



# **Bidding Documents For CONSTRUCTION OF ACADEMIC BLOCK**

## **TENDER DOCUMENT**

- INSTRUCTION TO BIDDERS
- BIDDING DATA, CHECK LIST FOR SUBMISSION OF BID, SUPERVISORY STAFF
- FORM OF BID AND APPENDICES TO BID & FORMS & SPECIAL STIPULATIONS
- PART--I: GENERAL CONDITIONS OF CONTRACT
- PART--II: PARTICULAR CONDITIONS OF CONTRACT
- SPECIAL PROVISIONS
- TECHNICAL SPECIFICATION
- LIST OF SPECIFIED MATERIAL
- BILL OF QUANTITIES (SCHEDULE -B)
- TENDER DRAWINGS

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## **2. BIDDING DATA, CHECK LIST FOR SUBMISSION OF BID, SUPERVISORY STAFF.**

## **3. FORM OF BID AND APPENDICES TO BID**

### **FORM OF BID**

Appendix-A to Bid	: Special Stipulations
Appendix-B to Bid	: Foreign Currency Requirements
Appendix-C to Bid	: Price Adjustment (Under Clause 70)
Appendix-D to Bid	: Bill of Quantities
Appendix-E to Bid Schedule	: Proposed Construction
Appendix-F to Bid	: Method of Performing the Work
Appendix-G to Bid Related	: List of Major Equipment – Items
Appendix-H to Bid	: Construction Camp and Housing Facilities
Appendix-I to Bid	: List of Subcontractors
Appendix-J to Bid	: Estimated Progress Payments
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## **4. FORMS**

BID SECURITY  
PERFORMANCE SECURITY  
CONTRACT AGREEMENT  
MOBILIZATION ADVANCE GUARANTEE  
INDENTURE BOND FOR SECURED ADVANCE

## **5. PART-I: GENERAL CONDITIONS OF CONTRACT**

## **6. PART-II: SPECIAL/PARTICULAR CONDITIONS OF CONTRACT**

## **7. SPECIAL PROVISIONS**

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# **1. INSTRUCTIONS TO BIDDERS**

## INSTRUCTIONS TO BIDDERS

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

### **A. GENERAL**

#### **IB.1 Scope of Bid**

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

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

- 2.1 The Procuring Agency ((University of Sufism & Modern Sciences, Bhitshah) (USMS) Bhitshah) has received Provincial Government funds for ADP Scheme from the source (s) indicated in the Bidding Data the cost of the project/scheme specified in the Bidding Data and it is intended that part of the proceeds of this funds will be applied to eligible payments under the Contract for which these Bidding Documents are issued.

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

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

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

- a. Bidders may be excluded if;
  - (i) as a matter of law or official regulations, commercial relations are prohibited with the bidder’s country by the federal government in case of ICB, or
  - (ii) a firm is blacklisted/debarred by the procuring agency and the matter has been reported to Authority, subject to Rule 30 of Sindh Public Procurement Rules 2010
  - (iii) a firm who has not submitted the tender fee, security deposit.
- b. Government-owned enterprises or institutions may participate only if they can establish that they are;
  - (i) legally and financially autonomous, and
  - (ii) operate under commercial law.

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

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

- c. Bidders are:-
- (i) prequalified with procuring agency for particular project/scheme;
  - (ii) registered with Pakistan Engineering Council in particular category and discipline,
  - (iii) registered with relevant tax authorities (income/sales tax, wherever applicable)

#### **IB.4 One Bid per Bidder**

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

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

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

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

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

### **B. BIDDING DOCUMENTS**

#### **IB.7 Contents of Bidding Documents (SSP Rule 21)**

- 7.1 The Bidding Documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9.
1. Instructions to Bidders.
  2. Bidding Data, Check List for submission of Bid, Supervisory Staff.
  3. General Conditions of Contract, Part-I (GCC).
  4. Special Conditions of Contract, Part-II (SCC).
  5. Special Provisions
  6. Specifications
  7. Form of Bid & Appendices to Bid.

8. Bill of Quantities (Appendix-D to Bid).
9. Form of Bid Security.
10. Form of Contract Agreement.
11. Forms of Performance Security and Mobilization Advance Guarantee/Integrity Pact and Indenture bond for secured advance.
12. Drawings.

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

#### **IB.8 Clarification of Bidding Documents (SSP Rule 23(1))**

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

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

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

9.1 At any time prior to the deadline for submission of bids, the procuring agency may, for any reason, whether at his own initiative or in response to a clarification requested by a interested bidder, modify the Bidding Documents by issuing addendum.

9.2 Any addendum thus issued shall be part of the bidding documents pursuant to Sub--Clause IB 7.1 hereof and shall be communicated in writing to all bidders. interested bidders shall acknowledge receipt of each addendum in writing to the procuring agency.

9.3 To afford bidders reasonable time in which to take an addendum into account in preparing their bids, the procuring agency may extend the deadline for submission of bids in accordance with IB.20

### **C. PREPARATION OF BIDS**

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

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

**IB.11 Documents Accompanying the Bid**

## 11.1 Each bidder shall:

- (a) submit a written authorization on the letterhead of bidding firm, authorizing the signatory of the bid to act for and on behalf of the bidder;
- (b) update the information indicated and listed in the bidding data and previously submitted with the application for prequalification, and continue to meet the minimum criteria set out in the prequalification documents, which as a minimum, would include the following :
  - (i) Evidence of access to financial resources along with average annual construction turnover;
  - (ii) Financial predictions for the current year and the following two years including the effect of known commitments;
  - (iii) Work commitments since prequalification;
  - (iv) Current litigation information; and
  - (v) Availability of critical equipment.
 and
- (c) furnish a proposal taking into account the various Appendices to Bid specially the following:
 

Appendix-E to Bid	Proposed Construction Schedule
Appendix-F to Bid	Method of Performing the Work
Appendix-G to Bid	List of Major Equipment
Appendix-K to Bid	Organization Chart for Supervisory Staff

 and other pertinent information such as mobilization programme etc;

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

- (a) one of the joint venture partners shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
- (b) the bid and in case of a successful bid, the Form of Contract Agreement shall be signed by the authorized partner so as to be legally binding on all partners;
- (c) the partner-in-charge shall always be duly authorized to deal with the procuring agency regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para(a) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid); and
- (e) a copy of the agreement entered into by the joint venture partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation of the several firms

forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. No amendments / modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partner without prior written consent of the procuring agency.

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

- 11.3 Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the technical specifications and the completion time referred to sub-clause 1.2 hereof.

## **IB.12 Bid Prices**

- 12.1 Unless stated otherwise in the bidding documents, the Contract shall be for the whole of the Works as described in IB 1.1 hereof, based on the unit rates or prices submitted by the bidder or percentage quoted above or below on the rates of Composite Schedule of Rates (CSR), as the case may be.

- 12.2 The bidders shall fill in rates and prices for all items of the works described in the Bill of Quantities. Items against which no rate or price is entered by a bidder will not be paid for by the procuring agency when executed and shall be deemed to be covered by rates and prices for other items in the Bill of Quantities. In case of Composite Schedule of Rates, if the bidder fails to mention the percentage above or below, it shall be deemed to be at par with the rates of Composite Schedule of Rates.

- 12.3 The bid price submitted by the contractor shall include all rates and price including the taxes. All duties, taxes and other levies payable by the contractor under the contract, or for any other cause during the currency of the execution of the work of otherwise specified in the contract as on the date seven days prior to the deadline for submission of bid.

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

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

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

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. A bidder expecting to incur expenditures in other currencies for inputs to the works supplied from outside the procuring agency country (referred to as the "Foreign Currency Requirements") shall indicate the same in Appendix-B to Bid. The proportion of the Bid Price (excluding Provisional Sums) needed

by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in his bid.

- 13.2 The rates of exchange to be used by the bidder for currency conversion shall be the selling rates published or authorized by the State Bank of Pakistan prevailing on the date, 07 (seven) days prior to the deadline for submission of bids. For the purpose of payments, the exchange rates used in bid preparation shall apply for the duration of contract.

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

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

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

- 15.1 Each bidder shall furnish, as part of his bid, a bid security in the amount stipulated in the bidding data in Pak Rupees or an equivalent amount in a freely convertible currency.
- 15.2 The bid security shall be in shape of call deposit in favour of the procuring agency, which should commensurate with the bid validity period.
- 15.3 Any bid not accompanied by an acceptable Bid Security shall be rejected by the procuring agency as non-responsive.
- 15.4 Bid security shall be released to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired.
- 15.5 The Bid Security of the successful bidder shall be returned when the bidder has furnished the required Performance Security and signed the Contract Agreement.
- 15.6 The Bid Security may be forfeited:
- (a) if the bidder withdraws his bid except as provided in Sub-Clause 22.1;
  - (b) if the bidder does not accept the correction of his Bid Price pursuant to Sub-Clause IB 27.2 hereof; or
  - (c) In the case of successful bidder, if he fails within the specified time limit to:
    - (i) furnish the required Performance Security; or
    - (ii) sign the Contract Agreement.

**IB.16 Alternate Proposals by Bidder**

- 16.1 Each bidder shall submit only one bid either by himself, or as a member of a joint venture, until and unless they have been requested or permitted for alternative bid, then he has to purchase separate bidding documents and alternate bid shall be treated as separate bid.
- 16.2 Alternate proposals are allowed only for procurement of works where technical complexity is involved and more than one designs or technical solutions are being offered. Two stage two envelope bidding procedure will be appropriate when alternate proposal is required.
- 16.3 Alternate bid(s) shall contain (a) relevant design calculations: (b) technical specifications: (c) proposed construction methodology: and (d) any other relevant details / conditions, provided that the total sum entered on the form of bid shall be that which represents complete compliance with the bidding documents.

**IB.17 Pre-Bid Meeting**

- 17.1 Procuring agency may, on his own motion or at the request of any bidder, hold a pre-bid meeting to clarify issues and to answer any questions on matters related to the bidding documents. The date, time and venue of pre-bid meeting, if convened, shall be communicated to all bidders. All bidders or their authorized representatives shall be invited to attend such a pre-bid meeting at their own expense.
- 17.2 The bidders are requested to submit questions, if any, in writing so as to reach the procuring agency not later than seven (7) days before the proposed pre-bid meeting.
- 17.3 Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all bidders. Any modification of the bidding documents listed in Sub-Clause IB 7.1 hereof which may become necessary as a result of the pre-bid meeting shall be made by the procuring agency exclusively through the issue of an Addendum pursuant to Clause IB.9 and not through the minutes of the pre-bid meeting.
- 17.4 Absence at the pre-bid meeting will not be a cause for disqualification of a bidder.

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

- 18.1 Bidders are particularly directed that the amount entered on the Form of Bid shall be for performing the contract strictly in accordance with the bidding documents.
- 18.2 All appendices to bid are to be properly completed and signed.
- 18.3 Alteration is not to be made neither in the form of bid nor in the Appendices thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the bid may be

rejected.

- 18.4 Each bidder shall prepare by filling out the forms without alterations and shall provide an original copy along with photocopies as per the requirement of the procuring agency specified in the bidding data. The original as well as copies of the document shall be clearly marked as "ORIGINAL" and "COPY", as the case may be. If there is any discrepancy between original and copy(ies) then the original shall prevail.
- 18.5 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person(s) duly authorized to sign on behalf of the bidder pursuant to Sub-Clause IB 11.1(a) hereof. All pages of the bid shall be initialed and stamped by the person(s) signing the bid.
- 18.6 The bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the procuring agency, or as are necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person(s) signing the bid.
- 18.7 Bidders shall indicate in the space provided in the Form of Bid their full and proper postal addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the contract is to be sent.
- 18.8 Bidders should retain a copy of the bidding documents as their file copy.

#### **D. SUBMISSION OF BIDS**

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

- 19.1 Each bidder shall submit his bid as under:
  - (a) ORIGINAL and TWO COPIES of the Bid shall be separately sealed and put in separate envelopes and marked as such.
  - (b) The envelopes containing the ORIGINAL and COPIES shall be put in one sealed envelope and addressed as given in sub- clause IB19.2 hereof.
- 19.2 The inner and outer envelopes shall:
  - (a) be addressed to the procuring agency at the address provided in the bidding data;
  - (b) bear the name and identification number of the contract as defined in the bidding data; and
  - (c) provide a warning not to open before the time and date for bid opening, as specified in the Bidding Data.
- 19.3 In addition to the identification required in Sub- Clause IB19.2 hereof, the inner envelope shall indicate the name and postal address of the bidder to enable the bid to be returned unopened in case it is declared "late" pursuant to Clause IB.21
- 19.4 If the outer envelope is not sealed and marked as above, the procuring agency will assume no responsibility for the misplacement or premature opening of the Bid.

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

- 20.1 (a) Bids must be received by the procuring agency at the address specified not later than the time and date stipulated in the Bidding Data.
- (b) Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of bids. No claims shall be entertained for refund of such expenses.
- (c) Where delivery of a bid is by mail and the bidder wishes to receive an acknowledgment of receipt of such bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed bid package.
- (d) Upon request, acknowledgment of receipt of bids will be provided to those making delivery in person or by messenger.
- 20.2 The procuring agency may, at its discretion, extend the deadline for submission of bids by issuing an amendment in accordance with IB.09. In such case all rights and obligations of the procuring agency and the bidders shall remain the same as mentioned in the original deadline.

**IB.21 Late Bids**

- 21.1 (a) Any bid received by the procuring agency after the deadline for submission of bids prescribed in Clause IB 20 shall be returned unopened to such bidder.
- (b) Delays in the mail, delays of person in transit, or delivery of a bid to the wrong office shall not be accepted as an excuse for failure to deliver a bid at the proper place and time. It shall be the bidder's responsibility to submit the bid in time.

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

- 22.1 Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the procuring agency prior to the deadline for submission of bids.
- 22.2 The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.
- 22.3 No bid may be modified by a bidder after the deadline for submission of bids except in accordance with to sub-clauses IB 22.1 and IB 27.2.
- 22.4 Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Bid may result in forfeiture of the bid security in pursuance to Clause IB.15.

**E. BID OPENING AND EVALUATION****IB.23 Bid Opening**

- 23.1 The procuring agency will open the bids, including withdrawals, substitution and modifications made pursuant to Clause IB.22, in the presence of bidders' representatives who choose to attend, at the time, date and location stipulated in the bidding data. The bidders or their representatives who are in attendance shall sign an attendance sheet.
- 23.2 Envelopes marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to clause IB.22 shall not be opened.
- 23.3 Procuring agency shall read aloud the name of the bidder, total bid Price and price of any Alternate Proposal(s), if any, discounts, bid modifications, substitution and withdrawals, the presence or absence of bid security, and such other details as the procuring agency may consider appropriate, and total amount of each bid, and of any alternative bids if they have been requested or permitted, shall be read aloud and recorded when opened.
- 23.4 Procuring agency shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with the sub-clause IB 23.3.

**IB.24 Process to be Confidential (SSP Rules 53)**

- 24.1 Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of bid evaluation report in accordance with the requirements of Rule 45, which states that procuring agencies shall announce the results of bid evaluation in the form of a report giving reasons for acceptance or rejection of bids. The report shall be hoisted on website of authority and that of procuring agency if it website exists and intimated to all bidders at least seven (7) days prior to the award of contract. The announcement to all bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the procuring agency's processing of bids or award decisions may result in the rejection of such bidder's bid. Whereas, any bidder feeling aggrieved, may lodge a written complaint as per Rule 31; however mere fact of lodging a complaint shall not warrant suspension of procurement process.

**IB.25 Clarification of Bids (SSP Rules 43)**

- 25.1 To assist in the examination, evaluation and comparison of bids, the procuring agency may, at his discretion, ask any bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the procuring agency in the evaluation of the bids in accordance with Clause IB.28.

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

- 26.1 Prior to the detailed evaluation of bids, the procuring agency will determine whether the bidder fulfills all codal requirements of eligibility criteria given in the tender notice such as registration with tax authorities, registration with PEC (where applicable), turnover statement, experience statement, and any other condition mentioned in the NIT and bidding document. If the bidder does not fulfill any of these conditions, it shall not be evaluated further.
- 26.2 Once found to be fulfilling the eligibility criteria, as mentioned in sub-clause 26.1, the bid of eligible bidders will be evaluated for technical responsiveness as per specification and criteria given in the bidding documents. Technical and financial evaluations may be carried out in accordance with single stage-single envelope, single stage-two envelopes bidding procedures, depending on the selection procedure adopted by the procuring agency.
- 26.3 A bid will be considered technically responsive if it (i) has been properly signed; (ii) is accompanied by the required bid security; and (iii) conforms to all the terms, conditions and specifications of bidding documents, without material deviation or reservation. A material deviation or reservation is one (i) which affects in any substantial way the scope, quality or performance of the works; (ii) which limits in any substantial way, inconsistent with the bidding documents, the procuring agency's rights or the bidder's obligations under the contract; or (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 26.4 If a bid has major deviations to the commercial requirements and technical specifications will be considered technically non responsive. As a general rule, major deviations are those that if accepted, would not fulfill the purposes for which the bid is requested, or would prevent a fair comparison or affect the ranking of the bids that are compliant with the bidding documents.

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

- (i) has been not properly signed;
- (ii) is not accompanied by the bid security of required amount and manner;
- (iii) stipulating price adjustment when fixed price bids were called for,
- (iv) failing to respond to specifications;
- (v) failing to comply with Mile-stones/critical dates provided in bidding documents;
- (vi) sub-contracting contrary to the Conditions of Contract specified in bidding documents;
- (vii) refusing to bear important responsibilities and liabilities allocated in the bidding documents, such as performance guarantees and insurance coverage,
- (viii) taking exception to critical provisions such as applicable law, taxes and duties and dispute resolution procedures;
- (ix) a material deviation or reservation is one:
  - (a) which affects in any substantial way the scope, quality or performance of the works
  - (b) adoption/rectification whereof would affect unfairly the

competitive position of other bidders presenting substantially responsive bids.

**(B) Minor Deviations**

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

26.5 If a bid is not substantially responsive, it will be rejected by the procuring agency, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

**IB.27 Correction of Errors**

27.1 Bids determined to be substantially responsive will be checked by the procuring agency for any arithmetic errors. Errors will be corrected by the procuring agency as follows:

- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
- (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the procuring agency there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.

27.2 The amount stated in the Form of Bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and with the concurrence of the bidders. The amount thus corrected shall be considered as binding upon the bidder. If the bidder does not accept the corrected bid price, his bid will be rejected, and the bid security shall be forfeited in accordance with sub- clause IB 15.6(b) hereof.

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

28.1 The procuring agency will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26.

28.2 In evaluating the Bids, the procuring agency will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

- (a) making any correction for errors pursuant to Clause IB.27;
- (b) excluding provisional sums (if any), for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
- (c) making an appropriate adjustment for any other acceptable variation or deviation.

28.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

- 28.4 If the Bid of the successful bidder is seriously unbalanced in relation to the procuring agency estimate of the cost of work to be performed under the Contract, the procuring agency may require the bidder to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the procuring agency may require that the amount of the Performance Security set forth in Clause IB.32 be increased at the expense of the successful bidder to a level sufficient to protect the procuring agency against financial loss in the event of default of the successful bidder under the Contract.
- 28.5 Bidders may be excluded if involved in “**Corrupt and Fraudulent Practices**” means either one or any combination of the practices given below SPP Rule2 (q);
- (i) “**Coercive Practices**” means any impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party;
  - (ii) “**Collusive Practice**” means any arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain;
  - (iii) “**Corrupt Practices**” means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain;
  - (iv) “**Fraudulent Practice**” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
  - (v) “**Obstructive Practice**” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

## 28.6 Evaluation Report (SPP Rule 45)

After the completion of evaluation process, as described in clauses IB 27 and IB 28, the procuring agency shall announce the results of bid evaluation in the form of report (available on the website of the authority) giving reasons for acceptance and rejection of bid. The report shall be hoisted on website of the authority and that of procuring agencies if its website exists and intimated to all bidders at least seven (7) days prior to the award of contract.

## **F. AWARD OF CONTRACT**

### **IB.29 Award**

29.1 Subject to Clauses IB.30 and IB.34 and provision of the Rule. The procuring agencies shall award the contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated bid, but not necessarily the lowest submitted price, within the original or extended period of bid validity. Provided that such bidder has been determined to be eligible in accordance with the provisions of clause IB 03 and qualify pursuant to sub-clause IB 29.2.

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

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

### **IB.30 Procuring Agency's Right to reject all Bids or Annul/Cancellation the Bidding Process (SPP Rule25)**

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

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

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

31.2 No Negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted, however, procuring agency may hold meetings to clarify any item in the bid evaluation report.

31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the procuring agency and the bidder till signing of the formal Contract Agreement.

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

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

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

### **31.6 Debriefing (SPP Rule 51)**

- (a) A bidder may ask the procuring agency for reasons for non-acceptance of his bid and may request for a debriefing meeting and procuring agency shall give him the reason for such non acceptance either in writing or by holding a debriefing meeting with such a bidder.
- (b) The request bidder shall bear all the cost of attending such a debriefing.

### **IB.32 Performance Security (SPP Rule 39)**

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

32.2 Failure of the successful bidder to comply with the requirements of sub-clause IB.32.1 or Clauses IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

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

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

33.1 Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the procuring agency will send the successful bidder the Contract Agreement in the form provided in the bidding documents, incorporating all agreements between the parties.

33.2 The formal Agreement between the procuring agency and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the procuring agency.

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

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

### **33.4 Stamp duty**

The formal Agreement between the procuring agency and the successful bidder shall be duly stamped at rate of 0.35% of bid price (updated from time to time) stated in Letter of Acceptance.

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

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

### **IB.35 Integrity Pact (SPP Rule 89)**

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

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

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

### **IB.37 Arbitration (SPP Rule 34)**

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

**2. BIDDING DATA, CHECK LIST FOR  
SUBMISSION OF BID, SUPERVISORY  
STAFF.**

**CONTRACT/BIDDING DATA**

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

## Instructions to Bidders

## Clause Reference

- 1.1 Name and address of the procuring agency:  
**(University of Sufism & Modern Sciences, Bhitshah) (USMS) Bhitshah)**
- 1.2 Name of the Project & Summary of the Works:  
**Construction of Academic Block**
- 2.1 Name of the Borrower/Source of Financing/Funding Agency: **ADP Scheme #827 of 2025-26,**
- 2.1 Amount and type of financing/Scheme Cost & Allocated Funds:  
\_\_\_\_\_
- 3.1 Eligible Bidders  
3.1 c. (i) is deleted and substituted as under: -  
"3.1 c (i) Open to all bidders on single stage single envelopes basis for particular project/scheme"
- 8.1 Time limit for clarification: **(05) Five days before tender opening**
- 10.1 Bid language: **English**
- 11.1 (a) Prequalification Information to be updated (where applicable): *N/A*
- 11.1 (b) Company Profile in single stage one envelope:  
  
Documentary evidence of similar assignment and experience in respect of Personal/Machinery with cost under taken over the past 5 years and certificate of satisfactory completion showing date of start and completion from employer. Bidders are required to submit the minimum mandatory information/document mentioned in bidding documents on (Page BD-4) to meet the project requirement.
- 13.1 Bidders to quote entirely in Pak. rupees
- 14.1 Period of Bid Validity: **90 days**
- 15.1 Amount of Bid Security: **Rs. 21,000,000/- (Twenty One Million)**
- 17.1 Venue, time, and date of the pre-Bid meeting:  
\_\_\_\_\_
- 18.4 Number of copies of the Bid to be completed and returned:  
**One Original.**

19.2 (a) *Procuring agency's address for the purpose of Bid submission: Office of the Director, Works & Services, University of Sufism and Modern Sciences Bhitshah.*

19.2 (b) Name and Identification Number of the Contract:  
**NIT NO. USMS/DIR(W&S)/61**

20.1 (a) Deadline for submission of bids: **03-04-2026 @ 10.30 A.M**

(b) Venue, time, and date of Bid opening:

*Office of the Project Director,*

*((University of Sufism & Modern Sciences,*

*Bhitshah) (USMS) Bhitshah) on*

**03-04-2026 @ 11.00 A.M**

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

The successful bidder shall furnish to the Employer a Performance Security in the form of unconditional Bank Guarantee from a Schedule Bank for an amount of Rs.10% (ten percent) of the Contract Price stated in the Letter of Acceptance in accordance with the Conditions of Contract within a period of 14 (fourteen) days after the receipt of Letter of Acceptance.

32.3 Stamp duty

0.35% will be paid by successful bidder as stamp duty.

[% will depend upon the rules]

**ELIGIBILITY CRITERIA / MANDATORY DOCUMENTS:**

- i. Income Tax returns filed for the last 03 years with Documentary Proof.
- ii. Audit report / bank Statement of the firm for last 03 years average turnover of Rs. 250 million.
- iii. Details of Equipment's Machineries and transport owned by firm / contractor with documented proofs.
- iv. Valid Registration with Pakistan Engineering Council in relevant Category; C-3 & above and have specialized codes for Package-I CE-09, CE-10, CE-11 (i), CE-11 (vii), EE-04, EE-11 (iii), EE-11(vi) (General Electrical Works only), ME-03 & ME-07 (v) (General Mechanical Works only).
- v. Affidavit on Original Stamp Paper affirming that the firm has never been black listed, not involved in any Litigation with any Government, Semi-Government & Autonomous Body.
- vi. List of Similar Projects executed in last 05 years & atleast 03 projects with Cost not less than of Rs 250 million for Package-I each showing Documentary proof (Work Orders and Work Completion Certificate).
- vii. Valid Registration with tax authorities (Federal Board of Revenue, Sindh Revenue Board) with proof of company in Active Tax Payer list.
- viii. One Original bid documents & BOQ duly signed & stamped by the contractor must be submitted at the time of tender opening.

**ORGANIZATION CHART  
FOR THE  
SUPERVISORY STAFF**

(to be filled and signed by the Bidder)

Following is a list of Minimum Mandatory Staff Requirement to be deployed at site immediately by the Contractor upon commencement of works:

Designation	Nos.	Minimum Qualification	Min. Relevant Working Experience
Project Manager	01	B.Sc. Civil Engr. with valid PEC Regd.	10 years
Quantity Surveyor	01	Diploma in Civil	10 years
Site Supervisor	03	Diploma in Civil	10 years
Field Surveyor	02	Diploma in Civil	10 years

**Signature by the contractor**

Note:

*The Bidders are required to attach CV's of Minimum Mandatory Staff.*

**3. FORM OF BID  
AND  
APPENDICES TO BID**

**FORM OF BID**

Bid Reference No. \_\_\_\_\_  
 (Name of Contract/Works)

To:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

1. Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract. Specifications, Drawings and Bill of Quantities and Addenda Nos. \_\_\_\_\_ for the execution of the above-named Work, we/I, the undersigned, offer to execute and complete the Work and remedy any defects therein in conformity with the Conditions of Contract. Specifications, Drawings, Bill of Quantities and Addenda for the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) or such other sum as may be ascertained in accordance with the said conditions.
2. We/I understand that all the Appendices attached hereto form part of this Bid.
3. As security for due performance of the undertakings and obligations of this Bid, we/I submit herewith a Bid Security in the amount of Rupees \_\_\_\_\_ (Rs. \_\_\_\_\_) drawn in your favour or made payable to procuring agency and valid for a period of \_\_\_\_\_ days beginning from the date, Bid is opened.
4. We/I undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in Appendix-A to Bid.
5. We/I agree to abide by this Bid for the period of \_\_\_\_\_ days from the date fixed for opening the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
8. We understand that you are not bound to accept the lowest or any Bid you may receive.
9. We undertake, if our/my bid is accepted, to execute the performance security referred to in clause 10 of Conditions of Contract for the due

performance of the Contract.

10. We confirm, if our bid is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the procuring agency.  
*(please delete this in case of bid form a single bidder)*

in the capacity of \_\_\_\_\_duly authorized to sign Bids for and on behalf of  
Dated this \_\_\_\_\_day of \_\_\_\_\_20\_\_\_\_\_

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

\_\_\_\_\_  
(Name of Bidder in Block Capitals)  
(Seal)

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Witness:

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

Name: \_\_\_\_\_

Address.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Occupation \_\_\_\_\_  
\_\_\_\_\_

**SPECIAL STIPULATIONS****Clause****Conditions of Contract**

1.	Engineer's representing Consulting Firm hired by the procuring agency to issue Variation in case emergency.	3.1	2% of the Contract Price stated in the Letter of Acceptance.
2.	Amount of Performance Security/ Guarantee	4.2	Bank Guarantee to be obtained from Scheduled Bank in Pakistan or insurance bond obtained from AA rating company for a sum equivalent to 10% of Contract Price stated in the Letter of Acceptance for the whole completion period and also for Defect Liability Period.
3.	Time for Furnishing Programme	8.3	Within 14 days from the date of receipt of Letter of Acceptance.
4.	Minimum amount of Third Party Insurance	18.3	Rs.500,000/- per occurrence with number of occurrences unlimited.
5.	Time for Commencement	8.1	Within 14 days from the date of receipt of Engineer's Notice to Commence this shall be issued within fourteen (14) days after signing of Contract Agreement.
6.	Time for Completion (work & sections)	8.2, 10.2	456 (four hundred fifty-six) days from the date of receipt of Engineer's Notice to Commence.
7.	Amount of Liquidated Damages/Delay Damages/Penalties	8.7	0.05% (zero point zero five percent) Damages per day (are to be mentioned) but total amount will not be more than 10% of contract price.
8.	Defects Liability Period	11.1	365 (three hundred sixty-five) days from the effective date of Taking Over Certificate.
9.	Percentage of Retention Money	14.2	10% of the amount of Interim/ Running Payment Certificate.
10.	Limit of Retention Money	14.2	10 % of Contract Price stated in the Letter of Acceptance.
11.	Minimum amount of Interim/ Running Payment Certificates.	14.2	Rs. 10.00 (ten) million or Discretion of Employer.
12.	Time of Payment from delivery of Engineer's Interim/ Running Payment Certificate to the procuring agency.	14.7	Interim Payment Certificate issued by the Engineer (within 20 days of submission) pursuant to this Clause shall be paid by the Employer to the Contractor within 30 days after such Interim Payment Certificate has been delivered to the Employer.
13.	Mobilization Advance	14.2	10% (ten percent) of Contract Price stated in the Letter of Acceptance.

**FOREIGN CURRENCY REQUIREMENTS**

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

Unit of Currency	Equivalent in Pak. Rupees
Australian Dollar	-----
Euro	-----
Japanese Yen	-----
U.K. Pound	-----
U.S. Dollars	-----
-----	-----
-----	-----

***NOT APPLICABLE***

**PRICE ADJUSTMENT UNDER CLAUSE 70/13.8  
OF CONDITIONS OF CONTRACT**

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

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

*(To be filled by the procuring agency)*

Cost Element	Description	Weight ages	Applicable index
1	2	.3	4
(i)	Fixed Portion	0.45	
(ii)	Local Labour	0.17	Government of Pakistan (GoP) Federal Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(iii)	Cement – in bags	0.1	“ “ “
(iv)	Reinforcing Steel	0.14	“ “ “
(v)	High Speed Diesel (HSD)	0.05	“ “ “
(vi)	Bricks	0.09	“ “ “
	Total	1.000	

**Notes:**

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

**B. When Escalation is allowed on the material only.**

Price adjustment of following items shall be allowed:

Cost Element	Description	Base Price	Applicable index
1	2	3	4
(i)	Cement – in bags		Government of Pakistan (GoP) Federal Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(ii)	Reinforcing Steel		“ “ “
(iii)	Bricks		“ “ “
(iv)	Bitumen		“ “ “
(v)	Wood (Composite item)		“ “ “
	Total five items.		

**BILL OF QUANTITIES**

**A. Preamble**

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract (in case of item not mentioned in Bill of Quantities).
3. The rates and prices entered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 14 days prior to deadline for submission of Bids in case of ICB/NCB respectively, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities and shall not be paid separately.
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works.
6. General directions and description of work and materials are not necessarily repeated nor summarised in the Bill of Quantities. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the priced Bill of Quantities.
7. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub-Clause 13.5 of Part I, General Conditions of Contract.
8. Cartage on all items shall not be payable separately and that the bid offered or premium quoted by the bidder shall be included cost of cartage.
9. Additional excavation for working space shall not be payable.
10. Income Tax, Sales Tax and all other Liabilities to be paid by the Contractor as per latest orders/notification or as per law of Pakistan and that the bid offered or premium quoted by the bidder shall be included cost of such liabilities.

11. Besides PWD specification, specification attached with Contract Documents shall be applicable subject to discretion of the Engineer/Employer (wherever appropriate).
12. All formwork shall be used of steel plates and cost that must be included in the bid offered or premium quoted by the bidder. No separate payment shall be applicable.
13. Steel reinforcement used shall be Deform Steel Grade 40 & 60 as described in BOQ. The Contractor shall quote premium as per specified deformed grade 40 & 60 and no additional payment shall be permissible in this account.

**BILL OF QUANTITIES**

**B. Work Items (Road/PHE Work)\***

1. The Bill of Quantities contains the following Bills and items:

Bill No. 1	-	Earthworks
Bill No. 2	-	Hard Crust and Surface Treatment
Bill No. 3	-	Culverts and Bridges
Bill No. 4	-	Subsurface Drains, Pipe Laying and Man holes
Bill No. 5	-	Tube wells, Pump houses and Compound Wall
Bill No. 6	-	Miscellaneous Items

Daywork Schedule  
Summary Bill of Quantities

2. Bidders shall price the Bill of Quantities in Pakistani Rupees only.

*\* procuring agency can add and delete the items as per its requirement.*

***NOT APPLICABLE***

**BILL OF QUANTITIES**

**B. Work Items (Buildings)\***

1. The Bill of Quantities contains the following Bills and items:

Bill No. 1	-	Plinth and Foundation
Bill No. 2	-	Ground Floor
Bill No. 3	-	First and Subsequent Floors
Bill No. 4	-	Internal Water Supply and Sanitary Fittings
Bill No. 5	-	Internal Electrification
Bill No. 6	-	Miscellaneous Items
Bill No. 7	-	External Development

Daywork Schedule  
Summary Bill of Quantities

2. Bidders shall price the Bill of Quantities in Pakistani Rupees only.

\* *procuring agency can add and delete the items as per its requirement.*

***NOT APPLICABLE***

**BILL OF QUANTITIES****C. Day work Schedule****General**

1. Reference is made to Sub-Clause 13.6 of the General Conditions of Contract. Work shall not be executed on a day work basis except by written order of the Engineer. Bidders shall enter basic rates for day work items in the Schedules, which rates shall apply to any quantity of day work ordered by the Engineer. Nominal quantities have been indicated against each item of day work, and the extended total for day work shall be carried forward to the Bid Price.

**Day work Labour**

2. In calculating payments due to the Contractor for the execution of day work, the actual time of classes of labour directly doing the day work ordered by the Engineer and for which they are competent to perform will be measured excluding meal breaks and rest periods. The time of gangers (charge hands) actually doing work with the gang will also be measured but not the time of foreman or other supervisory personnel.
3. The Contractor shall be entitled to payment in respect of the total time that labour is employed on Daywork, calculated at the basic rates entered by him in the Schedule of Daywork Rates for labour together with an additional percentage, payment on basic rates representing the Contractor's profit, overheads, etc., as described below:
  - a) the basic rates for labour shall cover all direct costs to the Contractor, including (but not limited to) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances and any sums paid to or on behalf of such labour for social benefits in accordance with Pakistan law. The basic rates will be payable in local currency only; and
  - b) the additional percentage payment to be quoted by the Bidder and applied to costs incurred under (a) above shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities and insurances and allowances to labour timekeeping and clerical and office work; the use of consumable stores, water, lighting and power; the use and repair of stagings, scaffolding, workshops and stores, portable power tools, manual plant and tools; supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing.

## Appendix-D to Bid

## SCHEDULE OF DAYWORK RATES

## I. Labour

Item No.	Description	Unit	Nominal Quantity	Rate (Rs) in Figure	Rate (Rs) in Words	Extended Amount (Rs.)
1	2	3	4	5	6	7
D101	Ganger	Hr	500			
D102	Labourer	Hr	5,000			
D103	Brick layer	Hr	500			
D104	Mason	Hr	500			
D105	Carpenter	Hr	500			
D106	Steel work Erector	Hr	500			
	-----etc-----	Hr	500			
D113	Driver for vehicle up to 10 tons	Hr	1,000			
D114	Operator for excavator, dragline, shovel or crane	Hr	500			
D115	Operator for tractor, (tracked) with dozer blade or ripper	Hr	500			
D122	<p style="text-align: right;"><b>Sub Total</b></p> <p>Allow _____ percent of subtotal for Contractor's overhead, profit, etc, in accordance with Paragraph 3(b) of Daywork Schedule</p> <p>_____</p> <p>Total for Daywork: Labour : _____</p> <p>(Carried forward to Daywork Summary)</p>					

**Appendix-D to Bid**

**Day work Material**

4. The Contractor shall be entitled to payment in respect of materials used for Daywork (except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore), at the basic rates entered by him in the Schedule of Daywork Rates for materials together with an additional percentage payment on the basic rates to cover overhead charges and profit, as follows:
  - a) the basic rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the site. The basic rates shall be stated in local currency but payment will be made in the currency or currencies expended upon presentation of supporting documentation;
  - b) the additional percentage payment shall be quoted by the Bidder and applied to the equivalent local currency payments made under Sub-Para(a) above; and
  - c) the cost of hauling materials used on work ordered to be carried out as Day work from the store or stockpile on the site to the place where it is to be used will be paid in accordance with the terms for Labour and Constructional Plant in this Schedule.

## Appendix-D to Bid

## SCHEDULE OF DAYWORK RATES

## II. Materials

Item No.	Description	Unit	Nominal Quantity	Rate (Rs) in Figure	Rate (Rs) in Words )	Extended Amount (Rs.)
1	2	3	4	5	6	7
D201	Cement, ordinary Portland or equivalent in bags	M:Ton	200			
D202	Mild Steel reinforcing bar upto 16mm diameter to BS 4449 or equivalent	M:Ton	100			
D203	Fine aggregate for concrete as specified in Clause _____	Cu:M	1,000			
D204	-----etc-----					
D222	Gelignite (Noble Special Gelatine 60 % or equivalent) including caps, fuse, wire and requisite accessories	M:Ton	10			
D223	<b>Sub Total</b>					
	Allow _____ percent of subtotal for Contractor's overhead, profit, etc., in accordance with Paragraph 4(b) of Daywork Schedule _____					
	Total for Daywork: Materials _____					
	(Carried forward to Daywork Summary)					

**Appendix-D to Bid**

**Daywork Constructional Plant**

5. The Contractor shall be entitled to payments in respect of constructional plant already on Site and employed on Daywork at the basic rental rates entered by him in the Schedule of Daywork Rates for constructional plant. The said rates shall be deemed to include complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead, profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants will be paid for separately as described under the section on Day work labour.
6. In calculating the payment due to the Contractor for constructional plant employed on Daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the travelling time from the part of the Site where the constructional plant was located when ordered by the Engineer to be employed on day work and the time for return journey thereto shall be included for payment.
7. The basic rental rates for constructional plant employed on Daywork shall be stated in Pakistani Rupees.

## Appendix-D to Bid

## SCHEDULE OF DAYWORK RATES

## III. Constructional Plant

Item No.	Description	Unit	Nominal Quantity	Rate (Rs.) in Figure	Rate Rs.) in Words	Extended Amount (Rs.)
1	2	3	4		5	6
D301	Excavator ,face shovel or dragline:					
	1. Up-to and including 1 Cu.M.	Hr	500			
	2. Over 1 Cu.M to 2 Cu. M.	Hr	400			
	3. Over 2 Cu. M	Hr	100			
D302	Tractor (tracked) including bull or angle dozer:					
	1. Up-to and including 150 HP	Hr	500			
	2. Over 150 to 200 HP	Hr	400			
	3. Over 200 to 250 HP	Hr	200			
D303	Tractor with ripper:					
	1. Up-to and including 200 HP	Hr	400			
	2. Over 200 to 250 HP	Hr	200			
D304	-----etc-----					
	Total for Daywork: Constructional Plant _____ (Carried forward to Daywork Summary)					

**DAYWORK****Summary (Daywork)**

	<b>Amount (Rs.)</b>
(I) Total for day work: Labour	_____
(II) Total for day work : Materials	_____
(III) Total for day work: Constructional Plant	_____
<hr/>	
Total for day work (Carried forward to Summary Page of Bill of Quantities)	_____

**BILL OF QUANTITIES****SUMMARY**

		<b>Amount (Rs.)</b>
Fittings	Bill No. 1:	Earthworks/ Plinth and Foundation
	Bill No. 2:	Culverts and Bridges/ Ground Floor
	Bill No. 3:	Subsurface Drains/ Internal Water Supply and Sanitary
	Bill No. 4:	Subsurface Drains/Pipe Laying and Man holes/ Internal Water Supply and Sanitary Fittings
	Bill No. 5:	Tube wells and Pump Houses/ Internal Electrification
	Bill No. 6:	Miscellaneous Items
	Bill No. 7:	External Development
Sub-Total of Bills		_____
Day work		_____
Bid Price		_____

Note: All Provisional Sums are to be expended in whole or, in part at the direction and discretion of the Engineer in accordance with Sub-Clauses 52.4 and 58.2 of the General Conditions of Contract Part- I.

## Appendix-E to Bid

**PROPOSED CONSTRUCTION SCHEDULE**

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

<u>Description</u>	<u>Time for Completion</u>
1) Whole Works	_____ days
2) Part-A	_____ days
3) Part-B	_____ days
4) _____	_____ days
5) _____	_____ days

**Appendix-F to Bid**

**METHOD OF PERFORMING THE WORK**

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

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

**Appendix-G to Bid**

**LIST OF MAJOR EQUIPMENT – RELATED ITEMS**

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

Appendix-G to Bid

**LIST OF MAJOR EQUIPMENT**

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

**Appendix-H to Bid**

**CONSTRUCTION CAMP AND HOUSING FACILITIES**

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

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

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

1. Site Preparation (clearing, land preparation, etc.).
2. Provision of Services.
  - a) Power (expected power load, etc.).
  - b) Water (required amount and system proposed).
  - c) Sanitation (sewage disposal system, etc.).
3. Construction of Facilities
  - a) Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).
  - b) Warehouses and Storage Areas (area required, type of construction and layout).
  - c) Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).
4. Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).
5. Other Items Proposed (Security services, etc.).

**Appendix-I to Bid**

**LIST OF SUBCONTRACTORS**

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

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

<b>Part of Works (Give Details)</b>	<b>Subcontractor (With Complete Address)</b>
<b>1</b>	<b>2</b>

## Appendix-J to Bid

**ESTIMATED PROGRESS PAYMENTS**

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

<b>Quarter/ Year/ Period</b>	<b>Amounts (1,000 Rs.)</b>
<b>1</b>	<b>2</b>
1st Quarter	
2 <sup>nd</sup> Quarter	
3 <sup>rd</sup> Quarter	
4 <sup>th</sup> Quarter	
5 <sup>th</sup> Quarter	
6 <sup>th</sup> Quarter	
7 <sup>th</sup> Quarter	
8 <sup>th</sup> Quarter	
9 <sup>th</sup> Quarter	
<b>Bid Price</b>	

**BK-1**

**Appendix-K to Bid**

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

(To be filled in by the bidder)

**(INTEGRITY PACT)**

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC.  
PAYABLE BY CONTRACTORS**

(For CONTRACTS WORTH RS. 10.00 MILLION OR MORE)

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Title: \_\_\_\_\_

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

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

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

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

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

.....  
[Procuring agency]

[Contractor]

## **4. FORMS**

**PERFORMANCE SECURITY  
CONTRACT AGREEMENT  
MOBILIZATION ADVANCE GUARANTEE/BOND**

**FORM OF PERFORMANCE SECURITY  
(Bank Guarantee)**

Guarantee No. \_\_\_\_\_

Executed on \_\_\_\_\_

Expiry date \_\_\_\_\_

[Letter by the Guarantor to the procuring agency]

Name of Guarantor (Bank) with  
address: \_\_\_\_\_

(Scheduled Bank in Pakistan)

Name of Principal (Contractor) with  
address: \_\_\_\_\_Penal Sum of Security (express in words and  
figures) \_\_\_\_\_

Letter of Acceptance No. \_\_\_\_\_ Dated \_\_\_\_\_

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

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

\_\_\_\_\_ (Name of Project).

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

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

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

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

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

	_____ Guarantor (Bank)
Witness:	
1. _____ _____	Signature
_____	Name
_____	Title
Corporate Secretary (Seal)	
_____	
2. _____ _____	
_____	Corporate Guarantor (Seal)
Name, Title & Address	

## FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the \_\_\_\_\_ day of \_\_\_\_\_ (month) 20\_\_\_\_ between \_\_\_\_\_ (hereafter called the "procuring agency") of the one part and \_\_\_\_\_ (hereafter called the "Contractor") of the other part.

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

NOW this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
  
2. The following documents after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement, viz:
  - (a) The Contract Agreement;
  - (b) The Letter of Acceptance;
  - (c) The completed Form of Bid;
  - (d) Special Stipulations (Appendix-A to Bid);
  - (e) The Special Conditions of Contract – Part II;
  - (f) The General Conditions – Part I;
  - (g) The priced Bill of Quantities (Appendix-D to Bid);
  - (h) The completed Appendices to Bid (B, C, E to L);
  - (i) The Drawings;
  - (j) The Specifications.
  - (k) \_\_\_\_\_ (any other)
  
3. In consideration of the payments to be made by the procuring agency to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the procuring agency to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.

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

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

Signature of the Contactor

Signature of Procuring agency

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

\_\_\_\_\_

\_\_\_\_\_

—

(Name, Title and Address)

(Name, Title and Address)

**MOBILIZATION ADVANCE GUARANTEE/BOND**

Guarantee No. \_\_\_\_\_ Date \_\_\_\_\_

WHEREAS \_\_\_\_\_ (hereinafter called the 'procuring agency') has entered into a Contract for

\_\_\_\_\_ (Particulars of Contract) with \_\_\_\_\_ (hereinafter called the "Contractor").

AND WHEREAS, the procuring agency has agreed to advance to the Contractor, at the Contractor's request, an amount of Rupees \_\_\_\_\_ (Rs \_\_\_\_\_) which amount shall be advanced to the Contractor as per provisions of the Contract.

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

AND \_\_\_\_\_ WHEREAS,

\_\_\_\_\_ (Scheduled Bank in Pakistan or Insurance Company acceptable to the Employer) (hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the procuring agency agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.

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

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

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

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

This Guarantee shall remain valid up to the aforesaid date and shall be null and

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

GUARANTOR

- 1. Signature \_\_\_\_\_
- 2. Name \_\_\_\_\_
- 3. Title \_\_\_\_\_

WITNESS

- 1. \_\_\_\_\_  
\_\_\_\_\_  
Corporate Secretary (Seal)

- 2. \_\_\_\_\_  
\_\_\_\_\_  
(Name Title & Address) Corporate Guarantor(Seal)

### **[Notes on the Conditions of Contract**

The Conditions of Contract comprise two parts:

**(a) Part I - General Conditions of Contract**

**(b) Part II - Special Conditions of Contract**

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

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

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

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

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

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

“Copies of the FIDIC Conditions of Contract can be obtained from:

FIDIC Secretariat

P.O. Box 86

1000 Lausanne 12

Switzerland

e-mail: [fidic.pub@fidic.org](mailto:fidic.pub@fidic.org) – [FIDIC.org/bookshop](http://FIDIC.org/bookshop)]

## **5. PART- I : GENERAL CONDITIONS OF CONTRACT**

**6. PART-II: SPECIAL/PARTICULAR CONDITIONS OF  
CONTRACT**

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### PART II - SPECIAL/PARTICULAR CONDITIONS OF CONTRACT

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## PART II - PARTICULAR CONDITIONS OF CONTRACT

### 1.1 Definitions

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

1.1.1.5 "Bid" is synonymous with "Tender".

1.1.1.10 "Bidding" is synonymous with "contract".

*The following paragraph is added:*

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

1.12.2 "Employer" is synonymous with "Procuring Agency"

1.1.2.9 "DB" is synonymous with "Committee".

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

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

### 1.15 Inspections and Audit by the Bank

Deleted

*Procuring Agency can retain this clause with or without changes, in case of contracts under Project, Bank and donor's programme.*

### 1.5 Priority of Documents

Delete the documents listed at (a) to (i) of the Sub-Clause and substitute with the following:

- a) The Contract Agreement;
- b) The Letter of Acceptance;
- c) Special Stipulations (Appendix-A to Bid);
- d) The Particular Conditions of Contract – Part II;
- e) Special Provisions;
- f) The General Conditions of Contract – Part I;
- g) The completed Form of Bid
- h) The completed Appendices to Bid
- i) The Specifications, Technical Provisions;
- j) The Drawings;
- k) The Estimates; (Schedule -B)

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

## **1.6 Contract Agreement.**

*The Text is deleted and replaced with following:*

The Contract Agreement, Performance Security/Guarantee, Insurance Policies / Bonds and other Bond/Guarantees/Sureties shall be prepared and completed at the cost of the Contractor. The Contractor shall prepare six (6) copies of the Contract Document (including all the volumes / documents listed in the Contract Agreement) along-with copies of all the bonds/Guarantees/Sureties, at his cost and shall submit four (04) of the same to the Employer and two (02) to the Engineer.

## **3.1 Engineer's Duties and Authority.**

*The following paragraph is added after Sub-Clause 3.1 (d) the Engineer shall obtain the specific approval of the Employer before carrying out his duties in accordance with the following Clauses:*

- i. Consenting to the sub-letting of any part of the Works under Sub-Clause 4.4 "Subcontracting".
- ii. Certifying additional cost determined under Sub-Clause 4.12 "Not Foreseeable Physical Obstructions or Conditions".
- iii. Any action under Clause 4.2 "Performance Security" and Sub-Clauses 18.1, 18.2, 18.3, 18.4 "Insurance" of sorts.
- iv. Any action under Sub-Clause 8.8 "Suspension".
- v. Any action under Sub-Clause 8.4 "Extension of Time for Completion."
- vi. Any action under Sub-Clause 8.7 "Delay Damages.
- vii. Issuance of "Taking Over Certificate" under Clause 10.
- viii. Issuing a Variation Order and Fixing rates or prices under Clause 13,except:
  - a) in an emergency\* situation, as stated here below, or
  - b) if such variation would increase the Contract Price by less than the amount stated in the Appendix-A to bid.
- ix. Extra payment as a result of Contractor's claims under Sub-Clause 20.1.
- x. Release of Retention Money to the Contractor under Sub-Clause 14.9 "Payment of Retention Money".
- xi. Issuance of "Final Payment Certificate" under Sub-Clause 14.13.
- xii. Issuance of "Performance Certificate" under Sub-Clause 11.9.
- xiii. Approval of all materials to be used at the Project or approval of sample submittals and source

## **4.2 Performance Security**

*The following Sub-Clause is added:*

The Contractor shall provide Performance Security to the Employer in the prescribed form. The said Security shall be furnished or caused to be furnished by the Contractor within fourteen (14) days after the receipt of the Letter of Acceptance. The Performance Security shall be of an amount equal to 10% of the Contract Price stated in the Letter of Acceptance. Such Security shall be in the form of bank guarantee from Scheduled Bank in Pakistan acceptable to the employer.

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

#### 4.21 Progress Report

*The following Sub-Clause is added:*

- a) For purposes of Sub-Clause 14.1, the Contractor shall submit to the Engineer detailed programme for the following:
  - (1) Execution of Works (Detailed Methodology);
  - (2) Labour Employment and Induction;
  - (3) Material Procurement;
  - (4) Plant, Machinery and Equipment (including formwork) Procurement and Induction;
  - (5) Schedules for submittals of shop drawings/bar-bending drawings, samples of material/literature for approval, any additional or supplementary details/drawings to be provided by the Engineer;
  - (6) Site Safety Plan and Measures; and
  - (7) Other details as required by the Engineer;
- (b) During the period of the Contract, the Contractor shall submit to the Engineer not later than the 8<sup>th</sup> day of the following month, five (05) copies each of Monthly Progress Reports covering:
  - (1) A Construction Schedule indicating the monthly progress in percentage (Planned verses Actual);
  - (2) Description of all work carried out since the last report;
  - (3) Description of the work planned for the next sixty three (63) days sufficiently detailed to enable the Engineer to determine his programme of inspection and testing;
  - (4) Monthly summary of daily job record;
  - (5) Photographs to illustrate progress;
  - (6) Information about problems and difficulties encountered, if any, and proposals to overcome the same;
  - (7) Variance in planned progress versus actual achieved progress to be explained with reasons;
  - (8) Measures and additional resources to be taken/deployed to make-up the delay if any; and
  - (9) Site safety Report.
- (c) During the period of the Contract, the Contractor shall keep a daily record of the work progress, which shall be made available to the Engineer as and when requested. The daily record shall include particulars of weather conditions, number of men working, deliveries of materials, quantity, location and assignment of Contractor's equipment and items of work undertaken.

### **4.3 Contractor's Representative**

*The following text is to be added after last line:*

The contractor's authorized representative and his other professional engineers working at site shall register themselves with the Pakistan Engineering Council.

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

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

### **6.10 Records of Contractor's Personnel and Equipment**

*The following paragraph is added:*

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

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

### **7.9 Use of Pakistani Materials and Services**

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

### **8.1 Commencement of Works**

The last para is deleted and substituted with the following:

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

#### **8.11 Prolonged Suspension**

Replace 84 days by 120 days.

### **8.3 Programme**

*The following text is to be added after [Commencement of Works]*

The Contractor shall prepare and submit the programme of the work as per cash flow provided by the Employer and which shall be acceptable to the Engineers within fourteen (14) days of the receipt of Letter of Acceptance for agreement of the Engineer and approval of the Employer. This programme shall identify and highlight those activities which are on the critical path.

The time schedule may be adjusted from time to time but the contractual completion date shall remain un-changed in accordance with the bid documents unless extensions of time are approved in accordance with the contract.

The programme should be computerized and drawn-up on the critical path method. Progress reporting by the Contractor should be supported, on a monthly basis with an update analysis of the progress including a statement on items, which are or are to become critical to the progress of the Work, along with the proposal on how the Contractor intends to alleviate the situation. Programme should include complete sequence of activities along with the detailed Cash Flow.

## **OR**

The programme shall be submitted in the either form of:

- a) Bar Chart identifying the critical activities.
- b) Critical Path Method (CPM) identifying the critical path/activities.
- c) Program Evaluation and Review Techniques (PERT).

*(Procuring Agency to select appropriate one)*

### **12.3 Evaluation**

*The para 12.3 (a)(i) is deleted and substituted with the following:*

The measured quantity of the item is changed by more than 35% from the quantity of this item in the Bill of Quantities.

*The following Sub-Clause 12.3(c) & (d) is added*

*(c) If at the end of the project, it is found that the variations amount to more than 25% of the contract price (as adjusted), an addition or omission to the contract sum may be agreed or determined by the Engineer in respect of the Contractor's overheads.*

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

### **13.1 Right to vary**

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

### **13.3 Variation procedure**

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

### **13.7 Adjustment for changes in Legislation**

Deleted

### **13.8 Adjustment for changes in cost**

*This clause will be applicable for Foreign funded Project/ Schemes or ICB Contracts (locally & foreign funded) only.*

*The following provision is added for Local funded Project/ Schemes/National Competitive Bidding Contracts:*

The amounts payable to the Contractor, pursuant to Sub-Clause 14.6, shall be adjusted in respect of the rise or fall in the cost of materials only, and will be paid to the contractor on those items mentioned in the Appendix –C (B).

Similarly reduction in the cost of these materials will also be recovered from the contractor accordingly .

### **14.1 The Contract Price**

*Sub-para (d) is deleted.*

### **14.2 Advance Payment**

*The Text is deleted and replaced with following:*

Advance Payment/Mobilization Advance shall be made available to the Contractor by the procuring agency on following conditions: Mobilization Advance/Advance Payment (i) Mobilization advance up to 10 % of the Contract Price may be paid by the procuring agency to the Contractor on the works costing Rs2.5 million or above on following conditions:

- a. on submission by the Contractor of a mobilization advance guarantee for the full amount of the advance in the specified form, from a Scheduled Bank in Pakistan, acceptable to the procuring agency;
- b. contractor shall pay interest on the mobilization advance at the rate of 10% per annum on the advance; and

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

### **14.5 Plants and Materials intended for Works**

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

(I) The Contractor shall be entitled to receive from the procuring agency Secured Advance against an INDENTURE BOND in Public Works Account Form No.31 (Fin. R. Form No. 2) acceptable to the procuring agency of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the site but not yet incorporated in the Permanent Works provided that:

- (i) The materials are in accordance with the specifications for the permanent works; (ii) Such materials have been delivered to the site and are properly stored and protected against

loss or damage or deterioration to the satisfaction and verification of the Engineer/Assistant Engineer but at the risk and cost of the Contractor;

(iii) The Contractor's records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records shall be available for inspection by the Engineer;

(iv) The Contractor shall submit with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefore;

(v) Ownership of such materials shall be deemed to vest in the procuring agency and these materials shall not be removed from the site or otherwise disposed of without written permission of the procuring agency;

(vi) The sum payable for such materials on site shall not exceed 75 % of the (i) landed cost of imported materials, or (ii) ex-factory / ex-warehouse price of locally manufactured or produced materials, or (iii) market price of stands other materials;

(vii) Secured Advance shall not be allowed unless and until the previous advance, if any, is fully recovered;

(viii) Detailed account of advances must be kept in part II of running account bill or a separate statement; and

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

## **(II) Recovery of Secured Advance:**

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

### **14.8 Delayed Payment**

*Second Para is replaced with following text:*

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

### **14.16 Withholding of Payment**

The following Sub-Clause 14.16 is added

- a) The Employer on the recommendations of the Engineer may withhold the whole or a part of any payment due to the Contractor if it is necessary in Employer's opinion to protect himself against losses on account of the following reasons.
  - i) Defective work not rectified.

- ii) Non-fulfillment of any due demand and guarantee or renewal of any guarantee or surety.
- iii) Claims of third parties raised against the Employer caused through the fault of the Contractor in connection with the Works.
- iv) Damage caused by the Contractor or his personnel or any sub-contractor, to the Employer, or to a third party on the site.
- v) Non-fulfillment of the Contract by the Contractor.
- vi) Non-fulfillment of Contractual Obligation towards providing facilities for the Employer or the Engineer, submittal of Shop Drawings, Bar-bending drawings/schedules, Samples, erection of Mock-up samples, As-built drawings, etc.

b) After the reasons for withholding of payments have been eliminated, to the satisfaction of the Employer and the Engineer, payments to the Contractor will be made by the Employer on the recommendations of the Engineer.

c) In case of non-performance of Contractor, the employer may execute the work at the Contractor's risk and cost.

## **15.2 Termination by Employer**

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

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

## **15.6 Corrupt and fraudulent Practices.**

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

Successful Contractor has to provide Integrity Pact (for contracts worth Rs.10.0 million and above). If the Contractor or any of his Subcontractors, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Contractor as Appendix-L to his Bid, then the procuring agency shall be entitled to:

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

The termination under sub-para (b) of this Sub-Clause shall proceed in the manner prescribed under sub-clauses 15.2 & 15.5 and the payment under Sub-Clause 15.4 shall be made after having deducted the amounts due to the procuring agency under Sub-Para (a) and (c) of this Sub-Clause.

## **16.4 Payment on Termination**

*Sub-paragraph (c) is deleted.*

## **17.3 Employer's/ Procuring Agency's Risks**

*Sub-Clause 17.3 (h) is deleted.*

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

### **18.1 General Requirements for Insurance**

The contractor shall be obliged to place all insurances relating to the contract (including works, equipment, persons and property, third party insurance, accident or injury to workmen, C.A.R, but not limited to, the insurances referred to in Clauses 18.1,18.2,18.3,18.4) with Insurance Company having at least AA rating from PACRA/JCR in favour of the Employer//Procuring Agency valid for a period 28 days after beyond the Bid Validity date/Defect's liability Certificate. Costs of such insurances shall be borne by the contractor.

### **19.6 Optional Termination, Payment and release by the Employer**

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

### **20.6 Arbitration**

*Text will be replaced as under;*

*Any dispute in respect of which:*

*(a) the decision, of the Dispute Board has not become final and binding pursuant to sub clause 20.2, and (b) amicable settlement has not been reached within the period stated in sub-clause 20.5, shall be finally settled, under the provisions of the Arbitration Act, 1940 as amended or any statutory modification/Rules of Conciliation And Arbitration PEC Islamabad or re-enactment thereof for the time being in force.*

## 7. SPECIAL PROVISIONS

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#### SPECIAL PROVISIONS

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## SPECIFICATIONS – SPECIAL PROVISIONS

### 1. GENERAL

- 1.1 Specifications – Special Provisions shall form an integral part of Bidding & Contract documents.
- 1.2 The Contractor shall notify all sub-contractors of the provisions of these Special Provisions

### 2. SITE

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

### 3. CODES, STANDARDS AND CERTIFICATES

#### A. Applicable Standards

Except as otherwise provided by these Specifications or the Drawings, all materials, equipment and fabrication and testing thereof shall conform to the latest applicable standards and codes referred in the Specifications by use of the abbreviations explained below:

ACI	-	American Concrete Institute (USA)
AISI	-	American Iron and Steel Institute (USA)
AISC	-	American Institute of Steel Construction (USA)
ASTM	-	American Society for Testing and Materials (USA)
AASHTO	-	American Association of State Highway & Transportation Officials.
BS	-	British Standards (UK)
PS	-	Pakistan Standards (Pak)

If the Contractor, at any time and for any reason, wishes to deviate from the above standards or desires to use material or equipment not covered by the above standards, he shall state the exact nature of the changes, the reason for making the change and shall submit complete specifications of the materials and equipment to the Engineer for approval.

#### B. Standards other than those Specified

Where requirements for materials or equipment are specified by reference to a standard which has its origin in one country, it is not the intention to restrict the requirements solely to that standard and that country. Other standards, including standards of other countries, will be accepted provided the requirements thereof, in the sole opinion of the Engineer, are at least equal to the requirements of the standard specified. The Contractor may propose to the Engineer an equivalent standard other than that specified, in which case he shall submit the proposed standard and all other information required and shall submit written proof that his proposed standard is equivalent in all significant respects to the standard specified. All submissions must be made in the English language.

#### C. Codes and Standards at Site

The Contractor shall supply and have at his site office:-

- a) Copies of all latest editions of codes and standards referred to in these Specifications or equivalent codes and standards as approved by the Engineer.

- b) Catalogues and published recommendations from manufacturers supplying products and materials for the project.
- c) The Contractor shall provide manufacturer's or supplier's materials which must meet the requirements of a specific code or standard as stated in these Specifications.

#### **4. UNITS OF MEASUREMENTS**

The FPS System of Units shall be used throughout the Project.

#### **5. EQUIPMENT AND TOOLS**

The Contractor shall provide at his cost equipment and tools, adequate and befitting to the nature, magnitude and size of this Contract, in strict compliance with the requirements of the General Conditions of Contract, Conditions of Particular Applications and Technical Specifications.

#### **6. STORAGE & HANDLING FACILITIES**

The Contractor shall make his own arrangements for providing the necessary space for the storage of plant, equipment and materials and for Contractor's temporary office, in and around the site of works, during the currency of the Contract.

#### **7. FIELD LABORATORY AND TESTING**

##### **7.1 General**

The Contractor shall provide and maintain a field laboratory equipped with approved equipment to perform all the tests required by the Engineer. The quality control testing shall be performed by the Contractor's competent personnel in accordance with a site testing and quality control programme to be established by the Contractor and approved by the Engineer. The Engineer may however, require certain tests to be performed in any other laboratory designated by him.

The Contractor shall provide laboratory helpers to the Engineer for testing. The laboratory shall be run by a qualified material Engineer and Laboratory Technician to be employed by the Contractor.

The Field Laboratory, including all equipment and staff shall be placed at the disposal and direction of the Engineer during the Contract.

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

All quality control and tests shall be carried out in accordance with applicable standards and codes.

##### **7.2. Field Laboratory Equipment Requirements**

The Laboratory shall be equipped with new unused and latest Equipment to perform tests as per Technical Specifications and General Conditions of Contract. Additional equipment/materials shall be supplied by the Contractor as and when required by the Engineer to perform any specified test, at no additional cost to the Employer.

The laboratory shall also be equipped with new unused furniture, fittings and fixtures. If any equipment, furniture, fitting or fixture becomes unserviceable for any reason what so ever, the Contractor shall promptly replace the same as and when directed by the Engineer.

### 7.3. Testing Laboratory Certificates

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

### 7.4. Method of Payment

The cost of providing running and maintenance of the laboratory, equipment, materials and staff and all other tests to be performed in any other laboratory designated by the Engineer shall be deemed to be included in the price quoted by the Contractor including transport for engineer and no separate claim for payment on this account shall be entertained by the Engineer. Further more the cost of any additional laboratory, field and shop tests required through the resubmission of samples because of failure of compliance with Specifications shall be borne by the Contractor.

In case the Contractor does not provide the specified equipment and testing facility, cost of testing plus 100 percent overheads shall be recovered from his bills.

## 8. SURVEYING INSTRUMENTS

### 8.1 General

The minimum quantity of survey equipment is stated below which shall be available with the Contractor at site of Works along with qualified Surveyors and Survey Helpers. The equipment shall be maintained throughout the Contract Period and replaced by the Contractor in case of damage or loss. The survey equipment shall be made available to the Engineer when requested. All surveying equipment shall be in good working condition.

### 8.2 Surveying Equipment Required

The Contractor shall provide and maintain the following surveying equipment at site.

- |    |   |        |
|----|---|--------|
| a) | Electronic distance measuring device complete with (400 grades) Universal Theodolite with data logger, aiming head and standard equipment supplied by the manufacturer, including tripod, control unit stand, batteries, charging unit, pole reflector, single prism reflector, three, six and nine prism reflectors complete with tripods and Traverse Equipment for Theodolite. | 1 No.  |
| b) | Automatic Levels with tripods   | 2 Nos. |
| c) | Steel measuring tapes 50 m long   | 2 Nos. |
| d) | Steel measuring tapes 20 m long   | 2 Nos. |
| e) | Staff   | 2 Nos. |
| f) | All other miscellaneous tools, equipment and materials required in surveying.   |        |

## 9. APPROVAL OF MATERIALS

### 9.1 Submission of Samples and Data

9.1.1 The Contractor shall furnish for approval of the Engineer with reasonable promptness all samples as directed by the Engineer or specifically called for in the Specifications and in accordance with the time schedule provided in the schedule of submittals. The Engineer shall check and approve such samples with reasonable promptness only for conformance with the design concept of the Works and for compliance with the information given in the Contract Documents. All work shall be in accordance with approved samples.

- 9.1.2 Samples shall be furnished so as not to delay fabrication, allowing the Engineer reasonable time for consideration of the sample submitted.
- 9.1.3 The Contractor shall erect Mock-up samples of finished items where specifically called for in the documents or as directed by the Engineer.
- The Mock-up samples shall be preserved/protected by the Contractor till the end of the project or as directed by the Engineer.
- 9.1.4 No acceptance or approval of any Shop Drawings or sample, or any indication or request by the Engineer on any Shop Drawings shall constitute an authorization for any increase in the Contract Sum.

## **10.1 Inspection**

All material and all work performed under this Contract will be subject to inspection by the Engineer at all times and in all states of completion both off-Site and on-Site. The Contractor shall furnish promptly without additional charge, all facilities, labour and materials reasonably needed for performing such inspection and testing as may be required by the Engineer.

The Owner reserve the right to enter upon the site at all times and the contractor or his representatives shall extend them all the cooperation for inspection of the quality and the progress of the Construction works

## **10.2 Approved Sample at Site**

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

## **11. BAR BENDING DRAWINGS/SCHEDULE**

Bar bending (reinforcement bars) drawings with schedule of all structural drawings shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval.

### **12.1 Drawings to Be Furnished By the Contractor**

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

#### **12.2.1 Reinforcement Drawings**

Reinforcement placement drawings and bar bending schedules (to be provided by the Contractor as per clause 11 above) of all RCC work shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval, sufficiently in advance of the works in which they are intended to be used.

#### **12.3.2 Shop Drawings**

- (a) The Contractor shall submit to the Engineer for review three (3) copies of all drawings to be issued for construction; based on data, requirements, dimensions, details, and design provided in the drawings issued by the Engineer. Such drawings shall be submitted at least twenty-eight (28) days before they are required for use.

#### **12.3.3 As-Built Drawings**

The Contractor shall, at all times, keep on Site a separate set of prints of all drawings on which all significant changes between the work shown on the

Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses.

The Contractor shall furnish to the Engineer 6 copies, one reproducible and a soft copy on CD of all drawings amended to comply with the Works as built. The price of such Drawings and copies (including CD) shall be deemed to be included in the Contract Price.

### **13. PROTECTION OF THE WORKS**

The Contractor shall whenever necessary cover up and protect the works from damage by his own or other workmen performing subsequent operation.

### **14. RESTORATION AND CLEANING**

Upon completion of the works the Contractor shall restore all items covered by the Contract to the satisfaction of the Engineer. Special care shall be taken by the Contractor that the roads and right of ways around the Site are not damaged or blocked to traffic during the period of Construction activities at Site. Should any of the roads are damaged due to any operation of the Contractor or his Sub-contractors, the same shall be immediately repaired by the Contractor. If the traffic on the roads is blocked due to any movement of Contractors machinery or equipment, the Contractor shall make alternate arrangement/diversions for the flow of traffic and maintain necessary personnel to control/monitor the same.

The Contractor shall do regular cleaning and clear away all rubbish and excess materials that may accumulate from time to time on completion and before handing over.

### **15. SITE OFFICE AND TEMPORARY FACILITIES TO BE PROVIDED BY THE CONTRACTOR**

#### **15.1 Contractor's Office, Facilities Etc.**

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

The Contractor shall make arrangements for his own camp, workshops, yards, storage areas, and areas for erection of equipment, offices within the site area available at site.

#### **15.2 Temporary Roads**

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

#### **15.3 Temporary Services**

The Contractor shall make all the necessary arrangements for a temporary electricity service, pay all expense in connection with the installation, operation and removal thereof and pay the costs of electricity consumed by all trades, such as Electricity, water, gas, etc. The Contractor shall take all responsibility for their maintenance, upkeep, further connections for his use, etc. and shall bear all costs in this regard. Furthermore the Contractor shall also be responsible for the payment of consumption charges directly to the concerned authority/agency/department. If the Contractor

requires the connection(s) to be up-graded or enhanced he shall do so on his own and all charges in this regard shall be borne by the Contractor.

#### 15.3.1 Temporary Water Supply

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

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

#### 15.3.2 Temporary Electricity

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

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

At completion of construction work, temporary electricity services shall be removed by the Contractor at his own expense.

#### 15.3.3 Waste Disposal

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

### 15.4 Sign Board

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer three (3) Sign Boards of dimensions approved by the Engineer. The Sign Boards shall be made of metal. It shall be mounted on steel posts securely anchored and braced. The Contractor shall paint on the Sign Boards, the name of the Works, and the names of the Employer, Engineer and the Contractor both in English and Urdu Languages.

No payment shall be made to the Contractor for the works involved under this Sub-Clause.

### 15.5 Site Office for Employer, Engineer and Engineer's Staff

The Contractor shall provide a telephone and internet connection each for the Employer and the Engineer at site up-to an average billing of Rs. 5,000/- per month for each, one (01) latest model computer for Engineer and one latest model touch screen Lap Employer with two flash drives of at-least 32 GB capacity each, an A3 size colour printer, plain paper photocopier A3 size, a digital camera (32 pixel minimum with 32 Gb SD/MMC storage card) etc.

The Contractor shall provide replacement of the equipment(s), if any of the above mentioned equipment(s) is temporarily or permanently rendered unserviceable for any reason(s) or declared to be beyond repair by the Engineer/Engineer's staff at no additional cost to the Employer.

The said offices shall be provided by the Contractor within twenty eight (28) days of the receipt by the Contractor of Engineer's Notice to Commence or twenty one (21) days of the payment of the first half of the Mobilization Advance, whichever earlier.

No payment shall be made to the Contractor for the works involved under this Sub-Clause.

### 15.52 OTHER FACILITIES FOR ENGINEER'S PERSONNEL TO BE PROVIDED BY THE CONTRACTOR

#### Transport for Engineer/Employer

- a. The Contractor shall provide, operate and maintain two motor cycles, Honda 125 CC or equivalent, each for the exclusive use of the Employer and The Engineer/Engineer's staff to meet the transportation needs in connection with the project. The vehicles shall be new and of latest as on the commencement date and registered in Nawabshah.
- b. The Contractor shall furnish supply and provide, as may be necessary without specific direction of the Employer and the Engineer/Engineer's staff, all fuels (80 liter/month for each), lubricants, tyres and other supplies, all maintenance, repairs, comprehensive insurance cover and running costs.
- c. The Contractor shall maintain the vehicles till the issuance of Defects Liability Certificate. The vehicles shall become the property of the Employer after the issuance of Defects Liability Certificate and the Contractor shall transfer the same in the name of the Employer.
- d. No separate payment shall be made to the Contractor for the facilities involved under this clause. The cost thereof shall be deemed to have been included in the price quoted by the Contractor for the works.

### 15.5 Site Facilities to Be Provided By the Contractor

#### 15.6.1 General

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

#### 15.6.2 Labour Camps and Staff Residences

The Contractor shall provide, operate and maintain labour camps and staff residences and are required for the proper and efficient progress of the work to house his own employees. For the purposes of operation and maintenance of the Camps and Residences, the Contractor shall comply with the rules of Pakistan Labour Camp Rules 1960 and all other applicable provisions of the Pakistan Labour Laws.

#### 15.6.3 Administrative and Field Office

The Contractor shall provide, operate and maintain administrative and field offices required for his staff and would be responsible for Operation and Maintenance, furniture, equipment, appliances, janitor services and security of the same.

#### 15.6.4 Work yards and Storage Areas

The Contractor shall provide, operate and maintain all sheds, fencing, foundations and all above ground structures required to store material or equipment brought on to the site by him. The Contractor shall be responsible for the security of his entire camps, residence, site and field offices work yard and storage area.

#### 15.6.5 Water Supply, Sewerage System and Electricity

The Contractor shall make his own arrangement, at his own expense for provision, operation and maintenance of electric supply, reasonable supplies of raw and potable water and sewerage system at the site of works and his labour camps, staff residences and offices. The Contractor shall pay all fees, and charges (including bills) of whatsoever nature to the concerned departments (if any) in order to procure connections of the above facilities and thereafter using these facilities. If the Contractor is un-able to arrange a temporary electrical connection then he shall arrange and furnish an Electric Power Generating set (with sufficient generating capacity to meet the required demand of electricity) at site and maintain the generating set in perfect working condition through-out the duration of Contract.

