHALL BE WIRED WITH 3 x 6mm.Sq LIGHT PLUG (10/13Amp) SOCKETS FIRST POINT SHALL BE WIRED WITH 3 x 4mm.Sq & 10Amp. SOCKETS POINT TO POINT WIRED WITH 3 x 2.5mm. Sq STRANDED CU. PVC CABLES
6. ALL SINGLE CORE WIRES SHALL HAVE THE FOLLOWING COLOURS.
PHASE WIRES..... RED, YELLOW & BLUE
NEUTRAL WIRES.....BLACK
C.P.C.....GREEN/YELLOW (AS PER B.O.Q)
7. THE WIRING SHALL BE STARTED ONLY AFTER THE CONDUIT SYSTEM IS COMPLETELY INSTALLED AND ALL OUTLET BOXES ETC. ARE FIXED IN THEIR POSITIONS.
8. ALL POWER/LIGHT PLUG SOCKETS WIRING SHALL BE SEGREGATED AND HAVE INDEPENDENT WIRES RIGHT FROM MINIATURE CIRCUIT BREAKERS IN DISTRIBUTION BOARD.
9. ACTUAL LOCATION OF ALL OUTLETS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES
10. THE MOUNTING HEIGHT OF THE SOCKET OUTLETS SHALL BE MINIMUM 300mm (FFL)
11. THE MOUNTING HEIGHT OF THE LIGHTING SWITCHES SHALL BE MINIMUM 1100mm (FFL)
12. NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED ON WIRES FOR REDUCING FRICTION. NO OIL OR SOAP OF ANY KIND WILL BE ALLOWED ON WIRES FOR THIS PURPOSE.
13. THE CONTRACTOR SHALL SUBMIT CONDUITS LAYOUT PLAN BASED UPON THE ELECTRIFICATION DRAWINGS FOR THE APPROVAL OF ELECTRICAL ENGINEER, BEFORE POURING OF ROOF SLABS, WALL AND COLUMNS.
14. ALL THE ELECTRICAL WORKS SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION
15. THE ELECTRICAL EQUIPMENT SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AS PER APPLICABLE STANDARDS AND CODES

LEGEND

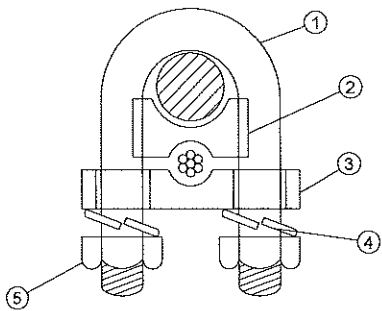
SYMBOL	DESCRIPTION
	MAIN PANEL BOARD(MPB)
	SUB MAIN PANEL BOARD(SMPB)
	DISTRIBUTION BOARD (DB)
	MOULDED CASE CIRCUIT BREAKER
	VOLTMETER
	AMMETER
	SELECTOR SWITCH
	WALL BRACKET FAN
	EXHAUST FAN
	SINGLE POLE 1-WAY SWITCH
	15/20 AMP 3 PIN SINGLE PHASE, NEUTRAL & EARTH SWITCH SOCKET UNIT (AWAY FROM SWITCH BOARD)
	10/13 AMPS 3 PIN SINGLE PHASE SWITCH SOCKET UNIT (AWAY FROM SWITCH BOARD)



LIGHTING FITTINGS SCHEDULE

SYMBOL	DESCRIPTION
	WALL BRACKET 18W LED LIGHT
	BATTEN SURFACE MOUNTED 18W LED LIGHT
	BATTEN SURFACE MOUNTED 10W LED LIGHT ABOVE MIRROR
	WATER TIGHT 20W IP65 LED LIGHT
	SURFACE MOUNTED DOWN LIGHTER 18W LED LIGHT




ROD TYPE EARTH
POINT DETAIL FOR DB,S



DETAIL -A'

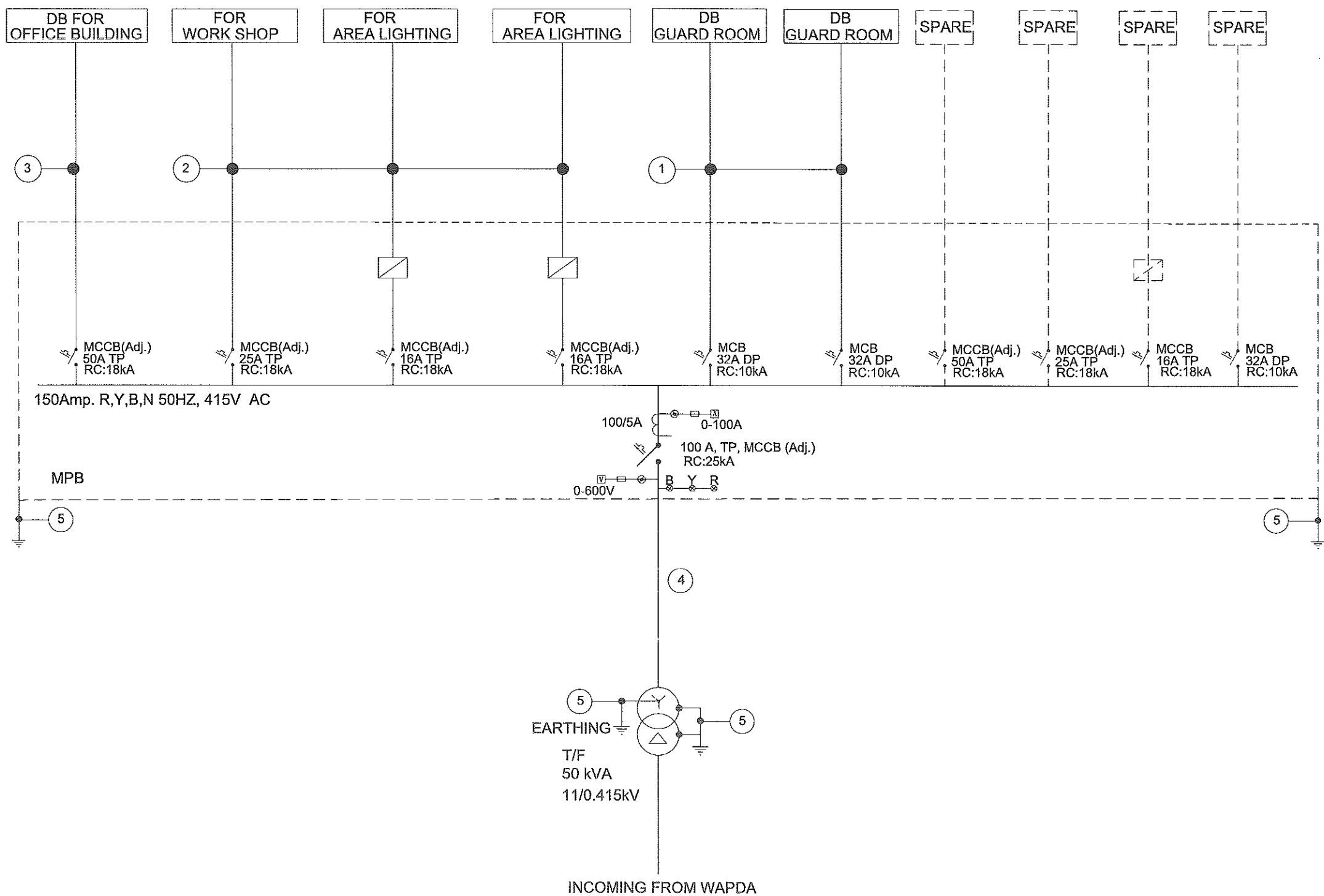
ITEM NO.	ITEM NAME	MATERIAL
1	U-BOLT	MILD STEEL
2	SPACER	CAST IRON
3	BASE	MILD STEEL
4	SPRING WASHER	CARBON STEEL
5	NUT	MILD STEEL

DESIGN	NESPAK	RECOMMENDED	VER/CKD.	APPROVED
DWN.	SA			
FILE		DATE	DRAWING NO.	REV.
CKD.		SEP. 2020	3976/161/TD/5E001	0
SUBM.				

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL LEGEND, GENERAL NOTES LIGHTING FITTING FOR SHEDULE & EARTH POINT DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED	VER/CKD	APPROVED
DWN: SA			
FILE			
CKD	DATE	DRAWING NO.	
SUBM.	SEP. 2020	3976/161/TD/5E001	REV. 0

LEGEND:

SYMBOL	DESCRIPTION
	INDICATING LIGHT
	CURRENT TRANSFORMER
	MOULDED CASE CIRCUIT BREAKER
	VOLT METER WITH SELECTOR SWITCH & FUSE
	AMMETER WITH SELECTOR SWITCH & FUSE



LEGEND:

- ① 2 CORE 10 mm² Cu./PVC/PVC+
1 Core 10 mm² Cu./PVC AS (CPC).
- ② 4 CORE 10 mm² Cu./PVC/PVC+
1 Core 10 mm² Cu./PVC AS (CPC).
- ③ 4 CORE 25 mm² Cu./PVC/PVC+
1 Core 16 mm² Cu./PVC AS (CPC).
- ④ 4 CORE 50 mm² Cu./PVC/PVC+
1 Core 25 mm² Cu./PVC AS (CPC).
- ⑤ 1 Core 25 mm² Cu./PVC AS (CPC/ECC).

NOTES:-

- THIS DRAWING IS FOR INDICATIVE DESIGN MODEL AND SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, SPECIFICATIONS AND ITEMS OF BILL OF QUANTITIES.
- THE CONTRACTOR SHALL BE SUBMITTED SHOP DRAWINGS, VOLTAGE DROP CALCULATION TO THE ENGINEER AT THE TIME OF CONTRACT AWARD AND BEFORE THE WORK COMMENCES AT SITE.
- THE ELECTRICAL WORKS SHALL BE EXECUTED IN LINE WITH THE PROJECT SPECIFICATIONS
- THE PUMPING STATION EQUIPMENT ALONG WITH MOTORS, MOTOR CONTROL CENTERS/MOTOR CONTROL UNITS AND ASSOCIATED STARTING DEVICES ARE NOT INCLUDED IN ELECTRICAL SCOPE OF WORK.
- THE LOCATION OF THE EQUIPEMENTS SHOWN ON THE LAYOUT PLAN IS TENTATIVE LOCATION. LOCATION OF THE TRANSFORMER, DG SETS & PANEL BOARD SHALL BE FINALIZED AT PER SITE CONDITION.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB

CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.

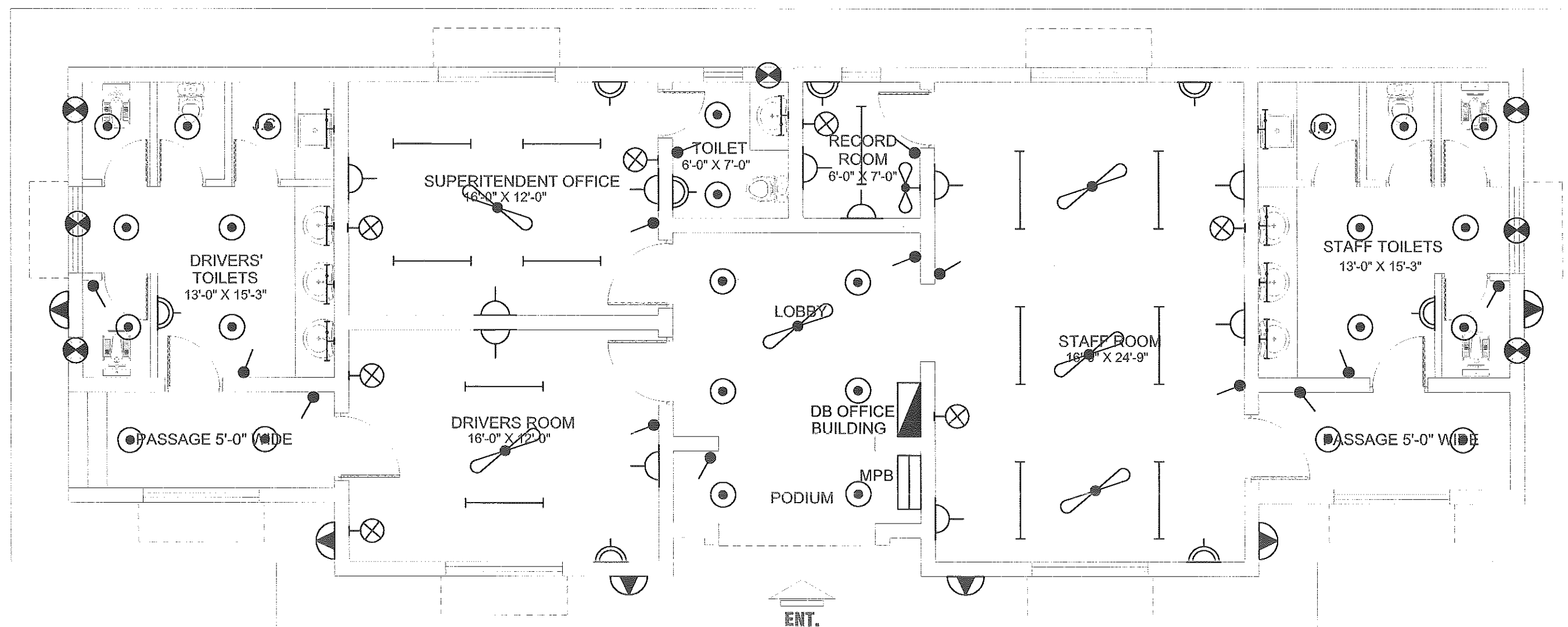
COVERED PARKING SHEDS AT FAREED TOWN, SAHIWAL
SINGLE LINE DIAGRAM



NESPAK - ARTELIA JOINT VENTURE (JV)

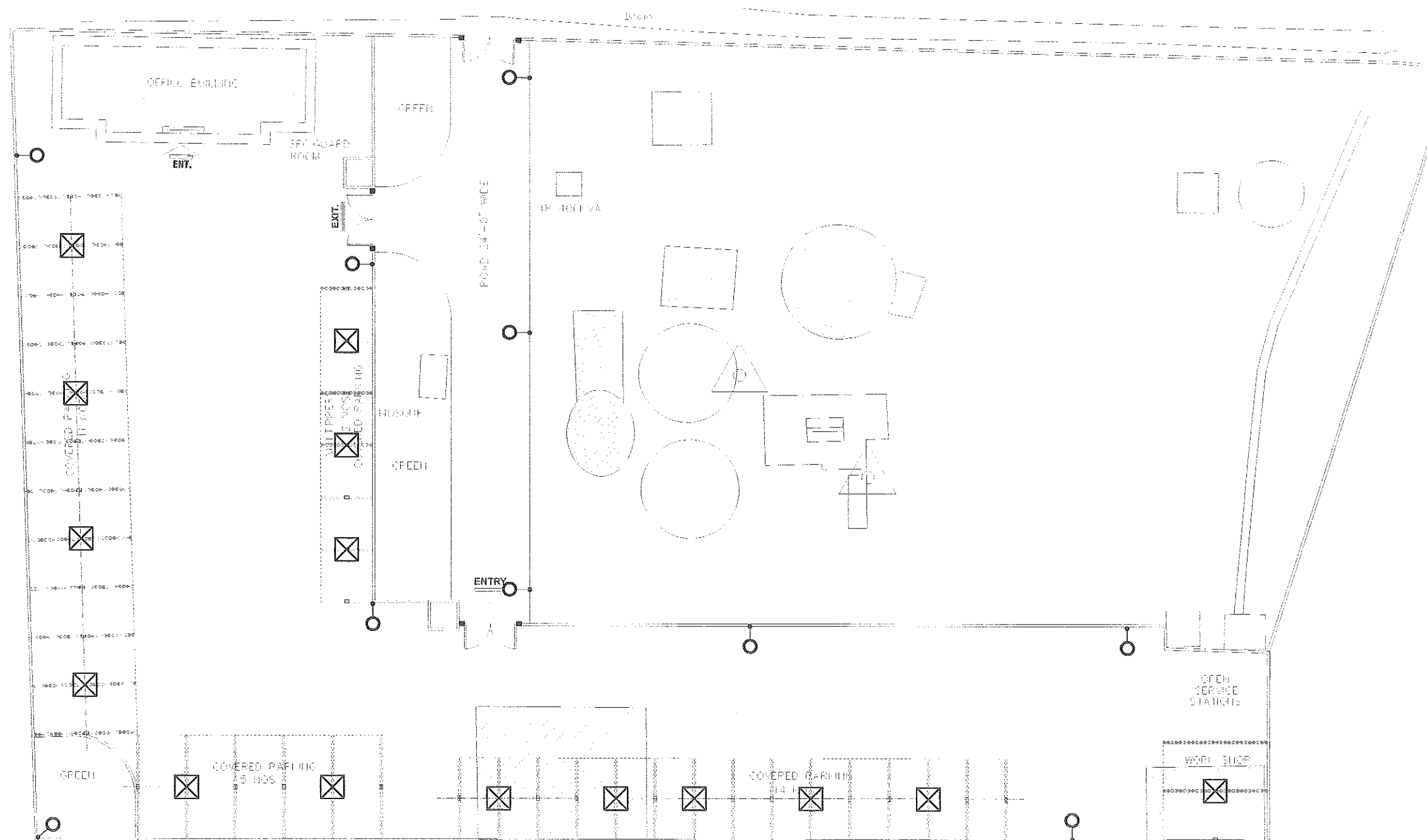
DESIGN	NESPAK	RECOMMENDED	VER/CKD.	APPROVED
DWN.	SA			
FILE		DATE	DRAWING NO.	REV.
CKD.		SEP. 2020	3976/161/TD/5E002	0
SUBM.				

REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	BY	CKD.	APPR.

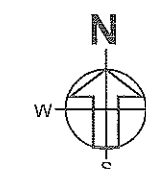


PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING ELECTRIFICATION LAYOUT PLAN									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DES.	NESPAK	RECOMMENDED	VER/CKD.	APPROVED					
DWN.	SA								
FILE									
CKD.									
SUBM.									
DATE		DRAWING NO.		REV.					
SEP. 2020		3976/161/TD/SE003		0					

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

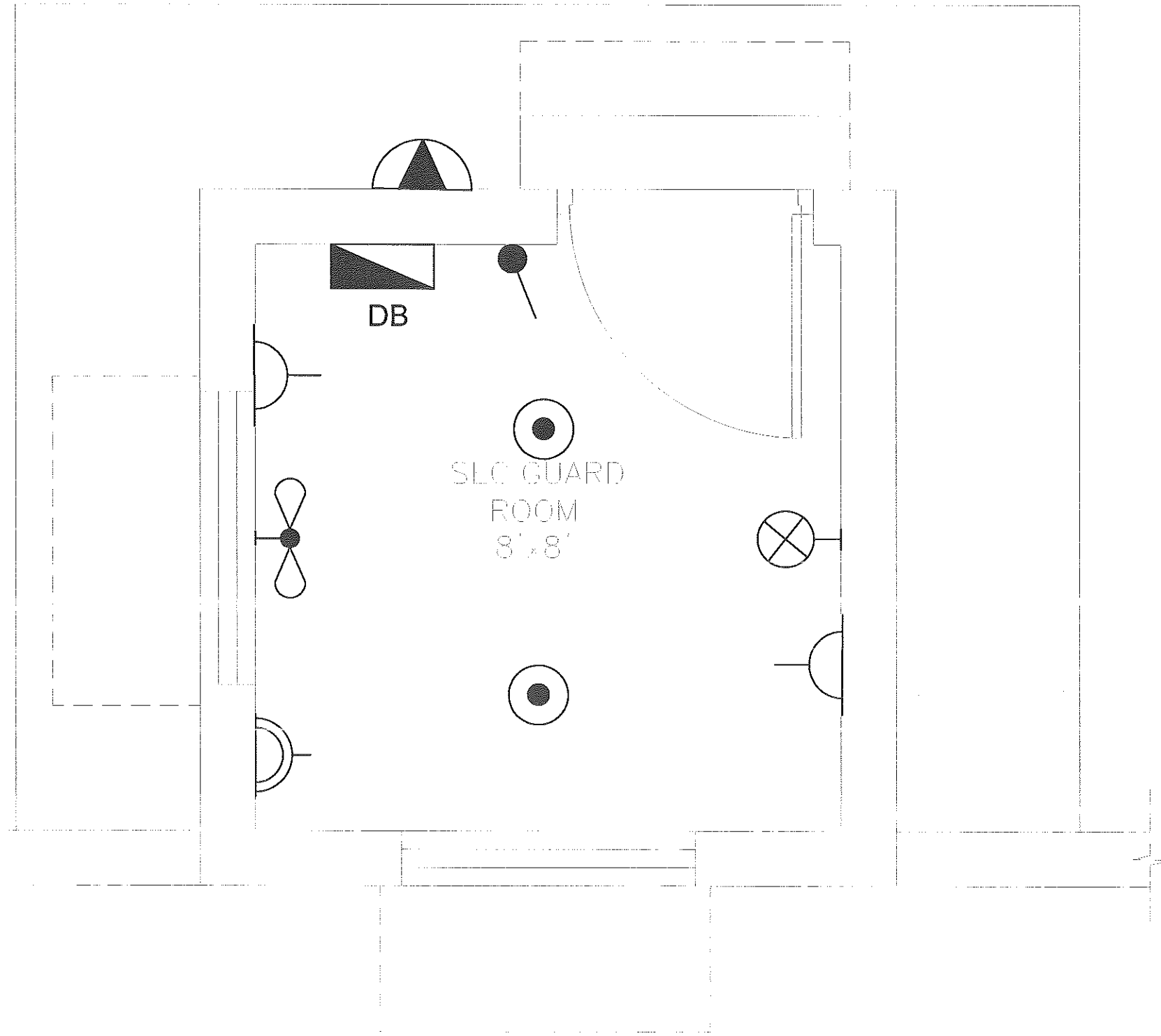


LEGEND:-	
SYMBOL	DESCRIPTION
○	10 METER HIGH SINGLE ARM WITH 90W LUMINAIRE HOT DIP GALVANIZED STEEL OCTAGONAL POLE
⊗	LED FLOOD LIGHT 30W (IP-65) WITH COMPLETE
⊙	LED GATE LIGHT 100W (IP-65) WITH COMPLETE



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL AREA LIGHTING LAYOUT PLAN			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNER	NESPAK	RECOMMENDED	VER/CKD.
DWN.	SA	DATE	APPROVED
FILE		DRAWING NO.	REV.
CKD.		3976/161/TD/5E004	0
SUBM.		SEP. 2020	

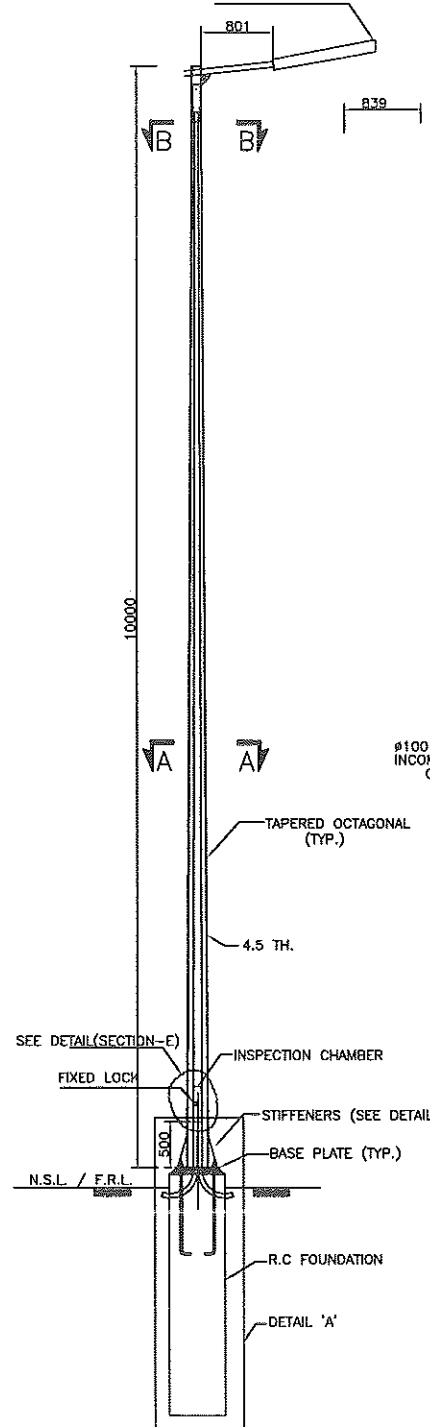
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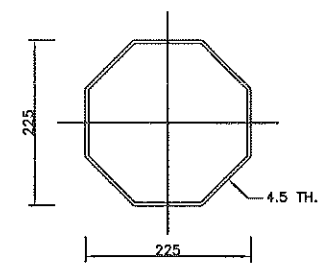
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL GUARD ROOM ELECTRIFICATION LAYOUT PLAN									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN	NESPAK	RECOMMENDED	VER/CKD	APPROVED					
DWN.	SA								
FILE		DATE	DRAWING NO.		REV.				
CKD.		SEP. 2020	3976/161/TD/5E005		0				
SUBM.									

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

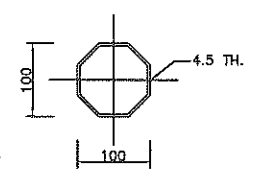
LUMINAIRE AS PER SPEC. & BOQ. THE LUMINAIRE SHALL BE APPROVED BY THE ENGINEER BEFORE ORDERING/ INSTALLATION



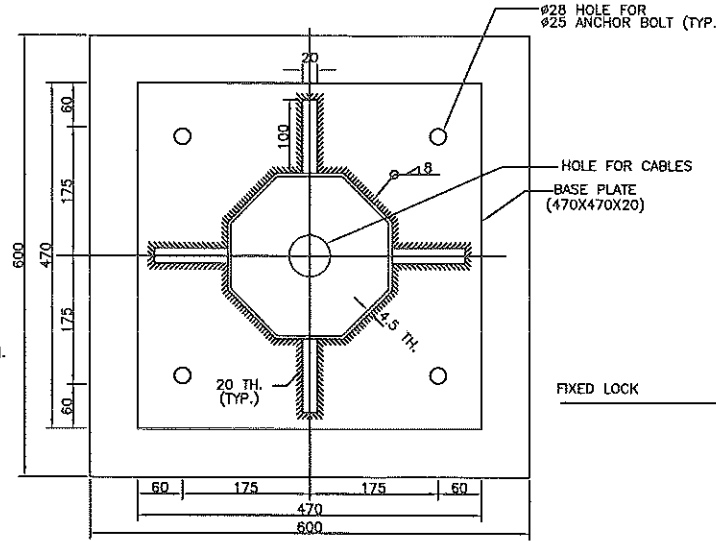
SINGLE LUMINAIRE HOT DIP GALVANIZED STEEL OCTAGONAL POLE



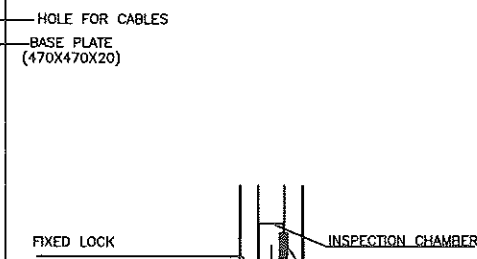
SECTION A-A



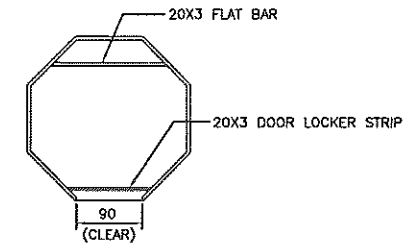
SECTION B-B



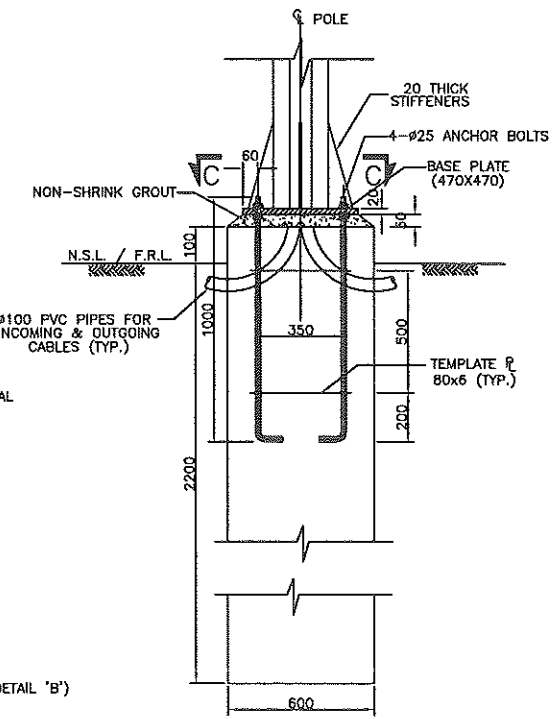
SECTION C-C



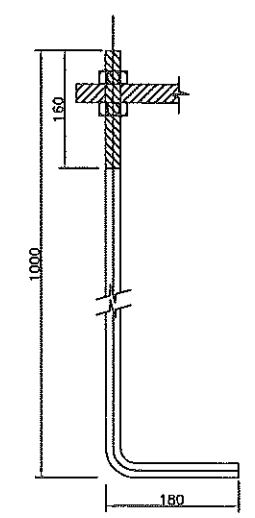
SECTION E-E



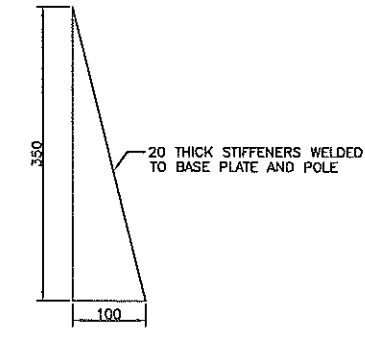
SECTION D-D



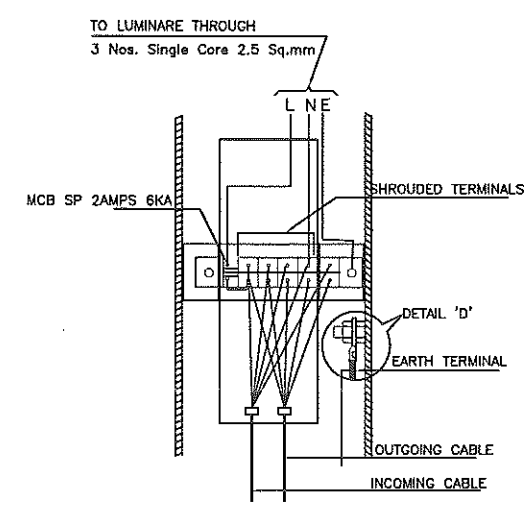
DETAIL-A (CONCRETE OUTLINE)



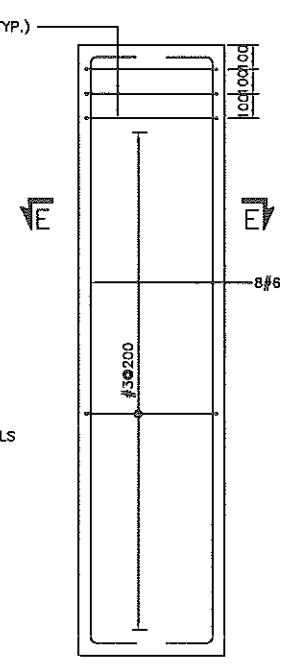
ANCHOR BOLT



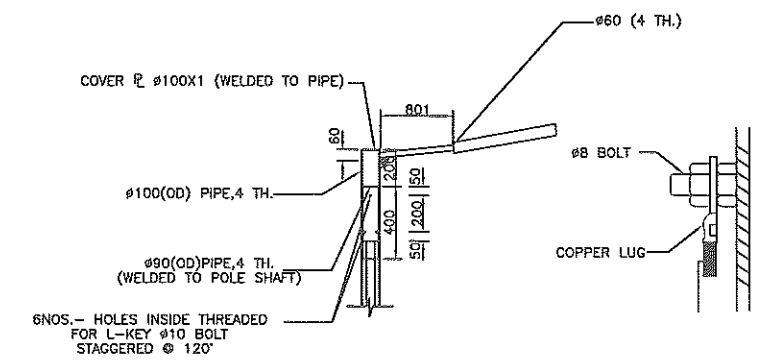
DETAIL-B



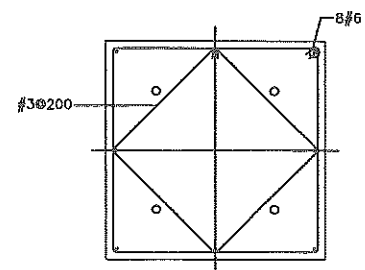
DETAIL OF INSPECTION CHAMBER



FOUNDATION (REINFORCEMENT)



DETAIL-C



SECTION E-E

- NOTES**
- FOR GENERAL NOTES REFER DRAWING NO. G001.
 - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 - UNLESS OTHERWISE NOTED, CONCRETE SHALL BE CLASSIFIED AS FOLLOWS.
CONCRETE CLASS 28 DAYS (15x30 CM) CYLINDER STRENGTH Kg/sq. Cm
REINFORCED A 210 (3000 psi)
 - THE STEEL FOR POLE & BASE PLATE SHALL BE OF YIELD STRENGTH OF 350MPa(50Ksi) & SHALL CONFORM TO ASTM A36 STEEL.
 - THE ANCHOR BOLTS SHALL CONFORM TO ASTM A307.
 - ALL WELDING SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE.
 - HOT DIP GALVANIZATION SHALL CONFORM TO BS EN ISO 1461 (IN SIDE & OUT SIDE) OR IN ACCORDANCE WITH ASTM A123 AND A325.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB

CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.

COVERED PARKING SHEDS FAREED TOWN, SAHIWAL
DETAILS OF 10M CONICAL OCTAGONAL LIGHTING POLE SINGLE ARM

DESIGNED BY NESPAK - ARTELIA JOINT VENTURE (JV)

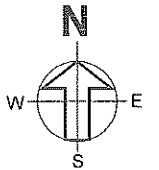
DESIGN	NESPAK	RECOMMENDED	VER/CMD.	APPROVED
DWN.	SA			
FILE		DATE	DRAWING NO.	REV.
CHKD.		SEP. 2020	3976/161/TD/5E006	0
SUBM.				


REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

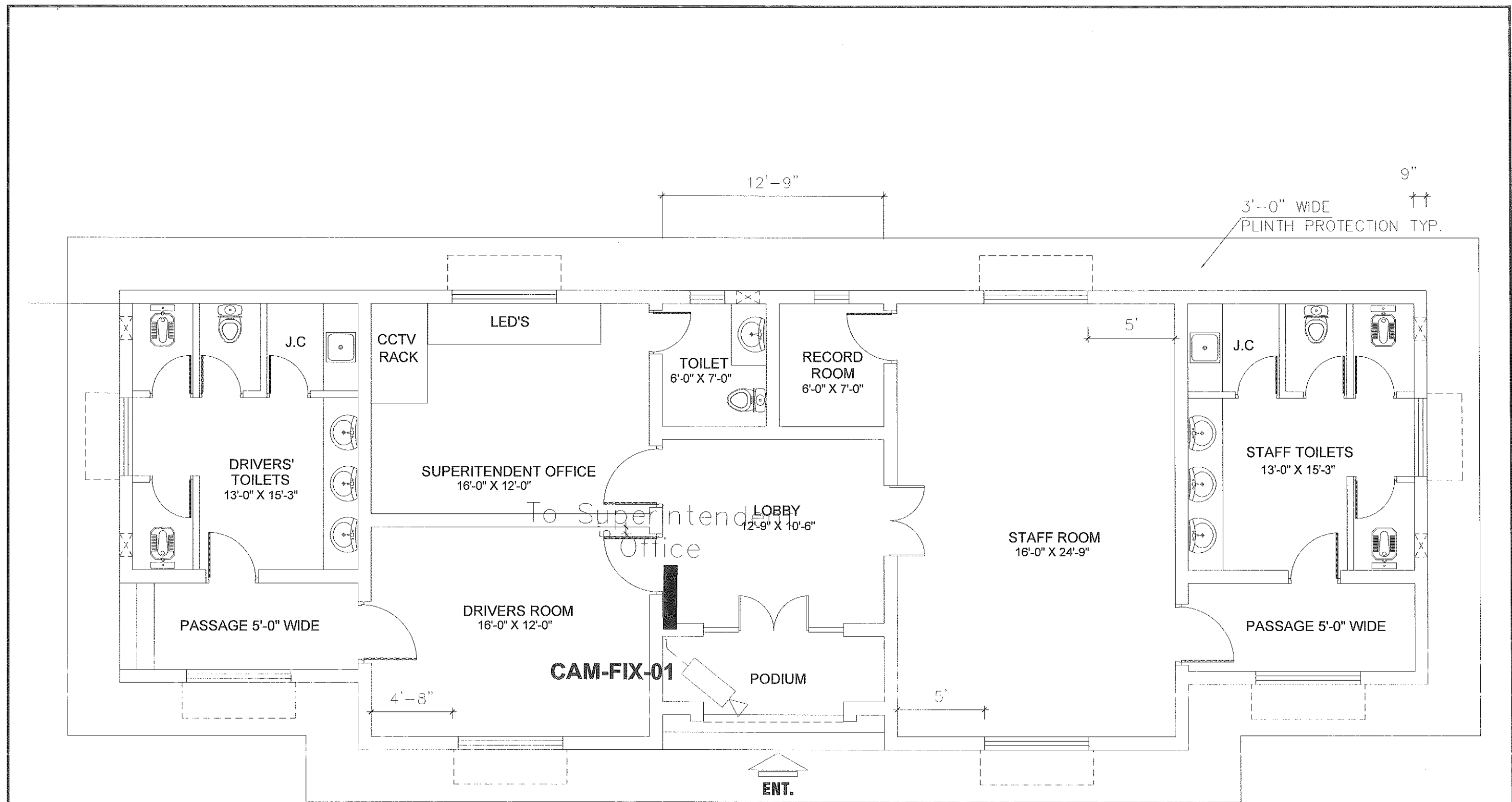
GENERAL NOTES (CCTV) SYSTEMS:

- 1. ALL DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL PROCURE, TRANSPORT AND DELIVER EQUIPMENTS AND HARDWARE TO SITE, AFTER APPROVAL OF ENGINEERS.
- 3. All CCTV WORKS SHALL COMPLY WITH LATEST STANDARDS.
- 4. ALL CCTV SYSTEM DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS.
- 5. THE MINIMUM SIZE OF INDOOR PVC CONDUIT SHALL BE 25mm (1") DIA.
- 6. ACTUAL LENGTH OF DUCT TRAY SHALL BE AS PER SITE REQUIREMENTS.
- 8. SUITABLE SEALANT SHALL BE USED AT THE ENDS AND IN JOINTS OF THE DUCT FOR PROTECTION FROM WATER AND RODENT.
- 10. ACTUAL LOCATION OF ALL CONDUITS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES.
- 11.THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CONDUITS LAYOUT PLAN FOR ENGINEER APPROVAL BEFORE INSTALLATION
- 12.ALL THE CCTV WORKS SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE PROJECT SPECIFICATION.
- 13.THE CCTV EQUIPMENT SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AND APPLICABLE STANDARDS AND CODES. AS MENTIONED IN TECHNICAL SPECIFICATION
- 14. THE CONTRACTOR SHALL SUBMIT CO-ORDINATION SHOP DRAWING OF COMMUNICATION LAYOUT WITH POWER LAYOUT BEFORE EXECUTION OF WORKS.
- 15. EXACT LOCATION OF ALL CCTV EQUIPMENT SHALL BE DECIDED ON SITE.
- 16. MANUFACTURER’S RECOMMENDATIONS SHALL BE FOLLOWED FOR INSTALLATION OF ALL CCTV SYSTEMS.
- 17. All CCTV EQUIPMENT THAT MAY EXPOSE TO WEATHER CONDITIONS SHALL BE WEATHER PROOF.
- 18.THE CONTRACTOR SHALL COORDINATE AT SITE WITH OTHER SERVICES FOR EXACT LOCATION AND POSITION OF CONDUITS AND COMMUNICATION EQUIPMENT
- 19 WHERE CABLES ENTER THE BUILDING, THESE SHALL BE LAID IN CLASS D PROTECTIVE PIPE. HAND HOLES SHALL BE PROVIDED OUTSIDE THE BUILDING.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL INTEGRATION FOR ALL KIND OF SUB-SYSTEMS AND COMMUNICATION EQUIPMENT WITHIN THE SCOPE OF WORK INCLUDING INTERFACE WITH OTHER SYSTEMS.
- 21. EN 50174-2 RECOMMENDATION SHALL BE FOLLOWED FOR SEPARATION DISTANCE BETWEEN POWER AND COMMUNICATION CABLES.
- 22. LENGTH OF CAT-6 CABLE MUST NOT EXCEED 90M.
- 23. THESE DRAWINGS ARE FOR TENDER PURPOSE AND SHALL NOT BE USED FOR CONSTRUCTION!!

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL IP BASED VIDEO SURVEILLANCE SYSTEM									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN: NESPAK		RECOMMENDED		VER/CKD		APPROVED			
DWG: MUBASHAR AHMAD						DATE		DRAWING NO.	
FILE								REV.	
CKD								REV.	
SUBM								REV.	
SEP 2020		3976/166/TD/IS001		0					
REFERENCE DRAWINGS	REV	DATE	DESCRIPTION	BY	CKD	APPR			



DESIGN	NESPAK	RECOMMENDED	VER./CHKD.	APPROVED
OWN.				
FILE				
CKD.		DATE	DRAWING NO.	REV.
SUBM.		SEP. 2020	3075/155/04/0002	05



LEGEND

FIX CAMERA WITH POLE
DUCT

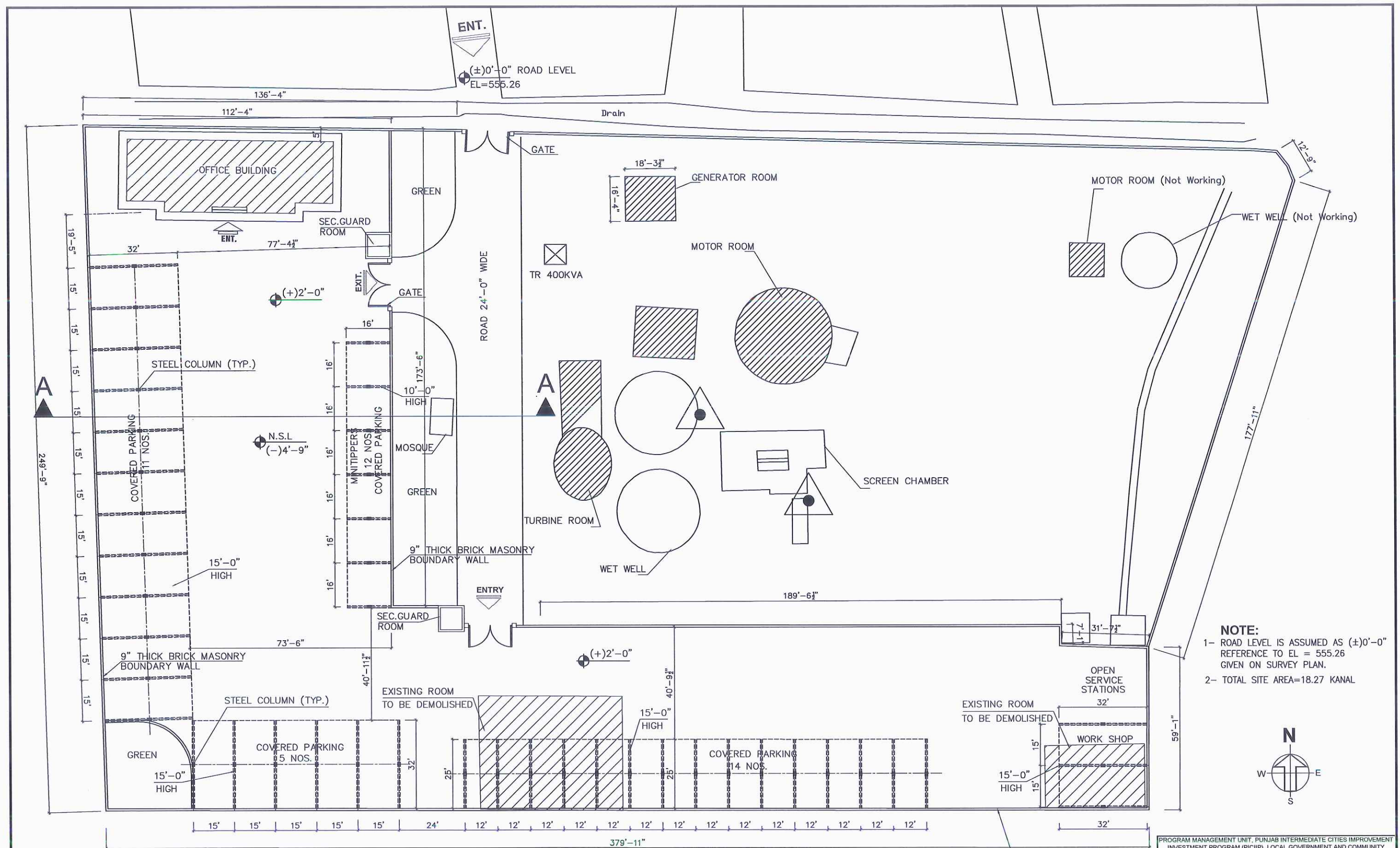


Hand Hole

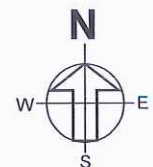
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PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN	NESPAK	RECOMMENDED	VERIFIED	APPROVED					
DRAWN	MUBASHAR AHMAD								
FILE									
CHKD					DATE	DRAWING NO.	REV.		
SUBM.					SEP. 2020	3976/166/TD/S003	0		
REFERENCE DRAWINGS		REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.		



NOTE:
 1- ROAD LEVEL IS ASSUMED AS $(\pm)0'-0"$ REFERENCE TO EL = 555.26 GIVEN ON SURVEY PLAN.
 2- TOTAL SITE AREA=18.27 KANAL




SHED SIZE	NO.OF SHEDS	NO.OF VEHICLES
15'x32'	16 NOS.	16 NOS.
12'x25'	14 NOS.	14 NOS.
16'x16'	06 NOS.	12 NOS.
TOTAL NOS. OF VEHICLES = 42 NOS.		

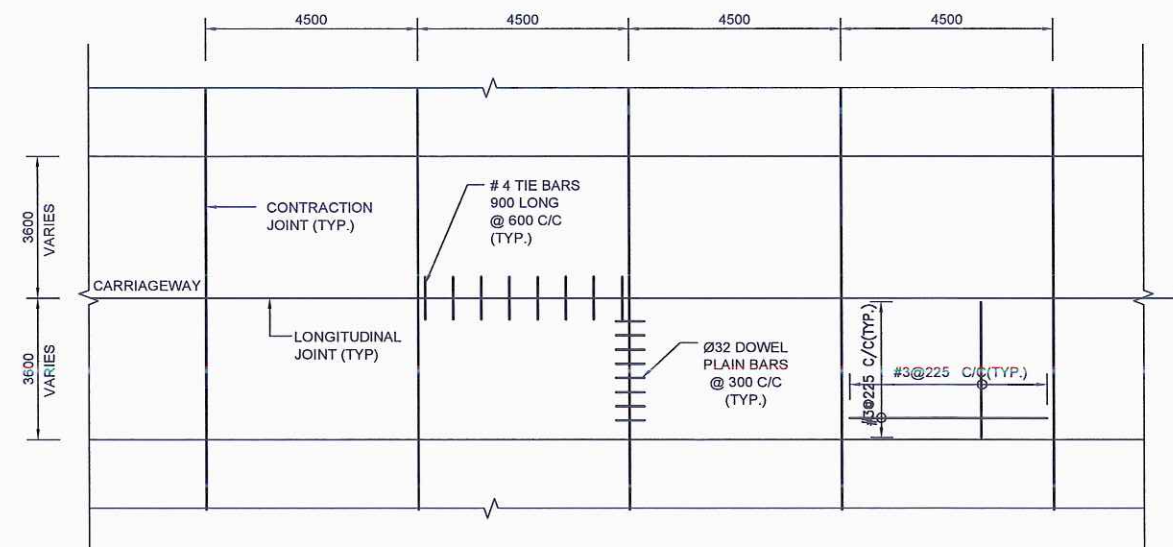
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL PLAN OF TYPICAL X-SECTION			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER./CKD: [Signature]	APPROVED: [Signature]
DWN: ASHFAQ NAZ	DATE: AUGUST, 2020	DRAWING NO. 3976/102/PC-1/XS01	REV. 00
FILE: [Blank]			
CKD: [Blank]			
SUBM: [Blank]			

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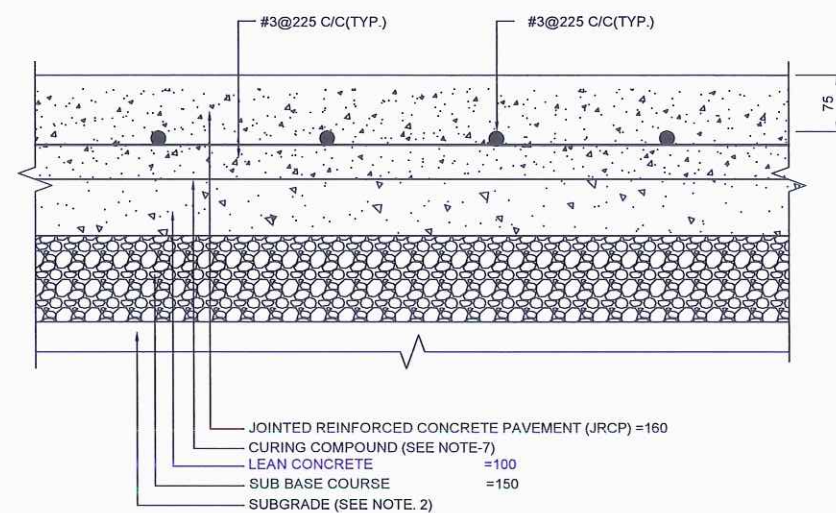


1. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHER WISE NOTED.
2. SUBGRADE/EMBANKMENT SHALL CONSIST OF SUITABLE MATERIAL HAVING MINIMUM SOAKED CBR OF 7% AT 95% MDD.