#### 15.6.6 Medical Care

The Contractor shall arrange provision of adequate medical facilities for his employees.

Adequately equipped and properly staffed first aid stations or dispensaries shall be provided by the Contractor at camps and other strategic locations, to administer first aid treatment at all times free of charge to all persons on the Site, including personnel of the Engineer and the Employer. The nature, number and location of facilities furnished and the Contractor's staff for administering first-aid treatment shall meet the requirements of the Health Services of the Government of Pakistan and of Section III of the Manual "Safety Requirements for Construction by Contract", published by the Employer, and shall be subject to approval by the Engineer.

#### 15.6.7 Other Facilities

The Contractor shall also be responsible for providing at his own cost other facilities for his own staff and labour such as educational, recreational, transport, telephone and catering if required.

**16. CONSTRUCTION PROCEDURES**

The Contractor shall advise the Engineer of proposed construction procedures in accordance with the General Conditions of Contract.

If the Engineer shall see that the work progress is slow in such a way that the work will not be completed in the time specified, then he shall order the Contractor to work overtime or in more shifts or to deploy /employ additional resources and the Contractor shall obey these orders without any additional payments and without any objections or request for compensation.

**17. NOTIFICATION TO ENGINEER**

The Engineer shall be notified daily in writing of the nature and location of the Works the Contractor intends to perform the next day so as to enable necessary inspection and measurement to be carried out. The Engineer may, if necessary, direct that longer notice be given of certain operations.

**18. NIGHT WORK**

When work is done at night the Contractor shall maintain from sunset to sunrise such lights on or about his work and plant as the Engineer may deem necessary for the proper observations of the work and the efficient execution thereof.

**19. WEATHER**

No work is to be undertaken when, in the opinion of the Engineer, the weather is so unsuitable that proper protection of the work cannot be ensured.

**20. SETTING OUT OF WORK AND SURVEY****20.1 Reference Points, Lines**

The Contractor shall establish benchmarks and / or reference line at the Site in accordance with the instructions of the Engineer. The Contractor shall set out its work from these benchmarks and lines. The Contractor shall supply plant, equipment, materials and labour for checking if required of the survey control by the Engineer. Slope stakes will be set by the Contractor before commencement of excavation and will be re-established as required during progress of work using established benchmarks and reference points.

**20.2 Verification**

The Engineer may make checks as the work progress to verify lines and grades established by the Contractor and to determine the conformance of the work as it progresses with the requirements of the Drawings and Specifications. Such checking by the Engineer shall not relieve the Contractor of his responsibility to perform all work in accordance with the Drawings and Specifications and the lines and grades given therein.

Based upon the basic control, the Contractor shall provide his own primary control points, as needed for the Works, and shall preserve and maintain them until otherwise authorized.

The Contractor shall be responsible for maintaining all survey markers/monuments, and property corners. If any markers/monuments are destroyed by the Contractor, the Contractor shall arrange, at his own cost, to retrace and replace them to the entire satisfaction of the Engineer. If a monument cannot be replaced in its original position, the Contractor shall install a witness corner. The Contractor shall complete and file monument reference cards on all monuments as per instructions of the Engineer.

The Contractor shall provide experienced construction surveyors with adequate experience in the construction surveys similar in nature as required by this Contract.

Based upon established basic control monuments the Contractor shall establish all lines and grades necessary to control the Works, and shall be responsible for all measurements that may be required for execution of the Works to the tolerance prescribed below.

The Contractor shall perform such surveys and computations as are necessary to determine quantities of work performed or placed during each progress payment period, and shall also perform all surveys necessary for the Engineer to determine final quantities of work in place. The Engineer will determine final quantities based on original ground levels determined by the Contractor and agreed by the Engineer.

The Contractor shall notify the Engineer at least 24 hours before performing a quantity survey and, unless specifically waived, quantity surveys shall be performed in the presence of an authorized representative of the Engineer.

Degree of accuracy for the survey works shall satisfy the following specified tolerances:

- (a) Structure points shall be set within 0.01 foot accuracy from point to point, except where tighter tolerances are required.
- (b) Cross-section points shall be located within 0.10 foot, horizontally and 0.01 foot vertically.
- (c) Permissible closing error for a levelling line meant for establishing Temporary Bench Mark (TBMs) shall not exceed  $0.045 \times \sqrt{M}$  foot, where M is in miles. The permissible closing error shall be duly adjusted.

The Contractor shall provide all materials, equipment and labour required for surveying work, including, but not limited to, instruments, stakes, spikes, steel pins, templates, platforms, and tools, and except as required to be incorporated in the work or left in place, all such materials and equipment, shall remain the property of the Contractor. Surveying instruments shall be in perfect working condition and shall be subject to rigid inspection for proper operation at least after every two weeks of use. Defective instruments shall be promptly replaced or repaired and adjusted to the satisfaction of the Engineer.

Survey data shall be recorded in accordance with recognized professional surveying standards. Original field notes, computations, and other surveying data shall be recorded in the Contractor furnished field books. Notes or data not in accordance with standard formats will be rejected. Illegible notes or data, or use of erasures on any page of a field book will be considered sufficient cause for rejection of part or the entire field book. Copied notes or data will not be permitted; therefore, rejection of part or all of a field book may necessitate re-surveying. Corrections by ruling or lining out errors will be satisfactory.

The cost of all materials, equipment, surveyors and labour required for surveys for the Works and quantity surveys required by this clause shall be deemed to be included in the rates and prices of the various items in the Estimates and no separate measurement and payment in their respect shall be made.

### **20.3 Survey Instruments**

The Contractor shall maintain at the Site the requisite surveying instruments in perfect working conditions to enable the Engineer's Representative to check levels and lines of the work at all times.

## **21. PAYMENT OF WORK**

No payment shall be made for the works involved within the scope of this section of specification unless otherwise specifically stated in the Estimates or herein.

The cost thereof shall be deemed to have been included in the total price quoted by the Contractor.

## **22. DRAWINGS**

### **22.1 Bid Drawings**

Bid Drawings issued with the Bidding Documents, called the Bid Drawings, show scope of the work to be performed by the Contractor. The Drawings are generally in sufficient detail so as to be used as a basis for construction, fabrication and for placing orders for materials subject to corrections based on the future issue of supplementary Drawings as provided under Sub-Clause 12.2 hereof.

### **22.2 Construction Drawings, Supplementary Drawings**

After award of Contract, the Bid Drawings will automatically become Construction Drawings.

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall follow these drawings.

The Contractor shall study the details and drawings provided in the Bid for their sufficiency to carry out the Construction works and shall provide along-with the Programme a schedule of requirement for any further detail/drawing/information which he may require during the Construction activities.

### **22.3 Definition of Term Drawings**

The term Drawings as used in the Specifications means the Drawings referred in Clauses 12.1 and 12.2 above.

### **22.4 Checking of Drawings**

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

### **22.5 Copies of Drawings**

Drawings will be issued to the Contractor as described below.

#### **22.5.1 Bid Drawings (at Construction stage)**

Three (3) sets of the Bid Drawings will be issued to the Contractor at the time of Construction free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

#### **22.5.2 Supplementary Drawings**

Three (3) prints of each supplementary Drawing will be issued to the Contractor free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

## **8. TECHNICAL SPECIFICATIONS**

**Please follow the Material Specification provided in the CSR  
2024**

## **9. LIST SPECIFIED MATERIAL**

## LIST OF SPECIFIED MATERIAL

(to be signed by the Bidder)

The Contractor should note that material from recommended manufacturers shall be used on this Project. The Contractor shall submit literature/catalogue/samples to the Engineer for review and approval.

Equipment and materials specified below are to establish a standard of quality indicate a preference for a particular source. Other material can also be approved, provided that the quality of such materials is at least equal to or better than the recommended manufacturer or make/brand can also be used if specified in BOQ. It shall be responsibility of the Contractor to submit comparative analysis & pertinent data in relation to such materials, for review and approval of the Engineer/Employer.

Onus lies with the Contractor for establishing the genuineness of any material sources or Make for its make and origin as specified below:

### A. Civil

S.NO	Item/Equipment / Material	Make/Manufacturer
1.	Cement	Lucky/D.G Cement or equivalent
2.	Crushed Stone	Kot Banglow
3.	Sand	Bolhari
4.	Steel	Amreeli or equivalent
5.	Bricks	Local District SBA, Sangher, Hala & Hyderabad
6.	Fair Faced Bricks	Lahore or Selected as per base rate.
7.	Construction Chemicals	1. SIKA 2. Ultra or equivalent
8.	Anti-Termite Treatment	1. Biflex 2. Termidor 3. Dursbin 4. Mirage 5. or equivalent
9.	Anchors for Concrete (Chemical and Mechanical)	1. HILTI 2. SPIT 3. SIKA 4. FISCHER 5. or equivalent

10.	Aluminum Sections	<ol style="list-style-type: none"> <li>1. Pakistan Cables</li> <li>2. Chawla Aluminium</li> <li>3. Prime Aluminium or equivalent</li> </ol>
11.	Paints & Varnishes	<ol style="list-style-type: none"> <li>1. Berger</li> <li>2. ICI or equivalent</li> </ol>
12.	Ceramic Tiles	<ol style="list-style-type: none"> <li>1. RAK</li> <li>2. NIRO Granite</li> <li>3. MML or equivalent</li> </ol>
13.	Porcelain Tiles	<ol style="list-style-type: none"> <li>1. RAK</li> <li>2. NIRO Granite</li> <li>3. MML or equivalent</li> </ol>
14.	Concrete Floor Tile & Pavers	<ol style="list-style-type: none"> <li>1. Envicrete</li> <li>2. TUFF or equivalent</li> </ol>
15.	False Ceiling (Metallic)	<ol style="list-style-type: none"> <li>1. OWA (Germany)</li> <li>2. DAMPA (Denmark) or equivalent</li> </ol>
16.	False Ceiling (Gypsum)	<ol style="list-style-type: none"> <li>1. Elephant</li> <li>2. or approved Equivalent</li> </ol>
17.	Glass	<ol style="list-style-type: none"> <li>1. Pilkington</li> <li>2. AGC</li> <li>3. Guardian or equivalent</li> </ol>

*Authority Signature* \_\_\_\_\_  
and official seal

Name \_\_\_\_\_

Date \_\_\_\_\_

## **B. Electrical Works**

<b>Sr. #</b>	<b>Equipment / Material</b>	<b>Make/Manufacturer</b>	<b>Country of Origin</b>
1	Diesel Generator Set	Caterpillar FG Wilson	USA/UK
2	Synchronizing, Load Sharing & AMF Panel	Siemens Schneider Electric (AREVA) R A Electronics	Pakistan Pakistan Pakistan
3	Indoor Power Transformers	Siemens P.E.L.	Pakistan Pakistan
4	H.T Switch Boards	Siemens Schneider Electric (AREVA) P.E.L.	Pakistan Pakistan Pakistan
5	L.T. Switch Boards / Main LT Outdoor Distributors / L.T. Distribution Boards/Motor Control Centre (MCC)	Siemens Schneider Electric (AREVA) P.E.L.	Pakistan Pakistan Pakistan
6	Air Circuit Breakers (ACBs) Moulded Case Circuit Breakers (MCCBs)/ Miniature Circuit Breakers (MCBs)	Siemens M.G ABB Terasaki	Germany France Italy Japan
7	Light Fixtures	Philips Faeber	Holland Italy
8	15 kV H.T Cables	Pakistan Cables Newage Cables	Pakistan Pakistan
9	Single & Multi Core LT Cables	Pakistan Cables Newage Cables AGE Cables FAST Cables	Pakistan Pakistan Pakistan Pakistan France Germany

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Sr. #	Equipment / Material	Make/Manufacturer	Country of origin
11	Uninterruptible Power Supply	APC MG	USA France
13	Voltmeter / Ammeter	Revalco Pantace Saci	Italy Italy Spain
14	Auto-Off-Manual Selector Switch/ASS/VSS	Breter Kraus & Naimer	Italy New Zealand
15	CTs/PTs (HT)	Revalco FICO	Italy Pakistan
16	CTs (LT)	Revalco FICO	Italy Pakistan
17	Air Break Magnetic Contactors	Telemechanique Fuji Panasonic Siemens	France Japan Japan Germany
18	Power Factor Relay	Nokian Lovato	Finland Italy
19	PFI Capacitors	Nokian Shizuki	Finland Japan
20	H.T indoor Termination Kits	3M Raychem	USA Germany
21	Light Control Switch / Switch Socket Outlets	Clipsal M.K Legrand	Australia U.K France

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Sr. #	Equipment / Material	Make/Manufacturer	Country of origin
22	Back Boxes	Hussain & Co. or Approved Equivalent	Pakistan
23	PVC Conduits & Accessories/uPVC Pipes & accessories	Dadex Beta Jeddah Polymer	Pakistan Pakistan Pakistan
24	Earthing System	Furse ERICO	U.K USA
25	G.I. Cable Tray, Trunking	Ashraf Industries Ezzi JEI	Pakistan Pakistan Pakistan
26	Ceiling / Wall Bracket / Exhaust Fans	Pak Fan Royal Fan Millat Fan	Pakistan Pakistan Pakistan
27	Structured Cabling Network	3M Panduit	USA USA
28	Fire Alarm System	Simplex Gent by Honeywell Esser by Honeywell Notifier by Honeywell	USA UK Germany USA
29	CCTV System	Pelco Sony Bosch	USA Japan EU
32	CATV System	Wisi or Approved Equivalent	Germany

*Authority Signature* \_\_\_\_\_  
and official seal

Name \_\_\_\_\_

Date \_\_\_\_\_

**C. Plumbing Works**

S. #	Equipment / Material	Make/ Manufacturer	Origin
1.	G.I. PIPE	i. M/S INTERNATIONAL INDUSTRIES LTD. (IIL)	PAKISTAN
		ii. M/S JAMAL PIPE INDUSTRIES (PVT.) LTD.	PAKISTAN
		iii. M/S BASHIR PIPE INDUSTRIES (PVT.) LTD.	PAKISTAN
2.	G.I.PIPE FITTING	i. M/S HE	CHINA
		ii. M/S TG	CHINA
3.	C.I. PIPE AND FITTINGS	i. M/S SUPER ALPINE	PAKISTAN
		ii. M/S SANDAL ENGINEERING (PVT.) LTD. (TEEPU SUPREME SPUN PIPES)	PAKISTAN
4.	SANITARY FIXTURES	i. M/S PORTA	CHINA
		ii. M/S ASIAN STANDARD	CHINA
		iii. M/S ZUN LONG	CHINA
5.	KITCHEN SINKS	i. M/S RASHAD	PAKISTAN
		ii. M/S ATLAS	PAKISTAN
		iii. M/S SUPER ASIA	PAKISTAN
6.	SANITARY FITTINGS	i. M/S MASTER	PAKISTAN
		ii. M/S SONEX	PAKISTAN
7.	BATHROOM ACCESSORIES	i. M/S MASTER	PAKISTAN
		ii. M/S SONEX	PAKISTAN
		iii. M/S KENT	PAKISTAN
8.	BRONZE/BRASS VALVES	i. M/S KITZ	JAPAN
		ii. M/S ECONOSTO	ITALY
9.	C.I. VALVES	i. M/S SCON	PAKISTAN
		ii. M/S GMD	PAKISTAN
		iii. M/S MHS	PAKISTAN
10.	GAS WATER HEATERS	i. M/S NAS GAS	PAKISTAN
		ii. M/S SINGER	PAKISTAN
		iii. M/S CORONA	PAKISTAN
11.	ELECTRIC WATER HEATERS	i. M/S NAS GAS	PAKISTAN
		ii. M/S HEATEX	PAKISTAN
		iii. M/S CANON	PAKISTAN
12.	WATER COOLER	i. M/S MECCO	PAKISTAN
		ii. M/S CARAVELL	PAKISTAN
		iii. M/S CANON	PAKISTAN

13.	C.I. COVERS WITH FRAME FLOOR DRAINS & FLOOR CLEANOUTS	i. M/S SUPER ALPINE ii. M/S SANDAL ENGINEERING (PVT) LTD. (TEEPU)	PAKISTAN PAKISTAN
14.	FIRE HOSE CABINET AND EXTINGUISHERS	i. M/S HASEEN HABIB (PVT.) LTD. ii. M/S ADAMS FIRETECH iii. M/S TECHNO FIRE (ARMOUR U.K.)	PAK/FOREIGN PAK/FOREIGN PAK/FOREIGN
15.	uPVC PIPES AND FITTINGS	i. M/S DADEX (NIKASI) ii. M/S SHAFISONS ENGINEERING (PVT.) LTD. (BETA PIPES)	PAKISTAN PAKISTAN
16.	PPR PIPES & FITTINGS	i. M/S DADEX (POLYDEX) ii. M/S SHAFISONS ENGINEERING (PVT.) LTD. (BETA PIPES)	PAKISTAN PAKISTAN
17.	HDPE PIPES & FITTINGS	i. M/S INTERNATIONAL INDUSTRIES LTD. (IIL) ii. M/S DADEX (T-FLEX) iii. M/S NEW TECH PIPES	PAKISTAN PAKISTAN PAKISTAN
18.	MS PIPES & FITTINGS	i. M/S BASHIR PIPE INDUSTRIES (PVT.) LTD. ii. M/S JAMAL PIPE INDUSTRIES (PVT.) LTD. iii. M/S HAFFAZ PIPES	PAKISTAN PAKISTAN PAKISTAN
19.	PRESSURE REDUCING VALVES	i. M/S HONEYWELL ii. M/S ITAP	USA ITALY
20.	FLEXIBLE JOINTS	i. M/S ECONOSTO ii. M/S TOZEN	ITALY JAPAN
21.	WATER FILTERS	i. M/S SO-SAFE ii. M/S ENVIRO PAK iii. M/S AQUA SAFE	PAKISTAN PAKISTAN PAKISTAN
22.	HANGERS & SUPPORTS	i. M/S FISCHER ii. M/S SIKLA iii. M/S HILTI iv. M/S SPIT	GERMANY GERMANY FOREIGN FRANCE
23.	PUMPING MACHINERY	i. M/S HMA GRUNDFOS ii. M/S KSB	DENMARK GERMANY

**10. BILL OF QUANTITIES (SCHEDULE -B)**

**ACADEMIC BLOCK COVERED AREA 59952 Sqft**

**USMS BHITSHAH**

**SUMMARY OF COST (CSR 2024)**

<b>S.#</b>	<b>Description</b>	<b>Amount</b>	
<b>A</b>	<b>Above Plinth Level</b>		
1	Schedule Civil Works except steel	<b>Rs.</b>	
2	Schedule Civil Works steel	<b>Rs.</b>	
3	Schedule Architechural Works	<b>Rs.</b>	
4	Non schedule Architechural Works	<b>Rs.</b>	
	<b>Total - A</b>	<b>Rs.</b>	
<b>B</b>	<b>Electrical Works</b>		
1	Schedule Electrical Works	<b>Rs.</b>	
2	Electrical Works Non Schedule Item	<b>Rs.</b>	
	<b>Total - B</b>	<b>Rs.</b>	
<b>C</b>	<b>Plumbing Works</b>		
1	Schedule Plumbing Works Internal	<b>Rs.</b>	
2	Plumbing Works Non Schedule Item Internal	<b>Rs.</b>	
	<b>Total - C</b>	<b>Rs.</b>	
	<b>Total-A+B+C</b>	<b>Rs.</b>	
<b>D</b>	<b>Over Head Tank</b>		
1	Over Head Tank except Steel	<b>Rs.</b>	
2	Over Head Tank Steel	<b>Rs.</b>	
	<b>Total - D</b>	<b>Rs.</b>	
	<b>Total (A+B+C+D)</b>	<b>Rs.</b>	
	<b>Add 5% SRB</b>	<b>Rs.</b>	
	<b>Grand Total</b>	<b>Rs.</b>	

Client \_\_\_\_\_

Contractor \_\_\_\_\_

### Bill of Quantities

<b>Client:</b>	ESTABLISHMENT OF SUFISM AND MODERN SCIENCES UNIVERSITY BHITSHAH	<b>Job No.</b>		<b>Revision Date :</b>	
<b>Project:</b>	ACADEMIC BLOCK	<b>Prepd. By</b>			
<b>Consult:</b>	Naqvi & Siddiquie, Islamabad	<b>Chkd. By</b>		<b>Date:</b>	

#### SUPER-STRUCTURE WORK

S.No	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT(RS)
<b>Item-1</b>	<b>REINFORCED CEMENT CONCRETE (S.R Cement)</b> Reinforced cement concrete (1:1½:3) using sulphate resistant cement type(v) or more rich to provide 6"x12" cylinder strength of 4000 psi at 28 days age (equivalent cube strength=4500 psi) including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms, moulds, lifting, shuttering, curing, rendering and finishing exposed surface including screening and washing of stone aggregate. (Ratio (1:1-1/2:3)				
	<b>COLUMNS</b>				
	ii) First Floor	Per Cft	3,046.75	837.62	2,552,018.74
	iii) Second Floor	Per Cft	3,046.75	887.53	2,704,082.03
	iv) Third Floor	Per Cft	3,046.75	937.44	2,856,145.32
	v) Mumty	Per Cft	37.50	937.44	35,154.00
	<b>LIFT WALL</b>				
	ii) First Floor	Per Cft	291.00	837.62	243,747.42
	iii) Second Floor	Per Cft	291.00	887.53	258,271.23
	iv) Third Floor	Per Cft	291.00	937.44	272,795.04
	v) Mumty	Per Cft	229.13	937.44	214,790.94
	<b>Chapter No. 4, Item 6(a)(II)+ 6(d), Page-17</b>				
<b>Item-02</b>	<b>REINFORCED CEMENT CONCRETE</b> Reinforced cement concrete ( 1:2:4 ) or more rich to provide 6"x12" cylinder strength of 3000 psi at 28 days age (equivalent cube strength = 3750 psi) including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms, moulds, lifting, shuttering, curing, rendering and finishing exposed surface including screening and washing of stone aggregate.				
<b>1</b>	<b>BEAMS</b>				
	ii) First Floor	Per Cft	4,625.76	767.50	3,550,272.24
	iii) Second Floor	Per Cft	4,594.78	817.41	3,755,817.08
	iv) Third Floor	Per Cft	4,594.78	867.32	3,985,142.42
	v) Mumty	Per Cft	106.59	867.32	92,450.89
	<b>Item 6(a)(I)+6(d), Page-17</b>				
<b>2</b>	<b>SLABS</b>				
	ii) First Floor	Per Cft	10,808.09	767.50	8,295,209.77
	iii) Second Floor	Per Cft	10,564.21	817.41	8,635,291.63
	iv) Third Floor	Per Cft	10,564.21	867.32	9,162,551.40
	v) Mumty	Per Cft	217.50	867.32	188,642.10
	<b>Item 6(a)(I)+6(d), Page-17</b>				
<b>3</b>	<b>STAIRS</b>				
	ii) First Floor	Per Cft	211.99	767.50	162,702.33
	iii) Second Floor	Per Cft	211.99	817.41	173,282.75
	iv) Third Floor	Per Cft	211.99	867.32	183,863.17
	<b>Item 6(a)(I)+6(d), Page-17</b>				
<b>4</b>	<b>LINTELS</b>				
	ii) First Floor	Per Cft	210.23	767.50	161,354.88
	iii) Second Floor	Per Cft	203.06	817.41	165,985.32
	iv) Third Floor	Per Cft	203.06	867.32	176,120.17
	v) Mumty	Per Cft	6.47	867.32	5,610.48
	<b>Item 6(a)(I)+6(d), Page-17</b>				
				<b>(A)-TOTAL COST WITHOUT STEEL</b>	<b>47,831,301.32</b>
				<b>PERMIUM _____ % ABOVE OR BELOW</b>	
				<b>A- Total</b>	

S.No	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT(RS)
Item-03	<b>STEEL REINFORCEMENT</b> a)Fabrication of Deformed steel reinforcement for cement concrete including cutting, bending, laying in position, making joints fastenings, including cost of binding wire also includes removal of rust from bars. a) Grade- 60 ii) First Floor iii) Second Floor iv) Third Floor v) Mumty  <b>Chapter No. 04, Item 8(a) page-13</b>				
		Per Cwt	1,794.25	19726.17	35,393,645.69
		Per Cwt	1,776.47	20518.32	36,450,204.40
		Per Cwt	1,776.47	21310.47	37,857,436.05
		Per Cwt	20.50	21310.47	436,853.07
		<b>(B)-TOTAL COST FOR STEEL</b>			<b>110,138,139.20</b>
		<b>PERMIUM _____ % ABOVE OR BELOW</b>			
		<b>B- Total</b>			
		<b>TOTAL (A+B)</b>			

Bill of Quantities					
<b>Client:</b>	<b>ESTABLISHMENT OF SUFISM AND MODERN SCIENCES UNIVERSITY BHITSHAH</b>	<b>Job No.</b>		<b>Revision</b>	
<b>Project:</b>	<b>ACADEMIC BLOCK</b>	<b>Prepd. By</b>		<b>Date :</b>	
<b>Consult:</b>	<b>Naqvi &amp; Siddiquie, Islamabad</b>	<b>Checked. By</b>		<b>Date:</b>	
Schedule Archi-works					
S.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT (Rs.)
<b>Item-1</b>	<b>Brick Masonry works in super structure (above plinth level/Plinth protection) Chapter No.5, Page No. 21</b>				
	Providing and laying approved first class burnt brick masonry in super structure walls at any height and any floor, laid and jointed with cement and approved source sand machine mixed mortar, masonry to be laid in course true to line, level and plumbing, protected and properly cured including scaffolding and providing deep joints to receive rendering. All work to be completed as per drawings and specifications, including P/F specified anchorage with concrete members and directed by the Engineer.				
	<b>i) (Item No. 5, (i e) &amp; 6 (where required)</b>				
	4 1/2" thick and above internal/external walls in (1:4) CSM				
	<b>i) Ground Floor</b>				
	<b>ii) First Floor</b>	P.cft.	1,333.08	415.09	553,347
	<b>iii) Second Floor</b>	P.cft.	1,333.08	432.33	576,330
	<b>iv) Third Floor</b>	P.cft.	1,333.08	449.57	599,312
	<b>v) Mumty</b>	P.cft.	1,156.06	449.57	519,728
	9" thick and above internal/external walls in (1:6) CSM				
	<b>i) Ground Floor</b>				
	<b>ii) First Floor</b>	P.cft.	11,704.13	398.42	4,663,157
	<b>iii) Second Floor</b>	P.cft.	11,704.13	415.66	4,864,937
	<b>iv) Third Floor</b>	P.cft.	11,704.13	432.90	5,066,716
	<b>v) Mumty</b>	P.cft.	538.50	432.90	233,117
<b>Item-2</b>	<b>Plain Cement Sand Plastering, Chapter No.9, Page 52</b>				
	Providing and applying 3/4" thick plaster at any floor or at any height using approved quality sand preferably machine mixed mortar, including all bends, corners, recesses including scaffolding and hacking the concrete surfaces, arching the masonry joints and providing 8" wide GI wire mesh of 17 SWG 1"x1" size fixed with GI staples on masonry joints, concrete joints. All plaster to be finishes smooth with steel float in true to level, line and plumb and properly cured, complete as per drawings, specifications and as directed by the Engineer.				
	<b>i) Item No. 11 c + Item No. 29 Page 54</b>				
	Internal walls/columns plaster 3/4" thick in 1:4 CSM				
	<b>i) Ground Floor</b>	P.sft.	53,632.57	53.82	2,886,505
	<b>ii) First Floor</b>	P.sft.	46,947.60	58.97	2,768,500
	<b>iii) Second Floor</b>	P.sft.	46,947.60	64.12	3,010,280
	<b>iv) Third Floor</b>	P.sft.	46,947.60	69.27	3,252,060
	<b>v) Mumty</b>	P.sft.	1,041.26	69.27	72,128
	<b>ii) Item No. 11 (c)</b>				
	External Surfaces 3/4" thick 1:4 CSM on walls / up stand / down stand beam projection/jali/RCC Railing.				
	<b>i) Ground Floor</b>	P.sft.	9,780.13	53.82	526,366
	<b>ii) First Floor</b>	P.sft.	8,690.75	58.97	512,494
	<b>iii) Second Floor</b>	P.sft.	8,690.75	64.12	557,251
	<b>iv) Third Floor</b>	P.sft.	8,690.75	69.27	602,008
	<b>v) Mumty</b>	P.sft.	4,582.24	69.27	317,412

S.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT (Rs.)
<b>Item-3</b>	<b>Chapter 9, Page-55, Item 36-A</b> Preparing the surface and painting with matt finish I/c rubbing the surface with Bathy (silicon carbide rubbing brick) filling the voids with zink /chalk / plaster of paris mixture, applying first coat premix, making the surface smooth and then painting 3 coats with matt finish of approved make etc: complete.(new surface).				
	<b>a) All floorsWalls</b>	P.sft.	158,293.96	49.27	7,799,143
	<b>b) All floors Ceiling</b>	P.sft.	67,019.25	49.27	3,302,039
<b>Item-4</b>	<b>Chapter 9, Page-56, Item 38 (a+b) &amp; Item 42</b> Prepairing the surface and painting with weather coat I/c rubbing the surface with rubbing bricks / sand Paper, filling the voids with chalk / plaster of Paris and then painting with weather coat of approved make + 2nd & subsequent coat. Extra Labour for above 20'.				
	<b>a) Plaster surface external</b>				
	<b>i) Ground Floor</b>	P.sft.	9,780.13	62.98	615,952
	<b>ii) First Floor</b>	P.sft.	8,690.75	99.61	865,686
	<b>iii) Second Floor</b>	P.sft.	8,690.75	136.24	1,184,028
	<b>iv) Third Floor</b>	P.sft.	8,690.75	172.87	1,502,370
	<b>v) Mumty</b>	P.sft.	4,127.00	172.87	713,434
<b>Item-5</b>	<b>Marble Tiles</b> Laying white marble flooring fine dressed on the surface without winding set in lime mortar 1:2 including rubbing and polishing				
	<b>a) Stairs/Steps: Stair upto Mumty (Ziarat)</b>				
	<b>i) On Treads with bull nosing 3/4" thick full length</b>	Per sft.	926.00	1,058.78	980,430
	<b>ii) Risers</b>	Per sft.	513.50	1,058.78	543,684
	<b>iii) Stair Landing</b>	Per sft.	388.78	1,058.78	411,632
	<b>iv) Skirting</b>	Per sft.	445.28	1,058.78	471,454
	<b>b) MARBLE IN ENTRANCE</b>	Per sft.	796.08	1,058.78	842,871
<b>Item-6</b>	<b>Chapter No.8, Page 43, Item No.28(i)</b> <b>TILES - SKIRTING</b> Providing and fixing 3/8" thick tiles of approved quality and colour and shade size 8" x 4" /6" x 4" in dado skirting and facing removal /tucking of existing plaster surface etc. Over 1/2" thick base of cement mortar 1:3 setting of tiles in slurry of white cement over mortar base including filling the joints and washing the tiles with white cement slurry , curring finishing, cleaning and polishing etc. complete.				
	<b>All Floors</b>	Per sft.	6,671.50	247.28	1,649,729
<b>Item-7</b>	<b>Chapter No. 8 Item No.61, Page 49</b> <b>Porcelaine flooring</b> Providing & Laying Full Body Porcelain Tile in Flooring or Facing of Approved Design Set in Gry Cement Motor 1:2 or of 3/4" Thickinss I/C Washing & Joints With White Cement Slurry Using Colour Pigment for matching complete as per Spacification.				
	<b>Chapter No.8, Page 46, Item No.28(vii)(a), (ix)</b> <b>Room (24"x24"x5/16")</b>				
	<b>i) Ground Floor</b>	Per sft.	14,682.91	439.57	6,454,167
	<b>ii) First Floor</b>	Per sft.	15,617.91	439.57	6,865,165
	<b>iii) Second Floor</b>	Per sft.	15,617.91	439.57	6,865,165
	<b>iv) Third Floor</b>	Per sft.	15,617.91	439.57	6,865,165
	<b>v) Mumty</b>	Per sft.	360.00	439.57	158,245

S.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT (Rs.)
<b>Item- 8</b>	<b>Marble Tiles</b> Laying Verona marble flooring Size 24"x12"x1"/12"x12"x1" finedressed on the surface without winding set in lime mortar 1:2 including rubbing and polishing of the joints On Top Roof 3/4" Thick Marble	Sft	19,649	369.59	7,262,074
<b>Item-9</b>	<b>Glazed Tiles Dado Chapter No.8, Page 45, Item No. 38</b> Glazed tile dado 1/4" thick laid in pigment over 1:2 cement sand mortar 3/4" thick including finishing. All floors	Per sft.	14,314	389.36	5,573,283
<b>Item-10</b>	<b>(Chapter No.8, Page 43, Item No. 25)</b> laying floors of approved coloured glazed tiles 1/4" thick laid in white cement and pigment on a bed of 3/4" thick cement mortar 1:2.	Per sft.	3,305	325.40	1,075,362
<b>Item-11</b>	<b>i) All Levels</b> <b>Enamel Paint</b> <b>Painting New Surfaces</b> Preparing surface and painting of doors and windows any type, (including Edges). Priming Coat + Each subsequent coat of paint.	Per sft.	14,008.75	18.41	257,901
<b>Item-12</b>	<b>Chapter No.11, Page 70, Item No.5 © (i. &amp; ii)</b> <b>Khuras on roof 2'x2'x4" (Chapter No. 7, Item No. 18, Page No. 32)</b>	Each	10.00	1,001.84	10,018
<b>Item-13</b>	Levelling dressing and making lawns.( <b>Chapter No. 18, Item No. 42, Page 77)</b>	Per sft.	4,805.16	9.51	45,697
<b>Item-14</b>	Supplying Manure. ( <b>Chapter No.18, Item No. 44, Page 77)</b>	P.Cart load	10.00	573.30	5,733
<b>Item-15</b>	Providing Anti -termite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge. <b>Chapter No.18, Item No. 92, Page No. 109</b>	Per sft.	37,409.00	11.46	428,707
<b>(A)-TOTAL COST WITHOUT STEEL</b>					<b>94,330,782</b>
<b>PERMIUM _____ % ABOVE OR BELOW</b>					
<b>A- Total</b>					

S.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT (Rs.)
Item-16	<b>Aluminum Doors/Windows/Ventilators, Chapter No. 18, Page 83, Item No. 84 (b)</b> Supplying & fixing in position 2mm Aluminium channels framing for slidding windows & ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) & Aluminium fly screen I/c handles stoppers & locking arrangement etc.Complete. <b>i) Deluxe model (Bronze)</b>	Per sft.	8,371.23	2,386.73	19,979,866
Item-17	<b>Aluminum Doors/Windows/Ventilators, Chapter No. 18, Page 83, Item No. 83 (b)</b> Supplying & fixing inposition Aluminium channels framing for hinged doors or Alcop made with 5 mm thick tinted glass glazing (Belgium) and Alpha (Japan) locks I/c handles, stoppers etc.	Per sft.	150.00	1,656.14	248,421
Item-18	<b>Wooden Architrave</b> Providing and fixing with sunk iron screws wooden Architrave approved design / shape having width not less than 2½ inches as directed by Engineer Incharge.	Rft.	4,896.00	136.40	667,814
Item-19	<b>Wood work Chapter No.10, Page 58, Item No. 9</b> <b>Wooden Doors Inculding Frames</b> Providing and Fixing in position doors, windows and ventillators of first class deodar wood frames and 1-3/4" thick commercial, ply veneer shutters of first class deodar skeleton (Hollow) and commercial ply wood (3 ply) on both sides including hold fasts, hinges, iron tower bolts, handles and cleats with cord and one mortice lock and hooks. <b>(All Room Doors)</b>	Per sft.	5,603.50	2,998.14	16,800,077
Item-20	<b>Wood work Chapter No.10, Page 59, Item No. 13</b> Deodar wood frame with braces and 22 guage G.I sheet facing on one side inculding hold fast wooden beadings, hinges, and locking arraangement as directed by Engineer-	Per sft.	1,904.00	1,682.20	3,202,909
Item-21	<b>G.I frames /Choukhats Chapter No.17, Page 76, Item No.29</b> Providing and fixing G.I frames /Choukhats of size 7" x 2" or 4 1/2" x 3" for door using 20 gauge G.I sheet I/c welded hinges and fixing at site with necessary hold fasts, filling with cement sand slurry of ratio 1:6 and repairing the jambs. The cost also i/c all carriage.tools and plants used in making and fixing. <b>(Toilet Doors)</b>	P.Rft.	1,738.00	690.67	1,200,384
<b>B- TOTAL FOR SCHEDULE ITEMS</b>					<b>42,099,472</b>
PERMIUM _____ % ABOVE OR BELOW					
<b>B- TOTAL FOR SCHEDULE ITEMS</b>					
<b>GRAND TOTAL FOR SCHEDULE ITEMS</b>					

Bill of Quantities					
<b>Client:</b>	<b>ESTABLISHMENT OF SUFISM AND MODERN SCIENCES UNIVERSITY BHITSHAH</b>	<b>Job No.</b>	<b>Revision Date :</b>		
<b>Project:</b>	<b>ACADEMIC BLOCK</b>	<b>Prepd. By</b>			
<b>Consult:</b>	<b>Naqvi &amp; Siddiquie, Islamabad</b>	<b>Chkd. By</b>	<b>Date:</b>		
Non - Schedule Archi-works					
S.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT (Rs.)
<b>Item-1</b>	<b><u>ROOF SCREEDING:</u></b> Providing and laying average 3" thick roof screeding in single layer having slope towards roof drain and making panels of 30 Sft size with 3/4"x3/4" thick grove filled with sand and bitumen, laying R.C.C. (1:2:4), using lawrancepur sand and margalla crushed stone aggregates, including the cost of 4"x4" size 10 SWG steel wire welded mesh reinforcement placed in middle of the thickness including curing, overlap of mesh etc., complete as per drawings, specifications and as directed by the Engineer: On Top Roof				
<b>Item-2</b>	<b>i) Main Roof and Mumty Roof</b> <b><u>INSULATION BOARD:</u></b> Providing and laying moulded 2" thick styropax (Firerated) insulation boards of approved colour, type having 35kg/Cu.m density individually moulded, complete as per drawings, specifications and as directed by the Engineer.	Sft	19,649		
<b>Item-3</b>	<b>a) On Roof</b> <b>b) O.H. Water Tank (1-1/2" Thick)</b> <b><u>WATER PROOFING:</u></b> Providing, laying and applying 4mm thick Plasto Grip (Roof Grip water proofing bituminous membrane torch applied polymerized containing non woven polyester coated on both side with APP modified bitumen compound having upper and lower surface with polyethylene film and applying Roof Grip Primer @ 3 to 4 Sq.M per liter on RCC surface roof and unrolling, including overtop age 10cm at side and 15cm at ends. Complete as per manufacturer's specification and instructions of the Engineer.	Sft	19,649		
<b>Item-4</b>	<b>a) Roof &amp; Mumty</b> <b>b) Bathrooms</b> <b><u>VANITY MARBLE TOP:</u></b> Providing and fixing 1" thick factory grinded and polished approved colour Best Quality Marble White for top and face of vanity having 2'-0" width and length as shown on the drawings with 1/2" thick 1:2 cements and base mortar including 3" thick R.C.C 1:2:4 shelve with 12" deep drop pardi and cement sand plaster at bottom of the shelve, including making opening in slab and vanity top, rounding/bull nosing and polish of edges including epoxy jointing and silicon filling at wall and marble slab or fixture joints and enamel painting at plastered surfaces etc, complete as per drawings and as directed by the Engineer.	Sft	411		
		Sft	19,649		
		Sft	4,406		
		Sft	489		

S.No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT (Rs.)
<b>Item-5</b>	<b><u>False Ceiling</u></b> Providing and fixing false ceiling laminated panels of approved pattern 600mm x 600mm x 7.5mm thick including Aluminium Tee and Aluminium angel 25mmx25mmx1mm, including suspension system consisting of G.I adjustable hangers of 8 SWG, stiffners, expansion bolts & Clips including provision of lights, A. C. Grills, fire alarm detectors, fire sprinklers, filling the joints with antibacterial sealant, Complete as per drawings, specifications and as directed by the Engineer, in area as shown on the drawings. <b>a) MAIN ENTRANCE</b> <b>b) 6'-0" WIDE PASSAGE</b> <b>c) ROOMS / HALLS</b>	Sft	1,036		
		Sft	3,830		
		Sft	13,376		
<b>Item-6</b>	<b><u>M.S Jali</u></b> Providing 5mm thick M.S Jali prepared on CNC Machine Inculding powder coating with primer and fixing with M.S staple and bolt in 1/8" thick M.S sheet tube 9"x 3" size fixed in parametric design	Sft	1,769		
<b>Item-7</b>	Providing and fixing 1/8" thick M.S sheet tube section 9" x 3" size fixed in parametric Architectural design inculding powder coating over a coat of primer.	Sft	496		
<b>Item-8</b>	<b><u>FACE BRICK</u></b> Providing and fixing Face Brick facing 3"x 9" x4.5" size of approved design leveling smooth finishing, curing and scaffolding etc complete as per specification and directed by the Engineer / Incharge.	Sft	38,232.76		
<b>Item-9</b>	<b><u>GLASS</u></b> Supply and fix, 12mm thick tempered Glass (Ghani,Tariq float or equvelent) door in any size including all necessary accessories i.e. pivot machine, S.S handle, D lock etc as specified & as per instruction of engineer in charge	Sft	2,296.00		
<b>Item-10</b>	<b><u>SOUNDPROOFING</u></b> Providing, and installation of wall panel cloth of approved design, color, and thickness, including backside foam for soundproofing with wooden strip, complete in all respects as per the instructions of the Engineer/Incharge.	Sft	3,960.00		
				<b>Total Rs:</b>	

**Construction of Academic Block**

**USMS BHITSHAH**

**SUMMARY OF COST**

<b>S.#</b>	<b>Description</b>	<b>Amount</b>	
<b>B</b>	<b>Electrical Works</b>		
1	Schedule Electrical Works SI	Rs.	
2	Non Schedule Electrical Works	Rs.	
	<b>Total</b>	<b>Rs.</b>	

\_\_\_\_\_  
Client

\_\_\_\_\_  
Contractor

**BHITSHAH**  
**ACADEMIC BLOCK**  
**SUMMARY OF COST FOR ELECTRICAL WORKS**

<b>A: SHEDULE ITEMS</b>			
<b>Sr. No.</b>	<b>Description</b>	<b>Amount (Rs.)</b>	
1	Section "A" Internal Electrification	Rs.	
2	Section "B" Light Fittings & Fixtures	Rs.	
3	Section "C" Distribution Boards & Feeders	Rs.	
4	Section "D" Main & Sub-Main Cables	Rs.	
<b>COST OF SHEDULE ITEMS "A"</b>		Rs.	
<b>B: NON SHEDULE ITEMS</b>			
5	Section "G" Internal Electrification	Rs.	
6	Section "H" Light Fittings & Fixtures	Rs.	
7	Section "I" Earthing	Rs.	
8	Section "J" Cable Containment	Rs.	
9	SECTION "K": ICT Security System (CCTV Syatem)	Rs.	
10	SECTION "L": Installation & Wirring Of Computer Power System Multi-Outlet Boxes	Rs.	
11	SECTION "M": Computer Data System	Rs.	
12	SECTION "N": Fire Alarm System	Rs.	
13	SECTION "O": Main Cabling	Rs.	
<b>COST OF NON SHEDULE ITEMS "B"</b>		Rs.	
<b>OVERALL COST (A+B)</b>		Rs.	

**COST ESTIMATE**  
**ACADEMIC BLOCK BHITSHAH**  
**Electrical Works**

**SCHEDULE ITEMS**

**Section "A" Internal Electrification Schedule Items**

S.No.	ITEM DESCRIPTION	QTY	UNIT	RATE (RS.)	TOTAL AMOUNT (RS.)
1	Providing & Laying of wiring for light or fan point with 2-3/0.029 PVC insulated cable in 20mm dia (3/4") PVC conduit recessed in wall or column as required. (ESI #N,102 Page #236).	1430	P. Point	5,587.09	7,989,539
2	Providing & Laying of wiring for plug point with 2-3/0.029 S/C, PVC insulated cable in 20mm dia (3/4") PVC conduit recessed in the wall or column as required. (ESI #N 104 Page # 236)	300	P. Point	3,716.45	1,114,935
3	Providing & Laying (Mains or Sub-Mains) PVC Insulated with size 2-7/0.029 wire copper conductor in (3/4" dia) PVC Conduit recessed in wall or column as required. (Lighting Circuit), (ESI#D 24, P#230)	12250	Rft	581.94	7,128,765
4	Providing & Laying (Mains or Sub-Mains) PVC Insulated with size 2-7/0.036 wire copper conductor in (3/4" dia) PVC Conduit recessed in wall or column as required. Computer multi switch Sockets outlet , (ESI # 11 P # 229)	9500	Rft	430.74	4,092,030
5	Providing & Laying (Mains or Sub-Mains) PVC Insulated with size 2-7/0.044 wire copper conductor in (3/4" dia) PVC Conduit recessed in wall or column as required. (Power A/C Circuit), (ESI # D 25,P # 230)	9,500	Rft	794.21	7,544,995
7	Providing and fixing of flush type, 2/3 pin, 5 Amps, S.P, plug socket, switch. (ESI # 189 Page # 244).	400	No.	525.04	210,016
8	Providing and fixing of flush type, 3 pin, 10/15 Amps, S.P, plug socket, switch. (ESI #190 Page # 244).	100	No.	575.76	57,576
				<b>COST OF SECTION "A "</b>	<b>28,137,856</b>
				<b>PERMIUM _____ % ABOVE OR BELOW</b>	
				<b>TOTAL</b>	

**COST ESTIMATE  
ACADEMIC BLOCK BHITSHAH  
Electrical Works**

**SCHEDULE ITEMS**

**Section "B" Light Fittings & Fixtures**

S. No.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1	Providing installing and connecting of Millat/Asia/Pak Fan make (or to be approved by EI), 56" sweep ceiling fan complete with fan dimer, canopy, down rod, etc. including fixing of fan dimmers in the given and making holes on both side of down rod and wiring it with 1.5 mm twin core., 450/750 V grade pvc/pvc + 1-1.5mm ECC and also providing of 16 mm dia mild steel fan hook on R.C.C roof or beam as required. Complete in all respect with all accessories (ESI # 195,P # 244)	400	No.	12,638.83	5,055,532
2	Providing & fixing Bakelite ceiling rose with two terminals. (ESI # 228, P # 33)	400	No.	317.38	126,952
				<b>COST OF SECTION "B"</b>	<b>5,182,484</b>
				<b>PERMIUM _____ % ABOVE OR BELOW</b>	
				<b>Total</b>	

**COST ESTIMATE**  
**ACADEMIC BLOCK BHITSHAH**  
**Electrical Works**

**SCHEDULE ITEMS**

**Section "C" Distribution Boards & Feeders**

S. No.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1	Providing, installing connecting & commissioning of the following Distribution Boards (DBs) fabricated of 14 SWG steel clad, cubical design with hinged door cover, wall (recessed) mounted, factory assembled, suitable for 3 phase, 4 wire, 500 volts, 50 Hz, indication lights ( Red, yellow, blue) A.C Power Supply Complete with copper cable lugs, glands, neutral link, earth block, terminal block etc. & having following configurations. (All equipment rated to 5 kA short circuit rating and 50 °C ambient temperature at 415V). Panel enclosure to comply with IP-50.				
1.1	<b>LPDB-GF1</b> <b>Incoming</b> 01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	03-Providing & fixing digital voltmeter size 96/96mm 500 V as required & as per instruction of Engineer Incharge (EI) (ESI # 240, P # 248)	3	No.	3,558.53	10,676
	03- Amp meter 100A +ASS (ESI#239, P#248)	3	No.	3,558.52	10,676
	03- CT (Current Transformer) (ESI#223, P#247)	3	No.	5,351.22	16,054
	<b>Outgoing</b>				
	18 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	18	No.	2,128.50	38,313
	09 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	9	No.	2,128.50	19,157
1.2	<b>LPDB-GF2</b> <b>Incoming</b> 01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	15 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	15	No.	2,128.50	31,928
	12 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	12	No.	2,128.50	25,542
1.3	<b>LPDB-GF3</b> <b>Incoming</b> 01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	18 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	18	No.	2,128.50	38,313
	9 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	9	No.	2,128.50	19,157

S. No.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1.1	<b>LPDB-FF1</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	03-Providing & fixing digital voltmeter size 96/96mm 500 V as required & as per instruction of Engineer Incharge (EI) (ESI # 285, P # 41)	3	No.	3,558.53	10,676
	03- Amp meter 100A +ASS (ESI#239, P#248)	3	No.	3,558.52	10,676
	03- CT (Current Transformer) (ESI#223, P#247)	3	No.	5,351.22	16,054
	<b>Outgoing</b>				
18 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	18	No.	2,128.50	38,313	
9 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	9	No.	2,128.50	19,157	
1.2	<b>LPDB-FF2</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	15 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	15	No.	2,128.50	31,928
12 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	12	No.	2,128.50	25,542	
1.3	<b>LPDB-FF3</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	18 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	18	No.	2,128.50	38,313
9 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	9	No.	2,128.50	19,157	
1.4	<b>LPDB-SF1</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	03-Providing & fixing digital voltmeter size 96/96mm 500 V as required & as per instruction of Engineer Incharge (EI) (ESI # 285, P # 41)	3	No.	3,558.53	10,676
	03- Amp meter 100A +ASS (ESI#239, P#248)	3	No.	3,558.52	10,676
	03- CT (Current Transformer) (ESI#223, P#247)	3	No.	5,351.22	16,054
	<b>Outgoing</b>				
	15 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	15	No.	2,128.50	31,928
15 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	15	No.	2,128.50	31,928	

S. No.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1.5	<b>LPDB-SF2</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	20 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	20	No.	2,128.50	42,570
	10 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	10	No.	2,128.50	21,285
1.6	<b>LPDB-SF3</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	20 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	20	No.	2,128.50	42,570
	10 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	10	No.	2,128.50	21,285
1.7	<b>LPDB-TF1</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	01-Providing & fixing digital voltmeter size 96/96mm 500 V as required & as per instruction of Engineer Incharge (EI) (ESI # 285, P # 41)	3	No.	3,558.53	10,676
	01- Amp meter 100A +ASS (ESI#284, P#41)	3	No.	3,558.52	10,676
	01- CT (Current Transformer) (ESI#270, P#39)	3	No.	5,351.22	16,054
	<b>Outgoing</b>				
	15 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	15	No.	2,128.50	31,928
	15 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	15	No.	2,128.50	31,928
1.8	<b>LPDB-TF2</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	20 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	20	No.	2,128.50	42,570
	10 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	10	No.	2,128.50	21,285
1.9	<b>LPDB-TF3</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	20 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	20	No.	2,128.50	42,570
	10 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	10	No.	2,128.50	21,285
2	<b>PDB-LIFT</b>				
	<b>Incoming</b>				
	01 - 80 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	1	No.	24,426	24,426
	<b>Outgoing</b>				
	2 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	2	No.	2,128.50	4,257
	3 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	3	No.	2,128.50	6,386

S. No.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
3.0	<b>DBAC-GF, FF, SF &amp; TF</b>				
	<b>Incoming</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	6	No.	24,426	146,554
	06- Amp meter 100A +ASS (ESI#284, P#41)	6	No.	3,558.52	21,351
	06- CT (Current Transformer) (ESI#270, P#39)	6	No.	5,351.22	32,107
	06- Volt meter 500V with (VSS) (ESI#285, P#41)	6	No.	3,558.53	21,351
	<b>Outgoing</b>				
	36 - 15 A, S.P, M.C.Bs(ESI #178, P # 243)	36	No.	2,128.50	76,626
	18 - 10 A, S.P, M.C.Bs (ESI #178, P # 243)	18	No.	2,128.50	38,313
4	<b>CDB- GF, FF, SF &amp; TF</b>				
	<b>Incoming</b>				
	04 - 63 A, T.P M.C.C.B (XS-100NS) (ESI # 207, P # 31).	4	No.	24,426	97,703
	04- Volt meter 500V with (VSS) (ESI#285, P#41)	4	No.	3,558.53	14,234
	<b>Outgoing</b>				
	60- 16 A, S.P, M.C.B (ESI #178, P #243)	60	No.	2,128.50	127,710
5	<b>SMPB- GF1, GF2, GF3</b>				
	03- 200A, TP MCCB (XS-400CJ) ESI#182, P#244	3	No.	36,559	109,676
	03- Volt meter 500V with (VSS) (ESI#285, P#41)	3	No.	3,558.53	10,676
	03- Amp meter 200A +ASS (ESI#284, P#41))	3	No.	3,558.52	10,676
	09- CT (Current Transformer) (ESI#272, P#39)	9	No.	5,351.22	48,161
	<b>Outgoing</b>				
	01 - 100 A, T.P M.C.C.B (XS-100NS) (ESI # 183, P # 244).	18	No.	24,426	439,663
	01- 63A, TP MCCB (XS-100NS)(ESI # 207, P # 31).	1	No.	24,426	24,426
6	<b>Main LT Panel</b>				
	<b>Incoming</b>				
	01- 630A, TP MCCB (XS-630CJ) ESI#187, P#244	1	No.	450,893	450,893
	01- Volt meter 500V with (VSS) (ESI#285, P#41)	1	No.	3,558.53	3,559
	01- Amp meter 630A +ASS (ESI#284, P#41)	1	No.	3,558.52	3,559
	03- CT (Current Transformer) (ESI#274, P#39)	3	No.	5,351.22	16,054
	<b>Outgoing</b>				
	03- 200A, TP MCCB (XS-400CJ) ESI#208, P#31	3	No.	36,559	109,676
	01- 80A, TP M.C.C.B (X100NS) (ESI # 183, P #244).	1	No.	24,426	24,426
<b>COST OF SECTION "C "</b>					<b>3,033,136</b>
<b>PERMIUM _____ % ABOVE OR BELOW</b>					
<b>Total</b>					

**COST ESTIMATE**  
**ACADEMIC BLOCK BHITSHAH**  
**Electrical Works**

**SCHEDULE ITEMS**

**SECTION "D" MAIN & SUB-MAIN CABLES**

S. No.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1	providing & laying (main OR sub-main cable) pvc insulated & PVC sheeted with 4-wire coper conductor 600/1000 volts size 16mm2 in 38" dia pvc conduit recessed in column wall as required(ESI#80, p#234	500	Rft	1,647	823,300
1.3	providing & laying (main & sub-main cable) pvc insulated & PVC sheeted with 4-core coper conductor 600/1000 volts size 35mm2 (ESI#82, p#234	980	Rft	2,755	2,700,116
1.4	providing & laying (main & sub-main cable) pvc insulated & PVC sheeted with 4-core coper conductor 600/1000 volts size 95mm2 (ESI#N,85 p#235	300	Rft	7,530	2,258,916
2.1	<b>CDB'S</b>				
	Providing & laying (MAIN or SUB MAIN) PVC Sheeted with two core copper conductor 300/500 volts size 6mm2. (ESI#46, P#232	500	Rft	347	173,605
2.2	<b>LPDB'S, ACDB'S &amp; SMDB'S</b>				
	Providing & laying (MAIN or SUB MAIN) PVC Sheeted with two core copper conductor 300/500 volts size 10mm2. (ESI#47, P#232)	1280	Rft	512	654,758
	<b>COST OF SECTION "D "</b>				<b>6,610,695</b>
	<b>PERMIUM _____ % ABOVE OR BELOW</b>				
	<b>Total</b>				

**COST ESTIMATE  
ACADEMIC BLOCK BHITSHAH  
NON SCHEDULE ITEMS**

<b>Section "G" Internal Electrification Non Schedule Items</b>					
<b>S.No.</b>	<b>ITEM DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>RATE (RS.)</b>	<b>TOTAL AMOUNT (RS.)</b>
1	Providing and fixing of Plastic or metallic Back Box to accommodate mains or sub mains switches, plug socket units, etc. on a given prepared board, recessed in the wall, as required. (Approx Quantity) Size 78 mm x 83 mm x 56 mm (LxWxD)	425	No.		
<b>TOTAL COST OF SECTION "G"</b>					
<b>Section "H" Light Fittings &amp; Fixtures</b>					
1.	Providing, installing, fixing and connecting of following light fixtures with lamps, chokes, starters, capacitors etc, complete with all internal connections and all fixing and mounting accessories. Jobs includes rod and wiring as given in drawing.				
1.1	Supply & installation of 8W LED lamp spot light (N.S.I)	170	No.		
1.2	Supply & installation of 14W LED lamp mirror light (N.S.I)	30	No.		
1.3	Philips Make TMS-015 with 1x36W LED TL Lamp or equivalent quality, as approved by Engineer Incharge.	200	No.		
1.7	Supply & installation of 18W ceiling Led mounted TLD lamp Complete Light (N.S.I)	520	No.		
1.8	Supply & installation of 22W of bulk head light (N.S.I)	12	No.		
1.10	Malit/Wahid/Pak Fan make or equivalent quality, as approved by Engineer Incharge 12" sweep capacitor with shutter, 2 way option plastic exhaust fan complete with capacitors including making of hole in wall to accommodate the fan & repairing good the damages.	16	Nos.		
1.11	Providing & installing of plastic Fan Box for ceiling fan and its wiring complete in all respect and accessories including steel hook for supporting the ceiling fan & plastic cover to cover the fan box.	400	Nos.		
<b>TOTAL COST OF SECTION "H"</b>					

S.No.	ITEM DESCRIPTION	QTY	UNIT	RATE (RS.)	TOTAL AMOUNT (RS.)
<b>Section "I" Earthing</b>					
1.	Providing, marking and testing of earth points with 2' x 2' x 1/8" thick copper plate buried 5 meter deep or to the depth of permanent water level whichever is less covered with charcoal and lime in specified ratio confirming to specificatin and drawing.	1	Job		
2.	Providing drawing, connecting & testing of 2-70mm <sup>2</sup> bare copper conductor as earthing leads in 32 mm dia G.I pipe burried in ground or connected in R.C.C or masonry as required from Panel Board to the earth plate including making of 18"x18" cement concrete chamber duly plastered and cover with R.C.C Slab, including, providing & fixing of plug for watering, complete with all accessories and fasteners and as per drawing & specification.	1	Job		
3.	Providing fixing and connecting of 50x5x300mm thick copper earth terminal blocks.	1	Job		
<b>TOTAL COST OF SECTION "I"</b>					
<b>Section "J" Cable Containment</b>					
1	Supply and Installation of medium duty G.I cable tray with elbows, Tee and all fixing accessories (Z-Channel, Iron Bracket, nut and bolts etc.) as per drawings and specifications complete in all respects.				
a)	16 SWG perforaed cable tray with 18 SWG solid cover 12" Wide x 4" Deep Cable tray.	120	Rft		
<b>TOTAL COST OF SECTION "J"</b>					
<b>SECTION "K": ICT SECURITY SYSTEM (CCTV SYSTEM)</b>					
1	Indoor IPS Cameras	12	Nos		
2	Mount	12	Nos		
3	Outdoor IP Cameras	2	Nos		
4	Power Supply	12	Nos		
5	LED 55" Screen With HDMI & VGA Inputs with NVR recorder 16 chanel	1	Nos		
<b>TOTAL COST OF SECTION "K"</b>					

S.No.	ITEM DESCRIPTION	QTY	UNIT	RATE (RS.)	TOTAL AMOUNT (RS.)
<b>SECTION "L": INSTALLATION &amp; WIRING OF COMPUTER POWER SYSTEM MULTI OUTLET BOXES</b>					
5	providing and installing of multioutlet boxes on floor/wall of appropriate size for power and computer data outlet )multi-outlet box of m/s clipsal/opal or equivalent as approved by EI	21	NO.		
6	providing and fixing of plastic/metalic back box to accommodate multi-outlet boxes for power, telephone and data outlet, reseased in the wall, as required ( approx quality)				
	b) size 78 mm x 56 mm (LXWXH)	300	NO.		
<b>COST OF SECTION "L"</b>					
<b>SECTION "M": COMPUTER DATA SYSTEM</b>					
1	Providing & laying copper 3x2.5 mm <sup>2</sup> copper conductor as ECC with wiring of Multi-outlet boxes as required . Complete in all respects.	6,000	Rft		
2	supply and installing of arkite 12U 19" communication rack 780x600x500 mm with PDU, complete in all respect.	1	No.		
3	supply and installing of schneider actassi front cable organizer.	2	No.		
4	supply and installation of CAT-6 cable in already laid in channel patti on surface from switch / patch panel to the respective outlet boxes, including termination of CAT-6 cable complete in all respects.	6,000	Rft		
5	providing and installing of following Multi-outlet boxes facing sheet on floor/wall/column of appropriate.				
	a) multi-outlet box wall mounted	300	No.		
	b) multi-outlet box "floor	21	No.		
6	providing and laying of the 1" dia PVC conduit in ground before final flooring for main cable from / patch panel to the respective outlet boxes, including termination of CAT-6 cable, complete respects.	600	Rft		
7	Supply and laying 50mm Dia Pvc Pipe for Computer Wiring.	600	Rft		
	Same as above but 100mm Dia pvc pipe	60	Rft		
8	Providing & fixing of all types Fency face guange sheets with dimmers approved by Engineer	425	No.		
<b>COST OF SECTION "M"</b>					

S.No.	ITEM DESCRIPTION	QTY	UNIT	RATE (RS.)	TOTAL AMOUNT (RS.)
<b>SECTION "N": FIRE ALARM SYSTEM</b>					
1	<b>PVC Conduit</b>				
	Providing & laying 1" dia PVC Conduit good quality including all required accessories for wiring purpose surface / recessed type as required.				
	Ground Floor	100	Mtr		
	First Floor	100	Mtr		
	Second Floor	100	Mtr		
	Third Floor	100	Mtr		
2	<b>Fire Resistant Cable</b>				
	Providing & laying of 2 core 1.5mmsq Fire Resistant cable given in 1" dia PVC Conduit, as instruction by the E/I as required.				
	Ground Floor	140	Mtr		
	First Floor	140	Mtr		
	Second Floor	140	Mtr		
	Third Floor	140	Mtr		
3	<b>Fire Alarm Accessories</b>				
	Supply, installation, testing & commissioning of Analogue Addressable Optical Smoke Detector with Base; 24 VDC; UL LISTED, low voltage, solid state, Not Radio Active type, uni-polar and dual chamber with LED alarm indication to be installed on RCC slab, complete in all respects.				
	Ground Floor	20	Each		
	First Floor	20	Each		
	Second Floor	20	Each		
	Third Floor	20	Each		
4	Supply, installation, testing & commissioning of Analogue Addressable Manual Call Point / Pull Station with Base and Back Box with Key UL Listed				
	Ground Floor	4	Each		
	First Floor	4	Each		
	Second Floor	4	Each		
	Third Floor	4	Each		
5	Supply, installation, testing & commissioning of Wall mounted Sounder of Bosh or Honeywell by UK completed in all respect .	4	Each		

S.No.	ITEM DESCRIPTION	QTY	UNIT	RATE (RS.)	TOTAL AMOUNT (RS.)
6	Supply, installation, testing & commissioning of Micro processor based Fire Alarm Control Panel, suppression consisting of loops and can address around 125 points, indicating circuits, including 2 x 12V DC Batteries, suppression zone built in power supply, including stand by battery, alarm and trouble indication, silence alarm and reset system, general alarm and reset system, general alarm facility, complete in all respects.				
	Ground Floor	1	Each		
7	Providing & fixing fire alarm junction box suitable size good quality complete in all respect as required.				
	Ground Floor	1	Each		
	First Floor	1	Each		
	Second Floor	1	Each		
	Third Floor	1	Each		
<b>COST OF SECTION "N"</b>					
<b>SECTION "O": MAIN CABLING</b>					
1	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 300mm <sup>2</sup>	1195.00	Rft		
<b>COST OF SECTION "O"</b>					
<b>Grand Total (G+H++I+J+K+L+M+N+O) Rs.</b>					

**ACADEMIC BLOCK AT USMS BHITSHAH  
BILL OF QUANTITIES (INTERNAL WORKS)**

**MAIN SUMMARY**

Sr. No.	Description	Amount (Rs.)
	<b>Plumbing Works</b>	
<b>A</b>	<b>Plumbing Works Scheduled Items</b>	
	<b>Total Amount Schedule Items</b>	
<b>B</b>	<b>Non-Schedule Plumbing Works</b>	
	<b>Total Amount Non-Schedule Items</b>	
	<b>G. Total Amount</b>	

\_\_\_\_\_  
Client

\_\_\_\_\_  
Contractor

## Priced Bill of Quantities

<b>Client:</b>	ESTABLISHMENT OF SUFISM AND MODERN SCIENCES UNIVERSITY BHITSHAH	<b>Job No.</b>		<b>Revision Date:</b>	
<b>Project:</b>	ACADEMIC BLOCK	<b>Prepd. By</b>			
<b>Consult:</b>	Naqvi & Siddiquie, Islamabad	<b>Chkd. By</b>		<b>Date:</b>	

### PLUMBING WORKS (INTERNAL)

Sr.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
	<b><u>PLUMBING</u></b>				
1	<b><u>EUREOPEAN TYPE W.C</u></b>				
1	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with & including the cost of white / black plastic seat ( Best quality ) and lid with C.P. brass hinges best quality and buffers 3 gallons white glazed earthen ware low level flushing cistem with siphon fitting 1½ " dia white porcelain enameled flush bend dia and making requisite number of holes in walls , plinth & floor for pipe connection & making good in cement concrete 1:2:4 ( Foreign quality ) . ( ICL or equivalent ) . <b>Chapter-1, item-5, Page-2</b>	Each	72.00	38,119.13	2,744,577
2	<b><u>LAVATORY BASIN</u></b>				
	<b><u>a) Basin</u></b>				
	Providing and fixing 24x18" lavatory basin in white glazed carthen ware complete with &e including the cost of W.I. or C.I. cantilever bracket 6 inches built into wall, painted white in two coats after a primary coat of red lead paint, a pair of ½" dia chrome plated pillar taps, 1-1/2" rubber plug & chrome plated brass chain 1-1/4" dia malleable iron or C.P. brass traps malleable iron or brass unions and making requisite number of holes in walls, plinth & floor for pipe connection & making good in cement concrete 1:2:4 (Standard Pattern) (Karam Ceramics). <b>Chapter-1, item-10 , Page-3</b>	Each	80.00	21,685.48	1,734,838.40
3	<b><u>b) Pedestal</u></b>				
	Add extra for providing & fixing of earth ware pedestal white or coloured Glazed (Standared pattern) <b>Chapter-1, item-11, Page-3</b>	Each	16.00	3,307.56	52,920.96
4	<b><u>NYLOON CONNECTIONS WITH BRASS STOP COCK</u></b>				
	Providing and fixing in position nylon connection complete with brass stop cock with pair of brass nuts and lining jointed to nylon connection. <b>Chapter-1, item-23, Page-6</b>	Each	232.00	573.89	133,142.48
5	<b><u>TOWEL RAIL 30" LONG</u></b>				
	Providing and fixing chrome plated brass towel rail complete with brackets fixing on wooden cleats with I" long C.P. brass screws. <b>Chapter-2, item-1(a), Page-7</b>	Each	40.00	2,272.11	90,884.40

Sr.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
6	<b>BRASS TOILET C.P PAPER HOLDER</b> Providing and fixing C.P. brass toilet paper brackets complete (similar) to twyford design number 1108 (Standerd pateran). <b>Chapter-2, item-2(b) , Page-7</b>	Each	72.00	1,053.00	75,816.00
7	<b>BELGIUM MIRROR 24" X 18"</b> Providing & fixing 24"x18" bavelled edge mirror of Belgium glass completed with 1/8" thick hard and C.P. screws fixed to wooden cleats (Standard pattern). <b>Chapter-2, item-3 (b), Page-7</b>	Each	92.00	1,895.40	174,376.80
8	<b>SOAP TRAY EARTHEN</b> Supplying & fixing soap tray of superior quality and design with fine finishing with C.P. screws etc. complete. <b>Chapter-2, item-5, Page-8</b>	Each	88.00	526.50	46,332.00
9	<b>CP BIB COCK ½" Dia</b> S/fixing concealed Tee-stop cock of superior quality with C.P. head 1/2" dia. <b>Chapter-6, item-13(b), Page-19</b>	Each	232.00	2,506.14	581,424.48
10	<b>WASH BASIN MIXTURE CP 1/2" Dia</b> Supplying & fixing wash basin mixture of superior quality with C.P. head 1/2" dia. <b>Chapter-6, item-15, Page-19</b>	Each	88.00	4,401.54	387,335.52
11	<b>C.P MUSLIM SHOWER</b> Supplying & fixing C.P muslim shower with double bib cock and ring pipe etc. complete <b>Chapter-6, item-19-a, Page-19</b>	Each	72.00	4,928.04	354,818.88
<b>A-TOTAL</b>					<b>6,376,467.28</b>
<b>PERMIUM _____ % ABOVE OR BELOW</b>					
<b>A-TOTAL</b>					

Bill of Quantities					
Client:	ESTABLISHMENT OF SUFISM AND MODERN SCIENCES UNIVERSITY BHITSHAH	Job No.		Revision Date:	
Project:	ACADEMIC BLOCK	Prepd. By		Date:	
Consult:	Naqvi & Siddiquie, Islamabad	Chkd. By			
NON-SCHEDULE ITEMS PLUMBING WORKS					
Sr.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
1	Providing, laying, fixing, testing and disinfecting, polypropylene pipelines for cold and hot water supply as per DIN standard 8077 and 8078 or equivalent BS specification, Dadex, Kelen Austria make, Tetraplast(FORMUL) or HAKAN (Turkey make) as approved by the Engineer Incharge, including jumbolon insulation for exposed pipes, specials such as tee, cross, reducer, bend, union, elbow, plug, socket etc., supported on walls or suspended from slab or run in chases (chased in walls shall be made by using electric cutter) including supports, cutting and making good the same as necessary to the structure complete in all respects.(all hot and cold water pipes shall run under the ceiling of lower floors, galvanized hangers and rawl bolts shall be Sikla, Fisher or Hilti make shall be used.)				
	i) 25 mm o/d	Rft	3,584		
	ii) 32 mm o/d	Rft	325		
	iii) 40 mm o/d	Rft	432		
	iv) 50 mm o/d	Rft	224		
	v) 63 mm o/d	Rft	144		
	vii) 75 mm o/d	Rft	1,028		
	viii) 90 mm o/d	Rft	200		
2	Providing, fixing and testing PPRC ball valve , Dadex, Tetraplast(FORMUL) or HAKAN make as approved by the Engineer Incharge complete in all respects to their entire satisfaction including all accessories and jointing material complete in all respects.				
	i) 25 mm o/d	Each	20		
	ii) 32 mm o/d	Each	8		
	iii) 40 mm o/d	Each	12		
	iv) 50 mm o/d	Each	12		
3	Providing, laying, fixing and testing uPVC soil, waste and vent as per BSS 4514 & 5255 or latest BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints Dadex, Beta or Tetraplast make as approved by the Engineer Incharge complete in all respects, including, clamps, bends, tees, Y-tees, cowls, reducers, clean out etc., embedded in floors and walls, clamped to walls, suspended from slab, painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes/sleeves and making good the same complete in all respects. (all soil, waste and vent pipes shall run under the ceiling of lower floors, galvanized hangers and rawl bolts shall be Sikla or Hilti make shall be used.)				
	i) 2" i/d	Rft	1,024		
	ii) 4" i/d	Rft	2,230		

Sr.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
4	Providing, laying, fixing and testing uPVC rain water as per BSS 4514 & 5255 or latest BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints Dadex, Beta or Tetraplast make as approved by the Engineer Incharge complete in all respects, including, clamps, bends, tees, Y-tees, cowls, reducers, clean out etc., embedded in floors and walls, clamped to walls, suspended from slab, painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respects. (all soil, waste and vent pipes shall run under the ceiling of lower floors, galvanized hangers and rawl bolts shall be Sikla or Hilti make shall be used.) ii) 4" i/d	Rft	1,146		
5	Providing, laying, fixing and testing floor drain (P-trap) UPVC including extension grating and stainless steel cover grating with 2" collar with double groove and rubber ring Afzal brothers or Alpine make, best quality local make Dadex, Beta or Tetrapast make as approved Engineer Incharge complete in all respects to their entire satisfaction.	Each	104		
6	Providing, laying, fixing and testing UPVC Boss fitting for P-trap connection, Dadex, BETA or Tetrapast make as approved Engineer Incharge complete in all respects to their entire satisfaction.	Each	88		
7	Providing, laying, fixing and testing C.I roof drain dome type or triangular type JAWS or Super Alpine make as approved Engineer Incharge complete in all respects to their entire satisfaction.	Each	42		
8	Providing, installing, testing and commissioning electric water heater of specified capacity Ariston Italy make, including all necessary gauges, valves, safety valve etc., complete in all respects. a) 15 liter capacity	Each	8		
	b) 50 liter capacity	Each	24		
9	Providing, installing, testing and commissioning electric water cooler (drinking fountain) of specified capacity Singer or Cannon make including three level filtration system, including all necessary gauges, valves, safety valve etc., complete in all respects.	Each	8		
10	Providing, installing, testing and commissioning booster pump KSB, DAB, WILO or GRUNDFOS make with electric motor SIEMENS or equivalent make of requisite HP with VFD having total discharge of 75 gpm (booster pump consists of three pumps 25 gpm + 25 gpm+ 25 gpm), and head 80 feet including all necessary valves, diaphragm tank, pressure switch, control panel, pressure gauges etc. fixed on common base frame, all accessories and fittings complete in all respects.	Each	1		
11	Providing and fixing fiberglass insulation 50 mm thick Kimco or Afico make having density 4 lbs per cubic feet with GI jacketing 28 SWG (light grade) around PPRC pipes at roof complete in all respects. i) 40 mm o/d	Rft	214		
	ii) 63 mm o/d	Rft	32		
	iii) 75 mm o/d	Rft	1,306		
	iv) 90 mm o/d	Rft	266		
<b>B-Total Non Schedule Items</b>					

ACADEMIC BLOCK

ESTABLISHMENT OF SUFISM AND MODERN SCIENCES UNIVERSITY BHITSHAH

SUMMARY OF COST - EXTERNAL WORKS

<b>S.#</b>	<b>Description</b>	<b>Amount (Rs.)</b>
<b>D</b>	<b>OVER HEAD WATER TANK</b>	
A	Over Head Tanks except Steel	
	<b>Total - A</b>	
B	Over Head Tanks Steel	
	<b>Total: - B</b>	
	<b>Grand Total (A+B)</b>	