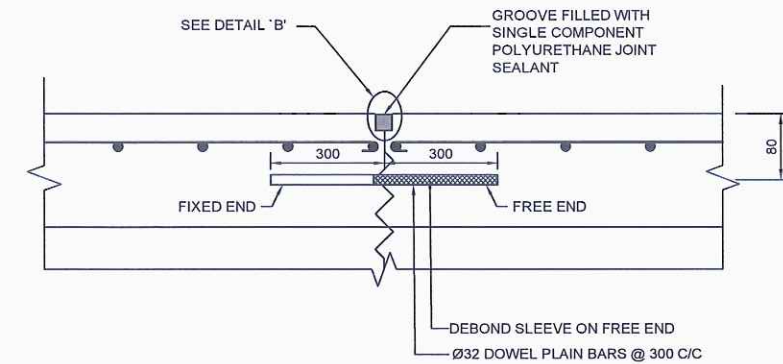
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING			
TYPICAL CROSS SECTIONS			
 NESPAC - ARTELIA JOINT VENTURE (JV)			
DESN. _____ NESPAC DWN. _____ ASHFAQ NAZ FILE _____ CKD. _____ SUBM. _____	 RECOMMENDED	VER./CKD. _____ APPROVED _____	
DATE _____ JULY 2028	DRAWING NO. _____ 3976/102/PC-1/XS02		REV. _____ 0



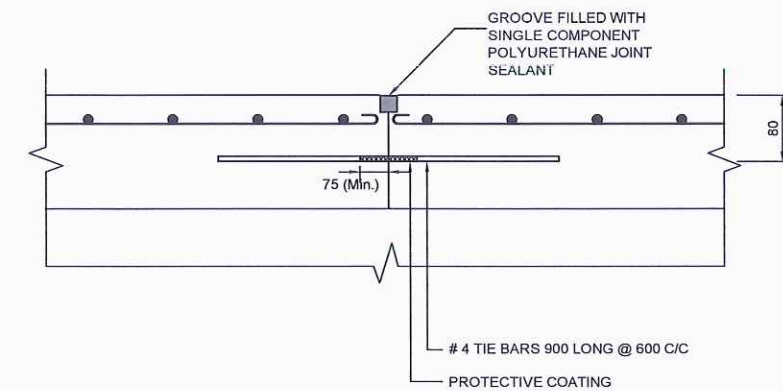
PLAN



DETAIL 'A'



TYPICAL CONTRACTION JOINT



TYPICAL LONGITUDINAL JOINT

NOTE:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
2. SUBGRADE SHALL HAVE A MINIMUM SOAKED CBR OF 7% AT 95% MDD.
3. RIGID PAVEMENT SHALL BE PAVED WITH CONCRETE PAVER UNLESS APPROVED OTHERWISE BY THE ENGINEER.
4. REINFORCEMENT STEEL SHALL BE GRADE 60.
5. CONCRETE COMPRESSIVE STRENGTH (CYLINDER) SHALL BE 4000 psi.
6. CURING COMPOUND SHALL CONSIST OF TWO COATS OF WHITE-PIGMENTED WAX-BASED COMPOUND (ASTM C309).
7. THE REINFORCED MESH SHALL BE KEPT IN PLACE TO CONTROL SURFACE CRACKING. THE MESH SHALL NOT BE SUNK IN CONCRETE.
8. FOR DETAILS REFER RELEVANT DRAWINGS.

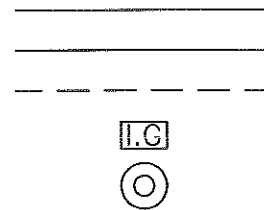
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL TYPICAL JOINTED REINFORCED CONCRETE PAVEMENT DETAIL			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED	VER./CKD.	APPROVED
DWN: ASHFAQ NAZ			
FILE	DATE	DRAWING NO.	REV.
CKD.	AUGUST, 2020	3976/102/PC-1/XS02A	00
SUBM.			

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

WATER SUPPLY

LEGEND:

WATER SUPPLY PIPE
COLD WATER PIPE (C.W)
HOT WATER PIPE (H.W)
INSTA GEYSER
L.L.D.P.E WATER TANK
(LINEAR LOW DENSITY POLYETHYLENE)



NOTES:

1. ALL PIPE DIAMETERS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
3. ALL COLD AND HOT WATER PIPES SHALL BE OF PPR (POLY PROPYLENE RANDOM) CLASS PN-20 DN 8077-8078 UNLESS OTHERWISE INDICATED.
4. ALL WATER SUPPLY FITTINGS SUCH AS BENDS, TEES, SOCKETS, SHALL BE OF PPR PN 25, DN 16962 UNLESS OTHERWISE MENTIONED.
5. STOP COCK / GATE VALVE SHALL BE INSTALLED AT ALL PIPES ENTERING THE WALL OR AS DIRECTED BY SITE ENGINEER.
6. CONNECTION TO EACH FIXTURE UNIT SHALL BE OF 25Ø.
7. ALL PIPES HAVE BEEN INDICATED BY OUTER DIAMETERS.
8. ALL WATER SUPPLY PIPES ARE BURRIED PIPES.
9. ALL POLYETHYLENE PIPES SHALL BE OF CLASS (PN- 10,PE-100)

OUTER DIA (mm)	INNER DIA (INCHES)
25	3/4"
32	1"
40	1 1/4"
50	1 1/2"
63	2"
75	2 1/2"
90	3"
110	4"

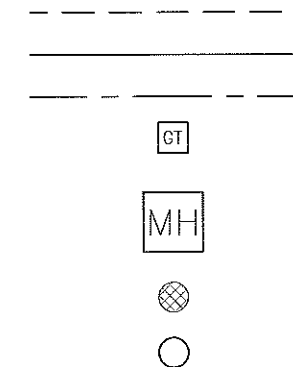
9. FOR PPR PIPES, EQUIVALENT INSIDE DIAMETERS IN INCHES SHALL BE AS UNDER

OUTER DIA (mm)	INNER DIA (INCHES)
25 mm	1/2"
32 mm	3/4"
40 mm	1"
50 mm	1 1/4"
63 mm	1 1/2"
75 mm	2"
90 mm	2 1/2"

SEWERAGE

LEGEND:

WASTE PIPE
SOIL PIPE
SEWER PIPE
GULLY TRAP
(1'x1')
MANHOLE
(2'-6"x2'x6")
FLOOR TRAP
VENT PIPE

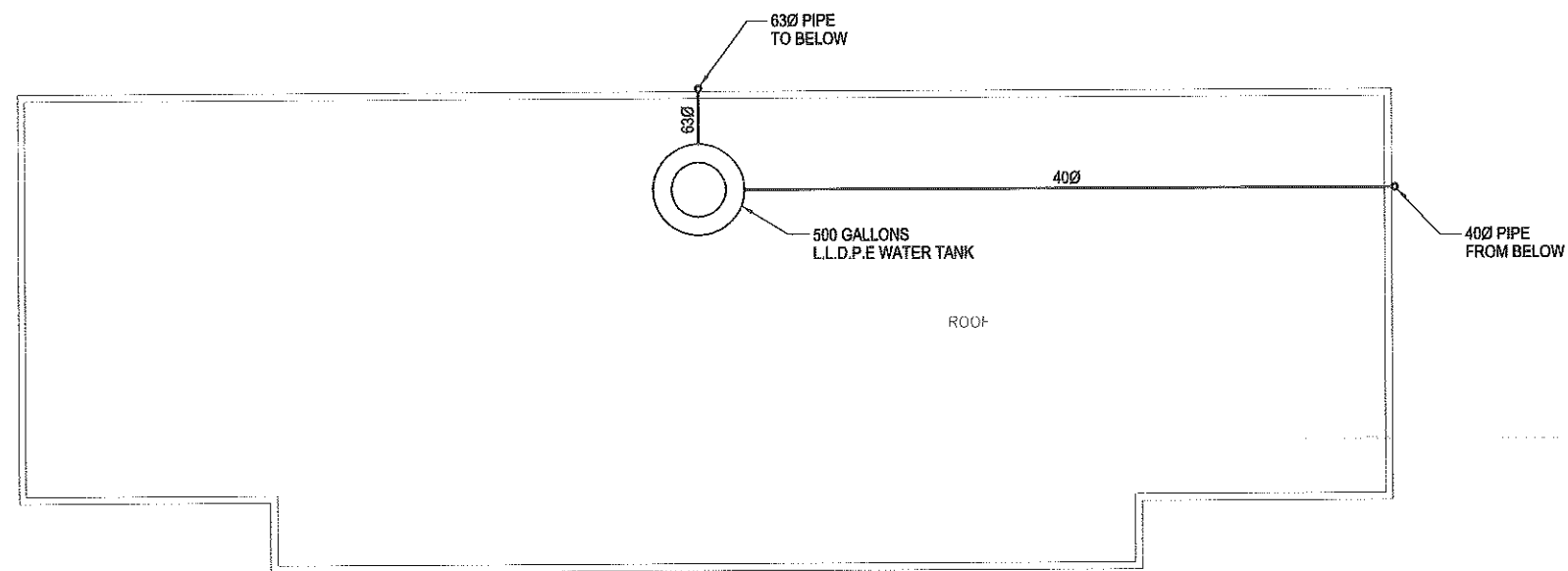


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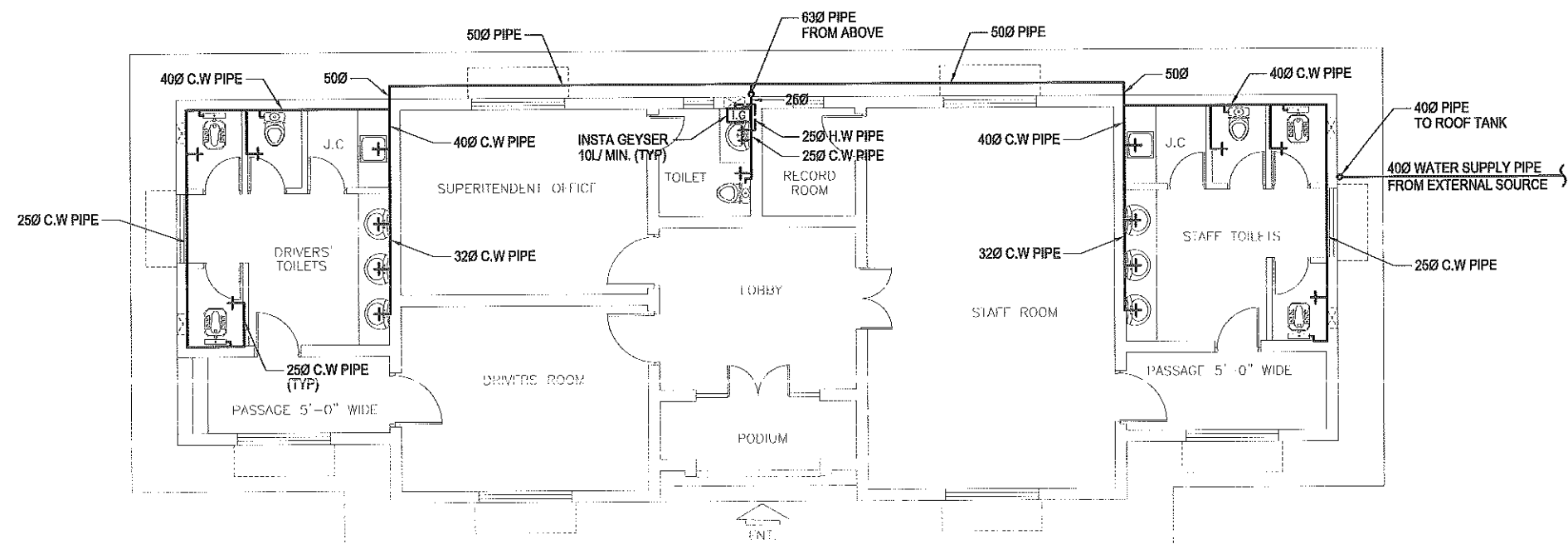
1. ALL PIPE DIAMETERS ARE IN INCHES UNLESS OTHERWISE INDICATED.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
3. MINIMUM SLOPE FOR SEWER LINE
3"Ø = 0.014
4"Ø = 0.010
6"Ø = 0.007
8"Ø = 0.005
10"Ø = 0.004
12"Ø = 0.0031
4. 0.2% SLOPE WILL BE PROVIDED FOR ROOF DRAINAGE.
5. ALL SOIL, WASTE, VENT AND RAINWATER PIPES ARE uPVC ISO 3633 & EN 1329.
6. ALL SEWAGE PIPING FROM MANHOLES AND GULLY TRAPS ONWARD SHALL BE OF uPVC OF CLASS SN-8 (EN-1401)
7. THE CONTRACTOR SHALL CONFIRM THE INVERT LEVEL OF SEWER PIPE FROM THE SEPTIC TANK UP TO EXTERNAL MANHOLE OF THE EXISTING SEWERAGE SYSTEM BEFORE CONNECTING THE SEWER IN THE MANHOLE.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING			
LEGEND AND NOTES			
NESPAK - ARTELIA JOINT VENTURE (JV)		ARTELIA	
DESIGNER	NESPAK	RECOMMENDED	APPROVED
OWN	MUHAMMAD SALEEM		
FILE		DATE	DRAWING NO.
CHKD.		AUG, 2020	3976/11/TD/4J00
SUBM.			REV. 0

REFERENCE	DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR





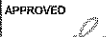


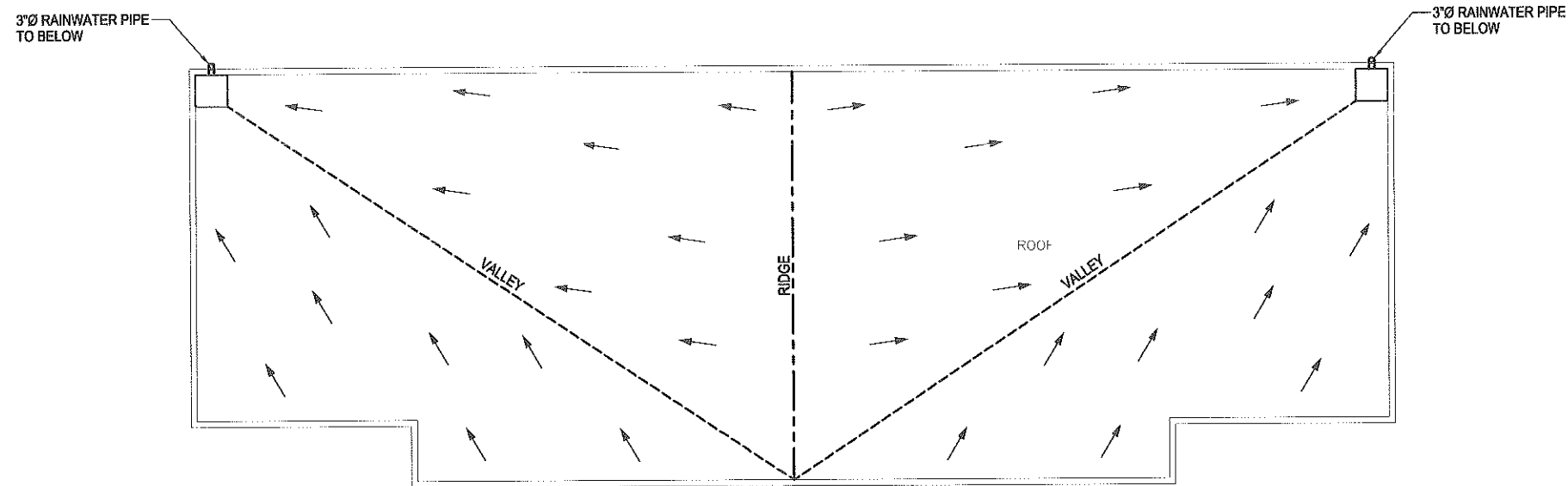
ROOF PLAN



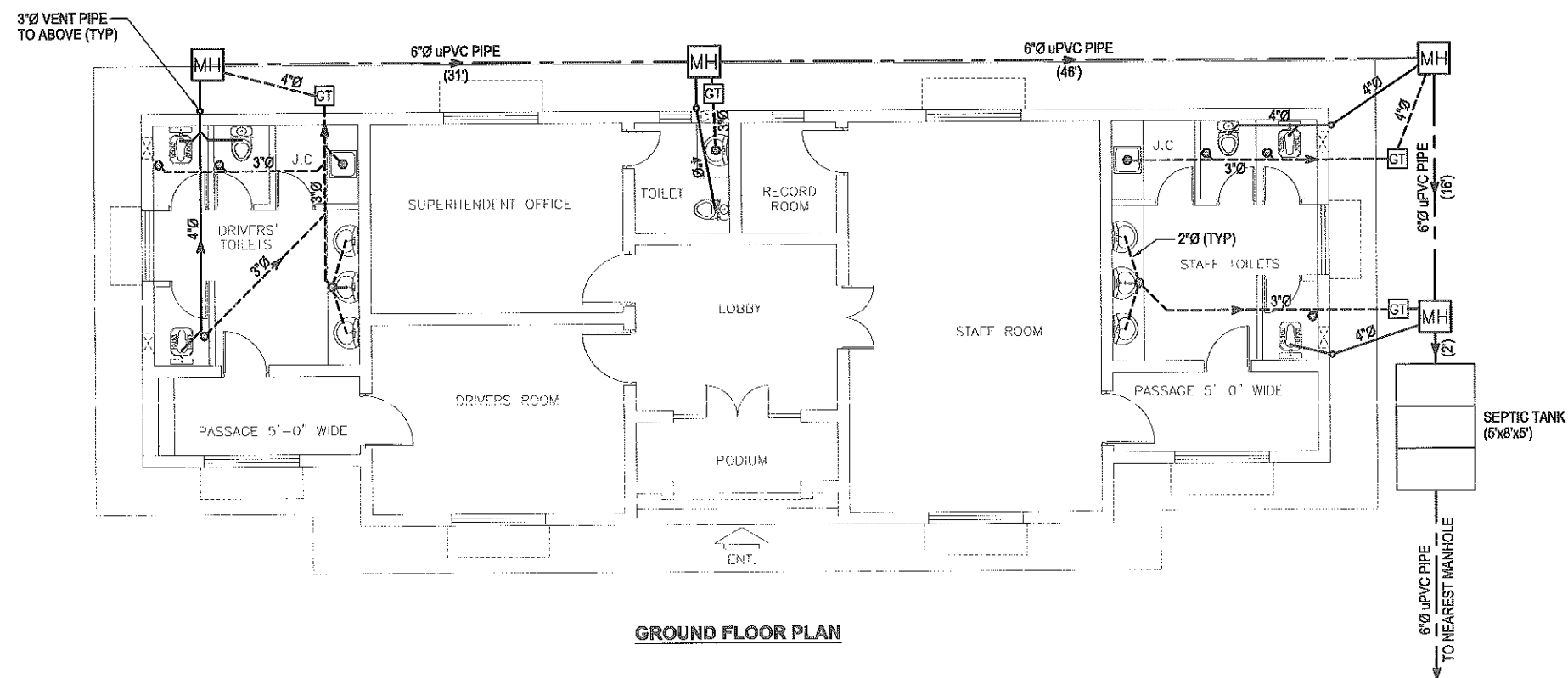
GROUND FLOOR PLAN

NOTE:
FOR LEGEND AND NOTES REFER DRAWING NO. 3976/11/C/4J00

SCALE 1"=10'			
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING			
WATER SUPPLY SYSTEM			
 NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNED BY DWN. <u>MUHAMMAD SALEEM</u>	RECOMMENDED BY 	VERIFIED BY 	APPROVED BY 
FILE NO. _____	DATE _____	DRAWING NO. _____	
CHECKED BY SRD. _____	AUG. 2020	3976/11/TD/4J01	
SUBM. NO. _____			REV. _____
			0



ROOF PLAN

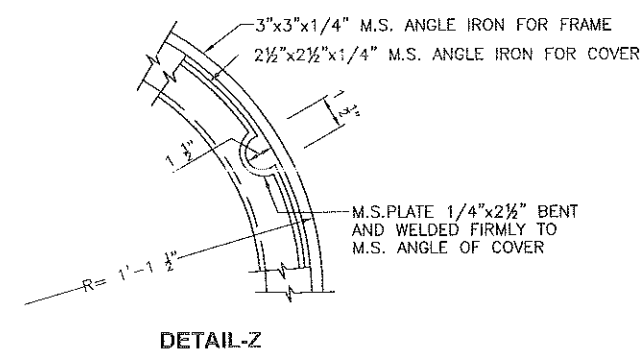
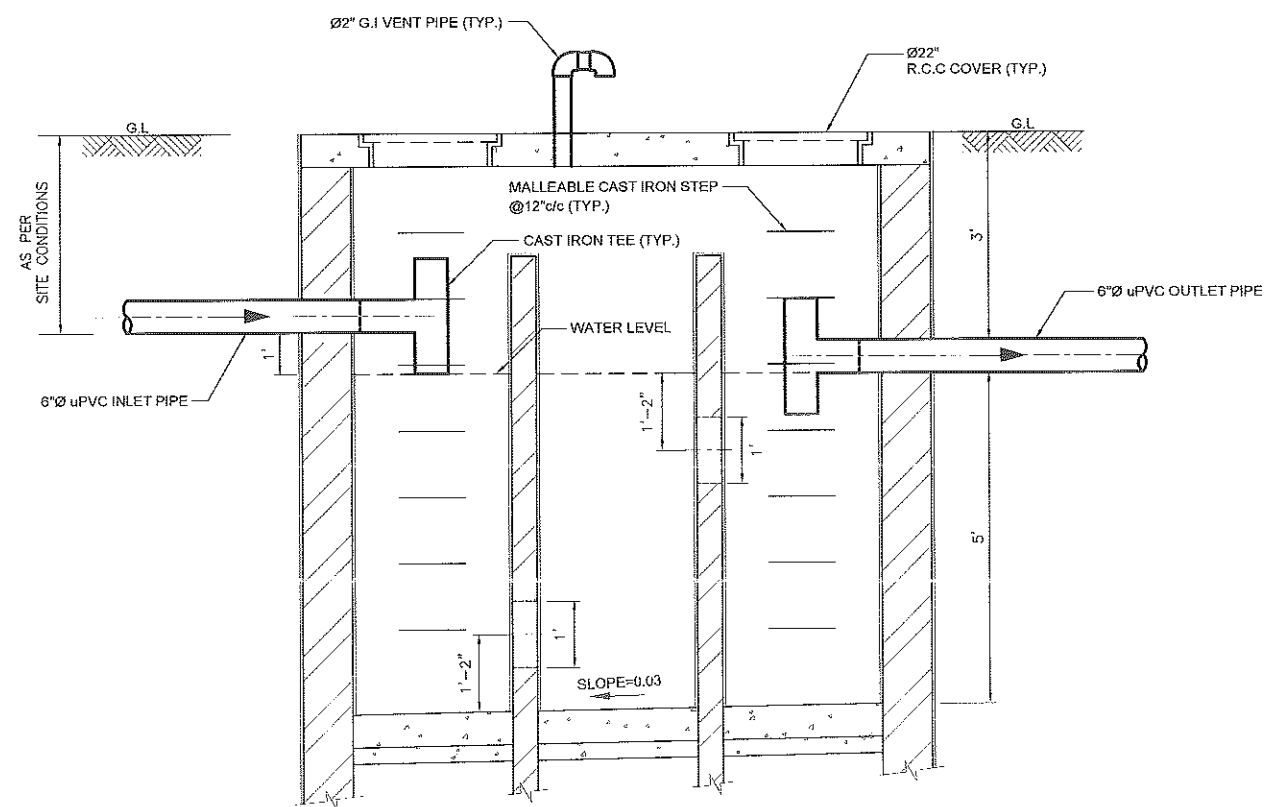
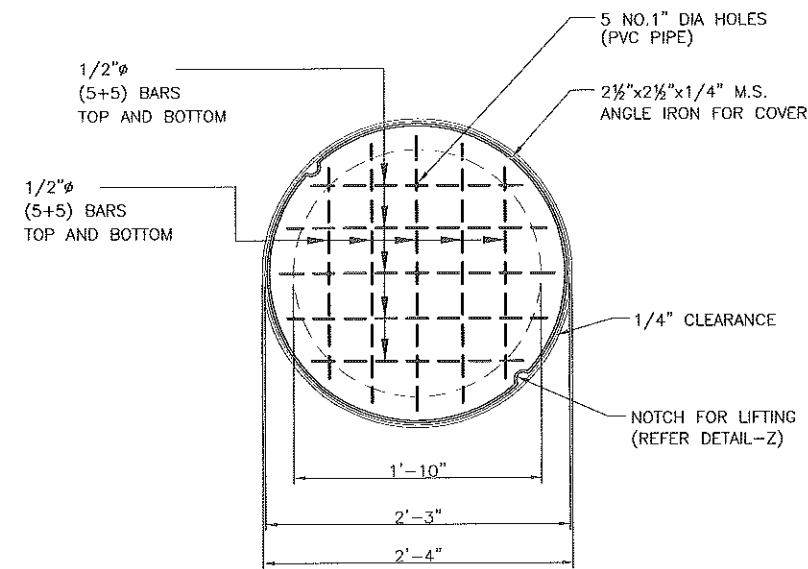
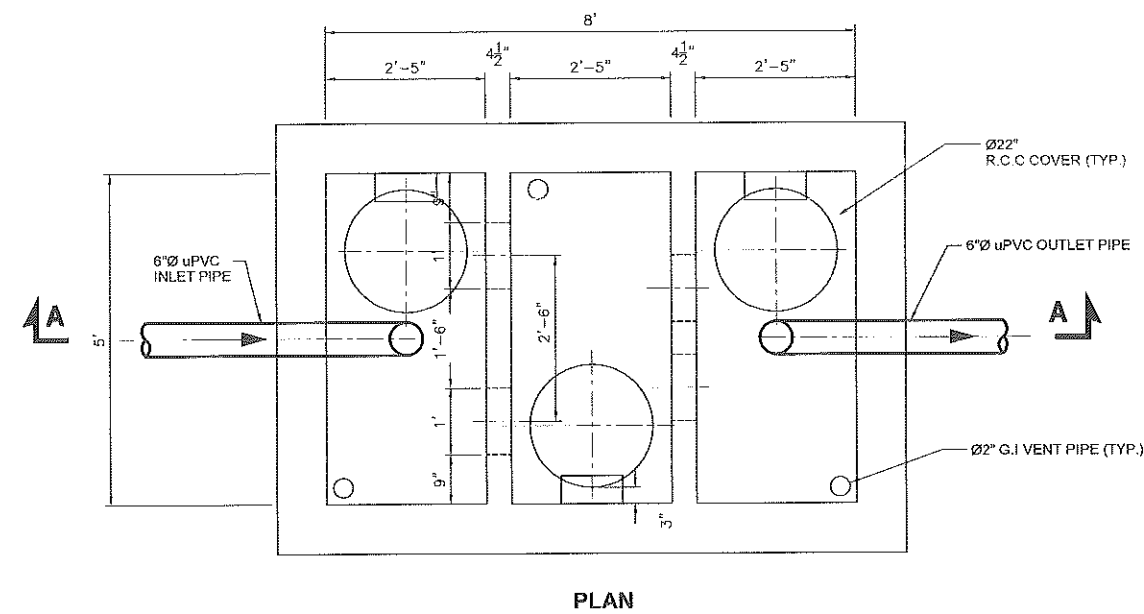


GROUND FLOOR PLAN

NOTE:
FOR LEGEND AND NOTES REFER DRAWING NO. 3976/11/CMJ00

SCALE 1"=10'			
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING			
SEWERAGE SYSTEM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]
DWN: MUHAMMAD SALEEM	DATE: AUG, 2020	DRAWING NO. 3976/11/TD/4J02	REV. 0
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CNO: [Blank]			
SUBM: [Blank]			

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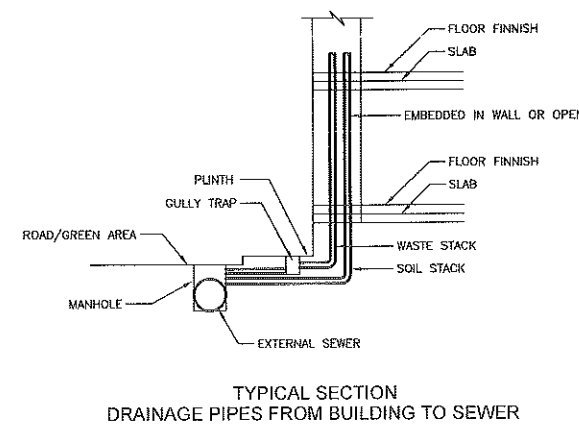
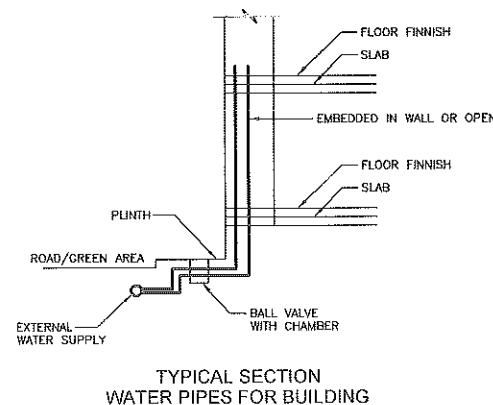
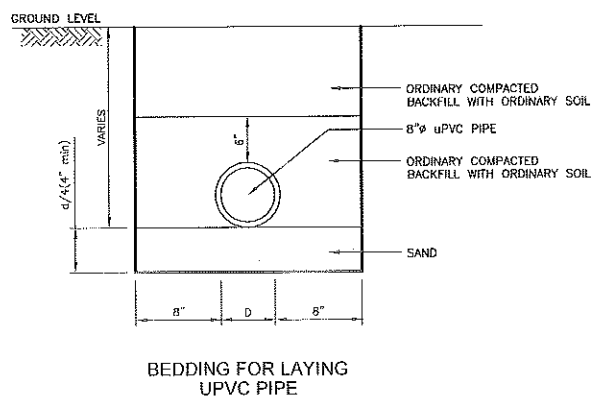
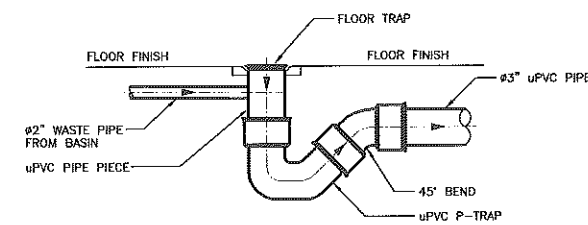
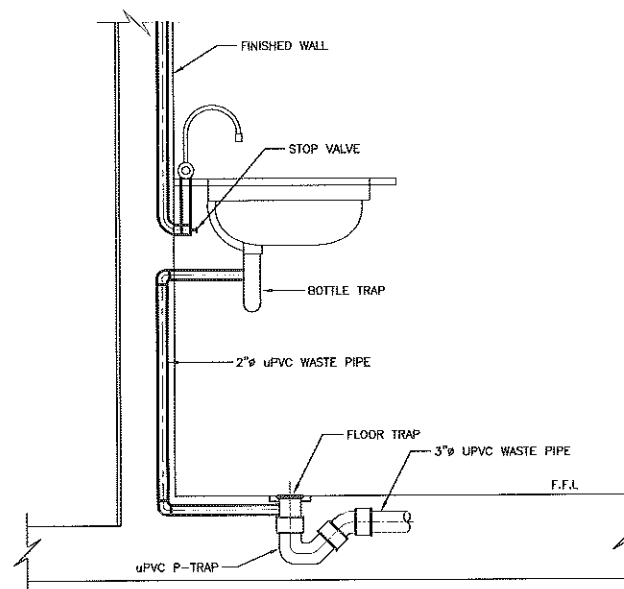
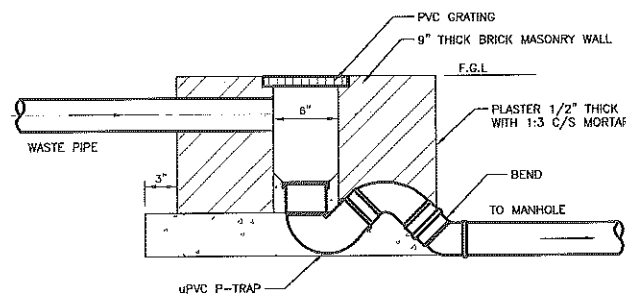
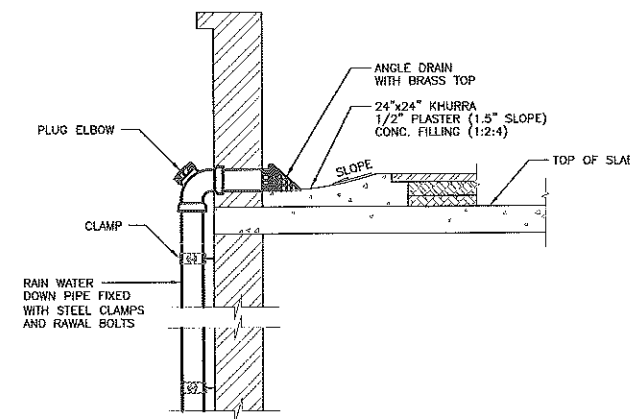
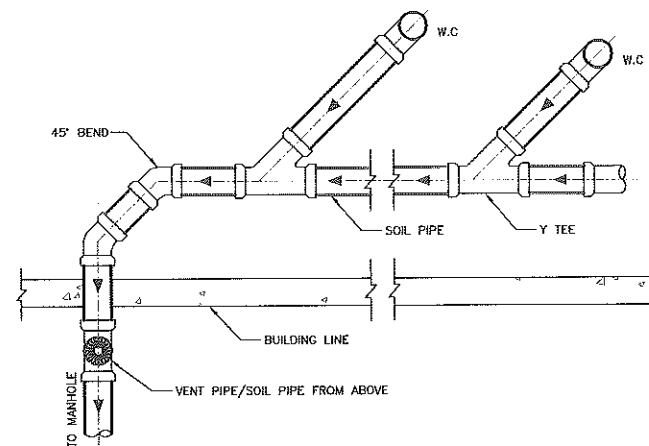
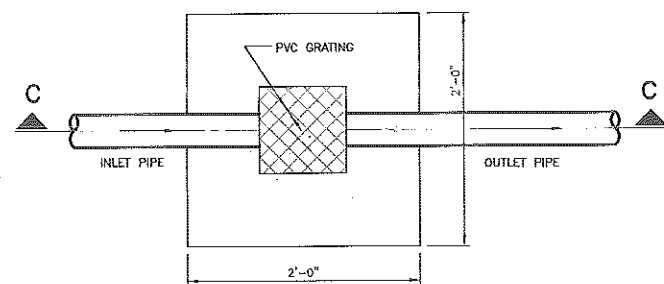


NOTES

- ALL DIMENSIONS ARE IN FEET/INCHES UNLESS OTHERWISE STATED.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
- FOR STRUCTURAL DESIGN/STRUCTURE MATERIAL OF SEPTIC TANK REFER STRUCTURAL DRAWINGS.

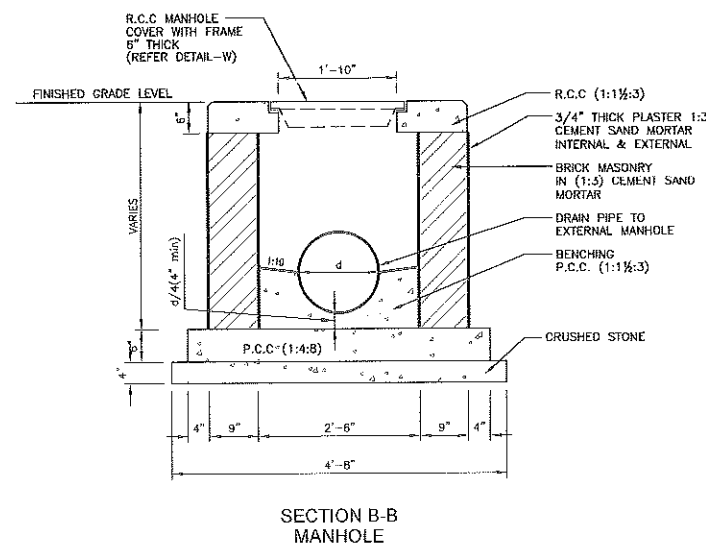
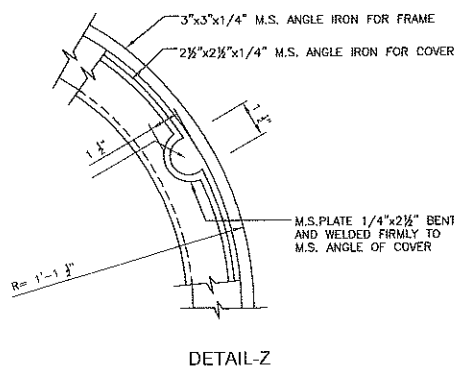
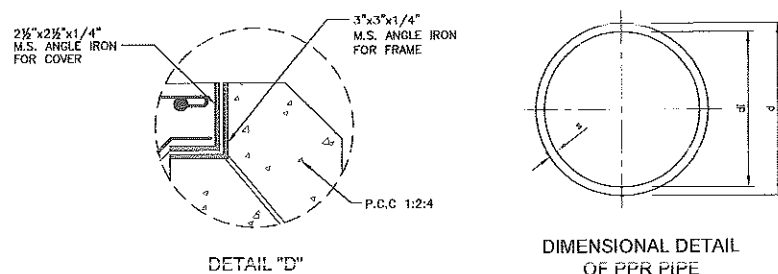
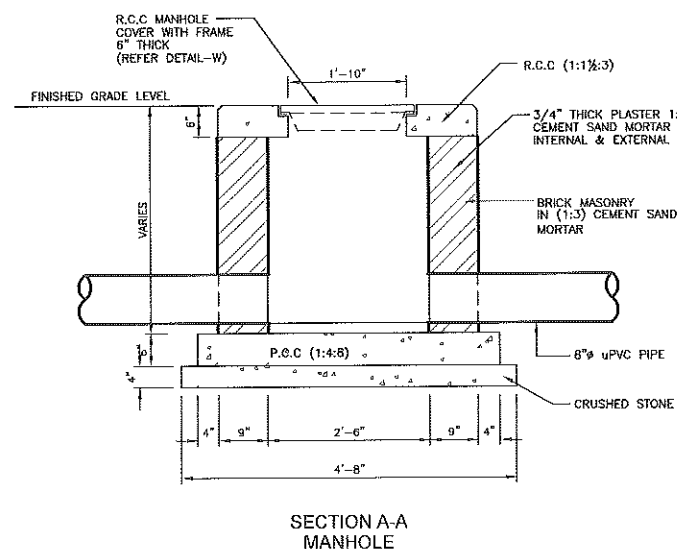
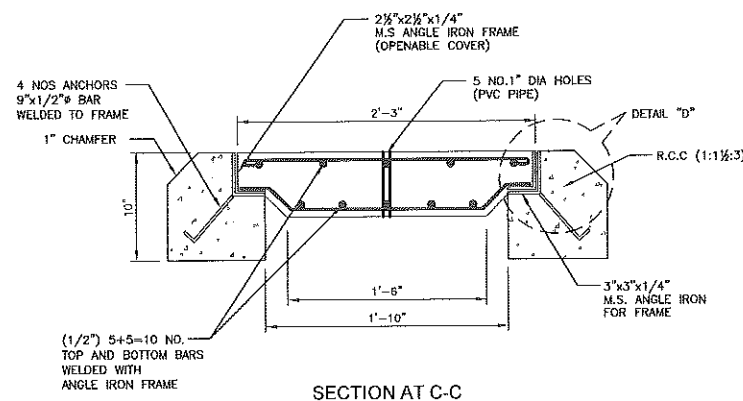
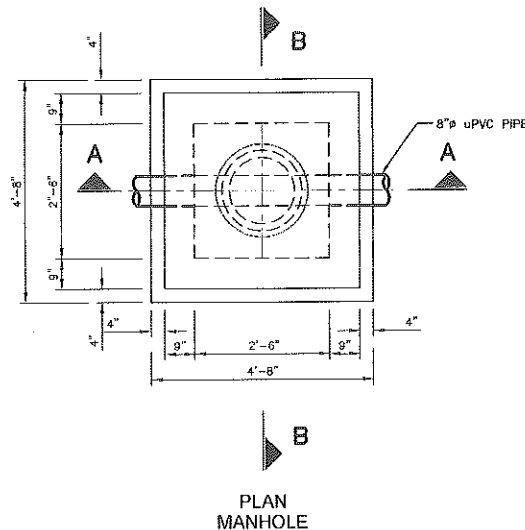
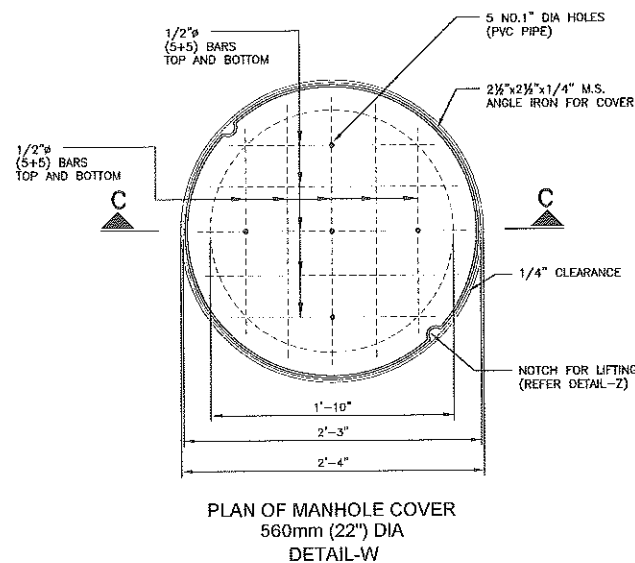
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING SEPTIC TANK			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNER: NESPAK	RECOMMENDED: [Signature]	APPROVED: [Signature]	
DRAWN: MUHAMMAD SALEEM	DATE: AUG. 2020	DRAWING NO.: 3976/11/TD/4J03	REV.: 0
FILE: [Blank]			
C/D: [Blank]			
SUBM: [Blank]			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD	APPR



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING			
MISCELLANEOUS PLUMBING DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	OVERSEEN: [Signature]	APPROVED: [Signature]
DRAWN: MUHAMMAD SALEEM	DATE: AUG. 2020	DRAWING NO.: 3978/11/TD/4J04	REV.: 0
FILE: [Blank]	SUBM. [Blank]		

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHK	APPR



CLAMP SPACES PN20

DIAMETER	CLAMP SPACING DISTANCES ACCORDING TO TEMPERATURE, CM					
mm	20°C	30°C	40°C	50°C	60°C	80°C
25	100	100	100	95	90	85
32	120	115	115	110	100	90
40	130	130	125	120	115	100
50	150	150	140	130	125	110
63	170	160	155	150	145	125
75	185	180	175	160	155	140

TABLE 1		FUSION DATA FOR PPR		
OUTER DIAMETER	AVERAGE HEATING TIME *	AVERAGE WORKING TIME (MAX.)	AVERAGE COOLING TIME (MIN.)	
mm	sec	sec	sec	
25	7	4	2	
32	8	6	4	
40	12	6	4	
50	18	6	4	
63	24	8	6	
75	30	8	6	
90	40	8	6	
110	50	10	8	

NOTE:
* AVERAGE HEATING TIME REFERS TO THE START TIME WHEN THE PIPE AND FITTING ARE INSERTED UP TO THE MARKED WELDING DEPTH IN THE WELDING MACHINE.

OUTER DIAMETER	WALL THICKNESS	INTERNAL DIAMETER	INTERNAL DIAMETER
mm	mm	mm	inches
d	S	di	di
25	4.2	16.6	1/2"
32	5.4	21.2	3/4"
40	6.7	26.6	1"
50	8.4	33.2	1 1/4"
63	10.5	42.0	1 1/2"
75	12.5	50.0	2"
90	15.0	60.0	2 1/2"
110	18.4	73.2	3"

CONCRETE EQUIVALENT STRENGTH CYLINDER	
(1:1 1/2:3)	3000psi
(1:2:4)	2500psi
(1:4:8)	2000psi

NOTE:
ALL DIMENSIONS ARE IN INCHES/FEET UNLESS OTHERWISE STATED.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL OFFICE BUILDING			
MISCELLANEOUS PLUMBING DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	APPROVED: [Signature]	
DWN: MUHAMMAD SALEEM	DATE: AUG 2020	DRAWING NO.: 3976/11/TD/4J05	REV: 0
FILE: [Blank]			
CKD: [Blank]			
SUBM: [Blank]			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHK	APPR

LEGEND

STORM WATER DRAIN



STORM WATER FLOW DIRECTION



ABBREVIATIONS

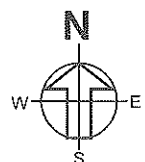
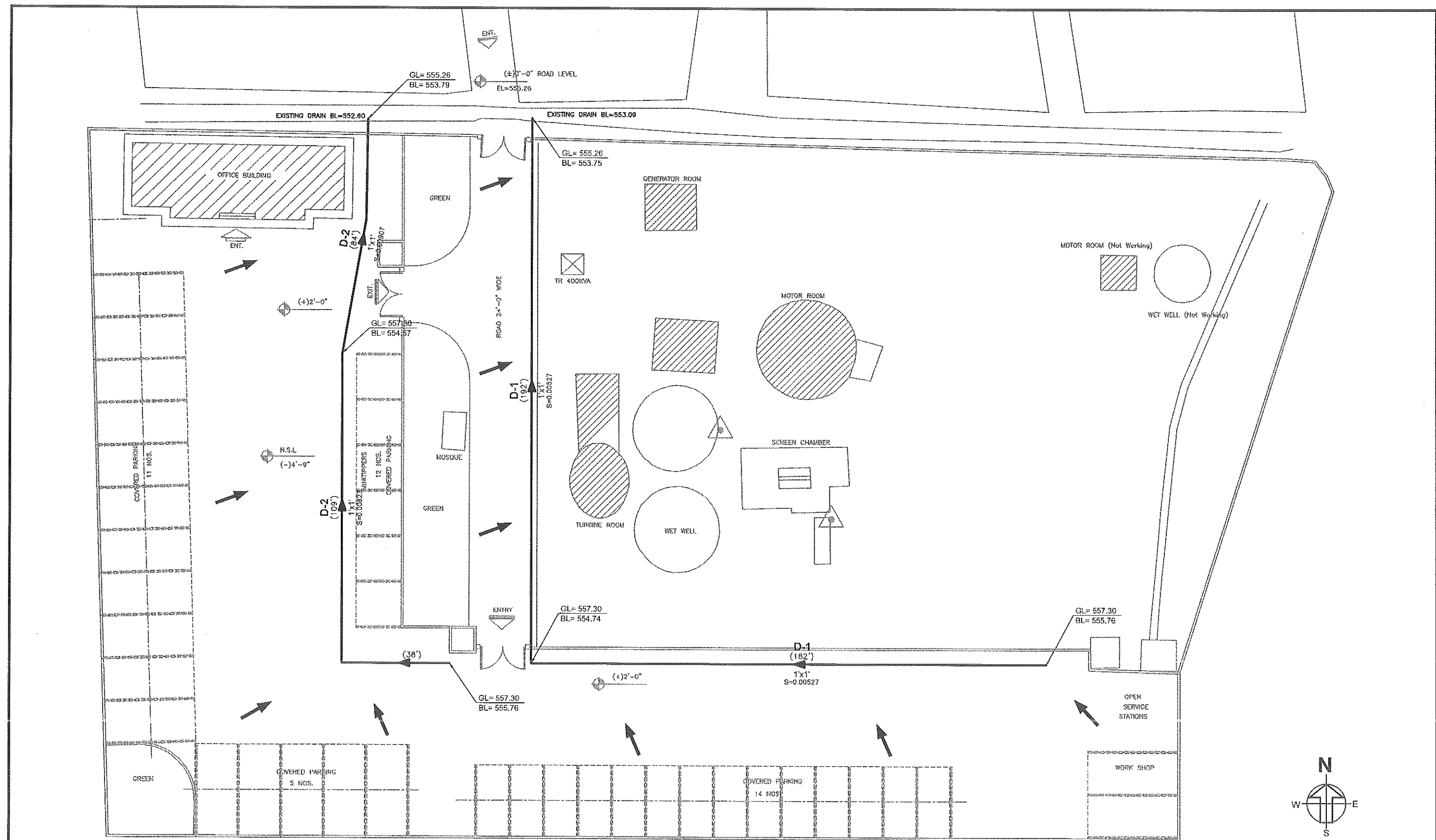
G.L GROUND LEVEL
B.L BED LEVEL

NOTES

- 1. ALL DRAIN SIZES ARE IN FEET UNLESS OTHERWISE SPECIFIED.
- 2. M.S (HEAVY DUTY) REMOVABLE GRATING SHALL BE PROVIDED.
- 3. THE CONTRACTOR SHALL VERIFY THE INVERT LEVELS OF ALL THE STORM WATER DRAINS AS PER SITE CONDITION BEFORE CONSTRUCTION.
- 4. FOR STRUCTURAL DETAILS REFER TO STRUCTURAL DRAWINGS.
- 5. READ THIS DRAWING IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS			
STORM WATER DRAINAGE SYSTEM LEGEND & NOTES			
NESPAC - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAC	RECOMMENDED	VERIFIED
DRAWN	Yash Virdi	APPROVED	
FILE		DATE	
CKD		DRAWING NO.	
SUBM.		3976/11/TD/3J00	0

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB

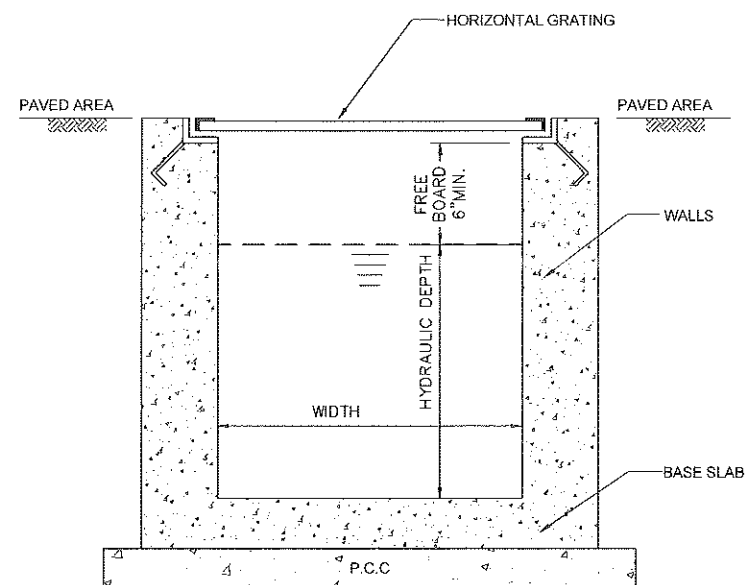
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.

COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL
STORM WATER DRAINAGE SYSTEM (LAYOUT PLAN AND LEVELS)

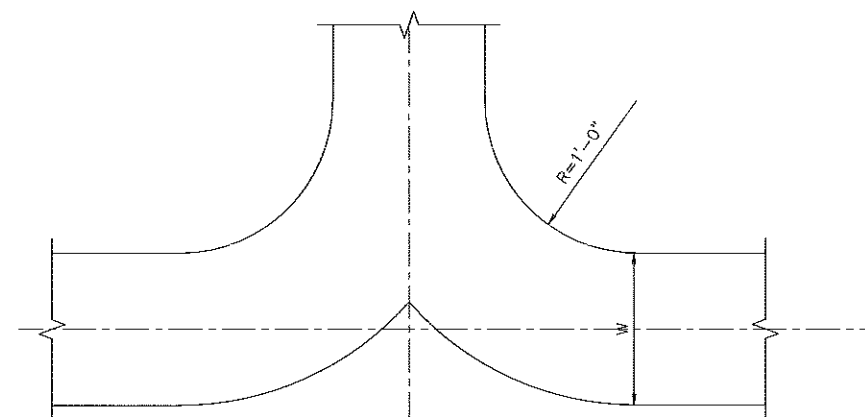
NESPAK - ARTELIA JOINT VENTURE (JV)

DESIGN	NESPAK	RECOMMENDED	VER/CKD	APPROVED
DRAWN	Yasir Vaidar			
FILE				
CHKD				
SUBM				
DATE	AUGUST, 2020	DRAWING NO.	3976/11/TD/3J01	REV
				0

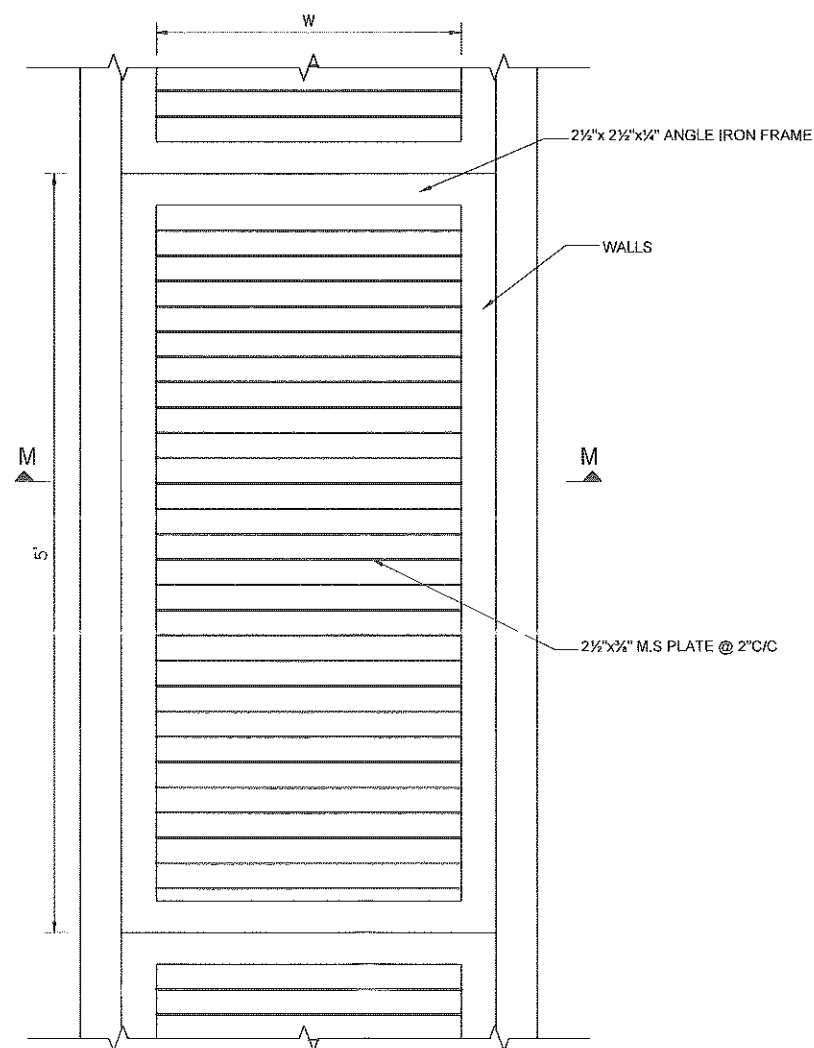
REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD	APPR.



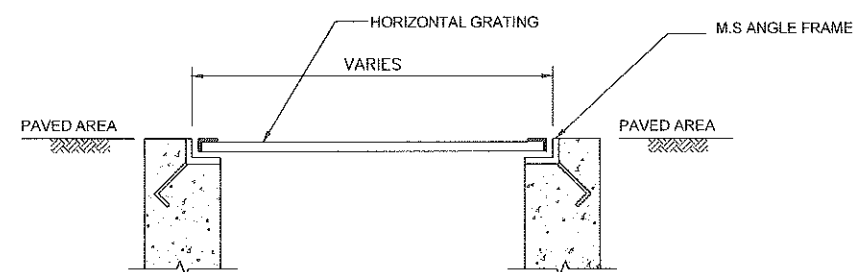
TYPICAL X-SECTION OF DRAIN
FOR HORIZONTAL GRATING



DRAIN JUNCTION DETAIL



HORIZONTAL GRATING PLAN

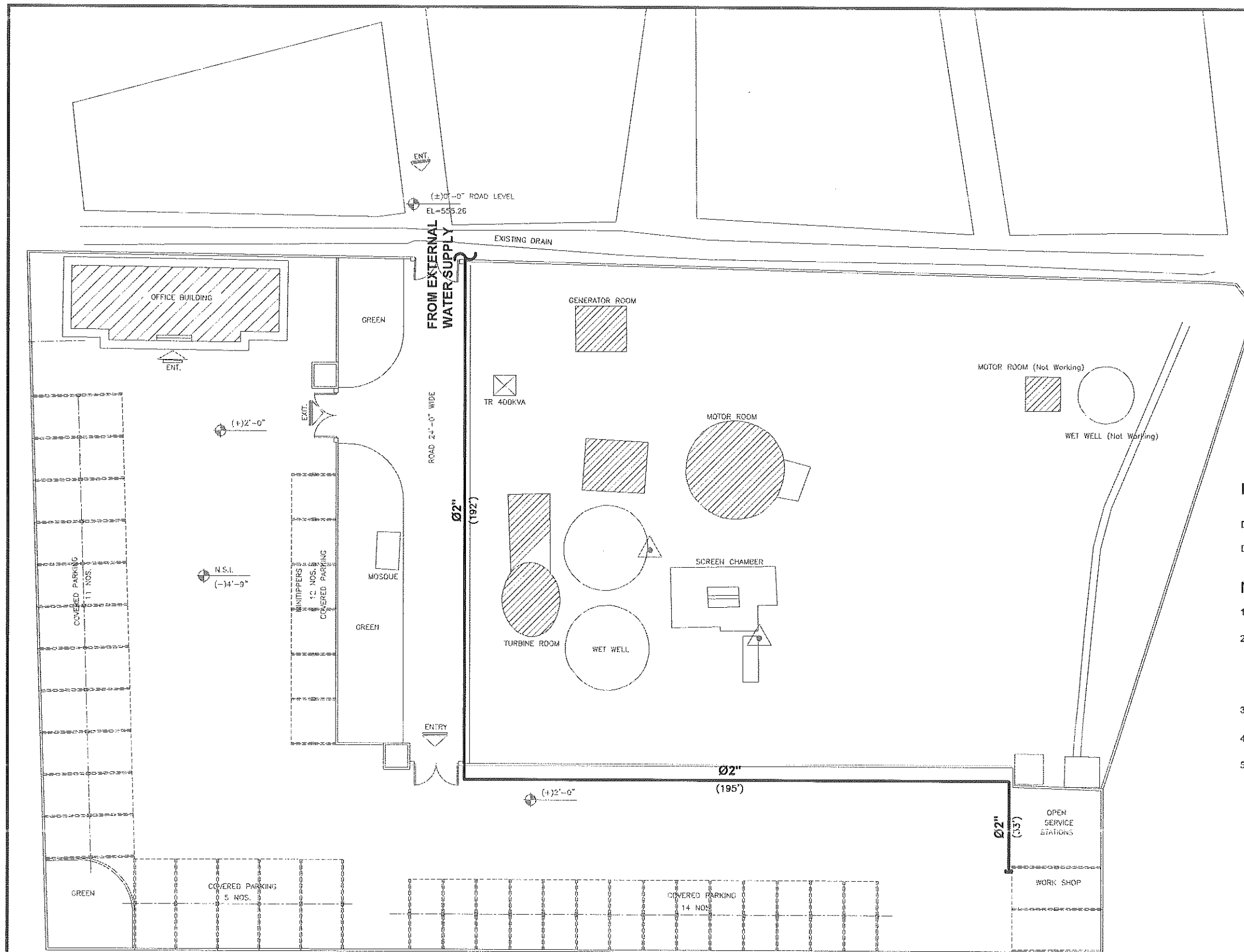


SECTION M-M

DRAIN SIZE	
WIDTH(ft)	DEPTH (ft)
1'-0"	1'-0"
1'-6"	1'-0"
1'-6"	1'-6"
2'-0"	1'-6"
2'-0"	2'-0"

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS MISCELLANEOUS DETAILS									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN: NESPAK	RECOMMENDED: X	WORK/ORD: 10	APPROVED: 10						
DRAWN: Yase Victor									
FILE: _____									
CKD: _____									
SUBM: _____									
DATE: AUGUST 2020				DRAWING NO. 3976/11/TD/3J02				REV. 0	

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD	APPR



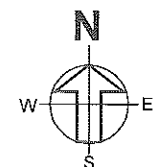
LEGEND

DIAMETER AND LENGTH OF PIPE $\overline{\text{Ø2\" (120')}} \text{---}$
 DEAD END $\overline{\text{---}}$

NOTES

1. ALL PIPE DIAMETERS ARE IN INCHES AND LENGTHS ARE IN FEET UNLESS OTHERWISE SPECIFIED.
2. ALL PIPE DIAMETERS SHOWN ON DRAWINGS ARE INTERNAL DIAMETERS WHEREAS THE OUTER DIAMETERS ARE AS FOLLOWS:

INNER DIA (INCHES)	OUTER DIA (mm)
Ø2"	63
3. THE PIPE MATERIAL SHALL BE HDPE (PN-10, PE-100) UNLESS OTHERWISE SPECIFIED.
4. MINIMUM EARTH COVER OVER CROWN OF PIPE SHALL NOT BE LESS THAN 3'-0".
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT FREED TOWN, SAHIWAL WATER SUPPLY SYSTEM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]
DRAWN: Yasir Victor	DATE: [Blank]	DRAWING NO. 3976/11/TD/1J01	REV. 0
FILE: [Blank]	DATE: AUGUST, 2020		
CKD: [Blank]	DATE: [Blank]		
SUBM: [Blank]	DATE: [Blank]		

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

1. GENERAL

- ALL LEVELS AND DIMENSIONS ARE IN FEET & INCHES UNLESS OTHERWISE NOTED.
- ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING/SEWERAGE, MECHANICAL, ELECTRICAL AND ANY OTHER RELEVANT DRAWING.
- NOTES GIVEN ON THIS DRAWING ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHERWISE. NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERRED.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATIONS OF THE CONTRACT DOCUMENTS. IN THE ABSENCE OF ANY SPECIFICATIONS, ALL MATERIALS & WORKMANSHIP SHALL CONFORM TO THE RELEVANT ACI, BRITISH OR PAKISTANI CODES & STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURES DURING CONSTRUCTION. HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.
- THE CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL AND VARIOUS SERVICE DRAWINGS FOR SIZES & LOCATION OF ALL STRUCTURAL MEMBERS, FLOORS, WALLS, OPENINGS, FLOOR FINISHES, PIPES etc.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF DEWATERING SYSTEM WHERE SO REQUIRED DURING CONSTRUCTION.
- TERMITE CONTROL TREATMENT SHALL BE CARRIED OUT AS PER SPECIFICATIONS.
- DO NOT SCALE THE DRAWINGS, DIMENSIONS, GIVEN ON THE DRAWINGS, SHALL GOVERN.
- ALL FABRICATION, PAINTING, ERECTION AND QUALITY CONTROL IS TO BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE ACI/AISC/BRITISH SPECIFICATIONS.
- BACK FILLING AROUND FOUNDATIONS & WALLS SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES TO AVOID ANY LATERAL DISPLACEMENT. BACK FILLING UNDER FLOORS AND AROUND FOUNDATIONS SHALL BE DONE IN LAYERS NOT EXCEEDING 6 in. IN THICKNESS AND COMPACTED UP TO 95% MFD.
- DEWATERING SHALL BE DONE BY CONTRACTOR IF REQUIRED WITH THE PRIOR APPROVAL OF THE ENGINEER.

2. FOUNDATIONS

- FOUNDATIONS HAVE BEEN DESIGNED BASED ON NET ALLOWABLE BEARING CAPACITY AS SPECIFIED IN GEO-TECHNICAL INVESTIGATION REPORT.
- IF SOFT/LOOSE POCKET OF SOIL OR LOOSE FILL MATERIAL IS ENCOUNTERED AT FOUNDATION BASE, IT SHOULD BE COMPLETELY EXCAVATED AND REPLACED WITH SELECT FILL MATERIAL. THE SELECT FILL SHOULD BE A-3 AS PER AASHTO SOIL CLASSIFICATIONS. THE SELECT FILL MATERIAL SHOULD BE REPLACED AND COMPACTED IN LAYERS OF THICKNESS APPROPRIATE TO TYPE AND SIZE OF COMPACTED EQUIPMENT TO AT LEAST 75% AT RELATIVE DENSITY OR 95% MODIFIED PROCTOR DRY DENSITY, AS APPROPRIATE. THE ON SITE SOIL AT FOUNDATION EXCAVATION BASE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SELECT FILL/FOUNDATION.
- ALL FOUNDATIONS SHALL BE PLACED ON COMPETENT LOAD BEARING STRATA. IF ACCEPTABLE BEARING STRATA IS NOT FOUND AT INDICATED DEPTHS OF FOUNDATION, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR HIS INSTRUCTIONS. ALL COLUMN FOOTING THAT MAY LIE IN THE FILL AREA SHOULD BE SUPPORTED ON THE NATURAL SOIL UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- THE BED OF FOUNDATION SHALL BE THOROUGHLY COMPACTED PRIOR TO LAYING FOUNDATION. ANY LOOSE, WET, SOFT SOIL PATCH SHALL BE REPLACED WITH WELL-COMPACTED SELECT GRANULAR FILL COMPACTED TO 95% MODIFIED AASHTO DENSITY.
- THE FOUNDATION BED SOIL SHALL BE PROTECTED FROM INGRESS OF MOISTURE FROM ANY SOURCE BY PROVIDING ADEQUATE SURFACE DRAINAGE SYSTEM AND ENSURING LEAK PROOF JOINTING OF SEWERAGE AND WATER SUPPLY LINES. EXCESSIVE AND UNCONTROLLED WATERING FOR CURING AND COMPACTION OF BACK FILL MATERIAL SHALL BE AVOIDED.
- ALL FOUNDATIONS SHALL BE PLACED ON COMPETENT LOAD BEARING STRATA. IF ACCEPTABLE BEARING STRATA IS NOT FOUND AT INDICATED DEPTHS OF FOUNDATION, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR HIS INSTRUCTIONS.
- THE BED OF FOUNDATION SHALL BE THOROUGHLY COMPACTED PRIOR TO LAYING FOUNDATION. ANY LOOSE, WET, SOFT SOIL PATCH SHALL BE REPLACED WITH WELL-COMPACTED SELECT GRANULAR FILL COMPACTED TO 95% MODIFIED AASHTO DENSITY OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

3. CONCRETE

3.1 STRENGTH

- STRUCTURAL DESIGN IS BASED ON THE AMERICAN CONCRETE INSTITUTE CODE OF REINFORCED CONCRETE, ACI 318 AND UNIFORM BUILDING CODE.
- ALL STRUCTURAL CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE (ACI) REQUIREMENTS.
- THE MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS FOR VARIOUS STRUCTURES SHALL BE AS GIVEN IN THE FOLLOWING TABLE.

STRUCTURE/STRUCTURAL ELEMENT	MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS (psi)
BUILDING CONCRETE/PLAIN CONCRETE	1500 (1:3:6)
SLABS, BEAMS & ALL OTHER STRUCTURAL ELEMENTS	2500 (1:2:4)
COLUMNS	3000 (1:1.5:3)
WATER RETAINING STRUCTURES	4000 (1:1:2)

3.2 MIX DESIGN

THE MIX DESIGN FOR THE SPECIFIED GRADES OF CONCRETE MEETING ALL REQUIREMENTS OF STRENGTH, WORKABILITY AND DURABILITY, SHALL BE CARRIED OUT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR HIS APPROVAL. CHEMICAL ADDITIVES SUCH AS RETARDERS/SUPER PLASTICIZERS MAY BE USED SUBJECT TO THE APPROVAL BY THE ENGINEER.

3.3 AGGREGATE SIZE

MAXIMUM AGGREGATE SIZE SHALL BE AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

STRUCTURAL ELEMENT	MAX. AGGREGATE SIZE (Inch)
FOUNDATION MATS, RAFTS AND FOOTINGS UP TO 3.0 FT. THICK	1 1/2"
COLUMNS AND BEAMS	3/4"
WALLS	3/4"
SLABS	3/4"

3.4 CONSTRUCTION JOINTS

- GENERALLY, THE CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS WILL BE FOLLOWED. HOWEVER THE CONTRACTOR MAY USE AN ALTERNATE CONSTRUCTION JOINTS ARRANGEMENT TO SUIT HIS REQUIREMENTS, WITH PRIOR APPROVAL OF THE ENGINEER. FOR THIS PURPOSE, THE CONTRACTOR SHALL SUBMIT HIS PROPOSAL FOR THE APPROVAL OF THE ENGINEER TWO WEEKS IN ADVANCE OF HIS SCHEDULED CONCRETE POURING DATE. ALL CONSTRUCTION JOINTS SHALL BE TREATED AS PER SPECIFICATIONS.
- CONSTRUCTION JOINTS IN FLOOR SLABS AND BEAMS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER. HORIZONTAL CONSTRUCTION JOINTS IN RAFTS, SLABS AND BEAMS ARE NOT PERMITTED EXCEPT AS SPECIFICALLY INDICATED ON STRUCTURAL DRAWINGS.
- SURFACE OF CONCRETE CONSTRUCTION JOINTS SHALL BE ROUGHENED, CLEANED AND LAITANCE REMOVED AS PER SPECIFICATIONS.
- CONSTRUCTION JOINTS SHALL BE SO MADE AND LOCATED AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE. THEY SHALL BE LOCATED AT THE ONE THIRD OF THE SPANS OF SLABS, BEAMS & JOISTS. IN WALLS & COLUMNS SHALL BE AT THE UNDER SIDE OF FLOORS, SLABS OR BEAMS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS.
- WATERSTOP SHALL BE PROVIDED AT CONSTRUCTION JOINTS WHERE REQUIRED WITH PRIOR APPROVAL OF THE ENGINEER.

3.5 EMBEDDED ITEMS

BEFORE PLACING CONCRETE, IT SHALL BE ENSURED THAT ALL EMBEDDED ITEMS ARE IN POSITION AND SECURELY FASTENED/WELDED IN PLACE ACCORDING TO THE DRAWINGS. EMBEDDED ITEMS SHALL BE FREE OF OIL AND OTHER FOREIGN MATTER SUCH AS LOOSE COATING OF RUST. ALL EMBEDDED ITEMS REQUIRED FOR DOORS AND WINDOWS SHALL BE SUPPLIED AND PLACED IN POSITION BY CIVIL CONTRACTOR. ALL EMBEDDED ITEMS REQUIRED FOR PIPING, ELECTRICAL AND MECHANICAL EQUIPMENTS SHALL BE SUPPLIED BY OTHERS. HOWEVER SUCH ITEMS SHALL BE PLACED AND HELD IN POSITION BY THE CIVIL CONTRACTOR BY HIS OWN SUPPORTING ARRANGEMENT APPROVED BY THE ENGINEER.

3.6 FINISHES

FINISHES OF CONCRETE SURFACES SHALL BE AS PER SPECIFICATIONS.

3.7 CONCRETE POURING

THE CONTRACTOR SHALL SUBMIT CONCRETE POURING SCHEDULE FOR ENGINEER'S APPROVAL. NO CONCRETE SHALL BE PLACED UNTIL WRITTEN PERMISSION IS GIVEN BY THE ENGINEER DURING CONSTRUCTION. STACKING OF CONSTRUCTION MATERIALS, BRICKS etc. SHALL BE AVOIDED ON SLAB PANELS.

4. REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO THE LATEST ASTM A615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF 60,000 PSI.

4.1 CONCRETE PROTECTION TO REINFORCEMENT

MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.

STRUCTURAL ELEMENT	COVER (Inch)
1- FOUNDATION IN CONTACT WITH SOIL & WATER	3"
2- FOUNDATIONS NOT IN CONTACT WITH SOIL	2"
3- WALLS (INCLUDING RETAINING WALLS)	2"
4- FACE EXPOSED TO WEATHER OR EARTH	1 1/2"
5- FACE NOT EXPOSED TO WEATHER OR EARTH	1 1/4"
6- FACE EXPOSED TO WATER	3"
7- SLABS	3/4"
8- COLUMNS AND BEAMS	1 1/2"

4.2 DETAILING OF REINFORCEMENT

ADDITIONAL BARS EQUAL TO 1/2 REINFORCING BARS AREA, INTERRUPTED BY OPENING, SHALL BE PROVIDED AT EACH SIDE OF OPENING AND SHALL EXTEND EQUAL TO SPICE LENGTH (3'-0" MIN.) BEYOND OPENING. MIN. 2-#5 BARS ON EACH SIDE AND FACE SHALL BE USED. FOR OPENINGS LESS THAN 12"x12", OFFSET THE REINFORCEMENT TO CLEAR OPENING AND NO ADDITIONAL REINFORCEMENT SHALL BE PROVIDED.

A. ACCESSORIES

BAR SUPPORTS, SPACERS AND OTHER ACCESSORIES ARE NOT SHOWN ON THE DRAWINGS. THE RECOMMENDATIONS OF ACI-315 OR OTHER SUPPORTING SYSTEM AS APPROVED BY THE ENGINEER MAY BE USED.

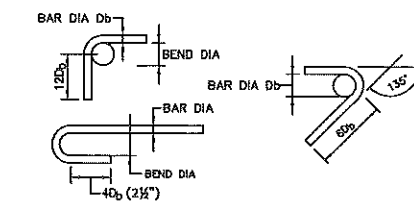
B. STANDARD REINFORCEMENT DETAILS

a) MINIMUM BEND DIAMETERS

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

TABLE (1) - MINIMUM DIAMETER OF BEND

BAR SIZE	MINIMUM DIAMETER OF BEND
#3 Through #5	4D _b
#6 Through #8	6D _b
#9, #10 and #11	8D _b



STANDARD HOOKS FOR REINFORCEMENT OTHER THAN STIRRUPS, TIES & HOOPS

STANDARD HOOKS FOR STIRRUPS, TIES AND HOOPS

b) DEVELOPMENT LENGTH

UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM BASIC DEVELOPMENT LENGTH FOR F_y = 60,000 PSI (GRADE 60) SHALL BE AS FOLLOWS:

(a) TOP BARS	
Bar Size	DEVELOPMENT LENGTH 'Inch' (F _y =60,000 psi)
f _c (psi)	#3 #4 #5 #6 #7 #8 #9 #10 #11
3000 (1:1.5:3)	21 30 36 42 48 54 63 69 78
4000 (1:1:2)	18 24 33 36 42 48 54 63 69 78 84

(b) BOTTOM BARS	
Bar Size	DEVELOPMENT LENGTH 'Inch' (F _y =60,000 psi)
f _c (psi)	#3 #4 #5 #6 #7 #8 #9 #10 #11
3000 (1:1.5:3)	18 21 27 33 36 42 48 54 63 69 75
4000 (1:1:2)	15 18 24 30 36 42 48 54 60 66 66

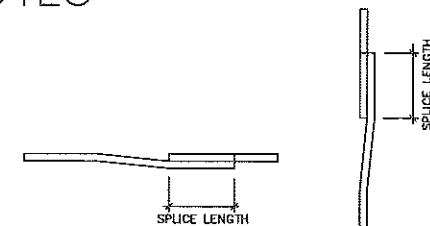
c) SPICE/LAP LENGTH

- WELDED WIRE FABRIC MESH SHALL BE LAPPED OVER ADJACENT SHEET BY 12 INCH.
- BARS SHALL BE SPICED ONLY WHERE INDICATED, OR AT LOCATIONS SPECIFICALLY APPROVED BY THE ENGINEER.
- THE LAPS SHOULD BE STAGGERED.
- UNLESS OTHERWISE STATED ON THE DRAWINGS THE FOLLOWING LAP LENGTHS SHALL BE PROVIDED.

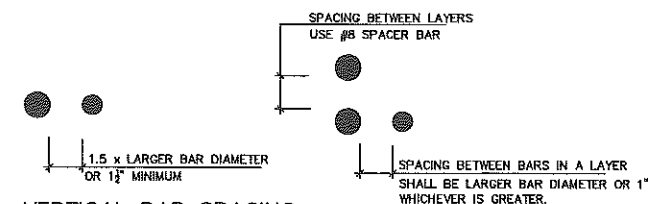
(a) TOP BARS	
Bar Size	SPICE/LAP LENGTH 'Inch' (F _y =60,000 psi)
f _c (psi)	#3 #4 #5 #6 #7 #8 #9 #10 #11
3000 (1:1.5:3)	27 39 48 54 61 63 105 114 129
4000 (1:1:2)	24 33 42 48 54 61 63 102 111

(b) BOTTOM BARS	
Bar Size	SPICE/LAP LENGTH 'Inch' (F _y =60,000 psi)
f _c (psi)	#3 #4 #5 #6 #7 #8 #9 #10 #11
3000 (1:1.5:3)	21 27 36 42 48 54 63 61 80 90
4000 (1:1:2)	18 24 30 36 42 48 54 63 72 78 84

GENERAL NOTES



BEAM SPICE (TYP.) COLUMN SPICE (TYP.)



VERTICAL BAR SPACING IN COLUMNS

BAR SPACING IN BEAM

- ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND HELD FIRMLY IN PLACE BEFORE & DURING THE PLACEMENT OF CONCRETE, BY MEANS OF WIRE AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION.
- DISTRIBUTION REINFORCEMENT SHALL BE PROVIDED AS #3@10" c/c UNLESS OTHERWISE SPECIFIED.

5. FORMWORK

- THE DESIGN AND ENGINEERING OF THE FORMWORK, AS WELL AS ITS CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE FORMWORK SHALL BE DESIGNED CONFORMING TO THE REQUIREMENTS OF ACI 301 AND CONTRACT SPECIFICATIONS.
- THE FORMWORK SHALL HAVE SUFFICIENT STRENGTH TO WITHSTAND THE PRESSURE RESULTING FROM PLACEMENT AND VIBRATION OF CONCRETE AND SHALL HAVE SUFFICIENT RIGIDNESS TO MAINTAIN THE TOLERANCE SPECIFIED IN ACI 301 AND CONTRACT SPECIFICATIONS.

6. SHOP DRAWINGS

- SHOP DRAWINGS FOR FORMWORK, CONCRETE AND REINFORCEMENT SHOWING ALL FABRICATION DIMENSIONS AND LOCATION SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED FOR THE ENGINEER'S APPROVAL.
- THE CONTRACTOR SHALL ALSO PREPARE BAR BENDING SCHEDULES AND SUBMIT THESE FOR APPROVAL OF THE ENGINEER.
- IT WILL BE PREFERABLE THAT CUTTING AND BENDING OF REINFORCING STEEL BE CARRIED OUT IN WORKSHOP WITH CUTTING BENDING MACHINE.

7. SHORING AND BRACING

- SHORE & BRACE ALL PARTS OF THE BUILDING DURING CONSTRUCTION, TO THE EXTENT NECESSARY TO ENSURE COMPLETE SAFETY, STRENGTH & SERVICEABILITY OF ALL STRUCTURAL ELEMENTS UNDER ALL CONDITIONS OF LOADS, WHICH MAY OCCUR DURING CONSTRUCTION. SUCH SHORING & BRACING IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND IS NOT SHOWN ON STRUCTURAL DRAWINGS OR SPECIFIED IN THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE ADJACENT EXISTING STRUCTURES AND SHALL PROVIDE SHORING AND BRACING DURING EXCAVATION AND CONSTRUCTION, WHEREVER AND WHENEVER REQUIRED TO THE SATISFACTION OF THE ENGINEER.

8. BRICK WORK

- ALL BRICK WORK SHALL CONFORM TO SPECIFICATIONS GIVEN IN THE CONTRACT DOCUMENT.
- ALL BRICKS SHALL BE SOUND, HARD, WELL BURNED AND OF UNIFORM SIZE, COLOUR AND TEXTURE. DIMENSIONAL VARIATION IN SIZES SHALL NOT EXCEED 1/8".
- ALL BRICK WORK SHALL BE ERECTED PLUMB AND TRUE TO LINE AND LEVEL. THE MAXIMUM VARIATION IN ANY STOREY HEIGHT OR ANY LENGTH OF WALL SHALL BE 1/8" IN 10', OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF NOT LESS THAN 1800 PSI AND SHALL CONFORM TO ASTM C270. COMPRESSIVE STRENGTH OF MASONRY AT 28 DAYS SHALL NOT BE LESS THAN 1150 PSI.
- ALL DESIGN, DETAILING, MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH RELEVANT ACI, ASTM, AND UBC CODE AND STANDARDS.
- TESTING OF COMPRESSIVE STRENGTH OF MASONRY SHALL BE DONE, IF SO DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ASTM C67 OR PAKISTAN STANDARD-208.
- THE AVERAGE COMPRESSIVE STRENGTH OF TWELVE HALF BRICKS SHALL BE NOT LESS THAN 2000 psi AND SHALL BE NOT LESS THAN 1800 psi FOR ANY INDIVIDUAL BRICK.
- BRICK SHALL BE LAID "TROUT" UPWARD WITH MORTAR JOINT AND IN ENGLISH AND FLEMISH BOND OR AS DIRECTED BY THE ENGINEER.
- TESTING OF COMPRESSIVE STRENGTH OF MASONRY SHALL BE DONE, IF SO DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ASTM C67 OR PAKISTAN STANDARD-208.

9. TOLERANCES AND DIMENSIONS

BEFORE THE FORMWORK IS LAID AT SITE THE CONTRACTOR MUST VERIFY AND CHECK OVERALL DIMENSIONS/ELEVATIONS OF THE STRUCTURE GIVEN IN THE STRUCTURAL DRAWINGS TO SEE IF THE FINISHED DIMENSIONS/ELEVATIONS GIVEN ON THE DRAWINGS TALLY AFTER PROVIDING THE REQUIRED FINISH. THE ENGINEER'S REPRESENTATIVE SHALL VERIFY THE MEASUREMENTS OF STRUCTURAL SIZE AND ELEVATIONS TO BE RECORDED IN THE RELEVANT FOUR STEPS. PERMISSION TO PROCEED SHALL NOT BE GRANTED IF DEVIATIONS ARE MORE THAN PERMISSIBLE TOLERANCES, AS STIPULATED IN THE SPECIFICATIONS.

10. LOCAL ADJUSTMENTS

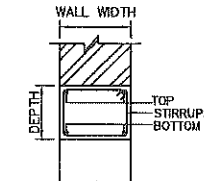
LOCAL ADJUSTMENTS TO ACCOMMODATE FIXTURES/EMBEDMENTS/OPENINGS MAY BE MADE AT SITE, SUBJECT TO THE APPROVAL OF THE ENGINEER, AS LONG AS IT DOES NOT MATERIALLY AFFECT THE DESIGN.

11. STRUCTURAL STEEL

- ALL STRUCTURAL STEEL SECTIONS SHALL CONFORM TO ASTM A36M OR EQUIVALENT WITH MINIMUM YIELD STRENGTH OF 248 MPa (36,000 psi). ALL ANCHORS, BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325M. ALL STEEL PLATES, TUBES AND BUILT-UP SECTIONS SHALL CONFORM TO HR 235.
- ALL WELDS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE.
- ALL WELDING ELECTRODES SHALL CONFORM TO E 70XX.
- MINIMUM SIZE OF FILLET WELD SHALL BE 7mm EXCEPT OTHERWISE NOTED.
- ALL STRUCTURAL STEEL SECTIONS SHALL BE GIVEN TWO COATS OF REDOXIDE PAINT. ALL EXPOSED STEEL SURFACES SHALL BE PAINTED WITH APPROVED PAINT AND COLOUR AS DIRECTED BY THE ENGINEER.
- THE BASE PLATES OF THE COLUMNS SHALL BE LEVELED AND THEN GROUTED WITH APPROVED NON-SHRINK GROUT USING STANDARD APPROVED PROCEDURE.
- ALL ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED.
- NUTS AND BOLTS FOR CLAMPS SHALL BE SPOT WELDED AFTER TIGHTENING.

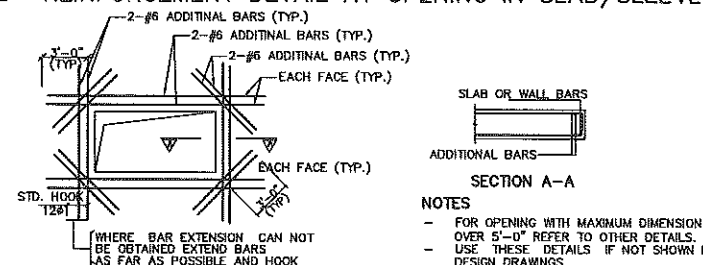
TABLE FOR LINTEL REINFORCEMENT

OPENING WIDTH	DEPTH	BOTTOM	TOP	STIRRUPS
3'-0" TO 4'-0"	6"	2#4	2#3	#3@6"
4'-1" TO 6'-0"	9"	3#4	3#3	#3@6"
6'-1" TO 10'-0"	9"	2#6	2#4	#3@6"



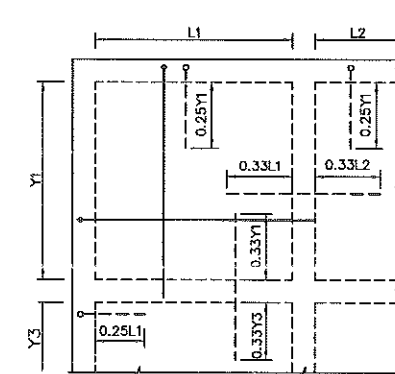
LINTEL SECTION

12- REINFORCEMENT DETAIL AT OPENING IN SLAB/SLEEVES.



NOTES
- FOR OPENING WITH MAXIMUM DIMENSION OVER 5'-0" REFER TO OTHER DETAILS.
- USE THESE DETAILS IF NOT SHOWN IN DESIGN DRAWINGS.

13. SLAB CURTAILMENT PLAN & CORNER REINFORCEMENT END



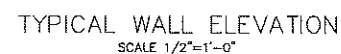
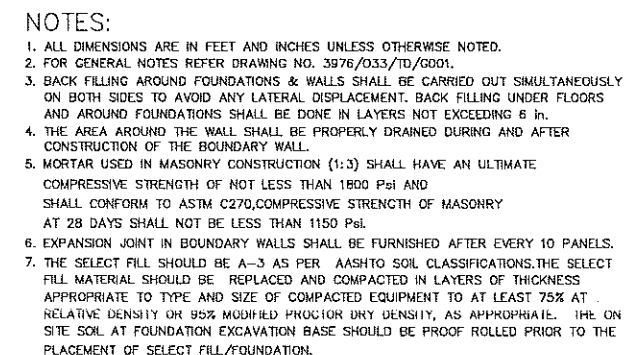
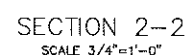
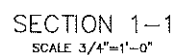
TYPICAL SLAB REINFORCEMENT (CUT OFF POINTS)

NOTE: TOP REINFORCEMENT OF SLAB AT CONTINUOUS EDGE SHALL BE GREATER OF THE ADJACENT SPAN.

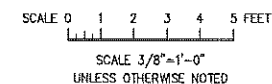
TENDER DRAWING






NOT TO BE USED FOR CONSTRUCTION FOR TENDER PURPOSE ONLY

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT			
GENERAL NOTES			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESN. NESPAK DWN. GHULAM M. FILE CKD.	RECOMMENDED VER./CKD. DATE	APPROVED DRAWING NO. 3978/033/TD/G001	REV. 0
REFERENCE DRAWINGS			
REV. NO.	DATE	DESCRIPTION	BY
CKD	APPR		

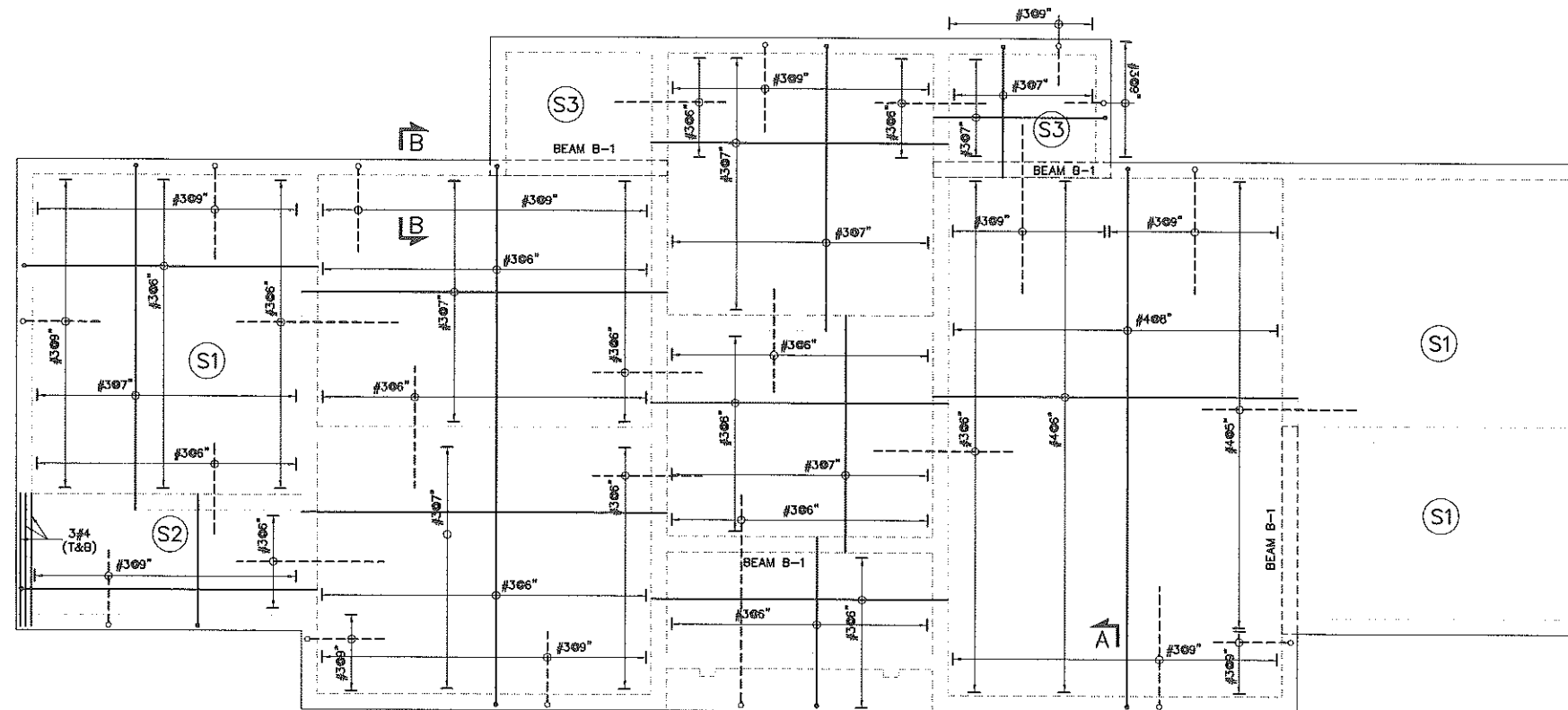


NOT TO BE USED FOR CONSTRUCTION
FOR TENDER PURPOSE ONLY

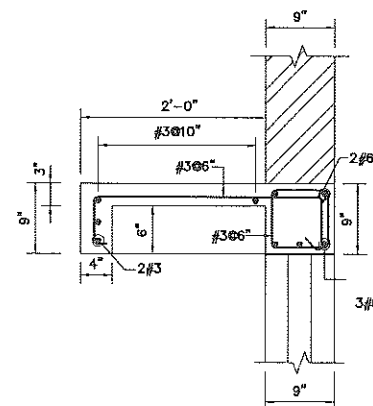


	<p>PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)</p>	
<p>CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT</p>		
<p>PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT BOUNDARY WALL (FOUNDATION & SECTIONS)</p>		
<p>NESPAK - ARTELIA JOINT VENTURE (JV)</p>		
		
DESN. - NESPAK DWN. - MASIM/TARIO FILE CKD. SUBM.	RECOMMENDED  DATE AUG. 2020	VER./CKD. APPROVED  DRAWING NO. 3976/033/TD/3G01 REV. 0

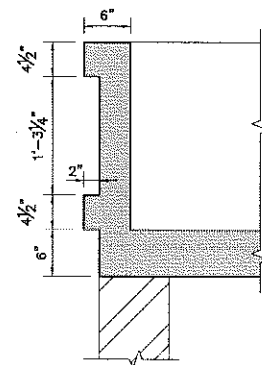
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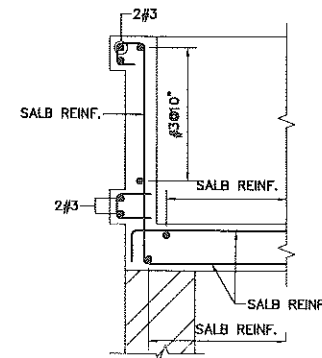
ROOF SLAB
(SLAB THICKNESS 6" UNLESS OTHERWISE NOTED)



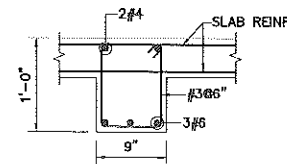
SECTION A-A
SCALE: 1"=1'-0"



SECTION B-B
(CONCRETE OUTLINE)
SCALE: 1"=1'-0"



SECTION B-B
(REINFORCEMENT)
SCALE: 1"=1'-0"



BEAM B1
SCALE: 1"=1'-0"

TENDER DRAWING

NOT TO BE USED FOR CONSTRUCTION
FOR ESTIMATION PURPOSE ONLY

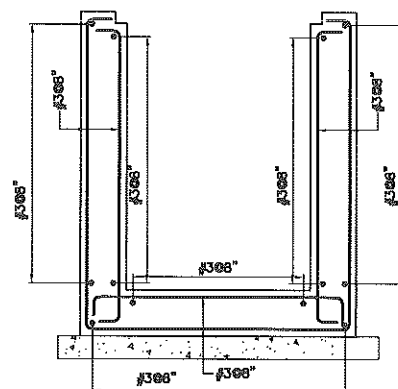
NOTES:

- FOR GENERAL NOTES REFER DRAWING NO. 3976/033/C/G001.

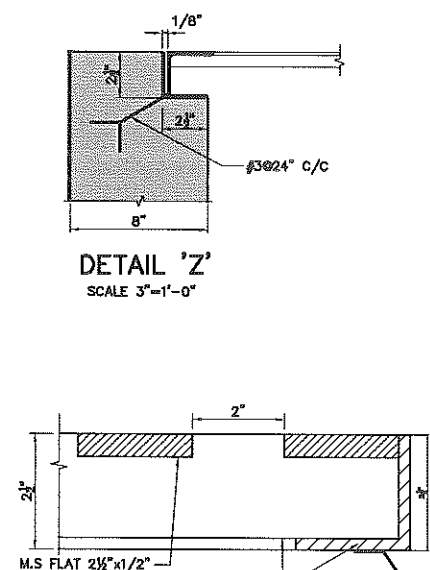
SCALE 0 1 2 3 4 5 FEET

SCALE 3/8"=1'-0"
UNLESS OTHERWISE NOTED

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB	
REHABILITATION / IMPROVEMENT OF SEWERAGE SYSTEM, IN NORTH ZONE, SAHIWAL	
COVERED PARKING SHEDS AT MUBARAKPURA CAPITAL ROAD, SIALKOT OFFICE BUILDING - ROOF SLAB PLAN & SECTIONS (CONCRETE OUTLINE & REINFORCEMENT)	
NESPAK - ARTELIA JOINT VENTURE (JV)	
DESN. NESPAK DWN. SAEED FILE CKD. SUBM.	RECOMMENDED VER./CKD. APPROVED DATE AUG, 2020
REFERENCE DRAWINGS REV. NO. DATE DESCRIPTION BY CKD APPR	DRAWING NO. 3976/033/TD/2G02 REV. 0



STORM DRAIN
(REINFORCEMENT)
SCALE 1"=1'-0"



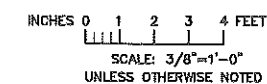
DETAIL 'Z'
SCALE 3"=1'-0"

SECTION A-A
SCALE 6"=1'-0"



TENDER DRAWING

NOT TO BE USED FOR CONSTRUCTION
FOR TENDER PURPOSE ONLY



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT
INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY
DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)

CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT
AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.

COVERED PARKING SHEDS AT MUBARAKPURA
CAPITAL ROAD, SIALKOT (STORM DRAIN)
CONCRETE OUTLINE & REINFORCEMENT

NESPAK — ARTELIA JOINT VENTURE (JV) **ARTELIA**

DESN.	NESPAK	RECOMMENDED	VER./CKD.	APPROVED
DWN.	M. ASIM			
CKD.		DATE	DRAWING NO.	REV.
SUBM.		SEP. 2020	3976/033/TD/2G01	1

REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	BY	CKD.	APP.			