\_\_\_\_\_  
Client

\_\_\_\_\_  
Contractor

## Bill of Quantities

<b>Client:</b>	ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH	<b>Job No.</b>	<b>Revision Date :</b>	
<b>Project:</b>	ACADEMIC BLOCK	<b>Prepd. By</b>		
<b>Consult:</b>	Naqvi & Siddiquie, Islamabad	<b>Chkd. By</b>	<b>Date:</b>	

### STRUCTURE WORK FOR O.H WATER TANK ( 02 No)

S.No	DESCRIPTION	UNIT	QTY.	RATE(RS)	AMOUNT(RS)
<b>Item-01</b>	<b><u>REINFORCED CEMENT CONCRETE</u></b> Reinforced cement concrete (1:1½:3 ) using Hi Bond Pre Packaged Polymer Modified Mortar (DHPMM) or more rich to provide 6"x12" cylinder strength of 4000 psi at 28 days age (equivalent cube strength = 4500 psi) including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms, moulds, lifting, shuttering, curing, rendering and finishing exposed surface including screening and washing of stone aggregate.				
	a) Columns	per cft	12.36	837.62	10,352.98
	b) Bottom Slab	per cft	250.10	837.62	209,491.06
	c) Walls	per cft	386.02	837.62	323,336.61
	d) Top Slab	per cft	166.74	837.62	139,660.71
	<b>Chapter-04,Item 6(a)(II) Page-25</b>				
<b>Item-02</b>	<b><u>PVC water stopper</u></b> Providing "Expansion Joint "in concrete work of 9" wide corugated PVC water stopper (with bulb) i.c soldering cost of material and labour etc. complete.				
	<b>Chapter-(II), ItemB(2) Page-144</b>				
<b>Item-03</b>	<b><u>MS RUNGS 3/4" DIA</u></b> Fabrication of mild steel reinforcement for cement concrete including cutting, bending, laying in position, making joints and fastenings including cost of bending wire (also includes removal of rust)				
	<b>Chapter-04, Item 8(a) Page 26</b>				
<b>Item-04</b>	<b><u>TERRAZO FINISH 3/8" THICK DADO</u></b> Mosaic or dado or skirting one part of grey cement and two parts of marble chips laid over 1/2" thick cement plaster 1:3 complete with finishing. (1/2" thick)				
	<b>Chapter-08, Item 38(b) Page 47</b>				
<b>Item-05</b>	<b><u>VENT PIPE (PVC) 3" DIA CLASS 'B'</u></b>  Item E(4)(b),Part-B(II) Vol-III, Page 111				
		Rft	60.00	406.12	24,367.20
<b>Item-06</b>	<b><u>C.I MAN HOLE COVER AND FRAME</u></b> Providing and fixing C.I Manhole Cover with frame i/c cost of material.				
	<b>PHE Chapter -II, Item (I) 1 Page-123</b>				
<b>Item-07</b>	<b><u>ORNAMENTAL JALI</u></b> Providing & Fixing ornamental cement jali 2" thick 1:2:4 without steel				
	<b>Ch#4, item 11 (i) , page 13</b>				
				<b>COST WITHOUT STEEL</b>	<b>1,145,607.19</b>
				<b>PERMIUM _____ % ABOVE OR BELOW</b>	
				<b>(A)-TOTAL COST WITHOUT STEEL</b>	

S.No	DESCRIPTION	UNIT	QTY.	RATE(RS)	AMOUNT(RS)
Item-08	<b>STEEL REINFORCEMENT</b> a) Fabrication of mild steel reinforcement for cement concrete including cutting, bending, laying in position, making joints fastenings, including cost of binding wire also includes removal of rust from bars. a) Grade- 60 <b>Chapter No. 04, Item 8(a) page-26</b>	per Cwt	44.39	18,934.02	840,398.50
				<b>COST FOR STEEL</b>	<b>840,398.50</b>
				<b>PERMIUM _____ % ABOVE OR BELOW</b>	
				<b>(B)-TOTAL COST FOR STEEL</b>	
				<b>TOTAL COST (A+B)</b>	

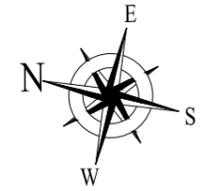
## **11. TENDER DRAWINGS**

**ESTABLISHMENT OF SUFISM & MODERN SCIENCES  
UNIVERSITY BHITSHAH ACADAMIC BLOCK  
ARCHITECTURE TENDER DRAWINGS**

# ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH ACADAMIC BLOCK SCHEDULE OF ARCHITECTURAL DRAWING

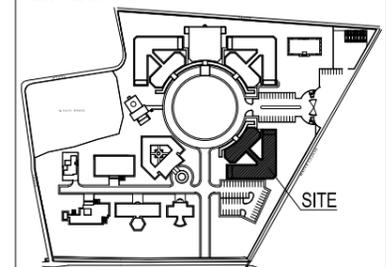
DRG.NO	DRAWING TITLE
A-01	SITE PLAN
A-02	GROUND FLOOR WORKING PLAN
A-03	FIRST FLOOR WORKING PLAN
A-04	SECOND & THIRD FLOOR WORKING PLAN
A-05	MUMTY WORKING PLAN
A-06	ELEVATION-1,2
A-07	SECTION AA,BB & WALL SECTION
A-08	DETAIL OF DOOR
A-09	DETAIL OF WINDOWS
A-10	DETAILS OF TOILET
A-11	DETAILS OF LIFT & STAIR
A-12	GROUND FLOOR FURNITURE PLAN
A-13	FIRST FLOOR FURNITURE PLAN
A-14	SECOND & THIRD FLOOR FURNITURE PLAN
A-15	GROUND FLOOR OPENING PLAN
A-16	FIRST FLOOR OPENING PLAN
A-17	SECOND & THIRD FLOOR OPENING PLAN
A-18	MUMTY OPENING PLAN
A-19	SHEDULE OF FINISHES

TENDER DRAWING



REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN  
SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
INC. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14 PLOT #60 OPP. TO PAKISTAN  
POVERTY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1 ISLAMABAD  
TEL: 051-2289407-10



ARCHITECT

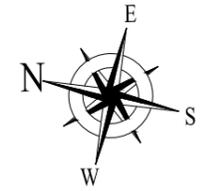
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DRAWING TITLE

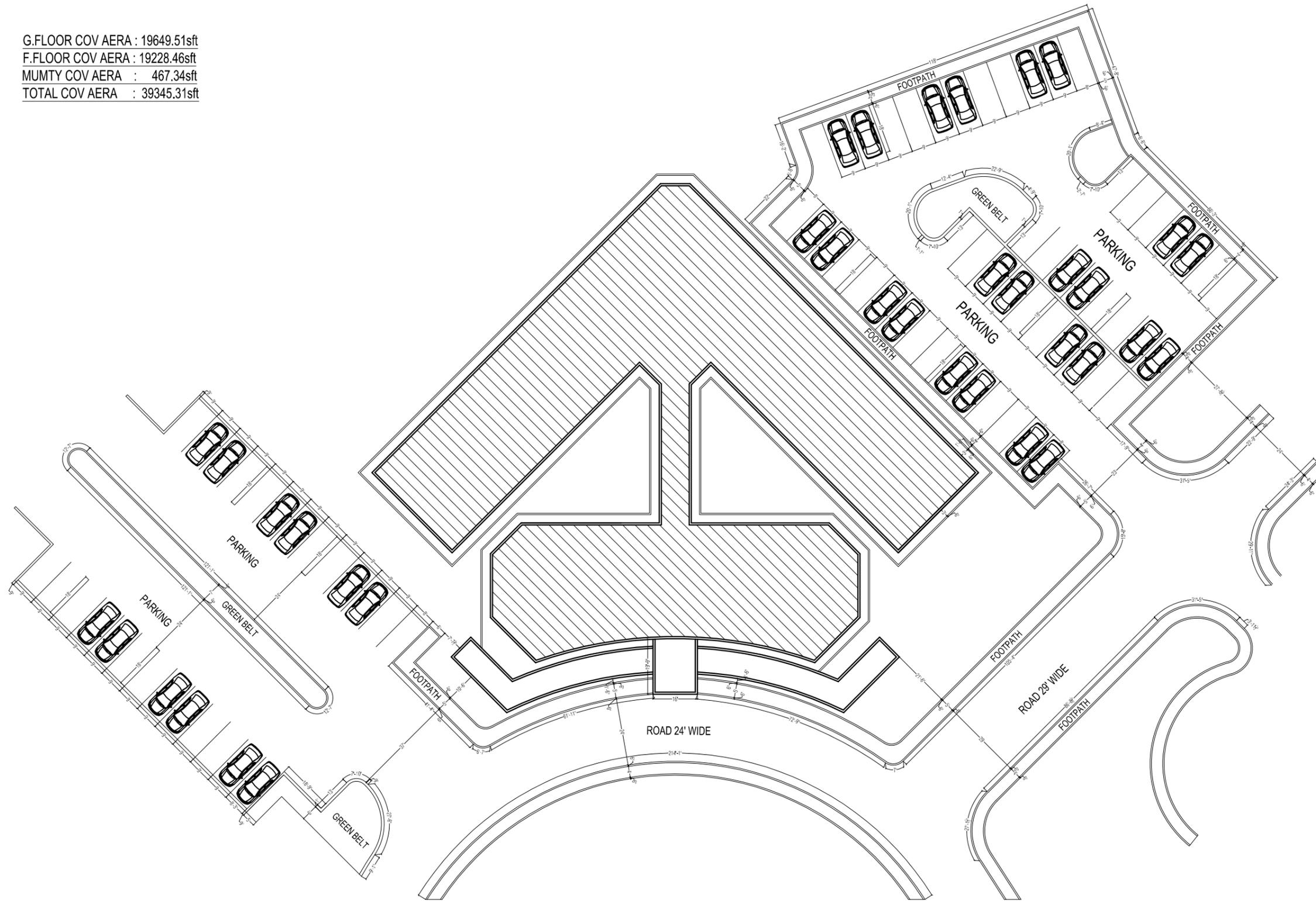
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	CHECKED BY:	

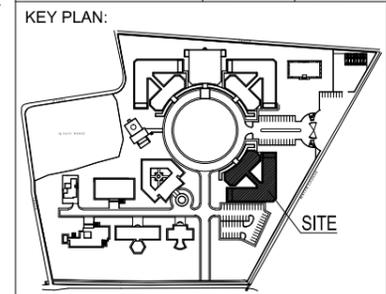
TENDER DRAWING



G.FLOOR COV AERA : 19649.51sft  
 F.FLOOR COV AERA : 19228.46sft  
 MUMTY COV AERA : 467.34sft  
 TOTAL COV AERA : 39345.31sft



REVISION:	S.NO.	DATE:



PROJECT TITLE:  
 UNIVERSITY OF SUFISM & MODERN  
 SCIENCES AT BHITSHAH

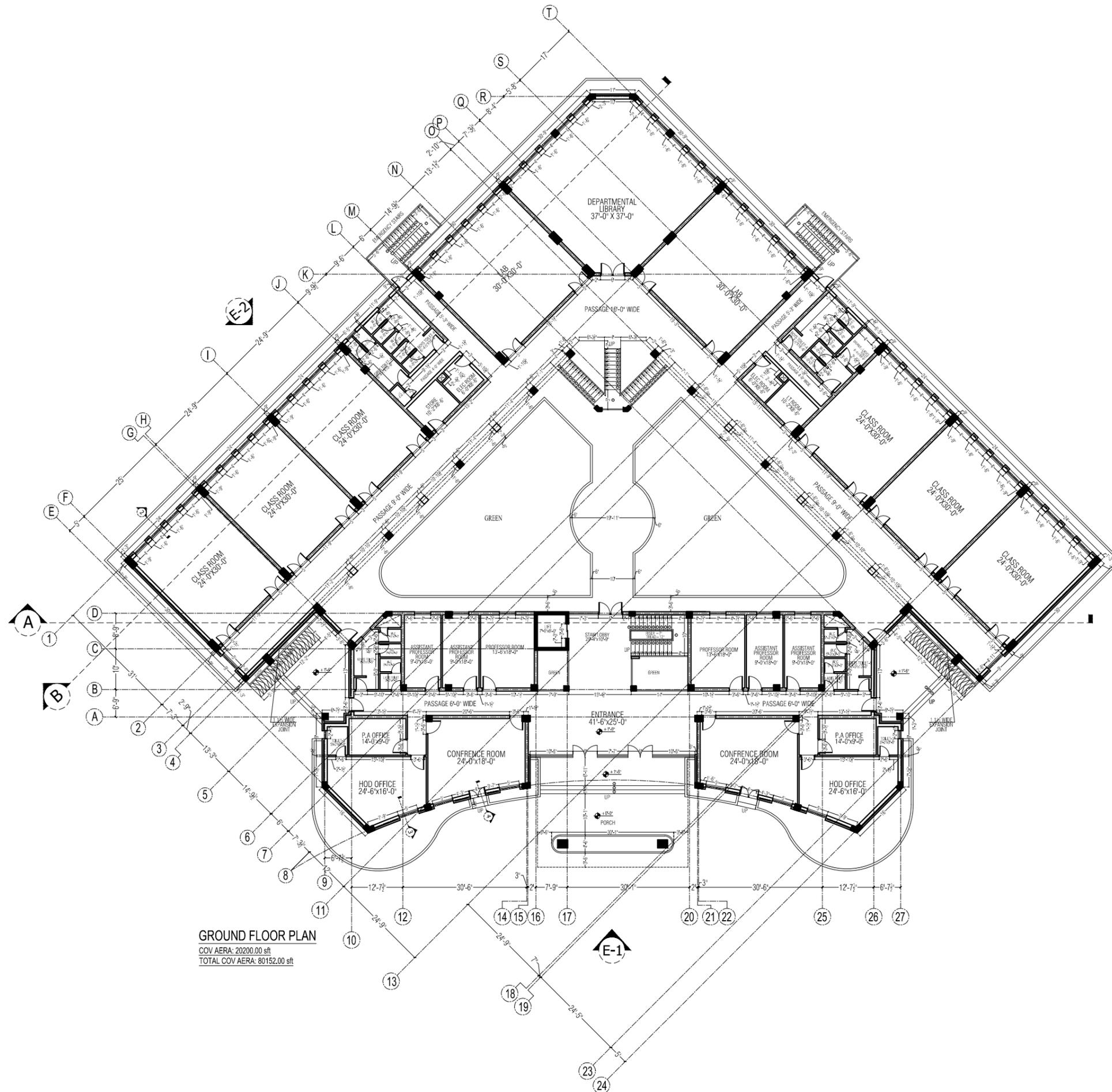
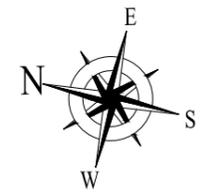
CONSULTANTS  
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 ARCHITECT



DRAWING TITLE		
<b>SITE PLAN</b>		
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	CHECKED BY:	

PIRZADA MASROOR RAZA SIDDIQUIE

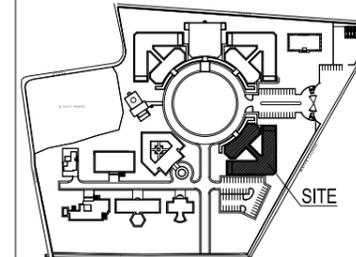
TENDER DRAWING



**GROUND FLOOR PLAN**  
 COV AERA: 20200.00 sft  
 TOTAL COV AERA: 80152.00 sft

REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

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 ARCHITECT



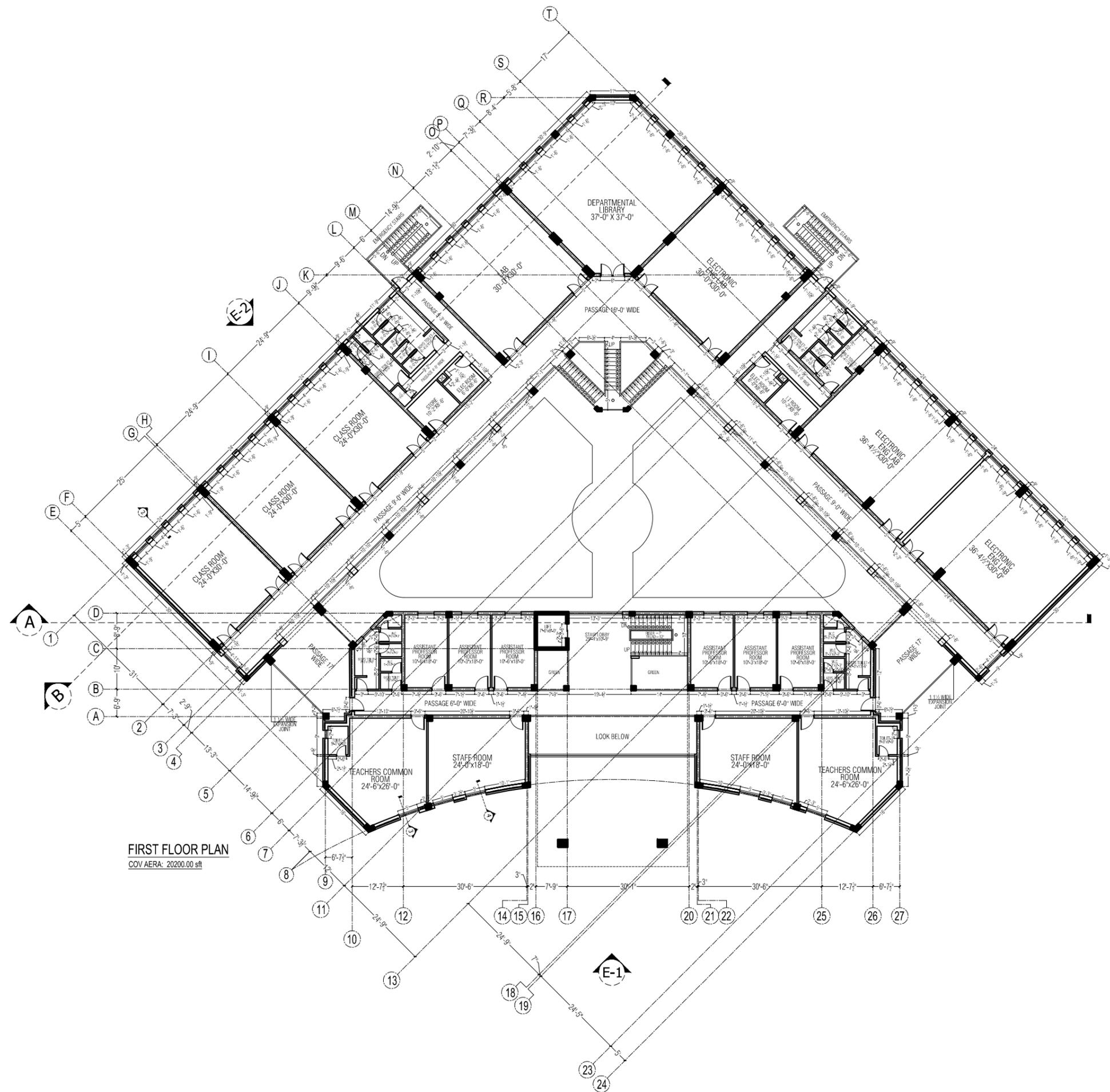
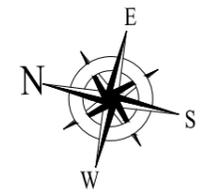
PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

**GROUND FLOOR WORKING PLAN**

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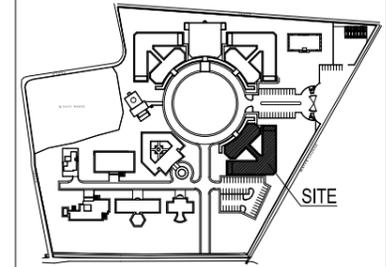
TENDER DRAWING



FIRST FLOOR PLAN  
COV AREA: 20200.00 sqft

REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

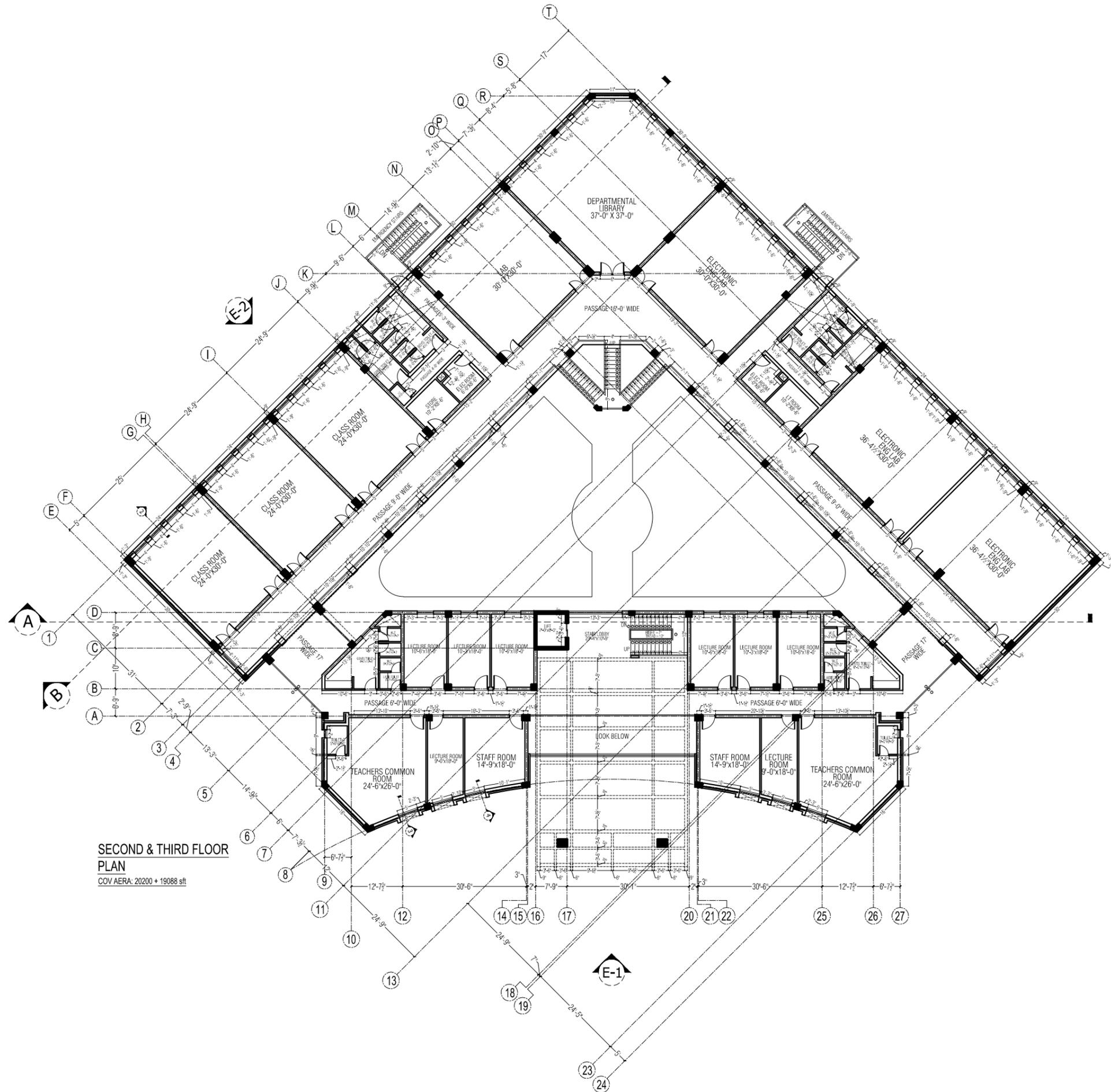
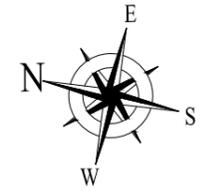
CONSULTANTS  
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LOWER GROUND, I.I.T. CENTRE,  
STREET #14 PLOT #6 OPP. TO PAKISTAN  
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ARCHITECT



PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
FIRST FLOOR WORKING PLAN

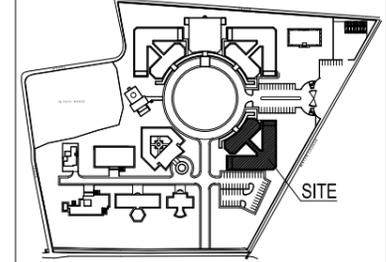
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**SECOND & THIRD FLOOR PLAN**  
 COV AREA: 20200 + 19088 sqft

REVISION	S.NO.	DATE

KEY PLAN:



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UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

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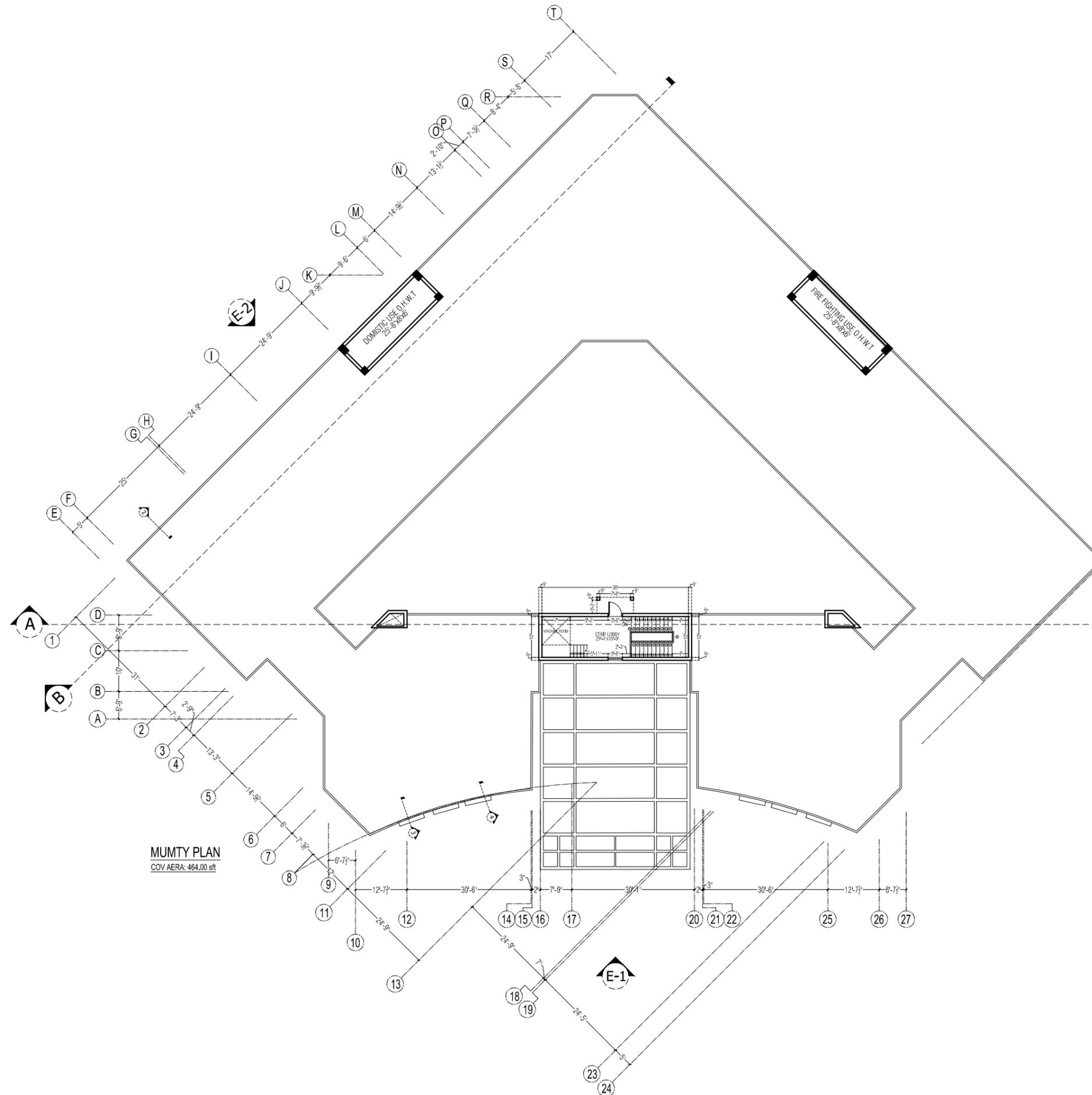


PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

**SECOND & THIRD FLOOR WORKING PLAN**

PROJECT ARCHITECT	DATE:	DRAWING NO:
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	DRAWN BY:	
	CHECKED BY:	



**MUMTY PLAN**  
COV AREA: 464.00 sqft

**TENDER DRAWING**

REVISION:	S.NO.	DATE:

**KEY PLAN:**

SITE

**PROJECT TITLE:**

**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

---

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ARCHITECT

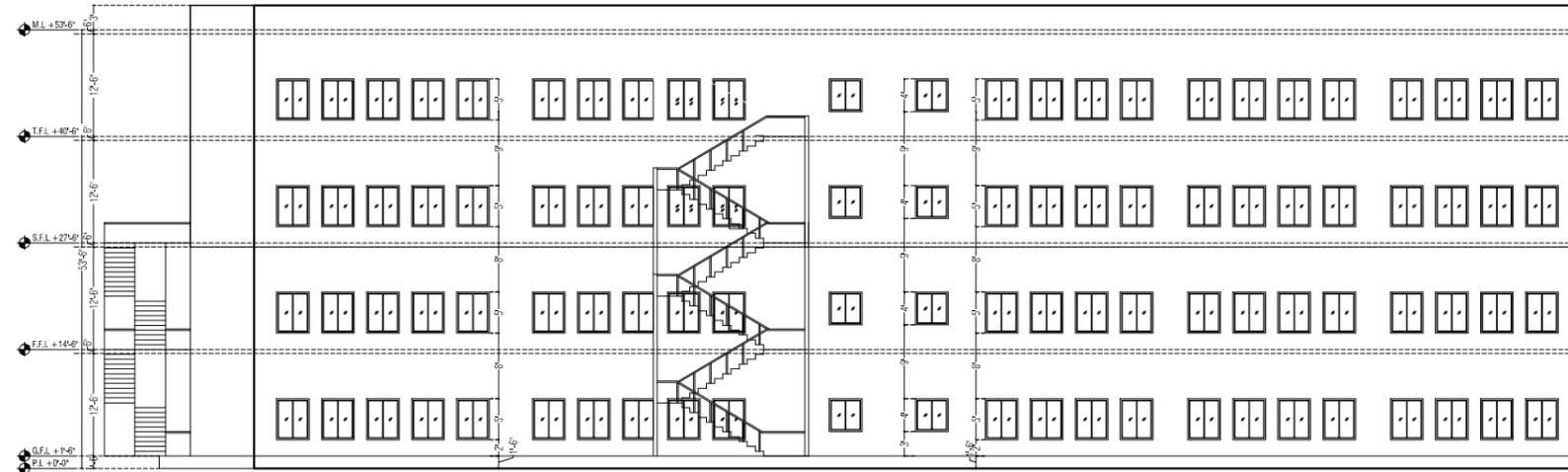
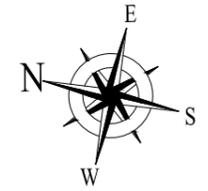
PIRZADA MASROOR RAZA SIDDIQUIE

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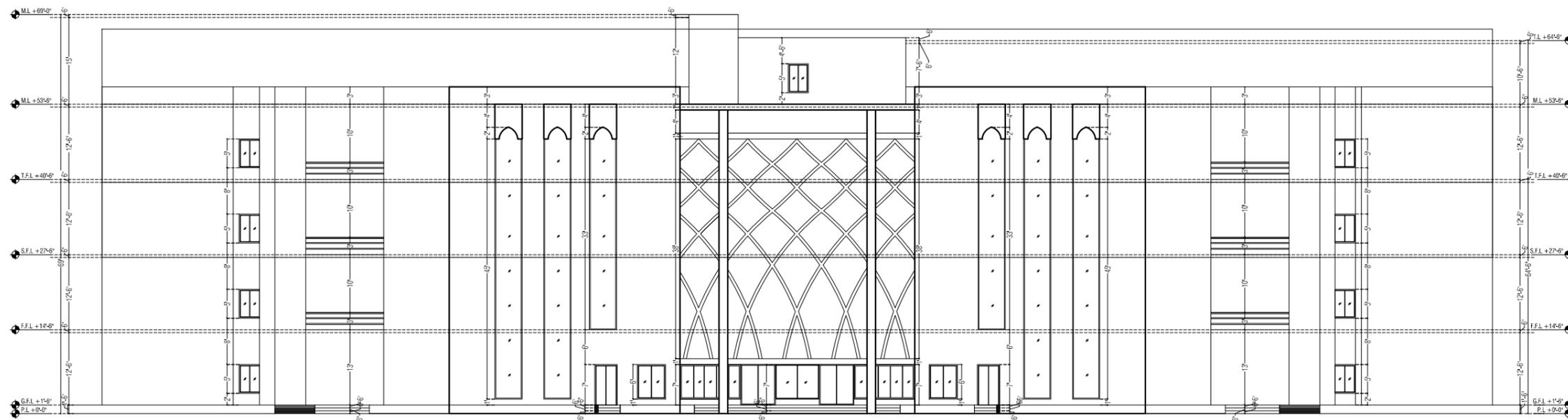
**MUMTY WORKING PLAN**

PROJECT ARCHITECT	DATE:	DRAWING NO:
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TENDER DRAWING



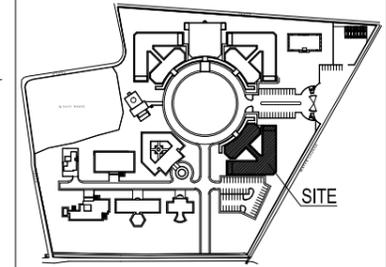
ELEVATION-2



ELEVATION-1

REVISION	S.NO.	DATE

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
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 INC. ARCHITECT & ENGINEER  
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 ARCHITECT

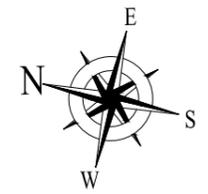


PIRZADA MASROOR RAZA SIDDIQUIE

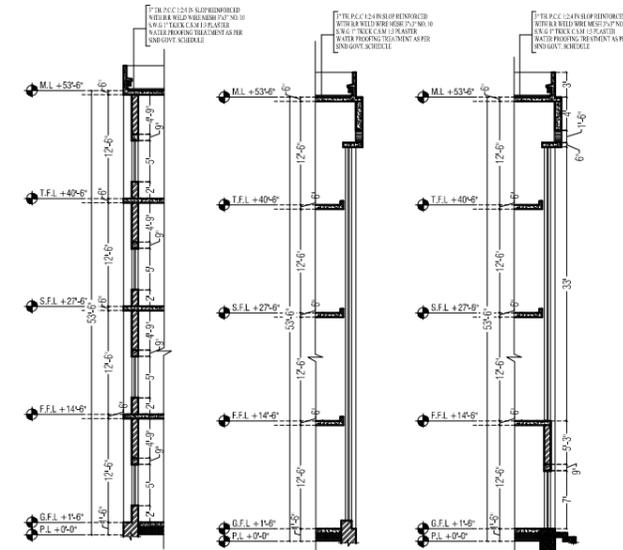
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ELEVATION 1 & 2

PROJECT ARCHITECT	DATE:	DRAWING NO:
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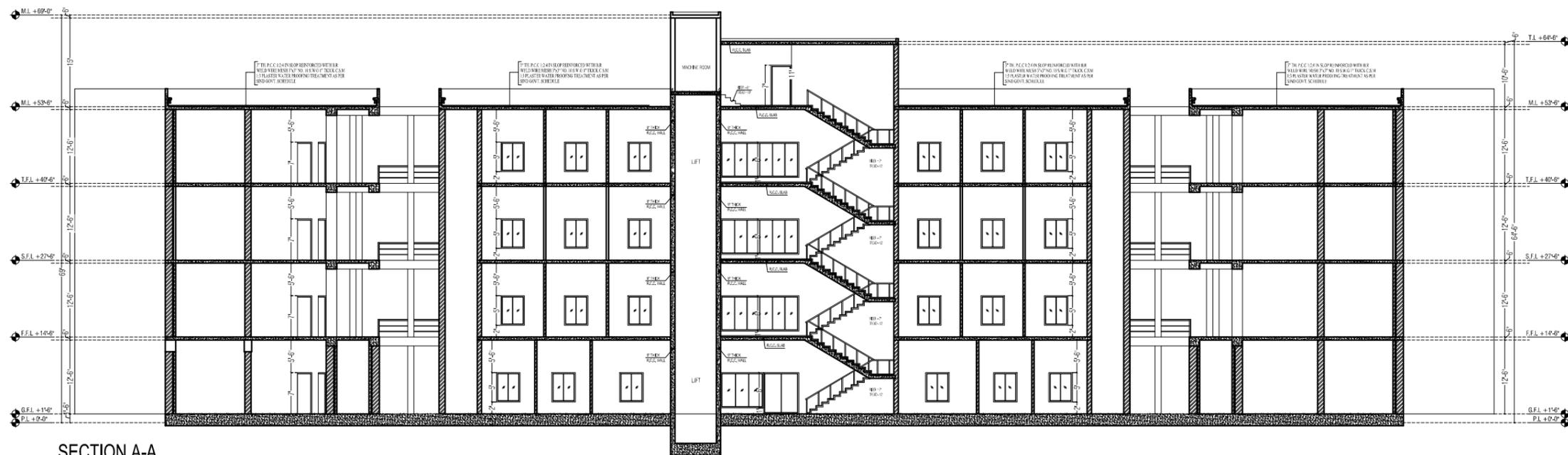
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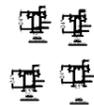
SECTION 2-2

SECTION 3-3

SECTION 4-4

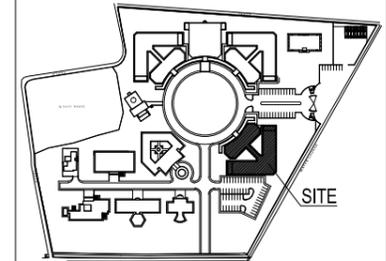


SECTION A-A



REVISION: S.NO. DATE:

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

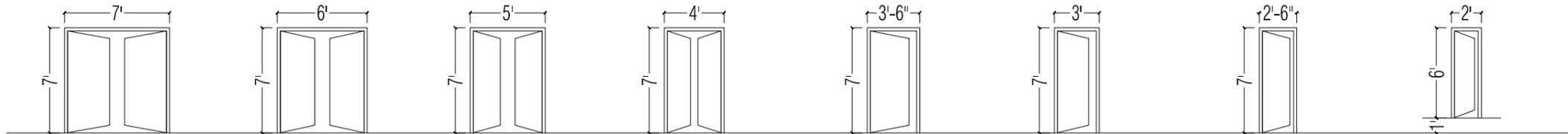
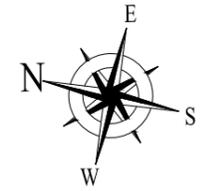
CONSULTANTS  
**NAQVI AND SIDDIQUE**  
INC. ARCHITECT & ENGINEER  
LOWER GROUND, I.I.T. CENTRE,  
STREET #14 PLOT #60 OPP. TO PAKISTAN  
POVERTY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1 ISLAMABAD  
TEL: 051-2289407-10  
ARCHITECT

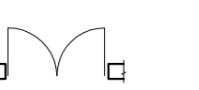
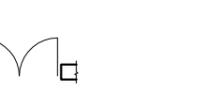


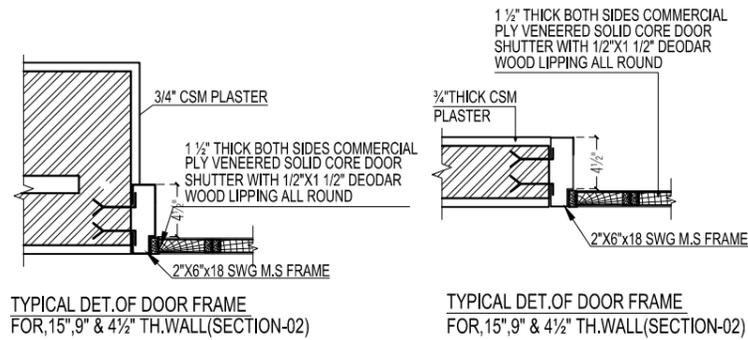
PIRZADA MASROOR RAZA SIDDIQUE

DRAWING TITLE  
SECTION AA & BB  
SECTION 2-2, 3-3 & 4-4

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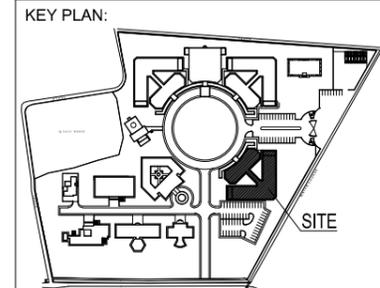


-   
 D-1= 8'-0"X7'-0"
-   
 D-2= 6'-0"X7'-0"
-   
 D-3= 5'-0"X7'-0"
-   
 D-4= 4'-0"X7'-0"
-   
 D-5= 3'-6"X7'-0"
-   
 D-6= 3'-0"X7'-0"
-   
 D-7= 2'-6"X7'-0"
-   
 D-8= 2'-0"X6'-0"



SCHEDULE OF DOORS				
S.NO	TYPE	WIDTH/HEIGHT	SILL.LEV	TYPE
1	D1	7'-0"X7'-0"	0'-0"	GLASS DOOR
2	D2	6'-0"X7'-0"	0'-0"	SOLID CORE FLUSH DOOR (COMMERCIAL PLY VENEERED)
3	D3	5'-0"X7'-0"	0'-0"	//
4	D4	4'-0"X7'-0"	0'-0"	//
5	D5	3'-6"X7'-0"	0'-0"	//
6	D6	3'-0"X7'-0"	0'-0"	//
7	D7	2'-6"X7'-0"	0'-0"	//
8	D8	2'-0"X6'-0" (DUCT DOOR)	1'-0"	SOLID CORE FLUSH DOOR

REVISION:	S.NO.	DATE:



PROJECT TITLE:  
  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
INC. ARCHITECT & ENGINEER  
LOWER GROUND, I.I.T CENTRE,  
STREET#14 PLOT#60 Opp. TO PAKISTAN  
POVERTY ALLEVIATION FUND OFFICE,  
SECTOR G-8/I, ISLAMABAD  
TEL: 051-2289407-10  
ARCHITECT

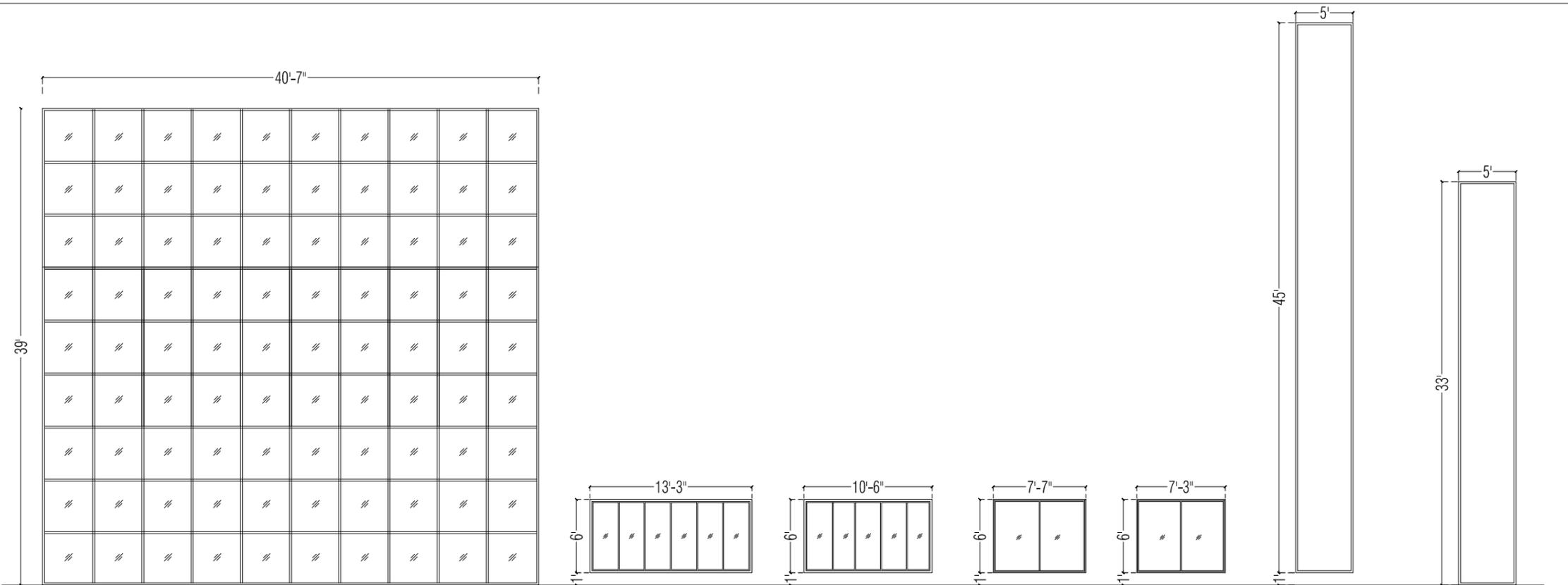


PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
**DOOR SCHEDULE**

PROJECT ARCHITECT	DATE:	DRAWING NO:
	SCALE:	A-08
	DRAWN BY:	
	CHECKED BY:	

TENDER DRAWING



W1=40'-7"X25'-0"

W2=13'-3"X6'-0"

W3=10'-0"X6'-0"

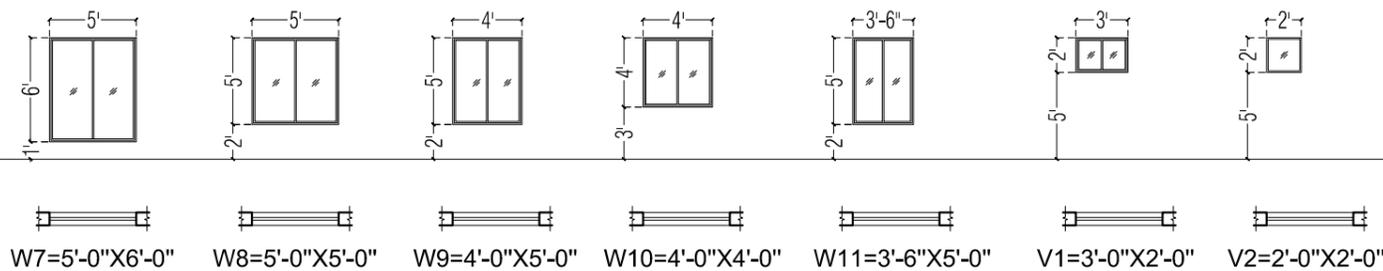
W4=7'-7"X6'-0"

W5=7'-3"X6'-0"

W6=5'-0"X32'-0"

W6a=5'-0"X20'-0"

S.NO	TYPE	WIDTH/HEIGHT	SILL.LEV	TYPE
1	W1	40'-7"X39'-0"	0'-0"	ALUMINUM FRAME WINDOW CURTAIN WALL GLAZING
2	W2	13'-3"X6'-0"	1'-0"	//
3	W3	10'-6"X6'-0"	1'-0"	//
4	W4	7'-7"X6'-0"	1'-0"	//
5	W5	7'-3"X6'-0"	1'-0"	//
6	W6	5'-0"X45'-0"	1'-0"	//
7	W6a	5'-0"X33'-0"	0'-0"	//
8	W7	5'-0"X6'-0"	1'-0"	//
9	W8	5'-0"X5'-0"	2'-0"	//
10	W9	4'-0"X5'-0"	2'-0"	//
11	W10	4'-0"X4'-0"	3'-0"	//
12	W11	3'-6"X5'-0"	2'-0"	//
13	V1	3'-2"X2'-0"	5'-0"	//
14	V2	2'-0"X2'-0"	5'-0"	//



W7=5'-0"X6'-0"

W8=5'-0"X5'-0"

W9=4'-0"X5'-0"

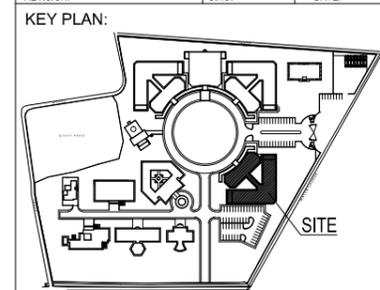
W10=4'-0"X4'-0"

W11=3'-6"X5'-0"

V1=3'-0"X2'-0"

V2=2'-0"X2'-0"

REVISION: S.NO. DATE:



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TEL: 051-2289407-10

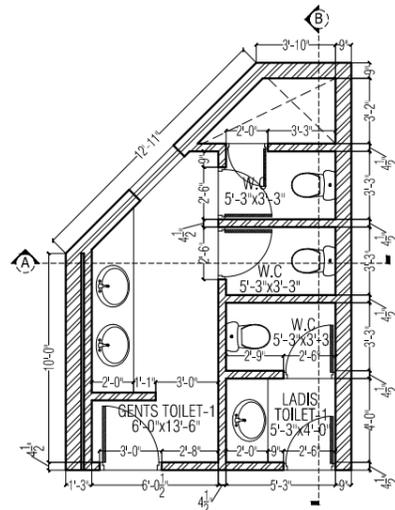


PIRZADA MASROOR RAZA SIDDIQUIE

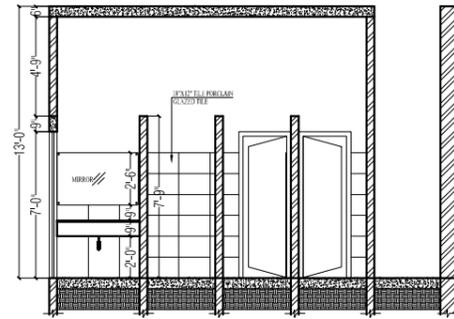
DRAWING TITLE

DETAIL OF WINDOWS

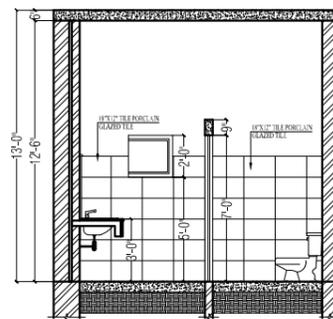
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CHECKED BY:



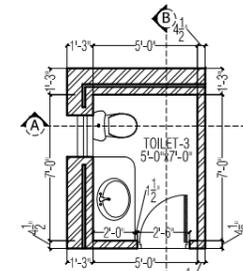
DETAIL OF TOILET - 1  
GROUND & FIRST FLOOR PLAN



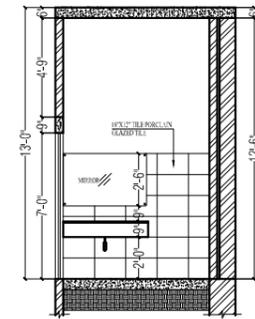
SECTION B-B



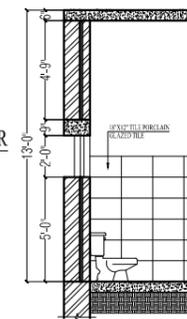
SECTION A-A



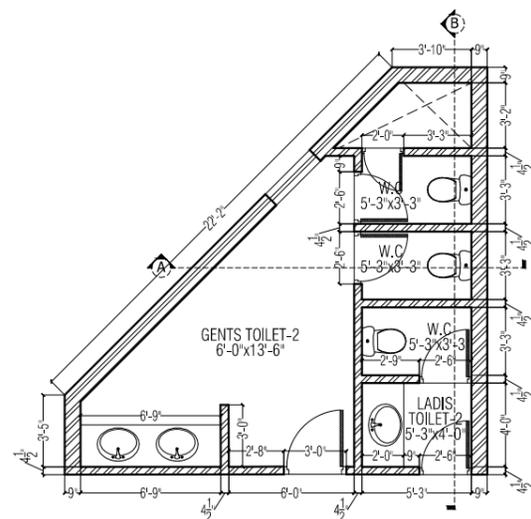
DETAIL OF TOILET - 3  
GROUND, FIRST & SECOND & THIRD FLOOR PLAN



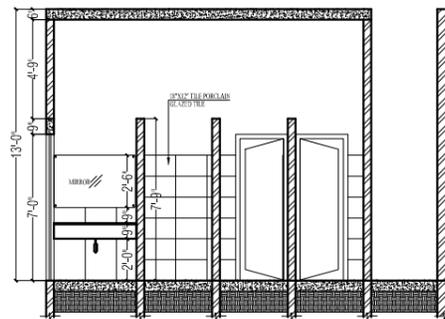
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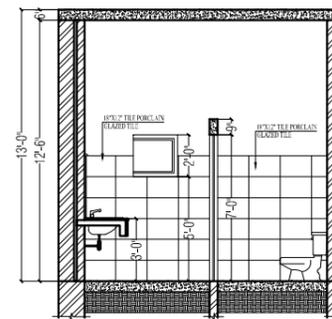
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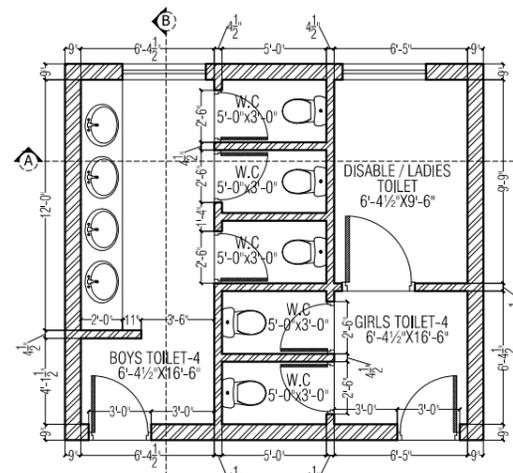
DETAIL OF TOILET - 2  
SECOND & THIRD FLOOR PLAN



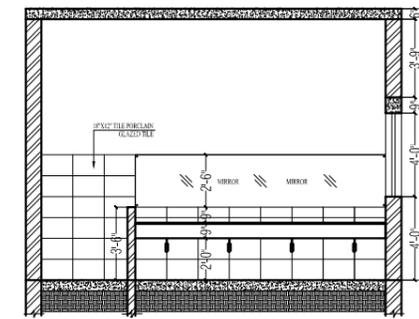
SECTION B-B



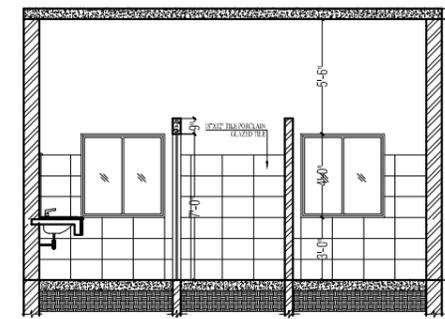
SECTION A-A



DETAIL OF TOILET - 4  
GROUND, FIRST & SECOND & THIRD FLOOR PLAN



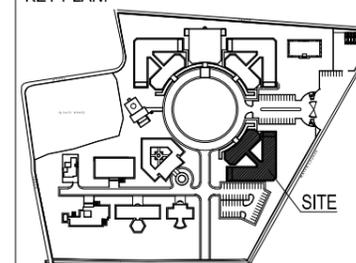
SECTION B-B



SECTION A-A

REVISION:	S.NO.	DATE:

KEY PLAN:



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UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

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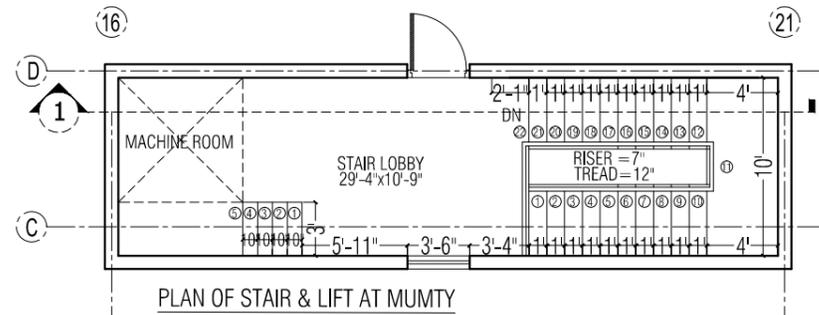
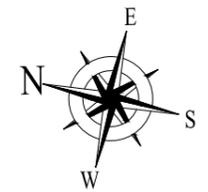
PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

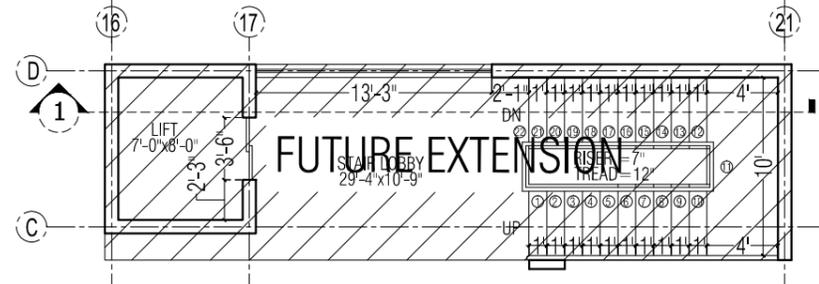
TOILET DETAIL

PROJECT ARCHITECT	DATE:	DRAWING NO:

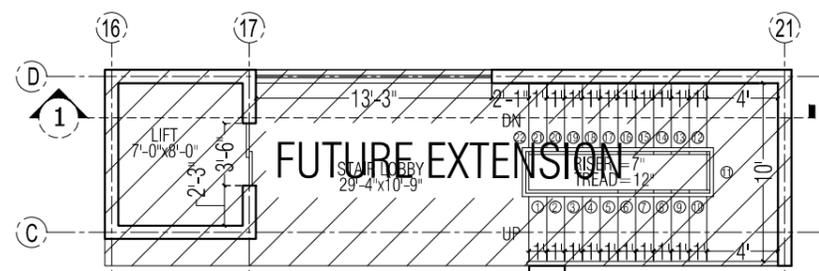
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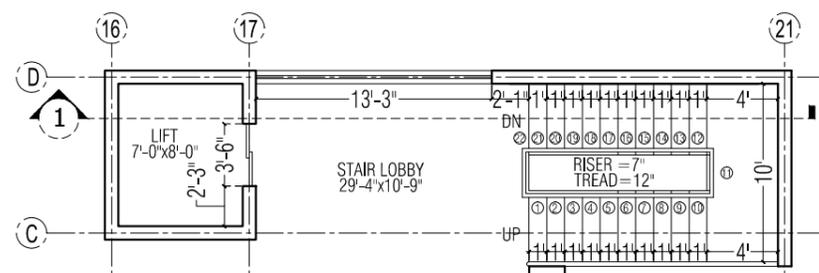
PLAN OF STAIR & LIFT AT MUMTY



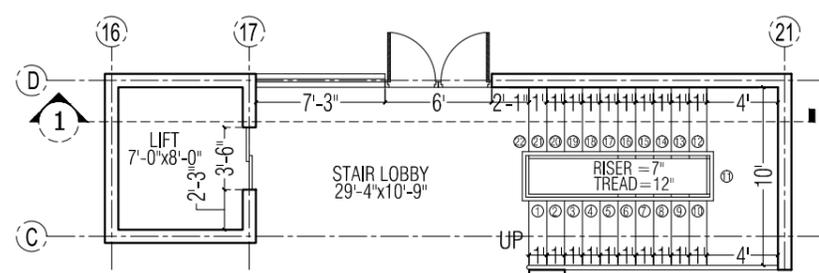
PLAN OF STAIR & LIFT AT THIRD FLOOR



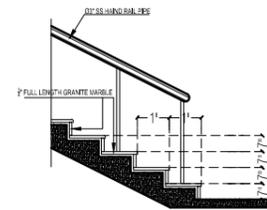
PLAN OF STAIR & LIFT AT SECOND FLOOR



PLAN OF STAIR & LIFT AT FIRST FLOOR

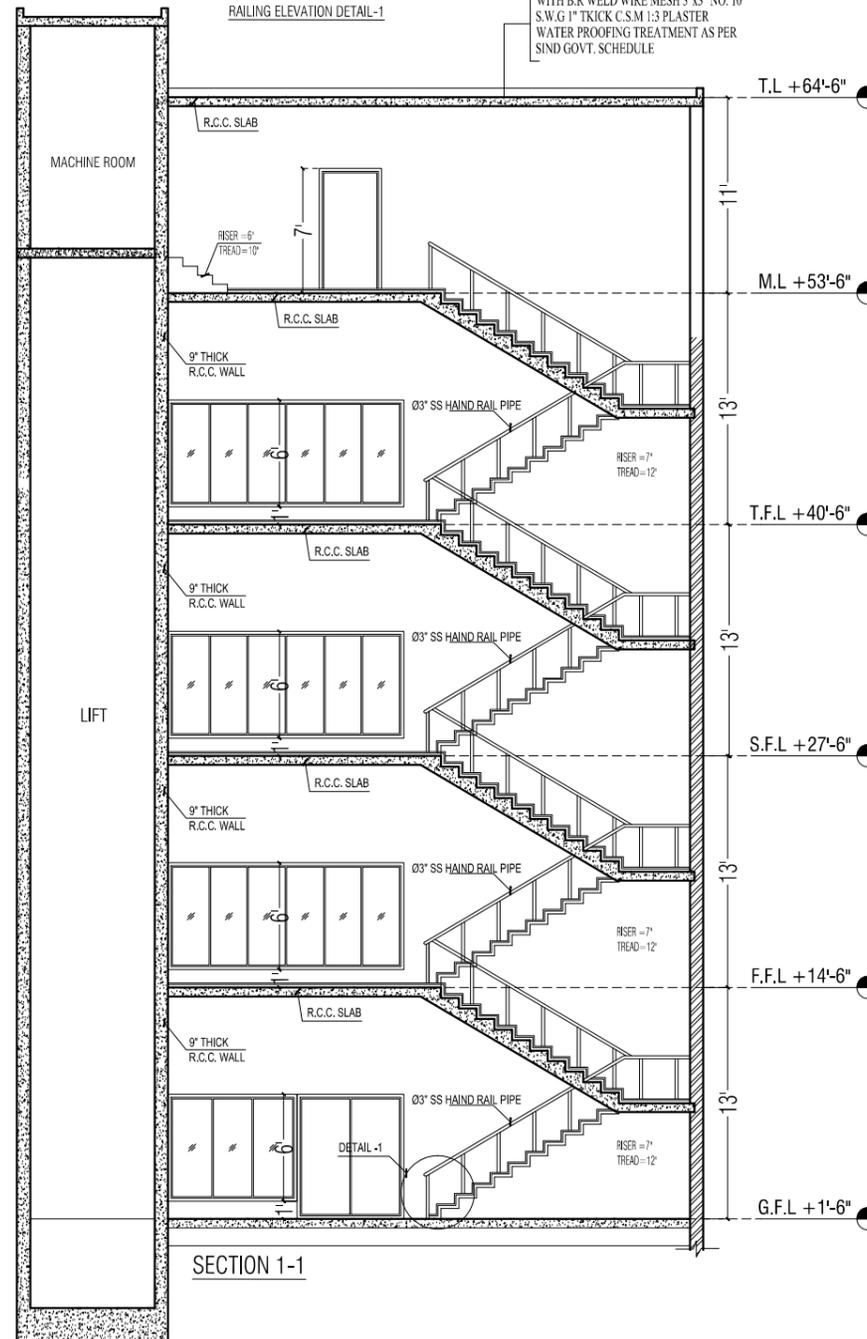


PLAN OF STAIR & LIFT AT GROUND FLOOR



RAILING ELEVATION DETAIL-1

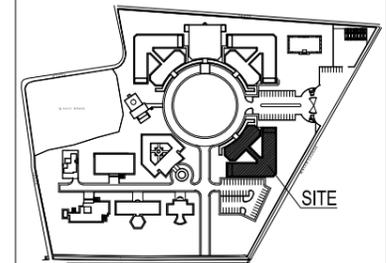
3" TH. P.C.C 1:2:4 IN SLOP REINFORCED WITH B.R WELD WIRE MESH 3"x3" NO. 10 S.W.G 1" THICK C.S.M 1:3 PLASTER WATER PROOFING TREATMENT AS PER SIND GOVT. SCHEDULE



SECTION 1-1

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KEY PLAN:



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PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

LIFT & STAIR DETAIL

PROJECT ARCHITECT

DATE:

DRAWING NO.