3595600

3595550

3595500

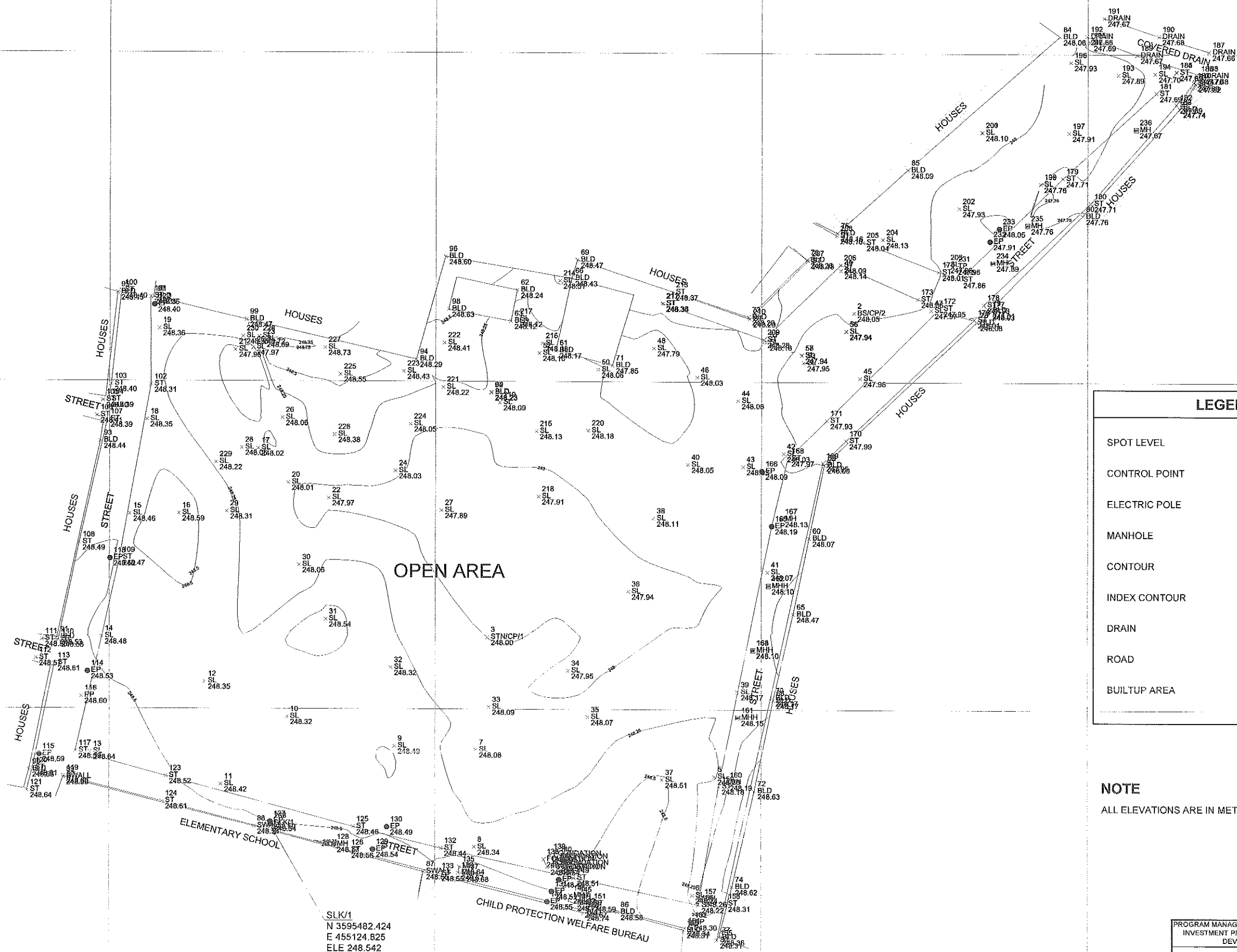
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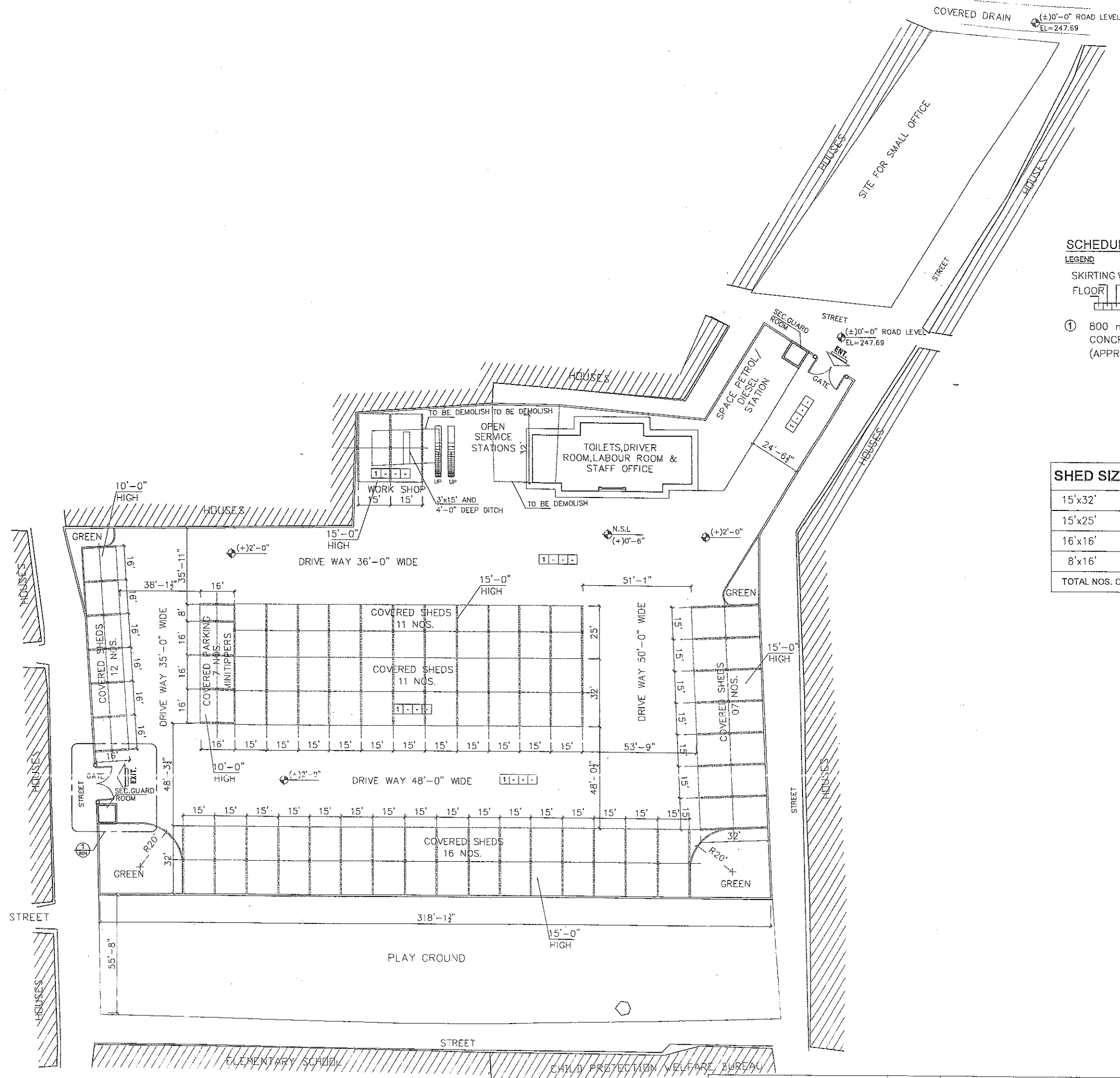
455100

455150

455200

455250





SCHEDULE OF FINISHES

LEGEND

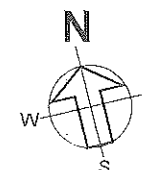
SKIRTING WALL
FLOOR
CEILING

- 800 mm THICK PRECAST INTERLOCKING CONCRETE PAVERS WITH CONCRETE CURB STONE WHERE MENTIONED (APPROVED MAKE & SHADE)

SHED SIZE	NO. OF SHEDS	NO. OF VEHICLES
15'x32'	34 NOS.	34 NOS.
15'x25'	11 NOS.	11 NOS.
16'x16'	09 NOS.	18 NOS.
8'x16'	01 NOS.	01 NOS.
TOTAL NOS. OF VEHICLES = 64 NOS.		

NOTE:

- ROAD LEVEL IS ASSUMED AS $(\pm)0'-0"$ REFERENCE TO EL = 247.69 GIVEN ON SURVEY PLAN.
- TOTAL SITE AREA=12.76 KANAL
- PLAY GROUND AREA=3.45 KANAL



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB

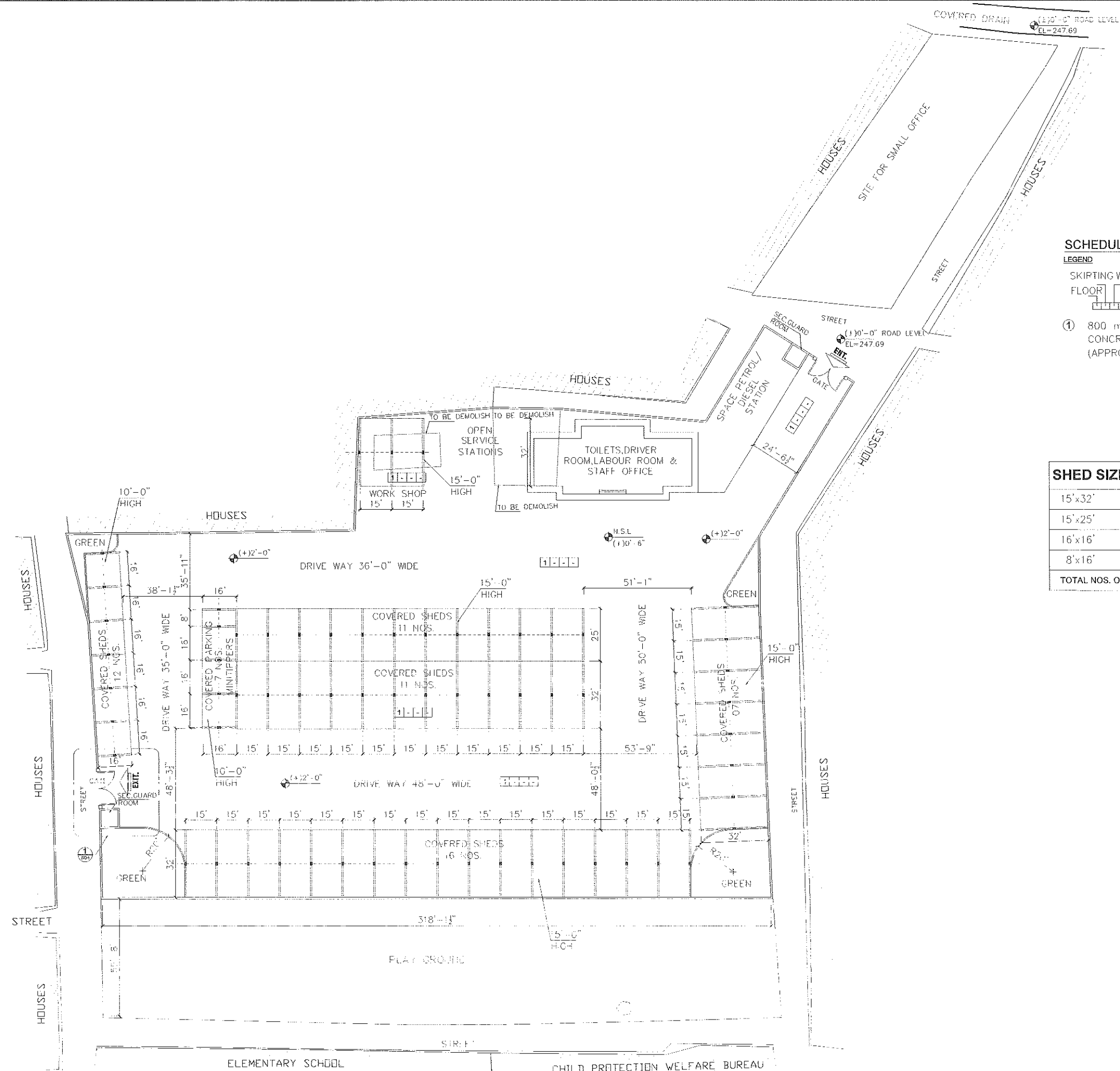
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.

PARKING SHEDS & ALLIED STRUCTURES
CAPITAL ROAD, JUMMAH COUNCIL, MUBARAK ROAD, SIALKOT
LAYOUT PLAN

NESPAK - ARTELIA JOINT VENTURE (JV)

DESIGN	NESPAK	RECOMMENDED	VER/CHKD	APPROVED
DRAWN	discher			
FILE		DATE	DRAWING NO.	REV.
CKD.				
SUBM.				
		AUGUST, 2020	3976/311/TD/B01	A

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.
	1	20-10-2020	PROVISION OF DITCH & RAMP	Discher		



SCHEDULE OF FINISHES

LEGEND

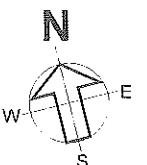
SKIRTING WALL
FLOOR
CEILING

- 800 mm THICK PRECAST INTERLOCKING CONCRETE PAVERS WITH CONCRETE CURB STONE WHERE MENTIONED (APPROVED MAKE & SHADE)

SHED SIZE	NO.OF SHEDS	NO.OF VEHICLES
15'x32'	34 NOS.	34 NOS.
15'x25'	11 NOS.	11 NOS.
16'x16'	09 NOS.	18 NOS.
8'x16'	01 NOS.	01 NOS.
TOTAL NOS. OF VEHICLES = 64 NOS.		

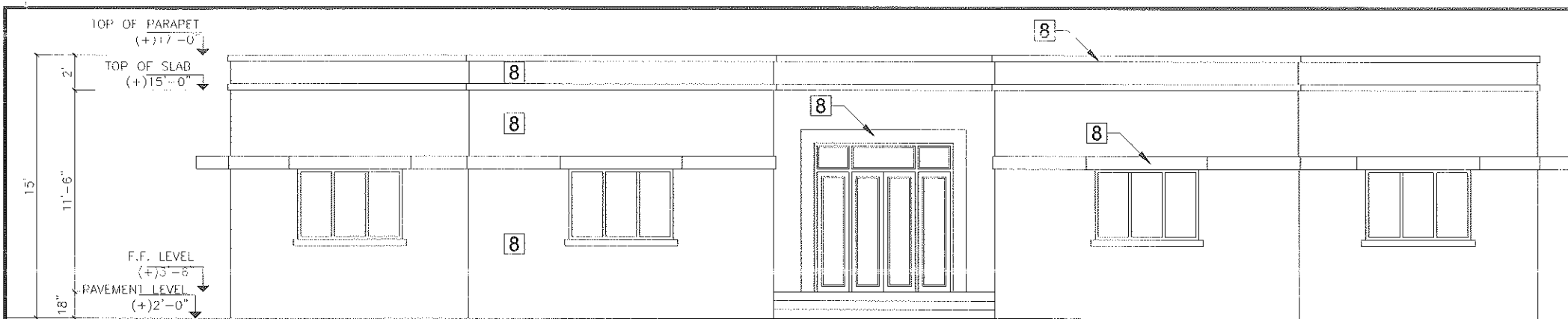
NOTE:

- ROAD LEVEL IS ASSUMED AS $(\pm)0'-0"$ REFERENCE TO EL = 247.69 GIVEN ON SURVEY PLAN.
- TOTAL SITE AREA = 12.76 KANAL

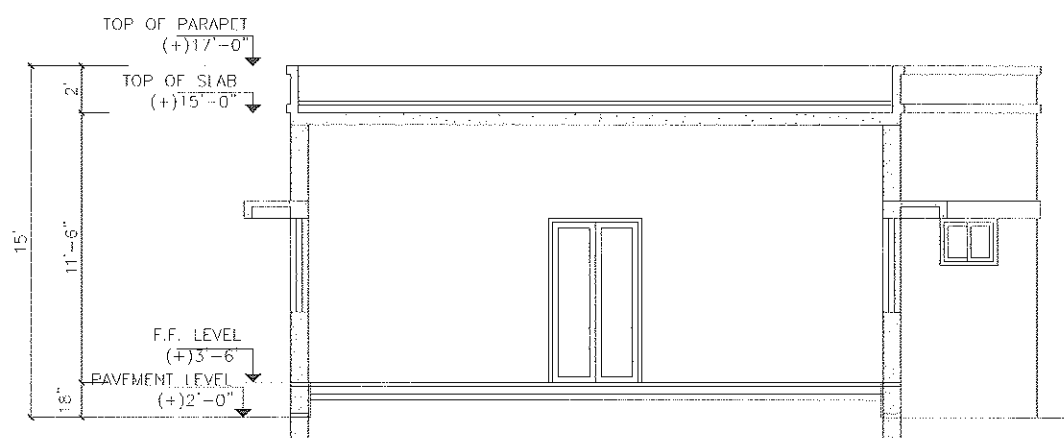


PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT LAYOUT PLAN			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNER: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]
DRAWN: [Signature]	DATE: AUGUST, 2020	DRAWING NO: 3976/311/TE/BC	REV: 0
FILE: [Signature]			
CKD: [Signature]			
SUBM: [Signature]			

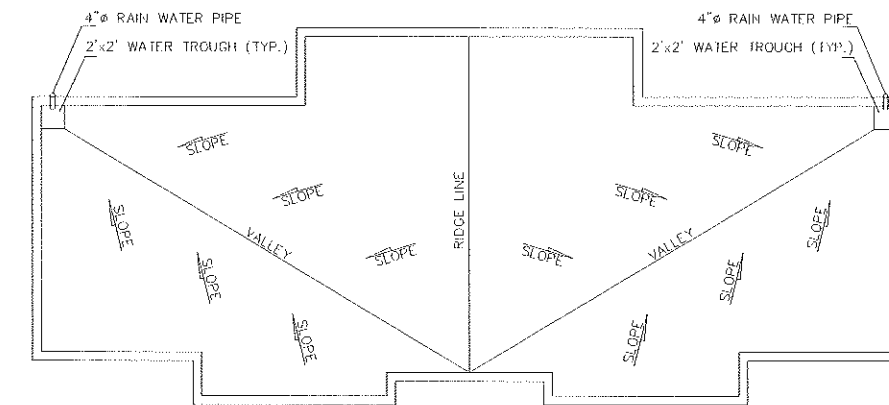
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APP'R.



1 ELEVATION
SCALE: 1/4"=1'-0"



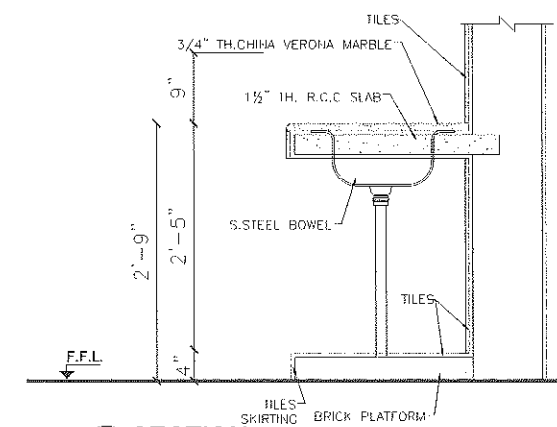
A SECTION
SCALE: 1/4"=1'-0"



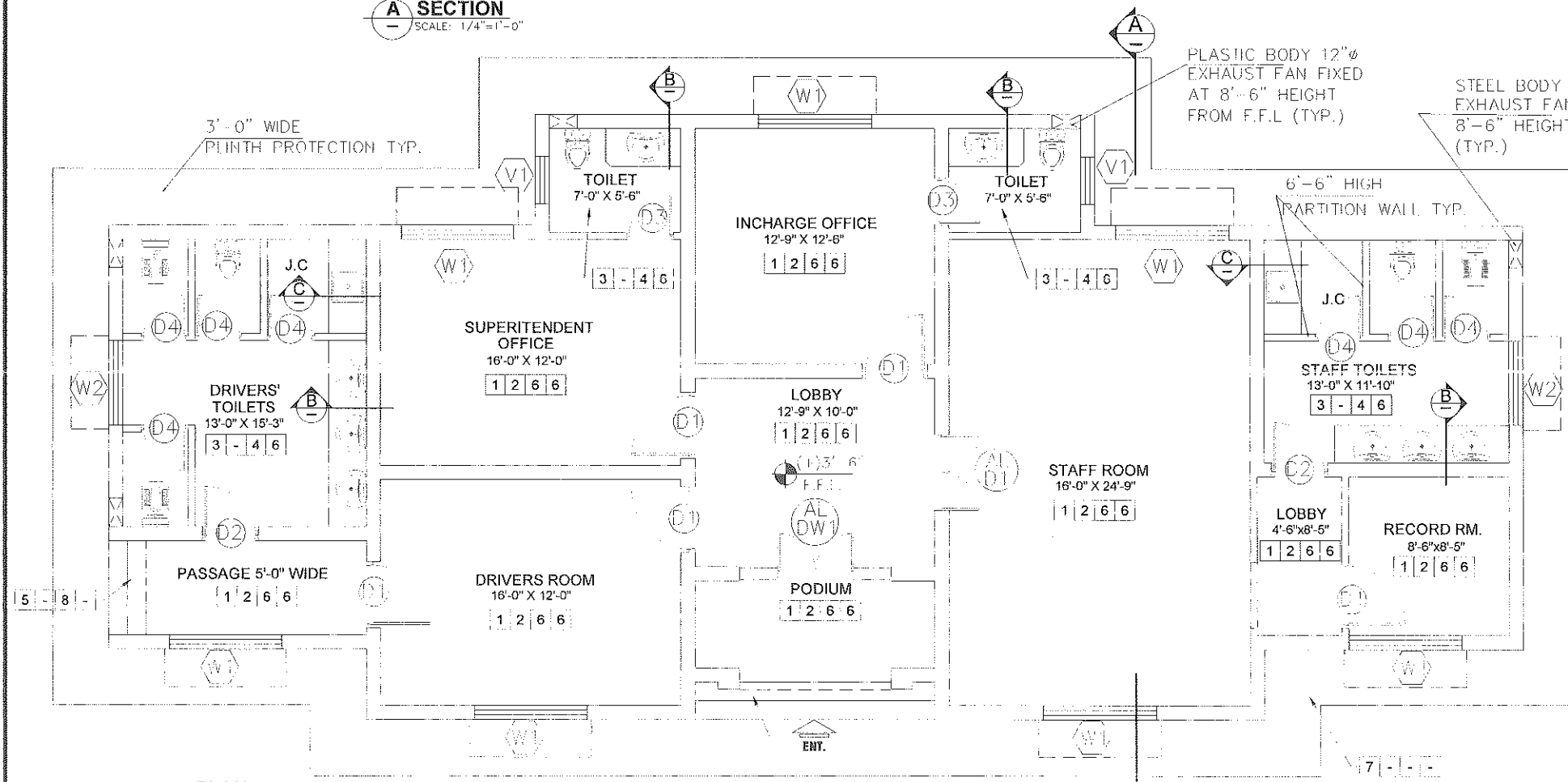
ROOF PLAN

SCHEDULE OF INTERNAL AND EXTERNAL FINISHES

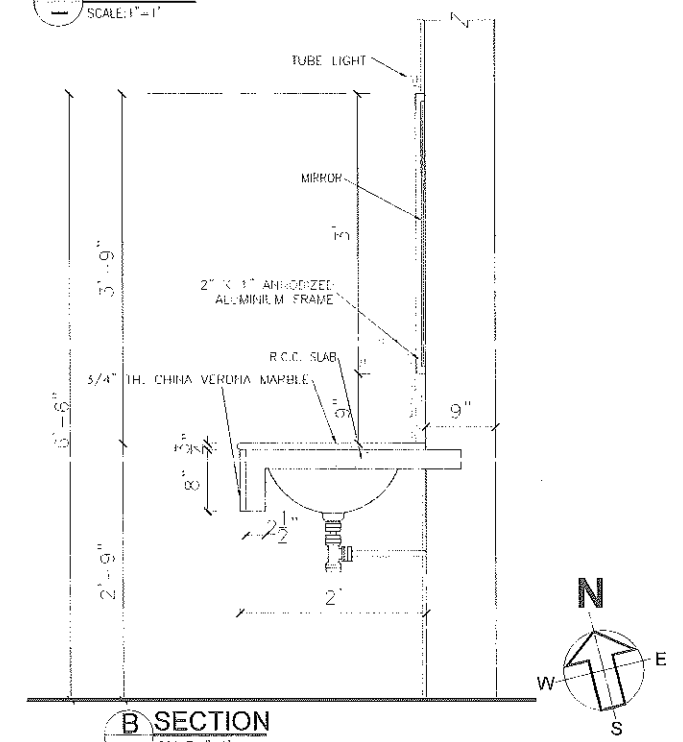
- LEGEND**
- ① 12"x12"x3/4" CHINA VERONA MARBLE
 - ② 4"x12"x1/2" CHINA VERONA MARBLE SKIRTING
 - ③ LOCAL MATT CERAMIC TILES (APPROVED MAKE & SHADE))
 - ④ LOCAL GLAZED CERAMIC TILES OF (APPROVED MAKE & SHADE) 6'-6" HIGH FOR BATH ROOMS WITH VINYL EMULSION PAINT(OF APPROVED MAKE & SHADE) ABOVE UPTO CEILING
 - ⑤ SINGLE PIECE 3/4" THICK VERONA MARBLE SLAB FOR TREADS SINGLE PIECE 1/2" THICK VERONA MARBLE SLAB FOR RISERS
 - ⑥ VINYL EMULSION PAINT ON C.S PLASTER (APPROVED MAKE & SHADE)
 - ⑦ 2" THICK P.C.C (1:2:4)
 - ⑧ WEATHER SHIELD PAINT OF APPROVED (APPROVED MAKE & SHADE)



C SECTION
SCALE: 1"=1'-0"



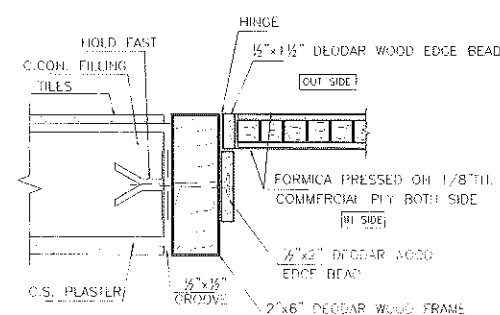
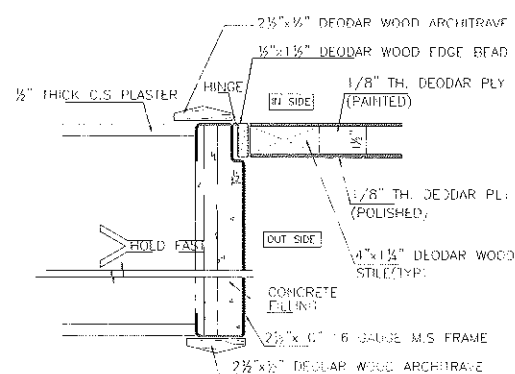
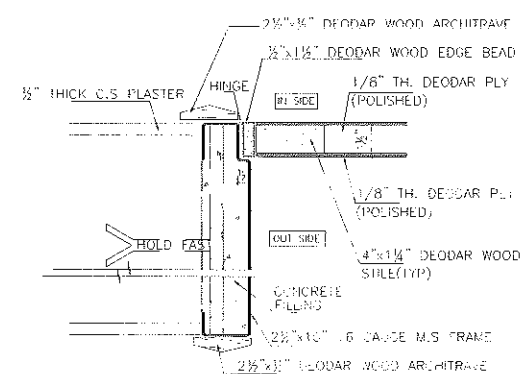
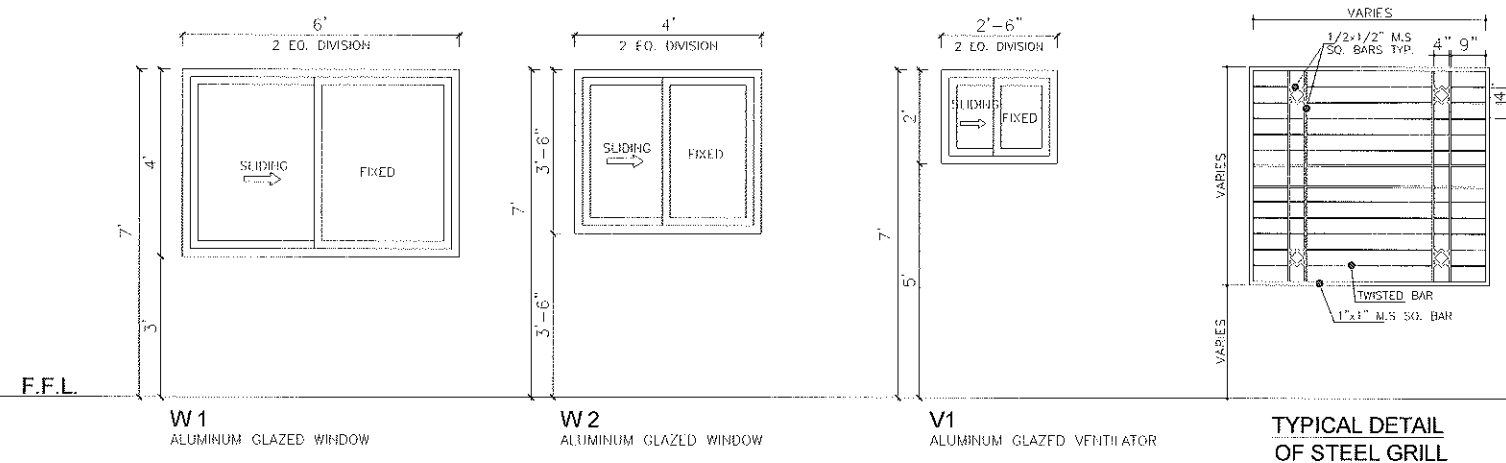
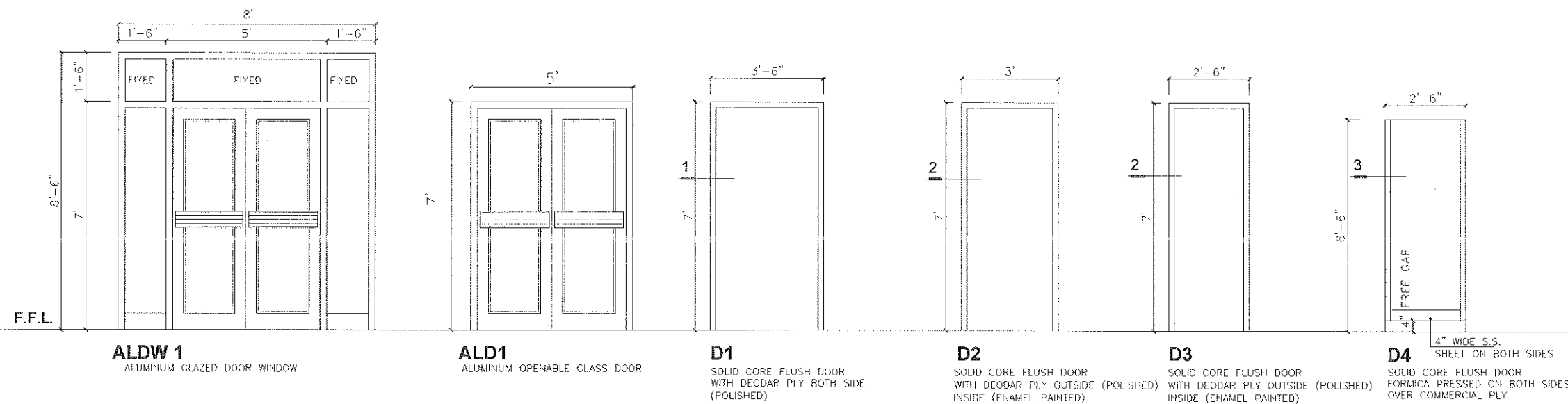
PLAN
SCALE: 1/4"=1'-0"
GENERAL AREA: 42x25.5'



B SECTION
SCALE: 1"=1'-0"

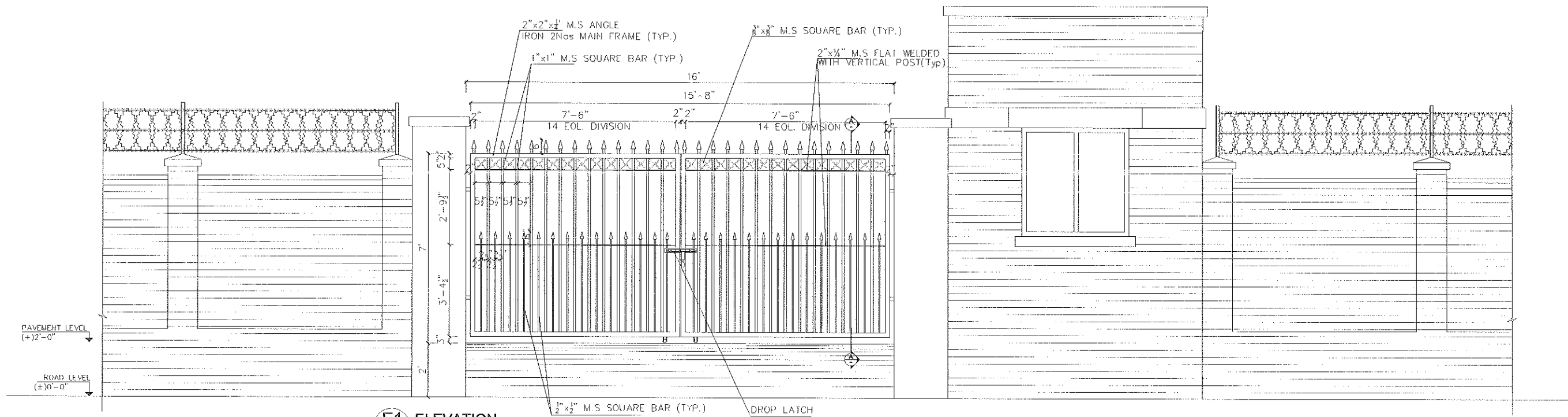
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
OFFICE BUILDING MUBARAKPURA CAPITAL ROAD, SIALKOT PLAN, ELEVATION & SECTION			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]
DRAWN: [Signature]	DATE: [Date]	DRAWING NO.:	REV.:
CHECKED: [Signature]	AUGUST 2020	39'6" x 31'1" L x B	0
SUBMITTAL			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

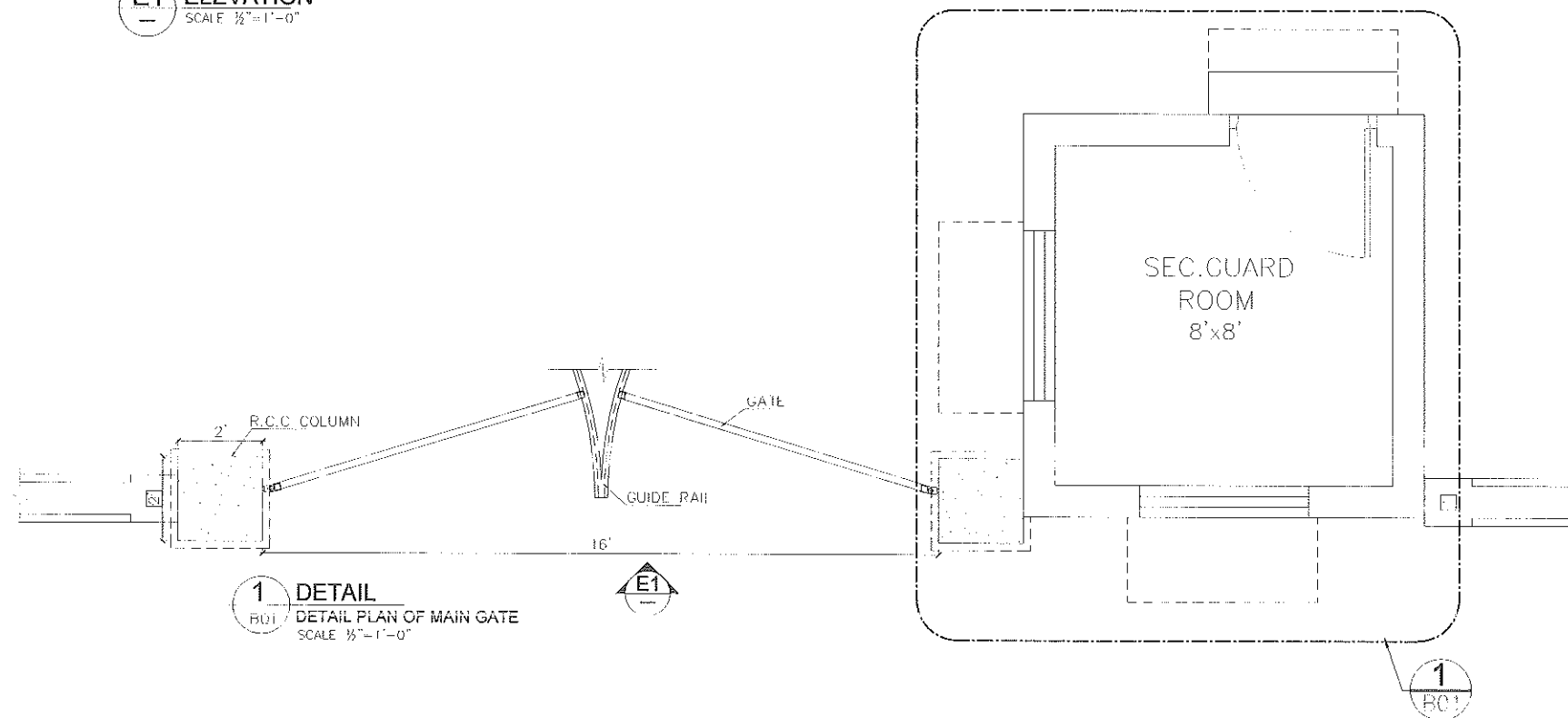


PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB				
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
OFFICE BUILDING MUBARAKPURA CAPITAL ROAD, SIALKOT DOORS AND WINDOWS DETAILS				
NESPAK - ARTELIA JOINT VENTURE (JV)				
DESIGN: NESPAK	RECOMMENDED: <i>[Signature]</i>	VERIFIED: <i>[Signature]</i>	APPROVED: <i>[Signature]</i>	
DRAWN: dialar				
FILE: <i>[Signature]</i>	DATE: AUGUST, 2020	DRAWING NO. 3976/3/17/D/B03	REV. 0	
CKD: <i>[Signature]</i>				
SUBM: <i>[Signature]</i>				

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.



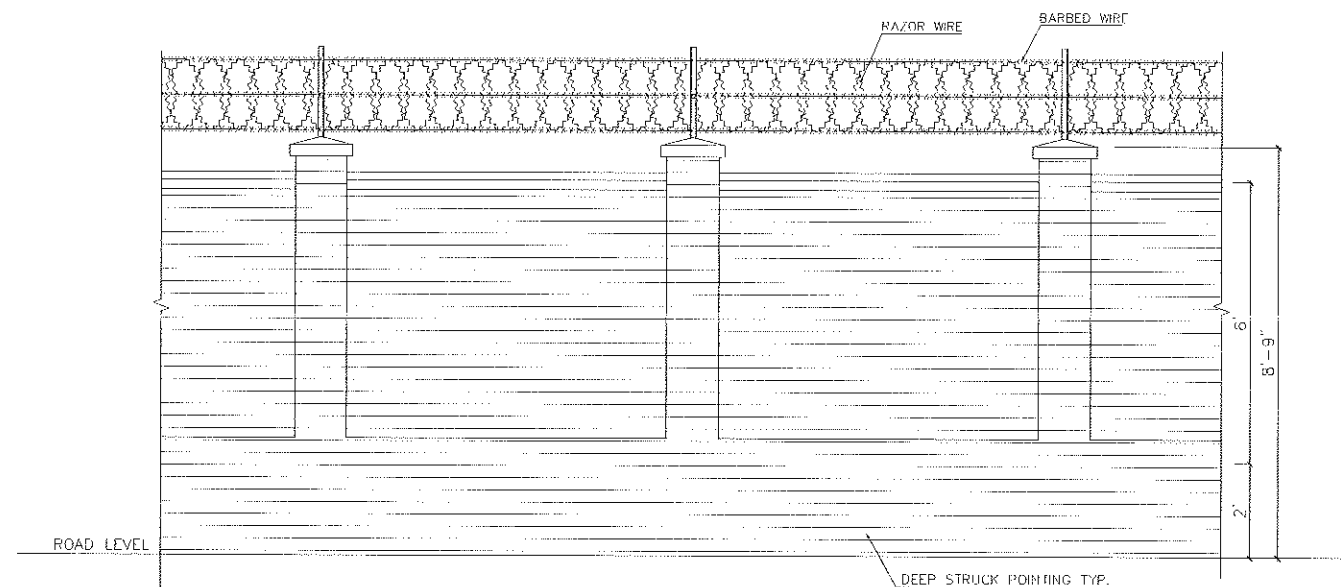
E1 ELEVATION
SCALE 1/8"=1'-0"



1 DETAIL
DETAIL PLAN OF MAIN GATE
SCALE 1/8"=1'-0"

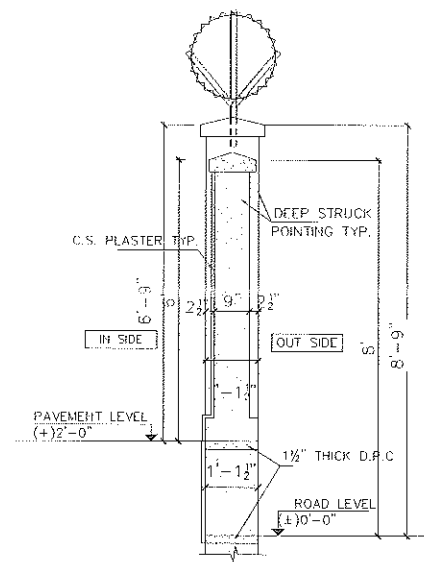
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB				
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT PLAN & ELEVATION OF MAIN GATE				
NESPAK - ARTELIA JOINT VENTURE (JV)				
DESIGN: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]	
DRAWN: dishar				
FILE: [Signature]	DATE: JULY 2000	DRAWING NO: 3976/311/TO/B04	REV: 0	
SUBM: [Signature]				

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

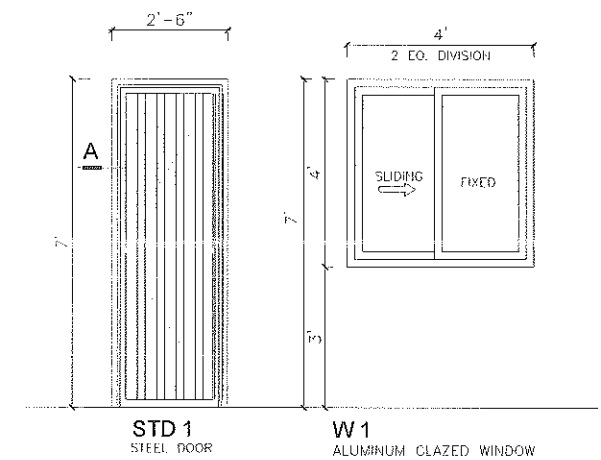


TYPICAL ELEVATION OF BOUNDARY WALL (OUT SIDE)

SCALE: 3/8"=1'-0"

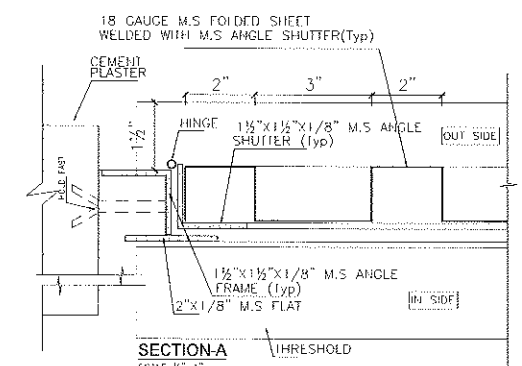


(C) SECTION (BOUNDARY WALL)



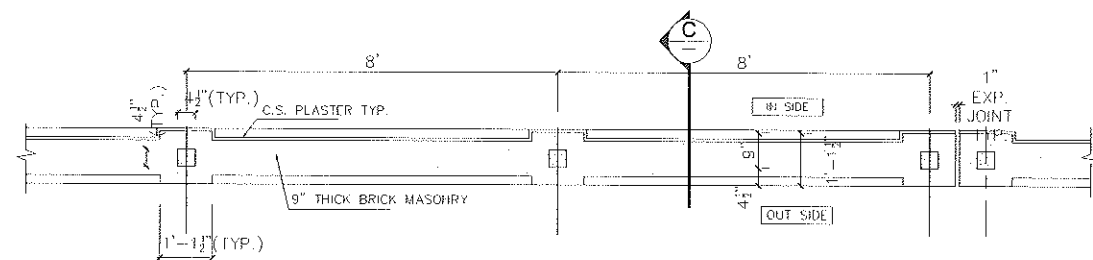
STD 1
STEEL DOOR

W1
ALUMINUM CLAZED WINDOW



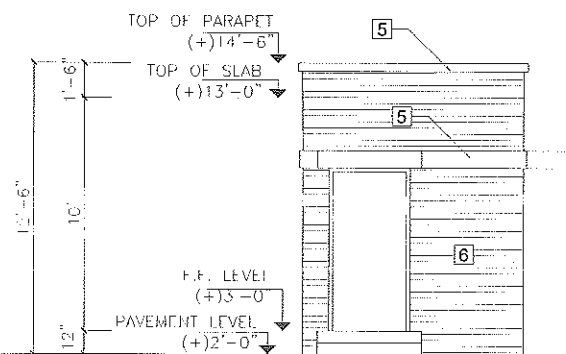
SECTION-A

SCALE: 3/8"=1'-0"



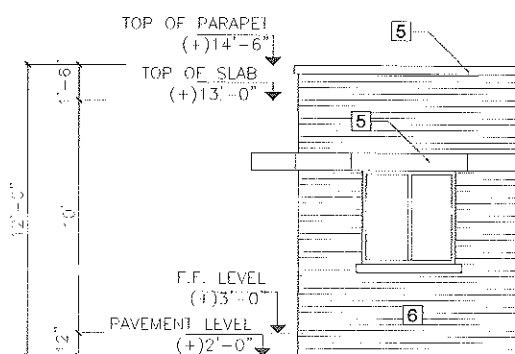
BOUNDARY WALL PLAN (TYP.)

SCALE: 3/8"=1'-0"



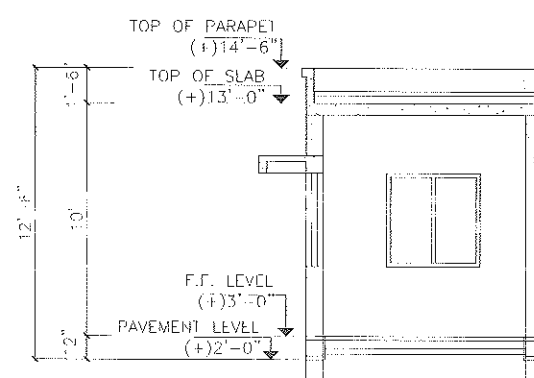
1 ELEVATION

SCALE: 1/4"=1'-0"



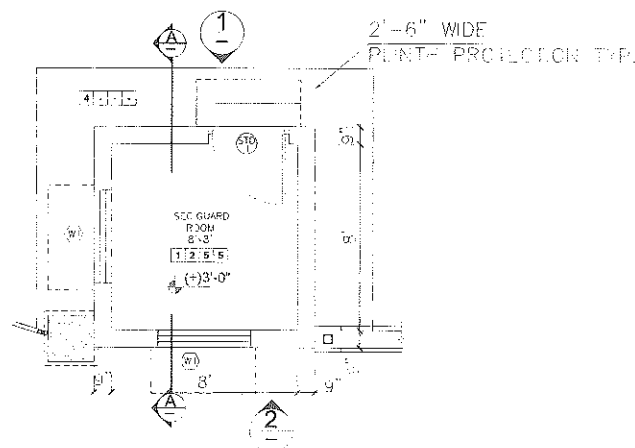
2 ELEVATION

SCALE: 1/4"=1'-0"



A SECTION

SCALE: 1/4"=1'-0"



1 DETAIL PLAN
SEC. GUARD ROOM

SCALE: 1/4"=1'-0"

SCHEDULE OF INTERNAL AND EXTERNAL FINISHES

LEGEND

SKIRTING FLOOR WALL CEILING

- 12"x12"x3/4" CHINA VERONA MARBLE
- 4"x12"x1/2" CHINA VERONA MARBLE SKIRTING
- VINYL EMULSION PAINT ON C.S. PLASTER (APPROVED MAKE & SHADE)
- 2" THICK P.C.C. (1:2:4)
- WEATHER SHIELD PAINT OF APPROVED (APPROVED MAKE & SHADE)
- DEEP STRUCK POINTING OF CEMENT SURKHI

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB				
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT DETAILS OF SEC. GUARD ROOM & BOUNDARY WALL				
NESPAK - ARTELIA JOINT VENTURE (JV)				
DESIGN	NESPAK	RECOMMENDED	VER/CKD	APPROVED
DRAWN	elisher			
FILE		DATE	DRAWING NO.	REV.
CKD		JULY 2020	39/6/311/ID/B05	0
SUBM.				