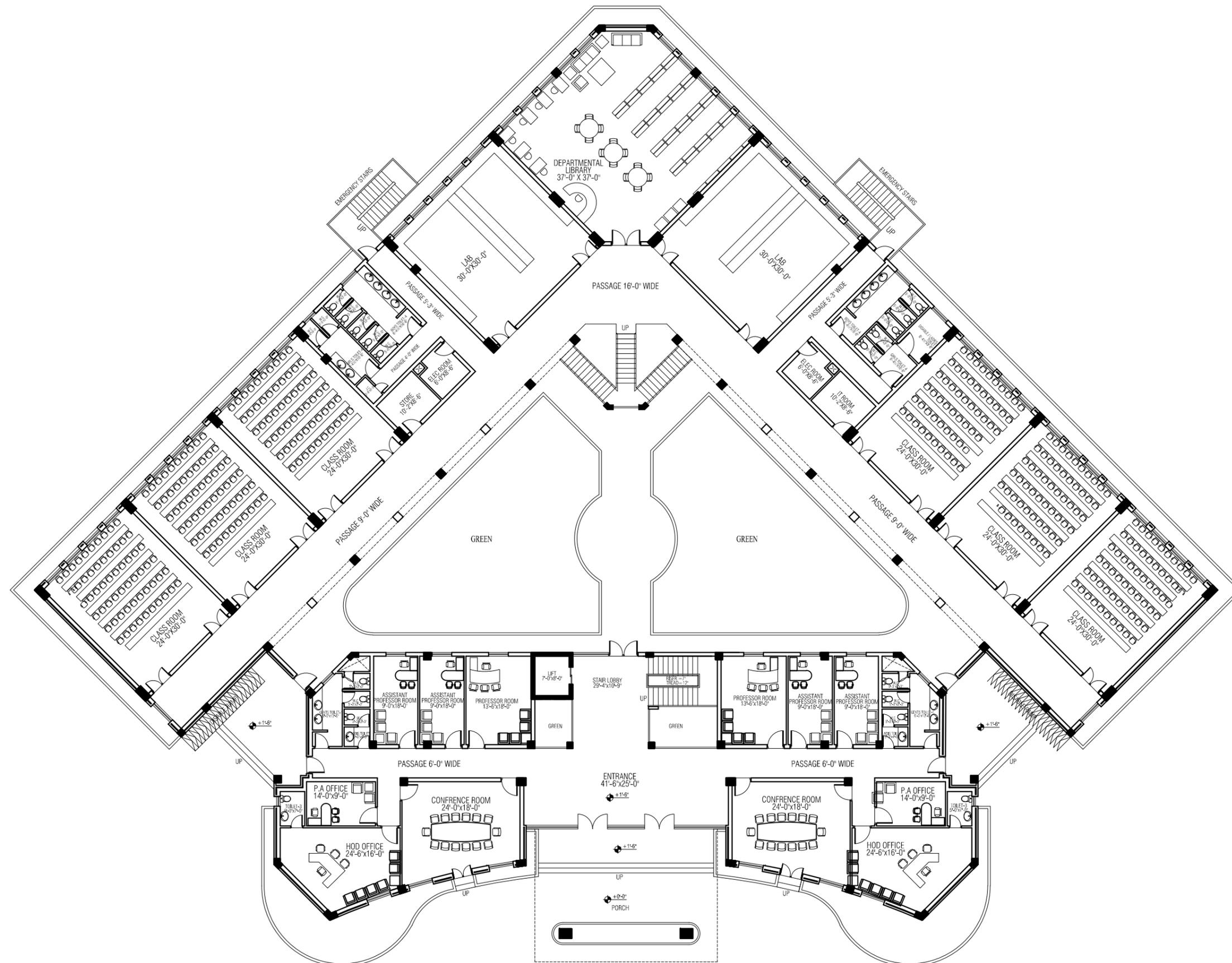
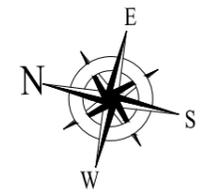
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DRAWN BY:

CHECKED BY:

A-11

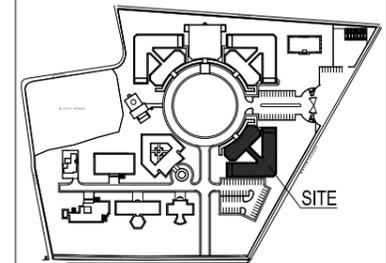
TENDER DRAWING



GROUND FLOOR PLAN

REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

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 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 051-2289407-10  
 ARCHITECT

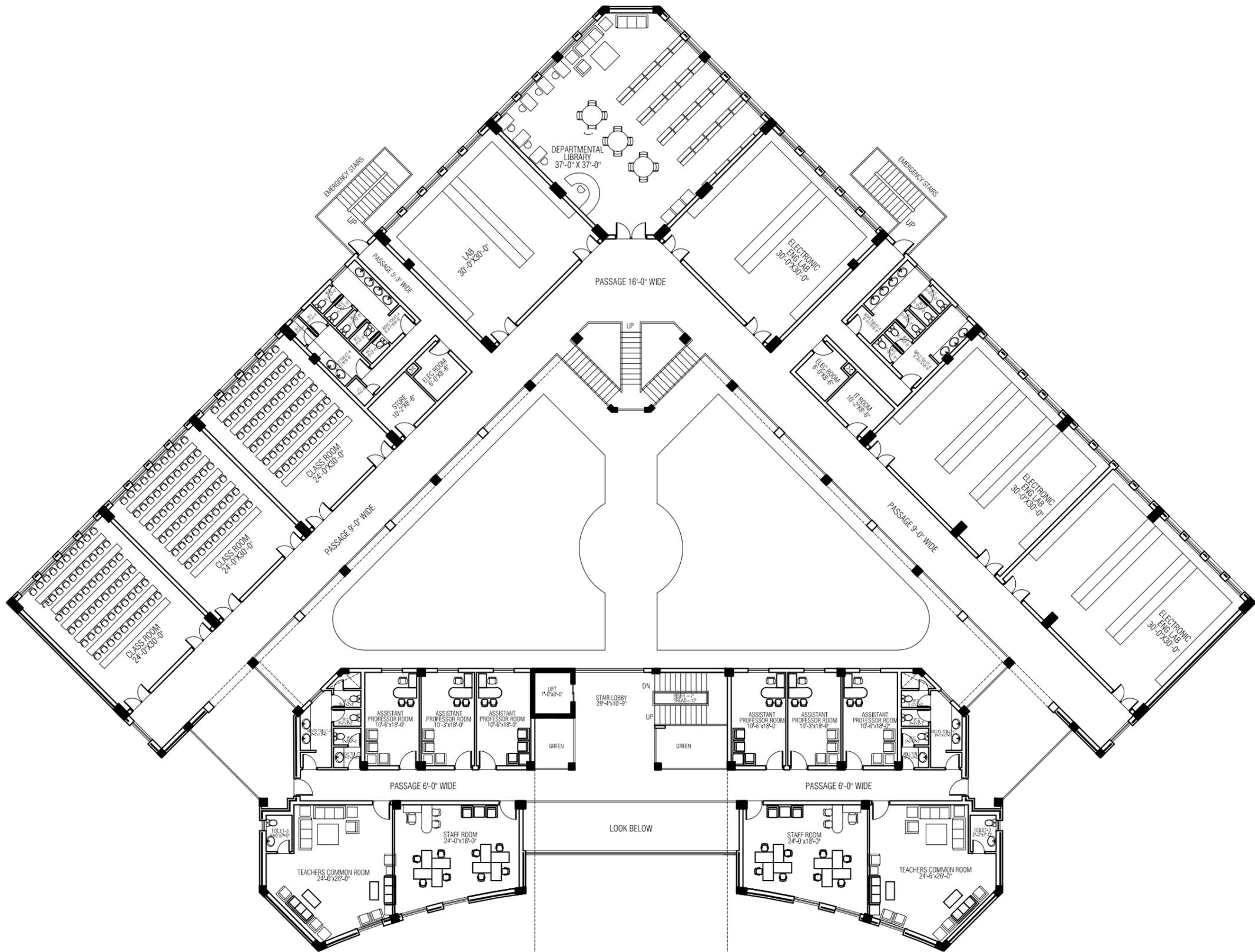


PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

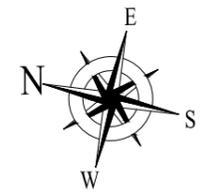
GROUND FLOOR FURNITURE PLAN

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	SCALE:	
	DRAWN BY:	A-12
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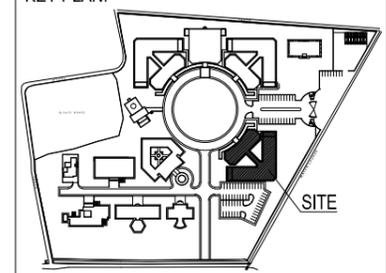
FIRST FLOOR PLAN

TENDER DRAWING



REVISION:	S.NO.	DATE:

KEY PLAN:



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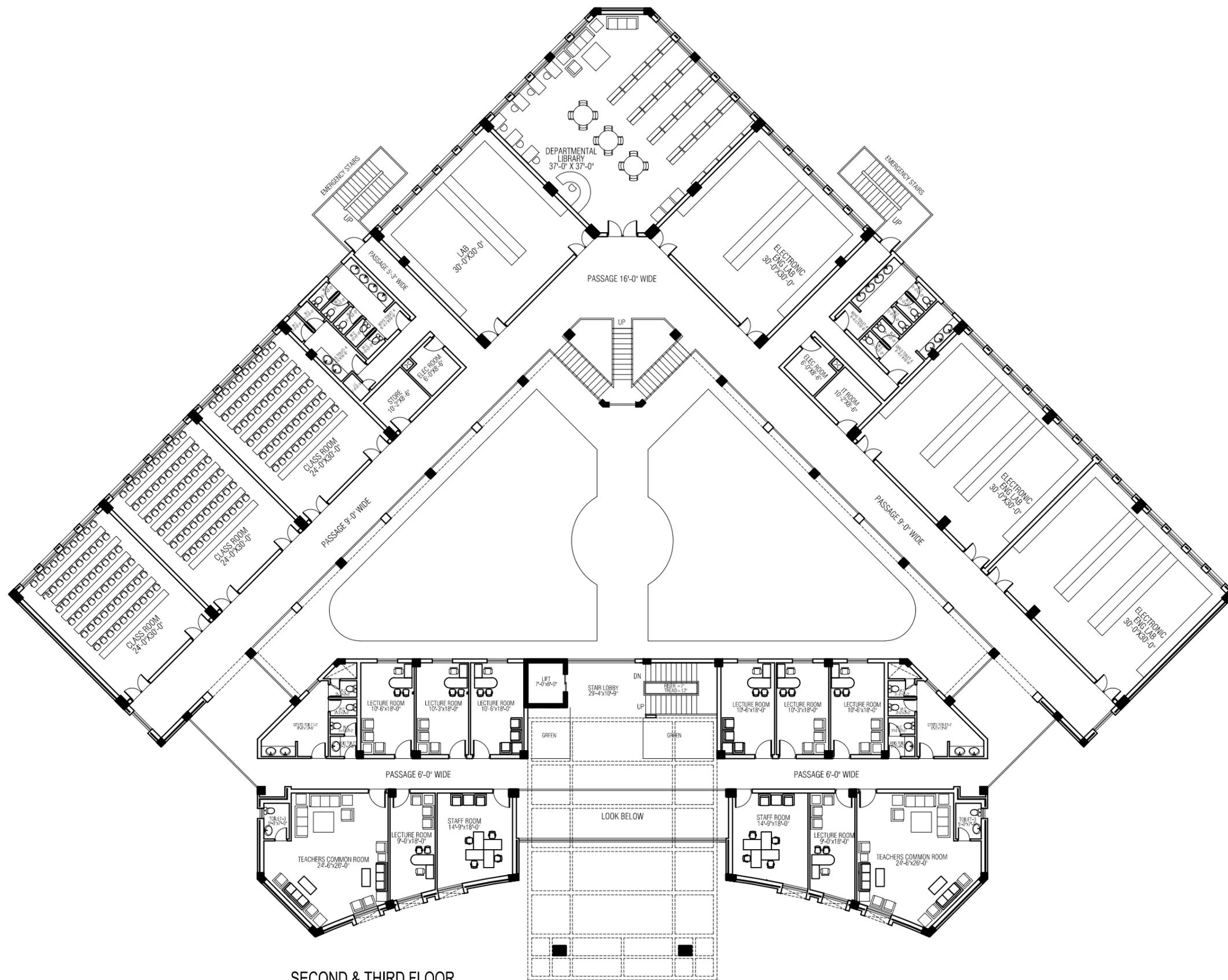
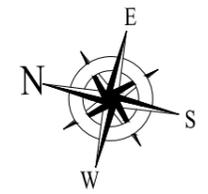


PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

FIRST FLOOR FURNITURE PLAN

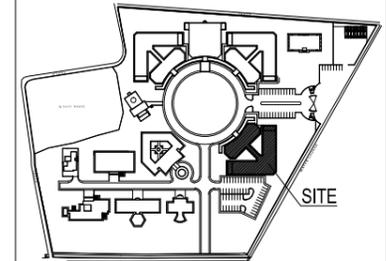
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SECOND & THIRD FLOOR  
PLAN

REVISION	S.NO.	DATE

KEY PLAN:



PROJECT TITLE:

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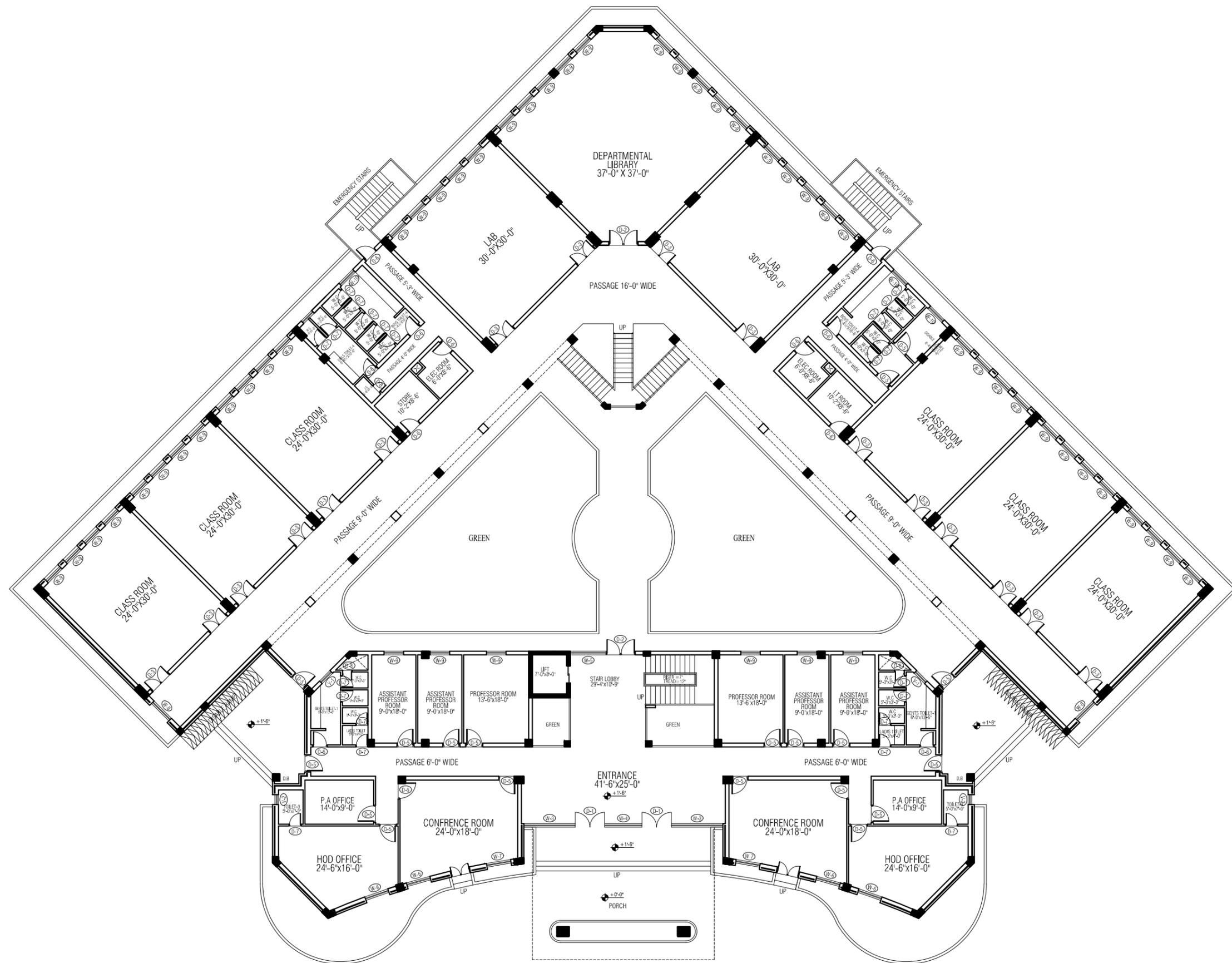
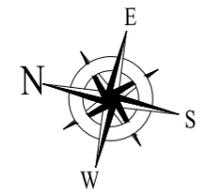
PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

SECOND & THIRD FLOOR FURNITURE PLAN

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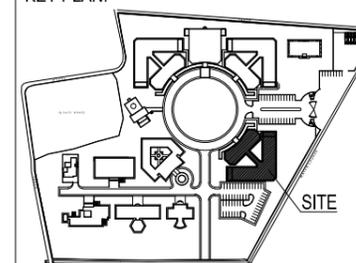
TENDER DRAWING



GROUND FLOOR PLAN

REVISION	S.NO.	DATE

KEY PLAN:



PROJECT TITLE:

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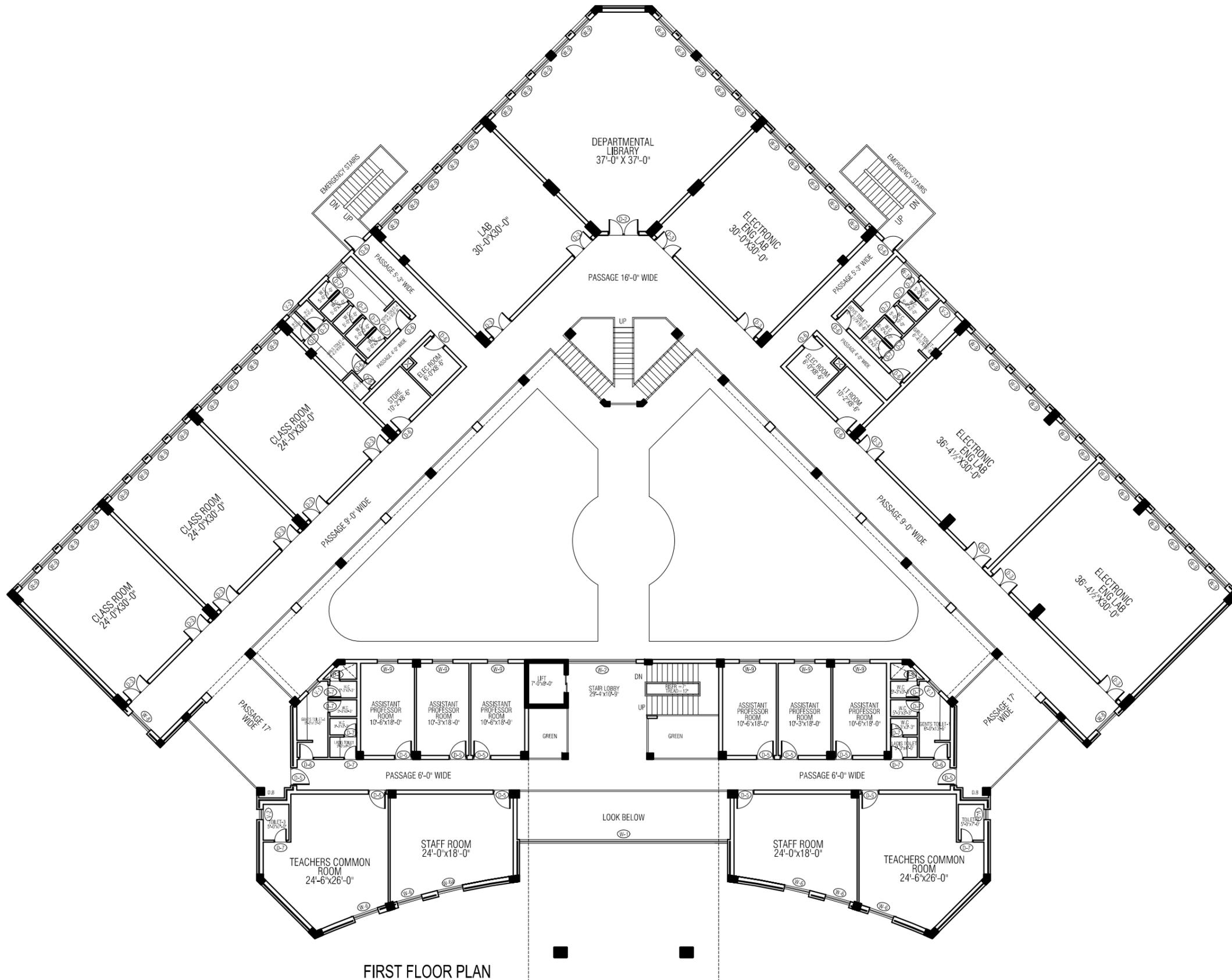
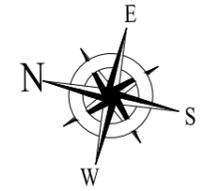


PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
**GROUND FLOOR OPENING PLAN**

PROJECT ARCHITECT	DATE:	DRAWING NO:
	SCALE:	
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	CHECKED BY:	

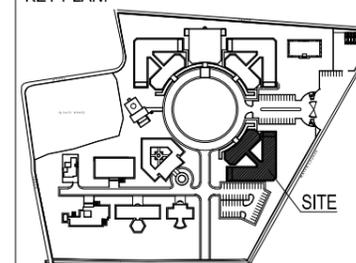
TENDER DRAWING



FIRST FLOOR PLAN

REVISION	S.NO.	DATE

KEY PLAN:



PROJECT TITLE:

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 ARCHITECT

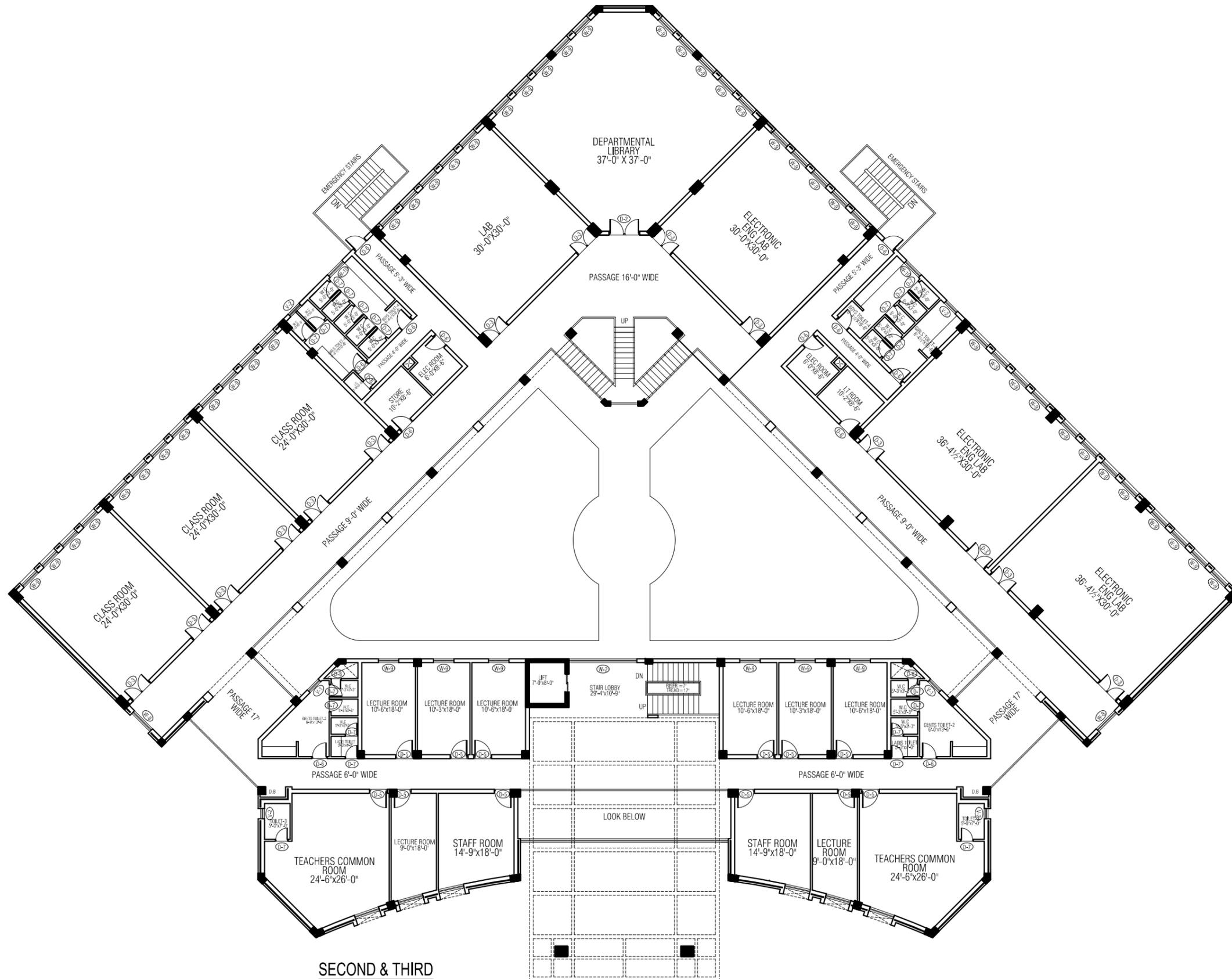
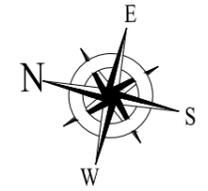


PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
**FIRST FLOOR OPENING PLAN**

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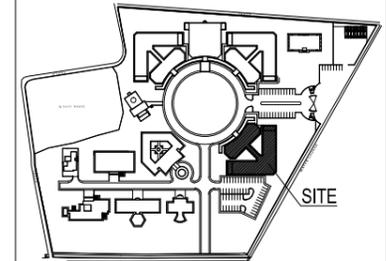
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SECOND & THIRD FLOOR PLAN

REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

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 ARCHITECT



PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

SECOND & THIRD FLOOR OPENING PLAN

PROJECT ARCHITECT	DATE:	DRAWING NO:
	SCALE:	
	DRAWN BY:	A-17
	CHECKED BY:	



TENDER DRAWING



GROUND FLOOR - SCHEDULE OF FINISHES

AREA	FLOOR	SKIRTING	DADO	INTERNAL SURFACES		FALSE CEILING	EXTERNAL FINISHES	
				WALLS	CEILING		AREA	FINISHES
ENTRANCE PODIUM	2'-0" x 2'-0" x 3/8" GRANITE MARBLE	2'-0" x 1/2" x 3/8" GRANITE MARBLE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	7/4" x 10/4" FAIR FACE BRICK WORK USING SPECIAL BRICKS 3/4" MIN. C.S. 1/4" MORTAR DEEP STUCK POINTING
PASSAGE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
LAB	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
DEPARTMENTAL LIBRARY	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
CLASS ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
CONFERENCE ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
H.O.D OFFICE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
P.A OFFICE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
ASSISTANT PROFESSOR ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
PROFESSOR ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
G.TOLET	1x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	1x2" GLAZED TILES DADO UPTO 5'-0" HEIGHT	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
L.TOLET	1x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	1x2" GLAZED TILES DADO UPTO 5'-0" HEIGHT	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
STAR	3'-9" x 1'-0" x 3/8" GRANITE MARBLE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---

FIRST FLOOR - SCHEDULE OF FINISHES

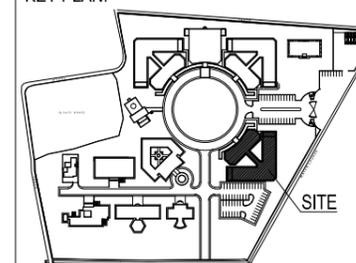
AREA	FLOOR	SKIRTING	DADO	INTERNAL SURFACES		FALSE CEILING	EXTERNAL FINISHES	
				WALLS	CEILING		AREA	FINISHES
PASSAGE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
LAB	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
ELECTRONIC ENG LAB	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
DEPARTMENTAL LIBRARY	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
CLASS ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
TEACHER ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
STAFF ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
P.A OFFICE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
ASSISTANT PROFESSOR ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
G.TOLET	1x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	1x2" GLAZED TILES DADO UPTO 7'-0" HEIGHT	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
L.TOLET	1x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	1x2" GLAZED TILES DADO UPTO 7'-0" HEIGHT	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
STAR	3'-9" x 1'-0" x 3/8" GRANITE MARBLE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---

SECOND & THIRD FLOOR - SCHEDULE OF FINISHES

AREA	FLOOR	SKIRTING	DADO	INTERNAL SURFACES		FALSE CEILING	EXTERNAL FINISHES	
				WALLS	CEILING		AREA	FINISHES
PASSAGE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
LAB	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
ELECTRONIC ENG LAB	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
DEPARTMENTAL LIBRARY	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
CLASS ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
TEACHER ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
STAFF ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
P.A OFFICE	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
LECTURE ROOM	2x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
G.TOLET	1x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	1x2" GLAZED TILES DADO UPTO 7'-0" HEIGHT	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
L.TOLET	1x2x3/8" PORCELAIN TILE	2x4x3/8" PORCELAIN TILE SKIRTING	1x2" GLAZED TILES DADO UPTO 7'-0" HEIGHT	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---
STAR	3'-9" x 1'-0" x 3/8" GRANITE MARBLE	2x4x3/8" PORCELAIN TILE SKIRTING	---	PLASTIC EMULSION PAINT OVER PLASTER	BRIGHT WHITE PLASTIC EMULSION PAINT OVER PLASTER	---	---	---

REVISION: S.NO. DATE:

KEY PLAN:



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
INC. ARCHITECT & ENGINEER  
LOWER GROUND, I.I.T. CENTRE,  
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POVERTY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1 ISLAMABAD  
TEL: 051-2289407-10  
ARCHITECT

PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
**SCHEDULE OF FINISHES**

PROJECT ARCHITECT	DATE:	DRAWING NO:
	SCALE:	A-18
	DRAWN BY:	
	CHECKED BY:	

UNIVERSITY OF SUFISM AND MODERN SCIENCES  
BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK

(STRUCTURE)

ISSUED FOR TENDER DRAWINGS



**Designmen**

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Fax: 92-51-2307615  
E-mail: designmenislamabad@gmail.com

# GENERAL NOTES

## 1. SYSTEM OF UNITS

- a. ALL DIMENSIONS, SPACING ETC. ARE IN INCHES AND FEET UNLESS OTHERWISE SPECIFIED.
- b. ALL ELEVATIONS ARE IN INCHES & FEET UNLESS OTHERWISE NOTED.

## 2. CONCRETE

- A-THE MINIMUM CONCRETE COMPRESIVE CYLINDER SRENGTH AT 28 DAYS SHALL BE 4000PSI (24MPa) FOR ALL COLUMNS & FOUNDATION . BE 3000PSI (21MPa) FOR BEAM & SLABS.
- B- MINIMUM COMPRESIVE CYLINDER STRENGTH AT 28 DAYS OF ALL BLINDING CONCRETE SHALL BE 1500PSI.(10MPa) UNLESS OTHERWISE NOTED ON THE DRAWING.

## 3. REINFORCING STEEL

- a- ALL REINFORCING STEEL FOR REINFORCED CONCRETE SHALL BE OF 60,000PSI (GRADE 60) DEFORMED BARS EXCEPT SHEAR STIRRUPS FOR COLUMN ,BEAMS & LINTELS
- b- ALL LAP LENGTHS AND DEVELOPMENT LENGTHS OF REINFORCING BARS SHALL BE ACCORDING TO ACI CODE.
- c- THE SHEAR REINFORCEMENT(STIRRUPS) IN ALL BEAMS/COLUMNS SHALL BE 40,000 PSI

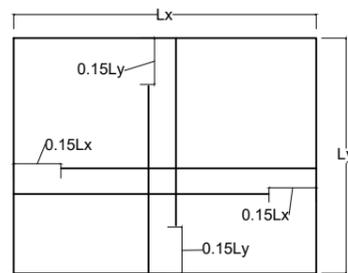
## 4. CONCRETE PROTECTION TO REINFORCEMENT

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

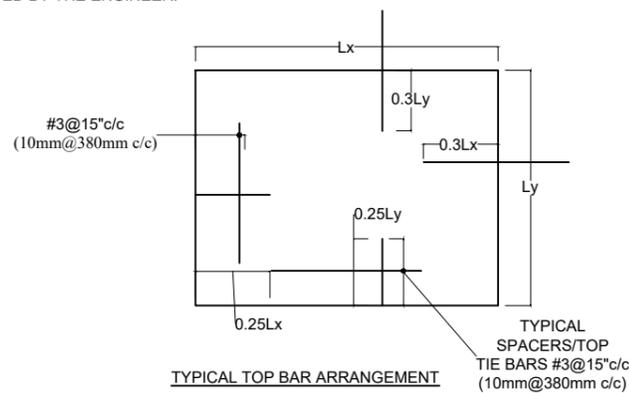
STRUCTURAL ELEMENT	COVER
FOOTING	3" (75mm)
SLABS,WALLS	3/4" (20mm)
COLUMNS & BEAMS	1 1/2" (39mm)
Water Retaining Structures	3" (75mm)

## 5. AGGREGATE SIZE

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



TYPICAL BOTTOM BAR ARRANGEMENT  
DETAILS FOR SLAB



TYPICAL TOP BAR ARRANGEMENT  
DETAILS FOR SLAB (BOTH WAYS)

STRUCTURAL ELEMENT	MAX.AGGREGATE SIZE
RAFT	1 1/4" (30mm)
SLABS,WALLS	3/4" (20mm)
COLUMNS & BEAMS	3/4" 20mm)

## 6. LEVELS

THE LEVELS SHOWN ON STRUCTURAL DRAWINGS ARE STRUCTURAL FLOOR LEVELS. COORDINATE LEVELS WITH ARCHITECTURAL DRAWINGS

## 7. CONSTRUCTION JOINT

CONSTRUCTION JOINT SHALL GENERALLY BE FOLLOWED AS INDICATED ON THE DRAWING-HOWEVER THE CONTRACTOR WILL USE CONSTRUCTION JOINTS ARRANGEMENT TO SUIT HIS REQUIREMENT WITH PRIOR APPROVAL OF THE ENGINEER. FOR THIS PURPOSE THE CONTRACTOR SHALL HAVE TO SUBMIT HIS PROPOSAL FOR THE APPROVAL OF THE ENGINEERS SUFFICIENTLY IN ADVANCE OF HIS SCHEDULED POURING DATE. ALL CONSTRUCTION JOINTS SHALL BE TREATED AS PER SPECIFICATIONS DIFFERENTIAL HEIGHT IN CONSTRUCTION SHALL NOT EXCEED 20 FEET. 610cm

## 8. TOP & BOTTOM REINFORCEMENT IN BEAM & RAFT

CUT LENGTH FOR TOP REINFORCEMENT SHOULD BE L/3 AND FOR BOTTOM REINFORCEMENT SHALL BE L/8 FROM SUPPORT FACE WHERE L IS CLEAR SPAN.

## 9. LOCAL ADJUSTMENT

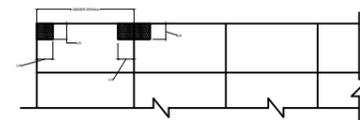
LOCAL ADJUSTMENT TO ACCOMMODATE FIXTURES/EMBEDMENTS OPENINGS MAY BE MADE AT SITE BUT SUBJECT TO THE APPROVAL OF THE ENGINEER, AS LONG AS IT WOULD NOT MATERIALLY EFFECT THE DESIGN.

## 10. TOLERANCES AND DIMENSIONS

BEFORE THE FORM WORK IS LAID AT SITE THE CONTRACTOR MUST VERIFY AND CHECK OVERALL DIMENSIONS/ELEVATION OF THE STRUCTURE GIVEN IN THE STRUCTURAL DRAWINGS TO SEE IF THE FINISHED DIMENSION ELEVATION GIVEN ON THE DRAWING TALLY AFTER PROVIDING THE REQUIRED FINISH.THE ENGINEER REPRESENTATIVE SHALL VERIFY THE MEASUREMENT OF STRUCTURAL SIZES AND ELEVATION BE RECORDED IN RELEVANT POUR STEPS TO BE PUT UP BY THE CONTRACTOR AND TO BE APPROVED BY THE ENGINEER BEFORE EXECUTION PERMISSION TO PROCEED, SHALL NOT BE GRANTED IF DEVIATIONS ARE MORE THAN PERMISSIBLE TOLERANCES.

## 11. TYPICAL SLAB REINFORCEMENT DETAIL

ALL SLAB CORNERS WITH MAIN SPANS ABOVE 20' (610cm) SHALL HAVE EXTRA REINFORCEMENT AS INDICATED-3/4 OF MAIN REINFORCEMENT.(T&B) WHERE L= LONGER SPAN



NOTE-11, FOR SLAB

# DETAILING OF REINFORCEMENT

## 1. DEVELOPMENT LENGTH (ACI 21.5.4)

UNLESS OTHERWISE STATED ON THE DRAWINGS, THE FOLLOWING DEVELOPMENT LENGTH LENGTHS SHALL BE PROVIDED.

Bar Dia	fy=60,000 psi					
	Straight Bar l=f/25√fc' (upto # 6 bars) l=f/20√fc' (#7 And above)			With Standard Hook Ld=0.8x0.02f/√fc'		
	fc'=3000 Psi.	fc'=4000 Psi.	fc'=4500 Psi.	fc'=3000 Psi.	fc'=4000 Psi.	fc'=4500 Psi.
1/4 "	14"	10"	12"	5"	4"	4"
3/8 "	17"	15"	14"	7"	6"	6"
1/2 "	22"	19"	18"	9"	8"	8"
5/8 "	28"	24"	23"	11"	10"	9"
3/4 "	33"	28"	27"	13"	12"	11"
1"	55"	48"	45"	18"	15"	16"

## 2. STANDARD HOOKS (ACI7.1-7.2)

Bar Dia	A	B	C	Hook
1/4"	2.5"	1.5"	3"	180° Hook
3/8 "	2.5"	2.25"	4.5"	
1/2 "	2.5"	3"	6"	90° Hook
5/8 "	2.5"	3.75"	7.5"	
3/4 "	3"	4.5"	9"	
1"	4"	6"	12"	

## 3. LAP LENGTH

UNLESS OTHERWISE STATED ON THE DRAWING,THE FOLLOWING LAP LENGTHS SHALL BE PROVIDED.

Bar Dia	fy=60,000 psi		
	Length of Lap Splice		
	fc'=3000 Psi.	fc'=4000 Psi.	fc'=4500 Psi.
1/4"	18"	13"	15"
3/8"	22"	20"	18"
1/2"	29"	25"	24"
5/8"	36"	32"	29"
3/4"	43"	36"	35"
1"	72"	63"	58"

EXCEPT WHEN OTHERWISE SHOWN ON THE DRAWING, WHENEVER REINFORCING BARS OF DIFFERENT SIZES ARE TO BE SPLICED, THE SPLICED LENGTH IS TO BE LARGER OF THE DEVELOPMENT LENGTH AND THE SPLICE LENGTH OF SMALLER BAR

## 4. SPACING

THE FIRST AND LAST BARS IN WALLS,SLABS,STIRRUPS IN BEAMS AND TIES IN COLUMNS SHOULD START AND END AT A MAXIMUM OF ONE HALF ADJACENT BAR SPACING.

## 5. ACCESSORIES

BAR SUPPORTS,SPACERS AND OTHER ACCESSORIES ARE NOT SHOWN ON THE DRAWING. THE RECOMMENDATION OF ACI,BS OR OTHER SUPPORTING SYSTEM AS APPROVED BY THE ENGINEER MAY BE USED (SPACERS TO BE #3@15"c/c (10mm@380mm c/c) & NOT TO BE PROVIDED IN THE AREA WHERE NEGATIVE REINFORCEMENT EXISTS).

REV No.	DATE	REVISIONS	IMPORTANT NOTE:-	DRAWN CHECK	APPR.	DRAWN BY:	RAZA SAEED	COPYRIGHT	TITLE:-	TYPE OF DRAWING	ISSUED FOR:	PROJECT:-	SCALE:-	DATE:-	DWG No. :-	REVISION
			THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.			DESIGN BY:	M. SAAD ALI	IS THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	GENERAL NOTES	STRUCTURE	CONSTRUCTION	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		NOV. -2022	S-32-2022-S-0A	00



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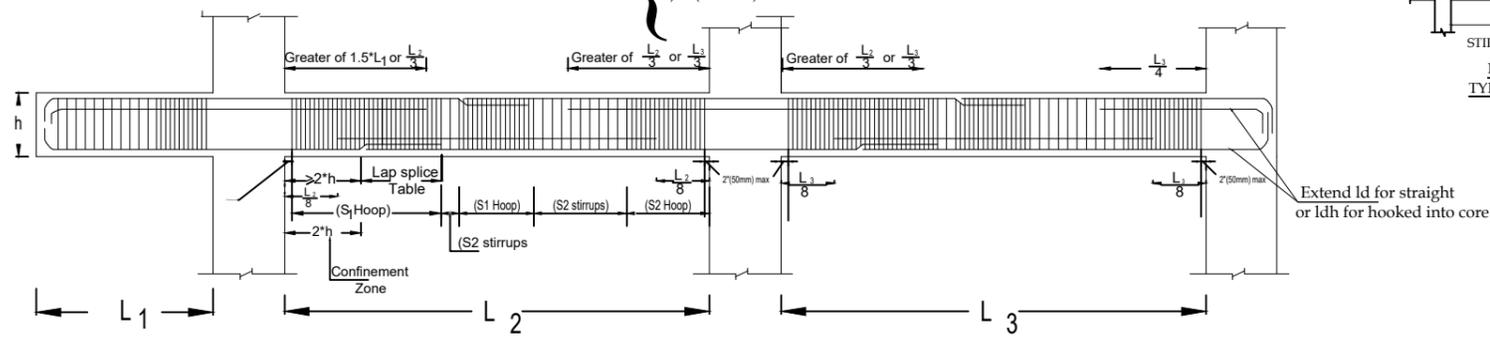
1st Floor , Block 9-West ,  
Rizwan Plaza, Jinnah Avenue  
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Ph: 92-51-2828577 , 2829002  
Fax : 92-51-2307615  
E-mail: designmenislamabad@gmail.com

$S_1 = \text{Hoop @ Smaller of}$ 
 $S_2 = \text{Stirrups @ } \leq d/2$

a)  $\leq d/4$   
 b)  $8 d_b$  of smallest longitudinal bar  
 c)  $24 d_b$  of hoop bars  
 d)  $12" (300\text{mm})$

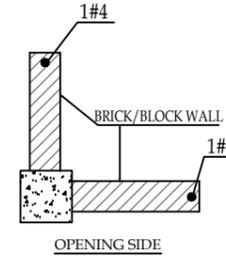
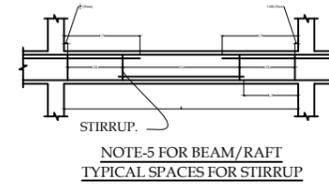
Note: At lap splices stirrups must be provided @ Smaller of

a)  $\leq d/4$   
 b)  $4" (100\text{mm})$



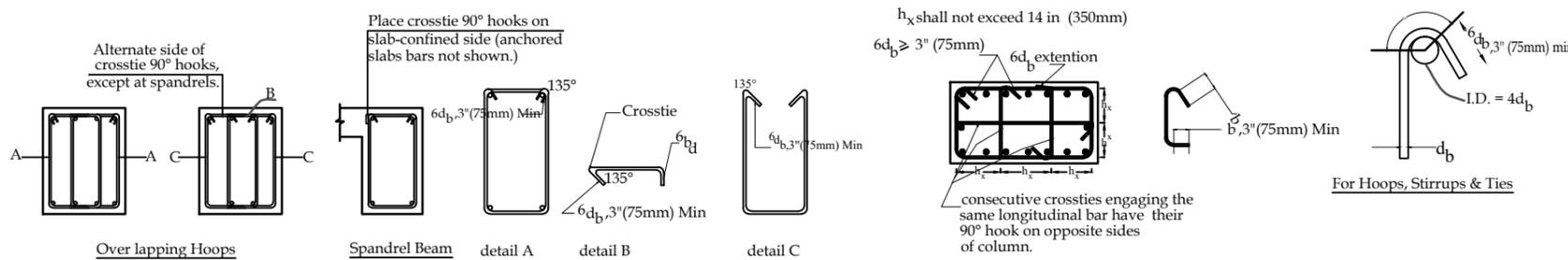
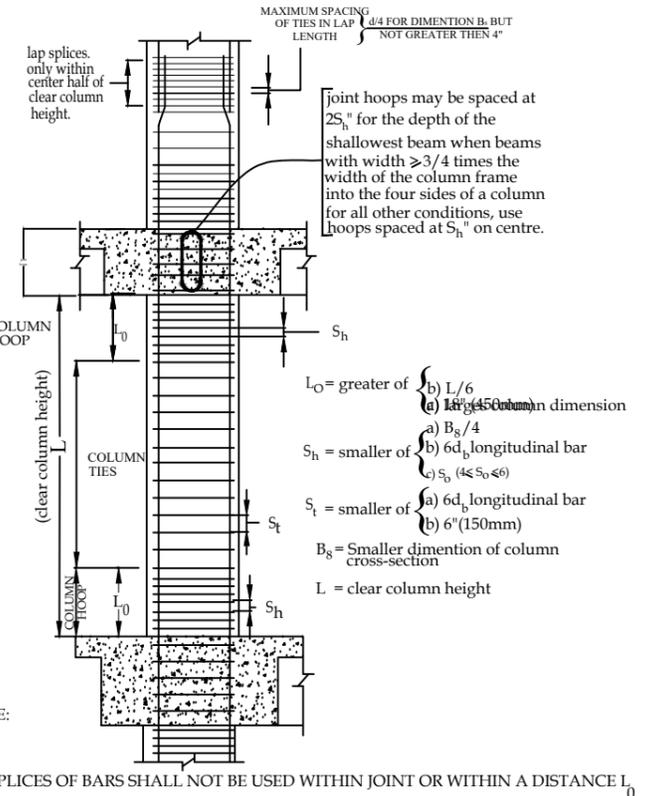
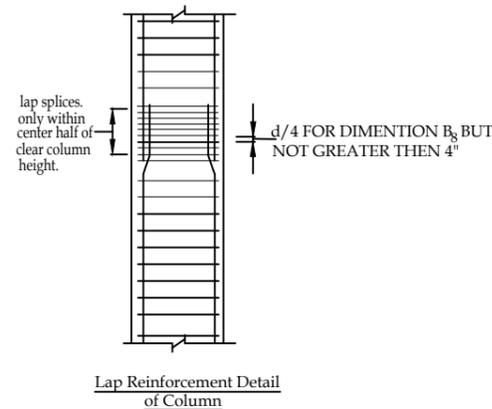
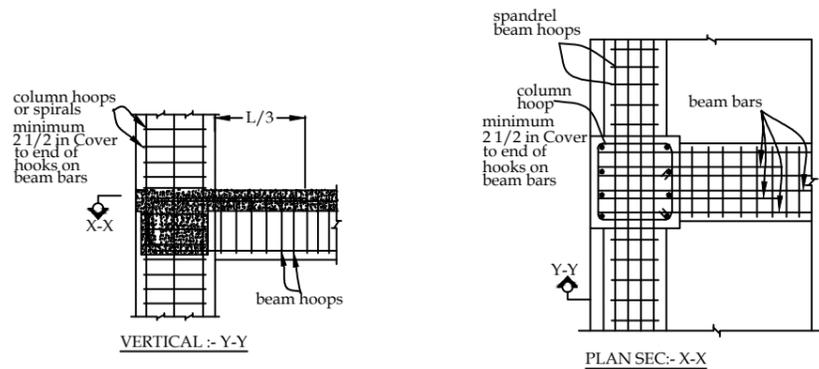
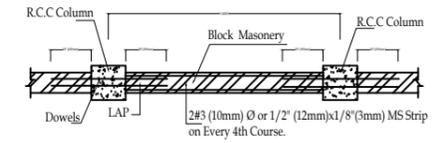
NOTE: No lap splice shall be permitted within joints and Confinement Zone

**TYPICAL REBAR PLACEMENT.**

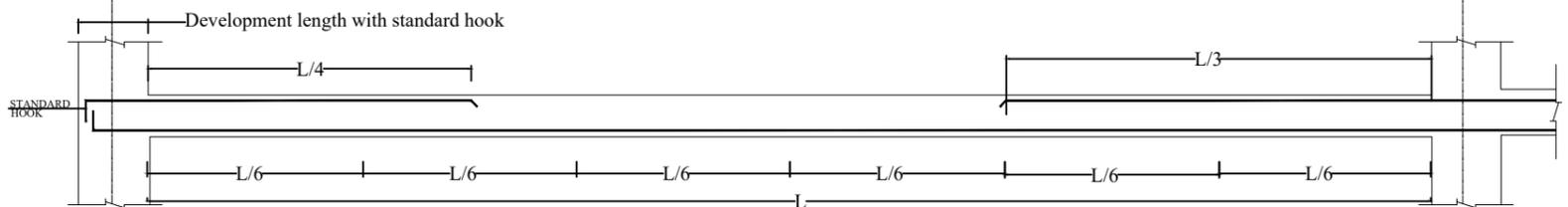
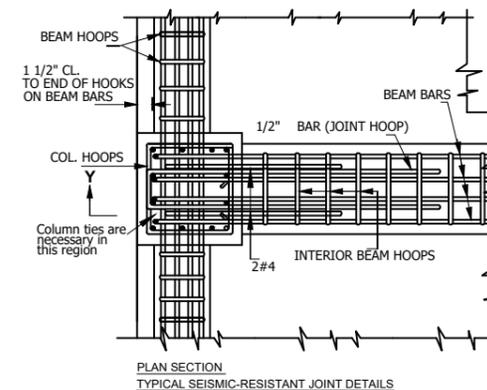
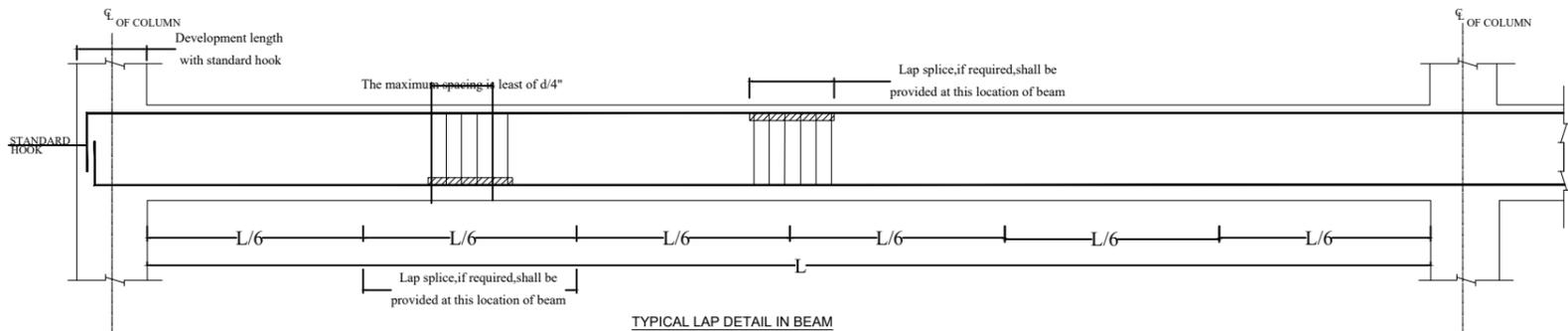
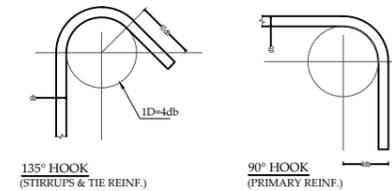
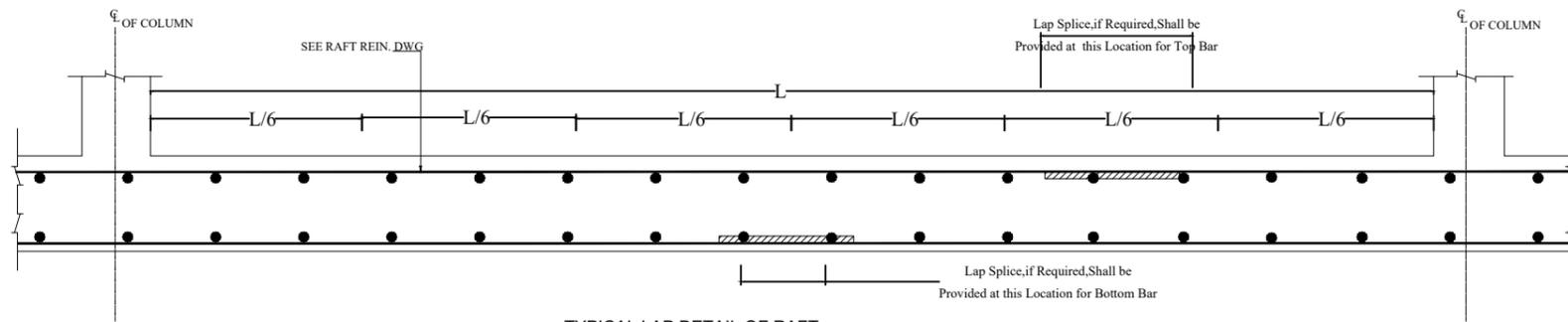


**IMPORTANT NOTE:-**

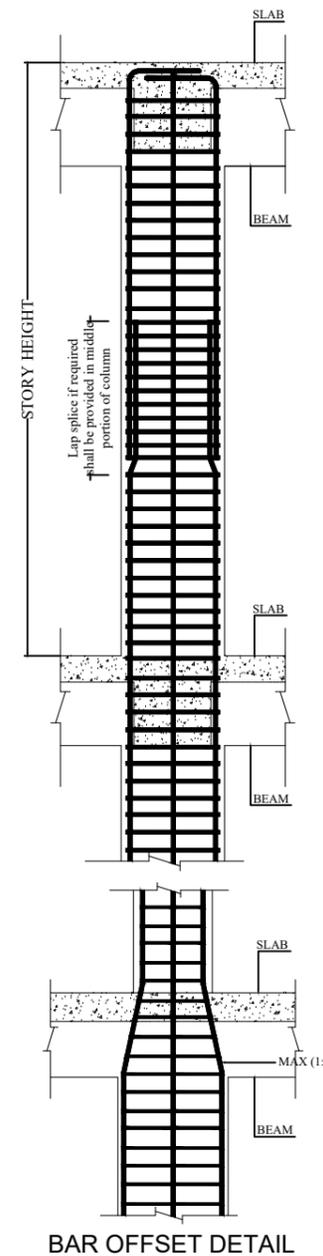
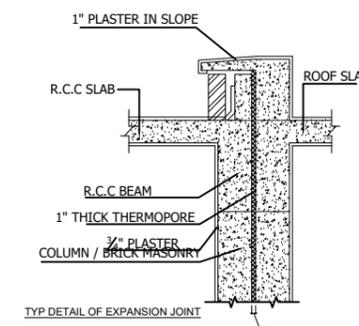
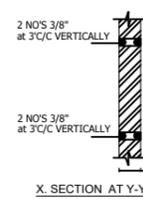
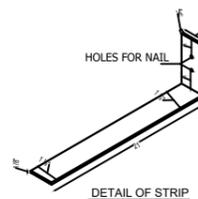
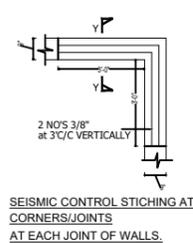
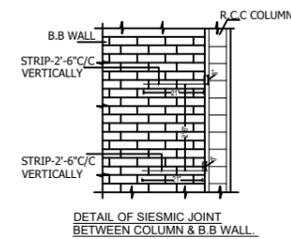
- 1- ALL BRICK MASONRY WALLS, TOBE TIED WITH R.C.C COLUMNS.
- 2- ALL DETAILING OF REBARS AS PER SEISMIC ZONE.(UBC).



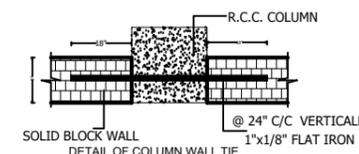
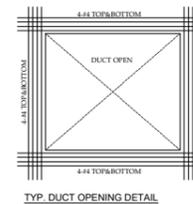
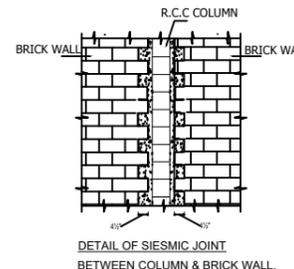
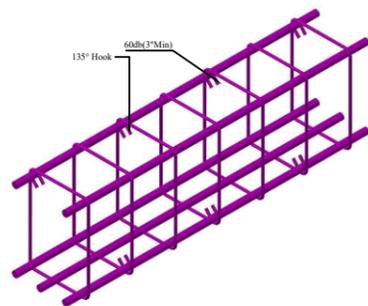
REV No.	DATE	REVISIONS	<p>IMPORTANT NOTE:-</p> <p>THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.</p>	DRAWN CHECK	APPR.	DRAWN BY:	RAZA SAEED	<p>COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.</p>	TITLE:-	GENERAL NOTES		<p>1st Floor , Block 9-West , Rizwan Plaza. Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN</p> <p>Ph: 92-51-2828577 , 2829002</p> <p>Fax : 92-51-2307615</p> <p>E-mail: designmenislamabad@gmail.com</p>
						DESIGN BY:	M. SAAD ALI		TYPE OF DRAWING			
							STR HEAD:		NAJIB AHMAD	STRUCTURE	CONSTRUCTION	
							CAD CHECK:		ASIF IQBAL	PROJECT:-		
							QAG CHECK:		ASIF IQBAL	UNIVERSITY OF SUFISM AND MODERN SCIENCES		
						APPROVED BY:	NAJIB AHMAD	BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK				
								SCALE:-	DATE:-	DWG No. :-	REVISION	
									NOV. -2022	S-32-2022-S-0B	00	



TYPICAL LAP DETAIL IN SLAB  
GENERAL DETAIL LOCATION OF LAP.



INTERNAL WALLS LINTELS					
REINFORCEMENT IN LINTELS FOR DOOR, WINDOWS/ VENTILATORS					
Wall	SPAN	LINTEL	TOP REINFORCEMENT	BOTTOM REINFORCEMENT	STIRRUPS
5"	2'0" to 3'-6"	9"x6"	2-#3	2-#4	#3@8" C/C
	> 6' < 8'	9"x9"	2-#4	3-#4	#3@8" C/C
	> 8' to 12'	9"x12"	3-#5	4-#6	#3@8" C/C
INTERNAL WALLS LINTELS					
REINFORCEMENT IN LINTELS FOR DOOR, WINDOWS/ VENTILATORS					
Wall	SPAN	LINTEL	TOP REINFORCEMENT	BOTTOM REINFORCEMENT	STIRRUPS
4 1/2"	2'0" to 3'-6"	4 1/2"x6"	2-#3	2-#3	#3@8" C/C



REV No.	DATE	REVISIONS

IMPORTANT NOTE:-  
THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.

DRAWN CHECK	APPR.	DRAWN BY:	RAZA SAEED
		DESIGN BY: <td>M. SAAD ALI</td>	M. SAAD ALI
		STR HEAD: <td>NAJIB AHMAD</td>	NAJIB AHMAD
		CAD CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		QAG CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		APPROVED BY: <td>NAJIB AHMAD</td>	NAJIB AHMAD

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TITLE:-	
GENERAL NOTES	
TYPE OF DRAWING	ISSUED FOR:
STRUCTURE	CONSTRUCTION

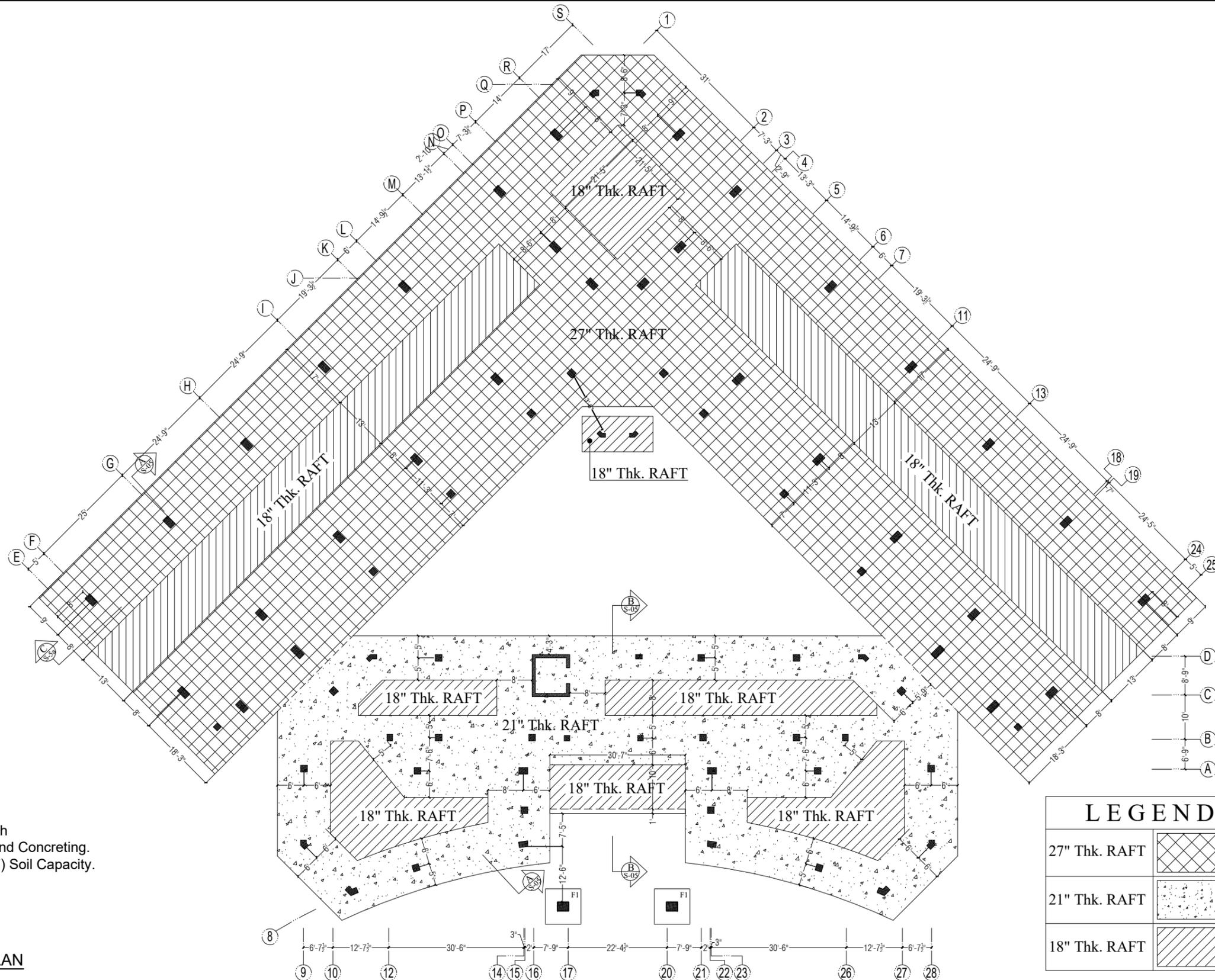


**Designmen**  
CONSULTING ENGINEERS (Pvt) LTD.

1st Floor , Block 9-West ,  
Rizwan Plaza, Jinnah Avenue  
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Ph: 92-51-2828577 , 2829002  
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E-mail: designmenislamabad@gmail.com

PROJECT:- UNIVERSITY OF SUFISM AND MODERN SCIENCES  
BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK

SCALE:-	DATE:- NOV. -2022	DWG No. :-	REVISION
			S-32-2022-S-0C 00



**NOTE:-**

- \*Ordinary Portland Cement (OPC) With Slag Should Be Used For Underground Concreting.
- \*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

**RAFT THICKNESS LAYOUT PLAN**

LEGEND	
27" Thk. RAFT	
21" Thk. RAFT	
18" Thk. RAFT	

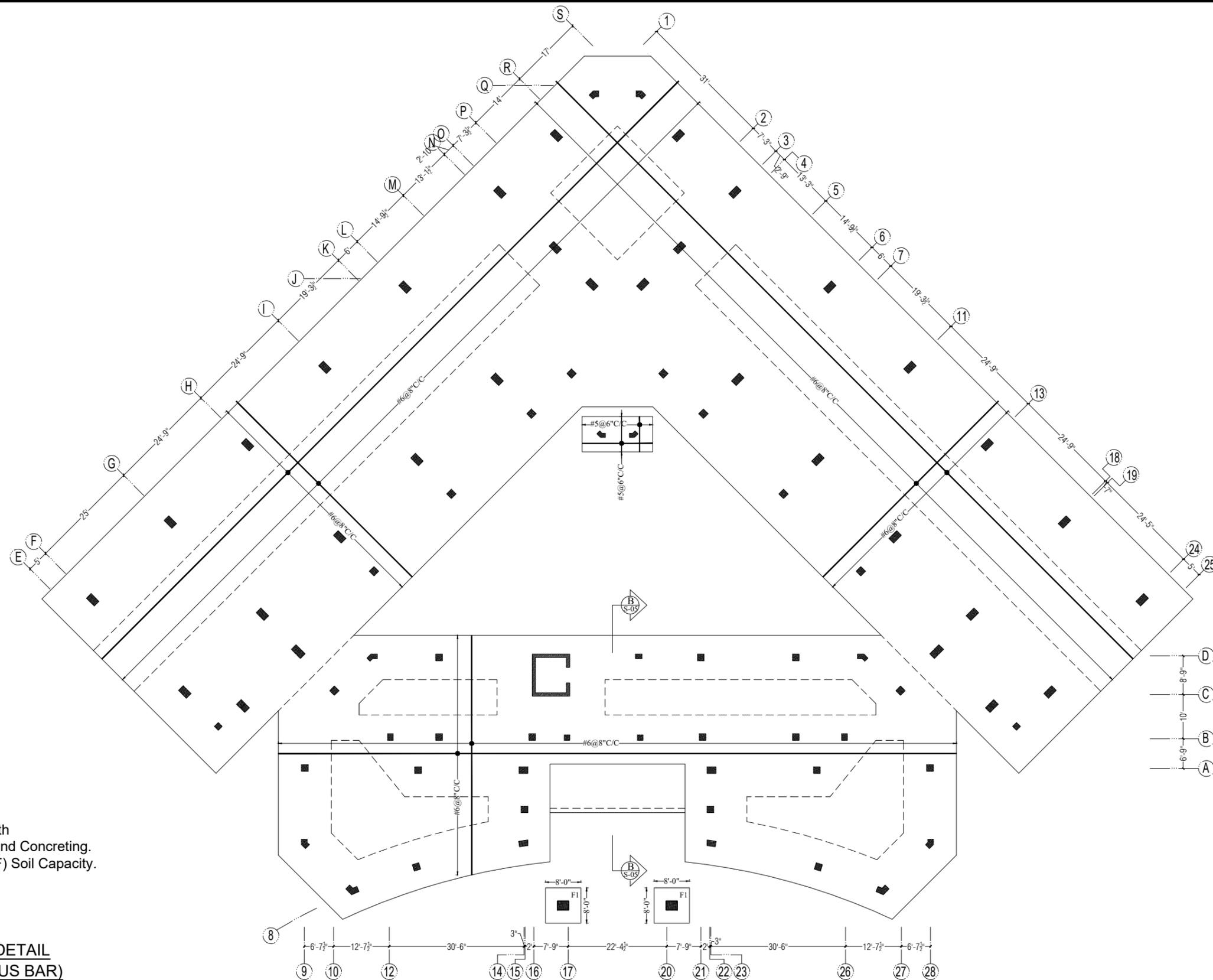
REV No.	DATE	REVISIONS	IMPORTANT NOTE:-
01	29-07-2022	FOUNDATION	THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.

DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS
		DESIGN BY: <td>M. SAAD ALI</td>	M. SAAD ALI
		STR HEAD: <td>NAJIB AHMAD</td>	NAJIB AHMAD
		CAD CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		QAG CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		APPROVED BY: <td>NAJIB AHMAD</td>	NAJIB AHMAD

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TITLE:-	
RAFT THICKNESS LAYOUT PLAN	
TYPE OF DRAWING	ISSUED FOR:
STRUCTURE	CONSTRUCTION

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	PROJECT:- UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		
SCALE:-	DATE:- NOV. -2022	DWG No. :- S-01	REVISION 01

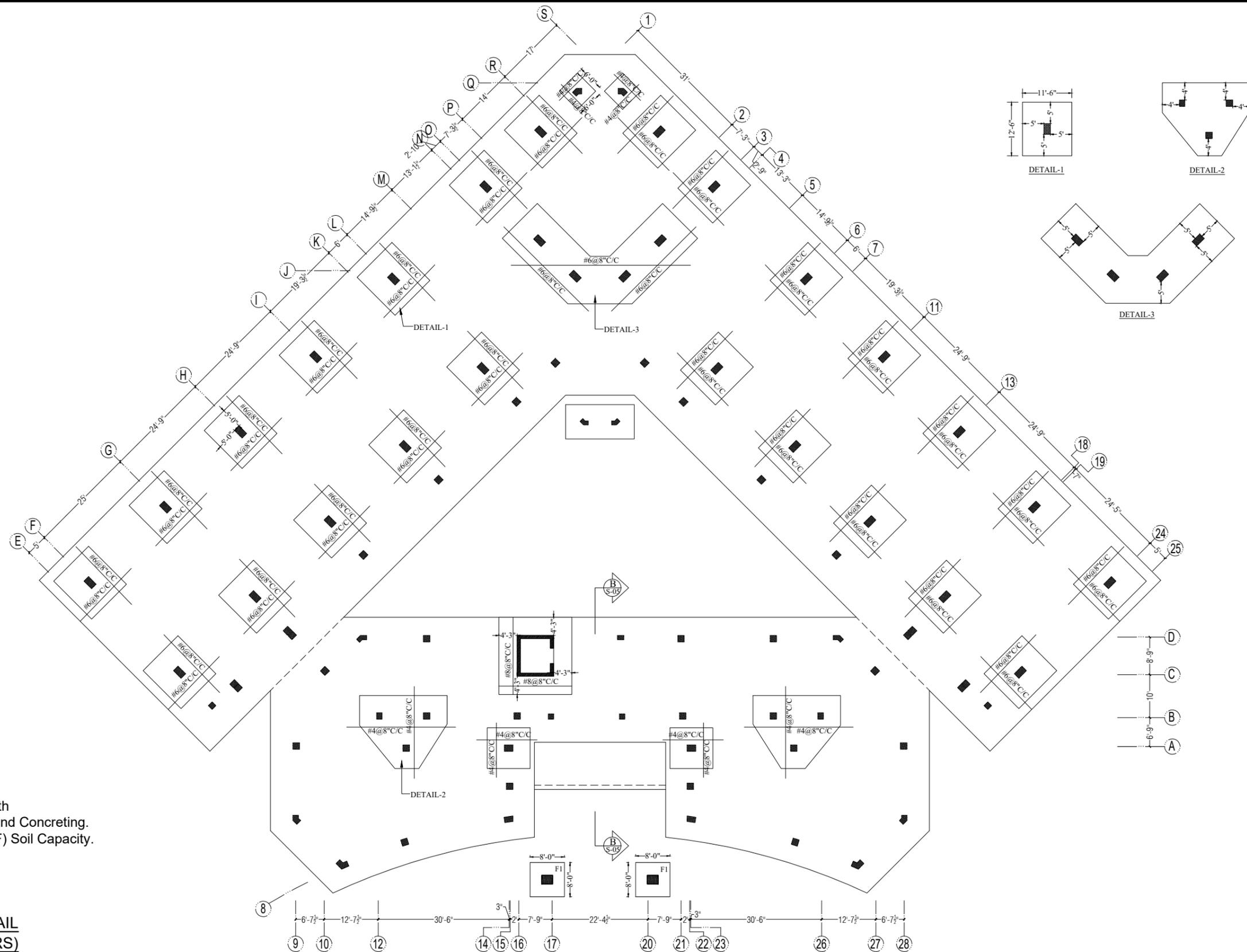


**NOTE:-**

- \*Ordinary Portland Cement (OPC) With Slag Should Be Used For Underground Concreting.
- \*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

**FOOTING REINFORCEMENT DETAIL  
BOTTOM LAYER ( CONTINUOUS BAR)**

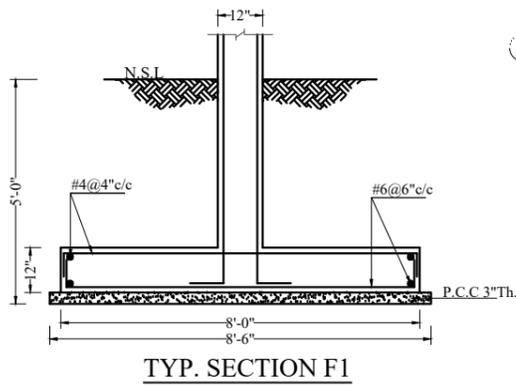
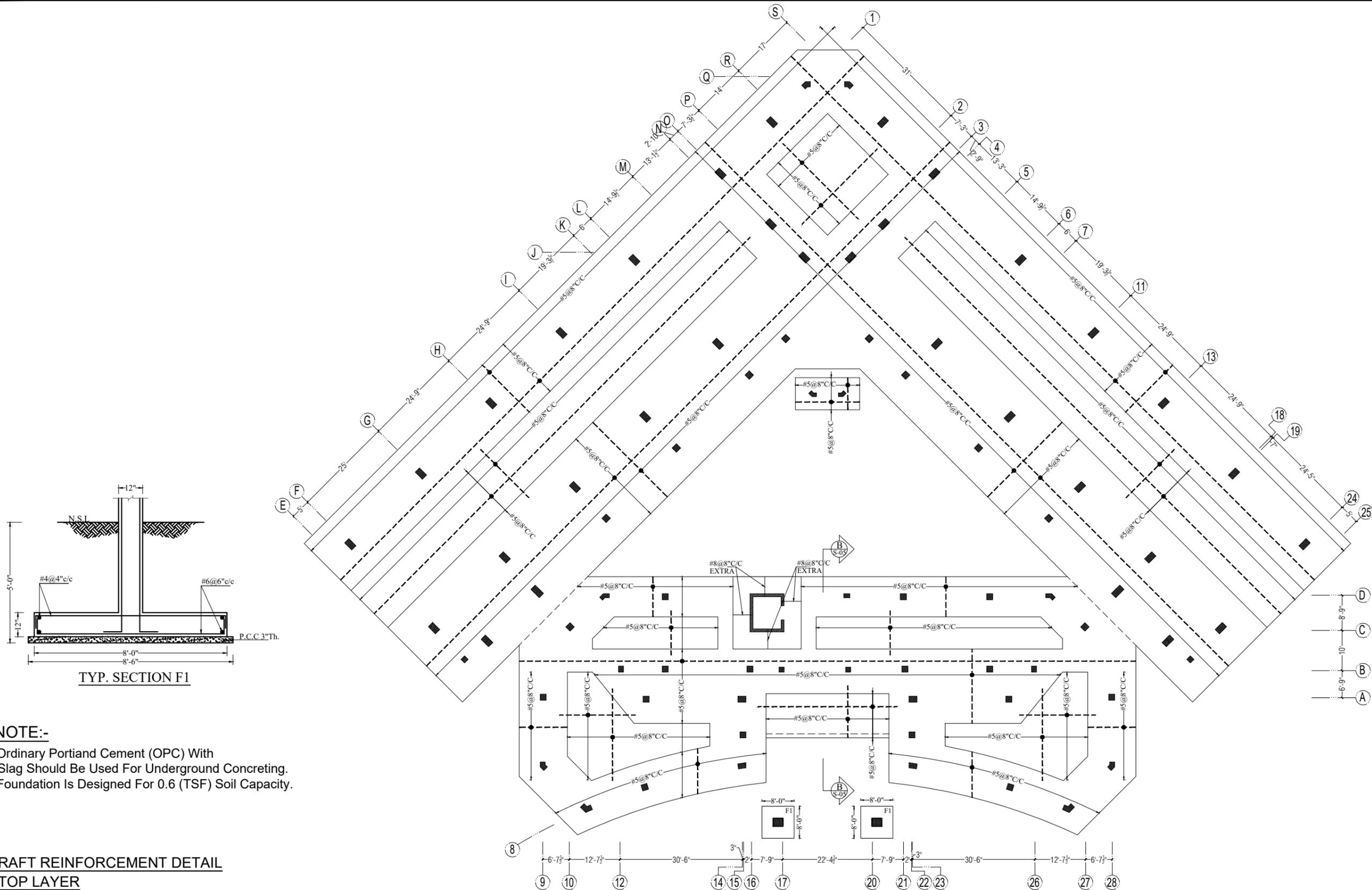
REV No.	DATE	REVISIONS	<p>IMPORTANT NOTE:-</p> <p>THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.</p>	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	<p>COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.</p>	TITLE:-		 <p><b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.</p> <p>1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN Ph: 92-51-2828577 , 2829002 Fax : 92-51-2307615 E-mail: designmenislamabad@gmail.com</p>		
	01	29-07-2022		FOUNDATION			DESIGN BY:		M. SAAD ALI	FOOTING REINFORCEMENT DETAIL BOTTOM LAYER ( CONTINUOUS BAR)			
									STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:
									CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION
									QAG CHECK:	ASIF IQBAL			
						APPROVED BY:	NAJIB AHMAD			PROJECT:-	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		
										SCALE:-	DATE:- NOV. -2022	DWG No. :- S-02	REVISION 01



**NOTE:-**  
 \*Ordinary Portland Cement (OPC) With Slag Should Be Used For Underground Concreting.  
 \*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

**RAFT REINFORCEMENT DETAIL  
 BOTTOM LAYER ( EXTRA BARS)**

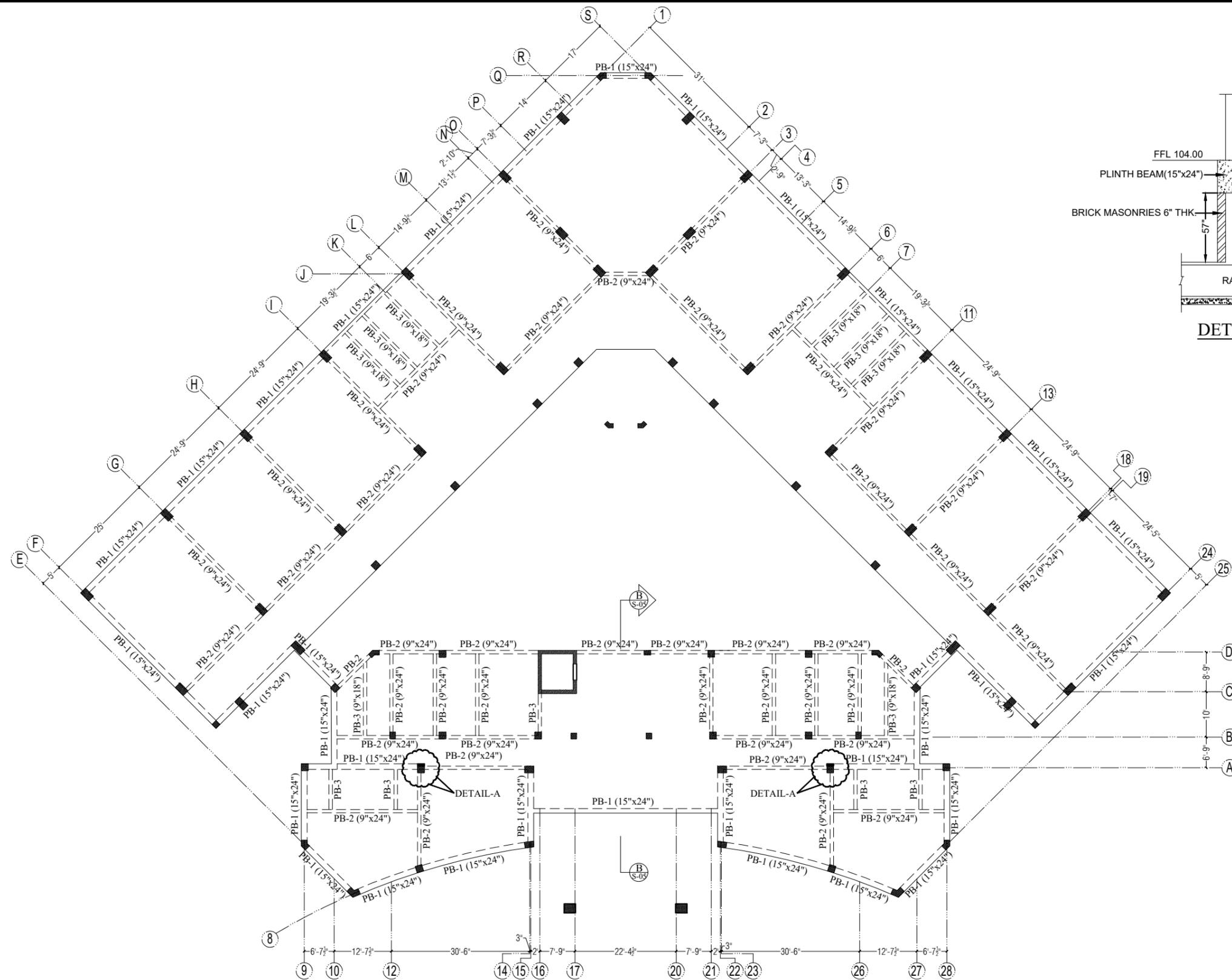
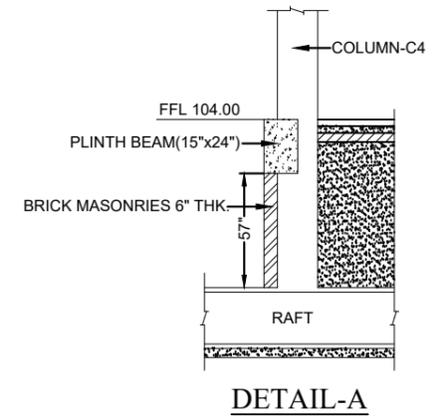
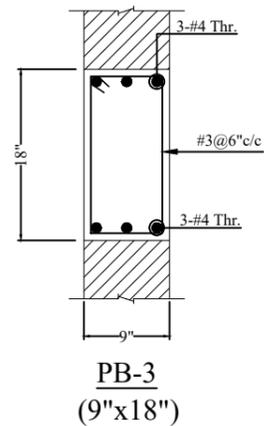
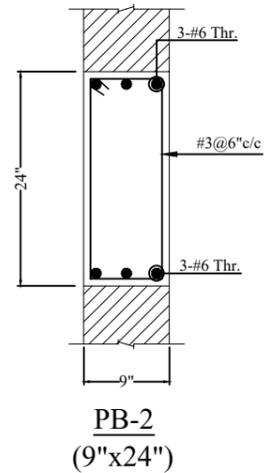
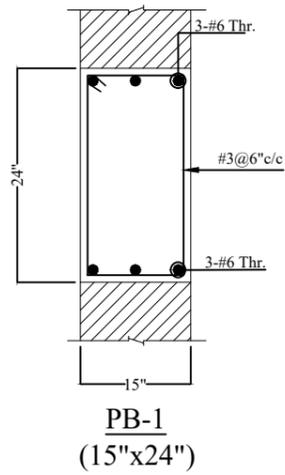
REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN Ph: 92-51-2828577 , 2829002 Fax : 92-51-2307615 E-mail: designmenislamabad@gmail.com		
	01	29-07-2022		FOUNDATION		CHECK	DESIGN BY:		M. SAAD ALI	RAFT REINFORCEMENT DETAIL BOTTOM LAYER ( EXTRA BARS)			
							STR HEAD:		NAJIB AHMAD	TYPE OF DRAWING		ISSUED FOR:	PROJECT:-
							CAD CHECK:		ASIF IQBAL	STRUCTURE		CONSTRUCTION	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK
							QAG CHECK:		ASIF IQBAL	SCALE:-		DATE:-	DWG No. :-
				APPROVED BY:	NAJIB AHMAD		NOV. -2022	S-03	01				



**NOTE:-**  
 \*Ordinary Portland Cement (OPC) With Slag Should Be Used For Underground Concreting.  
 \*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

**RAFT REINFORCEMENT DETAIL  
 TOP LAYER**

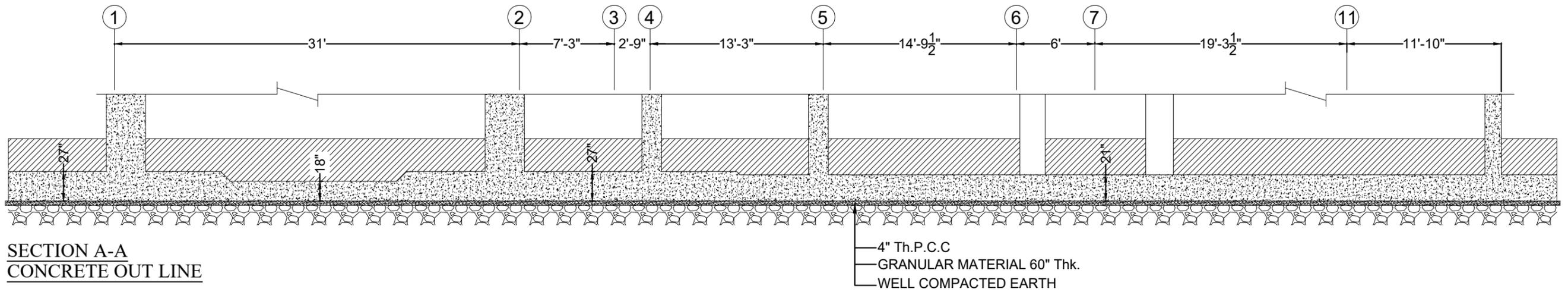
REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSLY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		<b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN	
01	29-07-2022	FOUNDATION		DRAWN BY:	M. SAAD ALI	RAFT REINFORCEMENT TOP LAYER DETAIL			Ph: 92-51-2828577 , 2829002				
				DESIGN BY:	NAJIB AHMAD	TYPE OF DRAWING	ISSUED FOR:		PROJECT:-				
				STR HEAD:	ASIF IQBAL	STRUCTURE	CONSTRUCTION		UNIVERSITY OF SUFISM AND MODERN SCIENCES				
				CAD CHECK:	ASIF IQBAL				BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK				
			QAG CHECK:	ASIF IQBAL	SCALE:-	DATE:-	DWG No. :-	REVISION					
			APPROVED BY:	NAJIB AHMAD		NOV. -2022	S-04	01					



**NOTE:-**  
 \*Ordinary Portland Cement (OPC) With Slag Should Be Used For Underground Concreting.  
 \*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

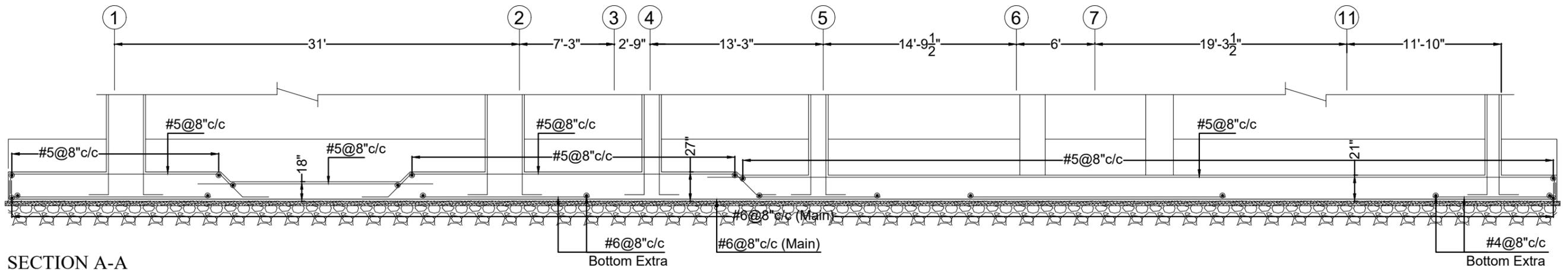
**PLINTH BEAM LAYOUT PLAN**

REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSLY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:- <b>PLINTH BEAM LAYOUT PLAN</b>		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor, Block 9-West, Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN Ph: 92-51-2828577, 2829002 Fax: 92-51-2307615 E-mail: designmenislamabad@gmail.com
				CHECK		DESIGN BY:	M. SAAD ALI				
						STR HEAD:	NAJIB AHMAD		STRUCTURE	CONSTRUCTION	
						CAD CHECK:	ASIF IQBAL		PROJECT:- <b>UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK</b>		
						QAG CHECK:	ASIF IQBAL		SCALE:-	DATE:- NOV. -2022	
	APPROVED BY:	NAJIB AHMAD									

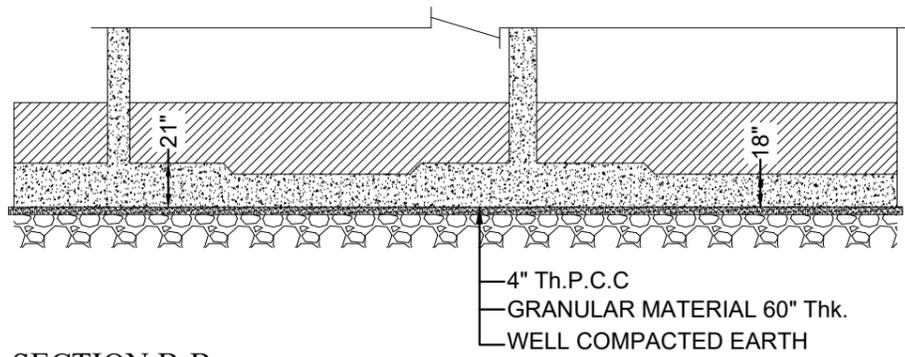


**SECTION A-A  
CONCRETE OUT LINE**

— 4" Th.P.C.C  
— GRANULAR MATERIAL 60" Thk.  
— WELL COMPACTED EARTH

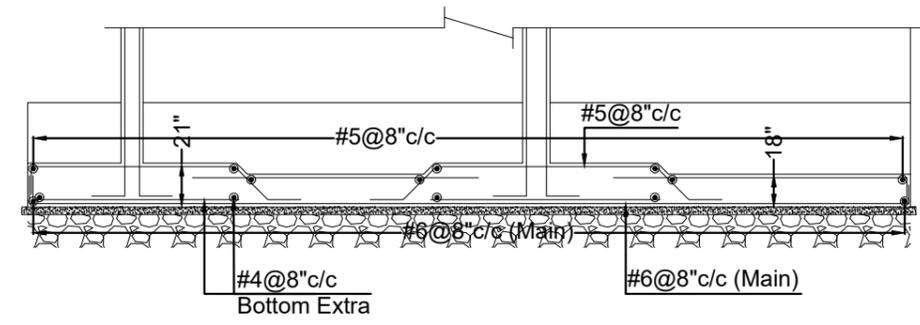


**SECTION A-A  
REINFORCEMENT DETAIL**



**SECTION B-B  
CONCRETE OUT LINE**

— 4" Th.P.C.C  
— GRANULAR MATERIAL 60" Thk.  
— WELL COMPACTED EARTH

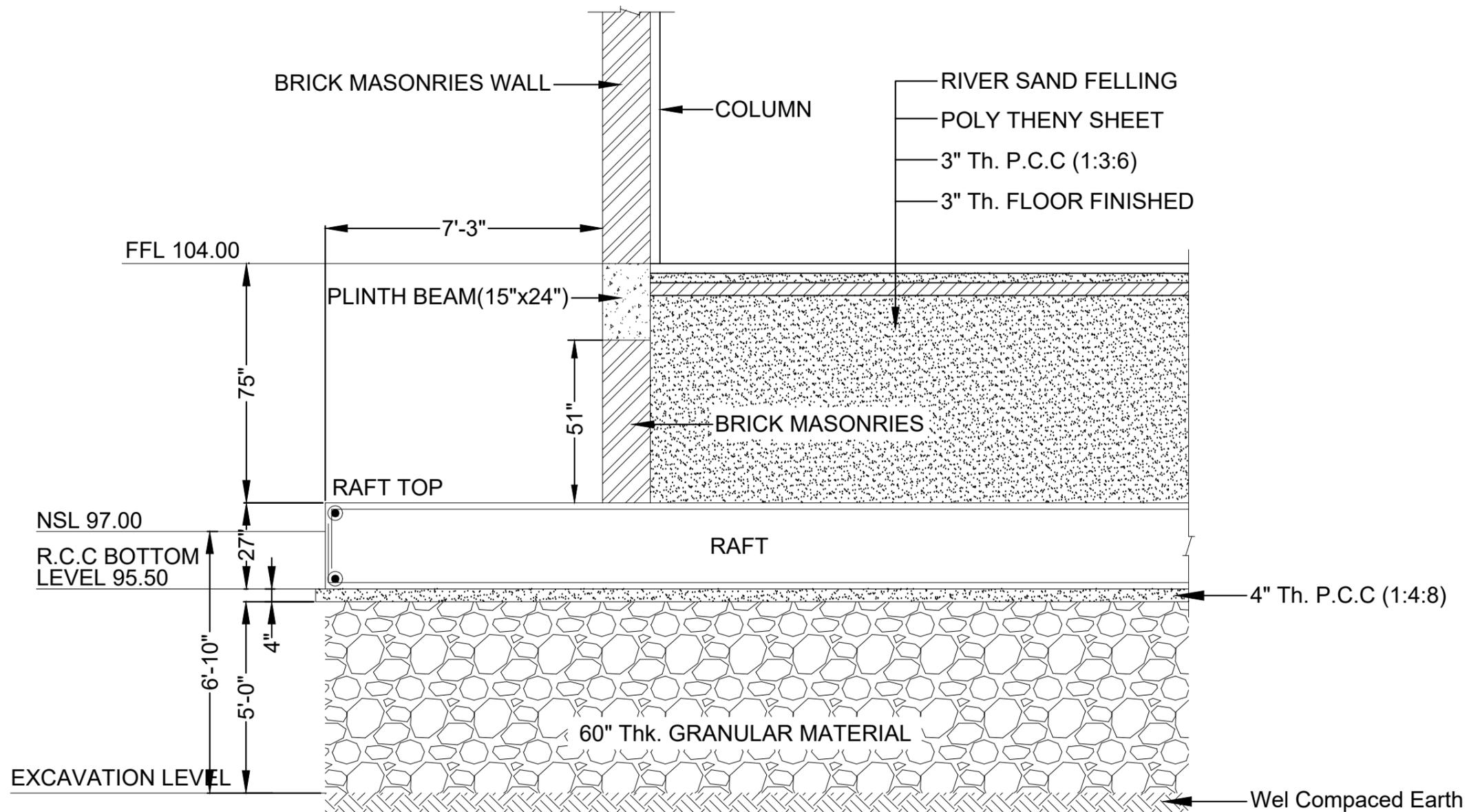


**SECTION B-B  
REINFORCEMENT DETAIL**

**NOTE:-**  
\*Ordinary Portland Cement (OPC) With Slag Should Be Used For Underground Concreting.  
\*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN Ph: 92-51-2828577 , 2829002 Fax : 92-51-2307615 E-mail: designmenislamabad@gmail.com		
	01	29-07-2022		FOUNDATION			DESIGN BY:		M. SAAD ALI	SECTION A-A & B-B			
									STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:
									CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION
									QAG CHECK:	ASIF IQBAL		SCALE:-	DATE:-
						APPROVED BY:	NAJIB AHMAD						

PROJECT:-  
UNIVERSITY OF SUFISM AND MODERN SCIENCES  
BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK  
SCALE:- DATE:- NOV. -2022 DWG No. :- S-05 REVISION 01

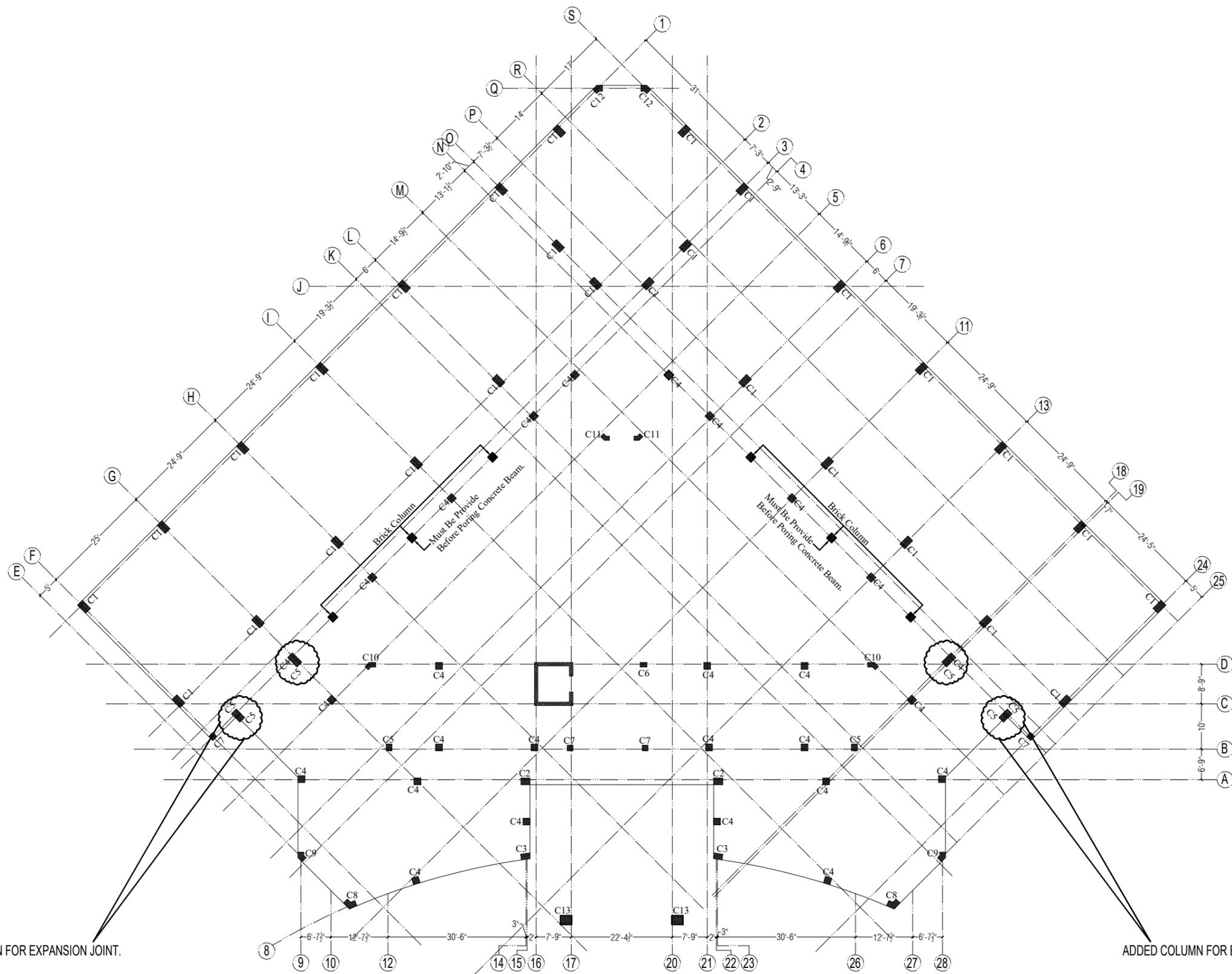


**NOTE:-**

- \*Ordinary Portiand Cement (OPC) With Slag Should Be Used For Underground Concreting.
- \*Foundation Is Designed For 0.6 (TSF) Soil Capacity.

**SECTION C-C  
REINFORCEMENT DETAIL**

REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:- SECTION C-C		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza. Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN Ph: 92-51-2828577 , 2829002 Fax : 92-51-2307615 E-mail: designmenislamabad@gmail.com		
	01	29-07-2022		FOUNDATION			DESIGN BY:		M. SAAD ALI	TYPE OF DRAWING			ISSUED FOR:	PROJECT:-
									STR HEAD:	NAJIB AHMAD	STRUCTURE	CONSTRUCTION	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK	
									CAD CHECK:	ASIF IQBAL	SCALE:-	DATE:-	DWG No. :-	REVISION
									QAG CHECK:	ASIF IQBAL	AUGUST-2022	S-05a	01	
						APPROVED BY:	NAJIB AHMAD							



**COLUMN LAYOUT PLAN**

REV No.	DATE	REVISIONS

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		DESIGN BY: <td>M. SAAD ALI</td>	M. SAAD ALI
		STR HEAD: <td>NAJIB AHMAD</td>	NAJIB AHMAD
		CAD CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		QAG CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		APPROVED BY: <td>NAJIB AHMAD</td>	NAJIB AHMAD

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TYPE OF DRAWING	ISSUED FOR:
STRUCTURE	CONSTRUCTION

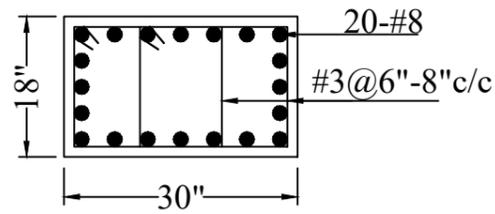


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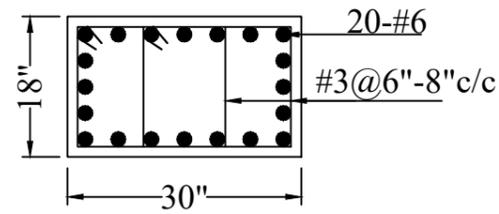
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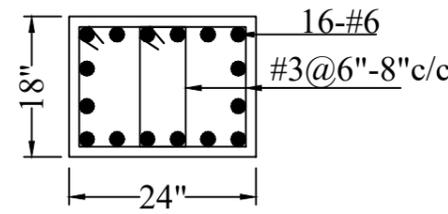
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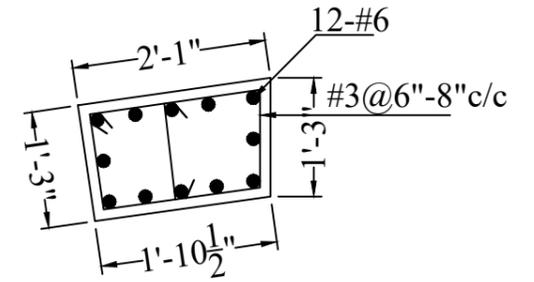
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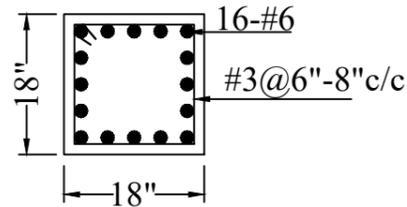
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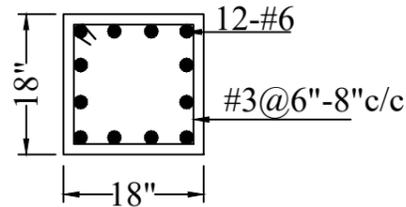
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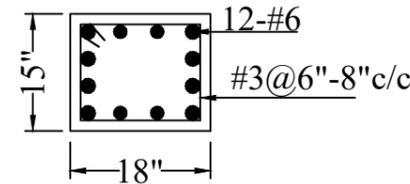
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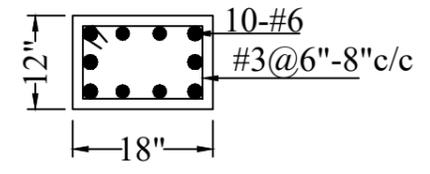
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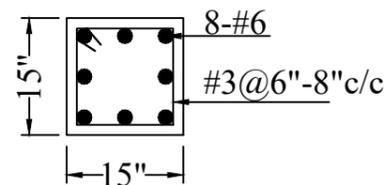
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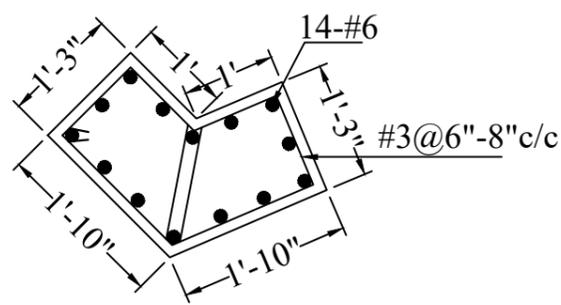
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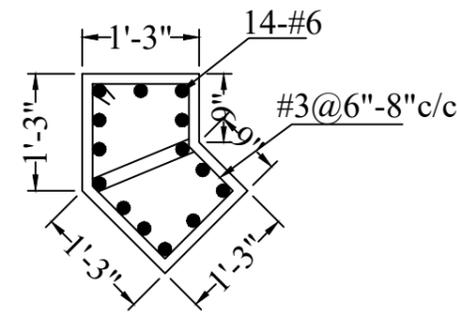
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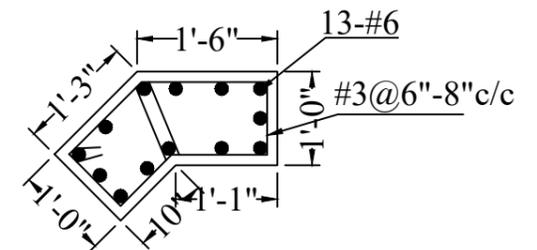
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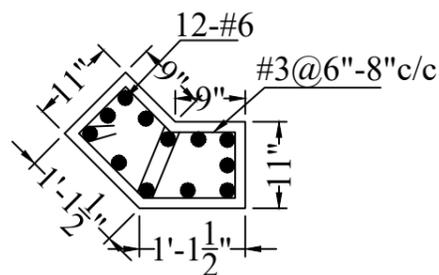
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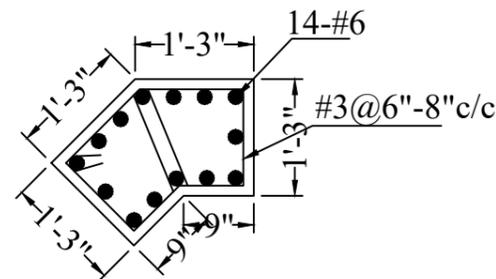
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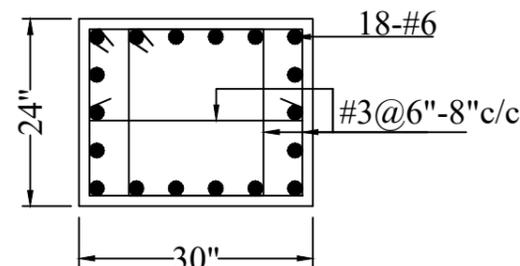
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C-11



C-12

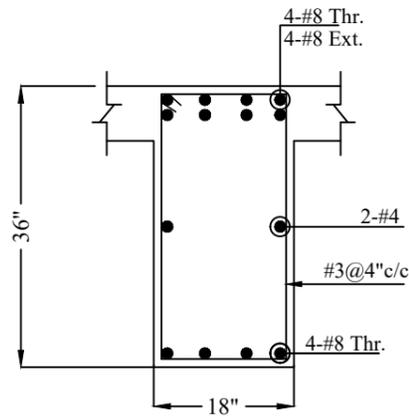


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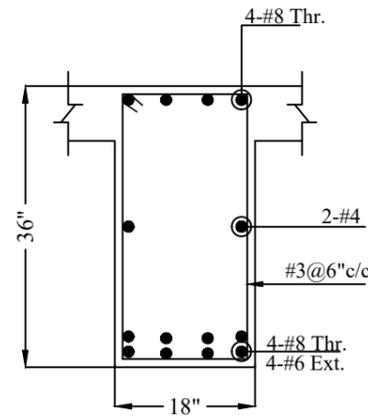
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REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN			
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									STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:	Ph: 92-51-2307615	
									CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION	E-mail: designmenislamabad@gmail.com	
									QAG CHECK:	ASIF IQBAL				PROJECT:-	
					APPROVED BY:	NAJIB AHMAD			UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK						
									SCALE:-	DATE:-	DWG No. :-	REVISION			
										NOV. -2022	S-07	00			

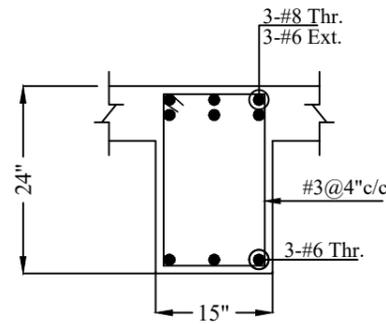




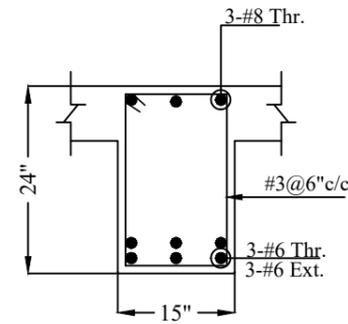
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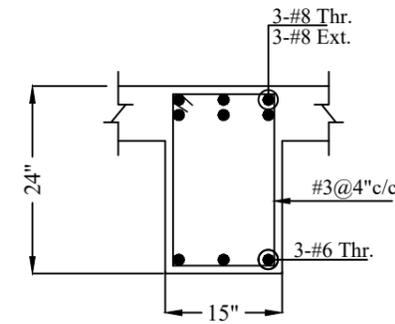
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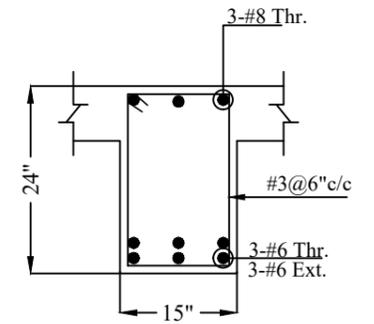
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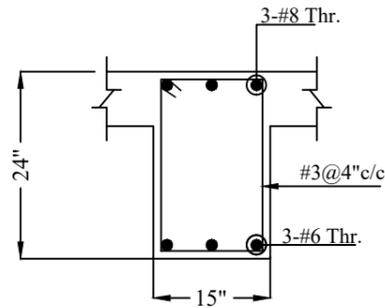
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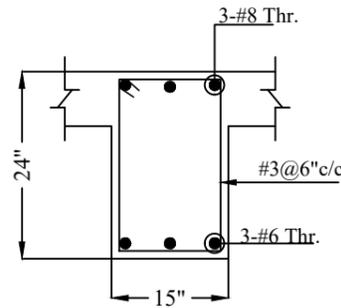
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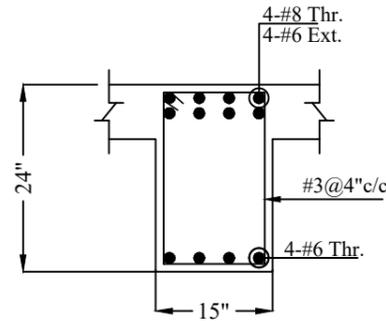
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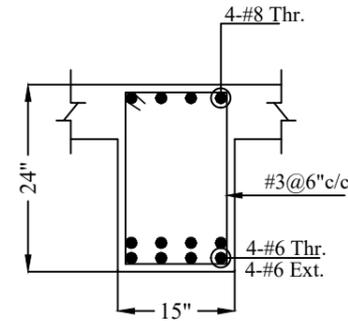
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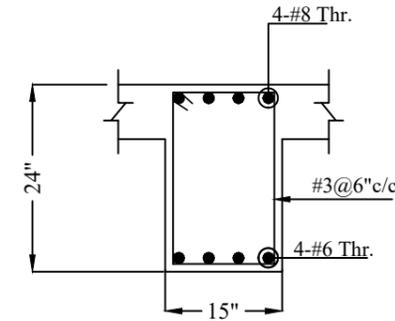
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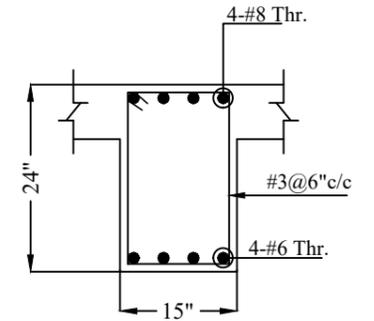
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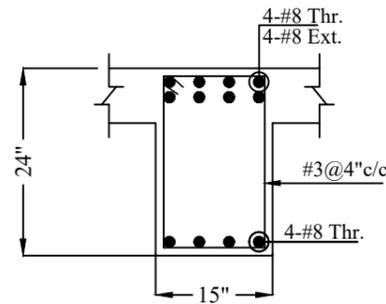
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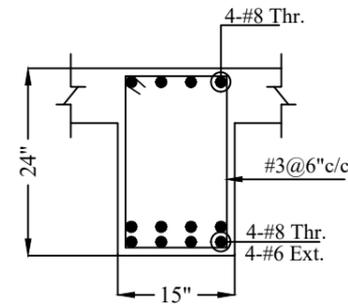
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**G-B3a**  
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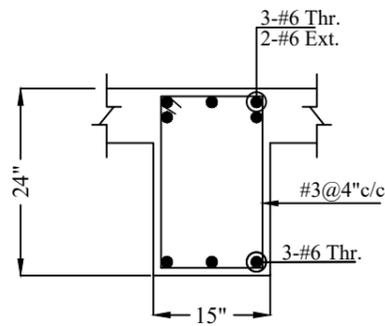
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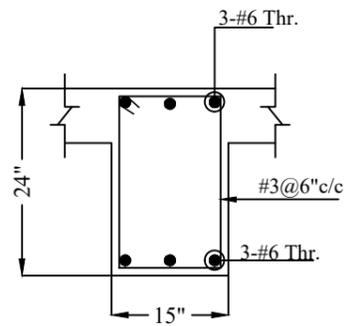
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**GROUND FLOOR**  
**BEAM REINFORCEMENT DETAIL**

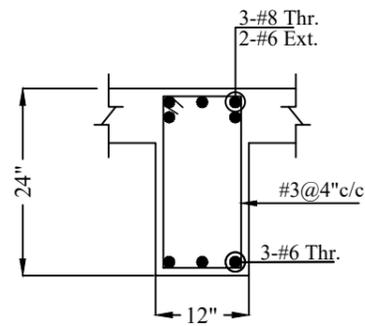
REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN		
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							STR HEAD:		NAJIB AHMAD	TYPE OF DRAWING		ISSUED FOR:	Ph : 92-51-2307615	
							CAD CHECK:		ASIF IQBAL	STRUCTURE		CONSTRUCTION	E-mail: designmenislamabad@gmail.com	
							QAG CHECK:		ASIF IQBAL	PROJECT:-		UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		
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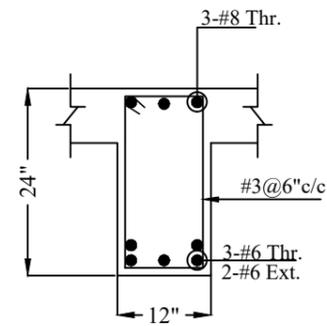
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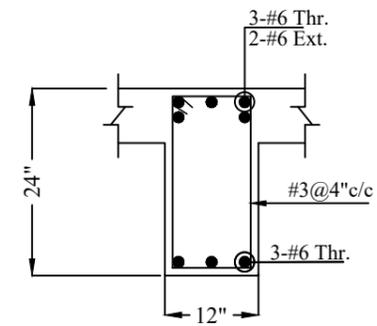
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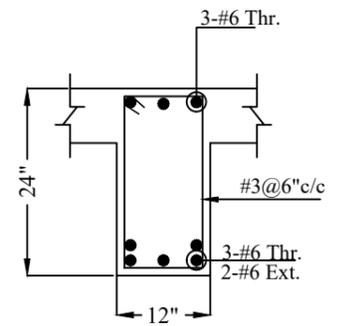
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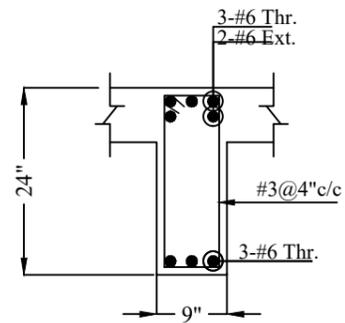
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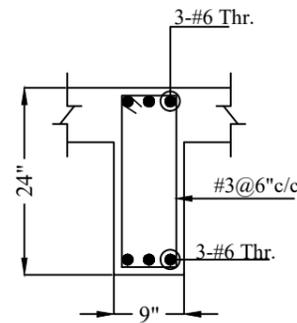
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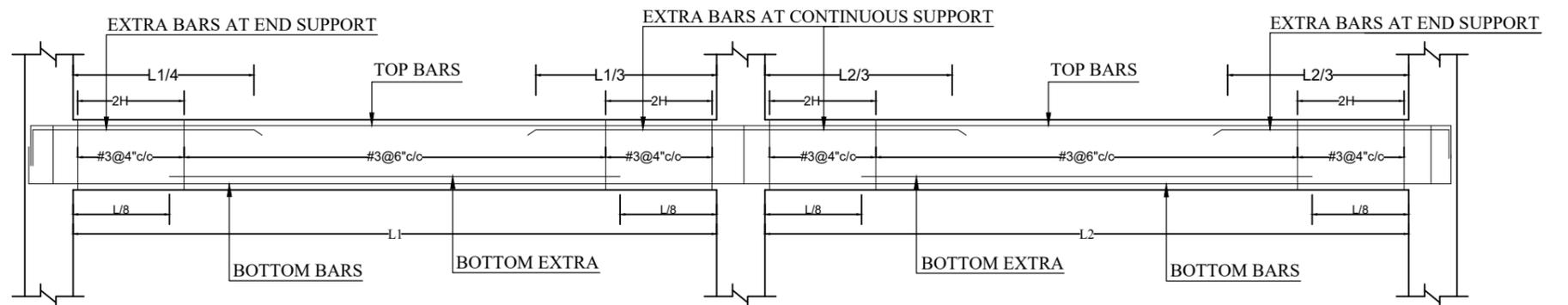
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**G-B5**  
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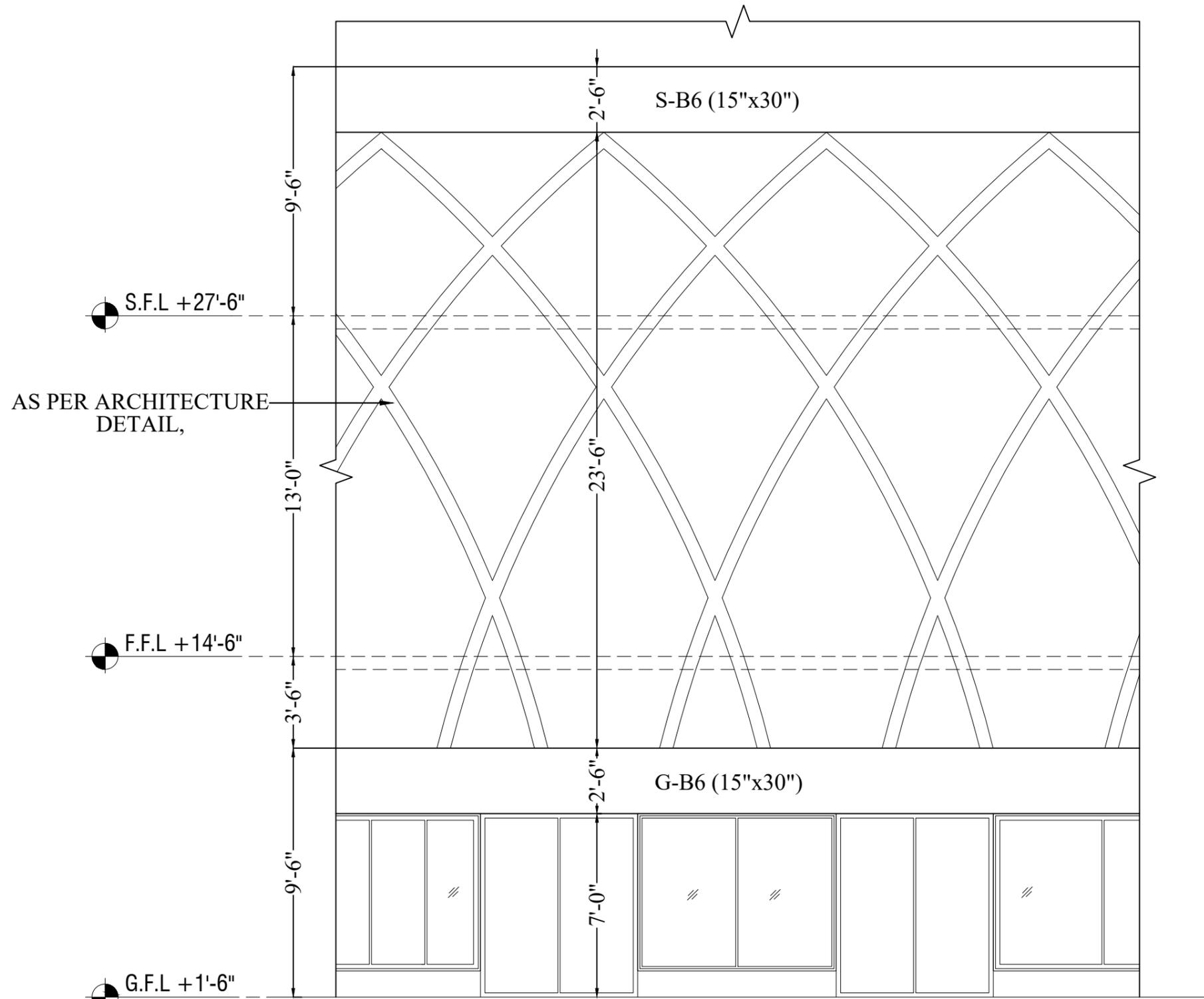
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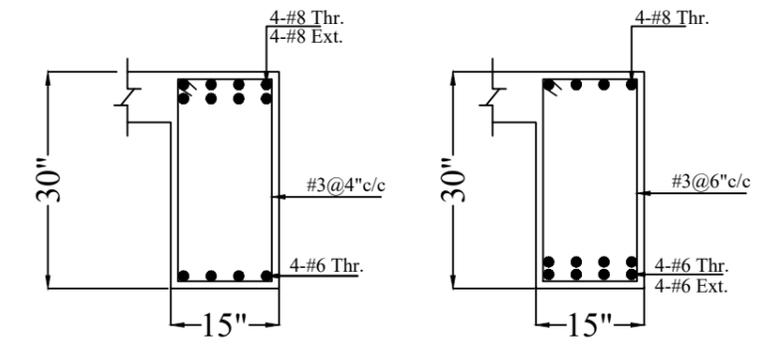
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**GROUND FLOOR**  
**BEAM REINFORCEMENT DETAIL**

REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor, Block 9-West, Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN Ph: 92-51-2828577, 2829002 Fax: 92-51-2307615 E-mail: designmenislamabad@gmail.com	
						DESIGN BY:	M. SAAD ALI		GROUND FLOOR BEAM DETAIL			
							STR HEAD:		NAJIB AHMAD	TYPE OF DRAWING		ISSUED FOR:
							CAD CHECK:		ASIF IQBAL	STRUCTURE		CONSTRUCTION
							QAG CHECK:		ASIF IQBAL	PROJECT:-		
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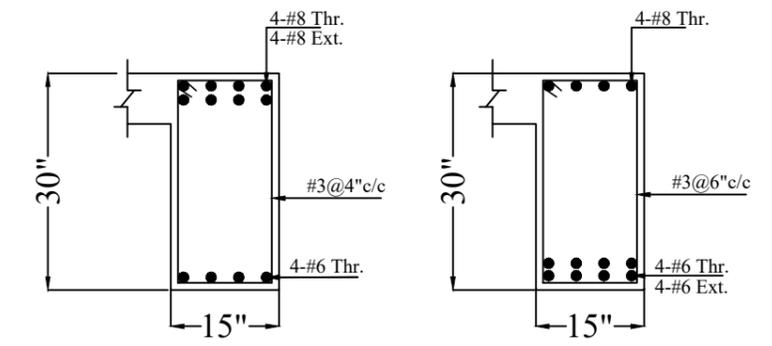


**DETAIL=AA**



**G-B6  
AT SUPPORT**

**G-B6  
AT MID**



**S-B6  
AT SUPPORT**

**S-B6  
AT MID**

REV No.	DATE	REVISIONS

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		APPROVED BY:	NAJIB AHMAD

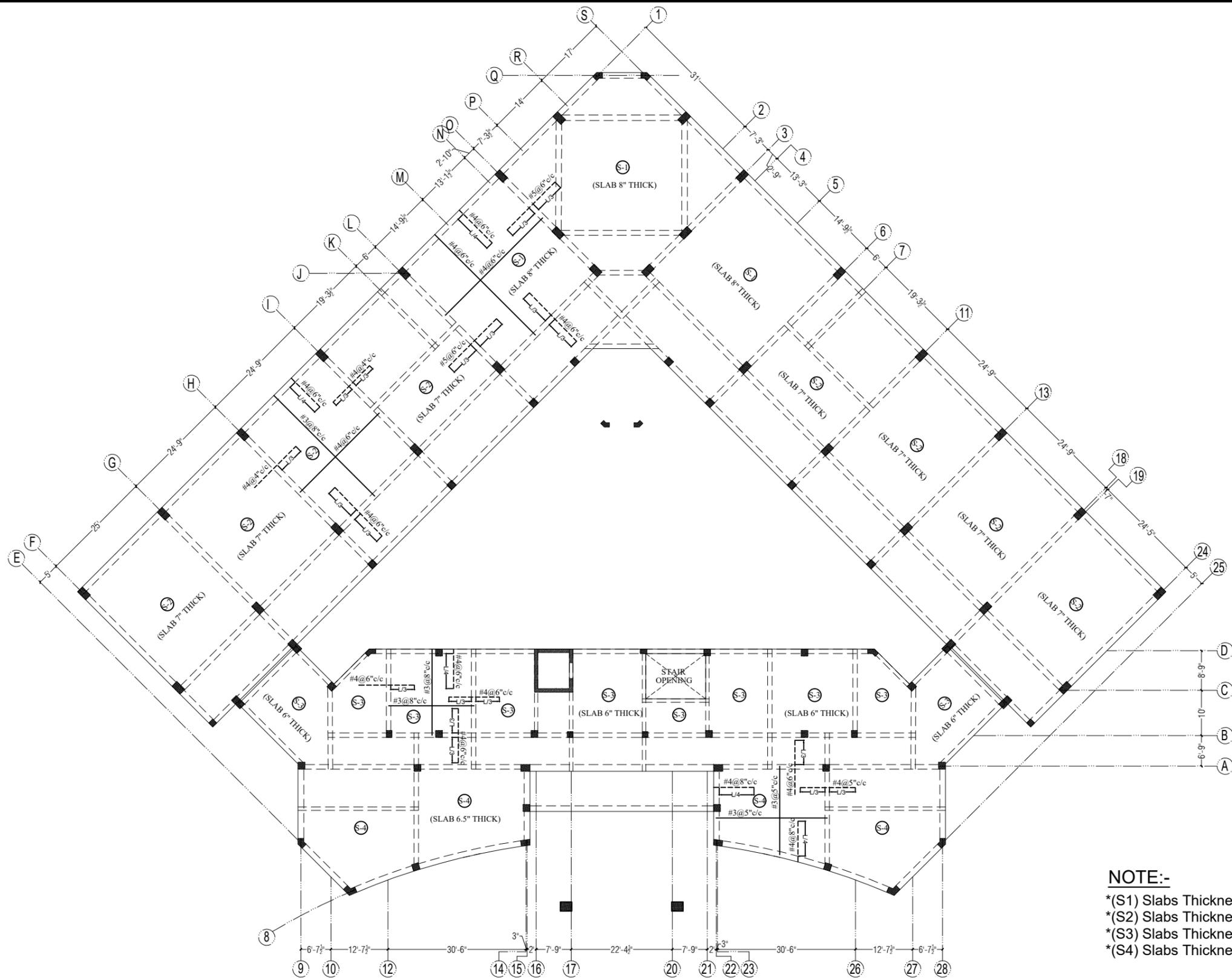
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<b>TYPE OF DRAWING</b> STRUCTURE	<b>ISSUED FOR:</b> CONSTRUCTION

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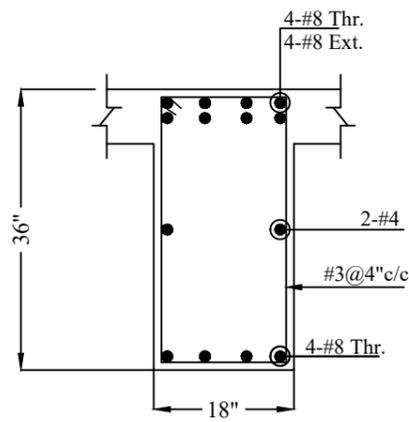
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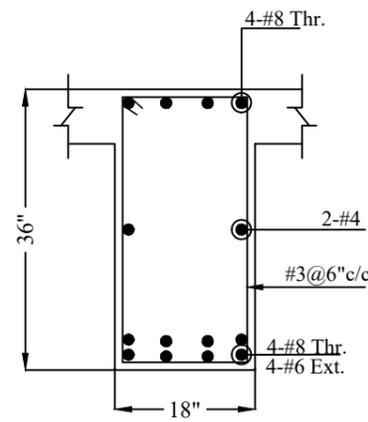
**GROUND FLOOR ROOF SLAB REINFORCEMENT DETAIL,**

REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSLY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN			
						CHECK	DESIGN BY:		M. SAAD ALI	GROUND FLOOR ROOF SLAB REINFORCEMENT DETAIL,		Ph: 92-51-2828577 , 2829002			
							STR HEAD:		NAJIB AHMAD	TYPE OF DRAWING		ISSUED FOR:			
							CAD CHECK:		ASIF IQBAL	STRUCTURE		CONSTRUCTION		PROJECT:-	
							QAG CHECK:		ASIF IQBAL			UNIVERSITY OF SUFISM AND MODERN SCIENCES			
							APPROVED BY:		NAJIB AHMAD			BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK			
								SCALE:-	DATE:-	DWG No. :-	REVISION				
									NOV. -2022	S-11		00			

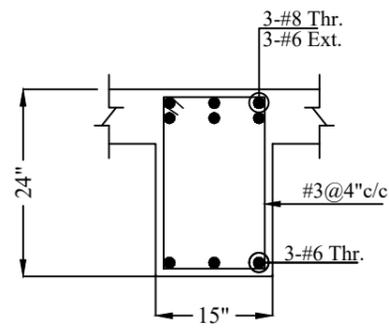




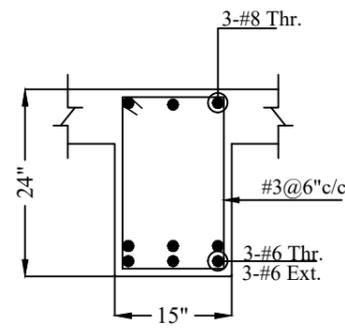
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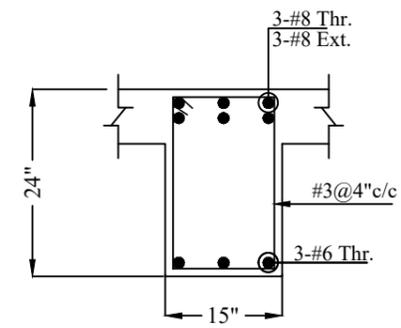
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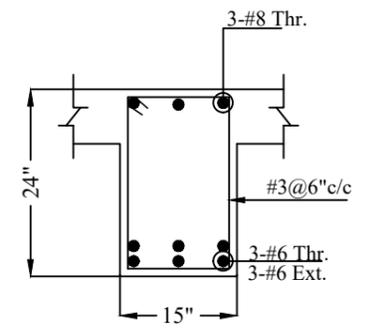
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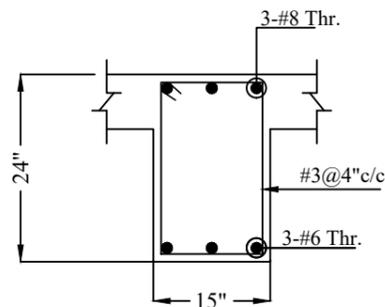
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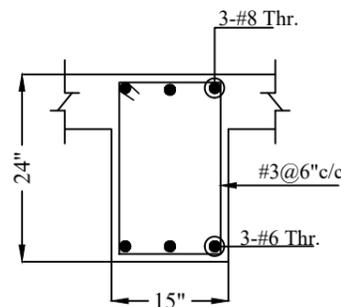
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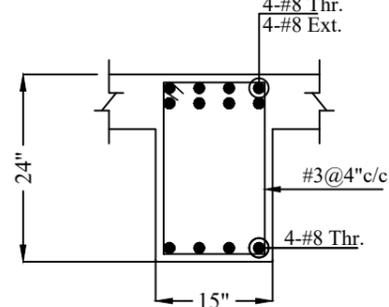
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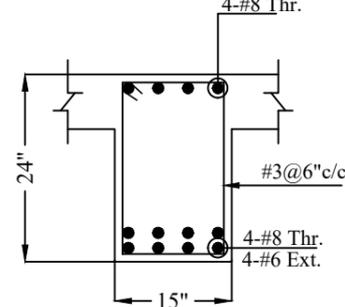
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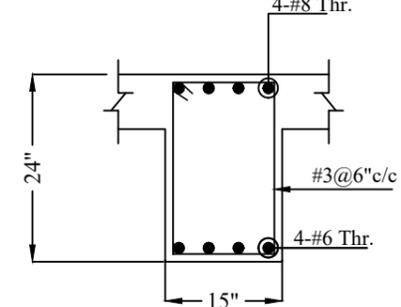
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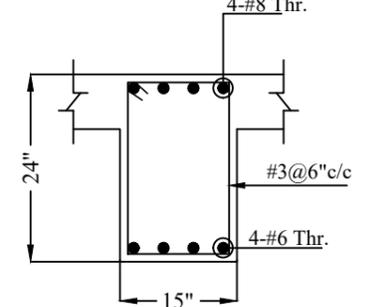
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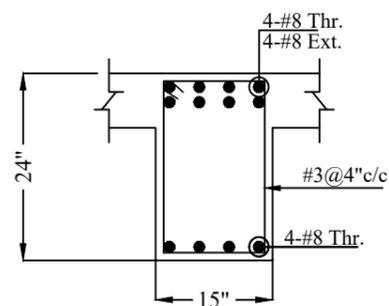
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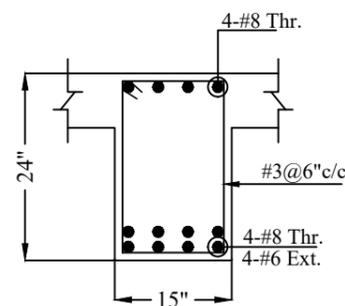
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**F-B3a**  
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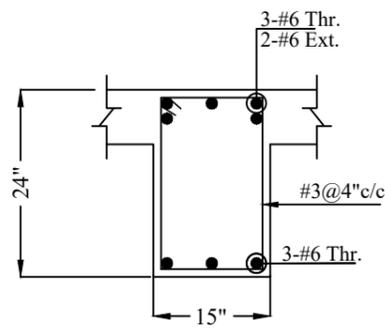
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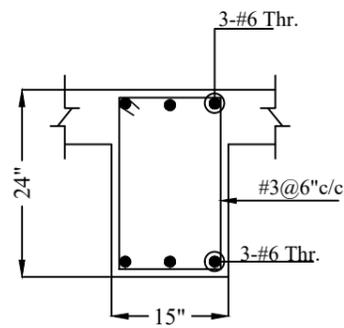
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**FIRST FLOOR**  
**BEAM REINFORCEMENT DETAIL**

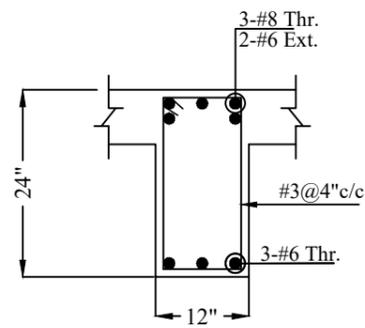
REV No.	DATE	REVISIONS	<p>IMPORTANT NOTE:-</p> <p>THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.</p>	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	<p>COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.</p>	TITLE:-		 <p><b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.</p> <p>1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN Ph: 92-51-2828577 , 2829002 Fax : 92-51-2307615 E-mail: designmenislamabad@gmail.com</p>		
						DESIGN BY:	M. SAAD ALI		FIRST FLOOR BEAM DETAIL				
									STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:
									CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION
									QAG CHECK:	ASIF IQBAL		PROJECT:-	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK
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									NOV. -2022	S-13	00		



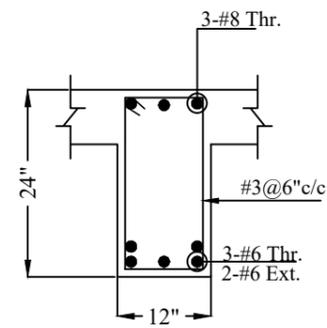
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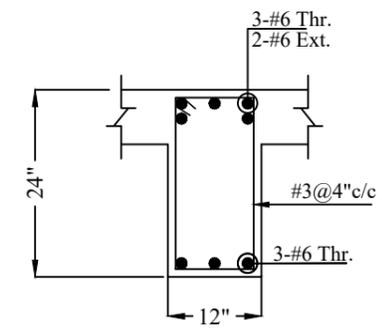
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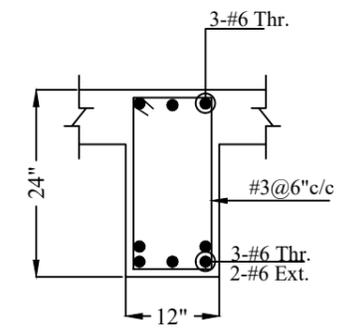
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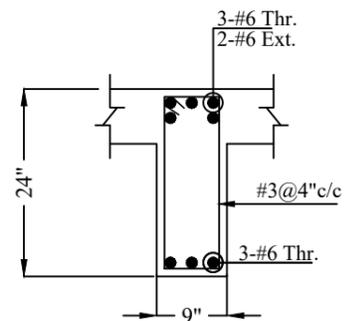
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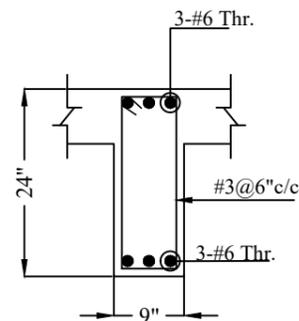
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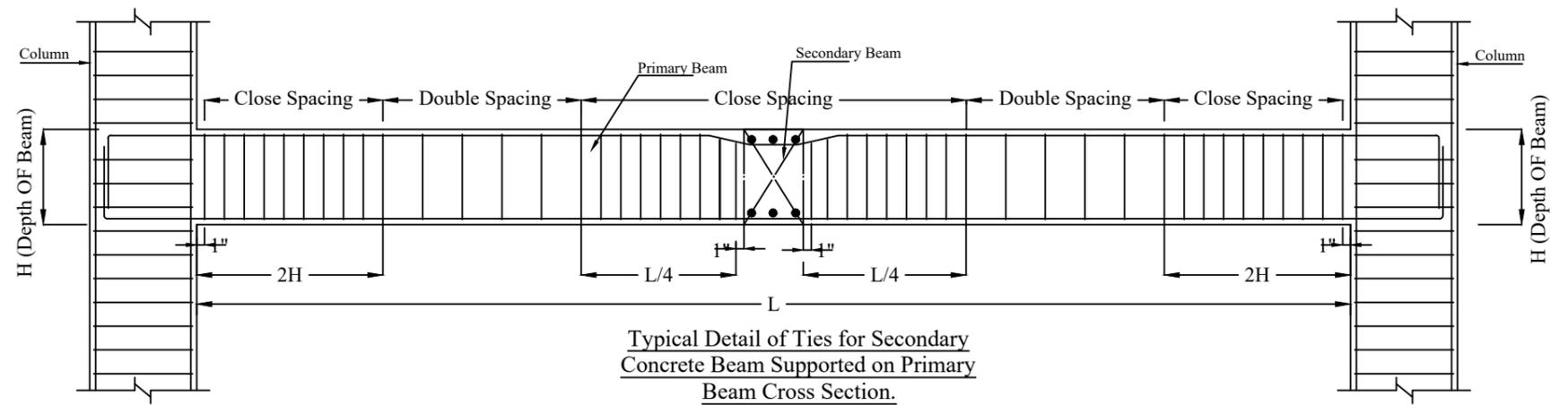
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**F-B5**  
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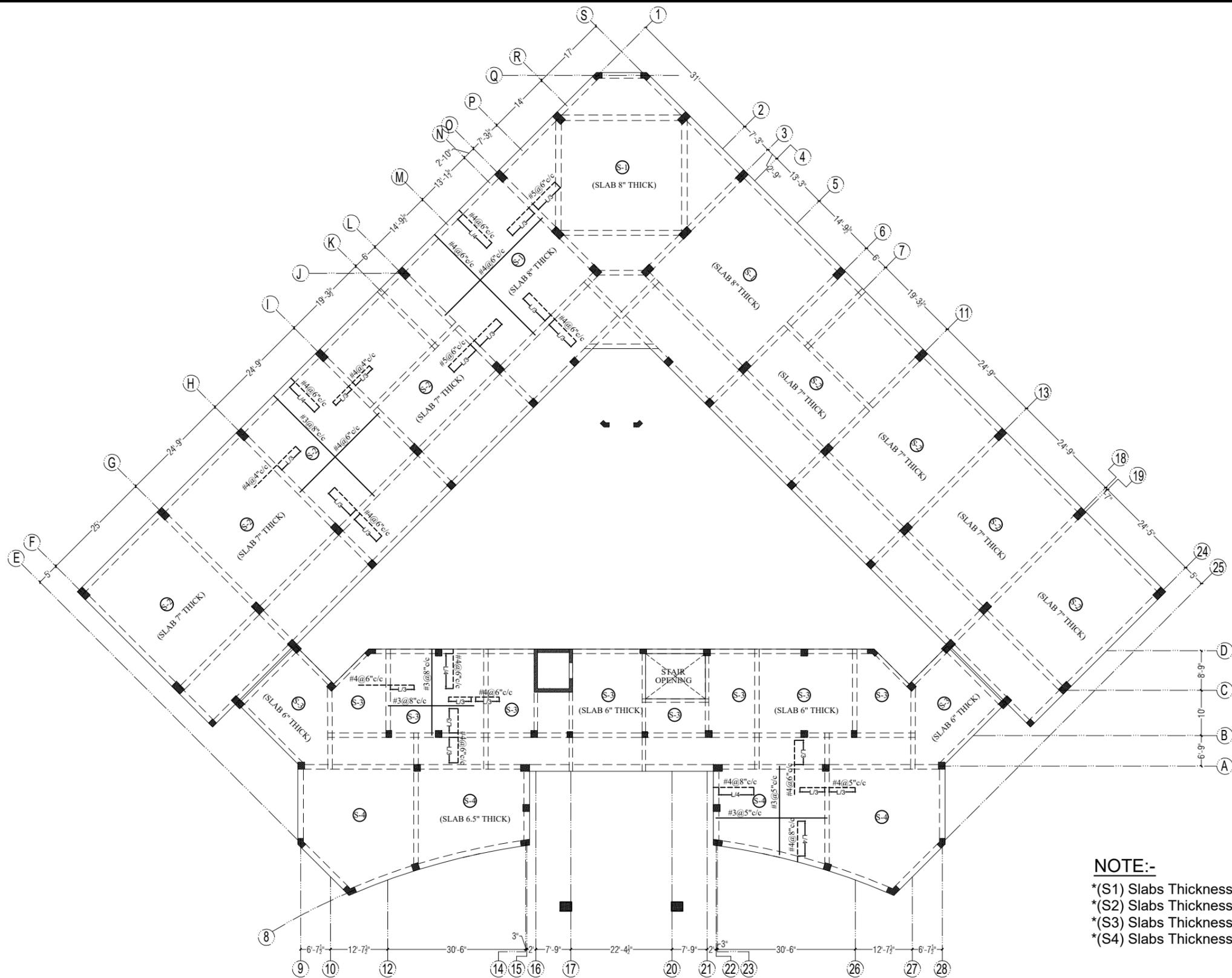
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**Typical Detail of Ties for Secondary Concrete Beam Supported on Primary Beam Cross Section.**

**FIRST FLOOR  
BEAM REINFORCEMENT DETAIL**

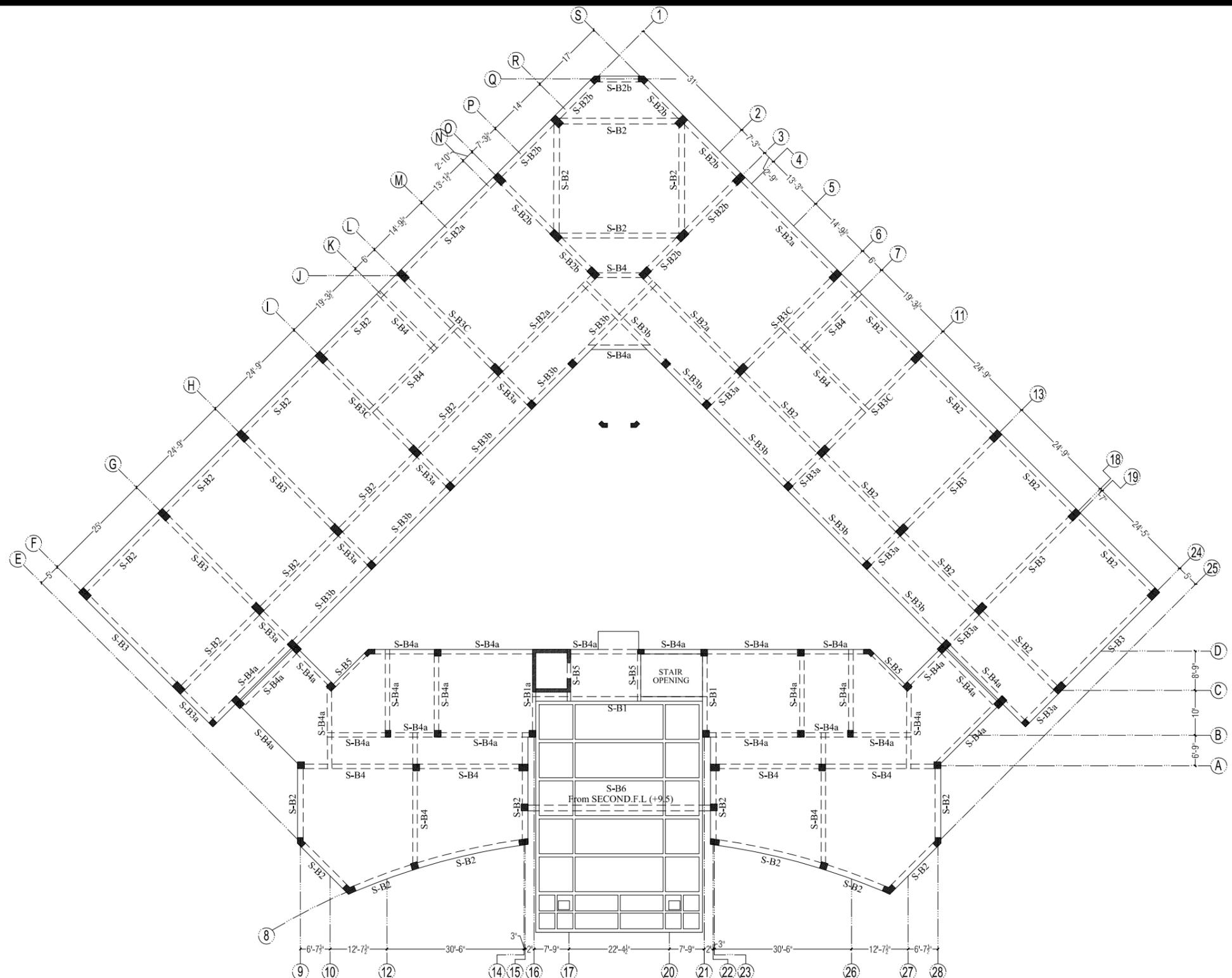
REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN			
							DESIGN BY:		M. SAAD ALI	FIRST FLOOR BEAM DETAIL		Ph: 92-51-2828577 , 2829002			
									STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:	Fax : 92-51-2307615	
									CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION	E-mail: designmenislamabad@gmail.com	
									QAG CHECK:	ASIF IQBAL		PROJECT:-		UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK	
						APPROVED BY:	NAJIB AHMAD	SCALE:-	DATE:-	DWG No. :-	REVISION				
									NOV. -2022	S-14		00			



**NOTE:-**  
 \*(S1) Slabs Thickness is 8 inches  
 \*(S2) Slabs Thickness is 7 inches  
 \*(S3) Slabs Thickness is 6 inches  
 \*(S4) Slabs Thickness is 6.5 inches

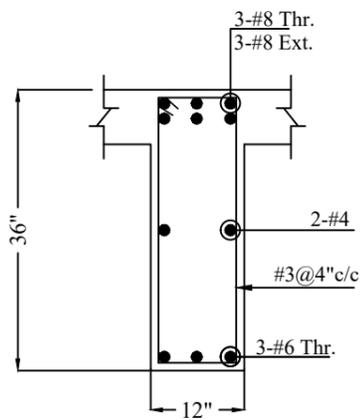
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REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSLY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor, Block 9-West, Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN Ph: 92-51-2828577, 2829002 Fax: 92-51-2307615 E-mail: designmenislamabad@gmail.com
						DESIGN BY:	M. SAAD ALI		FIRST FLOOR ROOF SLAB REINFORCEMENT DETAIL,		
						STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:	
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						APPROVED BY:	NAJIB AHMAD		UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		
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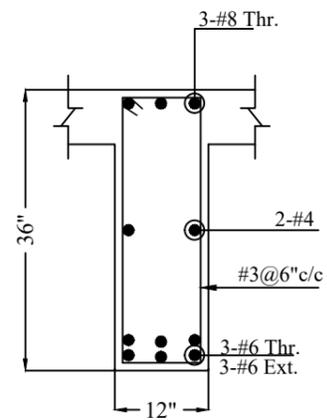


**SECOND & THIRD FLOOR ROOF BEAM FRAMING LAYOUT PLAN**

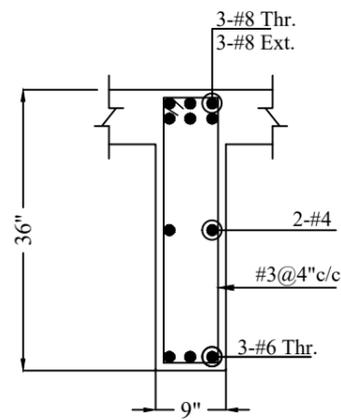
REV No.	DATE	REVISIONS	<p>IMPORTANT NOTE:-</p> <p>CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.</p>	DRAWN BY:	M. WAQAS	<p>IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSLY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.</p>	TITLE:-		<p>1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN</p> <p>Ph: 92-51-2828577 , 2829002</p> <p>Fax : 92-51-2307615</p> <p>E-mail: designmenislamabad@gmail.com</p>
				DESIGN BY:	M. SAAD ALI		SECOND & THIRD FLOOR ROOF BEAM FRAMING LAYOUT PLAN		
				STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:	
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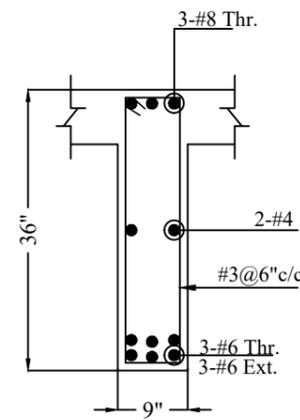
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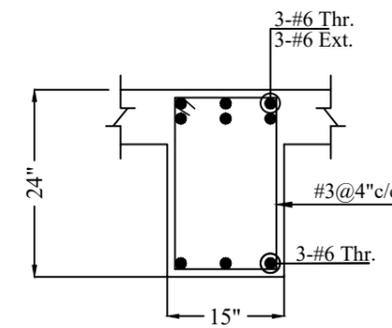
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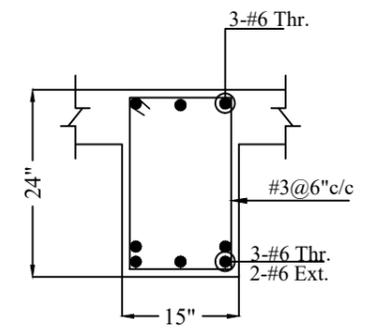
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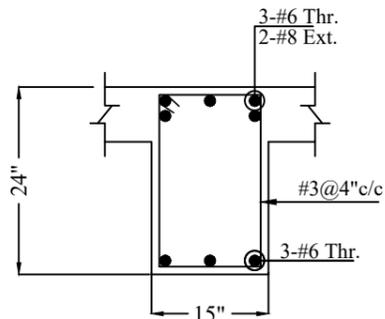
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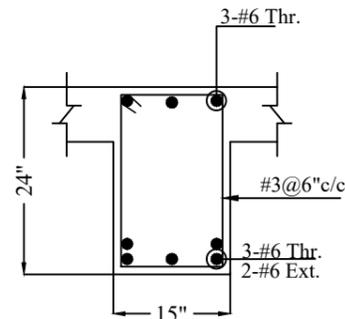
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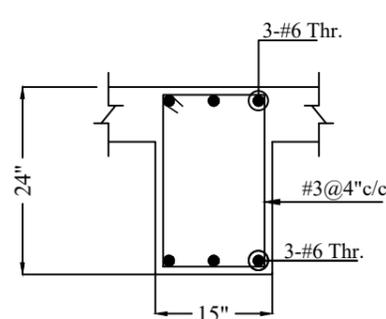
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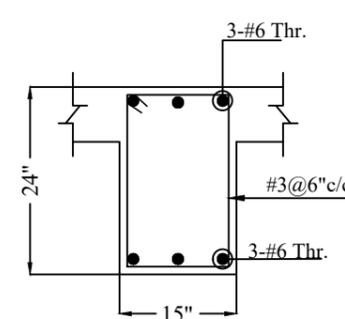
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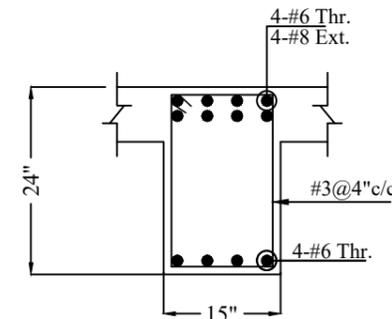
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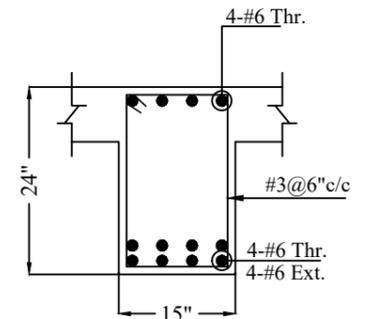
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**S-B2b**  
**AT MID**



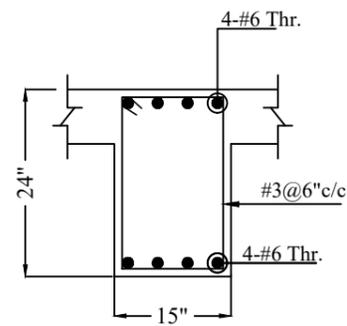
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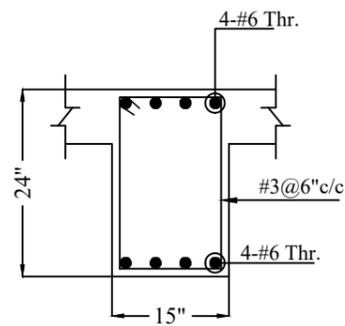
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**SECOND FLOOR ROOF**  
**BEAM REINFORCEMENT DETAIL**

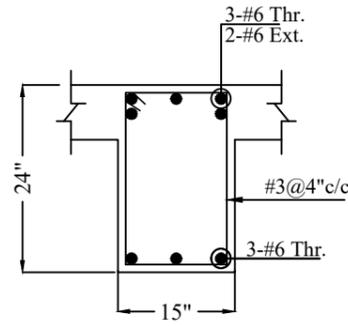
REV No.	DATE	REVISIONS	IMPORTANT NOTE:- THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN	
							DESIGN BY:		M. SAAD ALI	SECOND FLOOR BEAM DETAIL			Ph: 92-51-2828577 , 2829002
							STR HEAD:		NAJIB AHMAD	TYPE OF DRAWING		ISSUED FOR:	Fax : 92-51-2307615
							CAD CHECK:		ASIF IQBAL	STRUCTURE		CONSTRUCTION	E-mail: designmenislamabad@gmail.com
							QAG CHECK:		ASIF IQBAL				
					APPROVED BY:	NAJIB AHMAD			PROJECT:-	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK			
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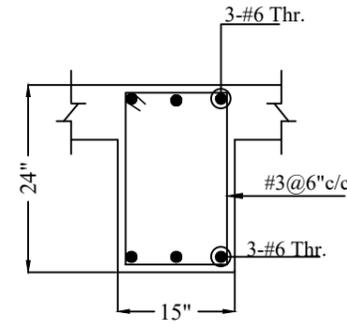
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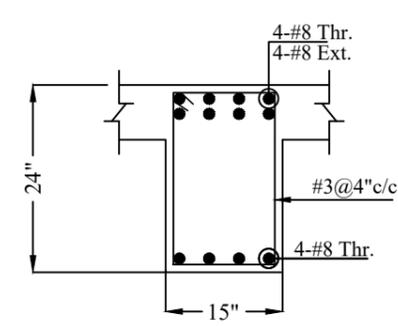
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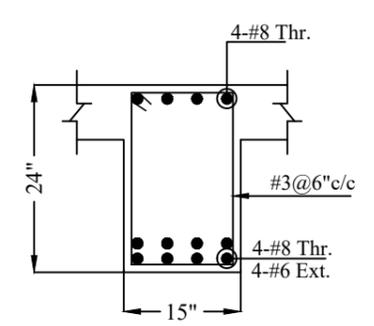
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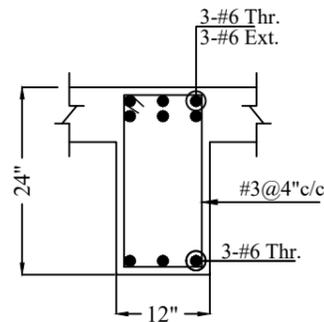
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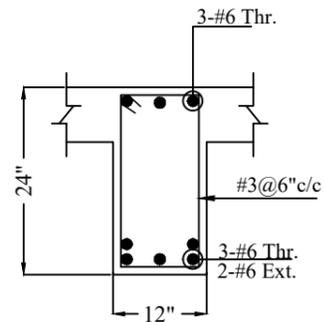
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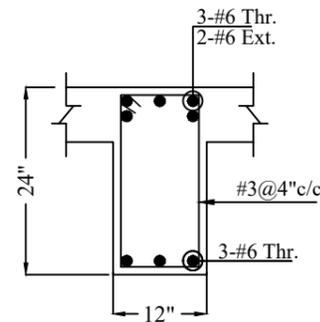
**S-B3C**  
**AT MID**