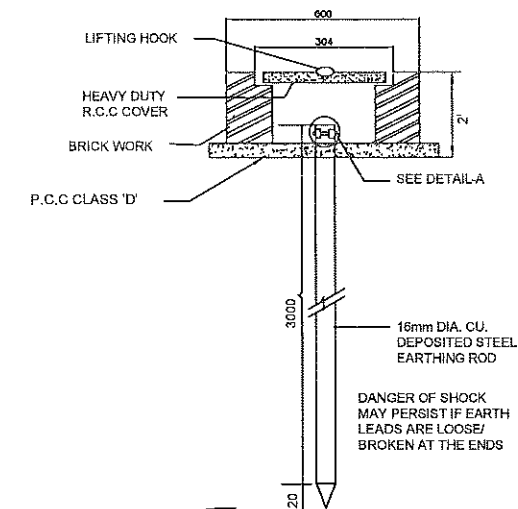
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

GENERAL NOTES:

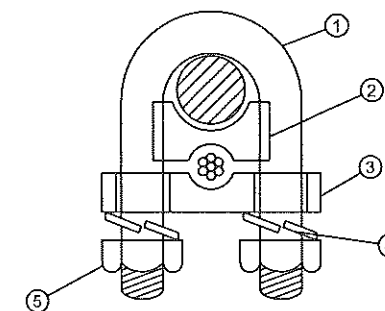
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATION
2. THIS DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS
3. THE MINIMUM SIZE OF THE PVC CONDUIT SHALL BE 25mm (1") DIA.
4. LIGHT CIRCUIT WIRING SHALL BE WITH 3 x 2.5 mm Sq & LIGHT POINT WIRING SHALL BE WITH 3x1.5 mm. Sq SINGLE CORE STRANDED CU. PVC CABLES
5. ALL POWER SOCKETS (15/20Amp) SHALL BE WIRED WITH 3 x 6mm.Sq LIGHT PLUG (10/13Amp) SOCKETS FIRST POINT SHALL BE WIRED WITH 3 x 4mm.Sq & 10Amp. SOCKETS POINT TO POINT WIRED WITH 3 x 2.5mm. Sq STRANDED CU. PVC CABLES
6. ALL SINGLE CORE WIRES SHALL HAVE THE FOLLOWING COLOURS.
PHASE WIRES..... RED, YELLOW & BLUE
NEUTRAL WIRES.....BLACK
C.P.C.....GREEN/YELLOW (AS PER B.O.Q)
7. THE WIRING SHALL BE STARTED ONLY AFTER THE CONDUIT SYSTEM IS COMPLETELY INSTALLED AND ALL OUTLET BOXES ETC. ARE FIXED IN THEIR POSITIONS.
8. ALL POWER/LIGHT PLUG SOCKETS WIRING SHALL BE SEGREGATED AND HAVE INDEPENDENT WIRES RIGHT FROM MINIATURE CIRCUIT BREAKERS IN DISTRIBUTION BOARD.
9. ACTUAL LOCATION OF ALL OUTLETS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES
10. THE MOUNTING HEIGHT OF THE SOCKET OUTLETS SHALL BE MINIMUM 300mm (FFL)
11. THE MOUNTING HEIGHT OF THE LIGHTING SWITCHES SHALL BE MINIMUM 1100mm (FFL)
12. NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED ON WIRES FOR REDUCING FRICTION. NO OIL OR SOAP OF ANY KIND WILL BE ALLOWED ON WIRES FOR THIS PURPOSE.
13. THE CONTRACTOR SHALL SUBMIT CONDUITS LAYOUT PLAN BASED UPON THE ELECTRIFICATION DRAWINGS FOR THE APPROVAL OF ELECTRICAL ENGINEER, BEFORE POURING OF ROOF SLABS, WALL AND COLUMNS.
14. ALL THE ELECTRICAL WORKS SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION
15. THE ELECTRICAL EQUIPMENT SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AS PER APPLICABLE STANDARDS AND CODES

LEGEND

SYMBOL	DESCRIPTION
	MAIN PANEL BOARD(MPB)
	SUB MAIN PANEL BOARD(SMPB)
	DISTRIBUTION BOARD (DB)
	MOULDED CASE CIRCUIT BREAKER
	VOLTMETER
	AMMETER
	SELECTOR SWITCH
	WALL BRACKET FAN
	EXHAUST FAN
	SINGLE POLE 1-WAY SWITCH
	15/20 AMP 3 PIN SINGLE PHASE, NEUTRAL & EARTH SWITCH SOCKET UNIT (AWAY FROM SWITCH BOARD)
	10/13 AMPS 3 PIN SINGLE PHASE SWITCH SOCKET UNIT (AWAY FROM SWITCH BOARD)



ROD TYPE EARTH
POINT DETAIL FOR DB,S



DETAIL -'A'

ITEM NO.	ITEM NAME	MATERIAL
1	U-BOLT	MILD STEEL
2	SPACER	CAST IRON
3	BASE	MILD STEEL
4	SPRING WASHER	CARBON STEEL
5	NUT	MILD STEEL

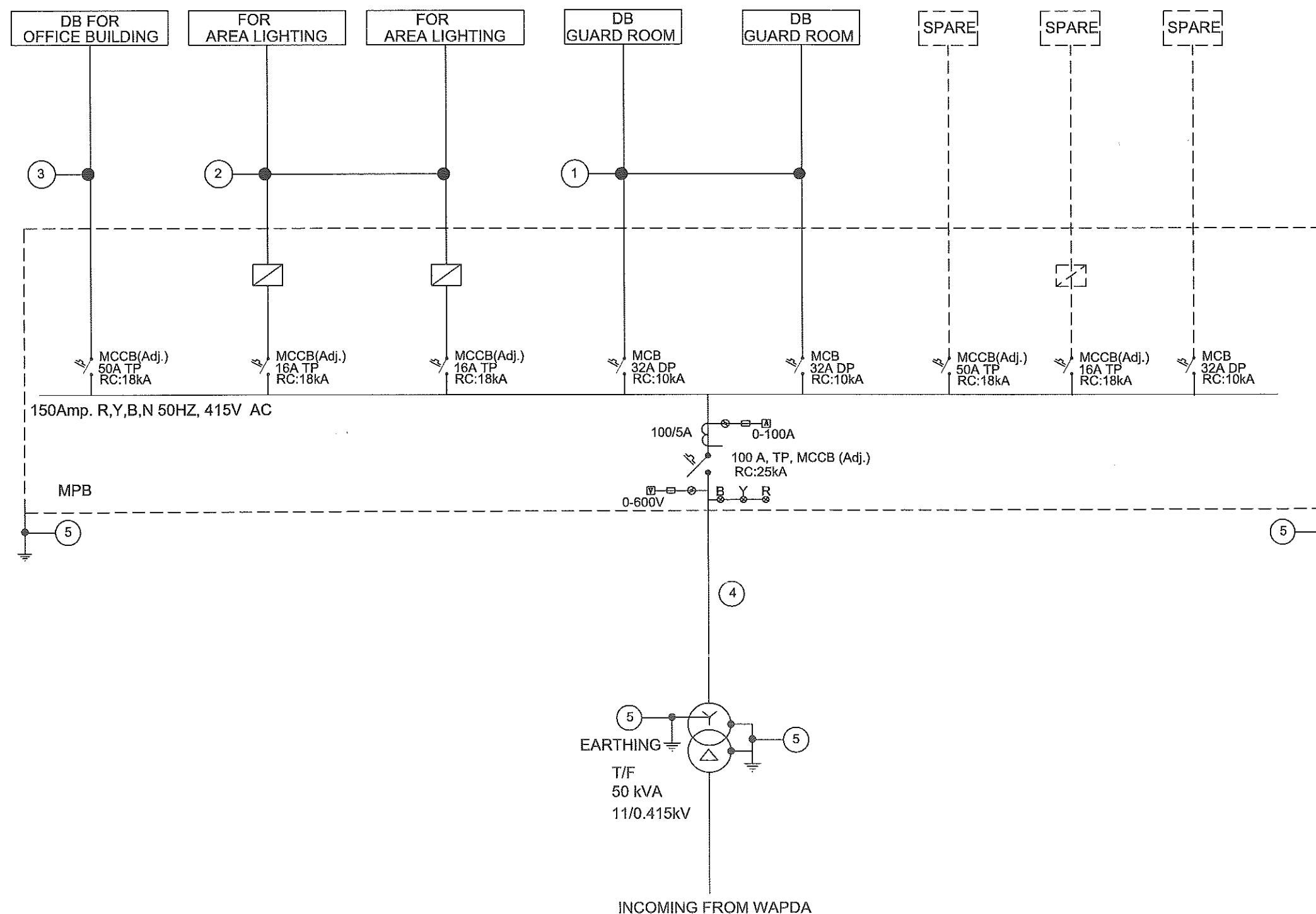
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DWN.	SA			
FILE		DATE	DRAWING NO.	REV.
CHKD.		SEP. 2020	3976/161/TD/5E001	0
SUBM.				

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT LEGEND, GENERAL NOTES LIGHTING FITTING FOR SCHEDULE & EARTH POINT DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAK	RECOMMENDED	VER/CMD.
DWN.	SA		
FILE		DATE	DRAWING NO.
CHKD.		SEP. 2020	3976/161/TD/5E001
SUBM.			0

LEGEND:

SYMBOL	DESCRIPTION
	INDICATING LIGHT
	CURRENT TRANSFORMER
	MOULDED CASE CIRCUIT BREAKER
	VOLT METER WITH SELECTOR SWITCH & FUSE
	AMMETER WITH SELECTOR SWITCH & FUSE



LEGEND:

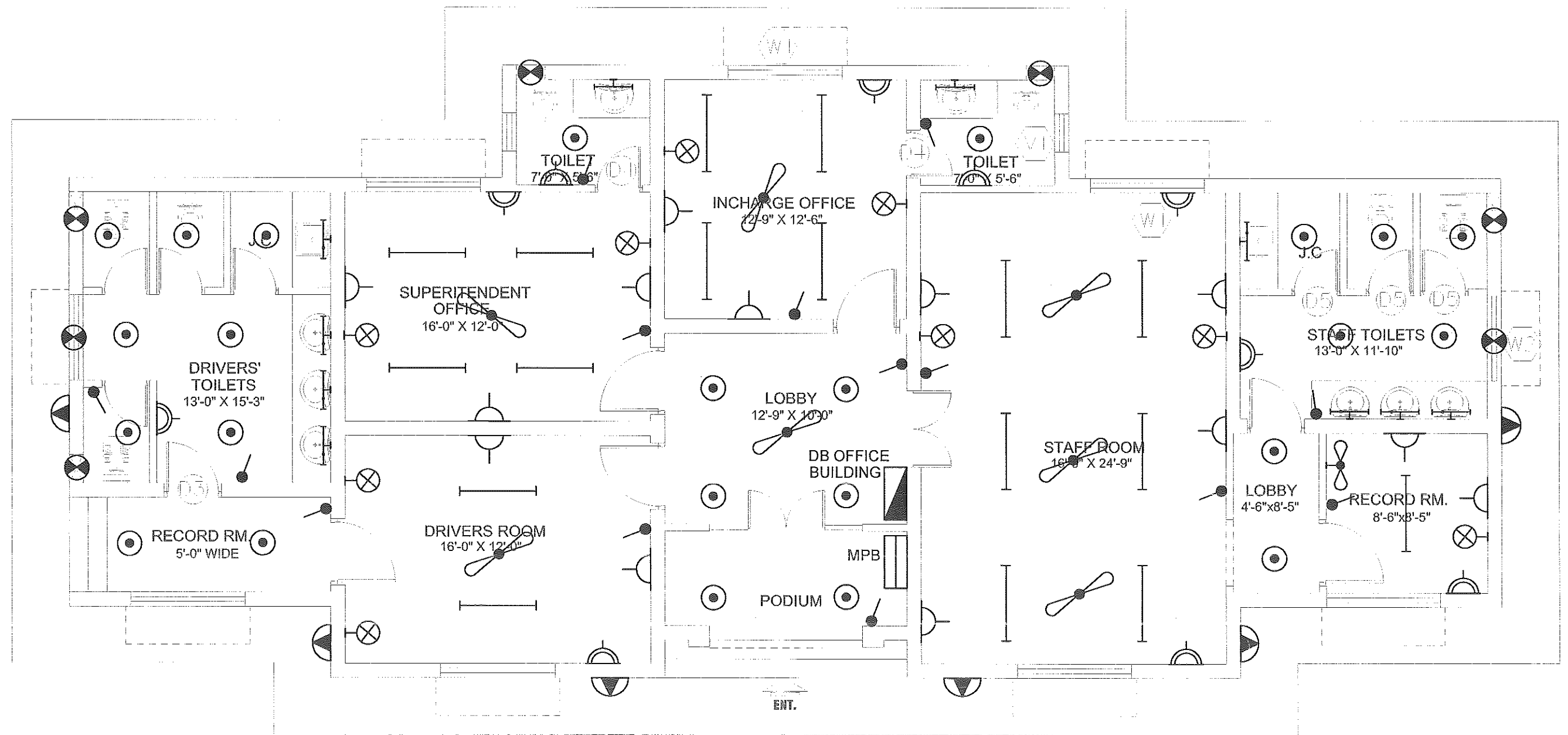
- ① 2 CORE 10 mm² Cu./PVC/PVC+
1 Core 10 mm² Cu./PVC AS (CPC).
- ② 4 CORE 10 mm² Cu./PVC/PVC+
1 Core 10 mm² Cu./PVC AS (CPC).
- ③ 4 CORE 25 mm² Cu./PVC/PVC+
1 Core 16 mm² Cu./PVC AS (CPC).
- ④ 4 CORE 50 mm² Cu./PVC/PVC+
1 Core 25 mm² Cu./PVC AS (CPC).
- ⑤ 1 Core 25 mm² Cu./PVC AS (CPC/ECC).

NOTES:-

1. THIS DRAWING IS FOR INDICATIVE DESIGN MODEL AND SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, SPECIFICATIONS AND ITEMS OF BILL OF QUANTITIES.
2. THE CONTRACTOR SHALL BE SUBMITTED SHOP DRAWINGS, VOLTAGE DROP CALCULATION TO THE ENGINEER AT THE TIME OF CONTRACT AWARD AND BEFORE THE WORK COMMENCES AT SITE.
3. THE ELECTRICAL WORKS SHALL BE EXECUTED IN LINE WITH THE PROJECT SPECIFICATIONS
4. THE PUMPING STATION EQUIPMENT ALONG WITH MOTORS, MOTOR CONTROL CENTERS/MOTOR CONTROL UNITS AND ASSOCIATED STARTING DEVICES ARE NOT INCLUDED IN ELECTRICAL SCOPE OF WORK.
5. THE LOCATION OF THE EQUIPMENTS SHOWN ON THE LAYOUT PLAN IS TENTATIVE LOCATION. LOCATION OF THE TRANSFORMER, DG SETS & PANEL BOARD SHALL BE FINALIZED AT PER SITE CONDITION.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT SINGLE LINE DIAGRAM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN. NESPAK	RECOMMENDED	VERIFIED	APPROVED
DWN. SA			
FILE			
CKD.			
SUBM.			
DATE	DRAWING NO.		REV.
SEP. 2020	3976/161/TD/5E002		0

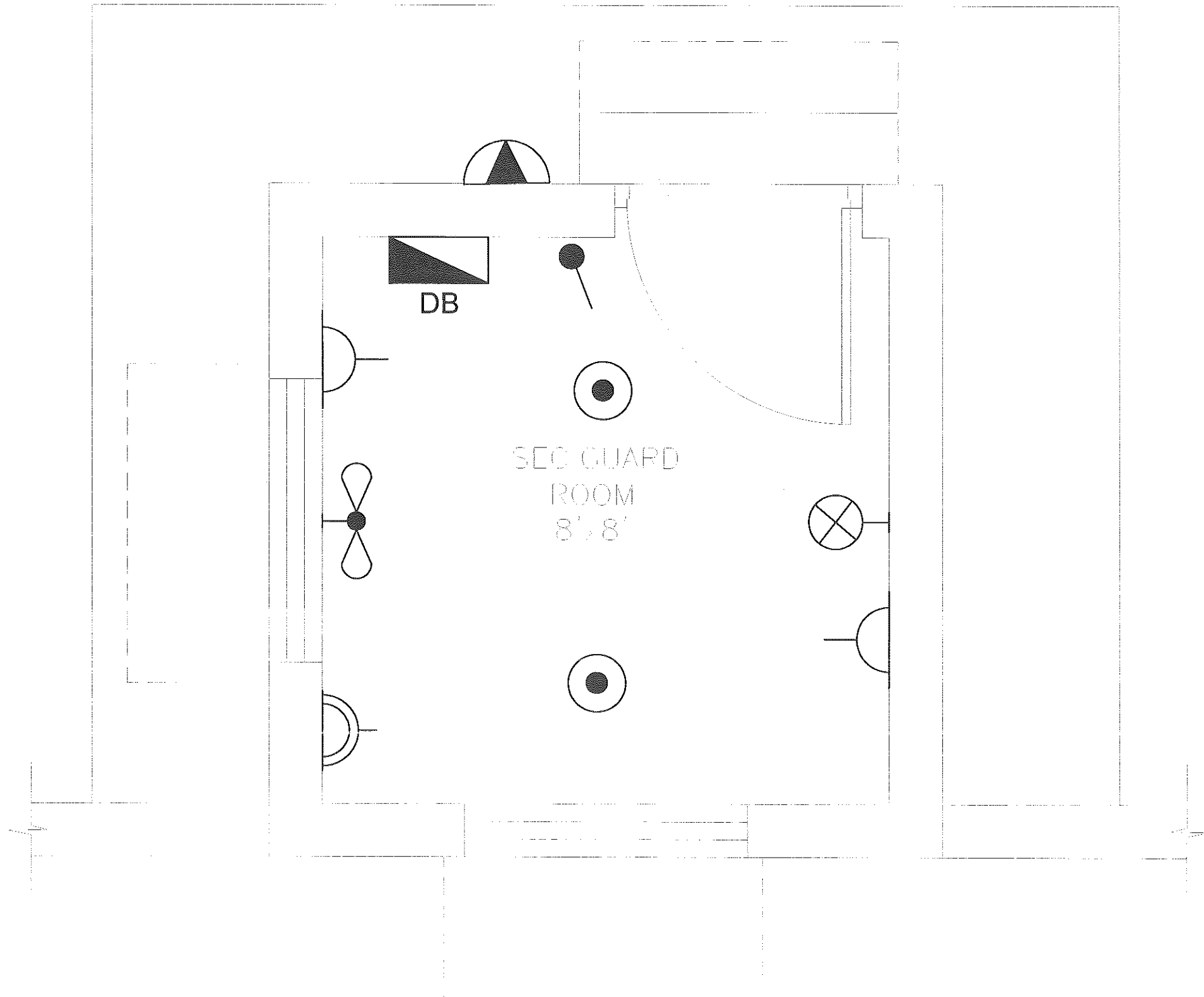
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PLAN

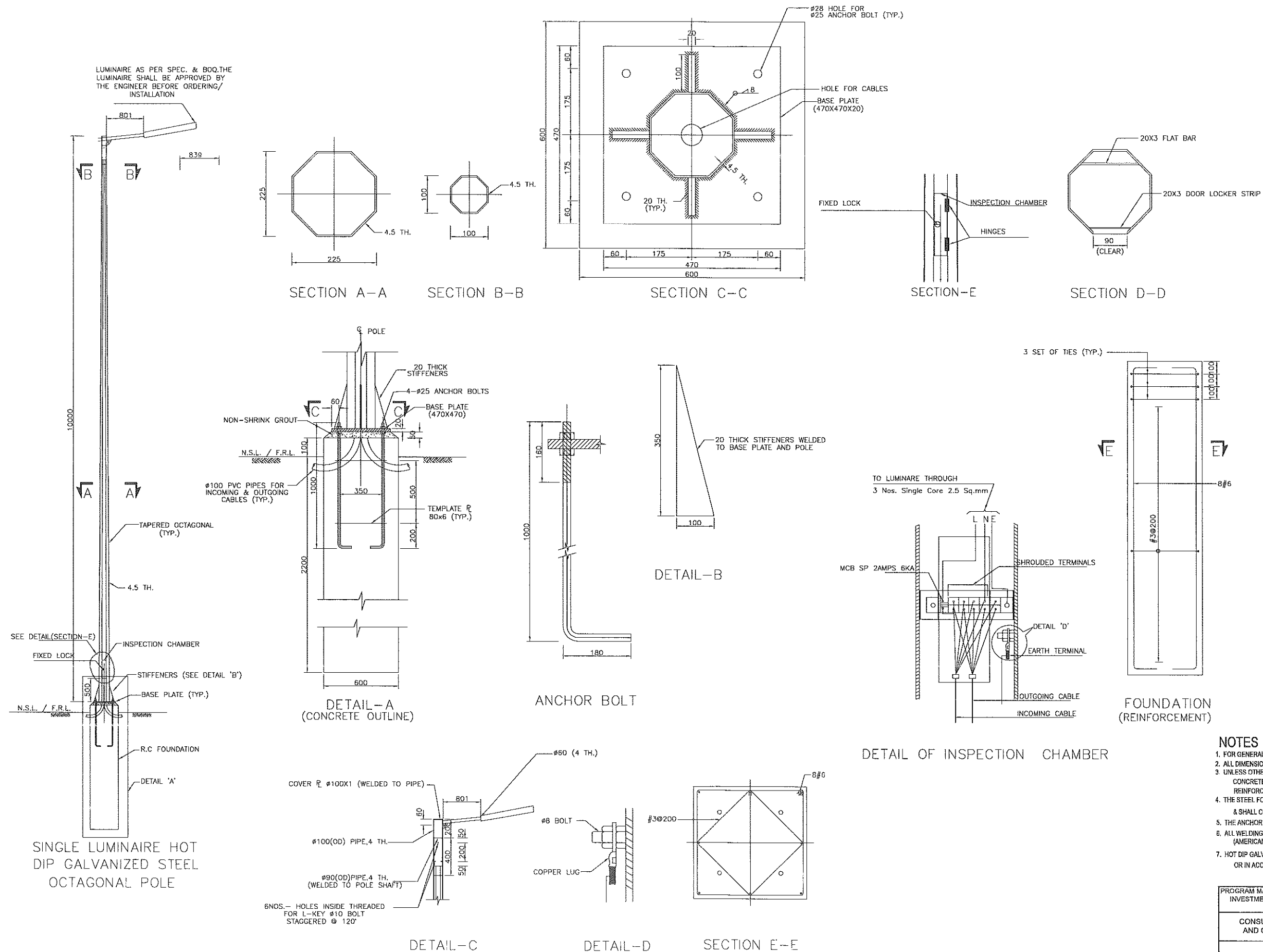
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT OFFICE BUILDING ELECTRIFICATION LAYOUT PLAN									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN	NESPAK	RECOMMENDED	VER/CKD	APPROVED					
DWN.	SA								
FILE									
CKD.		DATE	DRAWING NO.		REV.				
SUBM.		SEP, 2020	3976/161/TD/5E003		0				

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES MUBARAK ROAD, CAPITAL ROAD, SIALKOT GUARD ROOM ELECTRIFICATION LAYOUT PLAN			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAK	RECOMMENDED	VER/CKD
DWN.	SA		
FILE		DATE	DRAWING NO.
CKD.		SEP. 2020	3976/161/TD/5E005
SUBM.			REV. 0

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD.	APPR.



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS AND ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT DETAILS OF 10M CONICAL OCTAGONAL LIGHTING POLE SINGLE ARM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
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CHKD: [Blank]			
SUBM: [Blank]			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

GENERAL NOTES (CCTV) SYSTEMS:

1. ALL DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROCURE, TRANSPORT AND DELIVER EQUIPMENTS AND HARDWARE TO SITE, AFTER APPROVAL OF ENGINEERS.
3. All CCTV WORKS SHALL COMPLY WITH LATEST STANDARDS.
4. ALL CCTV SYSTEM DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS.
5. THE MINIMUM SIZE OF INDOOR PVC CONDUIT SHALL BE 25mm (1") DIA.
6. ACTUAL LENGTH OF DUCT TRAY SHALL BE AS PER SITE REQUIREMENTS.
8. SUITABLE SEALANT SHALL BE USED AT THE ENDS AND IN JOINTS OF THE DUCT FOR PROTECTION FROM WATER AND RODENT.
10. ACTUAL LOCATION OF ALL CONDUITS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES.
11. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CONDUITS LAYOUT PLAN FOR ENGINEER APPROVAL BEFORE INSTALLATION
12. ALL THE CCTV WORKS SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE PROJECT SPECIFICATION.
13. THE CCTV EQUIPMENT SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AND APPLICABLE STANDARDS AND CODES. AS MENTIONED IN TECHNICAL SPECIFICATION
14. THE CONTRACTOR SHALL SUBMIT CO-ORDINATION SHOP DRAWING OF COMMUNICATION LAYOUT WITH POWER LAYOUT BEFORE EXECUTION OF WORKS.
15. EXACT LOCATION OF ALL CCTV EQUIPMENT SHALL BE DECIDED ON SITE.
16. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR INSTALLATION OF ALL CCTV SYSTEMS.
17. All CCTV EQUIPMENT THAT MAY EXPOSE TO WEATHER CONDITIONS SHALL BE WEATHER PROOF.
18. THE CONTRACTOR SHALL COORDINATE AT SITE WITH OTHER SERVICES FOR EXACT LOCATION AND POSITION OF CONDUITS AND COMMUNICATION EQUIPMENT
19. WHERE CABLES ENTER THE BUILDING, THESE SHALL BE LAID IN CLASS D PROTECTIVE PIPE. HAND HOLES SHALL BE PROVIDED OUTSIDE THE BUILDING
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL INTEGRATION FOR ALL KIND OF SUB-SYSTEMS AND COMMUNICATION EQUIPMENT WITHIN THE SCOPE OF WORK INCLUDING INTERFACE WITH OTHER SYSTEMS.
21. EN 50174-2 RECOMMENDATION SHALL BE FOLLOWED FOR SEPARATION DISTANCE BETWEEN POWER AND COMMUNICATION CABLES.
22. LENGTH OF CAT-6 CABLE MUST NOT EXCEED 90M.
23. THESE DRAWINGS ARE FOR TENDER PURPOSE AND SHALL NOT BE USED FOR CONSTRUCTION.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT IP BASED VIDEO SURVEILLANCE SYSTEM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED	VER/CHKD.	APPROVED
DWN: MUBASHAR AHMAD			
FILE	DATE	DRAWING NO.	REV.
CKD.		3976/166/1D/IS001	0
SUBM.			

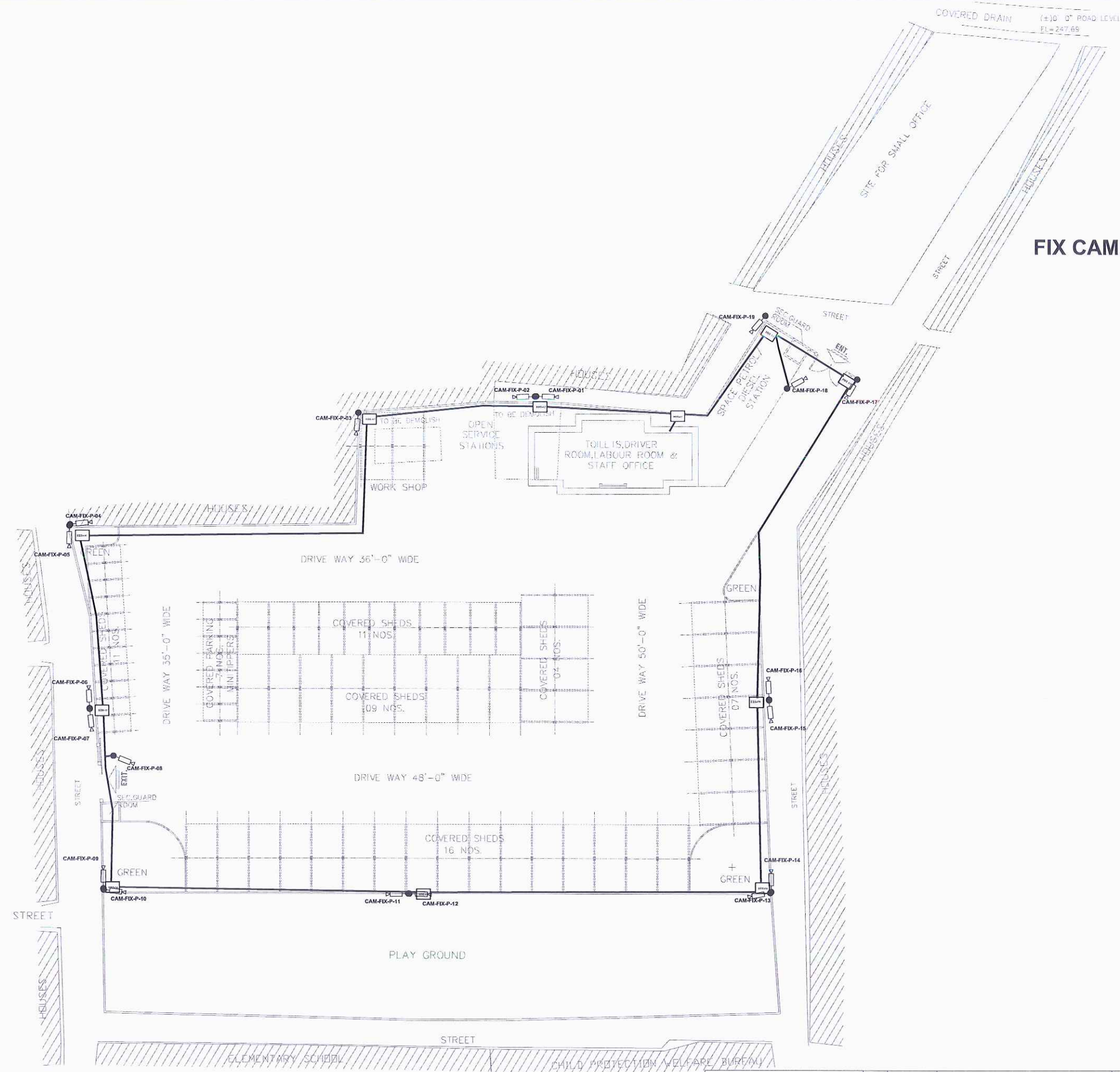
REFERENCE DRAWINGS	REV	DATE	DESCRIPTION	BY	CHKD.	APPR.




LEGEND

FIX CAMERA WITH POLE 

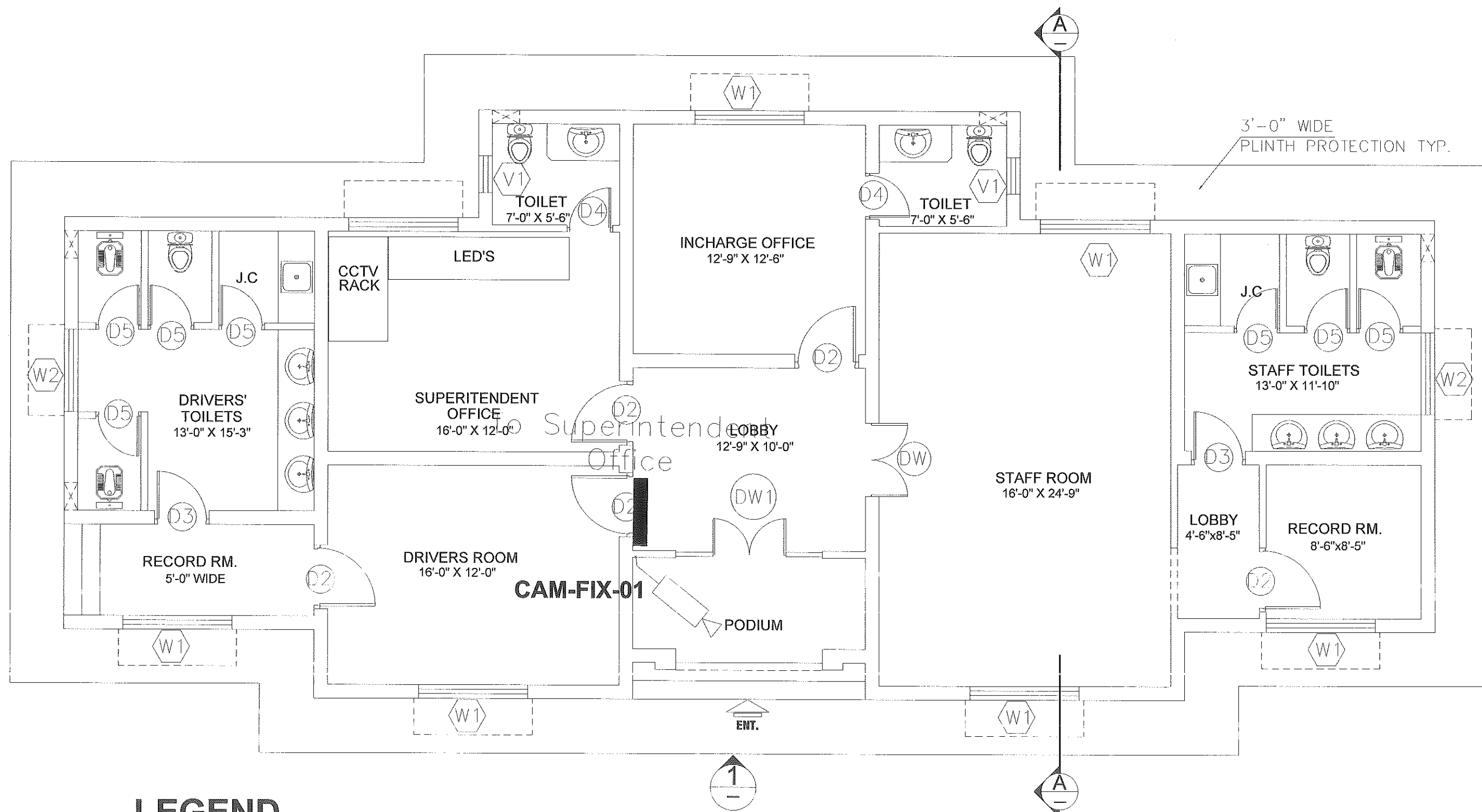
DUCT 

HAND HOLE 



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING IP BASED VIDEO SURVEILLANCE SYSTEM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: 	VERIFIED: 	APPROVED: 
DWN: MUBASHAR AHMAD	DATE: SEP, 2020	DRAWING NO. 3976/166/TD/ISO02	REV. 0
FILE: _____	SUBM. _____		
CKD: _____			
BY: _____	CKD: _____	APPR: _____	

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.



LEGEND

FIX CAMERA WALL MOUNTED



HAND HOLE

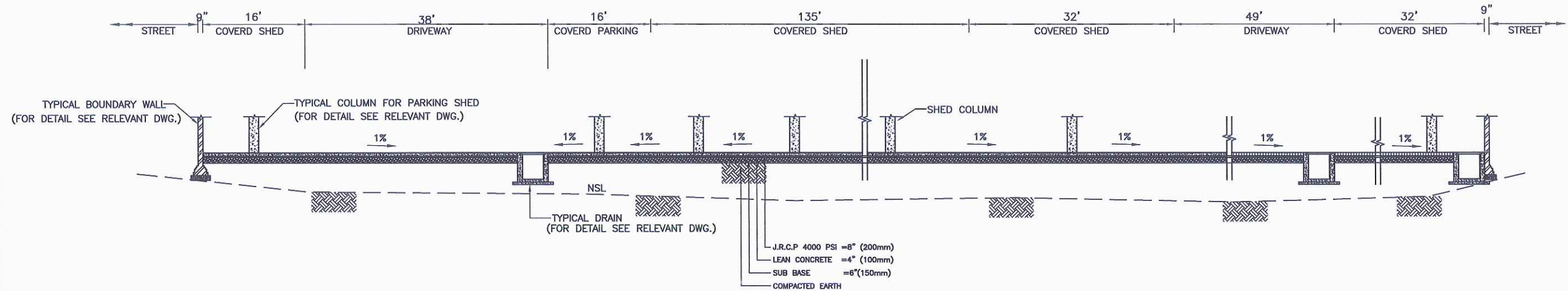
HH-XX

DUCT

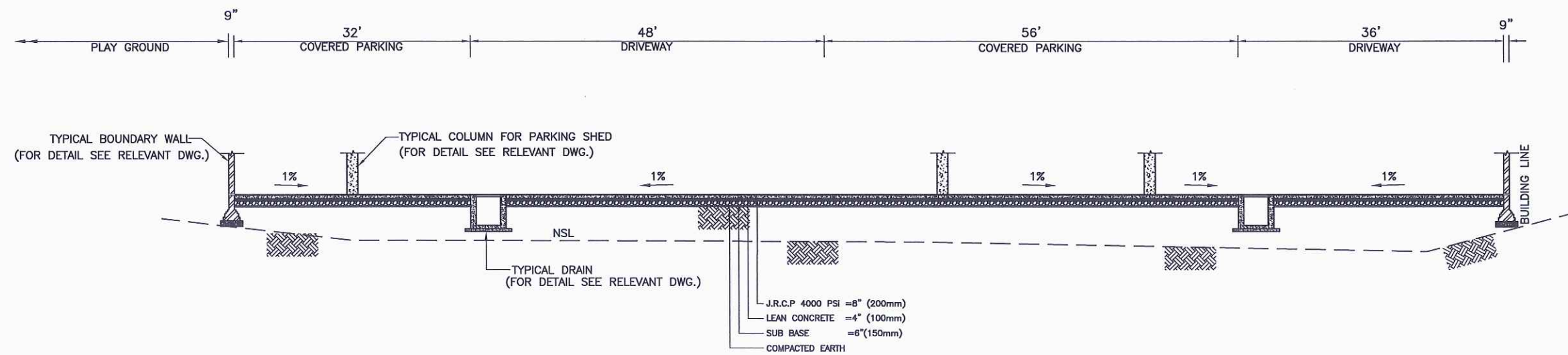


PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING IP BASED VIDEO SURVEILLANCE SYSTEM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED:	VERIFIED:	APPROVED:
DRAWN: MUBASHAR AHMAD			
FILE:	DATE:	DRAWING NO.:	REV.:
CKD:	SEP. 2020	39/6/166/TD/15003	0
SUBM:			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.



SECTION A-A



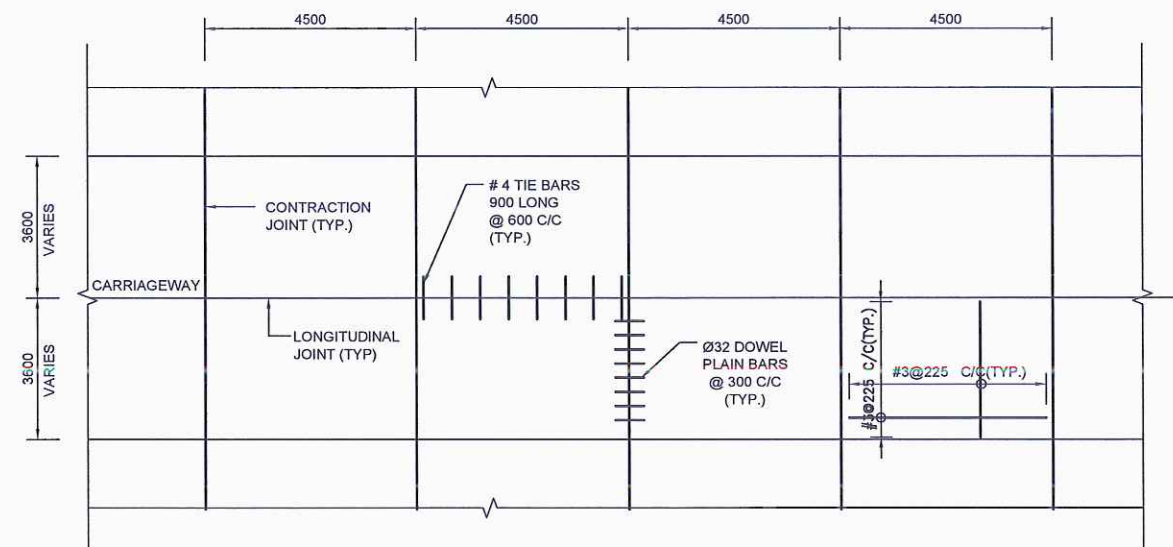
SECTION B-B

NOTES:-

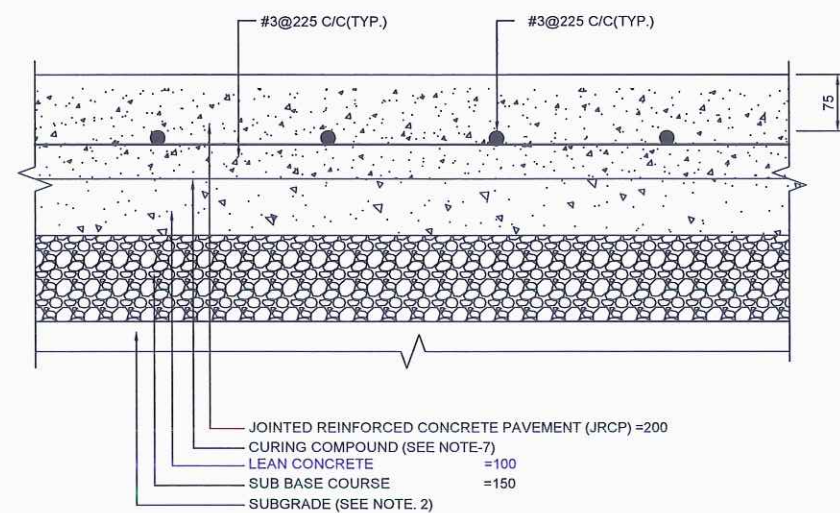
1. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
2. SUBGRADE/EMBANKMENT SHALL CONSIST OF SUITABLE MATERIAL HAVING MINIMUM SOAKED CBR OF 7% AT 95% MDD.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES CAPITAL ROAD, JUMMAH COUNCIL, MUBARAK ROAD, SIALKOT TYPICAL CROSS SECTIONS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER/CHKD: [Signature]	APPROVED: [Signature]
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CKD: [Blank]			

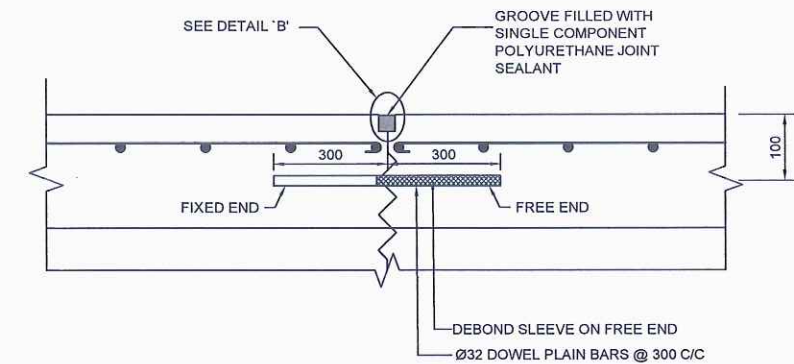
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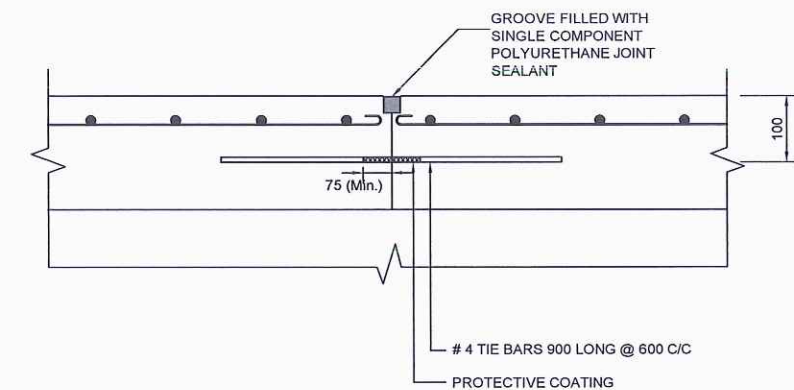
PLAN



DETAIL 'A'



TYPICAL CONTRACTION JOINT



TYPICAL LONGITUDINAL JOINT

NOTE:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
2. SUBGRADE SHALL HAVE A MINIMUM SOAKED CBR OF 7% AT 95% MDD.
3. RIGID PAVEMENT SHALL BE PAVED WITH CONCRETE PAVER UNLESS APPROVED OTHERWISE BY THE ENGINEER.
4. REINFORCEMENT STEEL SHALL BE GRADE 60.
5. CONCRETE COMPRESSIVE STRENGTH (CYLINDER) SHALL BE 4000 psi.
6. CURING COMPOUND SHALL CONSIST OF TWO COATS OF WHITE-PIGMENTED WAX-BASED COMPOUND (ASTMC309).
7. THE REINFORCED MESH SHALL BE KEPT IN PLACE TO CONTROL SURFACE CRACKING. THE MESH SHALL NOT BE SUNK IN CONCRETE.
8. FOR DETAILS REFER RELEVANT DRAWINGS.

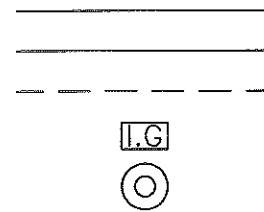
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
CAPITAL ROAD, JUMMAH COUNCIL, MUBARAK ROAD, SIALKOT TYPICAL JOINTED REINFORCED CONCRETE PAVEMENT DETAIL			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAK	RECOMMENDED	VERIFIED
DRAWN	ASHFAQ NAZ	DATE	APPROVED
FILE		DRAWING NO.	REV.
CKD.		3976/102/PC-1/XS06A	00
SUBM.		AUGUST 2020	

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

WATER SUPPLY

LEGEND:

WATER SUPPLY PIPE
COLD WATER PIPE (C.W)
HOT WATER PIPE (H.W)
INSTA GEYSER
L.L.D.P.E WATER TANK
(LINEAR LOW DENSITY POLYETHYLENE)



NOTES:

1. ALL PIPE DIAMETERS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
3. ALL COLD AND HOT WATER PIPES SHALL BE OF PPR (POLY PROPYLENE RANDOM) CLASS PN-20 DN 8077-8078 UNLESS OTHERWISE INDICATED.
4. ALL WATER SUPPLY FITTINGS SUCH AS BENDS, TEES, SOCKETS, SHALL BE OF PPR PN 25, DN 16962 UNLESS OTHERWISE MENTIONED.
5. STOP COCK / GATE VALVE SHALL BE INSTALLED AT ALL PIPES ENTERING THE WALL OR AS DIRECTED BY SITE ENGINEER.
6. CONNECTION TO EACH FIXTURE UNIT SHALL BE OF 25Ø.
7. ALL PIPES HAVE BEEN INDICATED BY OUTER DIAMETERS.
8. ALL WATER SUPPLY PIPES ARE BURRIED PIPES.
9. ALL POLYETHYLENE PIPES SHALL BE OF CLASS (PN- 10,PE-100)

OUTER DIA (mm)	INNER DIA (INCHES)
25	3/4"
32	1"
40	1 1/4"
50	1 1/2"
63	2"
75	2 1/2"
90	3"
110	4"

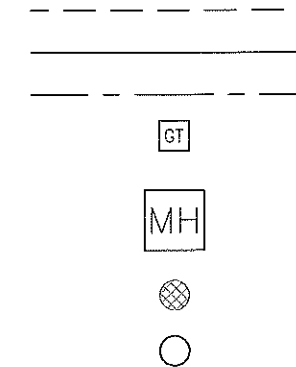
9. FOR PPR PIPES, EQUIVALENT INSIDE DIAMETERS IN INCHES SHALL BE AS UNDER

OUTER DIA (mm)	INNER DIA (INCHES)
25 mm	1/2"
32 mm	3/4"
40 mm	1"
50 mm	1 1/4"
63 mm	1 1/2"
75 mm	2"
90 mm	2 1/2"

SEWERAGE

LEGEND:

WASTE PIPE
SOIL PIPE
SEWER PIPE
GULLY TRAP
(1'x1')
MANHOLE
(2'-6"x2'x6")
FLOOR TRAP
VENT PIPE








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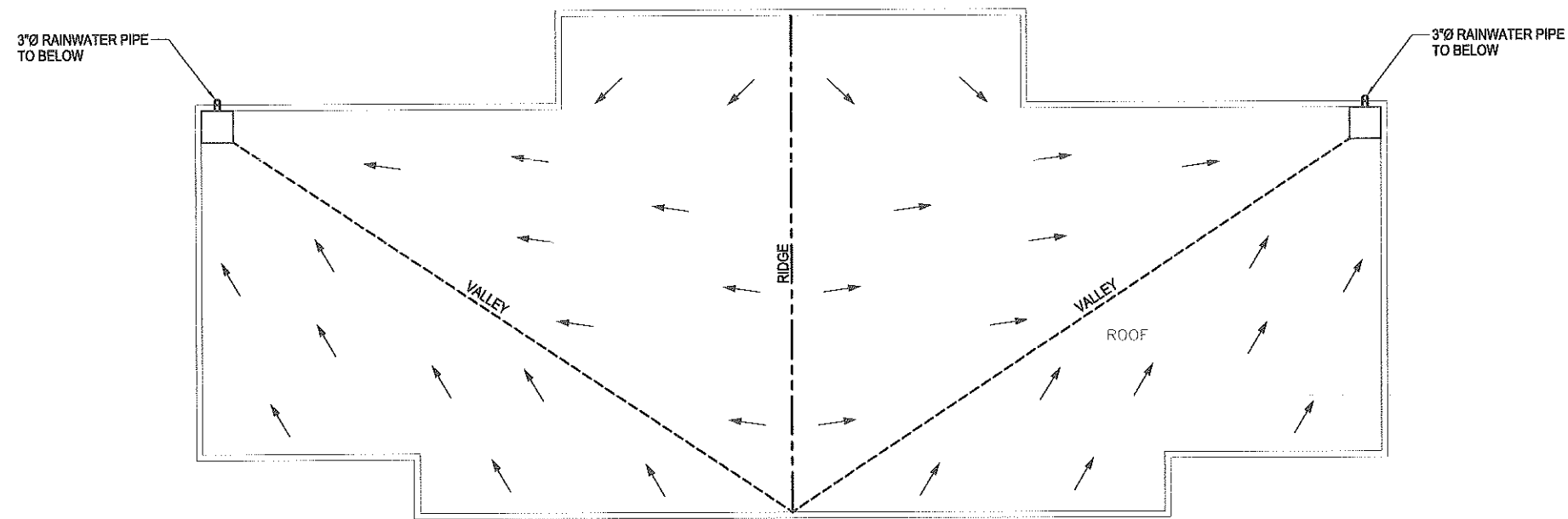
1. ALL PIPE DIAMETERS ARE IN INCHES UNLESS OTHERWISE INDICATED.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
3. MINIMUM SLOPE FOR SEWER LINE
3"Ø = 0.014
4"Ø = 0.010
6"Ø = 0.007
8"Ø = 0.005
10"Ø = 0.004
12"Ø = 0.0031
4. 0.2% SLOPE WILL BE PROVIDED FOR ROOF DRAINAGE.
5. ALL SOIL, WASTE, VENT AND RAINWATER PIPES ARE uPVC ISO 3633 & EN 1329.
6. ALL SEWAGE PIPING FROM MANHOLES AND GULLY TRAPS ONWARD SHALL BE OF uPVC OF CLASS SN-8 (EN-1401)
7. THE CONTRACTOR SHALL CONFIRM THE INVERT LEVEL OF SEWER PIPE FROM THE SEPTIC TANK UP TO EXTERNAL MANHOLE OF THE EXISTING SEWERAGE SYSTEM BEFORE CONNECTING THE SEWER IN THE MANHOLE.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING			
LEGEND AND NOTES			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNER CHRY. MUHAMMAD SALEEM	RECOMMENDED [Signature]	VERIFIED [Signature]	APPROVED [Signature]
FILE CKD.	DATE AUG, 2020	DRAWING NO. 3976/11/TD/4.J00	REV. 0
SUBM.			