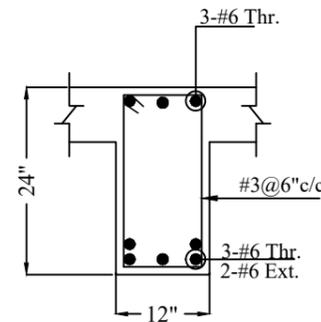
**S-B4**  
**AT SUPPORT**



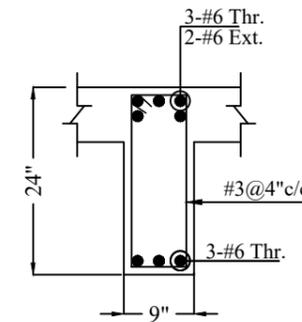
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**AT MID**



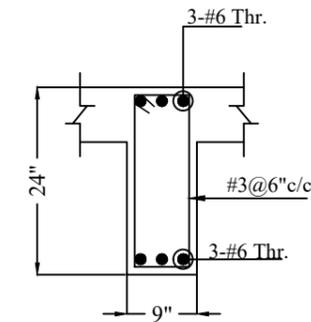
**S-B4a**  
**AT SUPPORT**



**S-B4a**  
**AT MID**



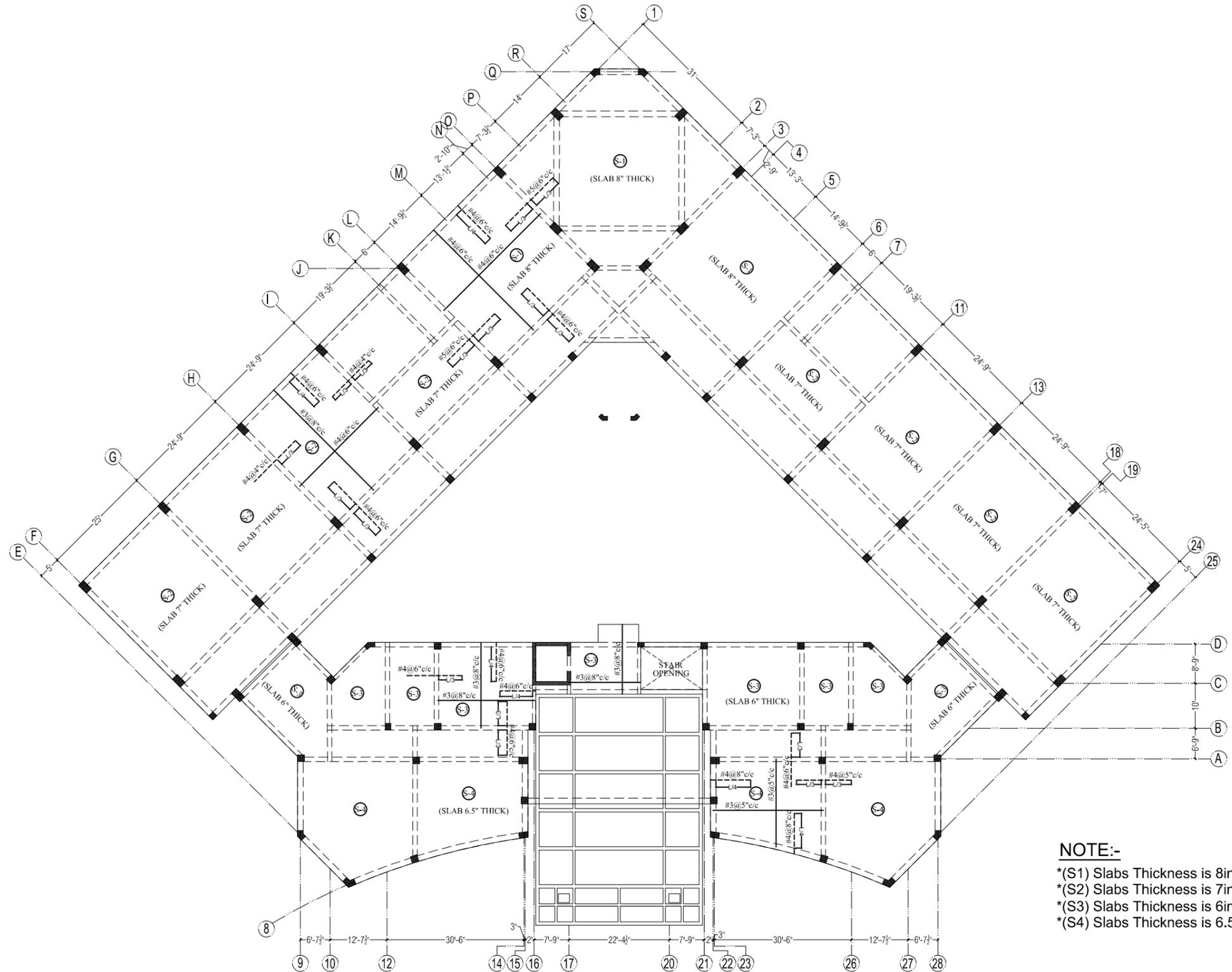
**S-B5**  
**AT SUPPORT**



**S-B5**  
**AT MID**

**SECOND FLOOR ROOF  
BEAM REINFORCEMENT DETAIL**

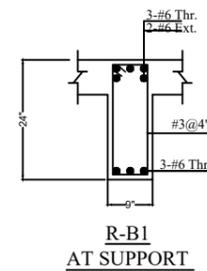
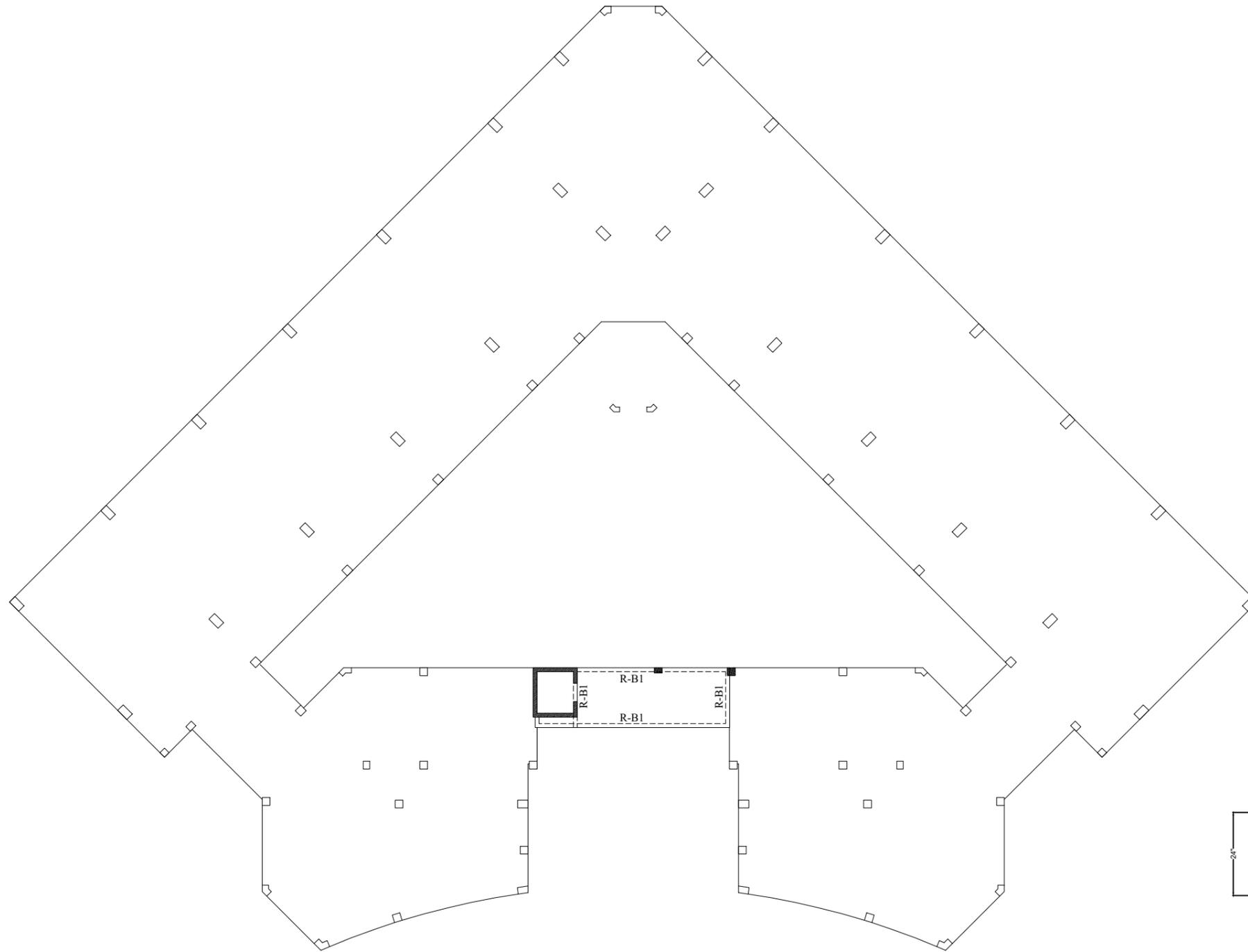
REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-			1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN			
						DESIGN BY:	M. SAAD ALI		Ph: 92-51-2828577 , 2829002						
									STR HEAD:	NAJIB AHMAD	Fax : 92-51-2307615				
									CAD CHECK:	ASIF IQBAL	E-mail: designmenislamabad@gmail.com				
									QAG CHECK:	ASIF IQBAL					
						APPROVED BY:	NAJIB AHMAD		PROJECT:-	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		SCALE:-	DATE:-	DWG No. :-	REVISION
													NOV. -2022	S-18	00



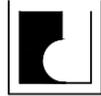
**NOTE:-**  
 \*(S1) Slabs Thickness is 8inches  
 \*(S2) Slabs Thickness is 7inches  
 \*(S3) Slabs Thickness is 6inches  
 \*(S4) Slabs Thickness is 6.5inches

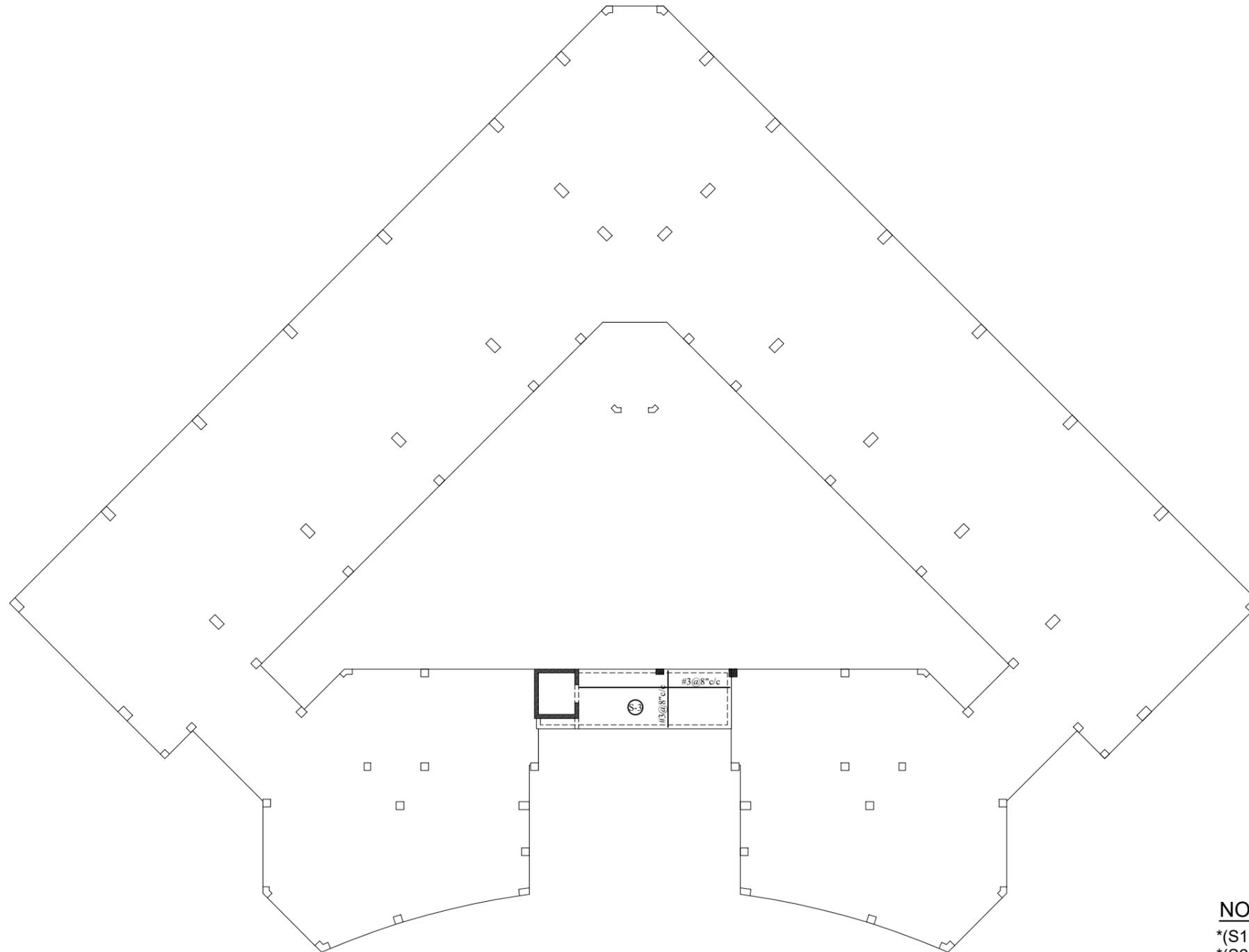
**SECOND & THIRD FLOOR ROOF SLAB REINFORCEMENT DETAIL,**

REV No.	DATE	REVISIONS	IMPORTANT NOTE:-  CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN BY:	M. WAQAS	IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSLY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-	SECOND & THIRD FLOOR ROOF SLAB REINFORCEMENT DETAIL,		<b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor, Block 9-West, Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN Ph: 92-51-2828577, 2829002 Fax: 92-51-2307615 E-mail: designmenislamabad@gmail.com
				DESIGN BY:	M. SAAD ALI		TYPE OF DRAWING	ISSUED FOR:		
				STR HEAD:	NAJIB AHMAD		STRUCTURE	CONSTRUCTION		
				CAD CHECK:	ASIF IQBAL		PROJECT:-			
				QAG CHECK:	ASIF IQBAL		UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK			
		APPROVED BY:	NAJIB AHMAD	SCALE:-	DATE:-	DWG No. :-	S-19	REVISION	00	



**MUMTY BEAM FRAMING LAYOUT PLAN**

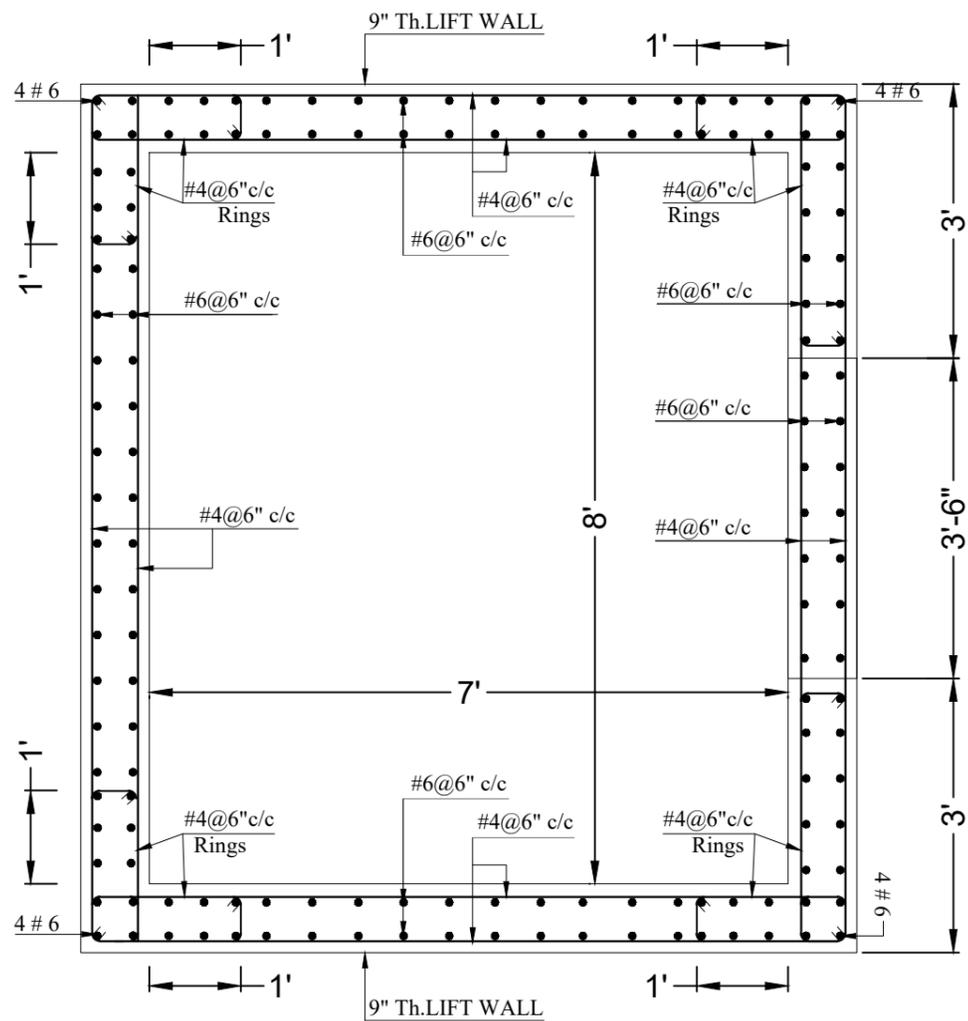
REV No.	DATE	REVISIONS	IMPORTANT NOTE:-  CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.		DRAWN BY:	M. WAQAS	IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN	
					DESIGN BY:	M. SAAD ALI		MUMTY BEAM FRAMING LAYOUT PLAN			Ph: 92-51-2828577 , 2829002	
					STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:		Fax : 92-51-2307615	
					CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION		E-mail: designmenislamabad@gmail.com	
					QAG CHECK:	ASIF IQBAL		PROJECT:-			UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK	
					APPROVED BY:	NAJIB AHMAD		SCALE:-	DATE:-		DWG No. :-	REVISION
				NOV. -2022	S-20	00						



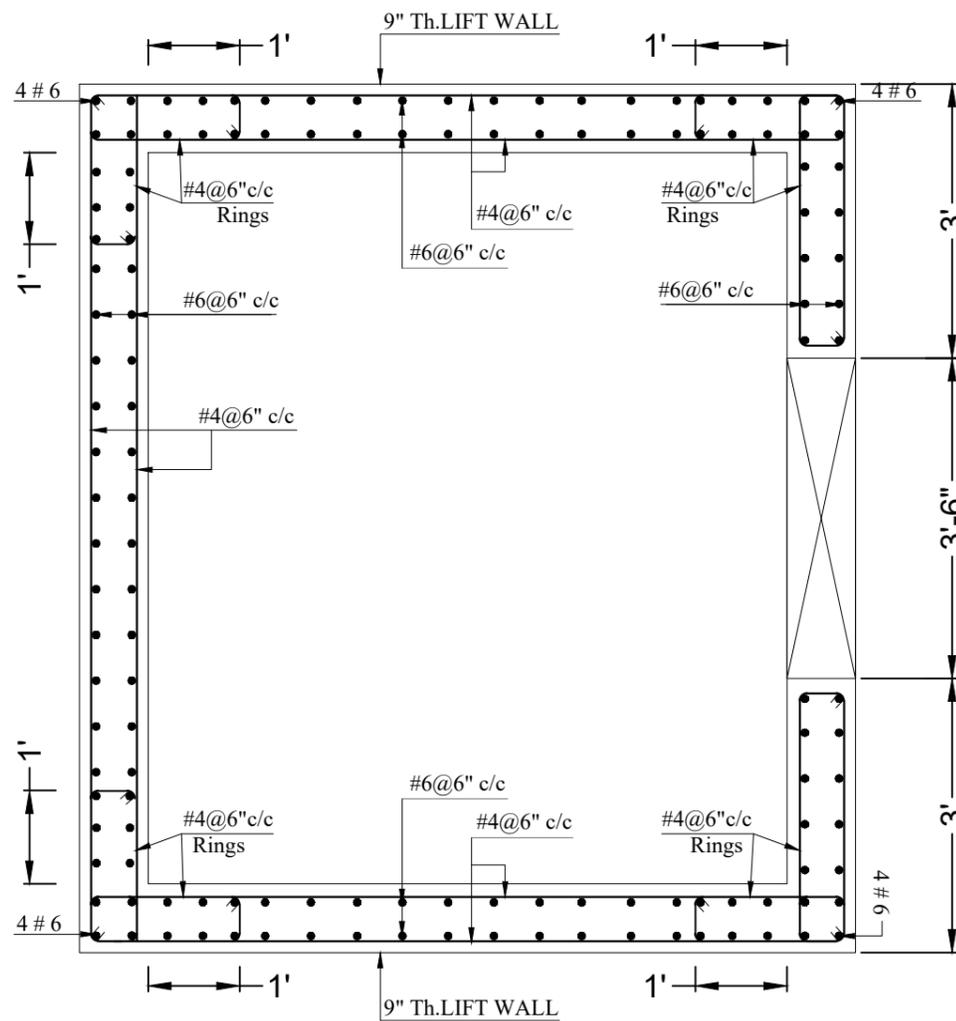
**NOTE:-**  
 \*(S1) Slabs Thickness is 8inches  
 \*(S2) Slabs Thickness is 7inches  
 \*(S3) Slabs Thickness is 6inches  
 \*(S4) Slabs Thickness is 6.5inches

**MUMTY SLAB REINFORCEMENT DETAIL,**

REV No.	DATE	REVISIONS	IMPORTANT NOTE:-  CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.		DRAWN BY:	M. WAQAS	IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD.	1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN					
					DESIGN BY:	M. SAAD ALI		MUMTY SLAB REINFORCEMENT DETAIL,			Ph: 92-51-2828577 , 2829002					
					STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:		PROJECT:-		Fax : 92-51-2307615			
					CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION		UNIVERSITY OF SUFISM AND MODERN SCIENCES		E-mail: designmenislamabad@gmail.com			
					QAG CHECK:	ASIF IQBAL					BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		SCALE:-	DATE:-	DWG No. :-	REVISION
					APPROVED BY:	NAJIB AHMAD							NOV. -2022	S-21	00	



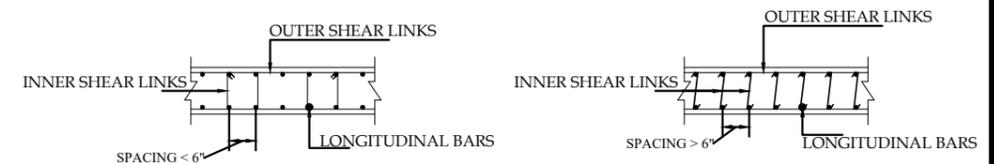
SECTION 1-1  
REINFORCEMENT DETAIL



SECTION 2-2  
REINFORCEMENT DETAIL

GROUND TO ROOF

TYPICAL DETAIL FOR INNER LINKS



CASE-1

CASE-2

NOTE FOR INNER SHEAR TIES (SHEAR WALLS)

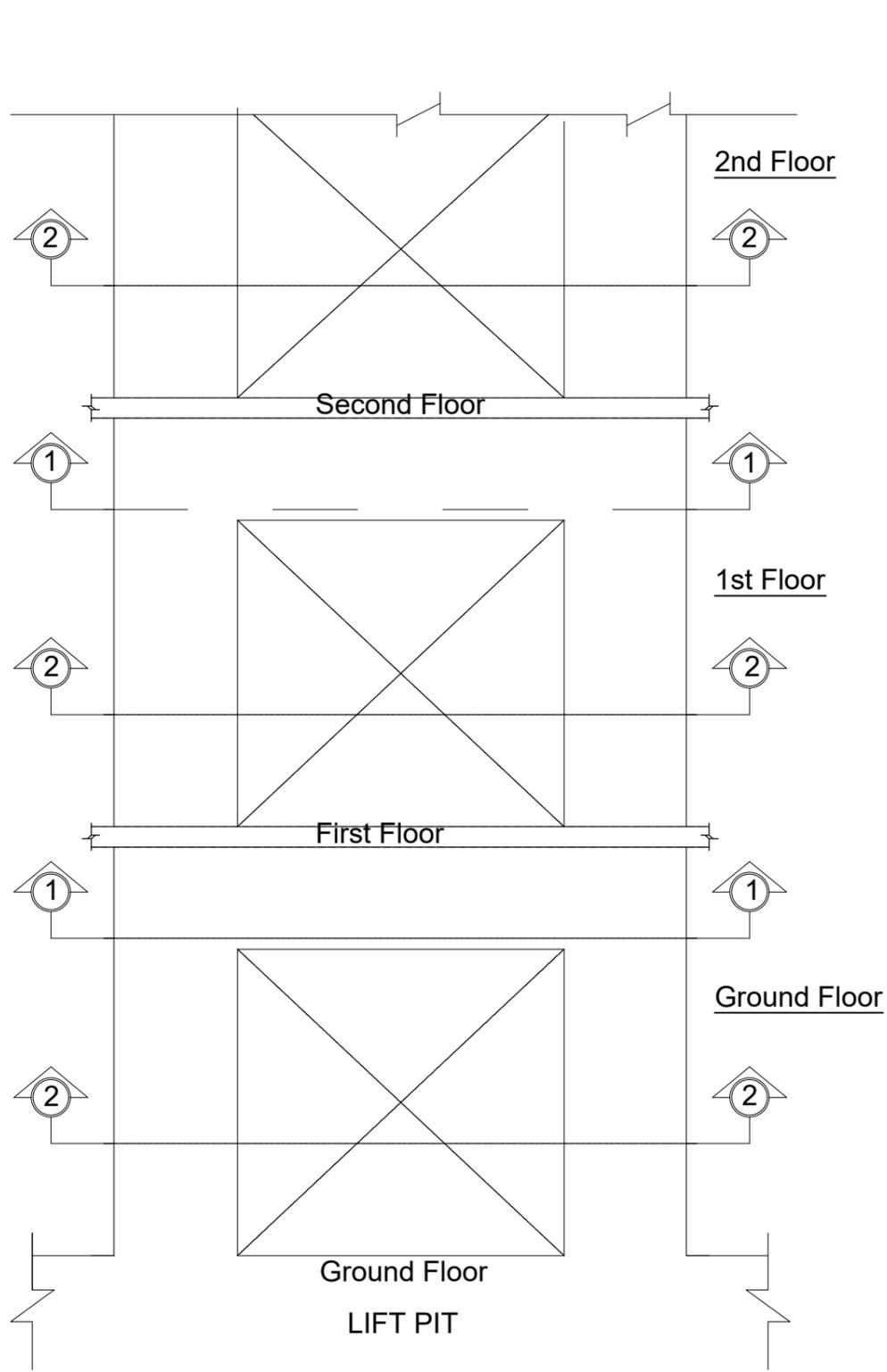
CASE-1

\* FOR SPACING < 6 INCH ALTERNATE LONGITUDINAL BARS MUST BE TIED WITH SHEAR LINKS.

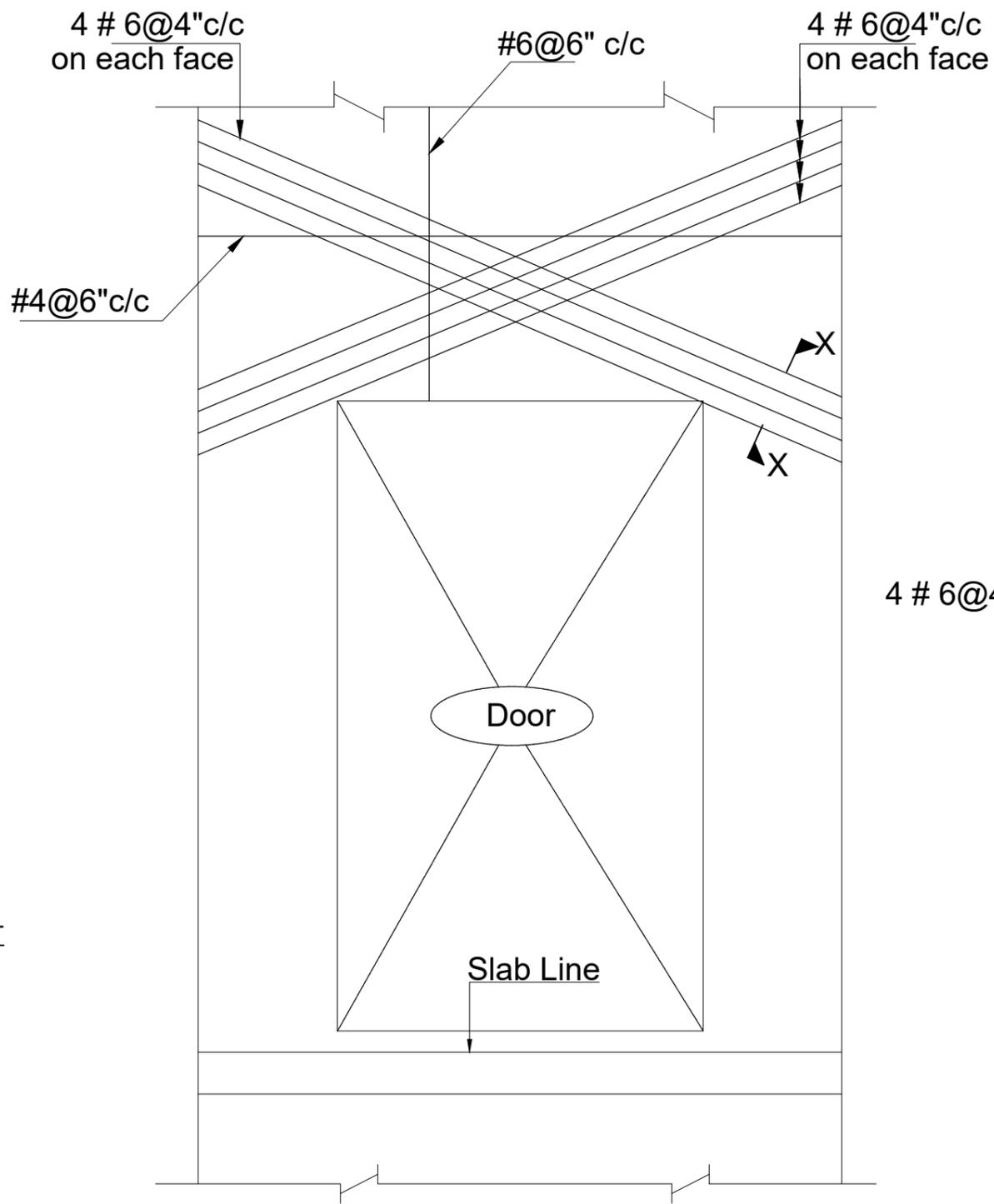
CASE-2

\* FOR SPACING > 6 INCH ALL LONGITUDINAL BARS MUST BE TIED WITH SHEAR LINKS.

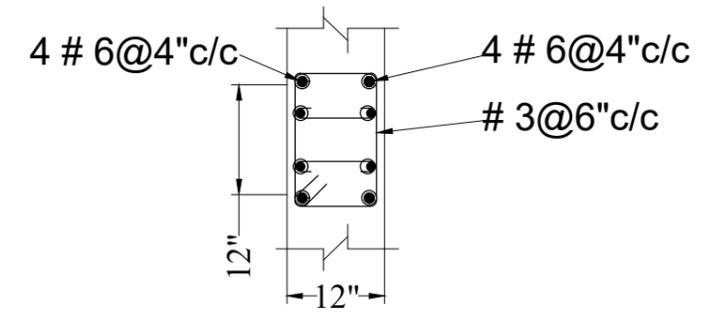
REV No.	DATE	REVISIONS	<p>IMPORTANT NOTE:-</p> <p>THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.</p>	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	<p>COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.</p>	TITLE:-	LIFT SECTION			1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN	
						DESIGN BY:	M. SAAD ALI			Ph: 92-51-2828577 , 2829002				
						STR HEAD:	NAJIB AHMAD			Fax : 92-51-2307615				
						CAD CHECK:	ASIF IQBAL			E-mail: designmenislamabad@gmail.com				
						QAG CHECK:	ASIF IQBAL			PROJECT:-	UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK			
						APPROVED BY:	NAJIB AHMAD			SCALE:-	DATE:-	DWG No. :-	REVISION	
									NOV. -2022	S-22	00			



**LIFT ELEVATION**

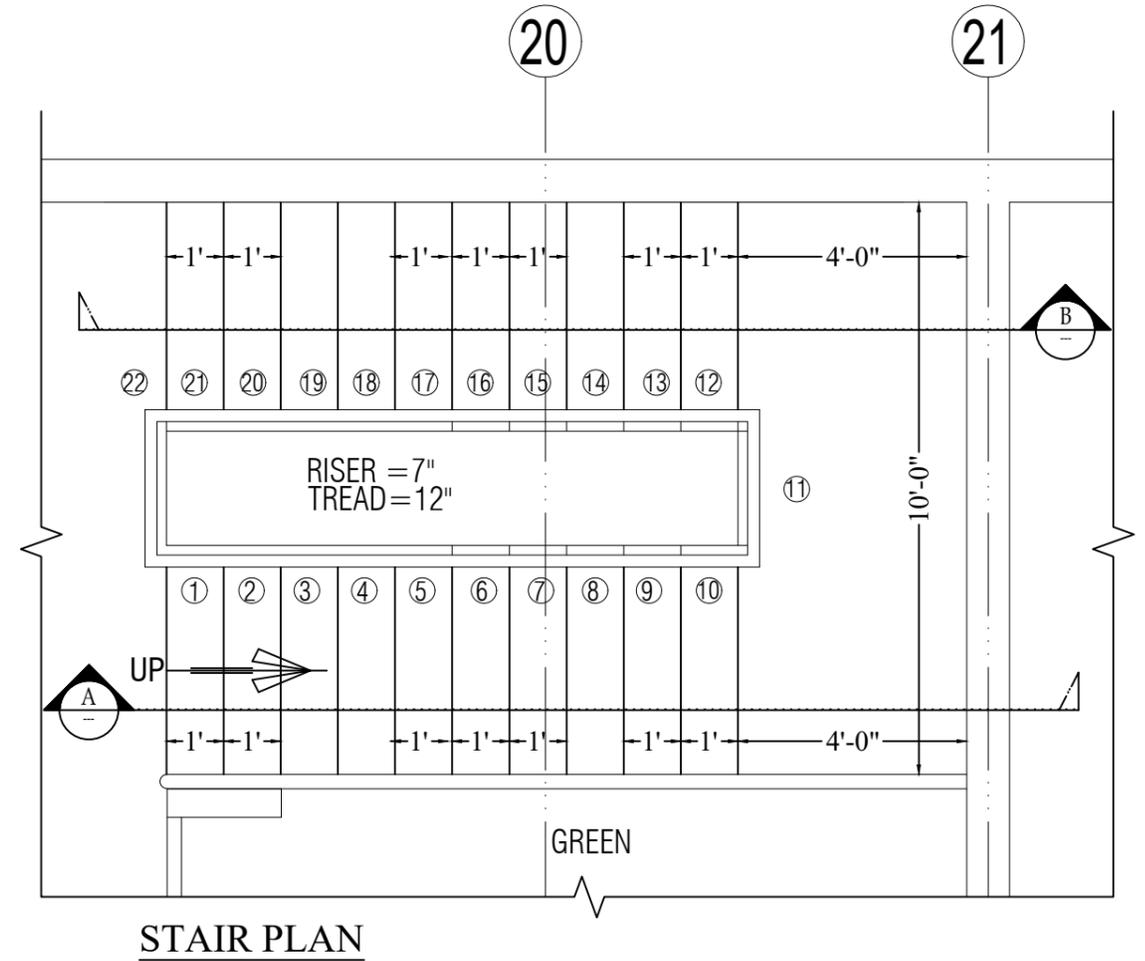
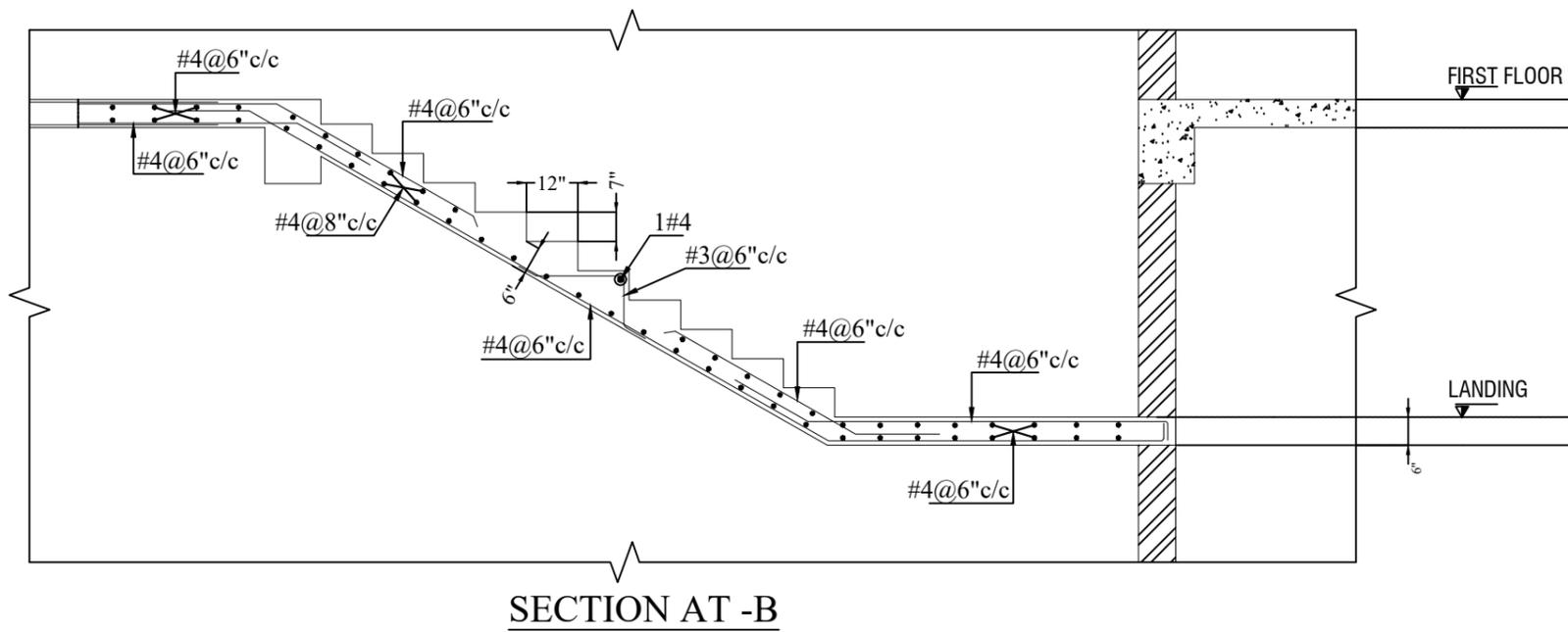
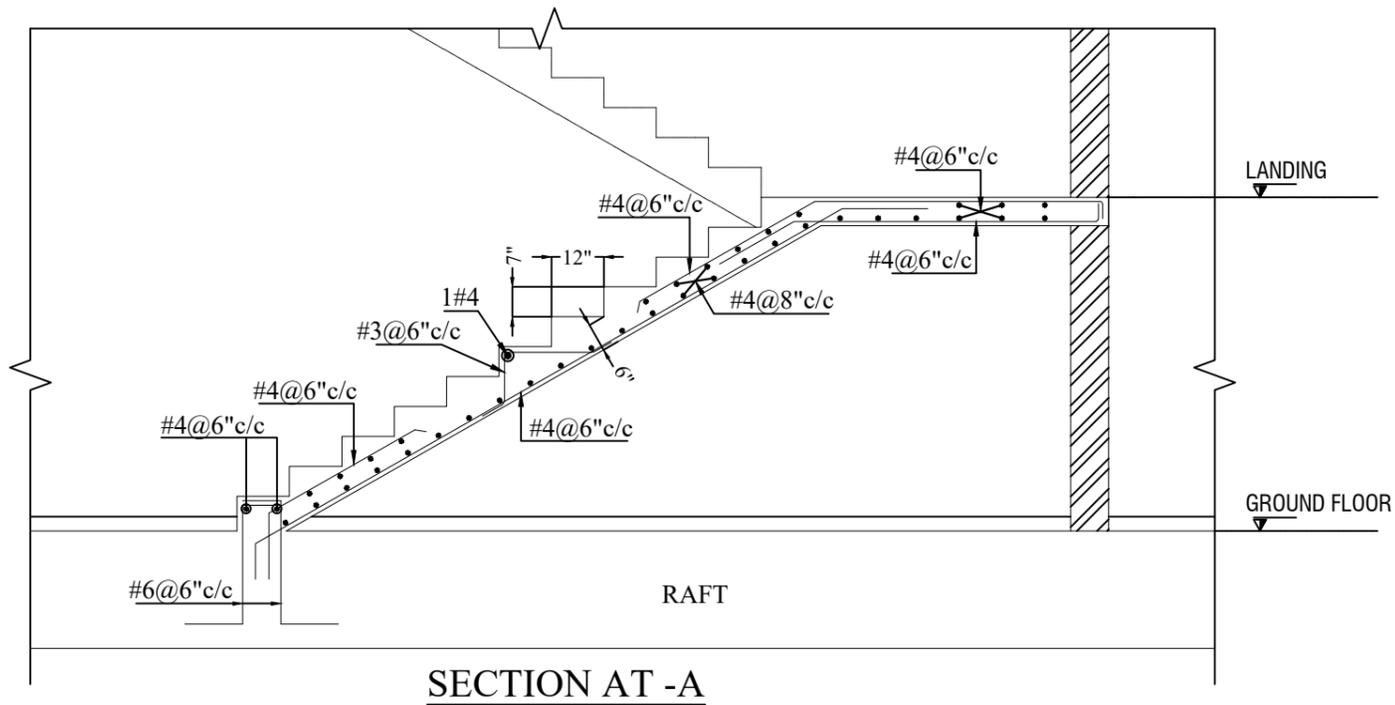


**DETAIL OF DIAGONAL REINFORCEMENT AT LIFT DOOR**



**SECTION X-X**

REV No.	DATE	REVISIONS	<b>IMPORTANT NOTE:-</b> THE OWNER WILL APPOINT SUPERVISOR FOR CONSTRUCTION OF THIS STRUCTURE. THE OWNER AND THE SUPERVISOR ARE RESPONSIBLE FOR QUALITY AND STABILITY OF BUILT STRUCTURE. THE STRUCTURE ENGINEER/ARCHITECT IS ONLY RESPONSIBLE FOR STRUCTURAL/ARCHITECTURAL DESIGN OF THE BUILDING, RESPECTIVELY.	DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS	COPYRIGHT THE ORIGINAL OF THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESIGNMEN AND THE ACCEPTANCE OF THIS PRINT CONSTITUTES AN AGREEMENT THAT IT WILL BE TREATED AS A CONFIDENTIAL DOCUMENT TO BE USED FOR NO PURPOSE OTHER THAN AS EXPRESSIVELY DESIRED / ALLOWED BY DESIGNMEN. THESE DRAWINGS ARE NOT TO BE COMMUNICATED, DISCLOSED, COPIED OR PUBLISHED EXCEPT AS EXPRESSLY AUTHORISED IN WRITING BY DESIGNMEN.	TITLE:-		 <b>Designmen</b> CONSULTING ENGINEERS (Pvt) LTD. 1st Floor, Block 9-West, Rizwan Plaza, Jinnah Avenue F-6, ISLAMABAD - PAKISTAN Ph: 92-51-2828577, 2829002 Fax: 92-51-2307615 E-mail: designmenislamabad@gmail.com
						DESIGN BY:	M. SAAD ALI		LIFT SECTION		
						STR HEAD:	NAJIB AHMAD		TYPE OF DRAWING	ISSUED FOR:	
						CAD CHECK:	ASIF IQBAL		STRUCTURE	CONSTRUCTION	
						QAG CHECK:	ASIF IQBAL		PROJECT:-		
						APPROVED BY:	NAJIB AHMAD		UNIVERSITY OF SUFISM AND MODERN SCIENCES BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK		
SCALE:-		DATE:-	DWG No. :-	REVISION							
		NOV. -2022	S-23					00			



REV No.	DATE	REVISIONS

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		DESIGN BY: <td>M. SAAD ALI</td>	M. SAAD ALI
		STR HEAD: <td>NAJIB AHMAD</td>	NAJIB AHMAD
		CAD CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		QAG CHECK: <td>ASIF IQBAL</td>	ASIF IQBAL
		APPROVED BY: <td>NAJIB AHMAD</td>	NAJIB AHMAD

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TITLE:-	
STAIR DETAIL	
TYPE OF DRAWING	ISSUED FOR:
STRUCTURE	CONSTRUCTION

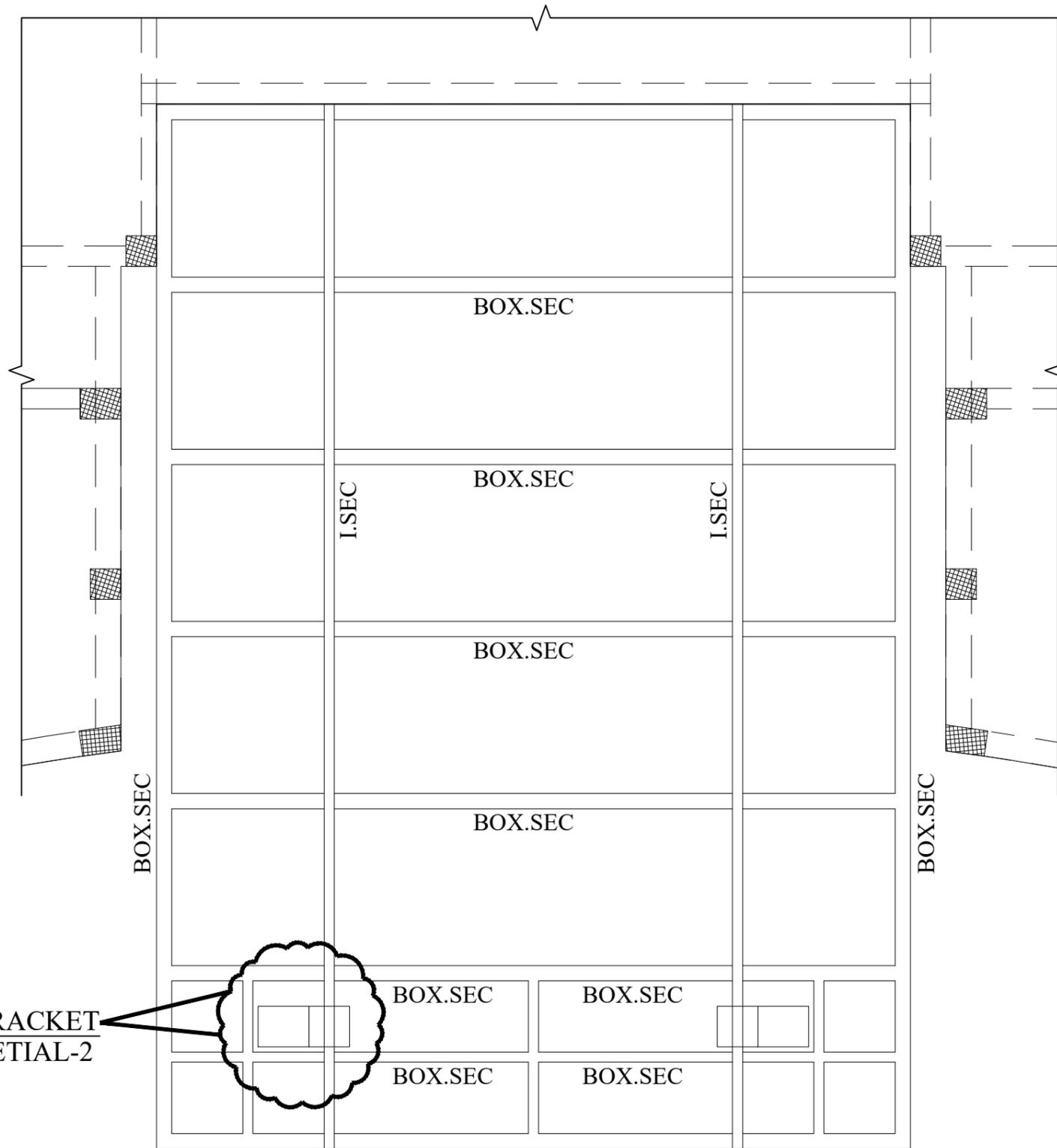
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 Fax : 92-51-2307615  
 E-mail: designmenislamabad@gmail.com

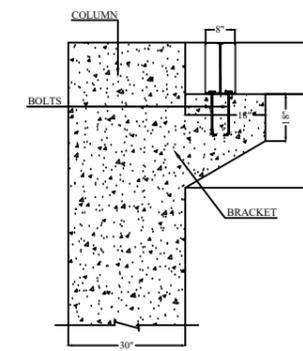
PROJECT:- UNIVERSITY OF SUFISM AND MODERN SCIENCES  
 BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK

SCALE:-	DATE:- NOV. -2022	DWG No. :- S-24	REVISION 00
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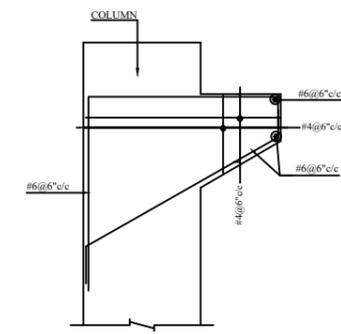




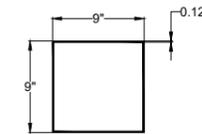
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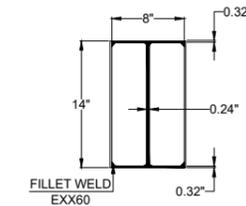
BRACKET 2  
CONCRETE OUTLINE DETAIL



BRACKET 2  
REINFORCEMENT DETAIL



BOX SECTION



I SECTION

**ANCHOR BOLT M.WSEMBLY.**  
EACH M.WSEMBLY CONSISTS OF ONE 'L' SHAPED ANCHOR BOLT. 2nos. HEX NUTS, 1no. WM.WHER

**T : THREADED BOLT PROJECTION**  
**E : EMBEDMENT LENGTH (MIN.)**  
**L : VERTICAL LENGTH**  
**X : HOOK LENGTH**

DIAMETER	QTY	T (mm)	E (mm)	L (mm)	X (mm)	OVERALL LENGTH (mm)	R (mm)
16 mm	00	100	300	400	80	511	24
20 mm	00	125	375	500	100	636	30
24 mm	04	125	475	600	128	775	40
30 mm	128	150	750	900	160	1114	50
36 mm	00	200	800	1000	192	1263	60

NOTE: ABOVE MENTIONED DIMENSIONS OF ANCHOR BOLT MAY VARY SUBJECT TO AVAILABILITY IN STOCK .

**ANCHOR BOLT DETAIL**

REV No.	DATE	REVISIONS

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DRAWN CHECK	APPR.	DRAWN BY:	M. WAQAS
		DESIGN BY:	M. SAAD ALI
		STR HEAD:	NAJIB AHMAD
		CAD CHECK:	ASIF IQBAL
		QAG CHECK:	ASIF IQBAL
		APPROVED BY:	NAJIB AHMAD

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STRUCTURE	CONSTRUCTION

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Fax : 92-51-2307615  
E-mail: designmenislamabad@gmail.com

PROJECT:- UNIVERSITY OF SUFISM AND MODERN SCIENCES  
BHIT SHAH, MATIARI SINDH ACADEMIC BLOCK

SCALE:-	DATE:- NOV. -2022	DWG No. :-	REVISION
		S-26	00

**UNIVERSITY OF SUFISM & MODERN  
SCIENCES AT BHITSHAH  
ELECTRICAL TENDER DRAWINGS**



**LEGEND**

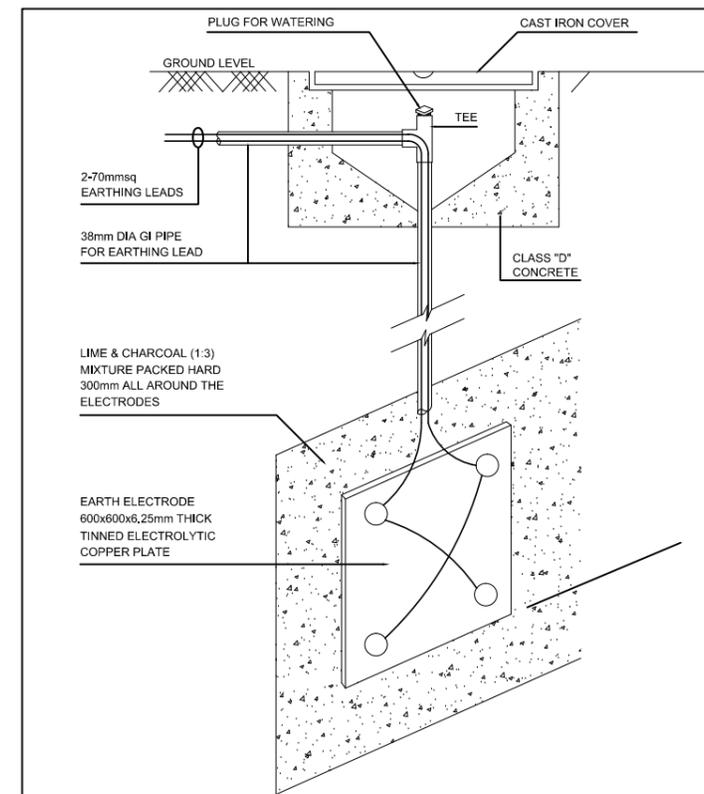
SYMBOLS	DESCRIPTION
	LED LIGHT 1X18W
	PHILIPS PECIFIC 2X18 WAT LED LIGHT FLUSH MOUNTED
	SURFACE LED DOWN LIGHT FIXTURE PHILIPS MODEL DN 024B LED12/SURFACE WASHROOM 1X8W
	SURFACE LED DOWN LIGHTER 1X12W LED LIGHT
	SURFACE LED LIGHT 2X2 PANEL 36W
	COMPUTER DISTRIBUTION BOARD (CDB)
	AC DISTRIBUTION BOARD (DBAC)
	1x14W LED LIGHT FIXTURE 2' LONG (ABOVE MIRROR) HEIGHT AS PER SITE REQUIRMENT ACCORDING TO MIRROR
	WALL BRACKET LIGHT 1X18W LED LAMP
	CEILING FAN 56" SWEEP WITH DIMMER
	EXHAUST FAN 12"/8" SWEEP
	10A, ONE-WAY SWITCH
	BULK HEAD LIGHT
	15A, 3 PIN SWITCH SOCKET OUTLET FOR AC UNIT 7' FROM FFL
	15A, 3 PIN SWITCH SOCKET OUTLET
	10A/13A, 3-PIN INTERNATIONAL SCKT OUTLET
	10A/13A, 3-PIN INTERNATIONAL SCKT OUTLET FOR TV POWER AT 4' FROM FFL
	GAURD ROOM , PASSAGE , TOILETS PIERLITE MODEL DISC
	DATA WIRING PULL BOX
	TELEPHONE OUTLET
	TV OUTLET
	MAIN TELEPHONE JUNCTION BOX (MTJB)
	FAST ETHERNET SWITCH (HUB)
	MULTI OUTLET BOX 1No 3Pin 5/10A S/Socket 1 Nos 3Pin 13A Flat Pin S/Socket 1 Data Outlet 1 Telephone Outlet
	FLOOR OUTLET BOX
	LOWER POWER DISTRIBUTION BOARD (LPDB)
	MAIN L.T PANEL
	HEAT DETECTOR
	SMOKE DETECTOR
	F/ALARM BELL
	MANUAL CALL STATION
	FIRE ALARM CONTROL PANEL (FACP)
	INDOOR/CEILING CCTV CAMERA
	OUTDOOR CCTV CAMERA
	CEILING SPEAKER
	20A, Power socket for AC Unit
	10A, TWO-WAY SWITCH

1) MINIMUM PVC CONDUIT SIZE OF 20mm DIA WILL BE USED (UTILIZATION AS PER IEE REGULATION).

PVC/STEEL CONDUIT CAPACITY SHALL BE AS FOLLOWS:

CABLES CONDUITS	CABLES						
	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	25mm <sup>2</sup>
20mm DIA	10	8	5	4	2	-	-
25mm DIA	18	11	8	6	4	3	2
32mm DIA	26	17	13	10	6	4	3

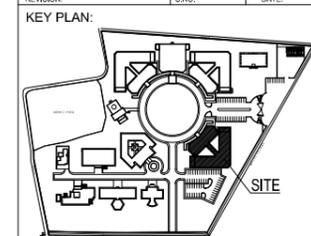
- 2) MAIN CIRCUIT FOR EACH LPDB SHALL RUN IN SEPARATE CONDUIT.
- 3) ALL WIRING CABLES SHALL BE OF 300/500 VOLTS GRADE MINIMUM, INSULATED EARTH WIRE SHALL RUN ALONG MAINS.
- 4) POINT WIRING SHALL BE WITH 1.5mmsq CABLES
- 5) LIGHT CIRCUIT WIRING SHALL BE WITH 2.5mmsq CABLES OR AS INDICATED IN SCHEMATIC OF D.B.
- 6) ECC SHALL BE OF THE SIZE OF MAIN CONDUCTOR OR AS INDICATED IN SCHEMATIC OF D.B.
- 7) EACH LIGHT AND POWER CIRCUIT SHALL BE LAID IN SEPARATE CONDUIT.
- 8) CAREFULLY CO-ORDINATE DOWNS AND RISERS WITH WALL POSITIONS & HAVE THE SAME CONFIRMED WITH THE CIVIL CONTRACTOR.
- 9) NO CHISELING AND CUTTING OF STRUCTURE IS TO BE CARRIED OUT WITHOUT PRIOR WRITTEN PERMISSION OBTAINED FROM THE ARCHITECT/ENGINEERS.
- 10) TELEPHONE WIRE 2 PAIR SHALL RUN IN 1" DIA PVC CONDUIT



**TENDER DRAWING**



REVISION	S.NO.	DATE



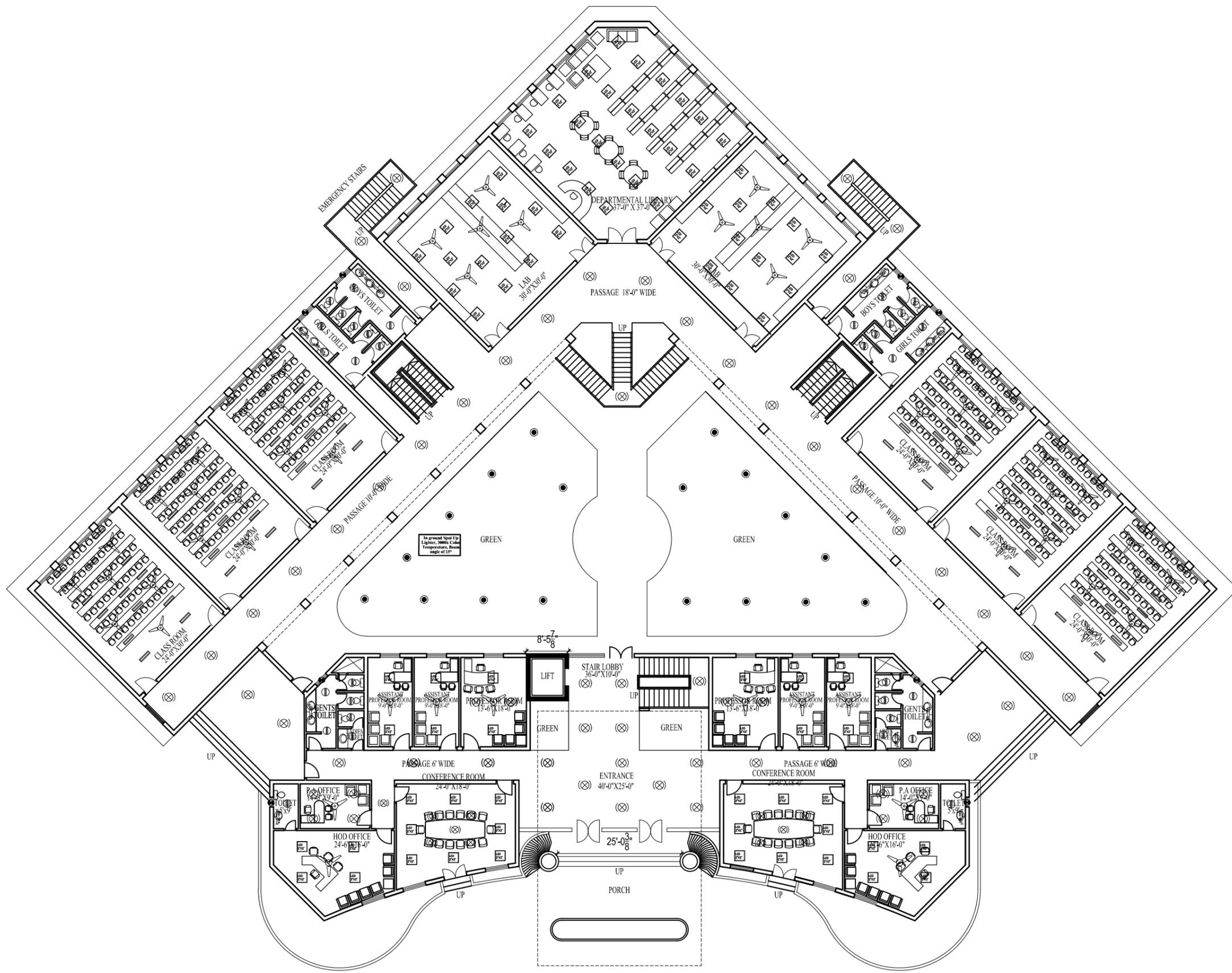
PROJECT TITLE:  
**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
ENR. ARCHITECT & ENGINEER  
10/11F GROUND, 1ST FLOOR,  
STREET 14/15/16/17/18/19/20/21/22,  
HYDRA ABUL KHAYR, FRENCH COLONY,  
SECTOR C-13/14, ISLAMABAD  
TEL: 3578-2662/30  
ARCHITECT

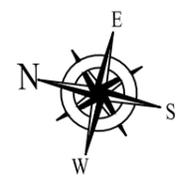
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	CHECKED BY: PARVEZ IQBAL		

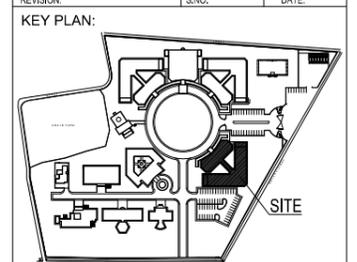
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**WORKING DRAWING**



REVISION	S.NO.	DATE



**PROJECT TITLE:**

**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

**CONSULTANTS**  
**NAQVI AND SIDDIQUE**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, 1ST FLOOR,  
 STREET #14, PLOT #10 Opp. TO PARKISTAN  
 POWER BY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1, ISLAMABAD  
 TEL: 357-2280475-10  
 ARCHITECT



PIRZADA MASROOR RAZA SIDDIQUE

**DRAWING TITLE**

**GROUND FLOOR LIGHTING LAYOUT PLAN**

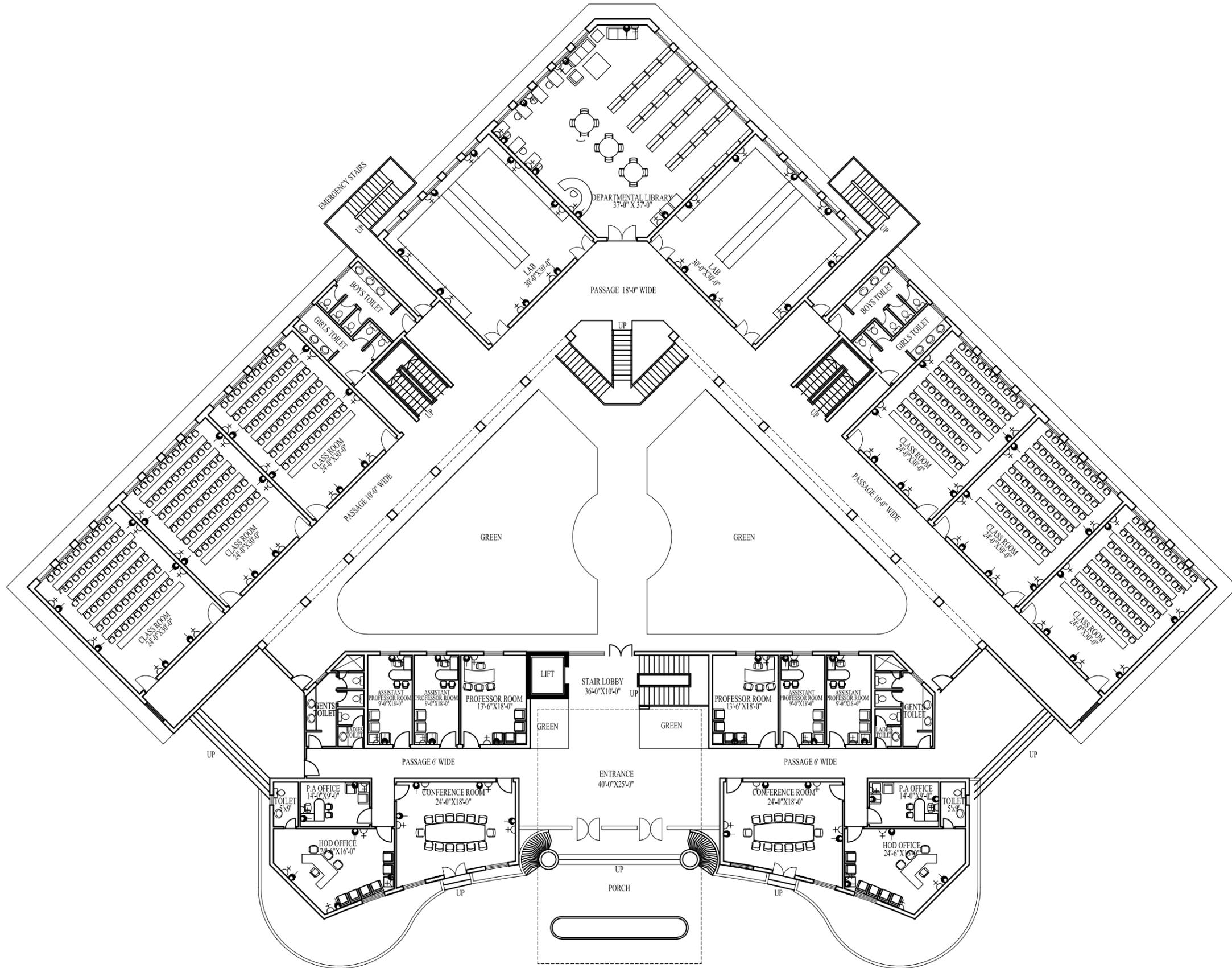
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	CHECKED BY: PARVEZ IQBAL	

IFTIKHAR A. SIDDIQUE

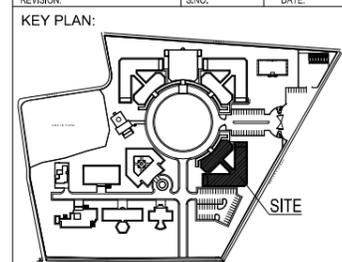




WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
ING. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1, ISLAMABAD  
TEL: 357-2280/75-10  
ARCHITECT



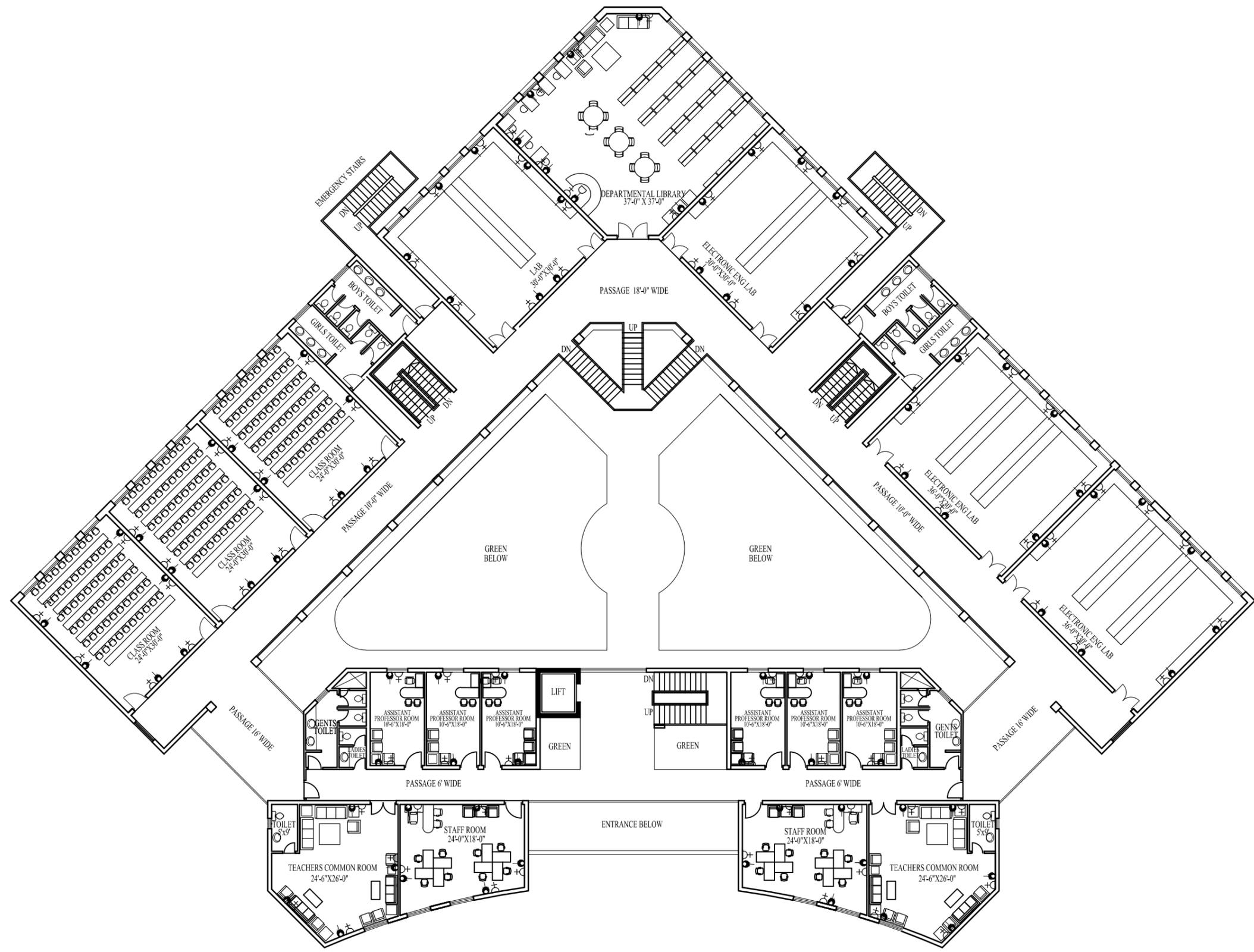
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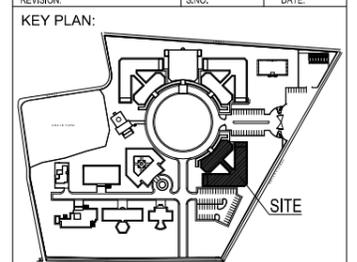
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IFTIKHAR A. SIDDIQUIE

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUE**  
ING. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1, ISLAMABAD  
TEL: 357-2280075-10  
ARCHITECT



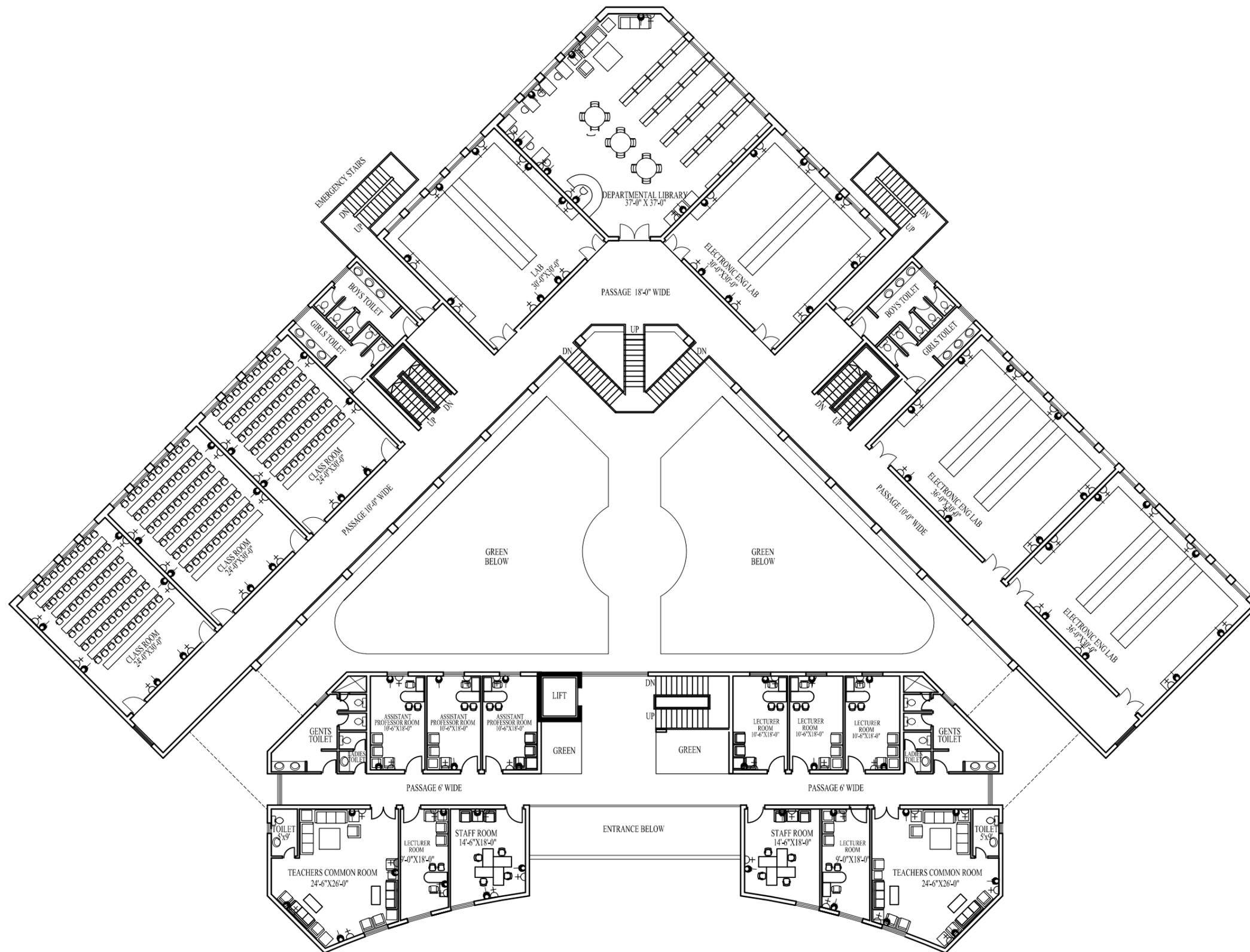
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DRAWING TITLE  
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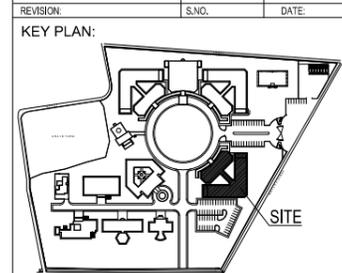
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	CHECKED BY: PARVEZ IQBAL	