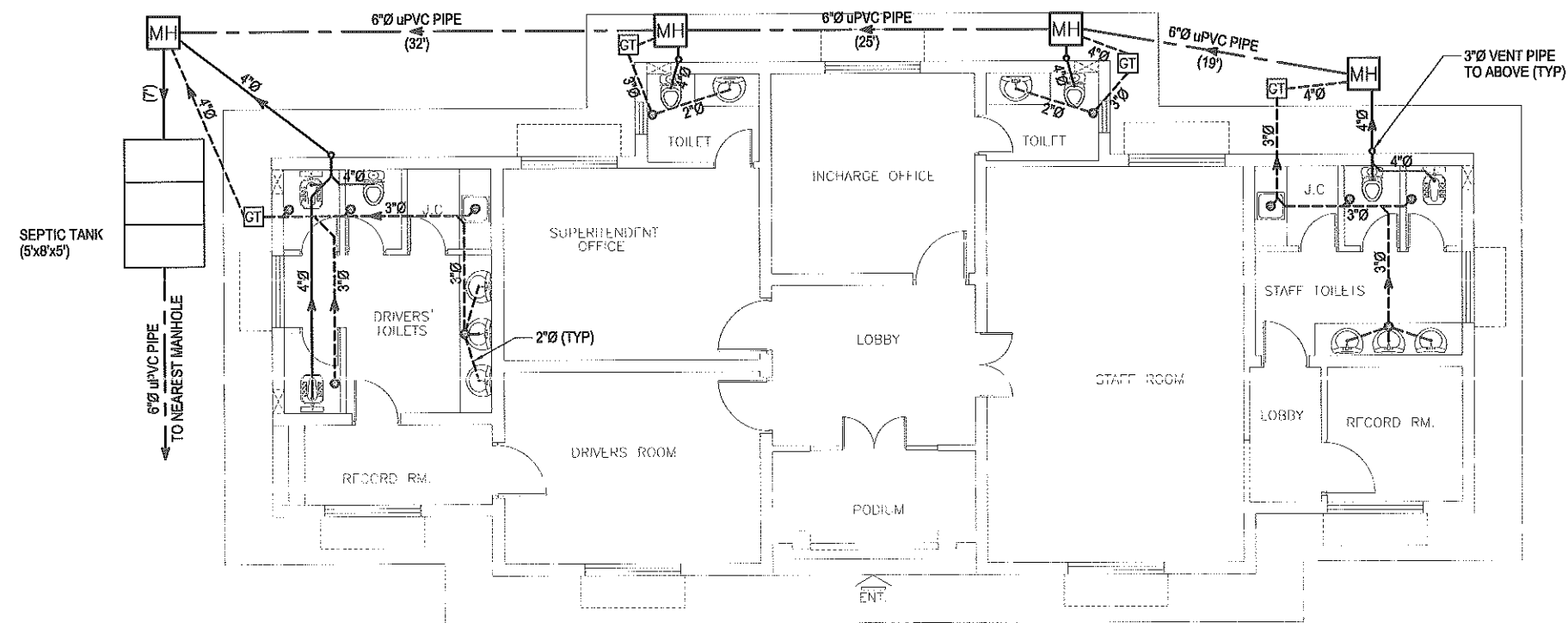
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD	APPR



SCALE 1"=10'				
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)				
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING				
WATER SUPPLY SYSTEM				
 NESPAC - ARTELIA JOINT VENTURE (JV) 				
DESN. NESPAC DWN. MUHAMMAD SALEEM FILE CKD. SUBM.	RECOMMENDED 	VER./CKD. 	APPROVED 	
DATE	DRAWING NO.			REV.
AUG, 2020	3976/11/TD/AJ01			0



ROOF PLAN

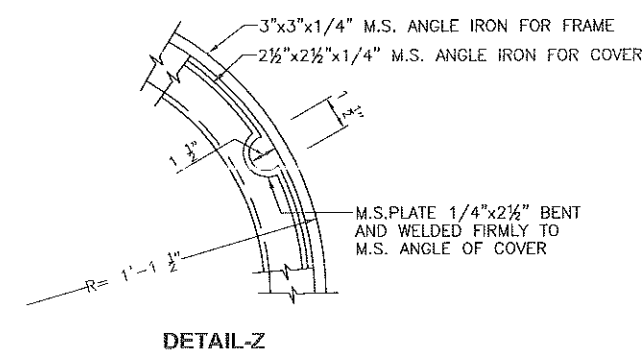
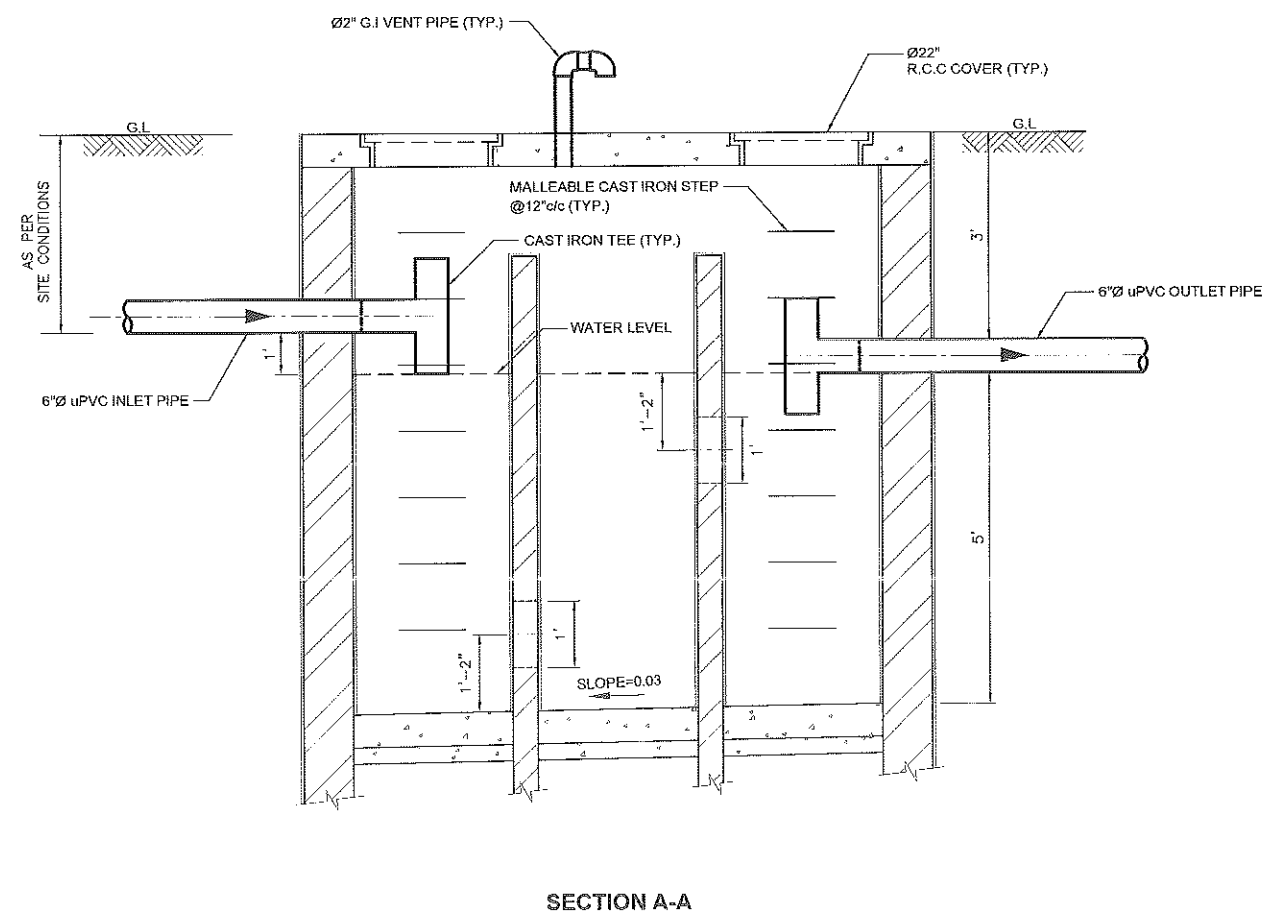
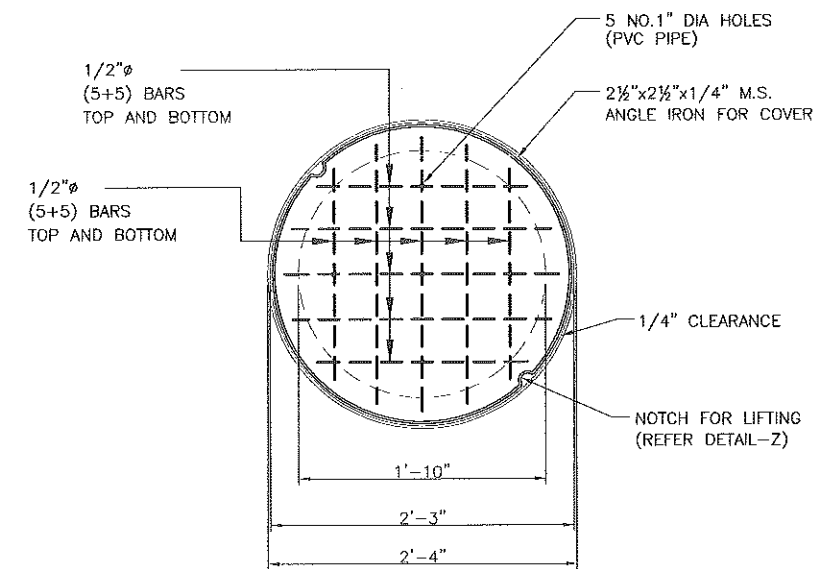
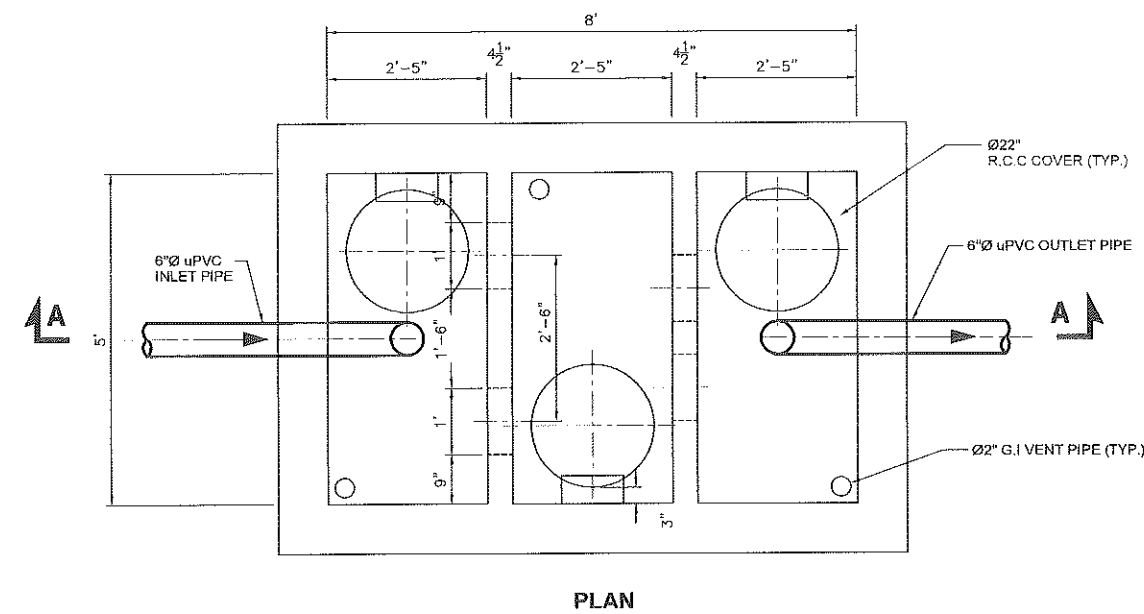


GROUND FLOOR PLAN

NOTE:
FOR LEGEND AND NOTES REFER DRAWING NO. 3978/11/C/4J00

SCALE 1"=10'			
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING WATER SUPPLY SYSTEM			
<div> <div>NESPAK</div> <div>NESPAK - ARTELIA JOINT VENTURE (JV)</div> <div>ARTELIA</div> </div>			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER/CHKD: [Signature]	APPROVED: [Signature]
FILE: MUHAMMAD SALEEM	DATE: AUG, 2020	DRAWING NO.: 3978/11/TD/4J02	REV: 0
SUBM.			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD	APPR

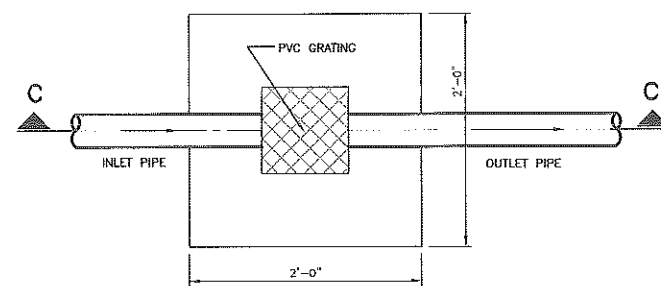


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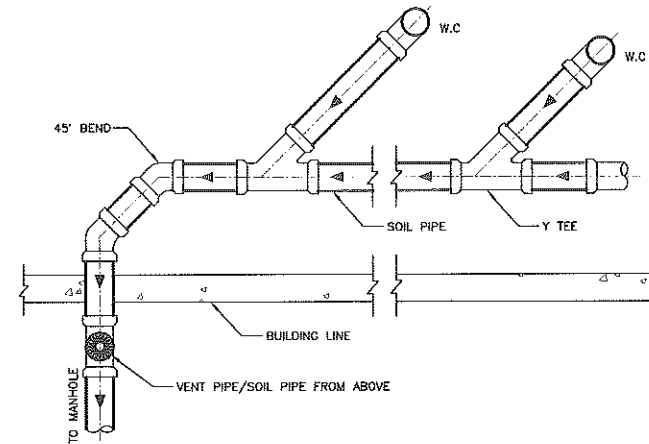
- 1- ALL DIMENSIONS ARE IN FEET/INCHES UNLESS OTHERWISE STATED.
- 2- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
- 3- FOR STRUCTURAL DESIGN/STRUCTURE MATERIAL OF SEPTIC TANK REFER STRUCTURAL DRAWINGS.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING SEPTIC TANK			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED:	APPROVED:	
DWN: MUHAMMAD SALEEM			
FILE: _____	DATE: _____	DRAWING NO: 3976/11/TD/4.J03	REV: 0
CKD: _____			
SUBM: _____			

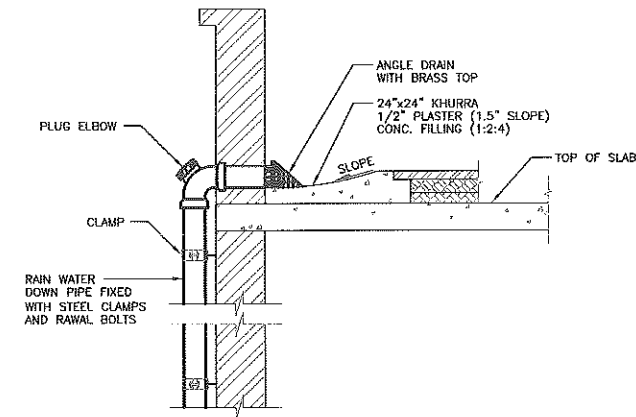
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD	APPR



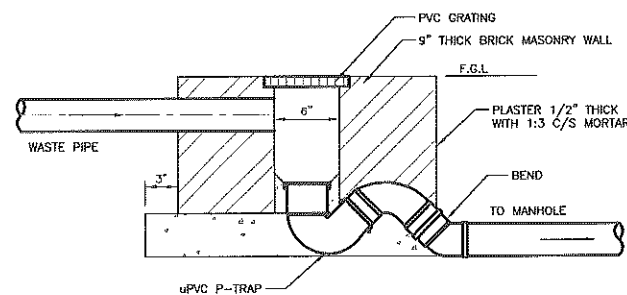
PLAN
GULLY TRAP



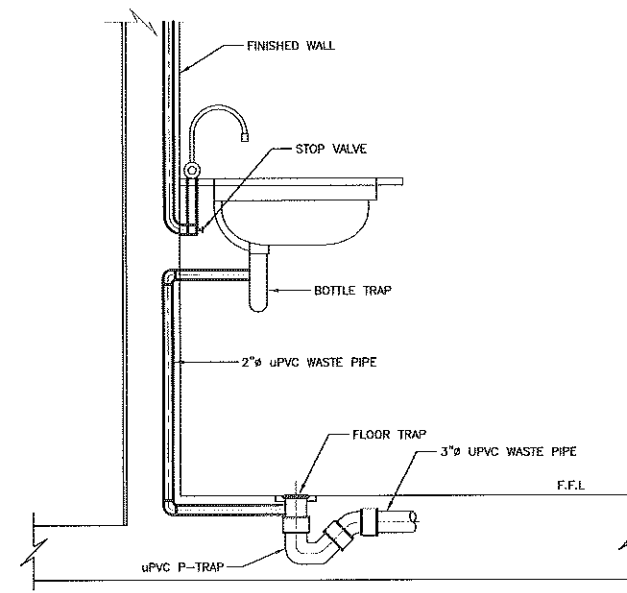
PLAN
DETAIL OF W.C. IN SERIES



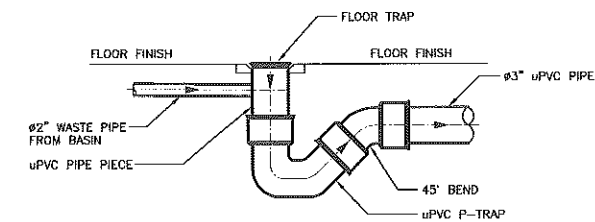
KHURRA DETAIL
WITH RAIN WATER PIPE IN DUCT



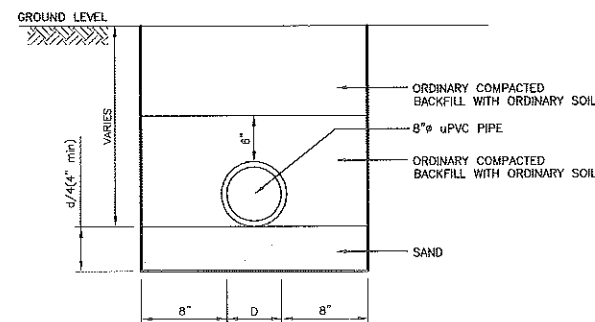
SECTION C-C
GULLY TRAP



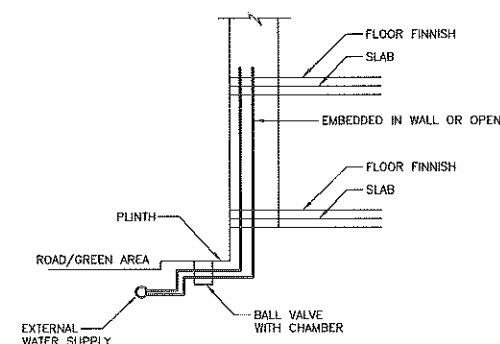
DETAIL OF BASIN CONNECTION
WITH FLOOR TRAP



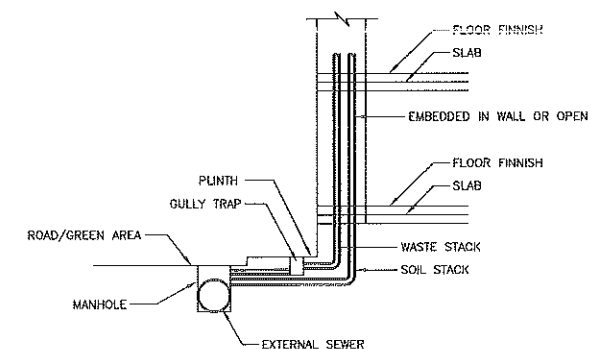
FLOOR DRAIN WITH P-TRAP



BEDDING FOR LAYING
UPVC PIPE



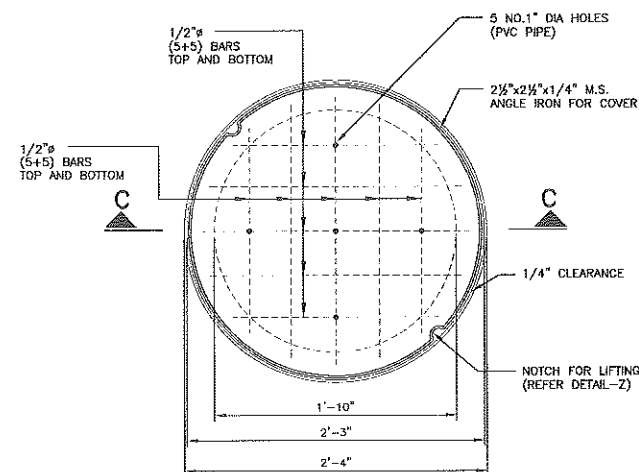
TYPICAL SECTION
WATER PIPES FOR BUILDING



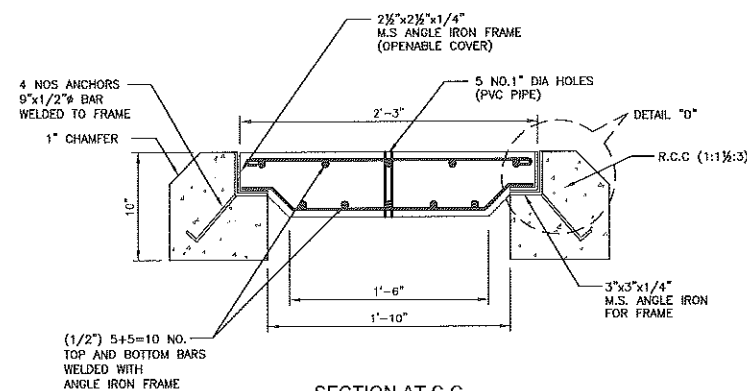
TYPICAL SECTION
DRAINAGE PIPES FROM BUILDING TO SEWER

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING			
MISCELLANEOUS PLUMBING DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	APPROVED: [Signature]	
DWN: MUHAMMAD SALEEM	DATE: AUG, 2020	DRAWING NO: 3978/11/TD/AJ04	REV: 0
FILE: [Blank]			
CKD: [Blank]			
SUBM: [Blank]			

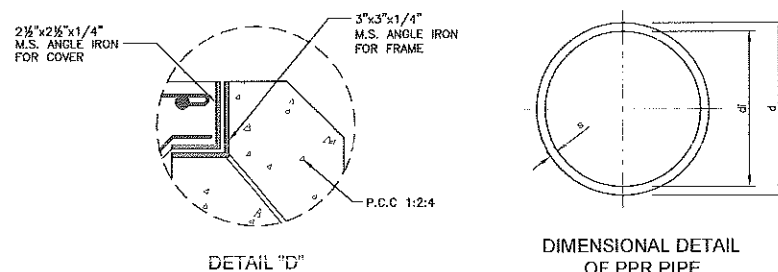
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD	APPR



PLAN OF MANHOLE COVER
560mm (22") DIA
DETAIL-W

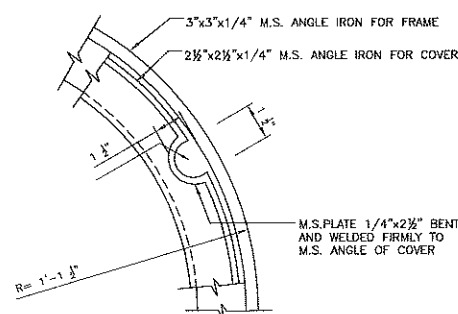


SECTION AT C-C

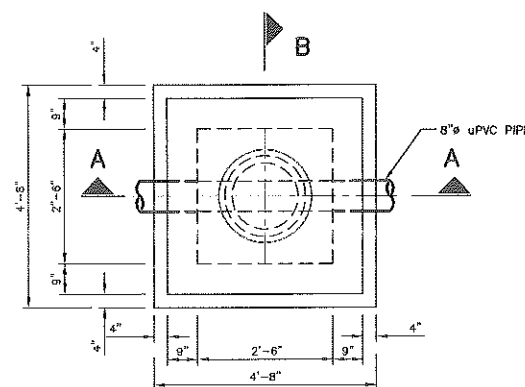


DETAIL "D"

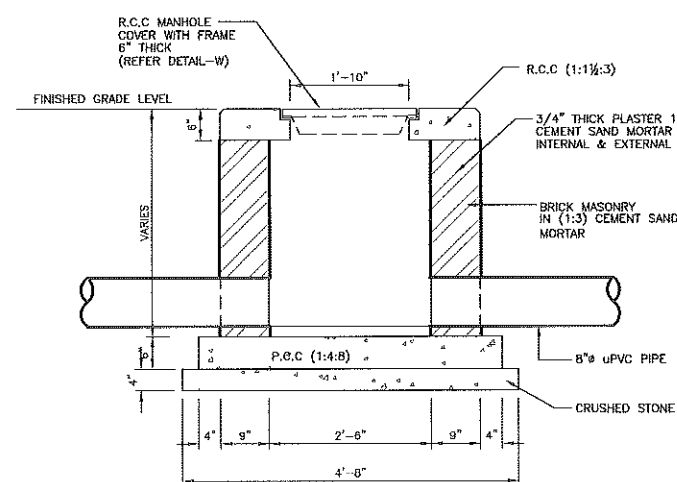
DIMENSIONAL DETAIL
OF PPR PIPE



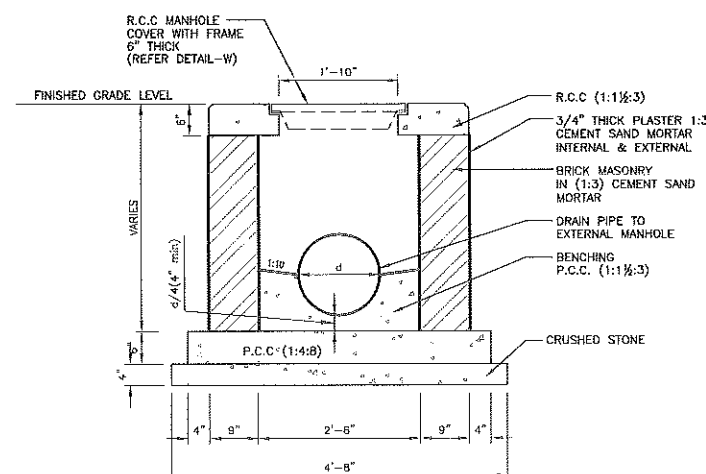
DETAIL-Z



PLAN
MANHOLE



SECTION A-A
MANHOLE



SECTION B-B
MANHOLE

CLAMP SPACES PN20

DIAMETER	CLAMP SPACING DISTANCES ACCORDING TO TEMPERATURE, CM					
mm	20°C	30°C	40°C	50°C	60°C	80°C
25	100	100	100	95	90	85
32	120	115	115	110	100	90
40	130	130	125	120	115	100
50	150	150	140	130	125	110
63	170	160	155	150	145	125
75	185	180	175	160	155	140

TABLE 1		FUSION DATA FOR PPR		
OUTER DIAMETER	AVERAGE HEATING TIME *	AVERAGE WORKING TIME (MAX.)	AVERAGE COOLING TIME (MIN.)	
mm	sec	sec	sec	
25	7	4	2	
32	8	6	4	
40	12	6	4	
50	18	6	4	
63	24	8	6	
75	30	8	6	
90	40	8	6	
110	50	10	8	

NOTE:

* AVERAGE HEATING TIME REFERS TO THE START TIME WHEN THE PIPE AND FITTING ARE INSERTED UP TO THE MARKED WELDING DEPTH IN THE WELDING MACHINE.

OUTER DIAMETER	WALL THICKNESS	INTERNAL DIAMETER	INTERNAL DIAMETER
d	S	di	di
mm	mm	mm	inches
25	4.2	16.6	1/2"
32	5.4	21.2	3/4"
40	6.7	26.6	1"
50	8.4	33.2	1 1/4"
63	10.5	42.0	1 1/2"
75	12.5	50.0	2"
90	15.0	60.0	2 1/2"
110	18.4	73.2	3"

CONCRETE EQUIVALENT STRENGTH CYLINDER	
(1:1 1/2:3)	3000psi
(1:2:4)	2500psi
(1:4:8)	2000psi

NOTE:

ALL DIMENSIONS ARE IN INCHES/FEET UNLESS OTHERWISE STATED.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS MUBARAKPURA, CAPITAL ROAD, SIALKOT OFFICE BUILDING			
MISCELLANEOUS PLUMBING DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV) ARTELIA			
DESIGN: NESPAK	RECOMMENDED: YES/NO	APPROVED: YES/NO	FILE: YES/NO
FILE: MUHAMMAD SALEEM	DATE: AUG. 2020	DRAWING NO. 3976/11/TD/4J05	REV. 0
SUBMIT: YES/NO			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CRD	APPR

LEGEND

STORM WATER DRAIN

D-1

STORM WATER FLOW DIRECTION



ABBREVIATIONS

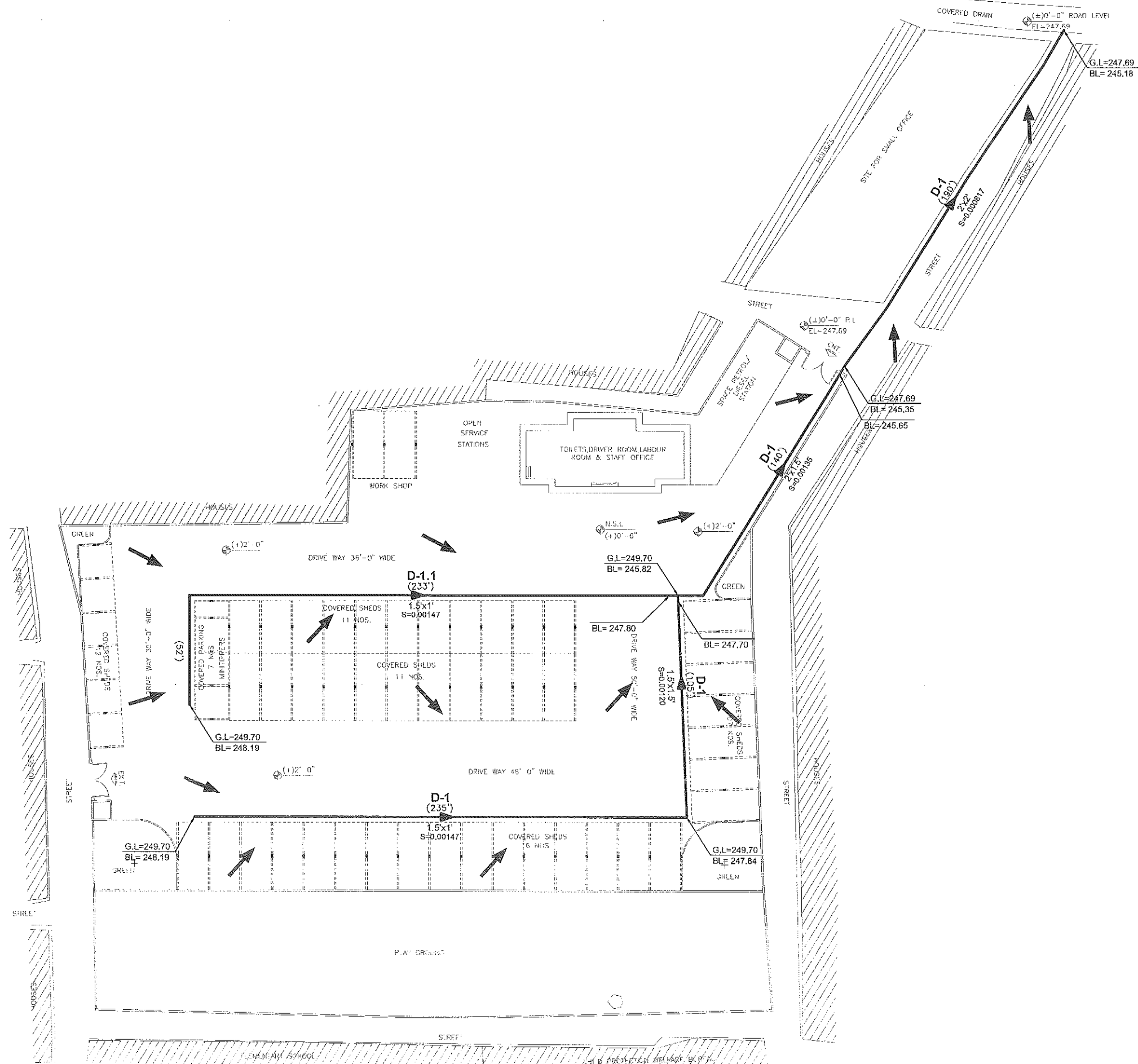
G.L. GROUND LEVEL

B.L. BED LEVEL

NOTES

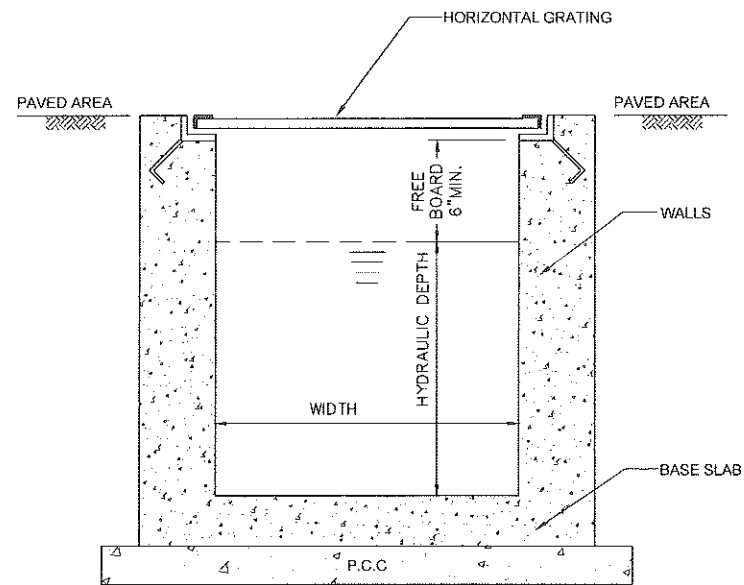
1. ALL DRAIN SIZES ARE IN FEET UNLESS OTHERWISE SPECIFIED.
2. M.S (HEAVY DUTY) REMOVABLE GRATING SHALL BE PROVIDED.
3. THE CONTRACTOR SHALL VERIFY THE INVERT LEVELS OF ALL THE STORM WATER DRAINS AS PER SITE CONDITION BEFORE CONSTRUCTION.
4. FOR STRUCTURAL DETAILS REFER TO STRUCTURAL DRAWINGS.
5. READ THIS DRAWING IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB)			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS			
STORM WATER DRAINAGE SYSTEM LEGEND & NOTES			
NESPAC - ARTELIA JOINT VENTURE (JV)			
DESIGN: _____	RECOMMENDED: _____	VERIFIED: _____	APPROVED: _____
DRAWN: <u>Vasud Vasloi</u>			
FILE: _____	DATE: _____	DRAWING NO. _____	
CHECK: _____	AUGUST 2020	3976/11/TD/3300	
SUBMIT: _____		REV. 0	

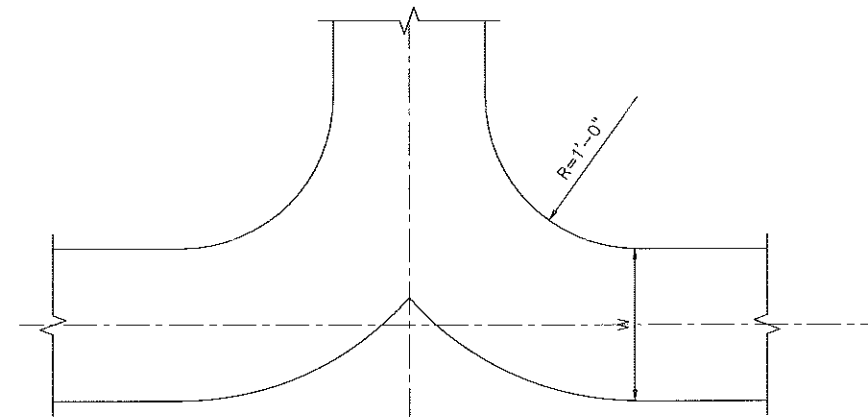


PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
PARKING SHEDS & ALLIED STRUCTURES MUBARAKPURA CAPITAL ROAD, SIALKOT STORM WATER DRAINAGE SYSTEM (LAYOUT PLAN AND LEVELS)									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN	NESPAK	RECOMMENDED	VERIFIED	APPROVED					
DRAWN	Yash Victor								
FILE									
CHKD.									
SUBM.									
DATE	AUGUST 2022				DRAWING NO.	3976/11/TD/3J01			
REV.					REV.	0			

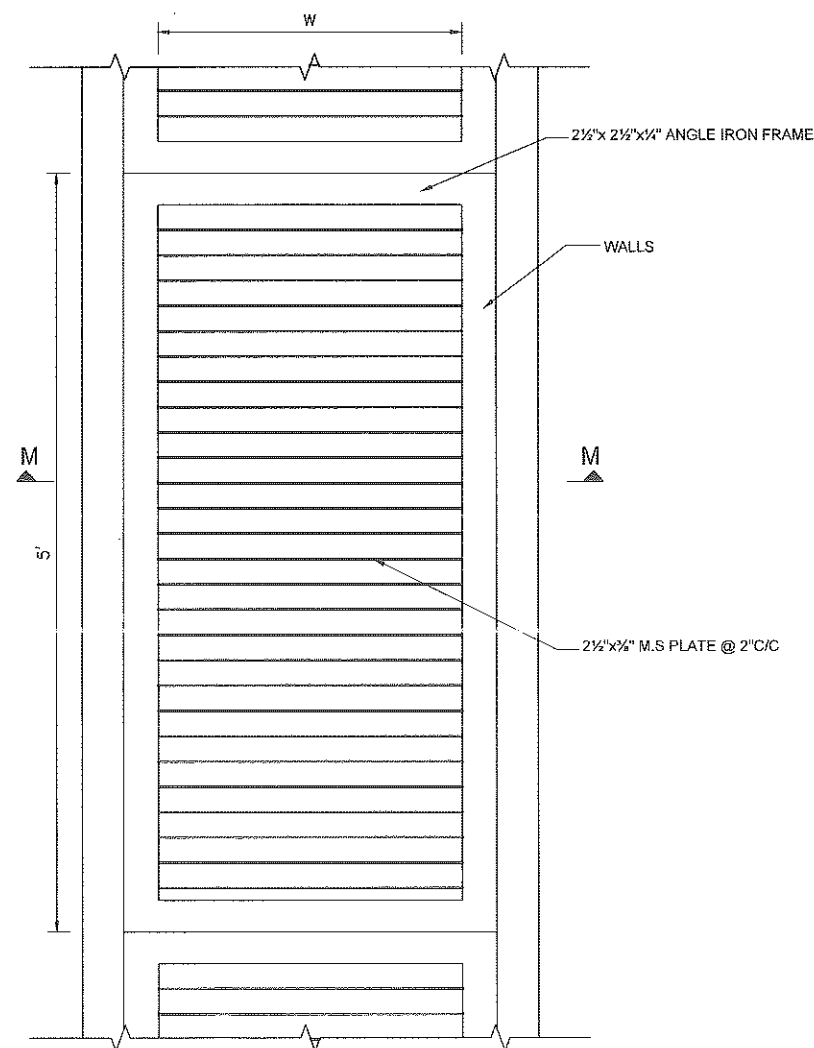
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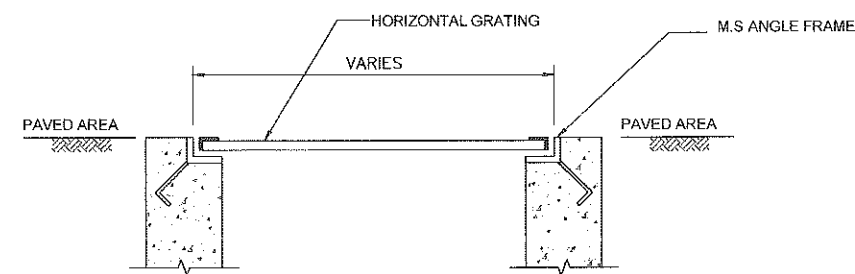
TYPICAL X-SECTION OF DRAIN
FOR HORIZONTAL GRATING



DRAIN JUNCTION DETAIL



HORIZONTAL GRATING PLAN



SECTION M-M

DRAIN SIZE	
WIDTH(ft)	DEPTH (ft)
1'-0"	1'-0"
1'-6"	1'-0"
1'-6"	1'-6"
2'-0"	1'-6"
2'-0"	2'-0"

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS MISCELLANEOUS DETAILS									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN	NESPAK	RECOMMENDED	VERIFIED	APPROVED					
DWN	Yasir Vektor								
FILE									
CHKD									
SUBM									
DATE	AUGUST 2020				DRAWING NO.	3976/11/TD/3/03		REV	0

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

REFERENCE	DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CHKD.	APP
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GENERAL NOTES

1. GENERAL

- ALL LEVELS AND DIMENSIONS ARE IN FEET & INCHES UNLESS OTHERWISE NOTED.
- ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING/SEWERAGE, MECHANICAL, ELECTRICAL AND ANY OTHER RELEVANT DRAWING.
- NOTES GIVEN ON THIS DRAWING ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHERWISE. NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERRED.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATIONS OF THE CONTRACT DOCUMENTS. IN THE ABSENCE OF ANY SPECIFICATIONS, ALL MATERIALS & WORKMANSHIP SHALL CONFORM TO THE RELEVANT ACI, BRITISH OR PAKISTANI CODES & STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURES DURING CONSTRUCTION. HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.
- THE CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL AND VARIOUS SERVICE DRAWINGS FOR SIZES & LOCATION OF ALL STRUCTURAL MEMBERS, FLOORS, WALLS, OPENINGS, FLOOR FINISHES, PIPES etc.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF DEWATERING SYSTEM WHERE SO REQUIRED DURING CONSTRUCTION.
- TERMITE CONTROL TREATMENT SHALL BE CARRIED OUT AS PER SPECIFICATIONS.
- DO NOT SCALE THE DRAWINGS. DIMENSIONS, GIVEN ON THE DRAWINGS, SHALL GOVERN.
- ALL FABRICATION, PAINTING, ERECTION AND QUALITY CONTROL IS TO BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE ACI/AISC/BRITISH SPECIFICATIONS.
- BACK FILLING AROUND FOUNDATIONS & WALLS SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES TO AVOID ANY LATERAL DISPLACEMENT. BACK FILLING UNDER FLOORS AND AROUND FOUNDATIONS SHALL BE DONE IN LAYERS NOT EXCEEDING 6 in. IN THICKNESS AND COMPACTED UP TO 95% MPD.
- DEWATERING SHALL BE DONE BY CONTRACTOR IF REQUIRED WITH THE PRIOR APPROVAL OF THE ENGINEER.

2. FOUNDATIONS

- FOUNDATIONS HAVE BEEN DESIGNED BASED ON NET ALLOWABLE BEARING CAPACITY AS SPECIFIED IN GEO-TECHNICAL INVESTIGATION REPORT.
- IF SOFT/LOOSE POCKET OF SOIL OR LOOSE FILL MATERIAL IS ENCOUNTERED AT FOUNDATION BASE, IT SHOULD BE COMPLETELY EXCAVATED AND REPLACED WITH SELECT FILL MATERIAL. THE SELECT FILL SHOULD BE A-3 AS PER AASHTO SOIL CLASSIFICATIONS. THE SELECT FILL MATERIAL SHOULD BE REPLACED AND COMPACTED IN LAYERS OF THICKNESS APPROPRIATE TO TYPE AND SIZE OF COMPACTED EQUIPMENT TO AT LEAST 75% AT RELATIVE DENSITY OR 95% MODIFIED PROCTOR DRY DENSITY, AS APPROPRIATE. THE ON SITE SOIL AT FOUNDATION EXCAVATION BASE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SELECT FILL/FOUNDATION.
- ALL FOUNDATIONS SHALL BE PLACED ON COMPETENT LOAD BEARING STRATA. IF ACCEPTABLE BEARING STRATA IS NOT FOUND AT INDICATED DEPTHS OF FOUNDATION, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR HIS INSTRUCTIONS. ALL COLUMN FOOTING THAT MAY LIE IN THE FILL AREA SHOULD BE SUPPORTED ON THE NATURAL SOIL UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- THE BED OF FOUNDATION SHALL BE THOROUGHLY COMPACTED PRIOR TO LAYING FOUNDATION. ANY LOOSE, WET, SOFT SOIL PATCH SHALL BE REPLACED WITH WELL-COMPACTED SELECTED GRANULAR FILL COMPACTED TO 95% MODIFIED AASHTO DENSITY.
- THE FOUNDATION BED SOIL SHALL BE PROTECTED FROM INGRESS OF MOISTURE FROM ANY SOURCE BY PROVIDING ADEQUATE SURFACE DRAINAGE SYSTEM AND ENSURING LEAK PROOF JOINTING OF SEWERAGE AND WATER SUPPLY LINES. EXCESSIVE AND UNCONTROLLED WATERING FOR CURING AND COMPACTION OF BACK FILL MATERIAL SHALL BE AVOIDED.
- ALL FOUNDATIONS SHALL BE PLACED ON COMPETENT LOAD BEARING STRATA. IF ACCEPTABLE BEARING STRATA IS NOT FOUND AT INDICATED DEPTHS OF FOUNDATION, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR HIS INSTRUCTIONS.
- THE BED OF FOUNDATION SHALL BE THOROUGHLY COMPACTED PRIOR TO LAYING FOUNDATION. ANY LOOSE, WET, SOFT SOIL PATCH SHALL BE REPLACED WITH WELL-COMPACTED SELECT GRANULAR FILL COMPACTED TO 95% MODIFIED AASHTO DENSITY OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

3. CONCRETE

- STRUCTURAL DESIGN IS BASED ON THE AMERICAN CONCRETE INSTITUTE CODE OF REINFORCED CONCRETE, ACI 318 AND UNIFORM BUILDING CODE.
- ALL STRUCTURAL CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE (ACI) REQUIREMENTS.
- THE MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS FOR VARIOUS STRUCTURES SHALL BE AS GIVEN IN THE FOLLOWING TABLE.

STRUCTURE/STRUCTURAL ELEMENT	CLASS OF CONCRETE	MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS (psi)
BLINDING CONCRETE/PLAIN CONCRETE	C	1500 (1:3:6)
ALL OTHER STRUCTURAL ELEMENTS	B	3000 (1:1.5:3)
WATER RETAINING STRUCTURES	A	4000 (1:1:2)

3.2 MIX DESIGN

THE MIX DESIGN FOR THE SPECIFIED GRADES OF CONCRETE MEETING ALL REQUIREMENTS OF STRENGTH, WORKABILITY AND DURABILITY, SHALL BE CARRIED OUT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR HIS APPROVAL. CHEMICAL ADDITIVES SUCH AS RETARDERS/SUPER PLASTICIZERS MAY BE USED SUBJECT TO THE APPROVAL BY THE ENGINEER.

3.3 AGGREGATE SIZE

MAXIMUM AGGREGATE SIZE SHALL BE AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

STRUCTURAL ELEMENT	MAX. AGGREGATE SIZE (Inch)
FOUNDATION MATS, RAFTS AND FOOTINGS UP TO 3.0 FT. THICK	1 1/2"
COLUMNS AND BEAMS	3/4"
WALLS	3/4"
SLABS	3/4"

3.4 CONSTRUCTION JOINTS

- GENERALLY, THE CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS WILL BE FOLLOWED. HOWEVER THE CONTRACTOR MAY USE AN ALTERNATE CONSTRUCTION JOINTS ARRANGEMENT TO SUIT HIS REQUIREMENTS, WITH PRIOR APPROVAL OF THE ENGINEER. FOR THIS PURPOSE, THE CONTRACTOR SHALL SUBMIT HIS PROPOSAL FOR THE APPROVAL OF THE ENGINEER TWO WEEKS IN ADVANCE OF HIS SCHEDULED CONCRETE POURING DATE. ALL CONSTRUCTION JOINTS SHALL BE TREATED AS PER SPECIFICATIONS.
- CONSTRUCTION JOINTS IN FLOOR SLABS AND BEAMS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER. HORIZONTAL CONSTRUCTION JOINTS IN RAFTS, SLABS AND BEAMS ARE NOT PERMITTED EXCEPT AS SPECIFICALLY INDICATED ON STRUCTURAL DRAWINGS.
- SURFACE OF CONCRETE CONSTRUCTION JOINTS SHALL BE ROUGHENED, CLEANED AND LAFTANCE REMOVED AS PER SPECIFICATIONS.
- CONSTRUCTION JOINTS SHALL BE SO MADE AND LOCATED AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE. THEY SHALL BE LOCATED AT THE ONE THIRD OF THE SPANS OF SLABS, BEAMS & JOISTS. IN WALLS & COLUMNS SHALL BE AT THE UNDER SIDE OF FLOORS, SLABS OR BEAMS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS.
- WATERSTOP SHALL BE PROVIDE AT CONSTRUCTION JOINTS WHERE REQUIRED WITH PRIOR APPROVAL OF THE ENGINEER.

3.5 EMBEDDED ITEMS

BEFORE PLACING CONCRETE, IT SHALL BE ENSURED THAT ALL EMBEDDED ITEMS ARE IN POSITION AND SECURELY FASTENED/WELDED IN PLACE ACCORDING TO THE DRAWINGS. EMBEDDED ITEMS SHALL BE FREE OF OIL AND OTHER FOREIGN MATTER SUCH AS LOOSE COATING OF RUST. ALL EMBEDDED ITEMS REQUIRED FOR DOORS AND WINDOWS SHALL BE SUPPLIED AND PLACED IN POSITION BY CIVIL CONTRACTOR. ALL EMBEDDED ITEMS REQUIRED FOR PIPING, ELECTRICAL AND MECHANICAL EQUIPMENTS SHALL BE SUPPLIED BY OTHERS. HOWEVER SUCH ITEMS SHALL BE PLACED AND HELD IN POSITION BY THE CIVIL CONTRACTOR BY HIS OWN SUPPORTING ARRANGEMENT APPROVED BY THE ENGINEER.

3.6 FINISHES

FINISHES OF CONCRETE SURFACES SHALL BE AS PER SPECIFICATIONS.

3.7 CONCRETE POURING

THE CONTRACTOR SHALL SUBMIT CONCRETE POURING SCHEDULE FOR ENGINEER'S APPROVAL. NO CONCRETE SHALL BE PLACED UNTIL WRITTEN PERMISSION IS GIVEN BY THE ENGINEER DURING CONSTRUCTION. STACKING OF CONSTRUCTION MATERIALS, BRICKS etc. SHALL BE AVOIDED ON SLAB PANELS.

4. REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO THE LATEST ASTM A615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF 60,000 PSI.

4.1 CONCRETE PROTECTION TO REINFORCEMENT

MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.

STRUCTURAL ELEMENT	COVER (Inch)
1- FOUNDATION IN CONTACT WITH SOIL & WATER	3"
2- FOUNDATIONS NOT IN CONTACT WITH SOIL	2"
3- WALLS (INCLUDING RETAINING WALLS)	2"
4- FACE EXPOSED TO WEATHER OR EARTH	1 1/2"
5- FACE NOT EXPOSED TO WEATHER OR EARTH	1 1/2"
6- FACE EXPOSED TO WATER	3"
7- SLABS	3/4"
8- COLUMNS AND BEAMS	1 1/2"

4.2 DETAILING OF REINFORCEMENT

ADDITIONAL BARS EQUAL TO 1/2 REINFORCING BARS AREA, INTERRUPTED BY OPENING, SHALL BE PROVIDED AT EACH SIDE OF OPENING AND SHALL EXTEND EQUAL TO SPICE LENGTH (3'-0" MIN.) BEYOND OPENING. MIN. 2-#5 BARS ON EACH SIDE AND FACE SHALL BE USED. FOR OPENINGS LESS THAN 12"x12", OFFSET THE REINFORCEMENT TO CLEAR OPENING AND NO ADDITIONAL REINFORCEMENT SHALL BE PROVIDED.

A. ACCESSORIES

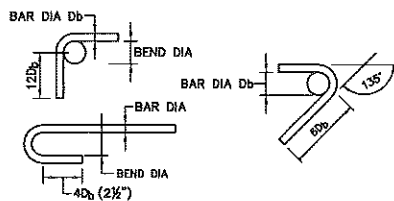
BAR SUPPORTS, SPACERS AND OTHER ACCESSORIES ARE NOT SHOWN ON THE DRAWINGS. THE RECOMMENDATIONS OF ACI-315 OR OTHER SUPPORTING SYSTEM AS APPROVED BY THE ENGINEER MAY BE USED.

B. STANDARD REINFORCEMENT DETAILS

a) MINIMUM BEND DIAMETERS

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

BAR SIZE	MINIMUM DIAMETER OF BEND
#3 Through #5	4D _b
#6 Through #8	6D _b
#9, #10 and #11	8D _b



STANDARD HOOKS FOR REINFORCEMENT OTHER THAN STIRRUPS, TIES & HOOPS

b) DEVELOPMENT LENGTH

UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM BASIC DEVELOPMENT LENGTH FOR F_y = 60000 PSI (GRADE 60) SHALL BE AS FOLLOWS:

(a) TOP BARS											
Bar Size	DEVELOPMENT LENGTH 'Inch' (F _y =60000 psi)										
f _c (psi)	#3	#4	#5	#6	#7	#8	#9	#10	#11		
3000 (1:1.5:3)	21	30	38	42	53	72	81	90	99		
4000 (1:1:2)	18	24	33	38	54	63	69	78	84		

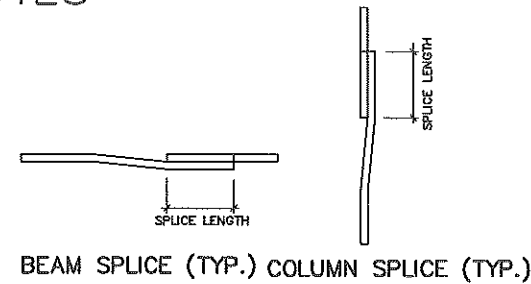
(b) BOTTOM BARS											
Bar Size	DEVELOPMENT LENGTH 'Inch' (F _y =60000 psi)										
f _c (psi)	#3	#4	#5	#6	#7	#8	#9	#10	#11		
3000 (1:1.5:3)	18	21	27	33	48	54	63	69	78		
4000 (1:1:2)	15	18	24	30	42	48	54	60	66		

c) SPICE/LAP LENGTH

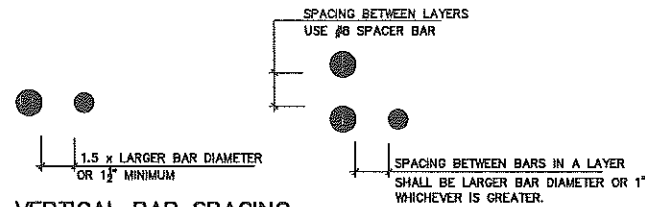
- WELDED WIRE FABRIC MESH SHALL BE LAPPED OVER ADJACENT SHEET BY 12 INCH.
- BARS SHALL BE SPICED ONLY WHERE INDICATED, OR AT LOCATIONS SPECIFICALLY APPROVED BY THE ENGINEER.
- THE LAPS SHOULD BE STAGGERED.
- UNLESS OTHERWISE STATED ON THE DRAWINGS THE FOLLOWING LAP LENGTHS SHALL BE PROVIDED.

(a) TOP BARS											
Bar Size	SPICE/LAP LENGTH 'Inch' (F _y =60000 psi)										
f _c (psi)	#3	#4	#5	#6	#7	#8	#9	#10	#11		
3000 (1:1.5:3)	27	39	48	54	81	93	105	114	129		
4000 (1:1:2)	24	33	42	48	72	81	90	102	111		

(b) BOTTOM BARS											
Bar Size	SPICE/LAP LENGTH 'Inch' (F _y =60000 psi)										
f _c (psi)	#3	#4	#5	#6	#7	#8	#9	#10	#11		
3000 (1:1.5:3)	21	27	39	42	63	72	81	90	99		
4000 (1:1:2)	18	24	30	38	54	63	72	78	84		



BEAM SPICE (TYP.) COLUMN SPICE (TYP.)



VERTICAL BAR SPACING IN COLUMNS

BAR SPACING IN BEAM

- ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND HELD FIRMLY IN PLACE BEFORE & DURING THE PLACEMENT OF CONCRETE, BY MEANS OF WIRE AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION.
- DISTRIBUTION REINFORCEMENT SHALL BE PROVIDED AS #3@10" c/c UNLESS OTHERWISE SPECIFIED.

5. FORMWORK

- THE DESIGN AND ENGINEERING OF THE FORMWORK, AS WELL AS ITS CONSTRUCTION IS THE REASONABILITY OF THE CONTRACTOR. THE FORMWORK SHALL BE DESIGNED CONFORMING TO THE REQUIREMENTS OF ACI 301 AND CONTRACT SPECIFICATIONS.
- THE FORMWORK SHALL HAVE SUFFICIENT STRENGTH TO WITHSTAND THE PRESSURE RESULTING FROM PLACEMENT AND VIBRATION OF CONCRETE AND SHALL HAVE SUFFICIENT RIGIDNESS TO MAINTAIN THE TOLERANCE SPECIFIED IN ACI 301 AND CONTRACT SPECIFICATIONS.

6. SHOP DRAWINGS

- SHOP DRAWINGS FOR FORMWORK, CONCRETE AND REINFORCEMENT SHOWING ALL FABRICATION DIMENSIONS AND LOCATION SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED FOR THE ENGINEER'S APPROVAL.
- THE CONTRACTOR SHALL ALSO PREPARE BAR BENDING SCHEDULES AND SUBMIT THESE FOR APPROVAL OF THE ENGINEER.
- IT WILL BE PREFERABLE THAT CUTTING AND BENDING OF REINFORCING STEEL BE CARRIED OUT IN WORKSHOP WITH CUTTING BENDING MACHINE.

7. SHORING AND BRACING

- SHORE & BRACE ALL PARTS OF THE BUILDING DURING CONSTRUCTION, TO THE EXTENT NECESSARY TO ENSURE COMPLETE SAFETY, STRENGTH & SERVICEABILITY OF ALL STRUCTURAL ELEMENTS UNDER ALL CONDITIONS OF LOADS, WHICH MAY OCCUR DURING CONSTRUCTION. SUCH SHORING & BRACING IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND IS NOT SHOWN ON STRUCTURAL DRAWINGS OR SPECIFIED IN THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE ADJACENT EXISTING STRUCTURES AND SHALL PROVIDE SHORING AND BRACING DURING EXCAVATION AND CONSTRUCTION, WHEREVER AND WHENEVER REQUIRED TO THE SATISFACTION OF THE ENGINEER.

8. BRICK WORK

- ALL BRICK WORK SHALL CONFORM TO SPECIFICATIONS GIVEN IN THE CONTRACT DOCUMENT.
- ALL BRICKS SHALL BE SOUND, HARD, WELL BURNED AND OF UNIFORM SIZE, COLOUR AND TEXTURE. DIMENSIONAL VARIATION IN SIZES SHALL NOT EXCEED 1/8".
- ALL BRICK WORK SHALL BE ERECTED PLUMB AND TRUE TO LINE AND LEVEL. THE MAXIMUM VARIATION IN ANY STOREY HEIGHT OR ANY LENGTH OF WALL SHALL BE 1/8" IN 10', OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF NOT LESS THAN 1800 PSI AND SHALL CONFORM TO ASTM C270, COMPRESSIVE STRENGTH OF MASONRY AT 28 DAYS SHALL NOT BE LESS THAN 1150 PSI.
- ALL DESIGN, DETAILING, MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH RELEVANT ACI, ASTM, AND UBC CODE AND STANDARDS.
- TESTING OF COMPRESSIVE STRENGTH OF MASONRY SHALL BE DONE, IF SO DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ASTM C67 OR PAKISTAN STANDARD-208.
- THE AVERAGE COMPRESSIVE STRENGTH OF TWELVE HALF BRICKS SHALL BE NOT LESS THAN 2000 PSI AND SHALL BE NOT LESS THAN 1800 PSI FOR ANY INDIVIDUAL BRICK.
- BRICK SHALL BE LAID "FROG" UPWARD WITH MORTAR JOINT AND IN ENGLISH AND FLEMISH BOND OR AS DIRECTED BY THE ENGINEER.
- TESTING OF COMPRESSIVE STRENGTH OF MASONRY SHALL BE DONE, IF SO DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ASTM C67 OR PAKISTAN STANDARD-208.

9. TOLERANCES AND DIMENSIONS

BEFORE THE FORMWORK IS LAID AT SITE THE CONTRACTOR MUST VERIFY AND CHECK OVERALL DIMENSIONS/ELEVATIONS OF THE STRUCTURE GIVEN IN THE STRUCTURAL DRAWINGS TO SEE IF THE FINISHED DIMENSIONS/ELEVATIONS GIVEN ON THE DRAWINGS TALLY AFTER PROVIDING THE REQUIRED FINISH. THE ENGINEER'S REPRESENTATIVE SHALL VERIFY THE MEASUREMENTS OF STRUCTURAL SIZE AND ELEVATIONS TO BE RECORDED IN THE RELEVANT POUR STEPS. PERMISSION TO PROCEED SHALL NOT BE GRANTED IF DEVIATIONS ARE MORE THAN PERMISSIBLE TOLERANCES, AS STIPULATED IN THE SPECIFICATIONS.

10. LOCAL ADJUSTMENTS

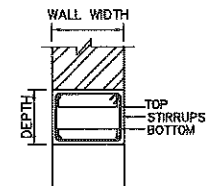
LOCAL ADJUSTMENTS TO ACCOMMODATE FIXTURES/EMBEDMENTS/OPENINGS MAY BE MADE AT SITE, SUBJECT TO THE APPROVAL OF THE ENGINEER, AS LONG AS IT DOES NOT MATERIALLY AFFECT THE DESIGN.

11. STRUCTURAL STEEL

- ALL STRUCTURAL STEEL SECTIONS SHALL CONFORM TO ASTM A36M OR EQUIVALENT WITH MINIMUM YIELD STRENGTH OF 248 MPa (36,000 psi). ALL ANCHORS, BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325M. ALL STEEL PLATES, TUBES AND BUILT-UP SECTIONS SHALL CONFORM TO HR 235.
- ALL WELDS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE.
- ALL WELDING ELECTRODES SHALL CONFORM TO E 70XX.
- MINIMUM SIZE OF FILLET WELD SHALL BE 7mm EXCEPT OTHERWISE NOTED.
- ALL STRUCTURAL STEEL SECTIONS SHALL BE GIVEN TWO COATS OF RED OXIDE PAINT. ALL EXPOSED STEEL SURFACES SHALL BE PAINTED WITH APPROVED PAINT AND COLOUR AS DIRECTED BY THE ENGINEER.
- THE BASE PLATES OF THE COLUMNS SHALL BE LEVELLED AND THEN GROUTED WITH APPROVED NON-SHRINK GROUT USING STANDARD APPROVED PROCEDURE.
- ALL ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED.
- NUTS AND BOLTS FOR CLAMPS SHALL BE SPOT WELDED AFTER TIGHTENING.

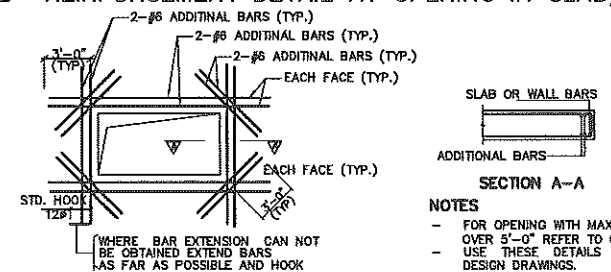
TABLE FOR LINTEL REINFORCEMENT

OPENING WIDTH	DEPTH	BOTTOM	TOP	STIRRUPS
3'-0" TO 4'-0"	6"	2#4	2#3	#3@6"
4'-1" TO 6'-0"	9"	3#4	3#3	#3@6"
6'-1" TO 10'-0"	9"	2#5	2#4	#3@6"



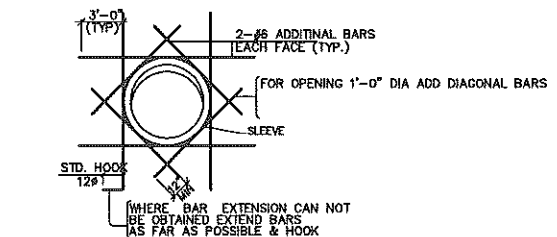
LINTEL SECTION

12- REINFORCEMENT DETAIL AT OPENING IN SLAB/SLEEVES.

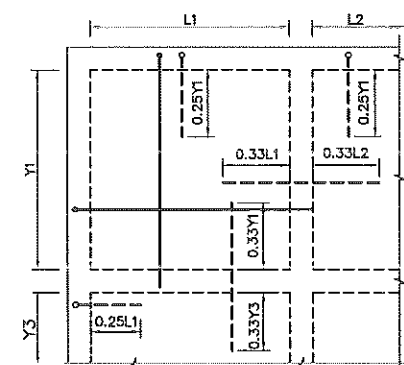


SECTION A-A

- NOTES
- FOR OPENING WITH MAXIMUM DIMENSION OVER 5'-0" REFER TO OTHER DETAILS.
 - USE THESE DETAILS IF NOT SHOWN IN DESIGN DRAWINGS.



13. SLAB CURTAILMENT PLAN & CORNER REINFORCEMENT END



TYPICAL SLAB REINFORCEMENT (CUT OFF POINTS)

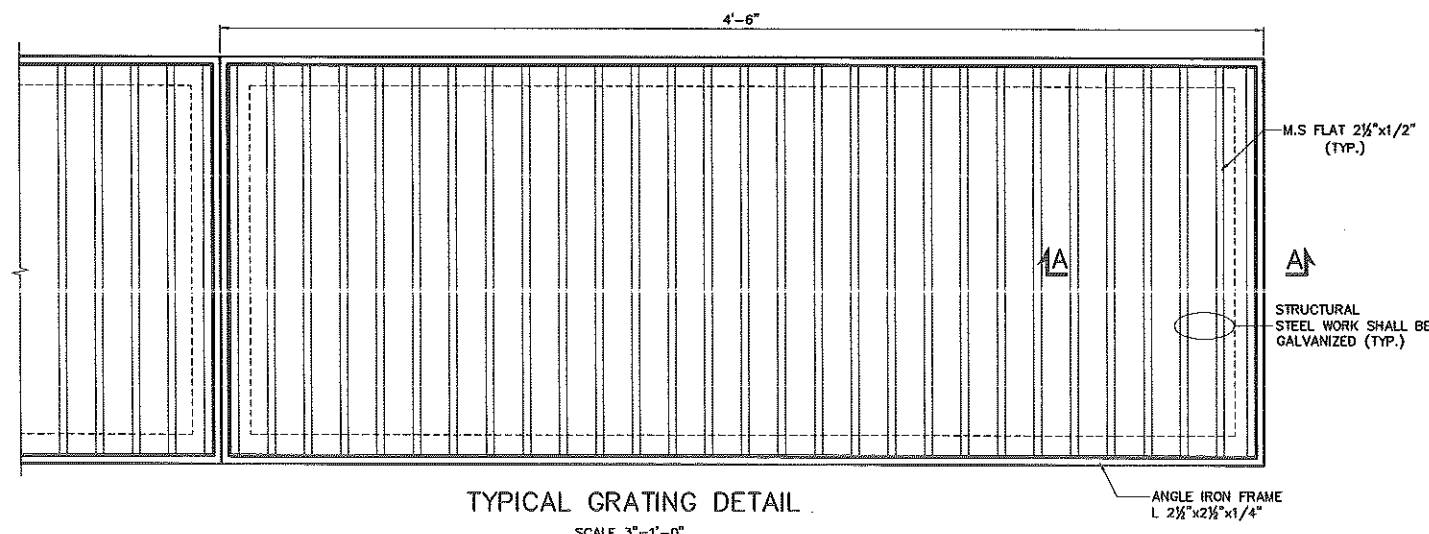
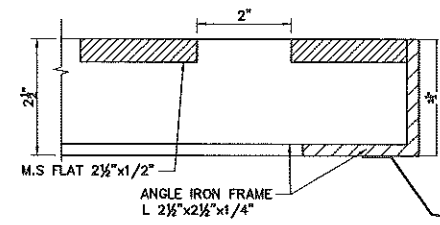
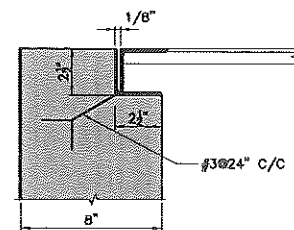
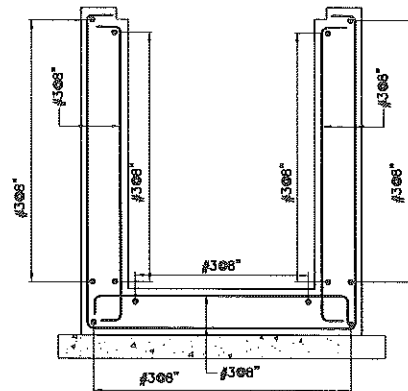
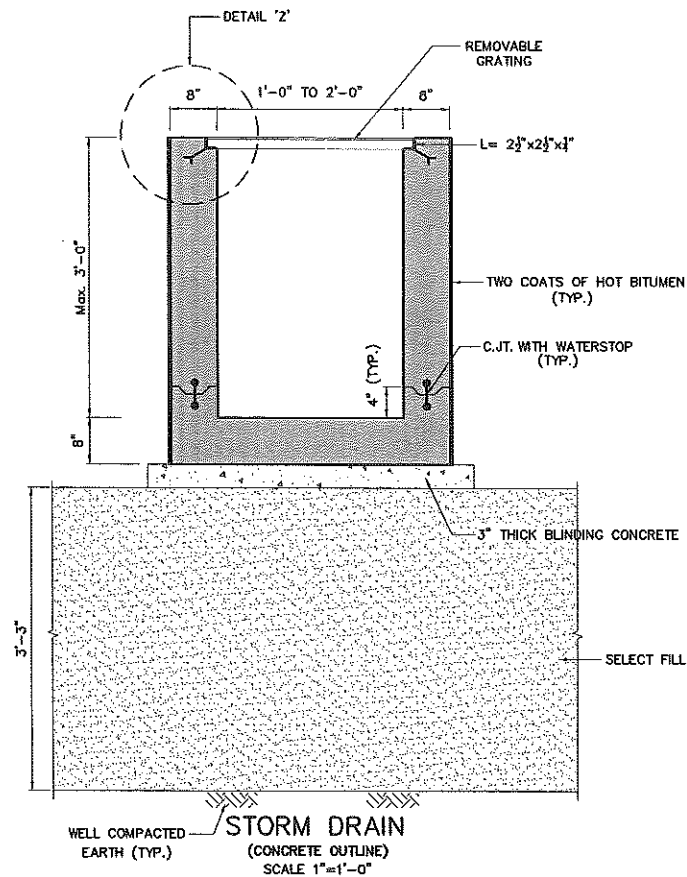
NOTE: TOP REINFORCEMENT OF SLAB AT CONTINUOUS EDGE SHALL BE GREATER OF THE ADJACENT SPAN.

TENDER DRAWING

NOT TO BE USED FOR CONSTRUCTION FOR TENDER PURPOSE ONLY

CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS & ALLIED STRUCTURES ALLAMA IQBAL TOWN, SIALKOT GENERAL NOTES			
DESIGN: NESPAK	RECOMMENDED	VER./CHKD.	APPROVED
DWN: GHULAM M.			
FILE	DATE	DRAWING NO.	REV.
CKD.	AUG. 2020	3976/033/TD/G001	0
SUBM.			

REFERENCE DRAWINGS	REV/NO	DATE	DESCRIPTION	BY	CHKD	APPR



NOTES

- ALL DIMENSIONS AND ELEVATIONS ARE IN FEET & INCHES.
- READ THIS DRAWING IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
- REINFORCED CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH OF 3000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED.
- BLINDING CONCRETE / PCC SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH OF 1500 PSI AT 28 DAYS.
- ALL REINFORCEMENT SHALL BE DEFORMED BARS CONFORMING TO ASTM A 615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF 60,000 PSI.
- THE FOLLOWING MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE PROVIDED, UNLESS OTHERWISE SPECIFIED ON THE DRAWING.

STRUCTURAL ELEMENT	COVER (IN)
(i) BASE SLAB	1"
(ii) WALL	1"
- THE ONSITE SOIL AT FOUNDATION EXCAVATION BASE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SELECT FILL / FOUNDATION.
- OPEN AREAS ADJACENT TO FOUNDATIONS MUST BE PROTECTED AGAINST PENETRATION OF SURFACE WATER, WHICH SHOULD BE DRAINED AWAY FROM THE CONSTRUCTED AREAS.
- THE CONTRACTOR SHALL PREPARE BAR BENDING SCHEDULES AND SUBMIT THESE FOR APPROVAL OF THE ENGINEER.
- BACKFILLING AROUND THE FOUNDATIONS SHOULD BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES OF THE WALL/FOUNDATIONS.
- BACKFILLING AROUND FOUNDATIONS SHALL BE WELL COMPACTED (95%MPD) AND SHALL BE DONE IN LAYERS NOT EXCEEDING 8 INCHES IN THICKNESS.
- ALL STRUCTURAL STEEL SECTIONS SHALL CONFORM TO ASTM A36M OR EQUIVALENT WITH MINIMUM YIELD STRENGTH OF 248 MPa (36,000 psi). ALL ANCHORS, BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325M. ALL STEEL PLATES, TUBES AND BUILT-UP SECTIONS SHALL CONFORM TO HR 235.
- ALL WELDS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE. ALL WELDING ELECTRODES SHALL CONFORM TO E 70XX.
- MINIMUM SIZE OF FILLET WELD SHALL BE 6mm EXCEPT OTHERWISE NOTED.

TENDER DRAWING

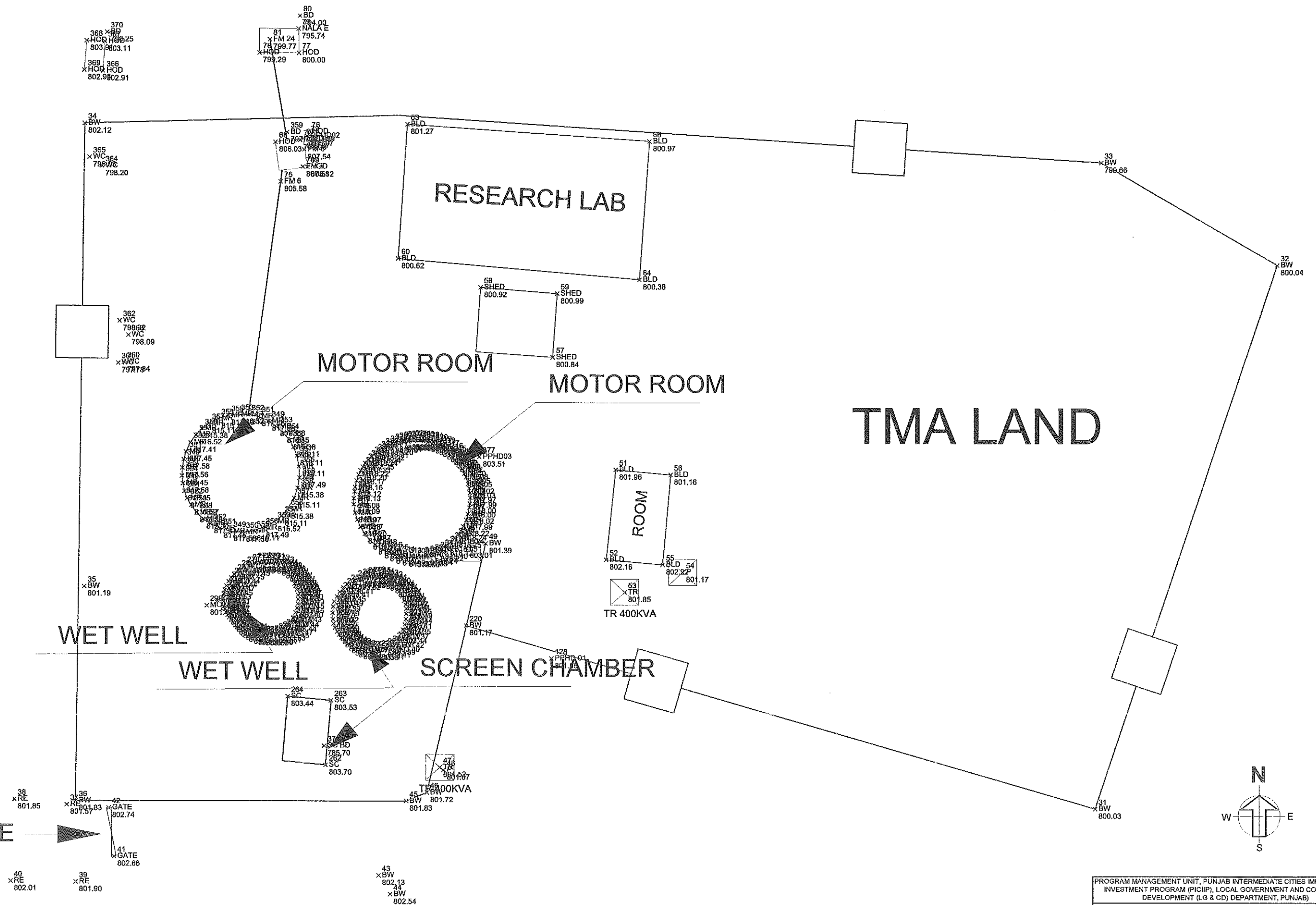
NOT TO BE USED FOR CONSTRUCTION
FOR TENDER PURPOSE ONLY

INCHES 0 1 2 3 4 FEET
SCALE: 3/8"=1'-0"
UNLESS OTHERWISE NOTED

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT (STORM DRAIN) CONCRETE OUTLINE & REINFORCEMENT			
NESPAK - ARTELIA JOINT VENTURE (JV) ARTELIA			
DESIGN	NESPAK	RECOMMENDED	VER./CKD.
DWN.	M.ASIM		
CKD.		DATE	DRAWING NO.
SUBM.		SEP. 2020	3976/033/TD/3G01

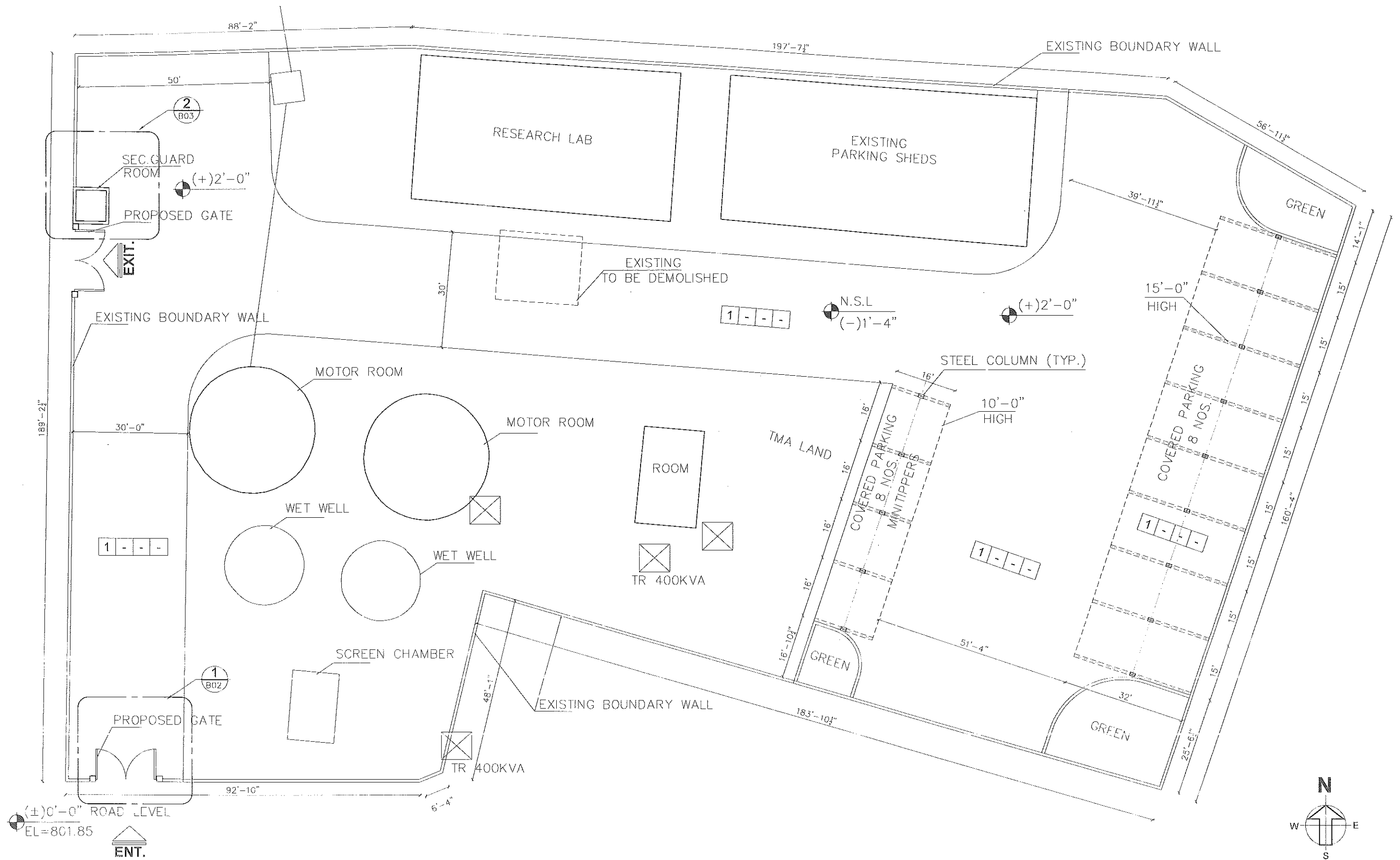
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.	SUBM.

ENTRANCE



PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES ALLAMA IQBAL TOWN, SIALKOT TOPOGRAPHIC SURVEY PLAN			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED	VERIFIED	APPROVED
DRAWN: dilsher			
FILE	DATE	DRAWING NO.	REV.
CKD.	JULY, 2020	3976/311/TD/B01a	0
SUBM.			

REFERENCE DRAWINGS	REV	DATE	DESCRIPTION	BY	CHKD.	APPR.



SCHEDULE OF INTERNAL FINISHES

LEGEND

SKIRTING WALL
FLOOR
CEILING

- ① 800 mm THICK PRECAST INTERLOCKING CONCRETE PAVERS WITH CONCRETE CURB STONE WHERE MENTIONED (APPROVED MAKE & SHAPE)

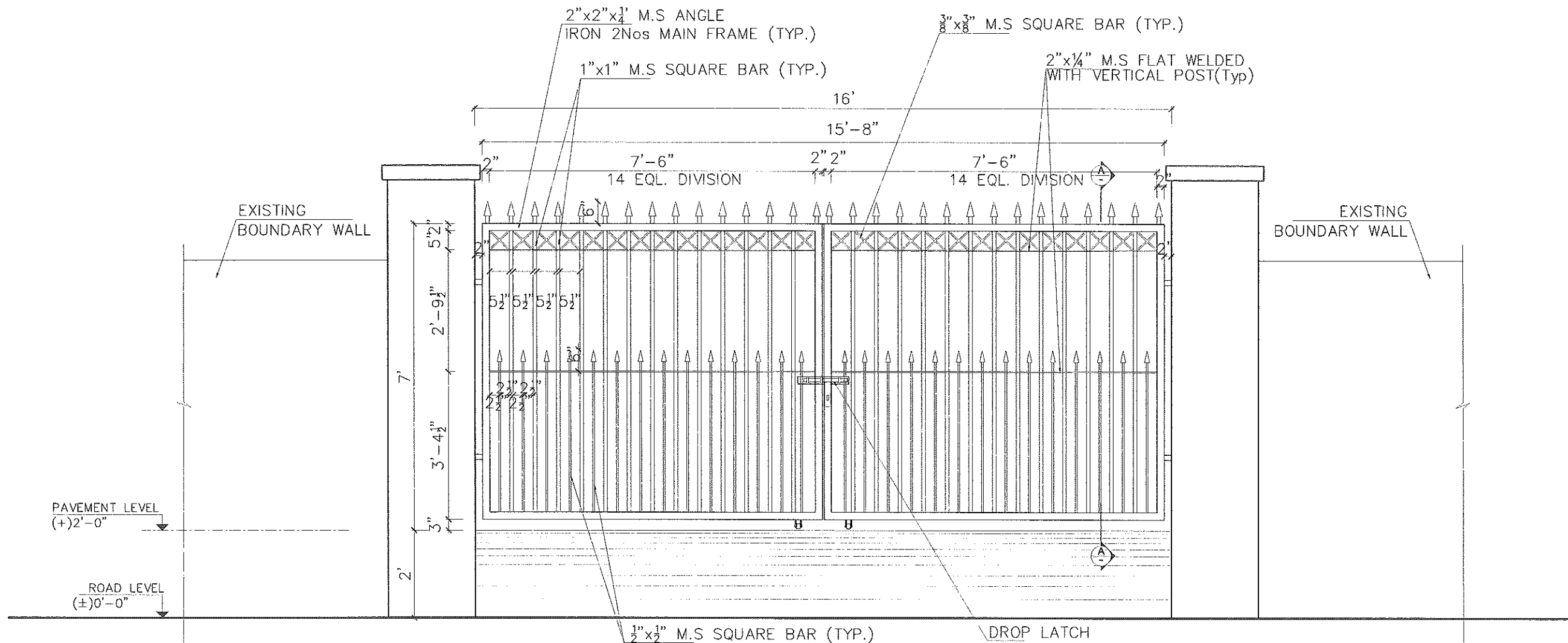
SHED SIZE	NO.OF SHEDS	NO.OF VEHICLES
15'x22'	08 NOS.	08 NOS.
16'x 6'	04 NOS.	08 NOS.
TOTAL NOS. OF VEHICLES = 16 NOS.		

NOTE:

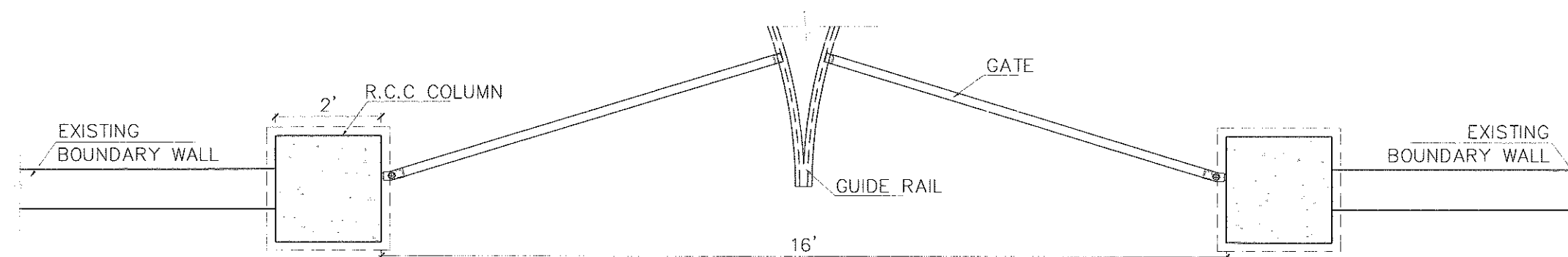
- 1- ROAD LEVEL IS ASSUMED AS $(\pm)0'-0"$ REFERENCE TO EL = 801.85 GIVEN ON SURVEY PLAN.
2- TOTAL SITE AREA=09.86 KANAL
3- PROJECT AREA =4.65 KANAL

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.	DATE	DRAWING NO.	REV.
							AUGUST, 2020	3976/3.1/10/80	0

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES ALLAMA IQBAL TOWN, SIALKOT LAYOUT PLAN			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAK	RECOMMENDED	VER./CHKD.
DRAWN	elisher		
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APPROVED			



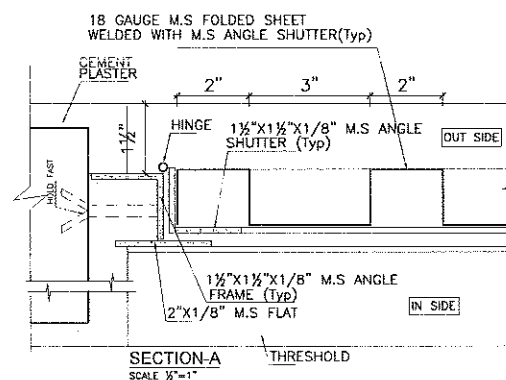
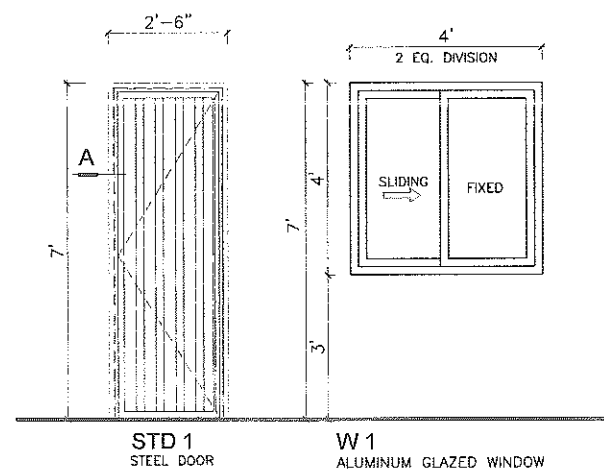
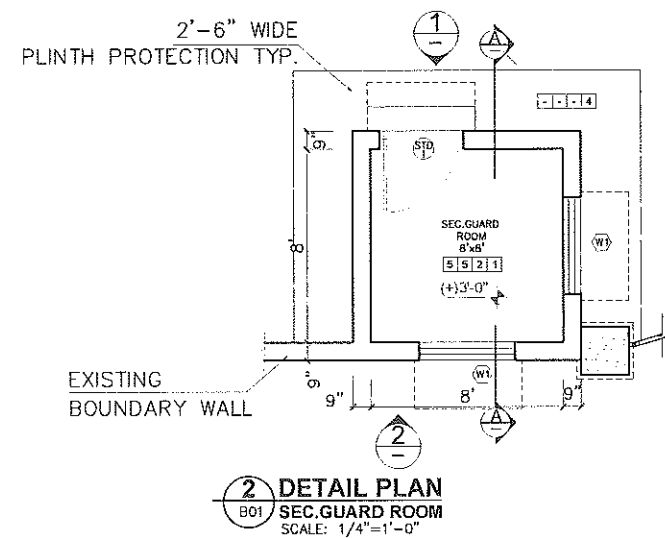
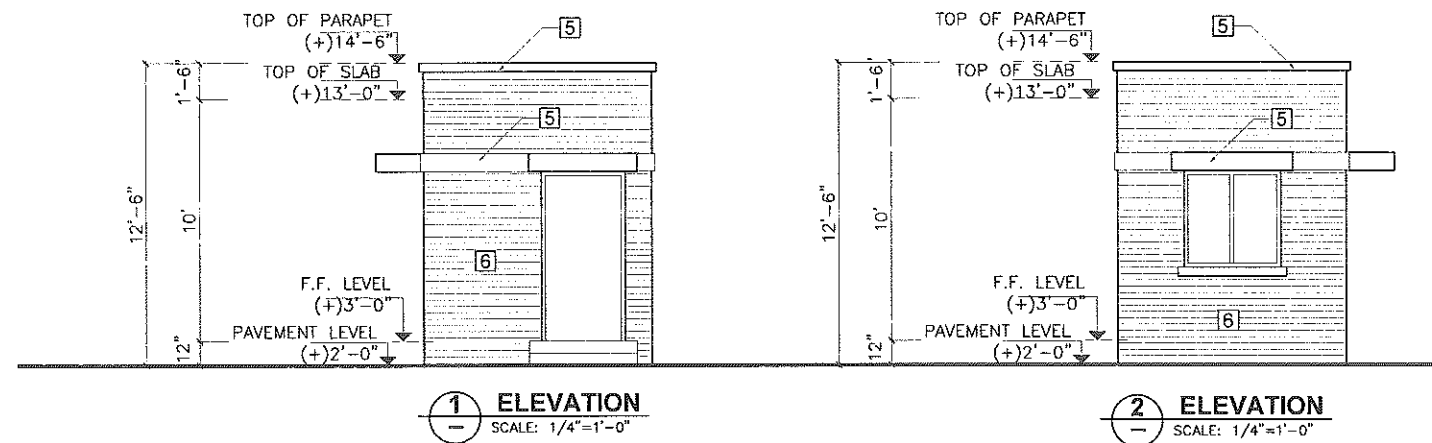
E1 ELEVATION
SCALE 1/2"=1'-0"



1 DETAIL
B01 DETAIL PLAN OF MAIN GATE
SCALE 1/2"=1'-0"

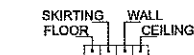
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB				
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.				
PARKING SHEDS & ALLIED STRUCTURES ALLAMA IQBAL TOWN, SIALKOT PLAN & ELEVATION OF MAIN GATE				
NESPAK - ARTELIA JOINT VENTURE (JV)				
DESIGN	NESPAK	RECOMMENDED	VER/CKD.	APPROVED
DWN.	gishar			
FILE		DATE	DRAWING NO.	
CKD.		JULY 2020	3976/311/TD/B02	
SUBM.			REV.	0

REFERENCE DRAWINGS	REV	DATE	DESCRIPTION	BY	CKD.	APPR.