IFTIKHAR A. SIDDIQUE

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, 1ST FLOOR,  
 STREET #14, PLOT #10 Opp TO PARKISTAN  
 POWER BY ALLEVIATION FUND OFFICE,  
 SECTOR G-80, ISLAMABAD  
 TEL: 357-228075-10  
 ARCHITECT



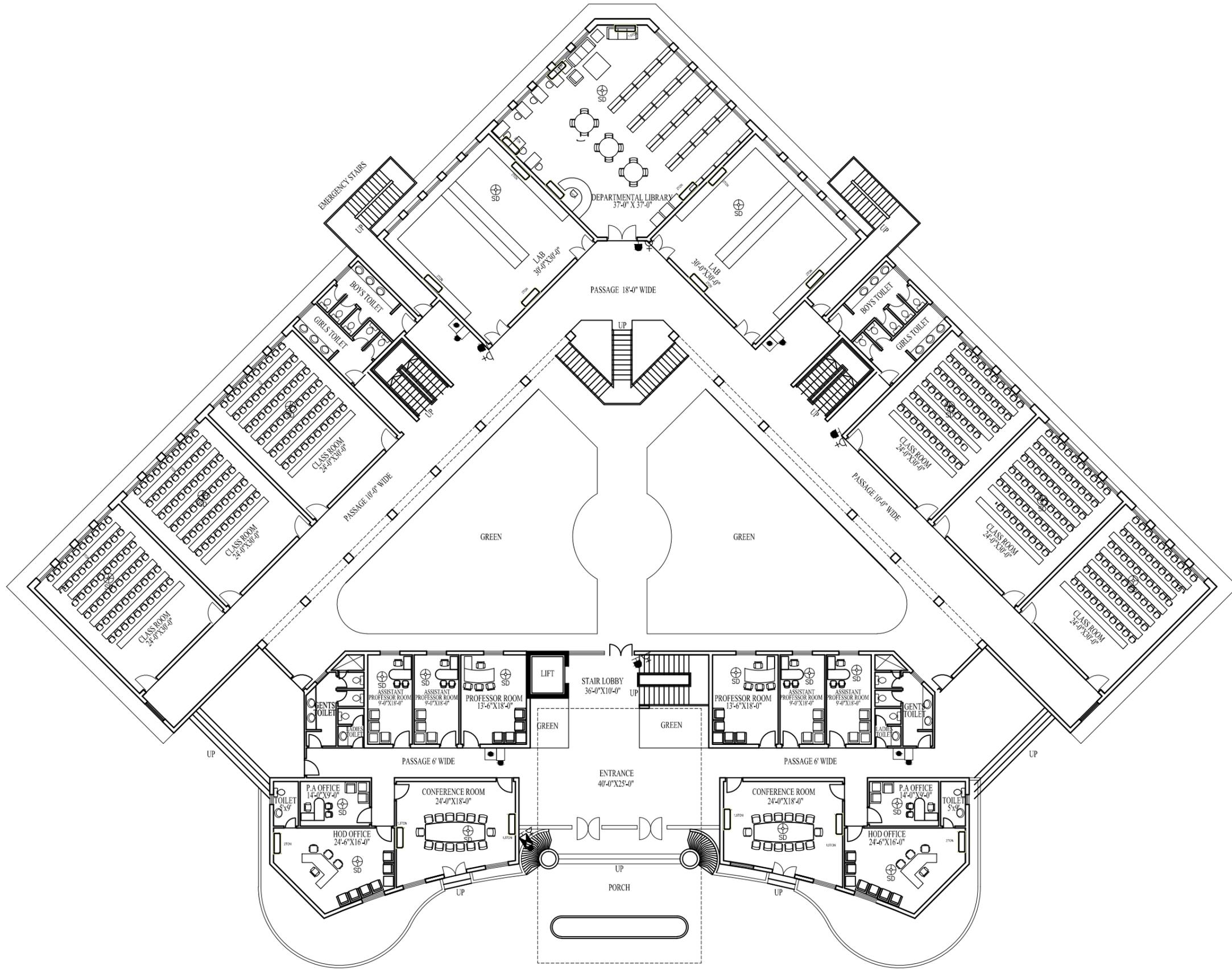
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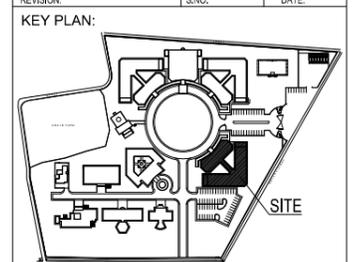
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	CHECKED BY: PARVEZ IQBAL	

IFTIKHAR A. SIDDIQUIE

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
ING. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-80, ISLAMABAD  
TEL: 357-2280475-10  
ARCHITECT



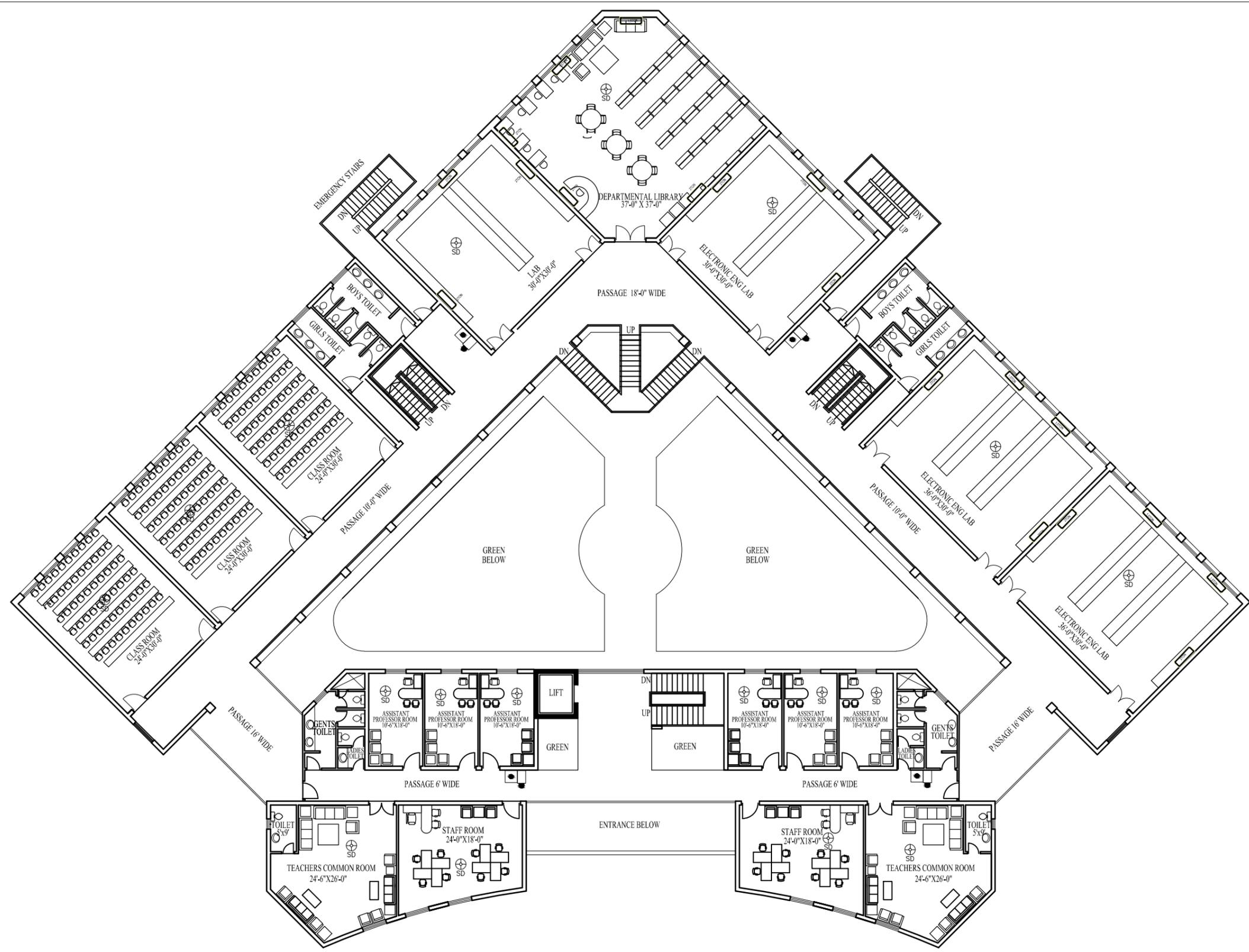
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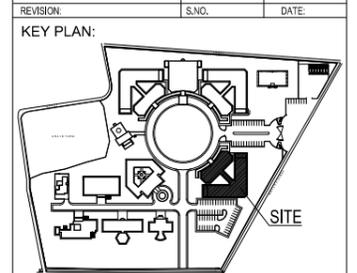
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	ENGR. ZEESHAN AHMAD	
	CHECKED BY:	
	PARVEZ IQBAL	

E-7

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUE**  
ING. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-80, ISLAMABAD  
TEL: 351-2280075-10  
ARCHITECT



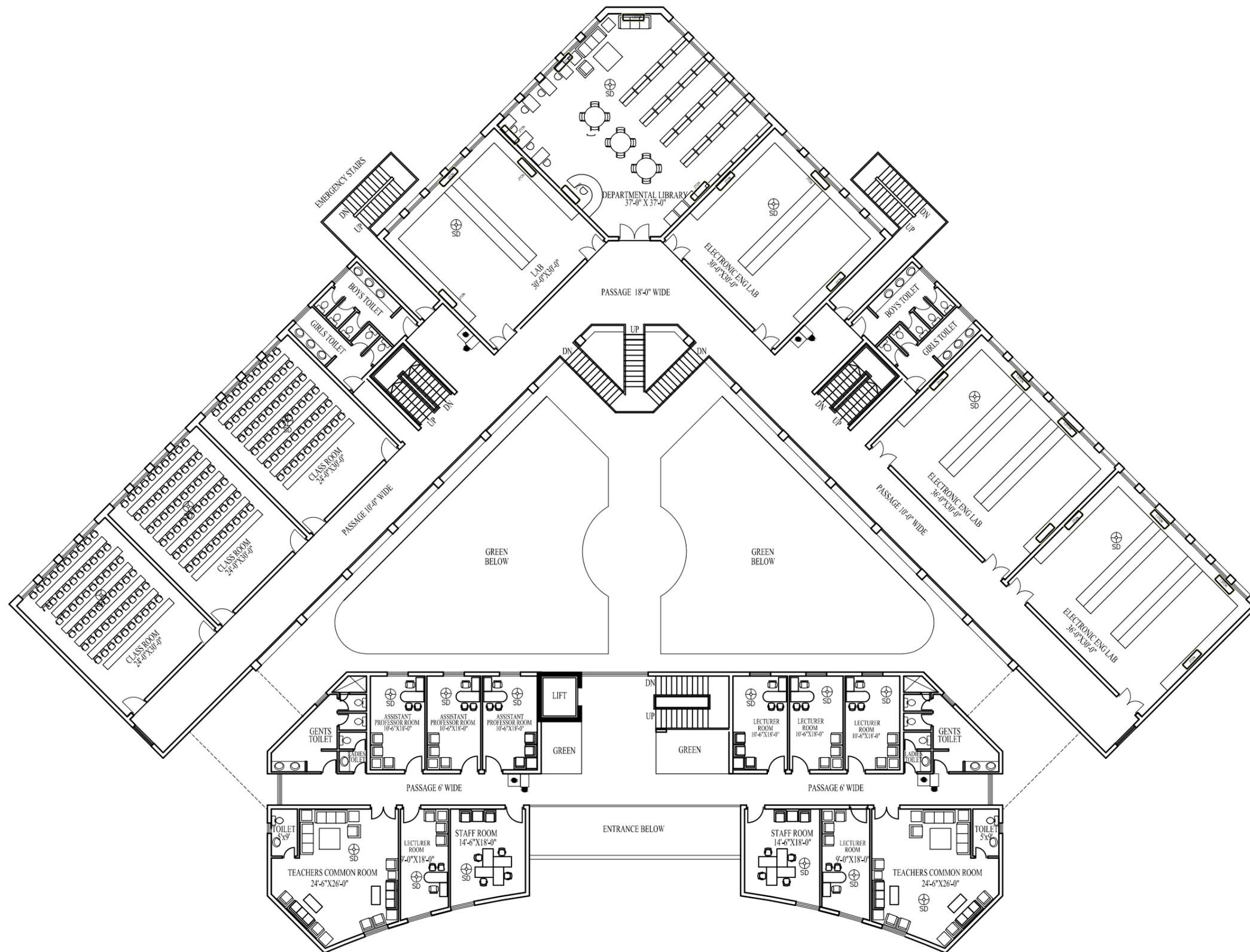
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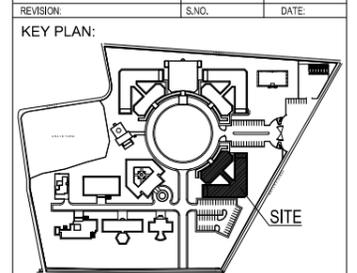
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IFTIKHAR A. SIDDIQUE

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, 1ST FLOOR,  
 STREET #14, PLOT #10 Opp TO PARKISTAN  
 POWER BY ALLEVIATION FUND OFFICE,  
 SECTOR G-80, ISLAMABAD  
 TEL: 357-2280/75-10  
 ARCHITECT



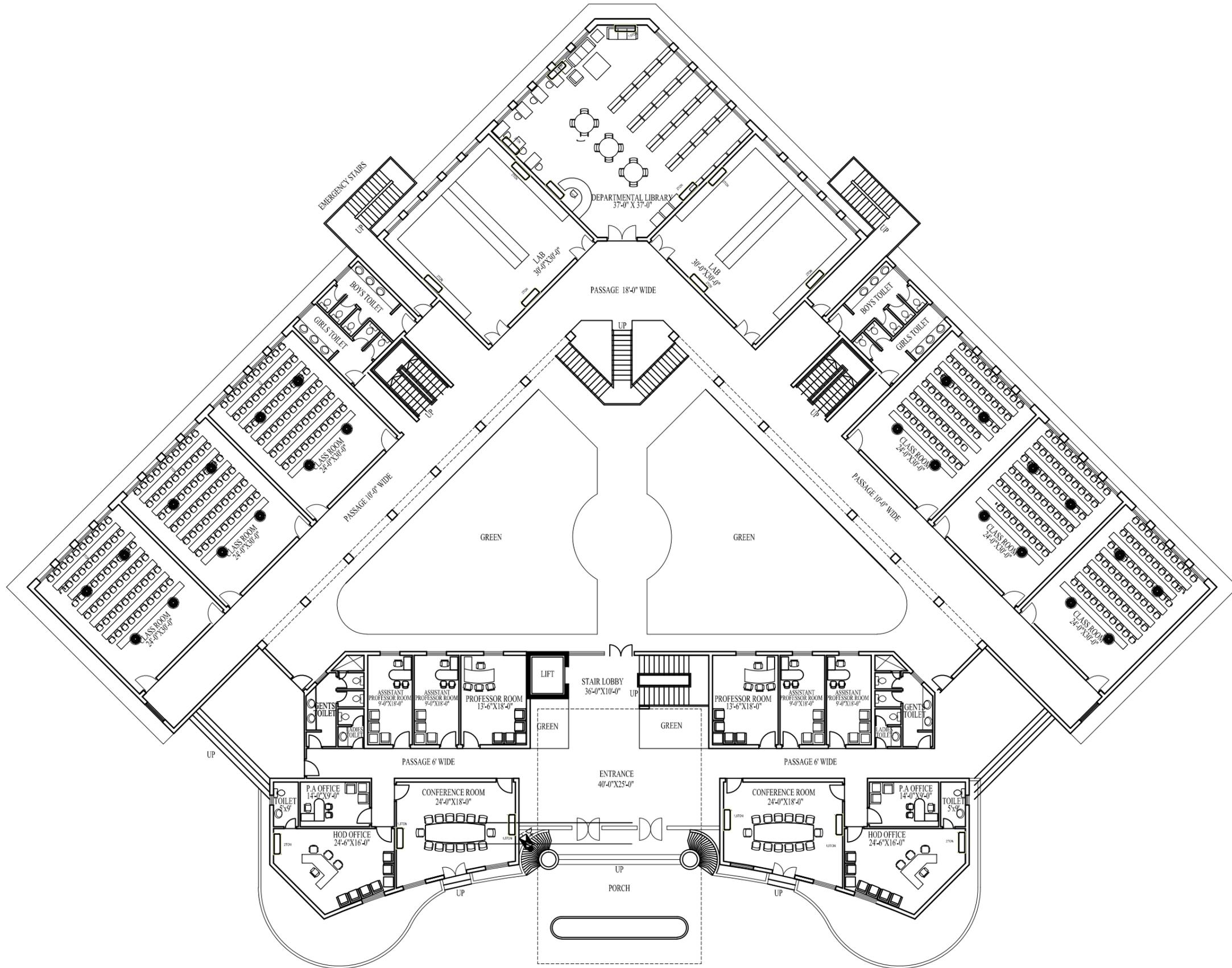
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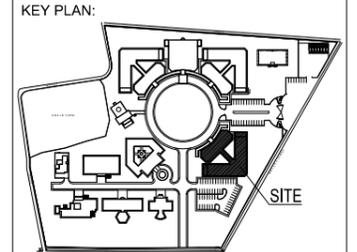
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	CHECKED BY: PARVEZ IQBAL	

IFTIKHAR A. SIDDIQUIE

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, 1ST FLOOR,  
 STREET #14, PLOT #10 Opp. TO PARKISTAN  
 POWER BY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1, ISLAMABAD  
 TEL: 357-2280/357-118  
 ARCHITECT



PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

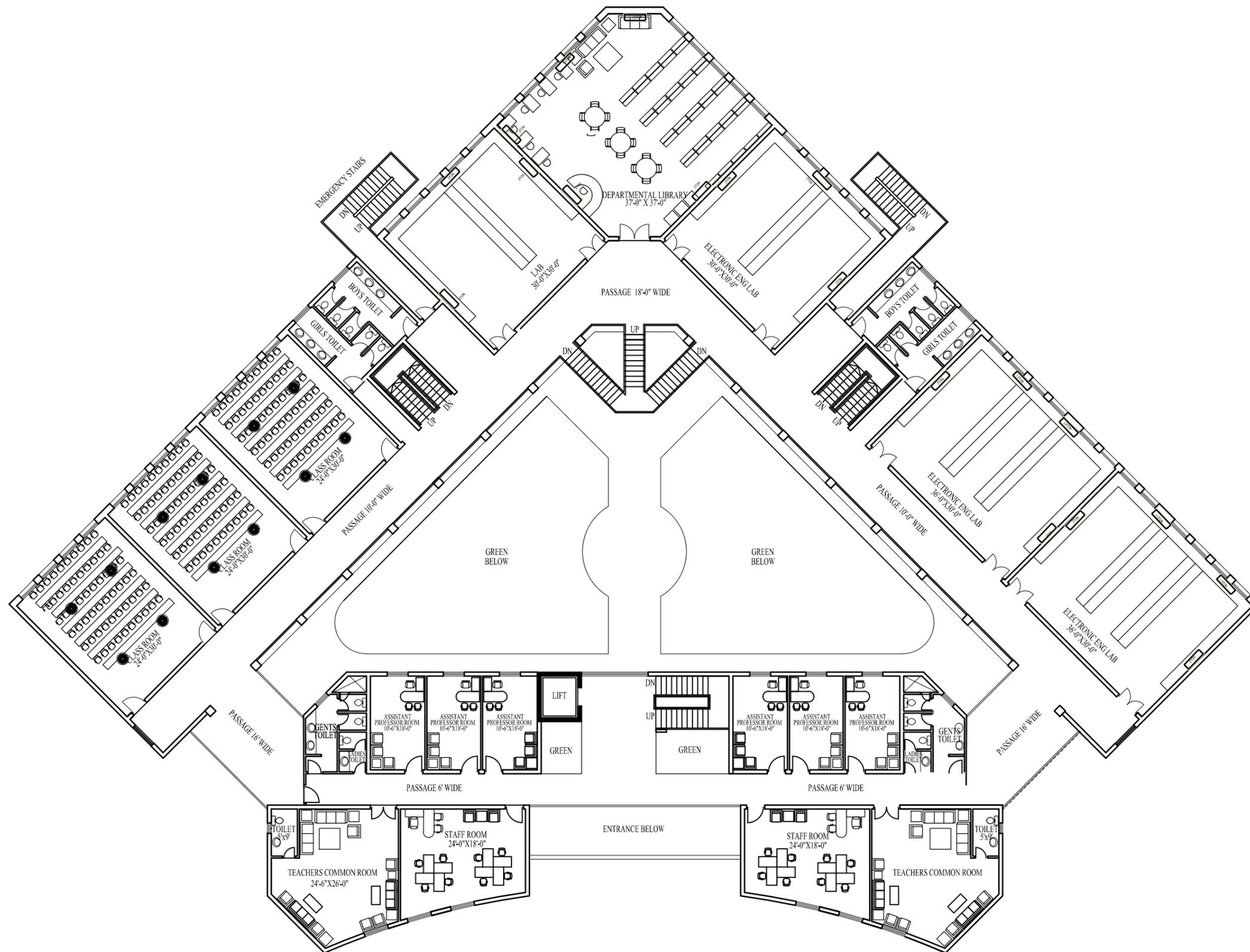
GROUND FLOOR PUBLIC ADDRESS SYSTEM, CCTV LAYOUT PLAN

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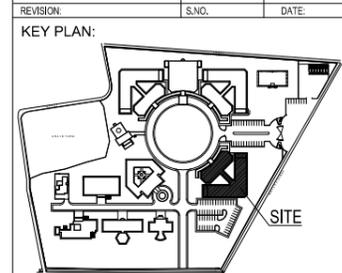
IFTIKHAR A. SIDDIQUIE

E-10

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUE**  
ING. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1, ISLAMABAD  
TEL: 351-2280075-10  
ARCHITECT



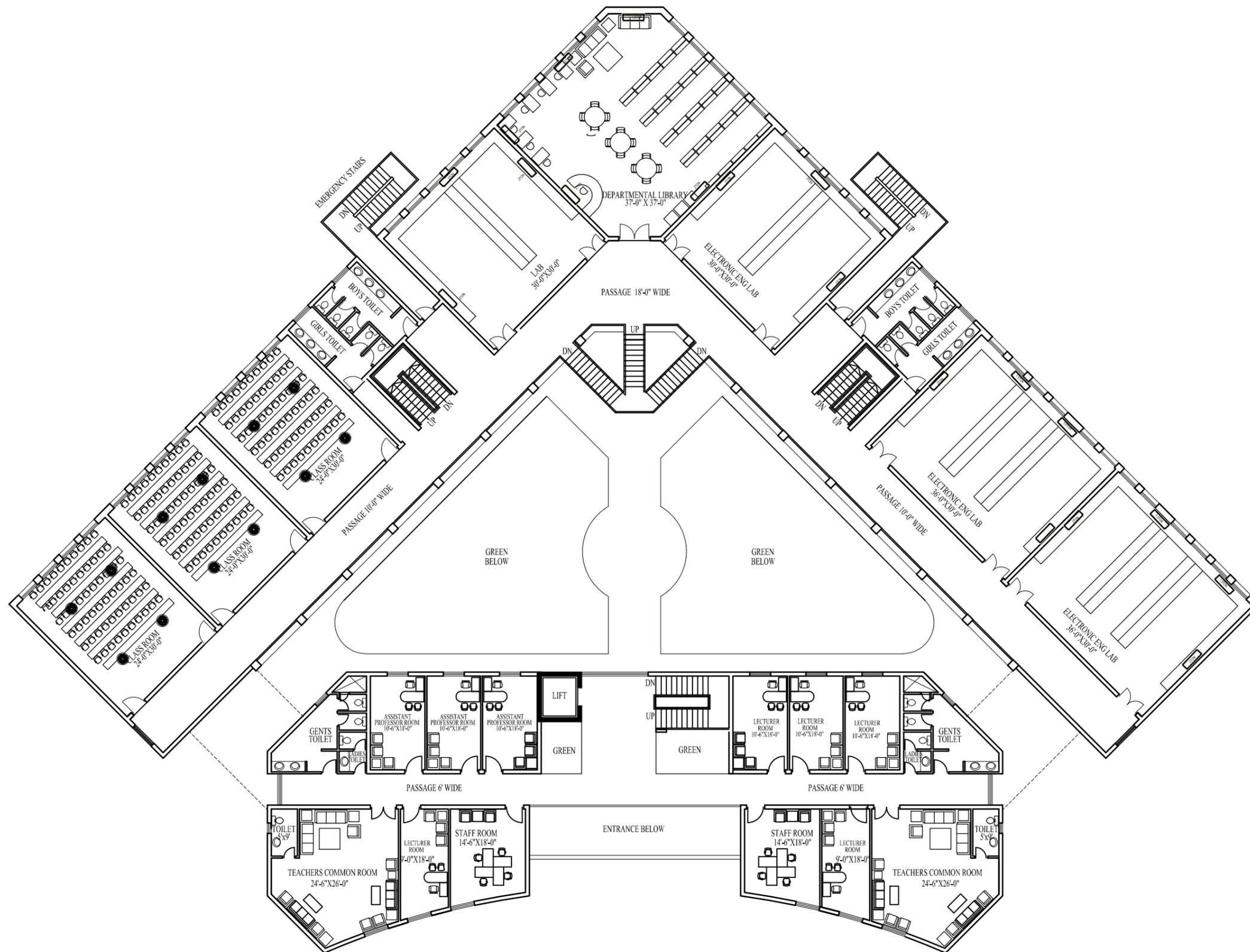
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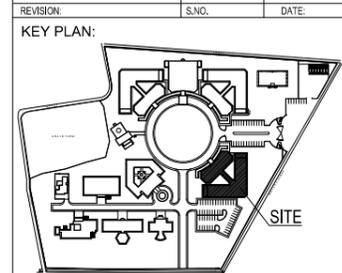
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IFTIKHAR A. SIDDIQUE

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 ARCHITECT & ENGINEER  
 LOWER GROUND, 1ST FLOOR,  
 STREET #14, PLOT #10 Opp TO PARKISTAN  
 POWER BY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1, ISLAMABAD  
 TEL: 351-2288075-10  
 ARCHITECT



PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE

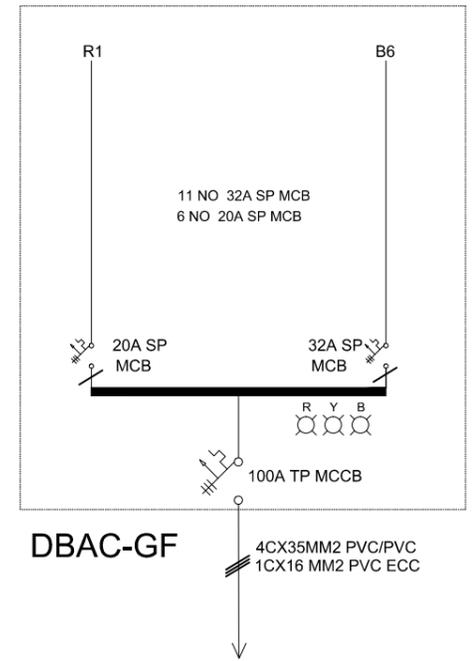
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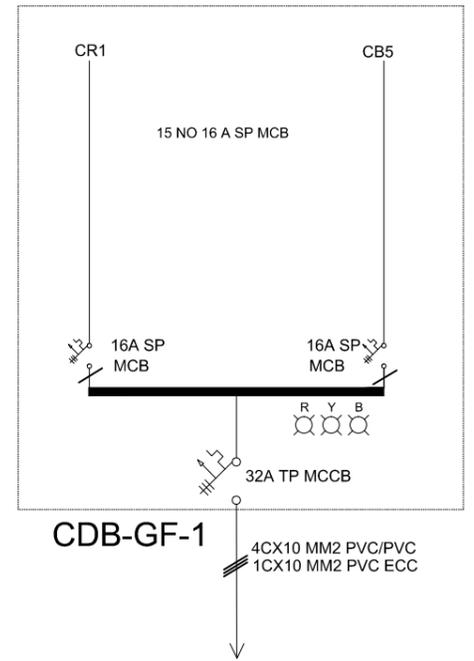
IFTIKHAR A. SIDDIQUIE

E-12

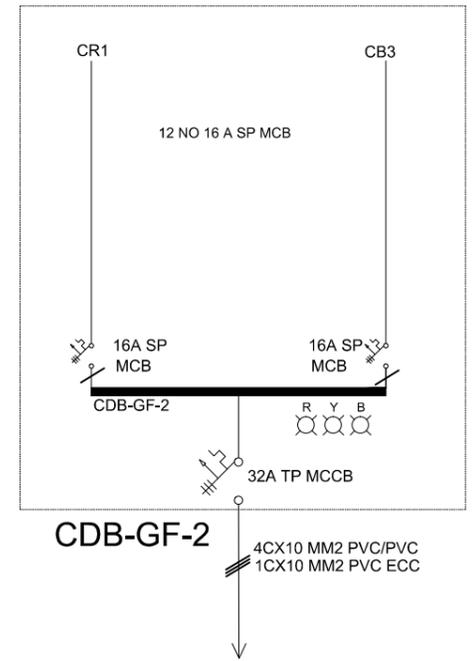
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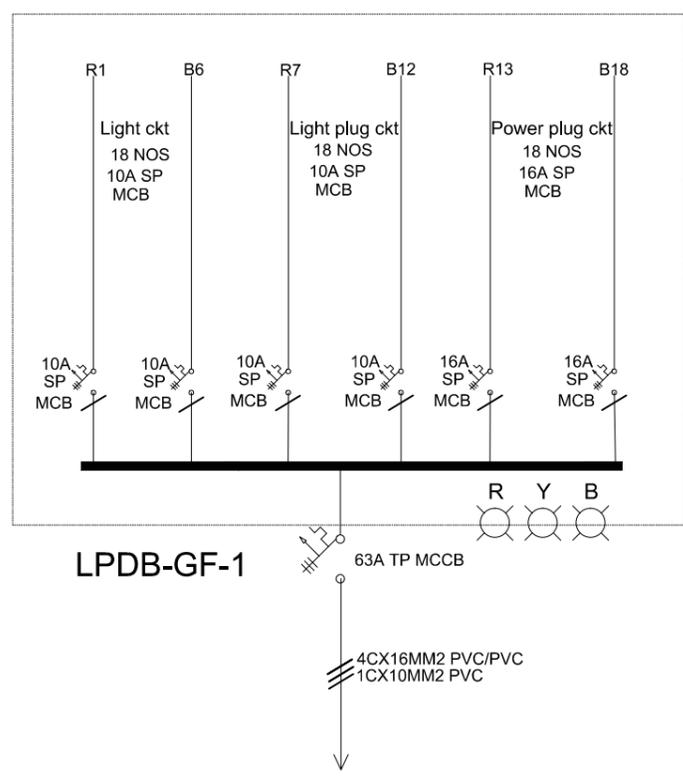
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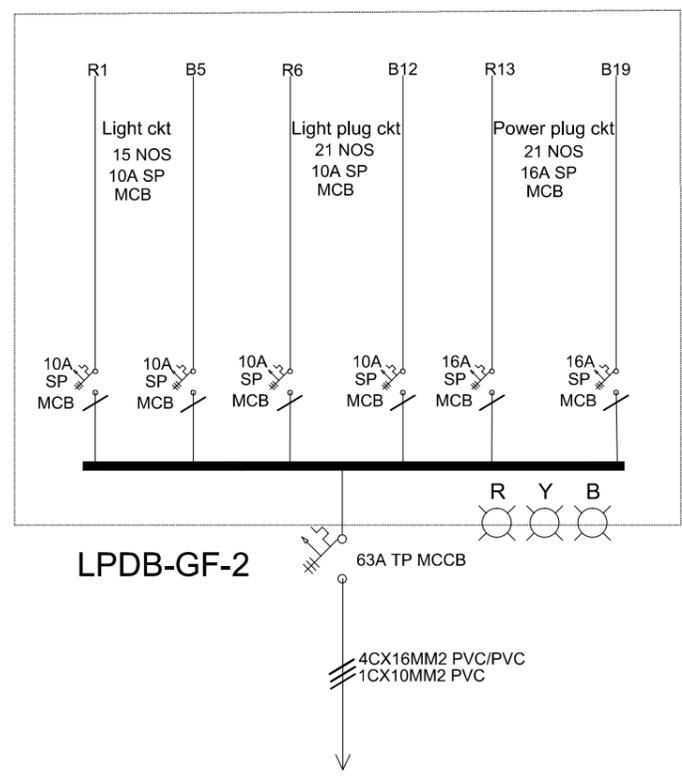
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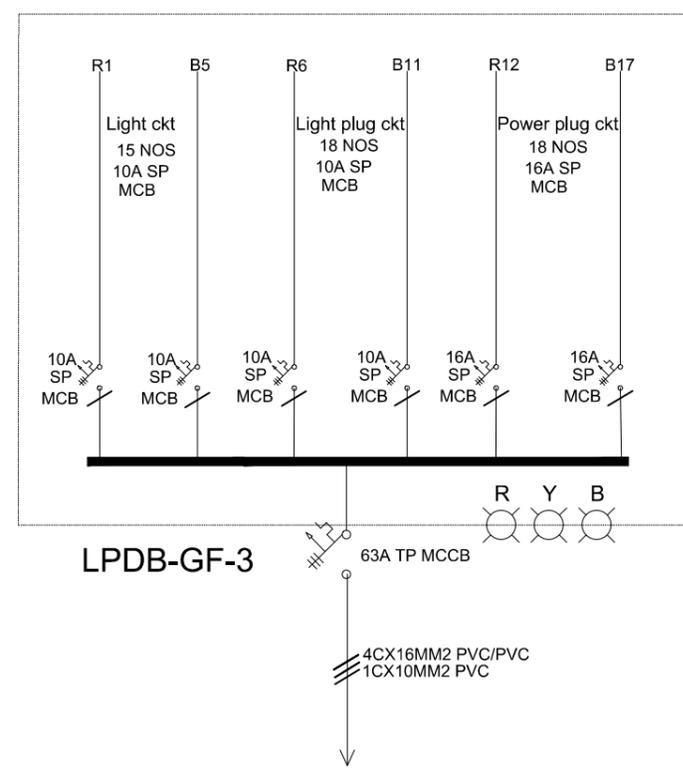
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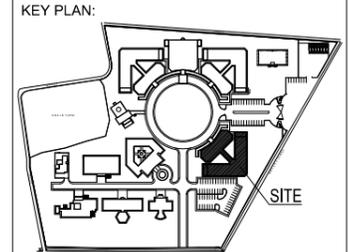


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LPDB-GF-3  
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REVISION	S.NO.	DATE



PROJECT TITLE:  
**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

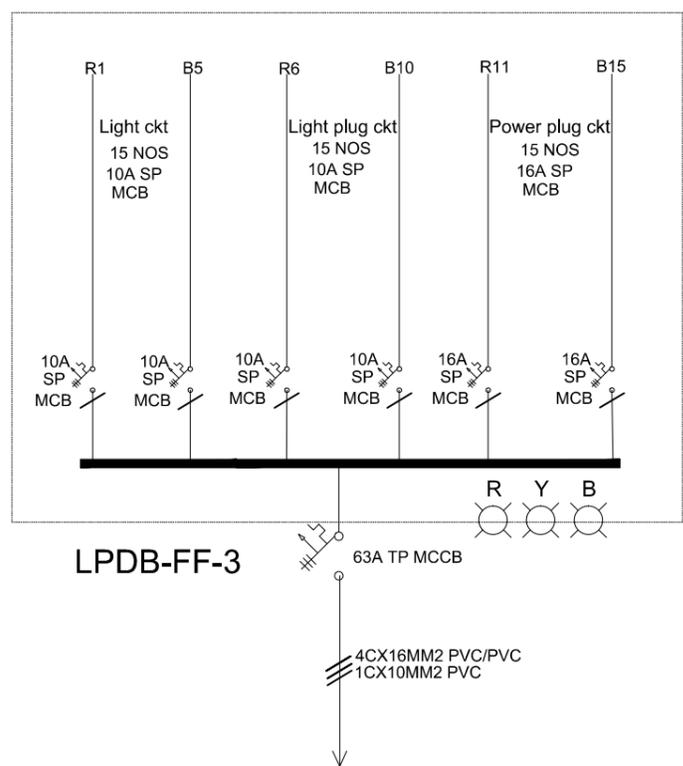
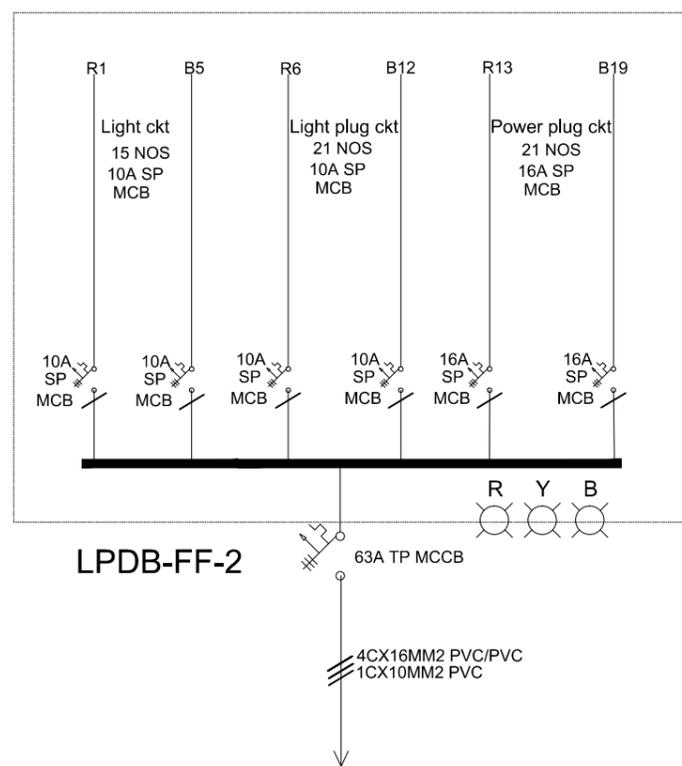
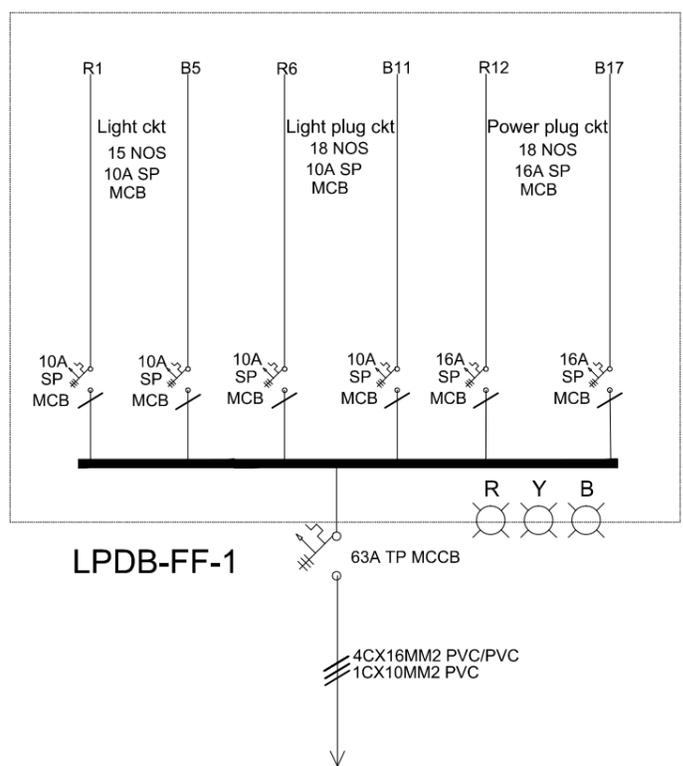
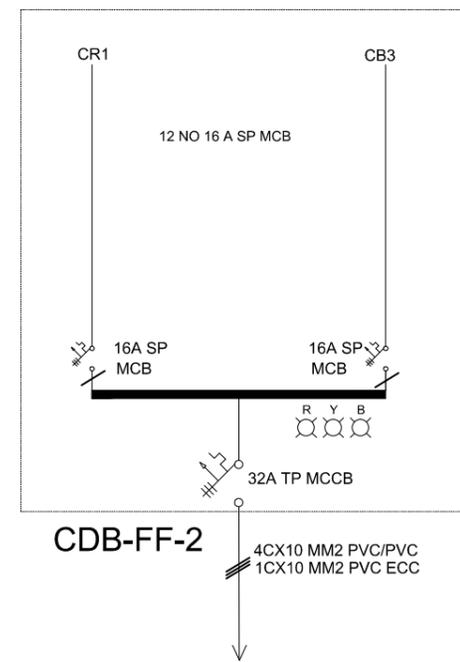
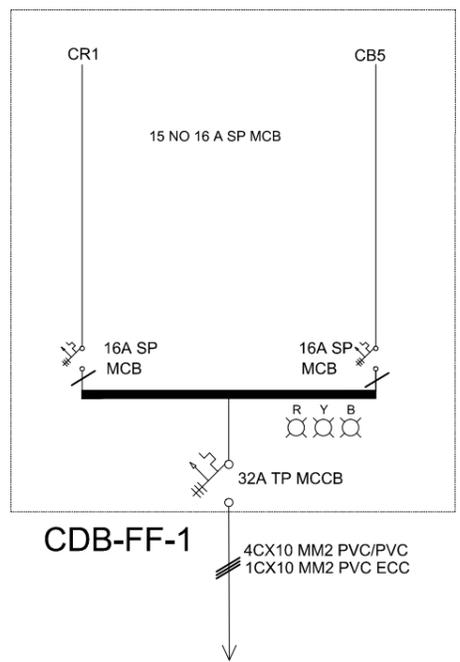
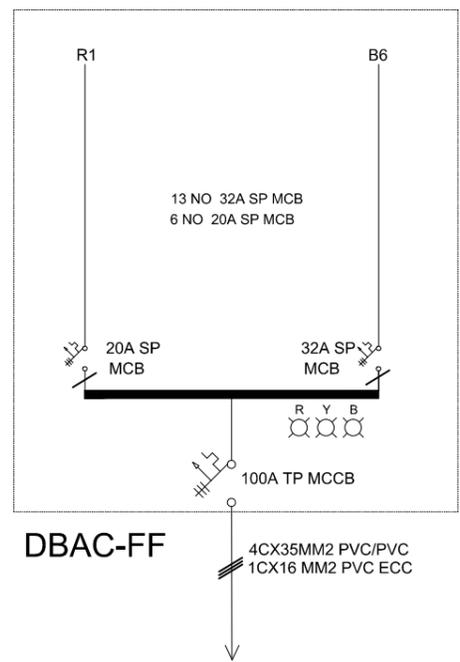
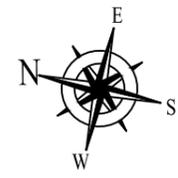
CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
ENR. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY, ALL ELEVATION FUND OFFICE,  
SECTOR G-8/1, ISLAMABAD  
TEL: 357-2280/357-118



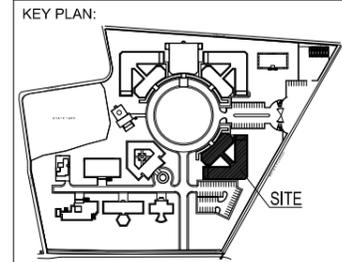
DRAWING TITLE  
PIRZADA MASROOR RAZA SIDDIQUIE

GROUND FLOOR SINGLE LINE LAYOUT PLAN		
PROJECT ARCHITECT	DATE: 29-06-2022	DRAWING NO:
	SCALE: 1"=0'-10"	
	DRAWN BY: ENGR. ZEESHAN AHMAD	E-13
	CHECKED BY: PARVEZ IQBAL	

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS:  
**NAQVI AND SIDDIQUIE**  
ING. ARCHITECT & ENGINEER  
LOWER GROUND, MET CENTRE,  
STREET#14, PLOT#61 Opp. TO PAKISTAN  
POWERBY ALE ESTABLISHMENT OFFICE,  
SECTOR 6-A/I, ISLAMABAD  
TEL: 011-22994072-10  
ARCHITECT



PIRZADA MASROOR RAZA SIDDIQUIE

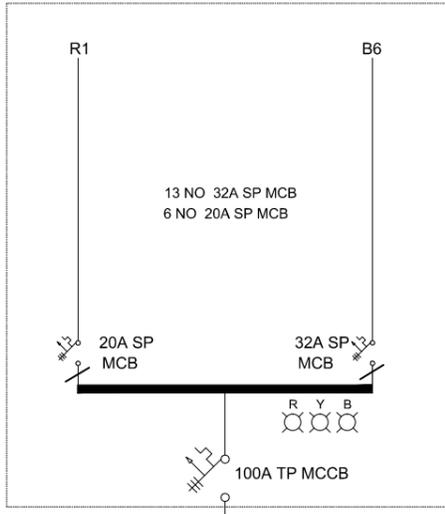
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FIRST FLOOR SINGLE LINE LAYOUT PLAN

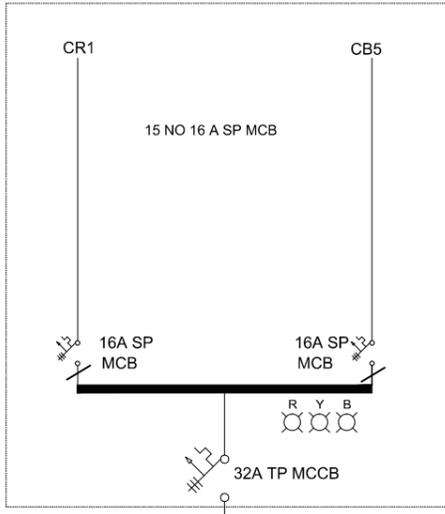
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IFTIKHAR A. SIDDIQUIE

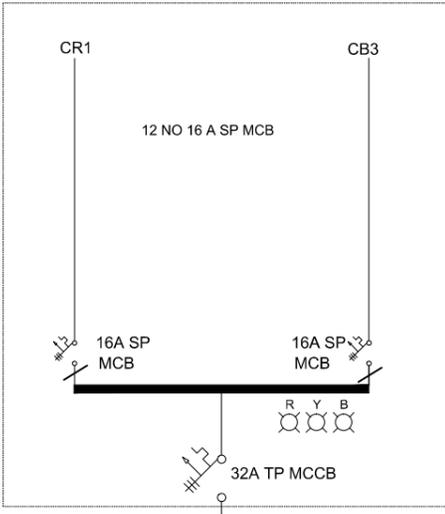
WORKING DRAWING



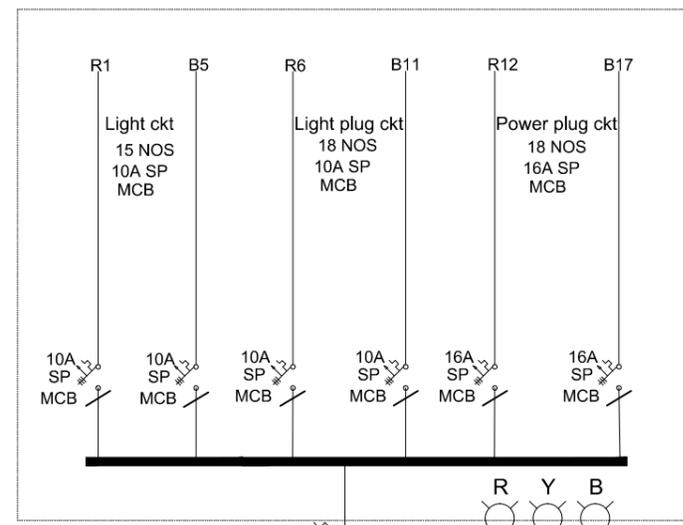
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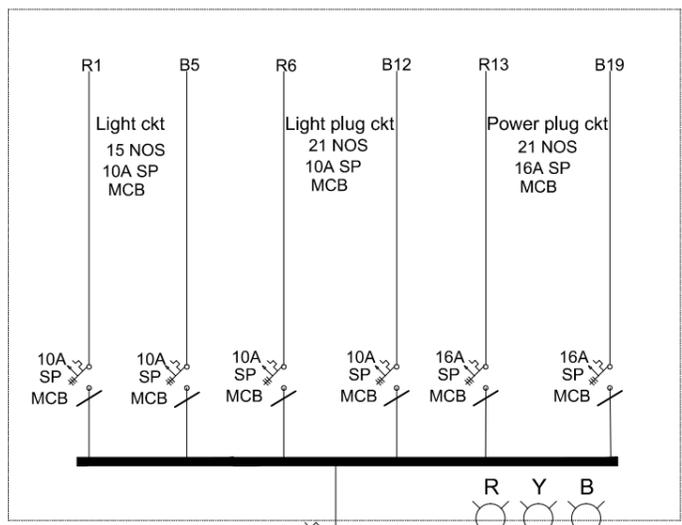
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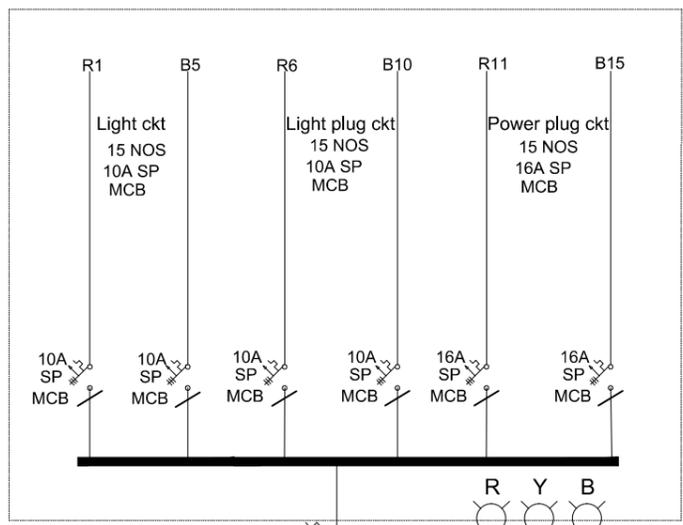
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1CX10 MM2 PVC ECC



LPDB-FF-1  
63A TP MCCB  
4CX16MM2 PVC/PVC  
1CX10MM2 PVC

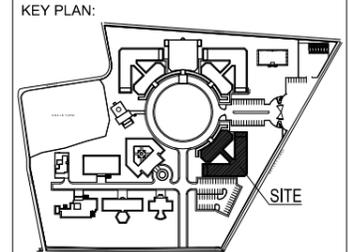


LPDB-FF-2  
63A TP MCCB  
4CX16MM2 PVC/PVC  
1CX10MM2 PVC



LPDB-FF-3  
63A TP MCCB  
4CX16MM2 PVC/PVC  
1CX10MM2 PVC

REVISION	S.NO.	DATE



PROJECT TITLE:  
**UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
ENR. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-80, ISLAMABAD  
TEL: 357-2280/357-10



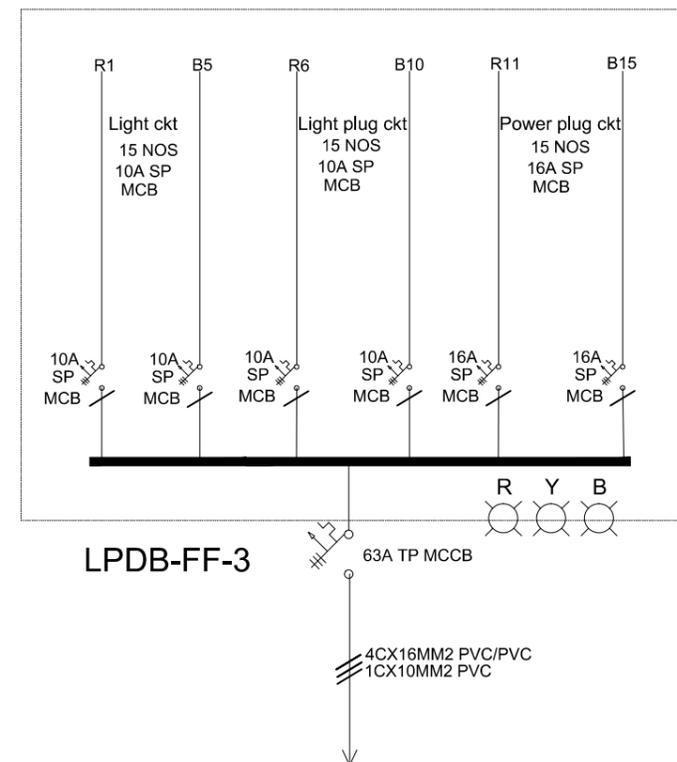
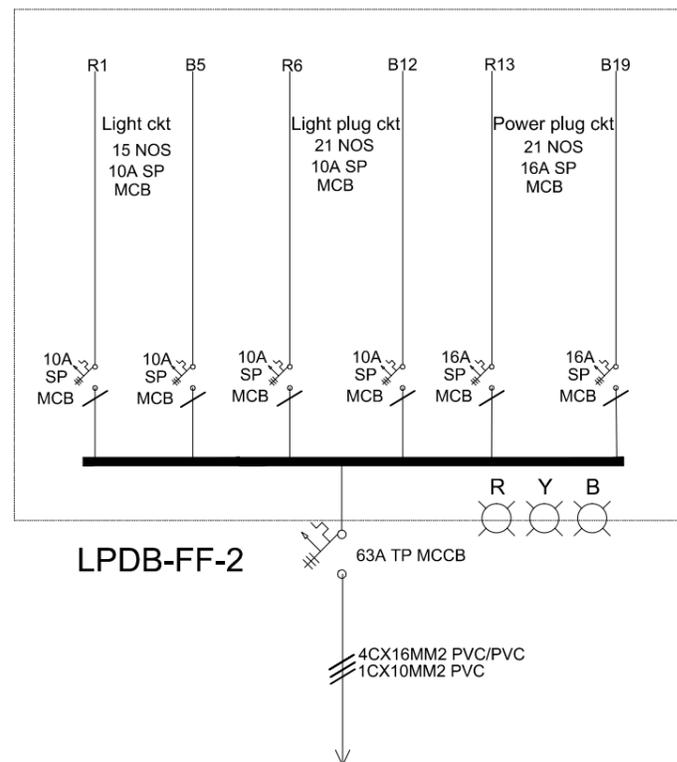
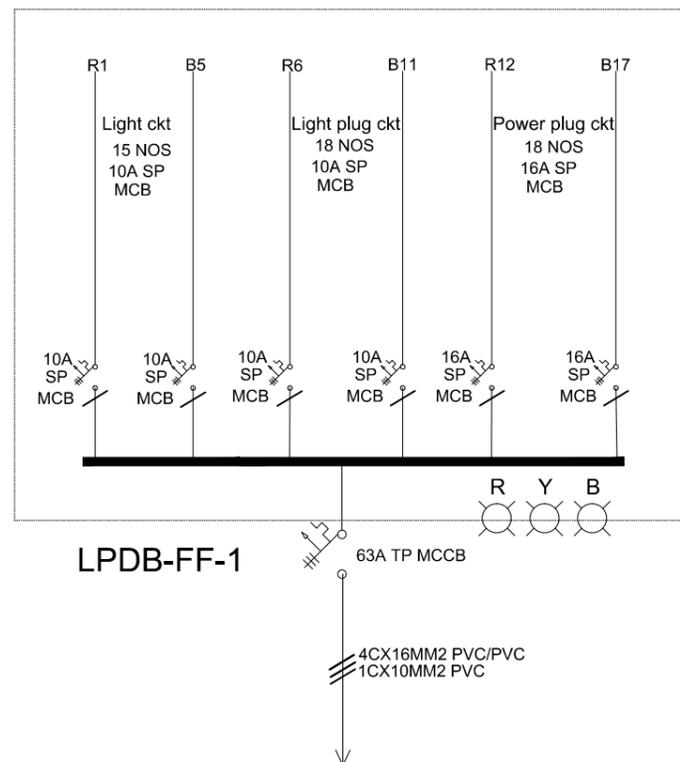
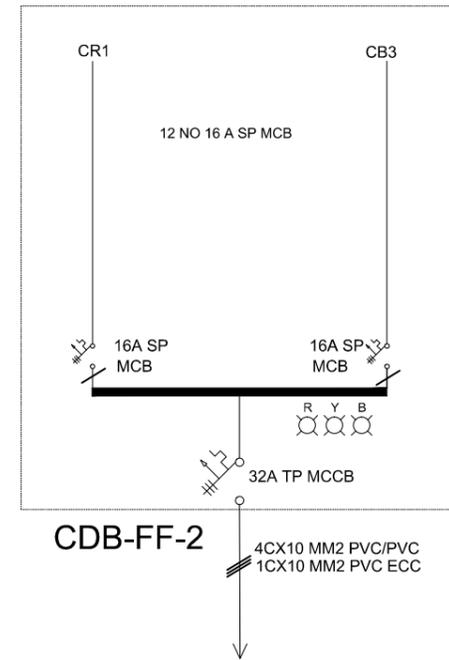
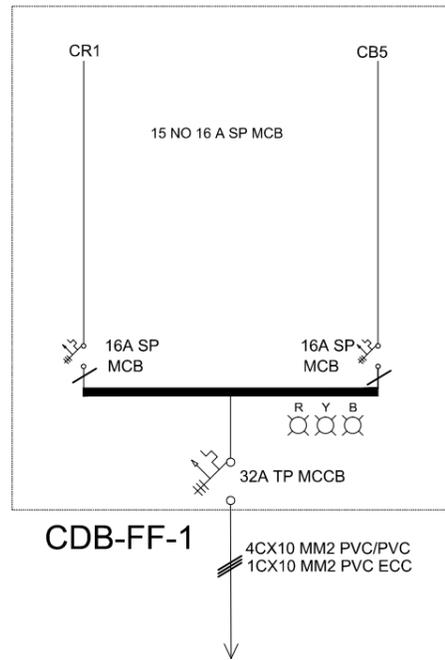
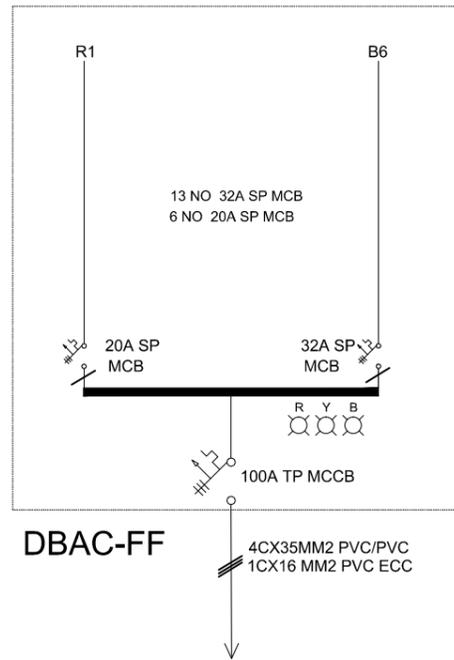
ARCHITECT  
PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
FIRST FLOOR SINGLE LINE LAYOUT PLAN

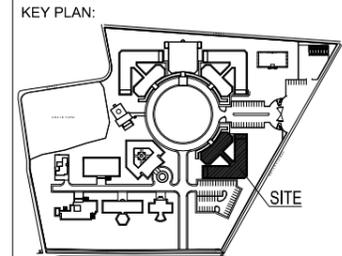
PROJECT ARCHITECT	DATE	DRAWING NO.
IFTIKHAR A. SIDDIQUIE	29-06-2022	
	SCALE: 1"=0'-11/8"	
	DRAWN BY: ENGR. ZEESHAN AHMAD	
	CHECKED BY: PARVEZ IQBAL	

E-15

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:

UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

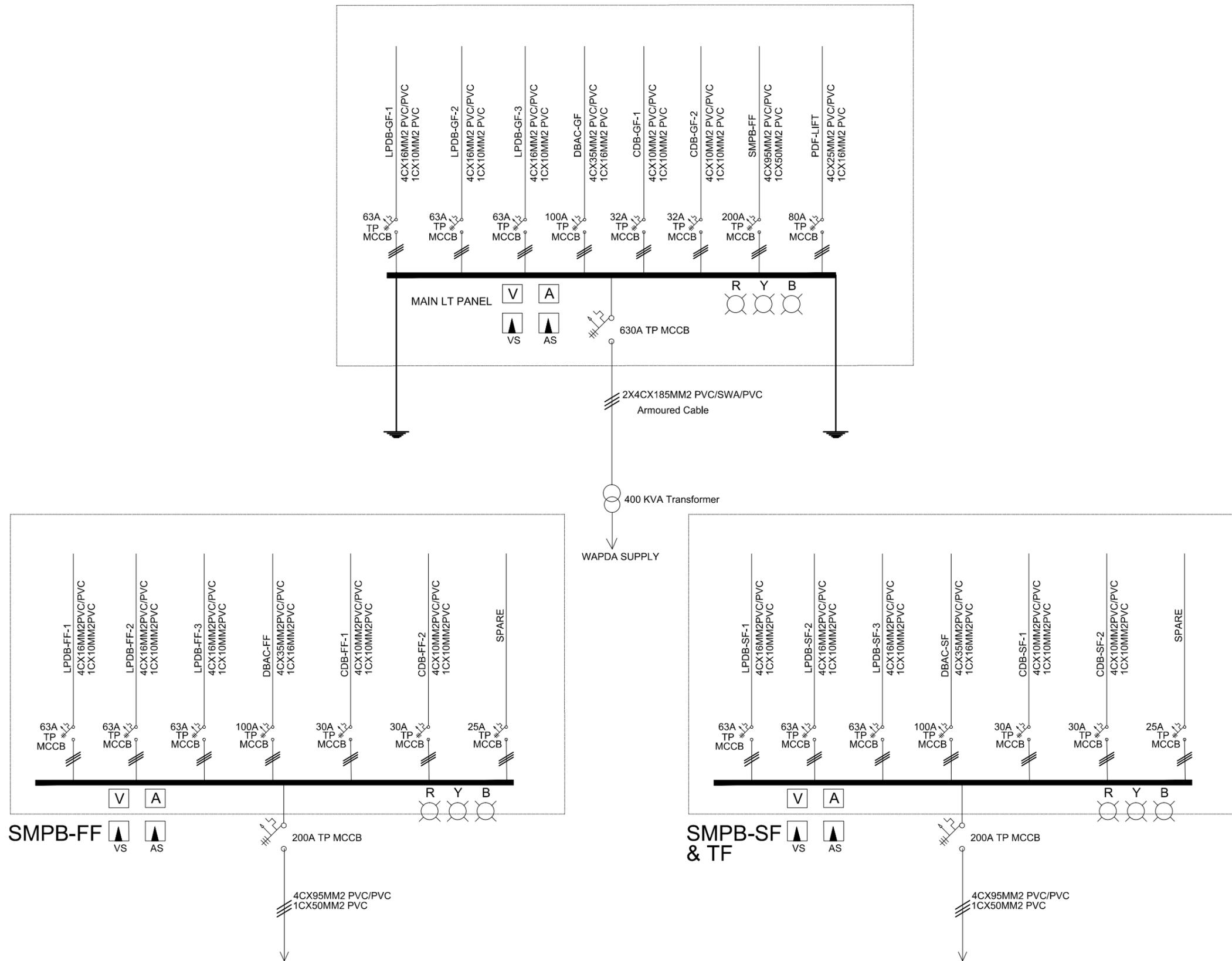
CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
ENR. ARCHITECT & ENGINEER  
LOWER GROUND, 1ST FLOOR,  
STREET #14, PLOT #10 Opp. TO PARKISTAN  
POWER BY ALLEVIATION FUND OFFICE,  
SECTOR G-8/1, ISLAMABAD  
TEL: 357-2280/357-18



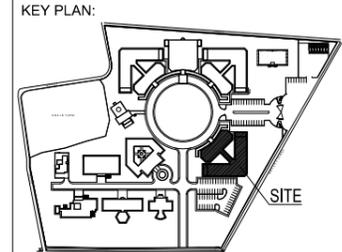
PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE		
FIRST FLOOR SINGLE LINE LAYOUT PLAN		
PROJECT ARCHITECT	DATE: 29-06-2022	DRAWING NO:
	SCALE: 1"=0'-11/8"	
	DRAWN BY: ENGR. ZEESHAN AHMAD	
	CHECKED BY: PARVEZ IQBAL	
IFTIKHAR A. SIDDIQUIE		<b>E-16</b>

WORKING DRAWING



REVISION	S.NO.	DATE



PROJECT TITLE:  
UNIVERSITY OF SUFISM & MODERN SCIENCES AT BHITSHAH

CONSULTANTS  
**NAQVI AND SIDDIQIE**  
ENGR ARCHITECT & ENGINEER  
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STREET #14, PLOT #10 Opp TO PARKISTAN  
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SECTOR G-8/1, ISLAMABAD  
TEL: 357-2280/357-10  
ARCHITECT



PIRZADA MASROOR RAZA SIDDIQIE

DRAWING TITLE  
SECOND FLOOR & THIRD FLOOR SINGLE LINE LAYOUT PLAN

PROJECT ARCHITECT	DATE	DRAWING NO.
IFTIKHAR A. SIDDIQIE	29-06-2022	
	SCALE: 1"=0'-118"	
	DRAWN BY: ENGR ZEESHAN AHMAD	
	CHECKED BY: PARVEZ IQBAL	

E-17

**ESTABLISHMENT OF SUFISM & MODERN SCIENCES**

**UNIVERSITY BHITSHAH**

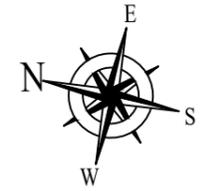
**ACADEMIC BLOCK**

**PLUMBING TENDER DRAWING**

# ACADEMIC BLOCK TENDER DRAWINGS SCHEDULE OF PLUMBING DRAWING

DRG.NO	DRAWING TITLE
PH-00	DRAWINGS SCHEDULE
PH-00	GENERAL NOTES & LEGEND
PH-01	GROUND FLOOR PLAN(DRAINAGE SYSTEM)
PH-02	FIRST FLOOR PLAN(DRAINAGE SYSTEM)
PH-03	2ND & 3RD FLOOR (DRAINAGE SYSTEM)
PH-04	MUMTY FLOOR PLAN(DRAINAGE SYSTEM)
PH-05	TOILET BLOWUP(DRAINAGE SYSTEM)
PH-06	TOILET BLOWUP(DRAINAGE SYSTEM)
PH-07	GROUND FLOOR PLAN(WATER SUPPLY SYSTEM)
PH-08	FIRST FLOOR PLAN(WATER SUPPLY SYSTEM)
PH-09	2ND & 3RD FLOOR (WATER SUPPLY SYSTEM)
PH-10	MUMTY FLOOR PLAN(WATER SUPPLY SYSTEM)
PH-11	TOILET BLOWUP(WATER SUPPLY SYSTEM)
PH-12	TOILET BLOWUP(WATER SUPPLY SYSTEM)
PH-13	PLUMBING DETAILS

## TENDER DRAWING

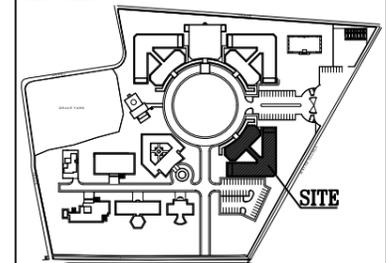


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 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

REVISION:	S.NO.	DATE:

**KEY PLAN:**



**PROJECT TITLE:**

**ESTABLISHMENT OF SUFISM &  
MODERN SCIENCES UNIVERSITY  
BHITSHAH  
ACADEMIC BLOCK**

**CONSULTANTS**  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
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 STREET #14 PLOT #6 Opp. TO PAKISTAN  
 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 051-2299407-10



**ARCHITECT**

PIRZADA MASROOR RAZA SIDDIQUIE

**DRAWING TITLE**

**DRAWINGS SCHEDULE**

<b>PROJECT ARCHITECT</b>	<b>DATE:</b> 28-09-2022	<b>DRAWING NO:</b>
	<b>SCALE:</b> 1'-0"=1/8"	<b>PH-00</b>
	<b>DRAWN BY:</b> TAMOOR	
	<b>CHECKED BY:</b> SUHAIL AHMED	
<b>ENGINEER A. SIDDIQUIE</b>		

**TENDER DRAWING**



**GENERAL NOTES:**

- 1- ALL SOIL AND WASTE PIPE SHALL BE uPVC AS PER ISO 3633:1991 AND PS 3214:1992 TYPE "B".
- 2- ALL COLD AND HOT WATER PIPES SHALL BE POLYPROPYLENE AS PER DIN 8077-8078 CLASS PN-20 FOR PIPES AND PN-25 FOR FITTINGS.
- 3- uPVC P-TRAP SHALL BE USED WITH ALL GULLY TRAPS.
- 4- VENT PIPES SHALL BE EXTENDED ONT PT ABOVE FININSHED ROOF LEVEL.
- 5- GEYSER SHALL BE STORAGE TYPE (COMMERCIAL MAKE)
6. MINIMUM SIZE OF HOT AND COLD WATER PIPES INISDE TOILET SHALL BE 25 mm O/D.
7. ALL PIPING SHALL BE TESTED FOR LEAKAGE BEFORE THE JOINTS ARE COVERED.
8. ALL FLOOR TRAP SAHLL BE OF UPVC.
9. TEFLON TAPE SHALL BE USED FOR JOINTING OF GI PIPES.
10. ALL UPVC PIPING SOIL & WASTE SHALL BE JOINTED WITH SOLUTION.
11. ALL SOIL PIPES SHALL BE 4" DIA UPVC UNLESS OTHERWISE MENTIONED.
12. ALL WASTE PIPES SHALL BE 3" DIA UPVC UNLESS OTHERWISE MENTIONED.
13. ALL WASTE PIPES FROM WASHBASIN OR SINK TO F.T. SHALL BE 2" DIA UPVC.
14. ALL PPRC PIPE SIZES SHOWN ON DRAWING ARE OUTER DIAMTERS.

PPRC OUTER DIA	PPRC INTERNAL DIA
25 mm	16.6 mm = 1/2"
32 mm	21.2 mm = 3/4"
40 mm	26.6 mm = 1"
50 mm	33.4 mm = 1-1/4"
63 mm	42 mm = 1-1/2"
75 mm	50 mm = 2"
90 mm	60 mm = 2-1/2"

15. SLOPE FOR PIPES

2" DIA	1 IN 48
3" TO 6" DIA	1 IN 96
8" DIA & ABOVE	1 IN 192

16. PRESSURE REDUCING VALVE ASSEMBLY SHALL BE PROVIDED WITH ALL BATHROOMS
17. ALL PUMPS SHALL BE GRUNDFOS MAKE
18. ALL FILTRATION SYSTEM SHALL BE SO-SAFE MAKE.
19. ALL VALVES SHALL BE KITZ MAKE.