SCHEDULE OF INTERNAL AND EXTERNAL FINISHES

LEGEND



- 12"x12"x3/4" CHINA VERONA MARBLE
- 4"x12"x1/2" CHINA VERONA MARBLE SKIRTING
- VINYL EMULSION PAINT ON C.S PLASTER (APPROVED MAKE & SHADE)
- 2" THICK P.C.C (1:2:4)
- WEATHER SHIELD PAINT OF APPROVED (APPROVED MAKE & SHADE)
- DEEP STRUCK POINTING OF CEMENT SURKHI

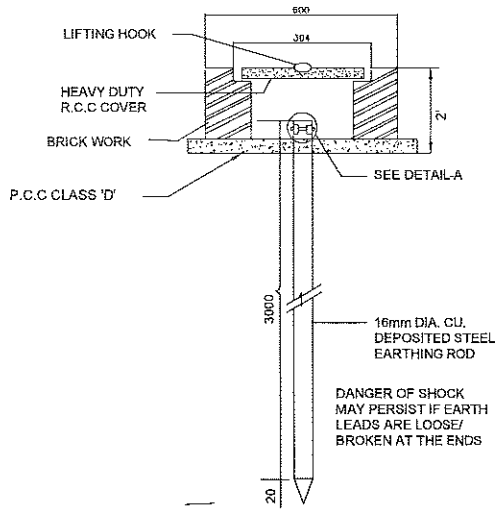
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
PARKING SHEDS & ALLIED STRUCTURES ALLAMA IQBAL TOWN, SIALKOT SEC. GUARD ROOM PLAN, ELEVATIONS, SECTION & DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VER/CKD: [Signature]	APPROVED: [Signature]
DWN: [Signature]	FILE: [Signature]	DATE: JULY, 2020	DRAWING NO. 3976/311/TD/B03
CKD: [Signature]	BY: [Signature]	DATE: [Signature]	REV. 0
SUBM: [Signature]	REFERENCE: [Signature]	DATE: [Signature]	DESCRIPTION: [Signature]

GENERAL NOTES:

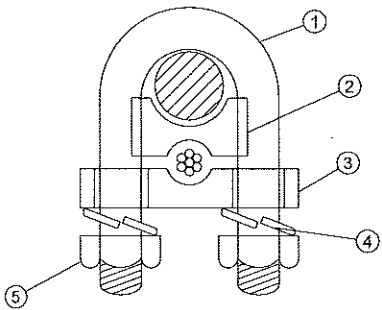
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATION
2. THIS DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS
3. THE MINIMUM SIZE OF THE PVC CONDUIT SHALL BE 25mm (1") DIA.
4. LIGHT CIRCUIT WIRING SHALL BE WITH 3 x 2.5 mm Sq & LIGHT POINT WIRING SHALL BE WITH 3x1.5 mm. Sq SINGLE CORE STRANDED CU. PVC CABLES
5. ALL POWER SOCKETS (15/20Amp) SHALL BE WIRED WITH 3 x 6mm.Sq LIGHT PLUG (10/13Amp) SOCKETS FIRST POINT SHALL BE WIRED WITH 3 x 4mm.Sq & 10Amp. SOCKETS POINT TO POINT WIRED WITH 3 x 2.5mm. Sq STRANDED CU. PVC CABLES
6. ALL SINGLE CORE WIRES SHALL HAVE THE FOLLOWING COLOURS.
PHASE WIRES..... RED, YELLOW & BLUE
NEUTRAL WIRES.....BLACK
C.P.C.....GREEN/YELLOW (AS PER B.O.Q)
7. THE WIRING SHALL BE STARTED ONLY AFTER THE CONDUIT SYSTEM IS COMPLETELY INSTALLED AND ALL OUTLET BOXES ETC. ARE FIXED IN THEIR POSITIONS.
8. ALL POWER/LIGHT PLUG SOCKETS WIRING SHALL BE SEGREGATED AND HAVE INDEPENDENT WIRES RIGHT FROM MINIATURE CIRCUIT BREAKERS IN DISTRIBUTION BOARD.
9. ACTUAL LOCATION OF ALL OUTLETS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES
10. THE MOUNTING HEIGHT OF THE SOCKET OUTLETS SHALL BE MINIMUM 300mm (FFL)
11. THE MOUNTING HEIGHT OF THE LIGHTING SWITCHES SHALL BE MINIMUM 1100mm (FFL)
12. NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED ON WIRES FOR REDUCING FRICTION. NO OIL OR SOAP OF ANY KIND WILL BE ALLOWED ON WIRES FOR THIS PURPOSE.
13. THE CONTRACTOR SHALL SUBMIT CONDUITS LAYOUT PLAN BASED UPON THE ELECTRIFICATION DRAWINGS FOR THE APPROVAL OF ELECTRICAL ENGINEER, BEFORE POURING OF ROOF SLABS, WALL AND COLUMNS.
14. ALL THE ELECTRICAL WORKS SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION
15. THE ELECTRICAL EQUIPMENT SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AS PER APPLICABLE STANDARDS AND CODES

LEGEND

SYMBOL	DESCRIPTION
	MAIN PANEL BOARD(MPB)
	SUB MAIN PANEL BOARD(SMPB)
	DISTRIBUTION BOARD (DB)
	MOULDED CASE CIRCUIT BREAKER
	VOLTMETER
	AMMETER
	SELECTOR SWITCH
	WALL BRACKET FAN
	EXHAUST FAN
	SINGLE POLE 1-WAY SWITCH
	15/20 AMP 3 PIN SINGLE PHASE, NEUTRAL & EARTH SWITCH SOCKET UNIT (AWAY FROM SWITCH BOARD)
	10/13 AMPS 3 PIN SINGLE PHASE SWITCH SOCKET UNIT (AWAY FROM SWITCH BOARD)



ROD TYPE EARTH
POINT DETAIL FOR DB,S



DETAIL -'A'

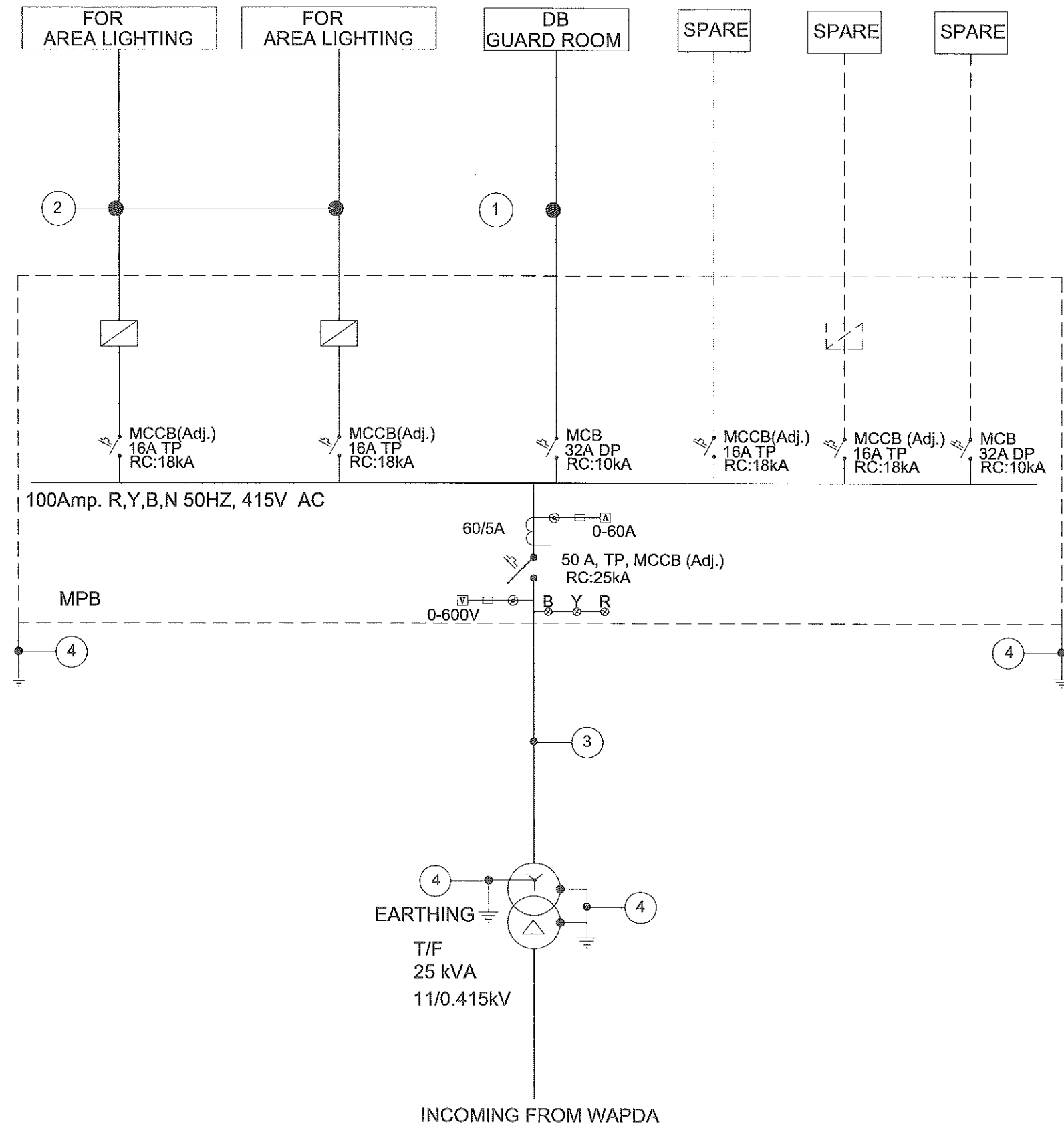
ITEM NO.	ITEM NAME	MATERIAL
1	U-BOLT	MILD STEEL
2	SPACER	CAST IRON
3	BASE	MILD STEEL
4	SPRING WASHER	CARBON STEEL
5	NUT	MILD STEEL

LIGHTING FITTINGS SCHEDULE

SYMBOL	DESCRIPTION
	WALL BRACKET 18W LED LIGHT
	BATTEN SURFACE MOUNTED 18W LED LIGHT
	BATTEN SURFACE MOUNTED 10W LED LIGHT ABOVE MIRROR
	WATER TIGHT 20W IP65 LED LIGHT
	SURFACE MOUNTED DOWN LIGHTER 18W LED LIGHT

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT LEGEND, GENERAL NOTES LIGHTING FITTING FOR SHEDULE & EARTH POINT DETAILS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNER OWN FILE CHKD. SUBM.	NESPAK SA DATE SEP. 2020	RECOMMENDED VER/CHKD. APPROVED DRAWING NO. 3976/161/TD/5E001	REV. 0

REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.



LEGEND:

SYMBOL	DESCRIPTION
	INDICATING LIGHT
	CURRENT TRANSFORMER
	MOULDED CASE CIRCUIT BREAKER
	VOLT METER WITH SELECTOR SWITCH & FUSE
	AMMETER WITH SELECTOR SWITCH & FUSE

LEGEND:

- 1 2 CORE 10 mm2 Cu./PVC/PVC+
1 Core 10 mm2 Cu./PVC AS (CPC).
- 2 4 CORE 10 mm2 Cu./PVC/PVC+
1 Core 10 mm2 Cu./PVC AS (CPC).
- 3 4 CORE 16 mm2 Cu./PVC/PVC+
1 Core 16 mm2 Cu./PVC AS (CPC).
- 4 1 Core 25 mm2 Cu./PVC AS (CPC/ECC).

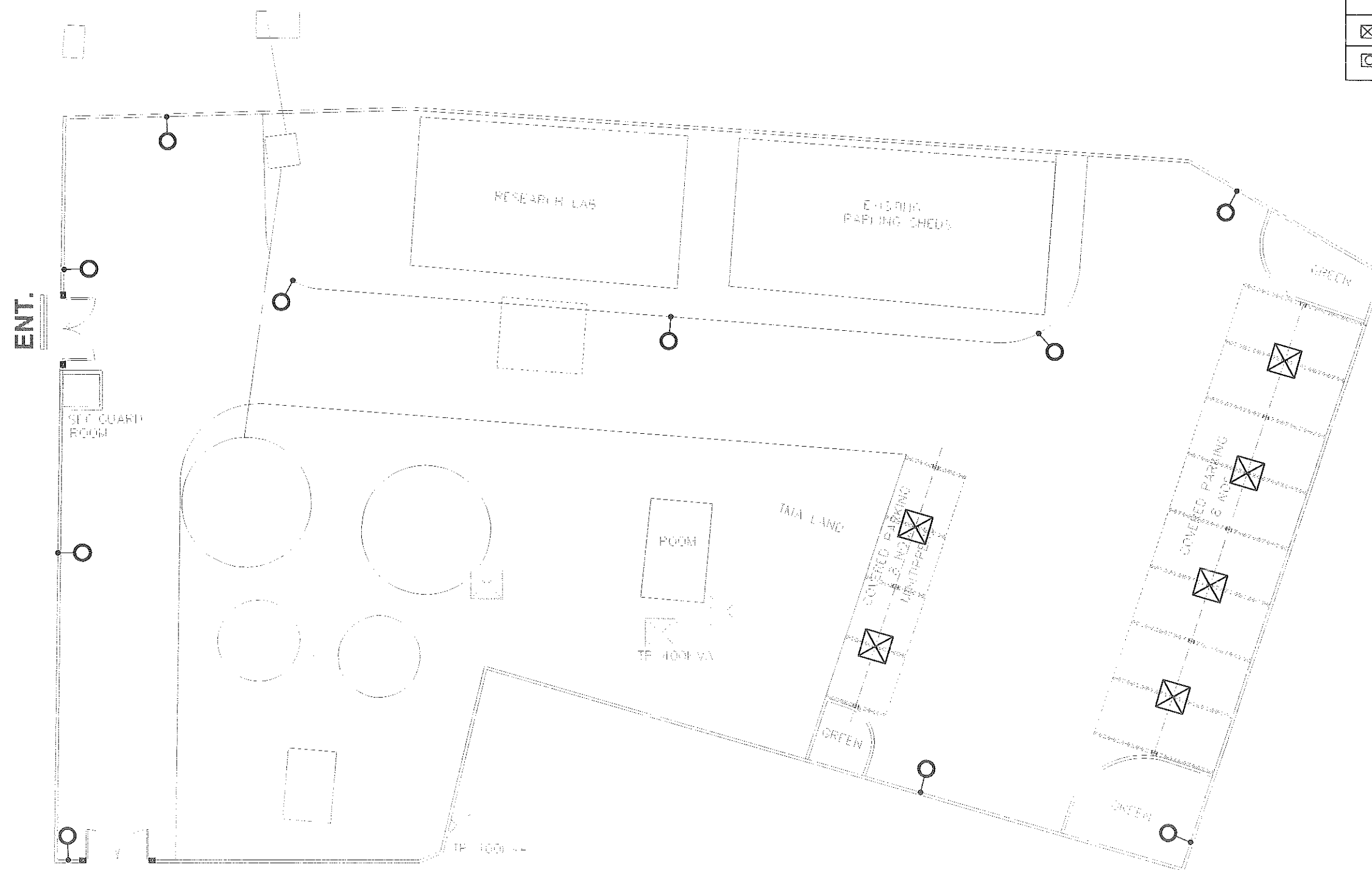
NOTES:-

1. THIS DRAWING IS FOR INDICATIVE DESIGN MODEL AND SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, SPECIFICATIONS AND ITEMS OF BILL OF QUANTITIES.
2. THE CONTRACTOR SHALL BE SUBMITTED SHOP DRAWINGS, VOLTAGE DROP CALCULATION TO THE ENGINEER AT THE TIME OF CONTRACT AWARD AND BEFORE THE WORK COMMENCES AT SITE.
3. THE ELECTRICAL WORKS SHALL BE EXECUTED IN LINE WITH THE PROJECT SPECIFICATIONS.
4. THE PUMPING STATION EQUIPMENT ALONG WITH MOTORS, MOTOR CONTROL CENTERS/MOTOR CONTROL UNITS AND ASSOCIATED STARTING DEVICES ARE NOT INCLUDED IN ELECTRICAL SCOPE OF WORK.
5. THE LOCATION OF THE EQUIPEMENTS SHOWN ON THE LAYOUT PLAN IS TENTATIVE LOCATION. LOCATION OF THE TRANSFORMER, DG SETS & PANEL BOARD SHALL BE FINALIZED AT PER SITE CONDITION.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT SINGLE LINE DIAGRAM			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGNED BY DWN. SA	RECOMMENDED SA	VERIFIED BY SA	APPROVED SA
FILE NO.	DATE	DRAWING NO.	REV.
CKD.	SEP. 2022	3976/161/TD/5E002	0
SUBM.			

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

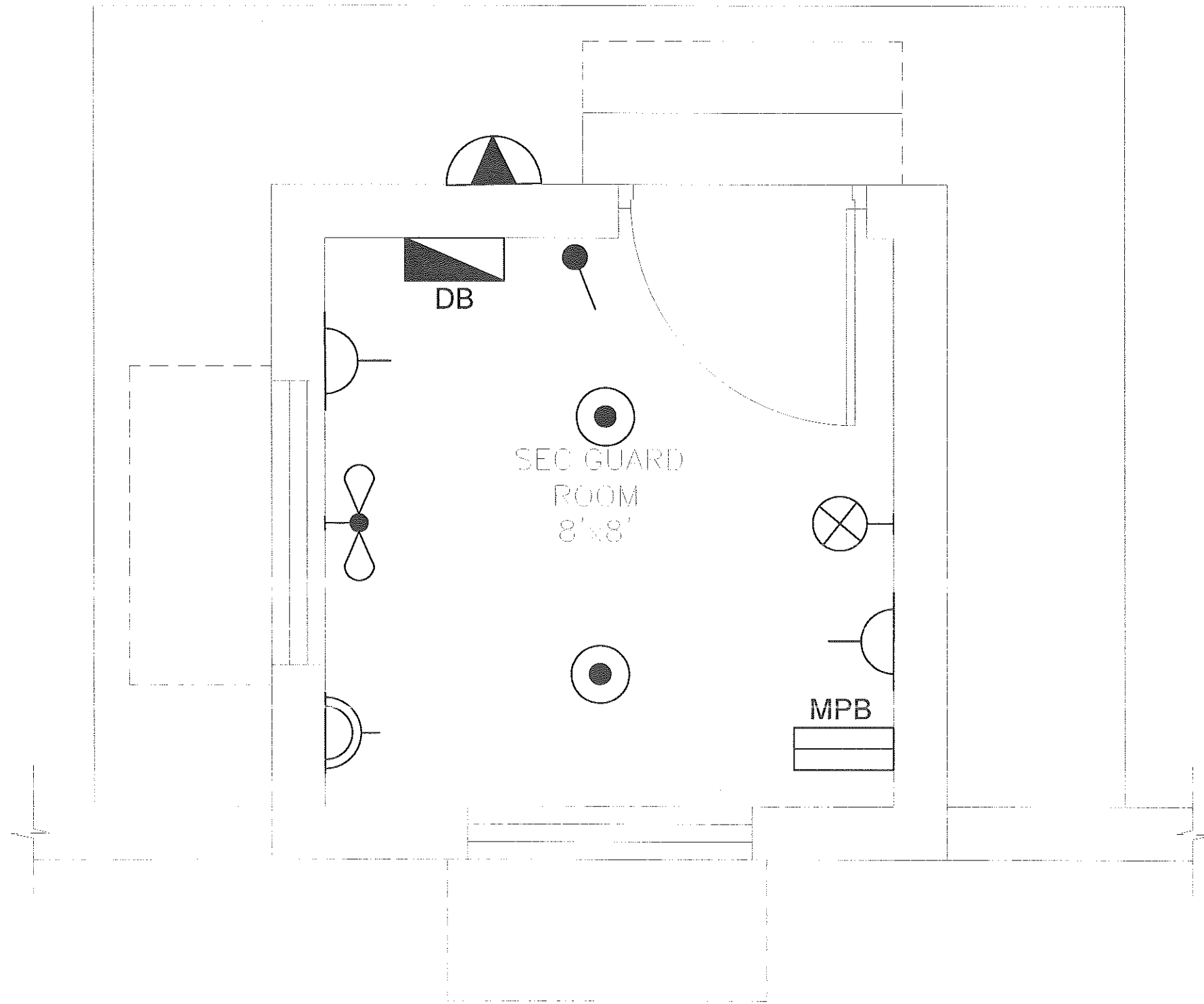
LEGEND:-	
SYMBOL	DESCRIPTION
○	10 METER HIGH SINGLE ARM WITH 90W LUMINAIRE HOT DIP GALVANIZED STEEL OCTAGONAL POLE
⊗	LED FLOOD LIGHT 30W (IP-65) WITH COMPLETE
⊙	LED GATE LIGHT 100W (IP-65) WITH COMPLETE



ENT.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT AREA LIGHTING LAYOUT PLAN			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: <i>[Signature]</i>	VERIFIED: <i>[Signature]</i>	APPROVED: <i>[Signature]</i>
DWN: SA	DATE: SEP, 2020	DRAWING NO. 3976/161/TD/5E003	
FILE: _____	REV. 0		
CHKD: _____			
SUBM: _____			

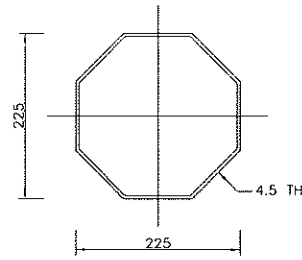
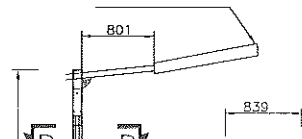
REFERENCE DRAWINGS	REV NO.	DATE	DESCRIPTION	BY	CKD.	APPR.



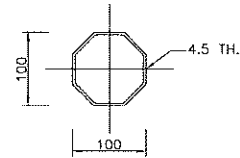
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB									
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.									
COVERED PARKING SHEDS AT ALLAMA IQBAL TOWN, SIALKOT GUARD ROOM ELECTRIFICATION LAYOUT PLAN									
NESPAK - ARTELIA JOINT VENTURE (JV)									
DESIGN	NESPAK	RECOMMENDED	VERIFIED	APPROVED					
DWN.	SA								
FILE									
CKD.									
SUBM.									
DATE		DRAWING NO.		REV.					
SEP. 2020		3976/161/TD/5E004		0					

REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CKD.	APPR.

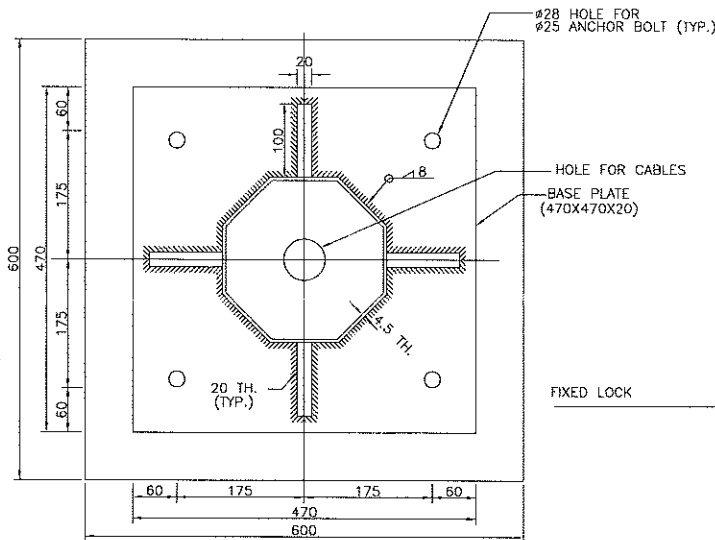
LUMINAIRE AS PER SPEC. & BOQ. THE LUMINAIRE SHALL BE APPROVED BY THE ENGINEER BEFORE ORDERING/ INSTALLATION



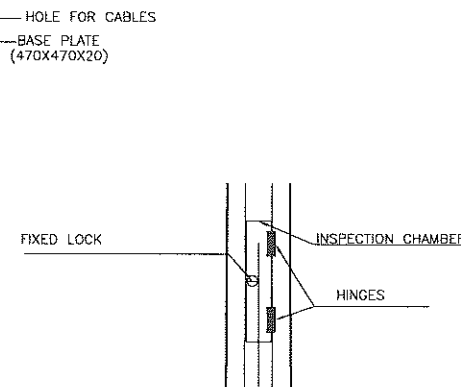
SECTION A-A



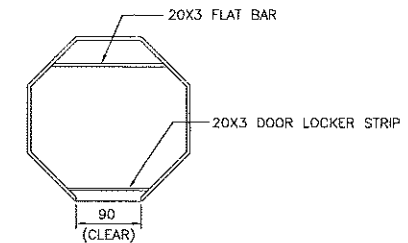
SECTION B-B



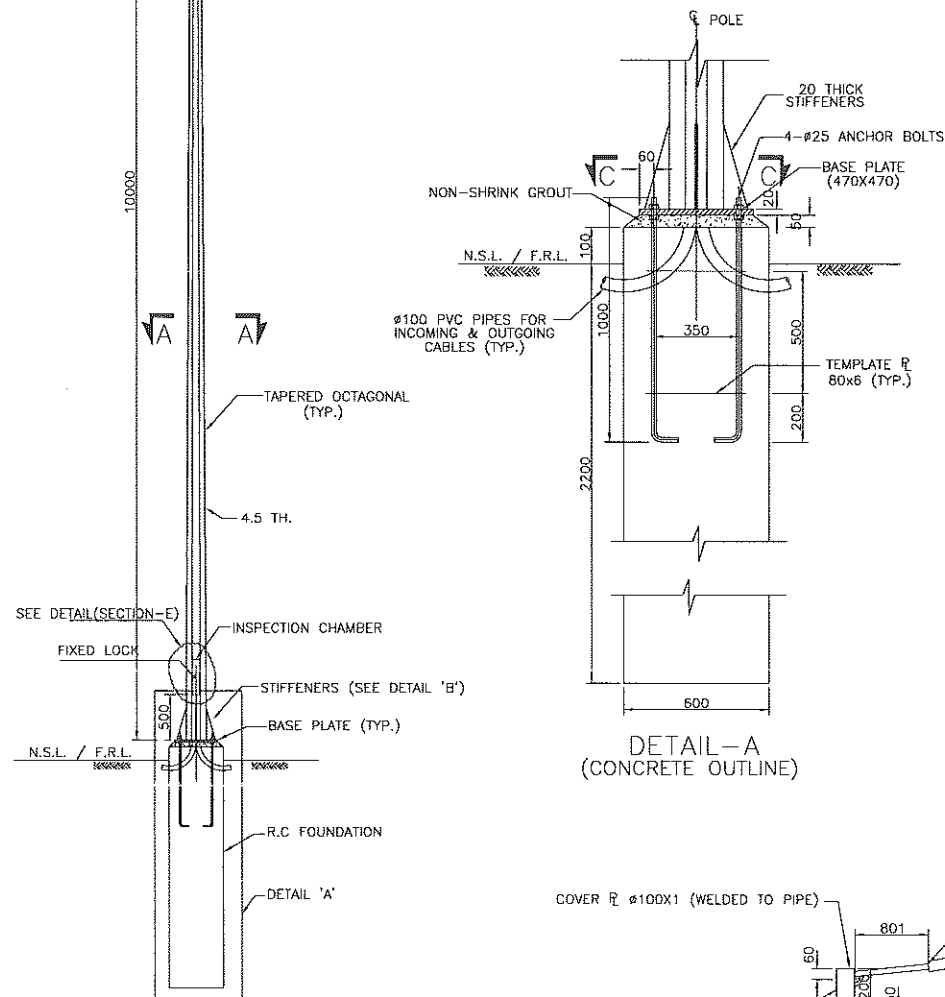
SECTION C-C



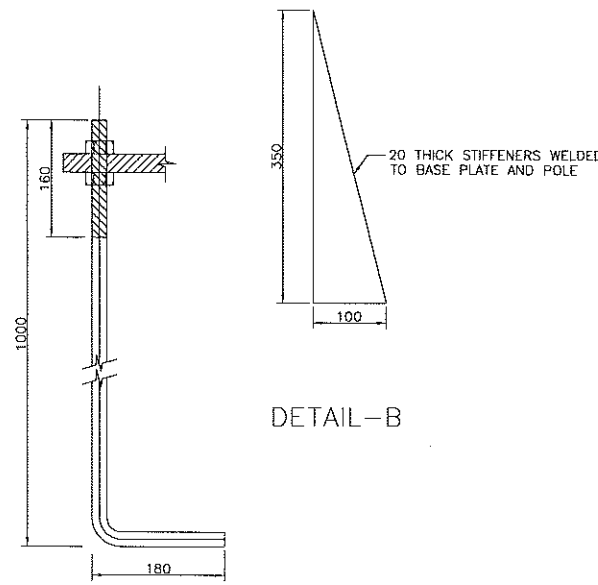
SECTION E-E



SECTION D-D

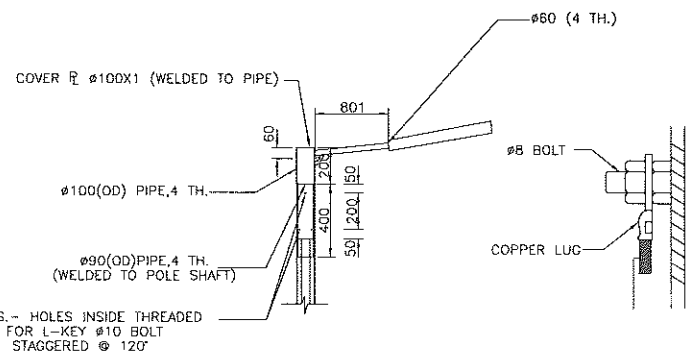


DETAIL-A (CONCRETE OUTLINE)



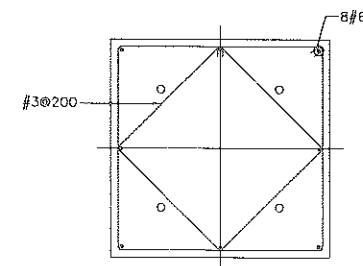
DETAIL-B

ANCHOR BOLT

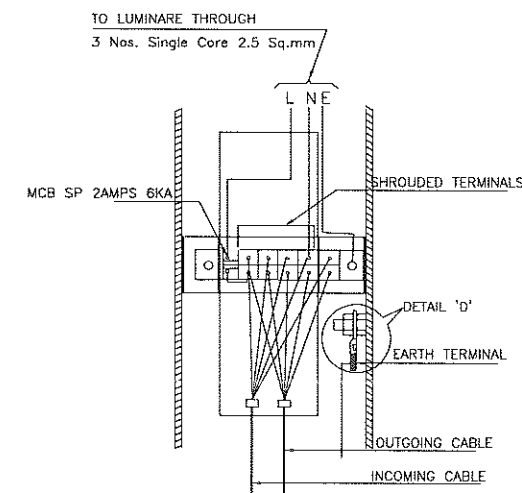


DETAIL-C

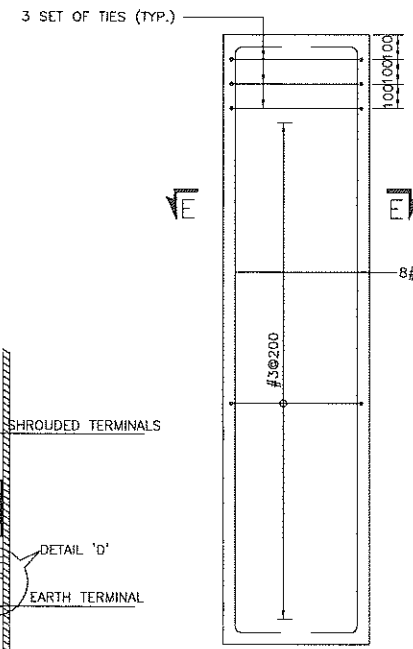
DETAIL-D



SECTION E-E



DETAIL OF INSPECTION CHAMBER



FOUNDATION (REINFORCEMENT)

NOTES

1. FOR GENERAL NOTES REFER DRAWING NO. G001.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
3. UNLESS OTHERWISE NOTED, CONCRETE SHALL BE CLASSIFIED AS FOLLOWS.
CONCRETE CLASS 28 DAYS (15x30 CM) CYLINDER STRENGTH Kg/sq. Cm
REINFORCED A 210 (3000 psi)
4. THE STEEL FOR POLE & BASE PLATE SHALL BE OF YIELD STRENGTH OF 350MPa (50Ksi) & SHALL CONFORM TO ASTM A36 STEEL.
5. THE ANCHOR BOLTS SHALL CONFORM TO ASTM A307.
6. ALL WELDING SHALL CONFORM TO THE APPLICABLE PROVISIONS OF A.W.S (AMERICAN WELDING SOCIETY) CODE.
7. HOT DIP GALVANIZATION SHALL CONFORM TO BS EN ISO 1461 (IN SIDE & OUT SIDE) OR IN ACCORDANCE WITH ASTM A123 AND A325.


PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT DETAILS OF 10M CONICAL OCTAGONAL LIGHTING POLE SINGLE ARM			
DESIGNED BY NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED: [Signature]	VERIFIED: [Signature]	APPROVED: [Signature]
DWN: SA	DATE: SEP. 2020	DRAWING NO. 3976/161/TD/5E005	REV. 0
FILE: [Blank]			
CHKD: [Blank]			
SUBM: [Blank]			

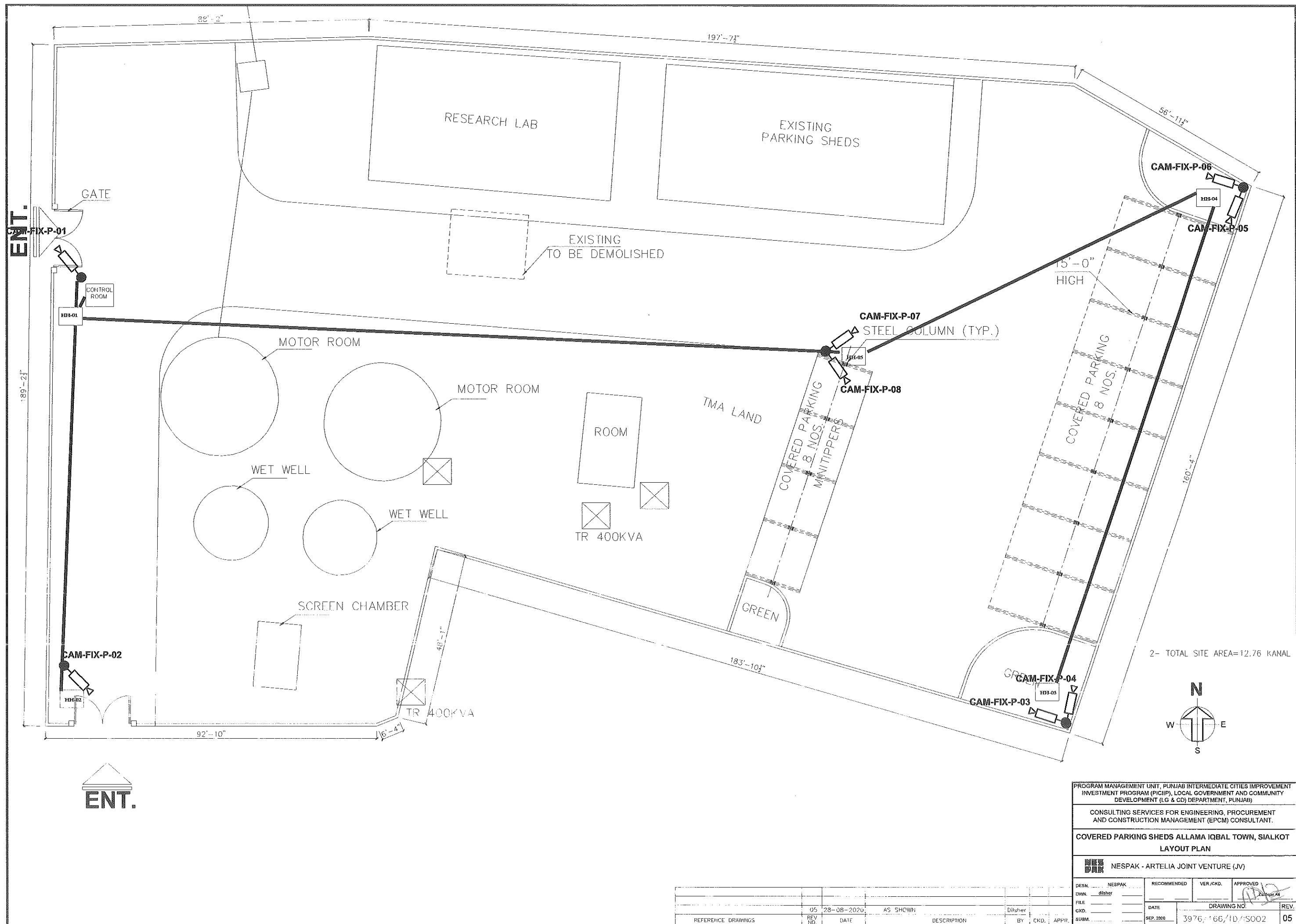
REFERENCE DRAWINGS	REV. NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.

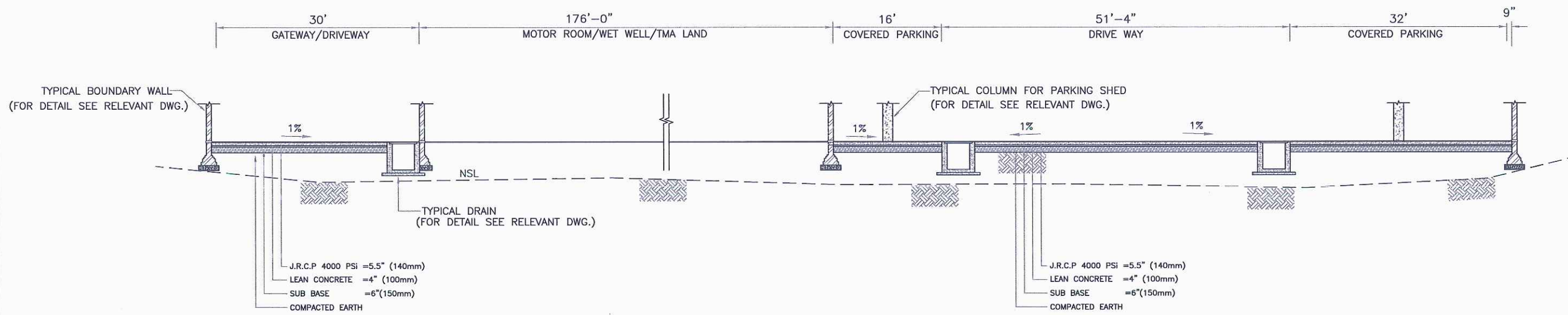
SINGLE LUMINAIRE HOT DIP GALVANIZED STEEL OCTAGONAL POLE

GENERAL NOTES (CCTV) SYSTEMS:

- 1. ALL DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL PROCURE, TRANSPORT AND DELIVER EQUIPMENTS AND HARDWARE TO SITE, AFTER APPROVAL OF ENGINEERS.
- 3. All CCTV WORKS SHALL COMPLY WITH LATEST STANDARDS.
- 4. ALL CCTV SYSTEM DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS.
- 5. THE MINIMUM SIZE OF INDOOR PVC CONDUIT SHALL BE 25mm (1”) DIA.
- 6. ACTUAL LENGTH OF DUCT TRAY SHALL BE AS PER SITE REQUIREMENTS.
- 8. SUITABLE SEALANT SHALL BE USED AT THE ENDS AND IN JOINTS OF THE DUCT FOR PROTECTION FROM WATER AND RODENT.
- 10. ACTUAL LOCATION OF ALL CONDUITS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES.
- 11.THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CONDUITS LAYOUT PLAN FOR ENGINEER APPROVAL BEFORE INSTALLATION
- 12.ALL THE CCTV WORKS SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE PROJECT SPECIFICATION.
- 13.THE CCTV EQUIPMENT SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AND APPLICABLESTANDARDS AND CODES. AS MENTIONED IN TECHNICAL SPECIFICATION
- 14. THE CONTRACTOR SHALL SUBMIT CO-ORDINATION SHOP DRAWING OF COMMUNICATION LAYOUT WITH POWER LAYOUT BEFORE EXECUTION OF WORKS.
- 15. EXACT LOCATION OF ALL CCTV EQUIPMENT SHALL BE DECIDED ON SITE.
- 16. MANUFACTURER’S RECOMMENDATIONS SHALL BE FOLLOWED FOR INSTALLATION OF ALL CCTV SYSTEMS.
- 17. All CCTV EQUIPMENT THAT MAY EXPOSE TO WEATHER CONDITIONS SHALL BE WLAIHER PROOF.
- 18.THE CONTRACTOR SHALL COORDINATE AT SITE WITH OTHER SERVICES FOR EXACT LOCATION AND POSITION OF CONDUITS AND COMMUNICATION EQUIPMENT
- 19. WHERE CABLES ENTER THE BUILDING, THESE SHALL BE LAID IN CLASS D PROTECTIVE PIPE. HAND HOLES SHALL BE PROVIDED OUTSIDE THE BUILDING.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL INTEGRATION FOR ALL KIND OF SUB-SYSTEMS AND COMMUNICATION EQUIPMENT WITHIN THE SCOPE OF WORK INCLUDING INTERFACE WITH OTHER SYSTEMS.
- 21. EN 50174-2 RECOMMENDATION SHALL BE FOLLOWED FOR SEPARATION DISTANCE BETWEEN POWER AND COMMUNICATION CABLES.
- 22. LENGTH OF CAT-6 CABLE MUST NOT EXCEED 90M.
- 23. THESE DRAWINGS ARE FOR TENDER PURPOSE AND SHALL NOT BE USED FOR CONSTRUCTION.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB										DESIGN		DATE: 14/09/2020										
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.										DYN.		MUBASHAR AHMAD										
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT										FILE												
IP BASED VIDEO SURVEILLANCE SYSTEM										CKD.												
NESPAK - ARTELIA JOINT VENTURE (JV)										SUBM.				DATE	DRAWING NO.	REV.						
REFERENCE DRAWINGS										REV NO.		DATE		DESCRIPTION		BY		CKD.	APPR.	SEP. 2020	3976/166/TD/IS00	0



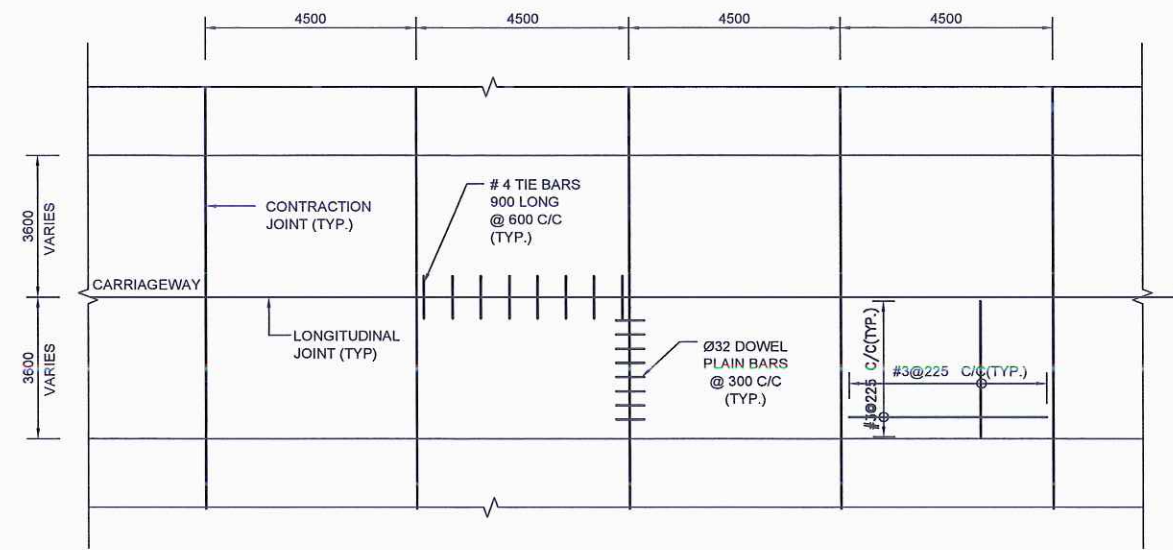


SECTION A-A

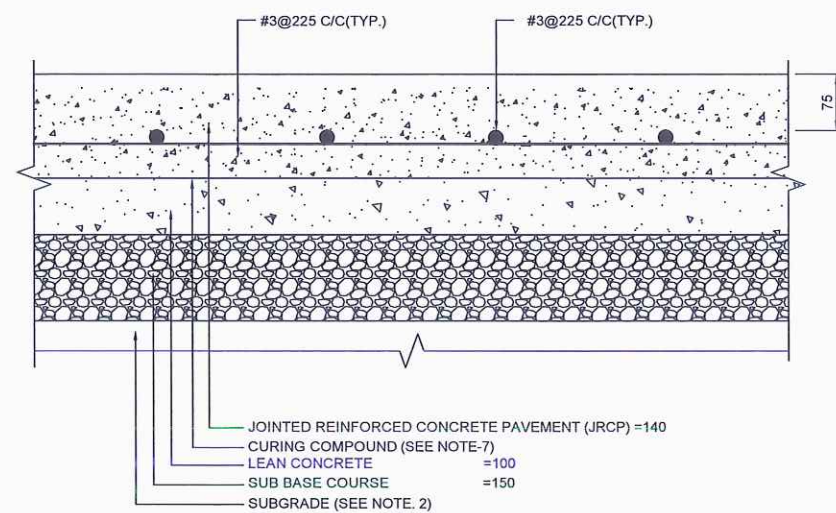
NOTES:-

1. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
2. SUBGRADE/EMBANKMENT SHALL CONSIST OF SUITABLE MATERIAL HAVING MINIMUM SOAKED CBR OF 7% AT 95% MDD.

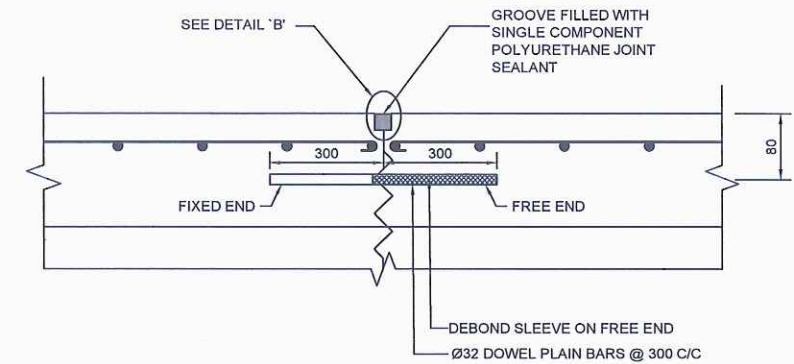
PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT TYPICAL CROSS SECTIONS			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN: NESPAK	RECOMMENDED:	VER/CHKD: _____	APPROVED: _____
DWN: ASHFAQ NAZ	FILE: _____	DATE: _____	DRAWING NO. _____
CKD: _____	DATE: _____	DATE: _____	REV. _____
SUBM: _____	DATE: _____	DATE: _____	REV. _____
REFERENCE DRAWINGS		REV. NO.	DATE
DESCRIPTION		BY	CKD. APPR.



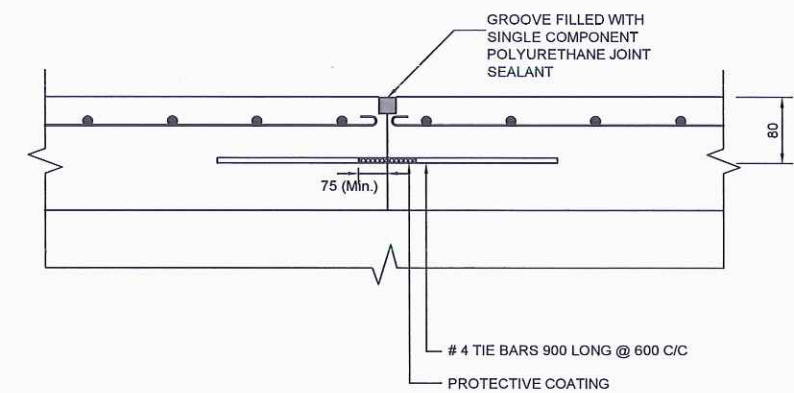
PLAN



DETAIL 'A'



TYPICAL CONTRACTION JOINT



TYPICAL LONGITUDINAL JOINT

NOTE:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
2. SUBGRADE SHALL HAVE A MINIMUM SOAKED CBR OF 7% AT 95% MDD.
3. RIGID PAVEMENT SHALL BE PAVED WITH CONCRETE PAVER UNLESS APPROVED OTHERWISE BY THE ENGINEER.
4. REINFORCEMENT STEEL SHALL BE GRADE 60.
5. CONCRETE COMPRESSIVE STRENGTH (CYLINDER) SHALL BE 4000 psi.
6. CURING COMPOUND SHALL CONSIST OF TWO COATS OF WHITE-PIGMENTED WAX-BASED COMPOUND (ASTM C309).
7. THE REINFORCED MESH SHALL BE KEPT IN PLACE TO CONTROL SURFACE CRACKING. THE MESH SHALL NOT BE SUNK IN CONCRETE.
8. FOR DETAILS REFER RELEVANT DRAWINGS.

PROGRAM MANAGEMENT UNIT, PUNJAB INTERMEDIATE CITIES IMPROVEMENT INVESTMENT PROGRAM (PICIP), LOCAL GOVERNMENT AND COMMUNITY DEVELOPMENT (LG & CD) DEPARTMENT, PUNJAB			
CONSULTING SERVICES FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT (EPCM) CONSULTANT.			
COVERED PARKING SHEDS ALLAMA IQBAL TOWN, SIALKOT TYPICAL JOINTED REINFORCED CONCRETE PAVEMENT DETAIL			
NESPAK - ARTELIA JOINT VENTURE (JV)			
DESIGN	NESPAK	RECOMMENDED	VER./CKD. APPROVED
DWN.	ASHFAQ NAZ		
FILE		DATE	DRAWING NO.
CKD.		AUGUST 2020	3976/102/PC-1/XS04A
SUBM.			REV. 00

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