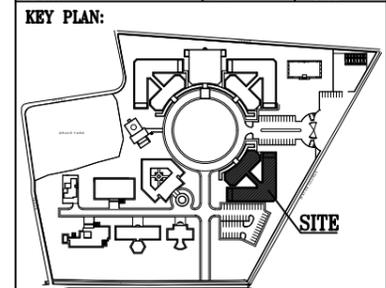
**LEGEND**

1- UPVC SOIL PIPE	
2- UPVC WASTE PIPE	
3- POLYPROPYLENE COLD WATER	
4- POLYPROPYLENE HOT WATER	
5- FLOOR TRAP (MULTI)	
6- GULLY TRAP	
7- MAN HOLE	
8-BALL VALVE	
9-GI GAS PIPE	
10- GI COLD WATER PIPE	
11- P- TRAP	
12- BOTTLE TRAP	
13- POLYETHYLENE PIPE FOR FIRE FIGHTING BELOW FLOOR	
14- 4" DIA PILLAR HYDRANT	
15- MILD STEEL PIPE FOR FIRE FIGHTING ABOVE FLOOR	
16- FIRE HOSE CABINET	

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 1 BABAR BLOCK, NEW GARDEN TOWN, LAHORE  
 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

REVISION: S.NO. DATE



**PROJECT TITLE:**  
 ESTABLISHMENT OF SUFISM &  
 MODERN SCIENCES UNIVERSITY  
 BHITSHAH  
 ACADEMIC BLOCK

**CONSULTANTS**  
 NAQVI AND SIDDIQUIE  
 INC. ARCHITECT & ENGINEER  
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 STREET #14 PLOT #6 Opp. TO PAKISTAN  
 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
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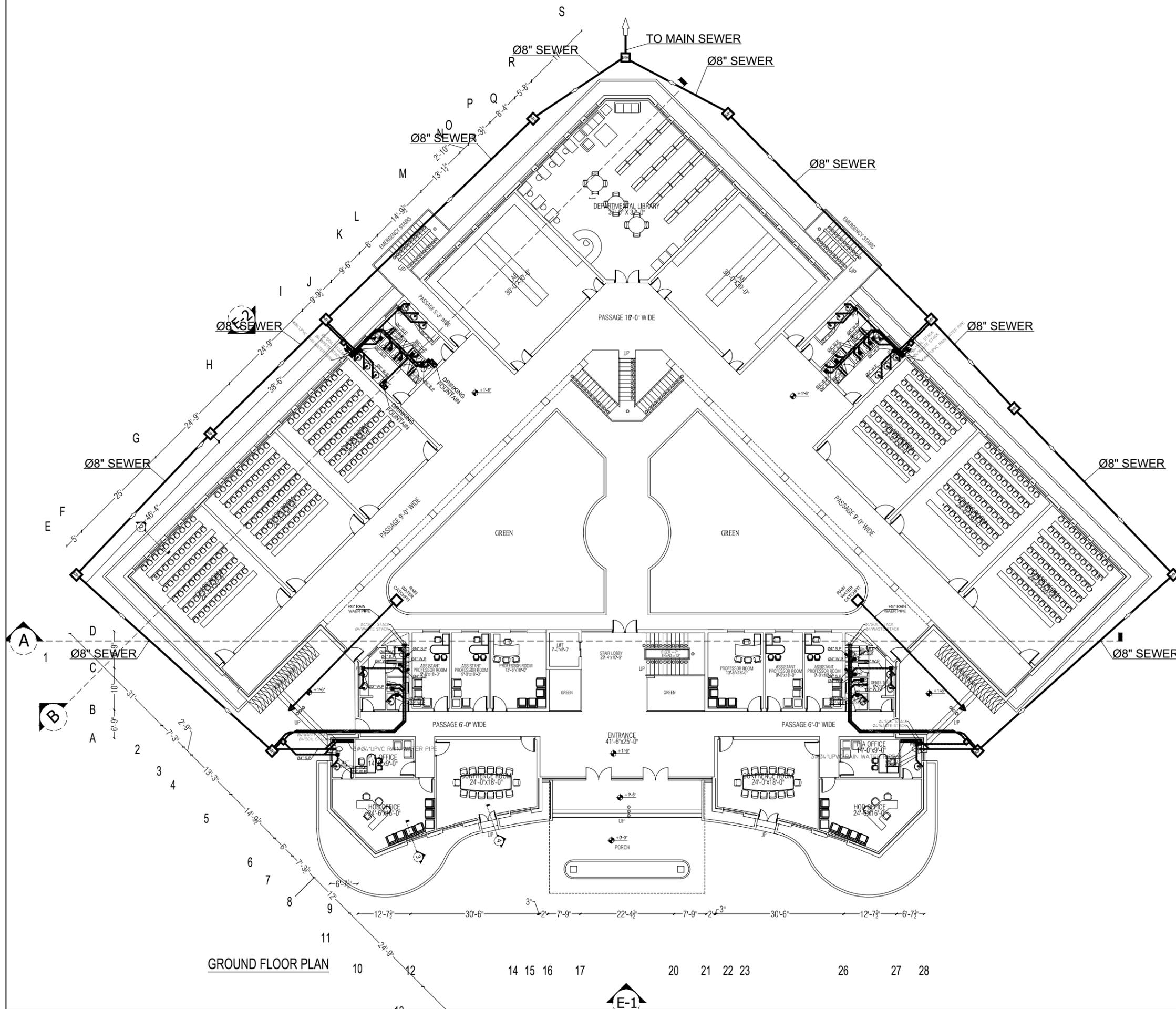
**ARCHITECT**  
 PERZADA MASROOR RAZA SIDDIQUIE

**DRAWING TITLE**  
 GENERAL NOTES & LEGEND

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	CHECKED BY: SUHAIL AHMED	
IFTIKHAR A. SIDDIQUIE		

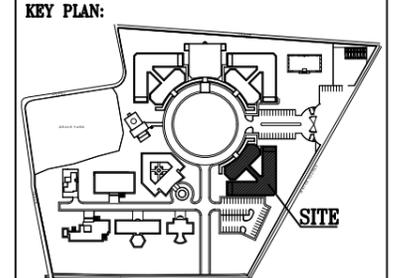
**GENERAL NOTES & LEGEND**

TENDER DRAWING



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 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

REVISION:	S.NO.	DATE:



PROJECT TITLE:  
**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH**  
**ACADEMIC BLOCK**

CONSULTANTS  
**NAQVI AND SIDDIQUI**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, IGT CENTRE,  
 STREET 114 PLOT 106 OPP. TO PAKISTAN  
 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 051-2269407-10

DRAWING TITLE  
**GROUND FLOOR PLAN DRAINAGE SYSTEM**

PROJECT ARCHITECT	DATE: 28-08-2022	DRAWING NO:
	SCALE: 1"=1/8"	PH-01
	DRAWN BY: TAMOOR	
	CHECKED BY: SUHAIL AHMED	
ENGINEER A. SIDDIQUI		

GROUND FLOOR PLAN

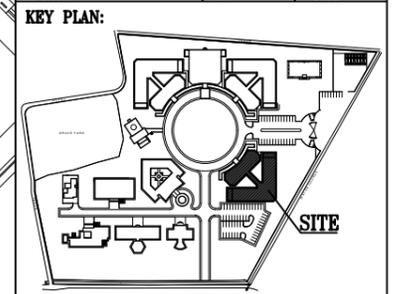


**TENDER DRAWING**



Plumbing Consultants:  
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 607, 6TH FLOOR, AL-QADIR HEIGHTS  
 1 BABAR BLOCK, NEW GARDEN TOWN, LAHORE  
 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

REVISION:	S.NO.	DATE:

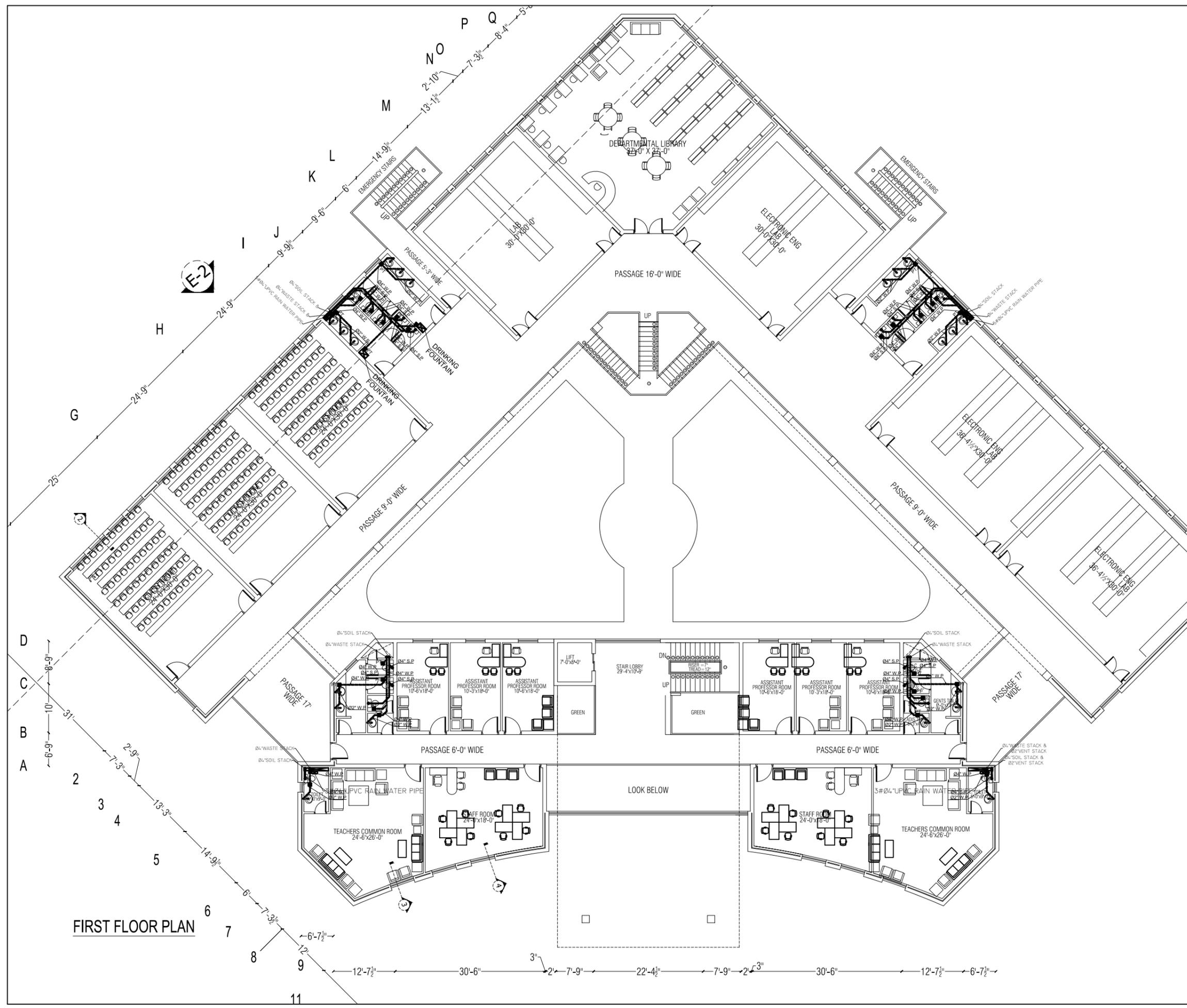


**PROJECT TITLE:**  
**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH ACADEMIC BLOCK**

**CONSULTANTS**  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
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 STREET #14 PLOT #6 OPP. TO PAKISTAN  
 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 001-2299407-10

**PIRZADA MASROOR RAZA SIDDIQUIE**  
**DRAWING TITLE**  
**FIRST FLOOR PLAN DRAINAGE SYSTEM**

<b>PROJECT ARCHITECT</b>	<b>DATE:</b> 29-09-2022	<b>DRAWING NO:</b>
	<b>SCALE:</b> 1'-0"=1/8"	<b>PH-02</b>
	<b>DRAWN BY:</b> TAMOOR	
	<b>CHECKED BY:</b> SUHAIL AHMED	
<b>PTIKHAR A. SIDDIQUIE</b>		



**FIRST FLOOR PLAN**

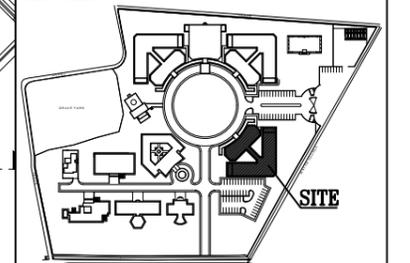
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Plumbing Consultants:  
**SA SUHAIL AHMED ASSOCIATES**  
 607, 6TH FLOOR, AL-QADIR HEIGHTS  
 1 BABAR BLOCK, NEW GARDEN TOWN, LAHORE  
 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

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KEY PLAN:



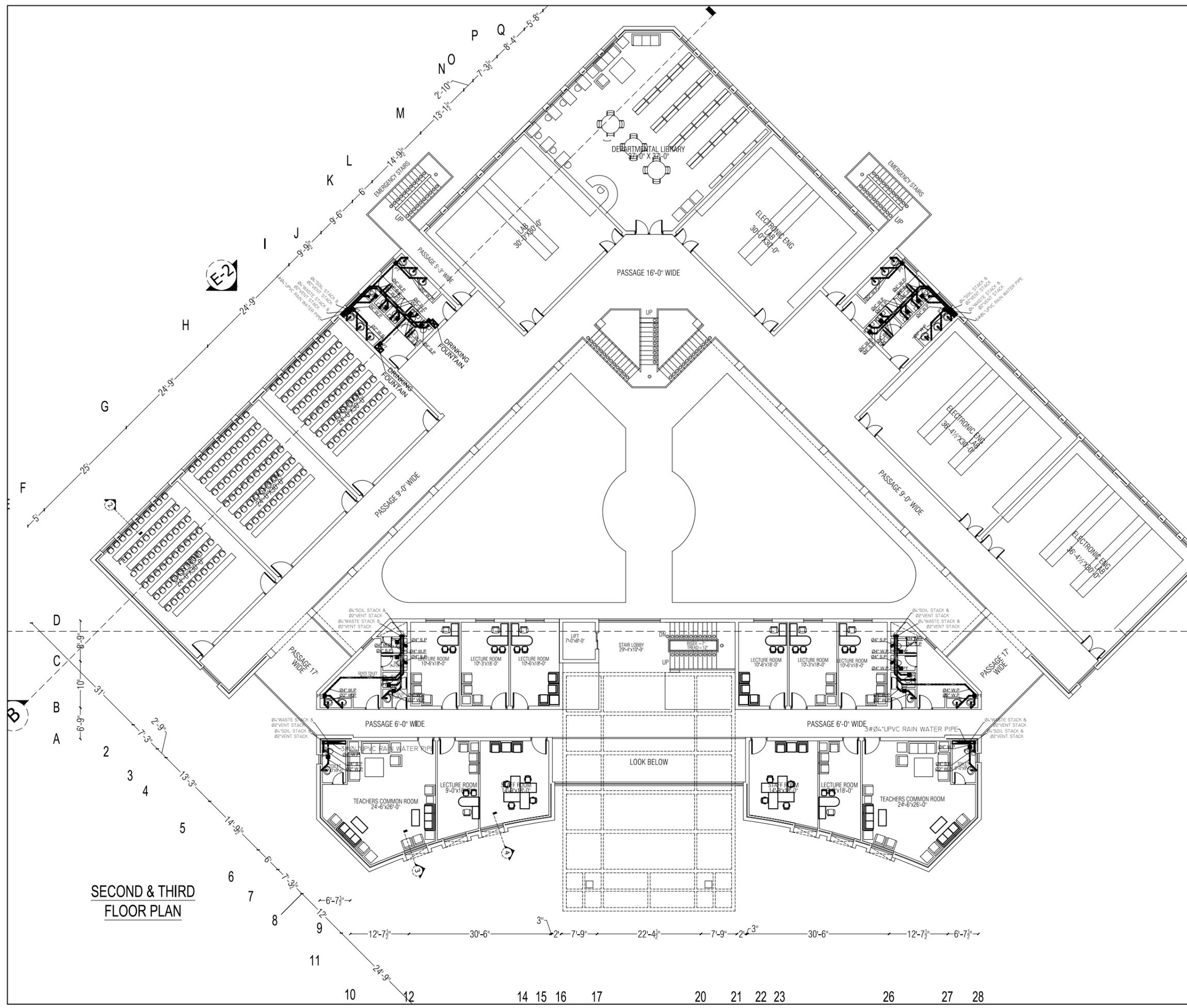
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**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH**  
**ACADEMIC BLOCK**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, I&T CENTRE,  
 STREET 14 PLOT 106 OPP. TO PAKISTAN  
 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 051-2269407-10



PERZADA MASROOR RAZA SIDDIQUIE  
 DRAWING TITLE  
**2ND & 3RD FLOOR PLAN DRAINAGE SYSTEM**

PROJECT ARCHITECT	DATE: 28-09-2022	DRAWING NO:
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	CHECKED BY: SUHAIL AHMED	
IFTIKHAR A. SIDDIQUIE		



SECOND & THIRD FLOOR PLAN

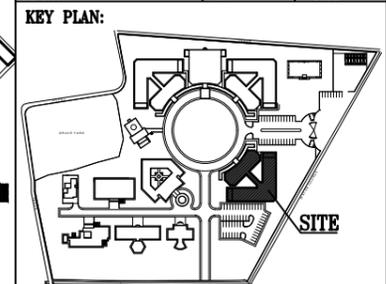
**TENDER DRAWING**



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 607, 6TH FLOOR, AL-QADIR HEIGHTS  
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 e-mail: plumbing\_suhail@yahoo.com  
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REVISION:	S.NO.	DATE:



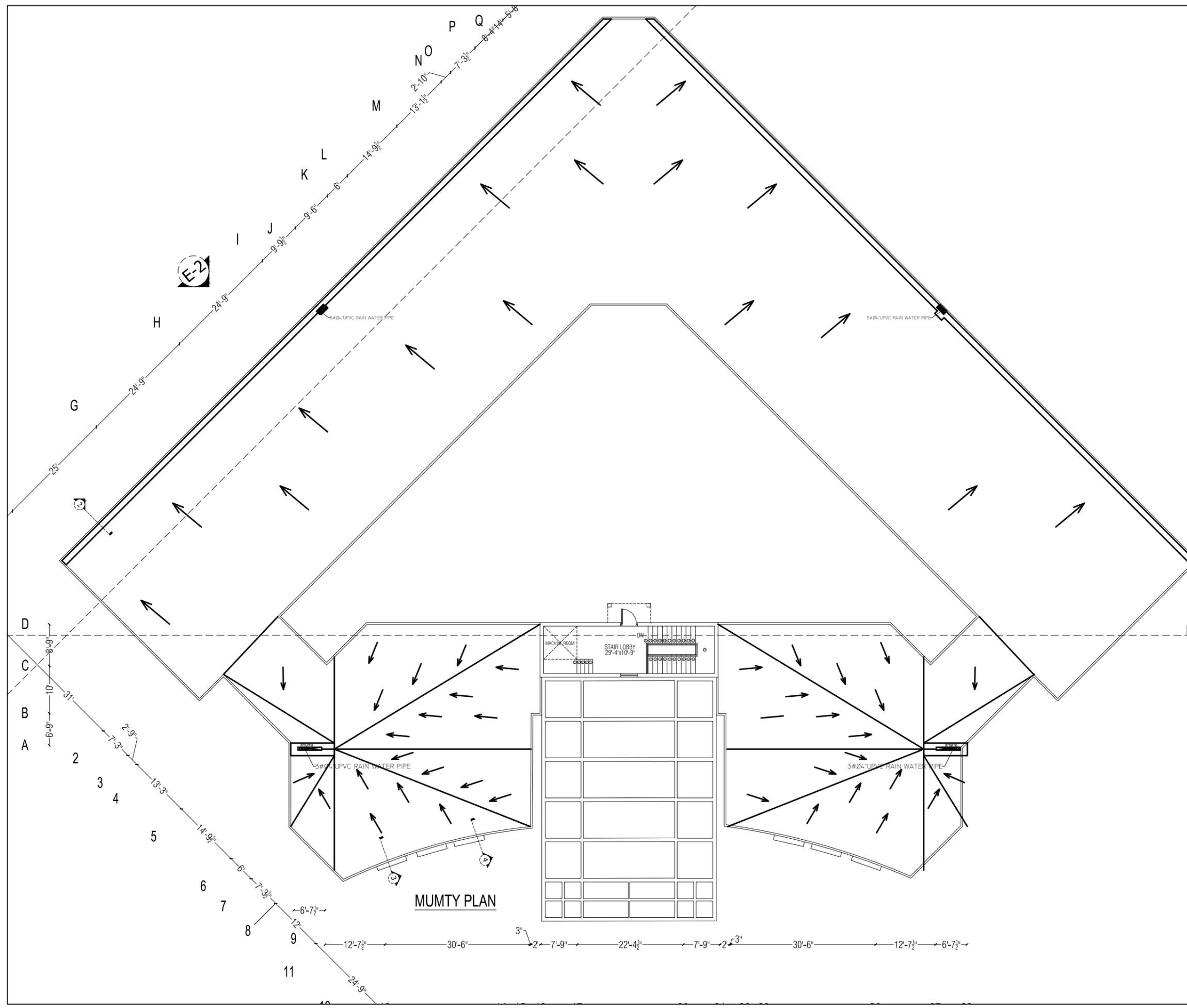
**PROJECT TITLE:**  
 ESTABLISHMENT OF SUFISM &  
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 SECTOR G-8/1 ISLAMABAD  
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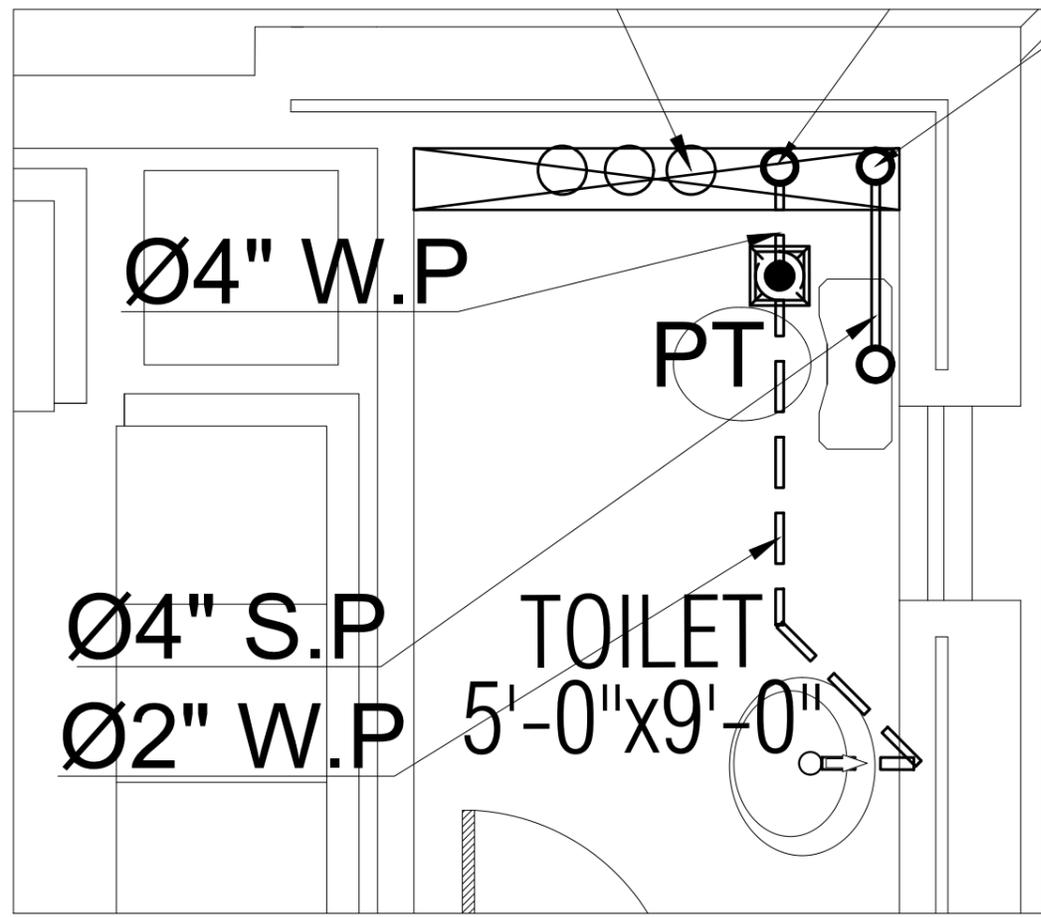
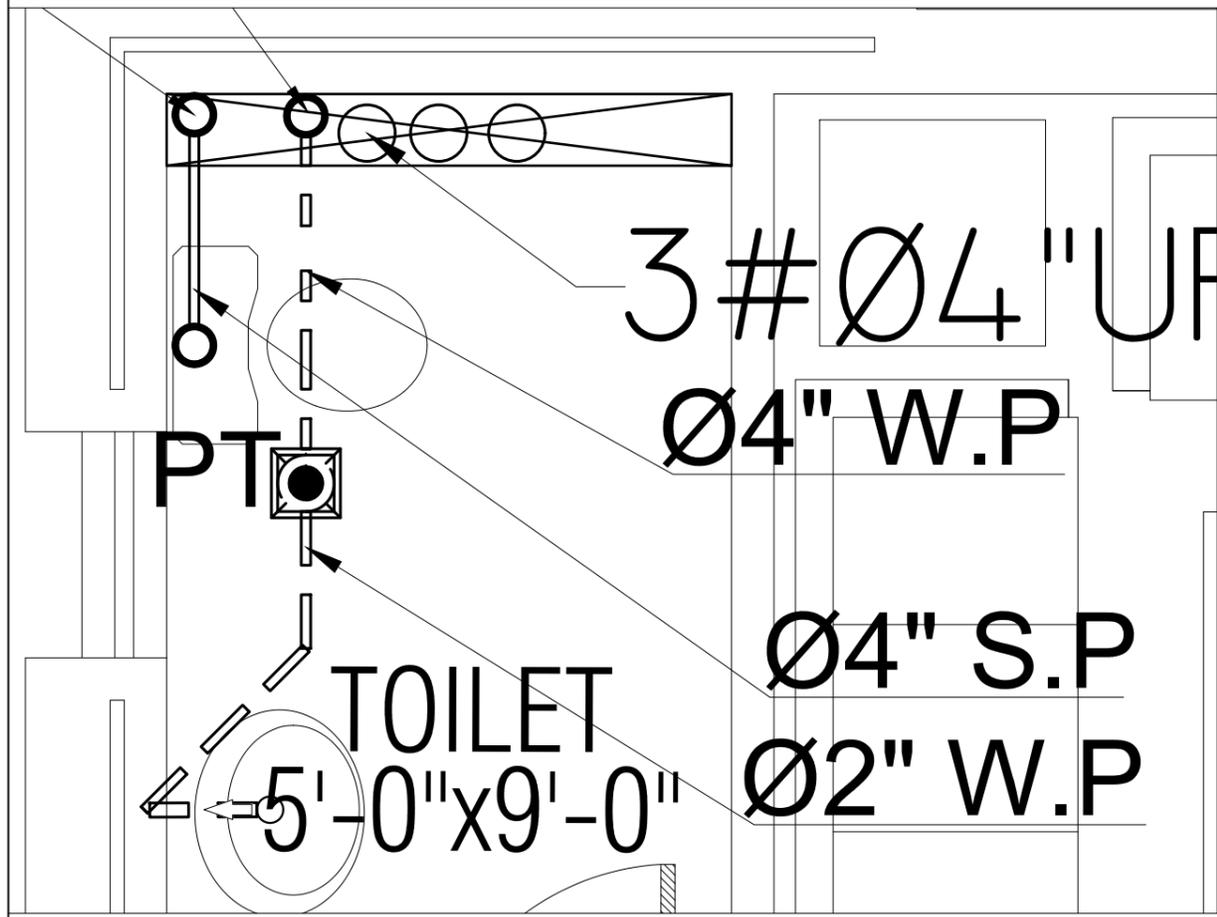
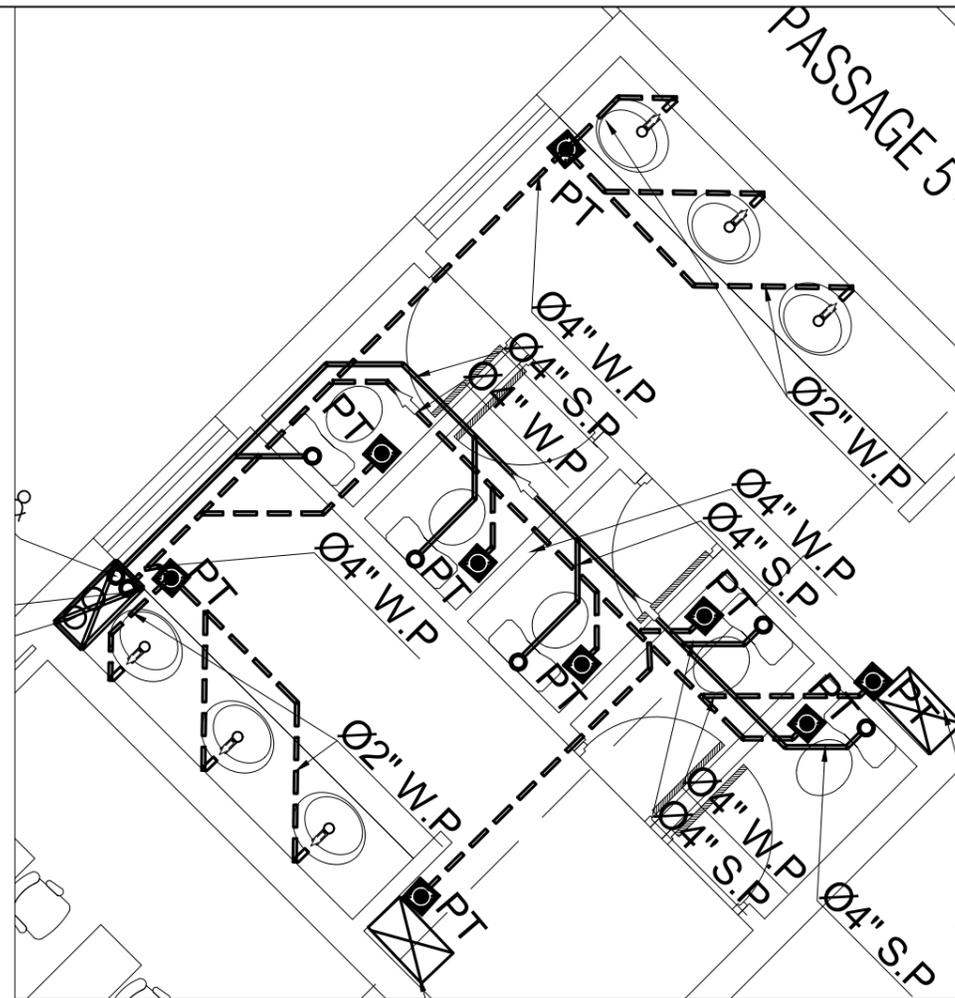
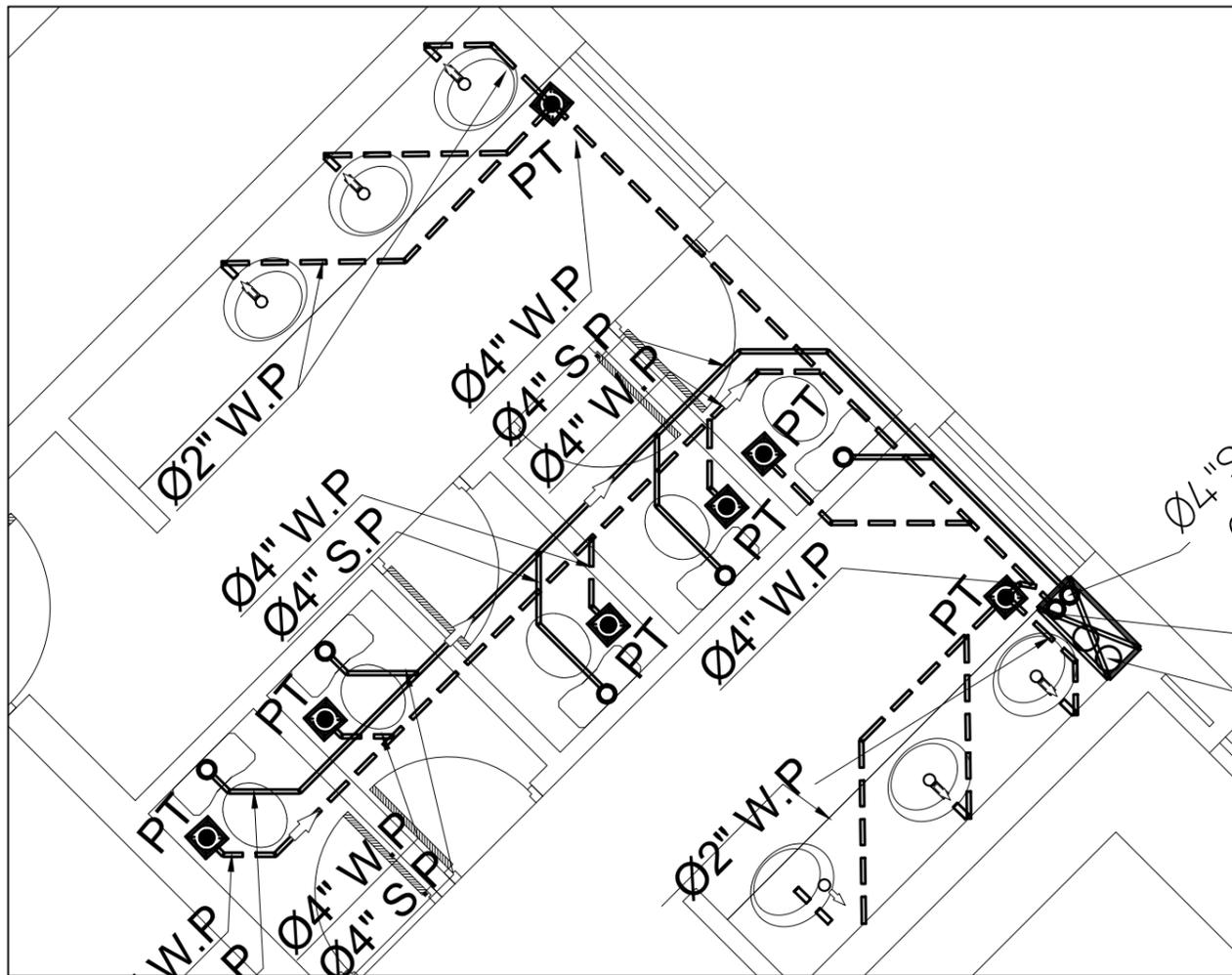


**DRAWING TITLE**  
 MUMTY FLOOR PLAN  
 DRAINAGE SYSTEM

**PROJECT ARCHITECT** DATE: 28-09-2022 DRAWING NO:  
**SCALE:** 1'-0"=1/8"  
**DRAWN BY:** TAMOOR PH-04  
**CHECKED BY:** TAMOOR  
**ENGINEER:** SUHAIL AHMED



**MUMTY PLAN**

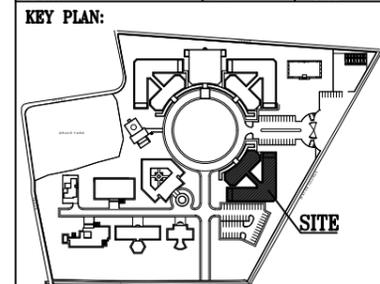


TENDER DRAWING



Plumbing Consultants:  
**SA SUHAIL AHMED ASSOCIATES**  
 607, 6TH FLOOR, AL-QADIR HEIGHTS  
 1 BABAR BLOCK, NEW GARDEN TOWN, LAHORE  
 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

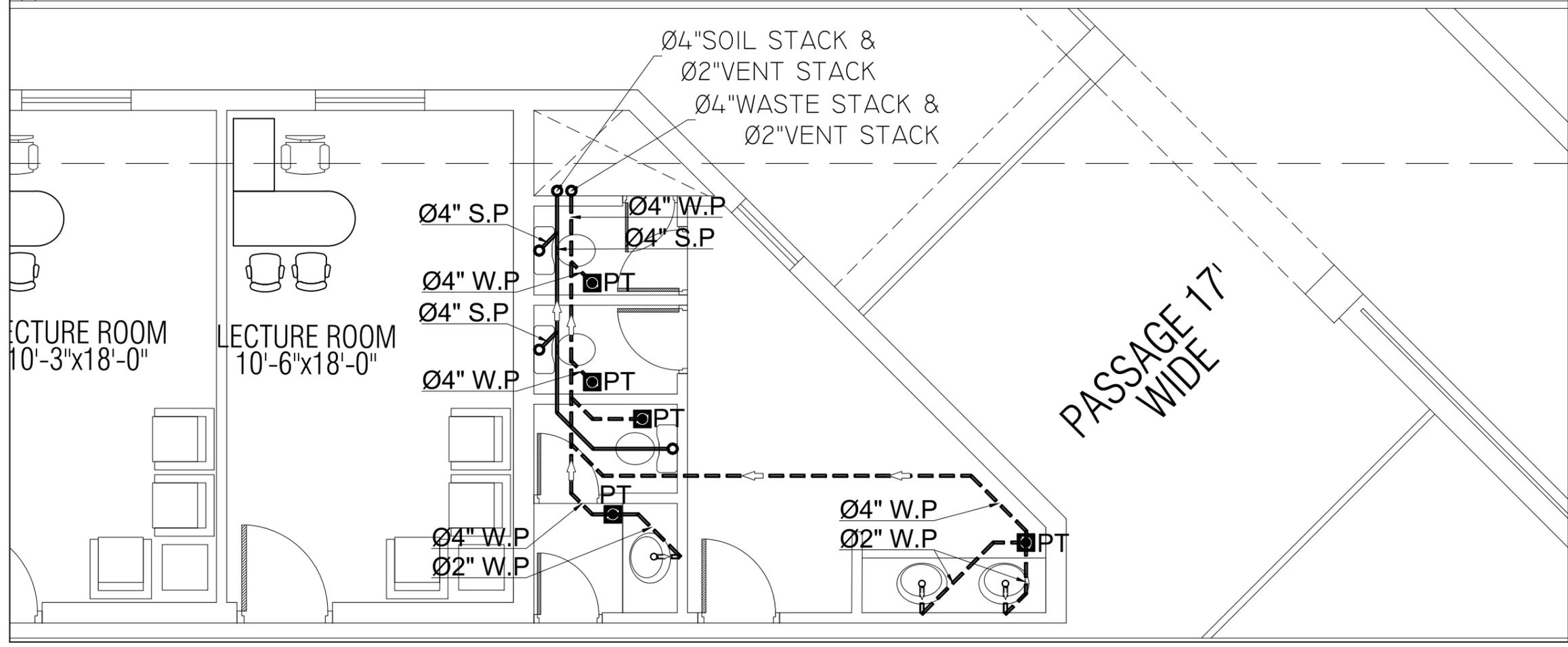
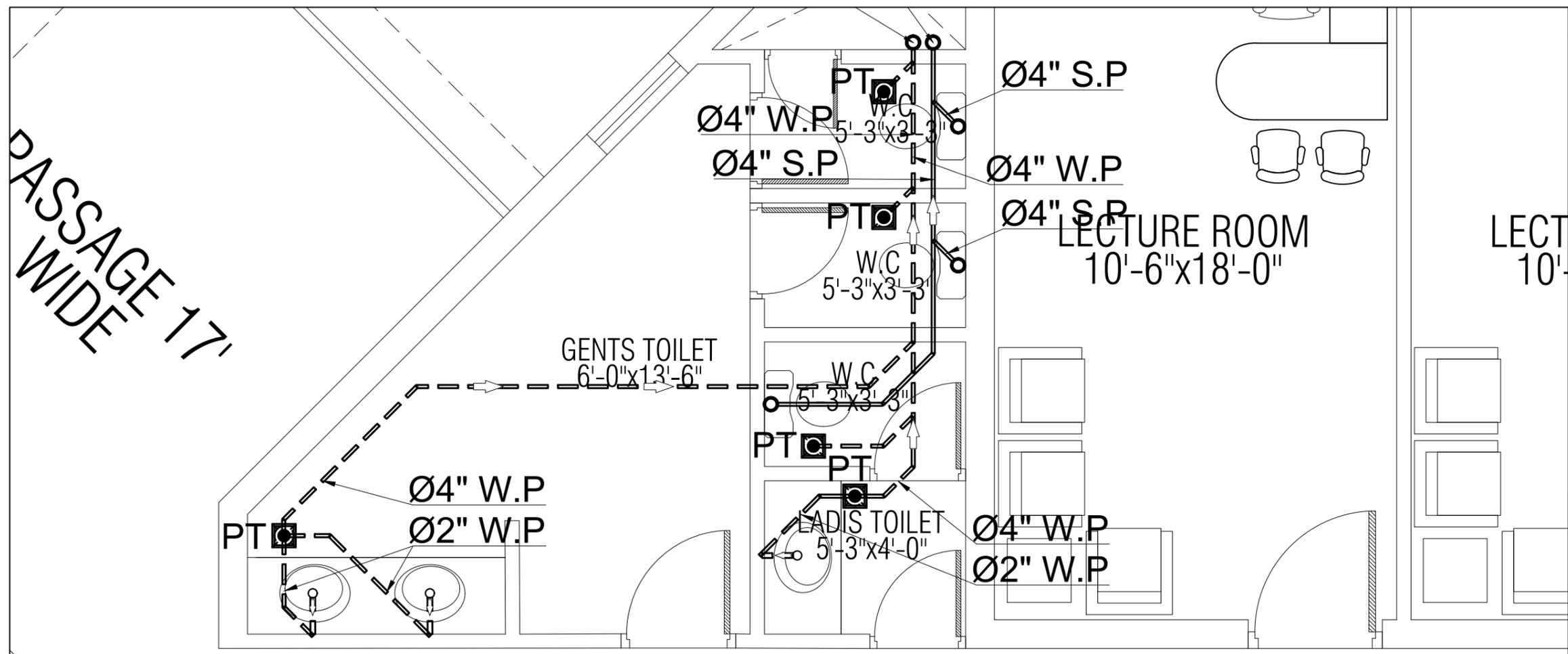
REVISION:	S.NO.	DATE:



PROJECT TITLE:  
**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH ACADEMIC BLOCK**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
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 TEL: 011-2299407-10  
**ARCHITECT**

DRAWING TITLE <b>TOILETS BLOWUP DETAILS DRAINAGE SYSTEM</b>		
PROJECT ARCHITECT	DATE: 28-09-2022	DRAWING NO:
	SCALE: 1'-0"=1/8"	PH-05
	DRAWN BY: TAMOOR	
	CHECKED BY: SUHAIL AHMED	



**TENDER DRAWING**

Plumbing Consultants:  
**SA** SUHAIL AHMED ASSOCIATES  
 607, 6TH FLOOR, AL-QADIR HEIGHTS  
 1 BABAR BLOCK, NEW GARDEN TOWN, LAHORE  
 e-mail: plumbing\_suhail@yahoo.com  
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REVISION:	S.NO.	DATE:

**KEY PLAN:**

**PROJECT TITLE:**  
 ESTABLISHMENT OF SUFISM &  
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 BHITSHAH  
 ACADEMIC BLOCK

**CONSULTANTS:**  
 NAQVI AND SIDDIQUIE  
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 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 001-2299407-10

**ARCHITECT:**  
 PERZADA MASROOR RAZA SIDDIQUIE

**DRAWING TITLE:**  
 TOILETS BLOWUP DETAILS  
 DRAINAGE SYSTEM

PROJECT ARCHITECT	DATE: 29-09-2022	DRAWING NO:
SCALE: 1'-0"=1/8"		PH-06
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CHECKED BY: SUHAIL AHMED		

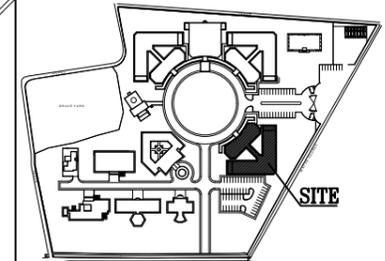
TENDER DRAWING



Plumbing Consultants:  
**SA SUHAIL AHMED ASSOCIATES**  
 607, 6TH FLOOR, AL-QADIR HEIGHTS  
 1 BABAR BLOCK, NEW GARDEN TOWN, LAHORE  
 e-mail: plumbing\_suhail@yahoo.com  
 MOB: 0321-4468226 PH: 0423-5843640

REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH**  
**ACADEMIC BLOCK**

CONSULTANTS  
**NAQVI AND SIDDIQUIE**  
 INC. ARCHITECT & ENGINEER  
 LOWER GROUND, IGT CENTRE,  
 STREET #14 PLOT #6 Opp. TO PAKISTAN  
 POVERTY ALLEVIATION FUND OFFICE,  
 SECTOR G-8/1 ISLAMABAD  
 TEL: 051-2299407-10

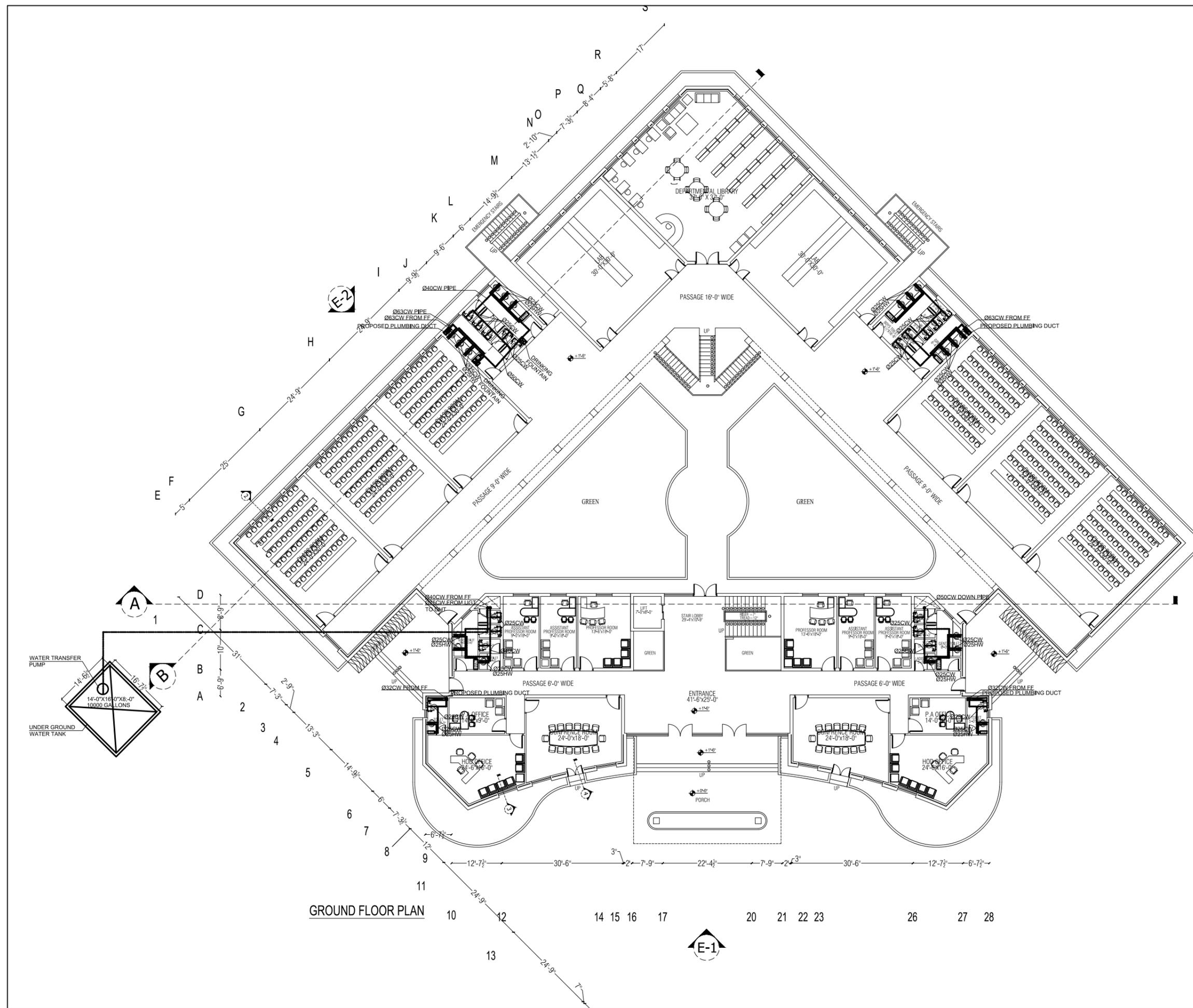


ARCHITECT

PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
**GROUND FLOOR PLAN**  
**WATER SUPPLY SYSTEM**

PROJECT ARCHITECT	DATE: 29-09-2022	DRAWING NO:
	SCALE: 1'-0"=1/8"	PH-07
	DRAWN BY: TAMOOR	
	CHECKED BY: SUHAIL AHMED	
IFTIKHAR A. SIDDIQUIE		



GROUND FLOOR PLAN

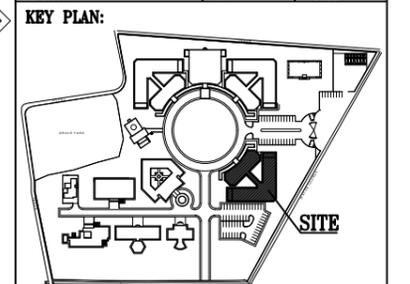


TENDER DRAWING



Plumbing Consultants:  
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 e-mail: plumbing\_suhail@yahoo.com  
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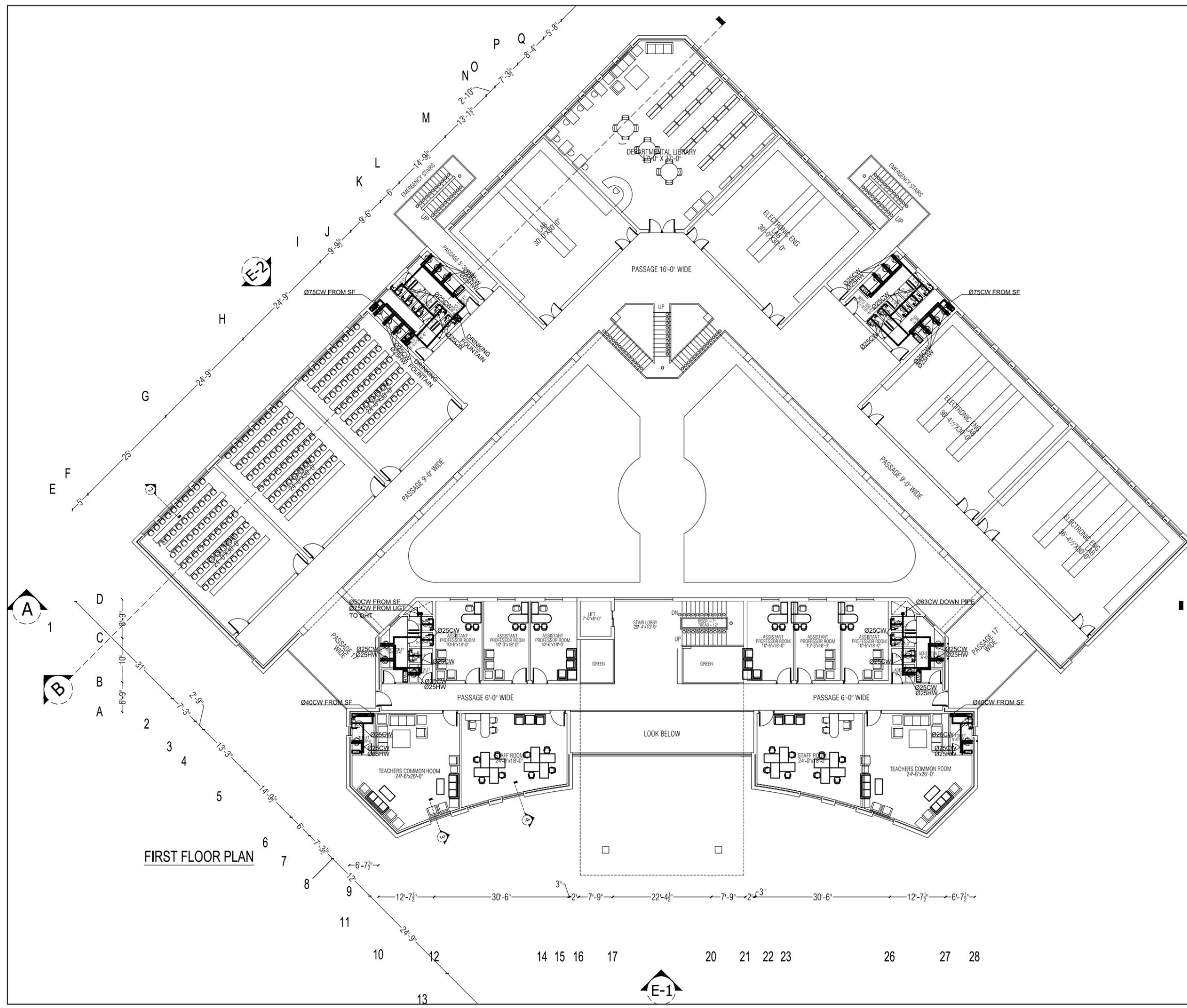
REVISION:	S.NO.	DATE:



PROJECT TITLE:  
**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH**  
**ACADEMIC BLOCK**

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 SECTOR G-8/1 ISLAMABAD  
 TEL: 051-2299407-10  
**ARCHITECT**

PIRZADA MASROOR RAZA SIDDIQUI  
 DRAWING TITLE  
**FIRST FLOOR PLAN**  
**WATER SUPPLY SYSTEM**  
 PROJECT ARCHITECT DATE: 28-09-2022 DRAWING NO:  
 SCALE: 1'-0"=1/8" PH-08  
 DRAWN BY: TAMOOR  
 CHECKED BY: SUHAIL AHMED  
 IPTIKHAR A. SIDDIQUI



FIRST FLOOR PLAN



**TENDER DRAWING**

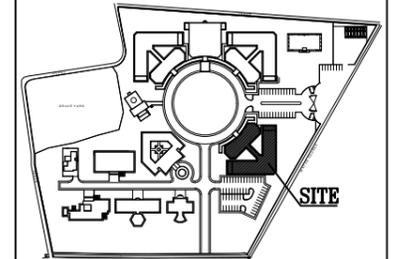


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REVISION:	S.NO.	DATE:

**KEY PLAN:**



**PROJECT TITLE:**

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 POVERTY ALLEVIATION FUND OFFICE,  
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 TEL: 051-2269407-10

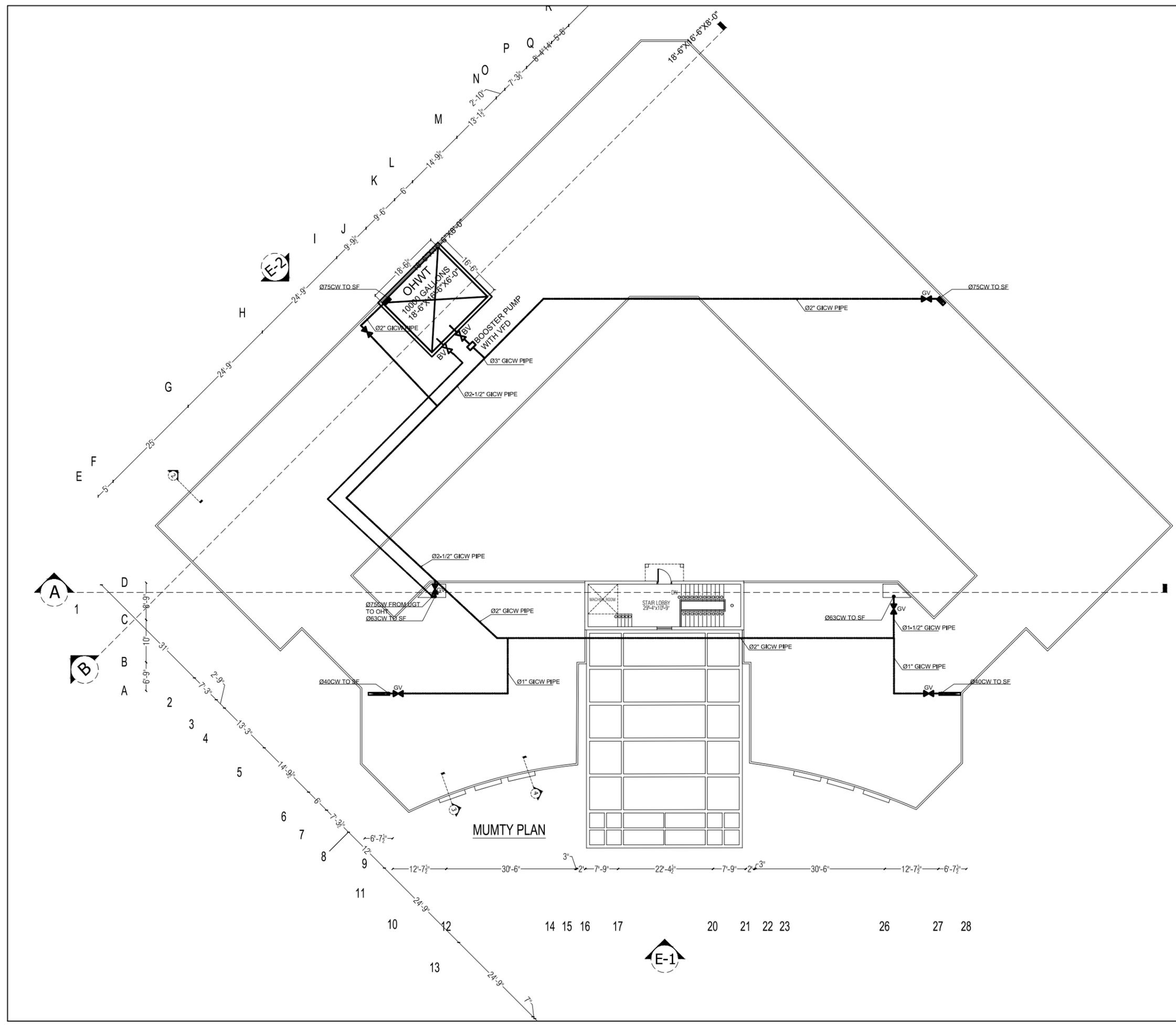


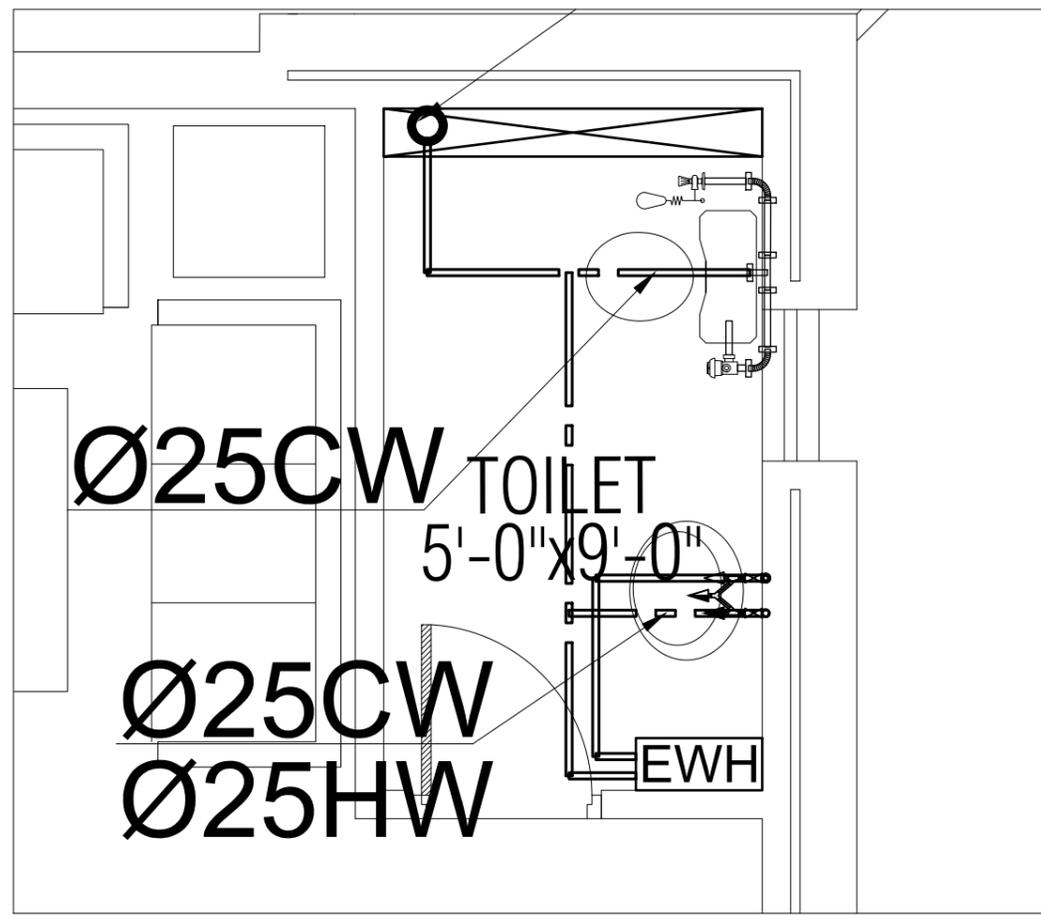
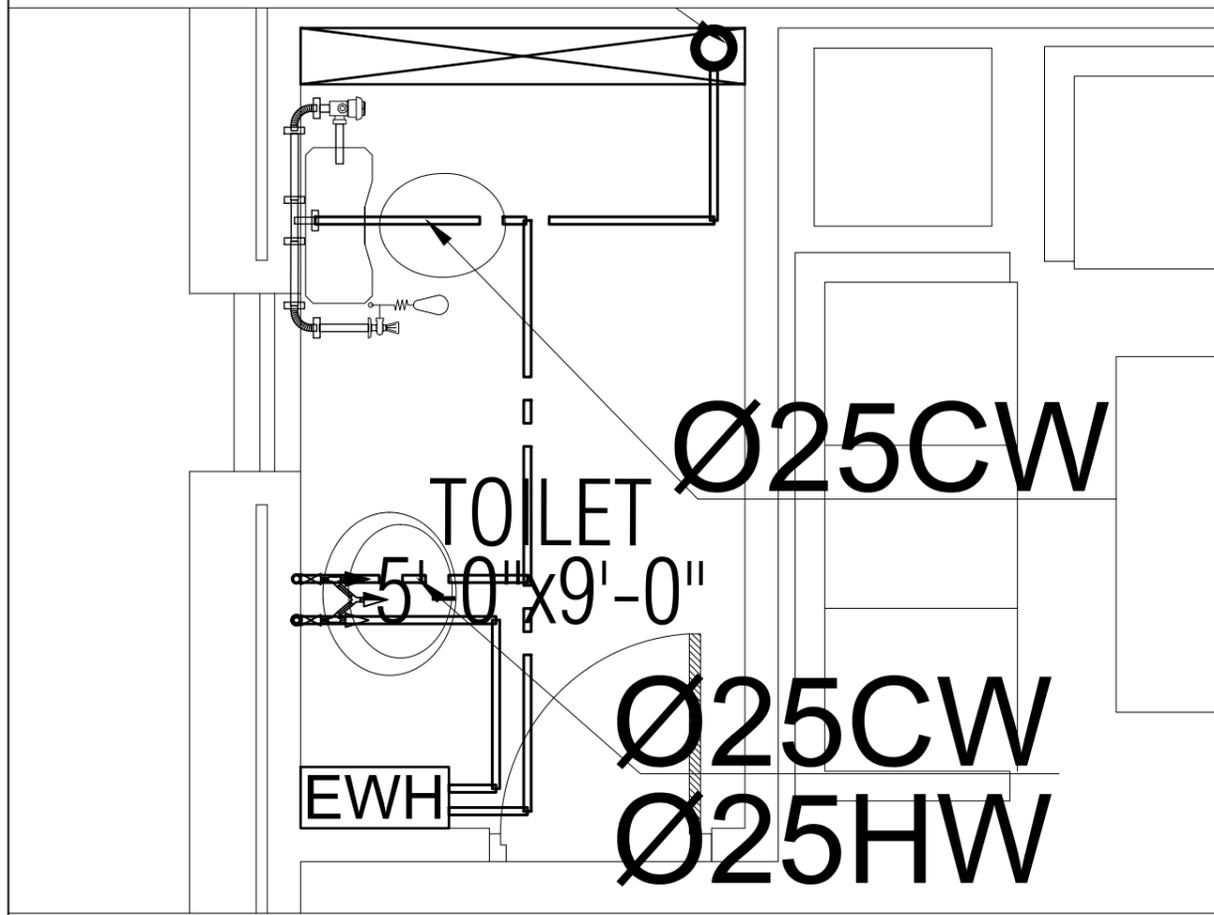
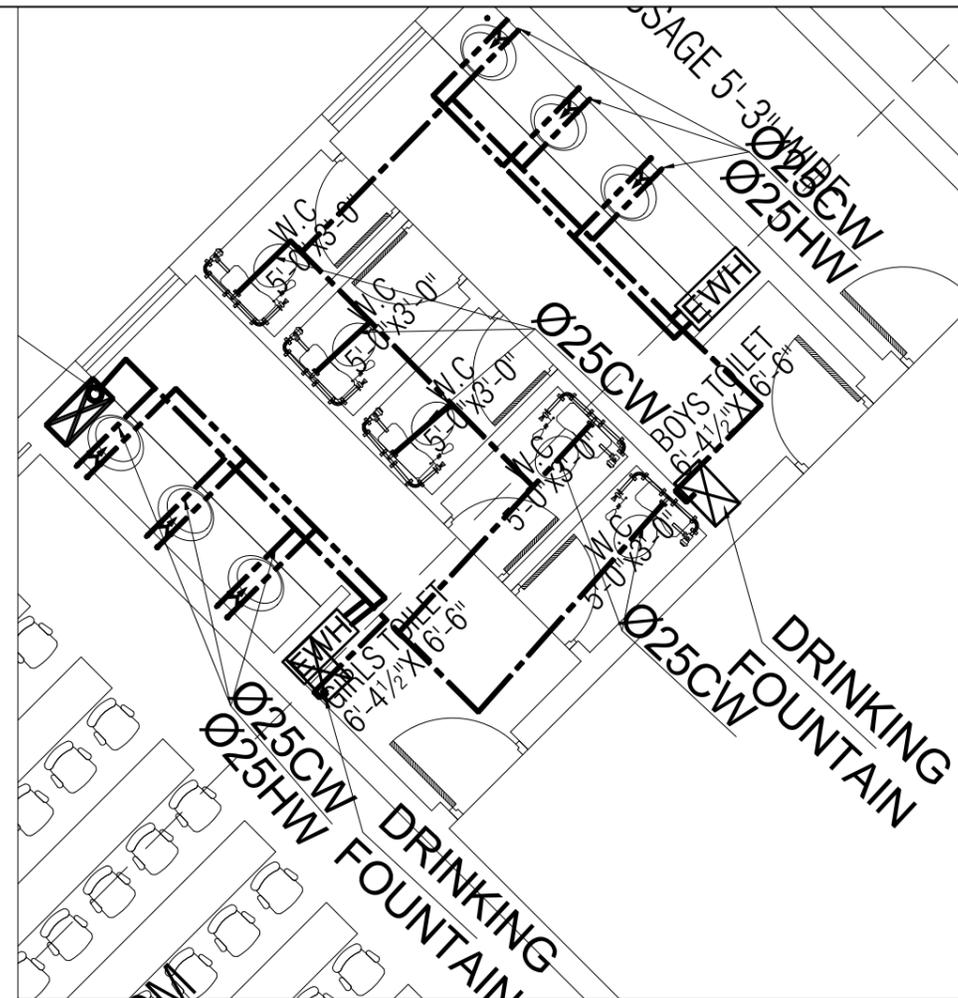
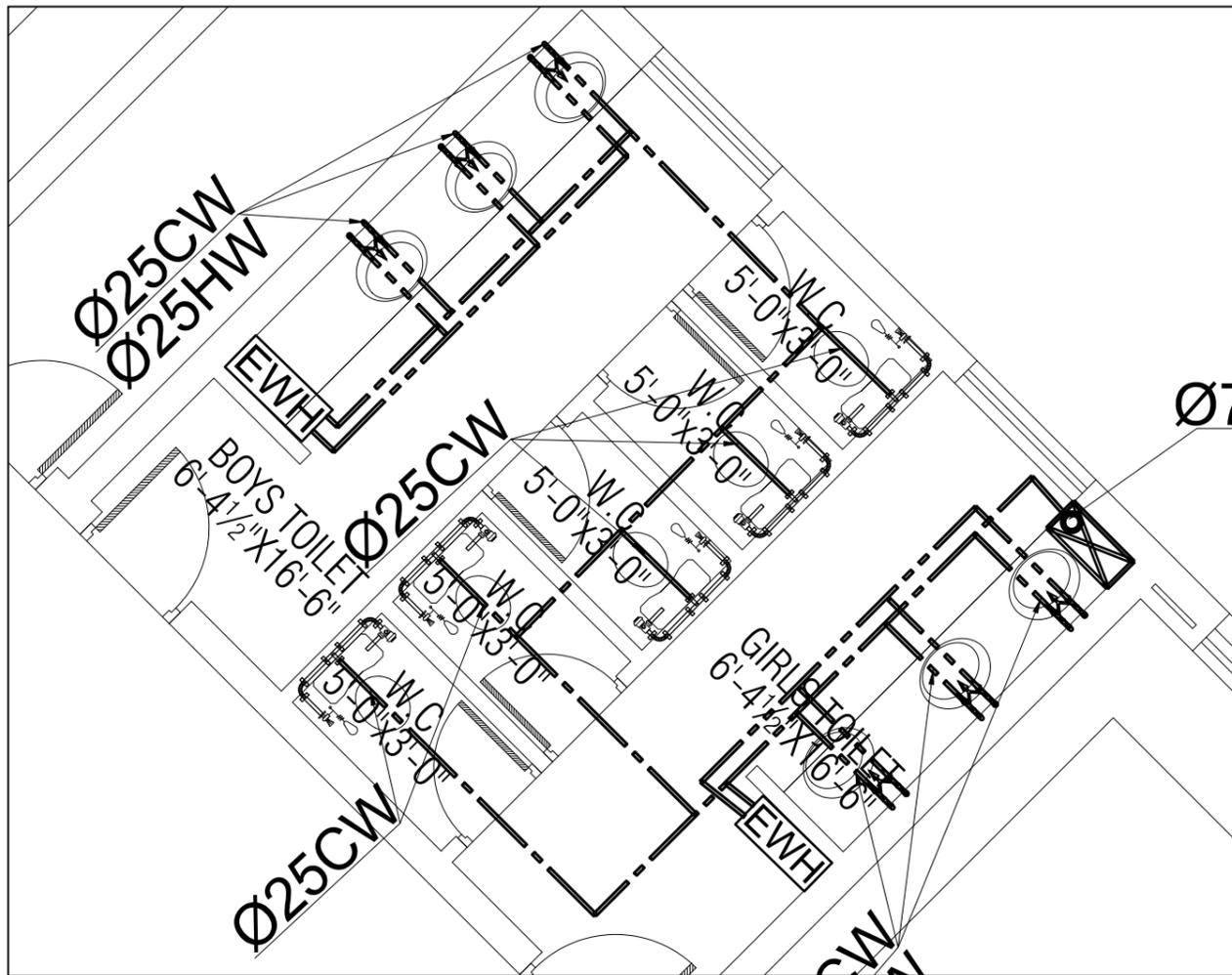
**ARCHITECT**

**PIRZADA MASROOR RAZA SIDDIQUIE**

**DRAWING TITLE**  
**MUMTY FLOOR PLAN  
 WATER SUPPLY SYSTEM**

<b>PROJECT ARCHITECT</b> IFTIKHAR A. SIDDIQUIE	<b>DATE:</b> 28-09-2022	<b>DRAWING NO:</b> PH-10
	<b>SCALE:</b> 1'-0"=1/8"	
	<b>DRAWN BY:</b> TAMOOR	
	<b>CHECKED BY:</b> SUHAIL AHMED	





TENDER DRAWING

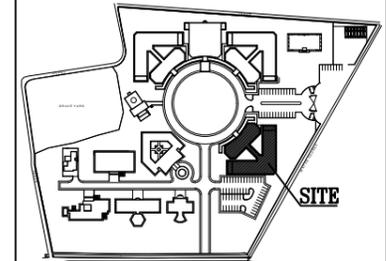


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REVISION:	S.NO.	DATE:

KEY PLAN:



PROJECT TITLE:

ESTABLISHMENT OF SUFISM &  
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 BHITSHAH  
 ACADEMIC BLOCK

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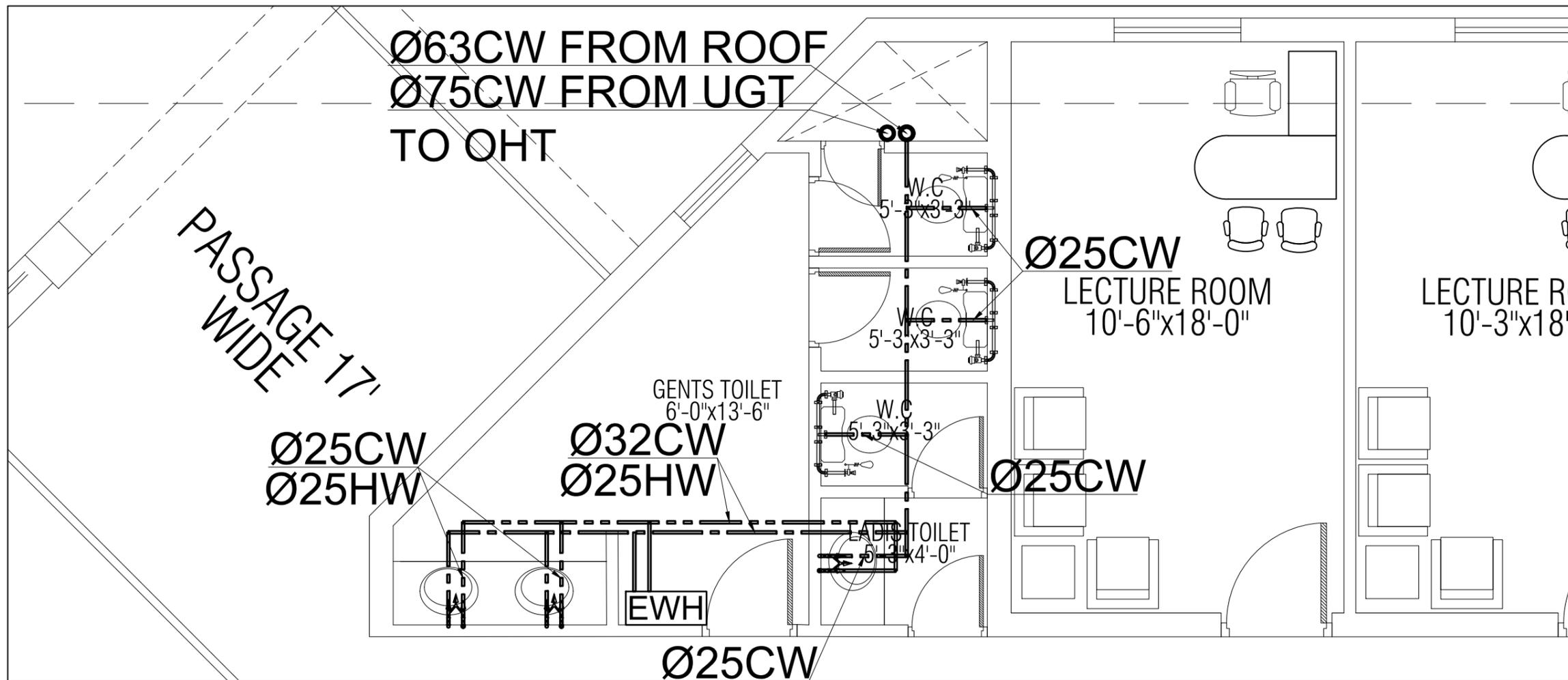
ARCHITECT

PIRZADA MASROOR RAZA SIDDIQUIE

DRAWING TITLE  
**TOILETS BLOWUP DETAILS  
 WATER SUPPLY SYSTEM**

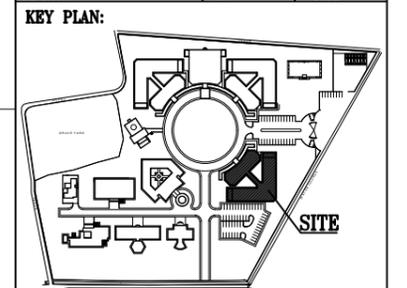
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	SCALE: 1'-0"=1/8"	PH-11
	DRAWN BY: TAMOOR	
	CHECKED BY: SUHAIL AHMED	
ENGINEER A. SIDDIQUIE		

TENDER DRAWING



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REVISION:	S.NO.	DATE:



PROJECT TITLE:  
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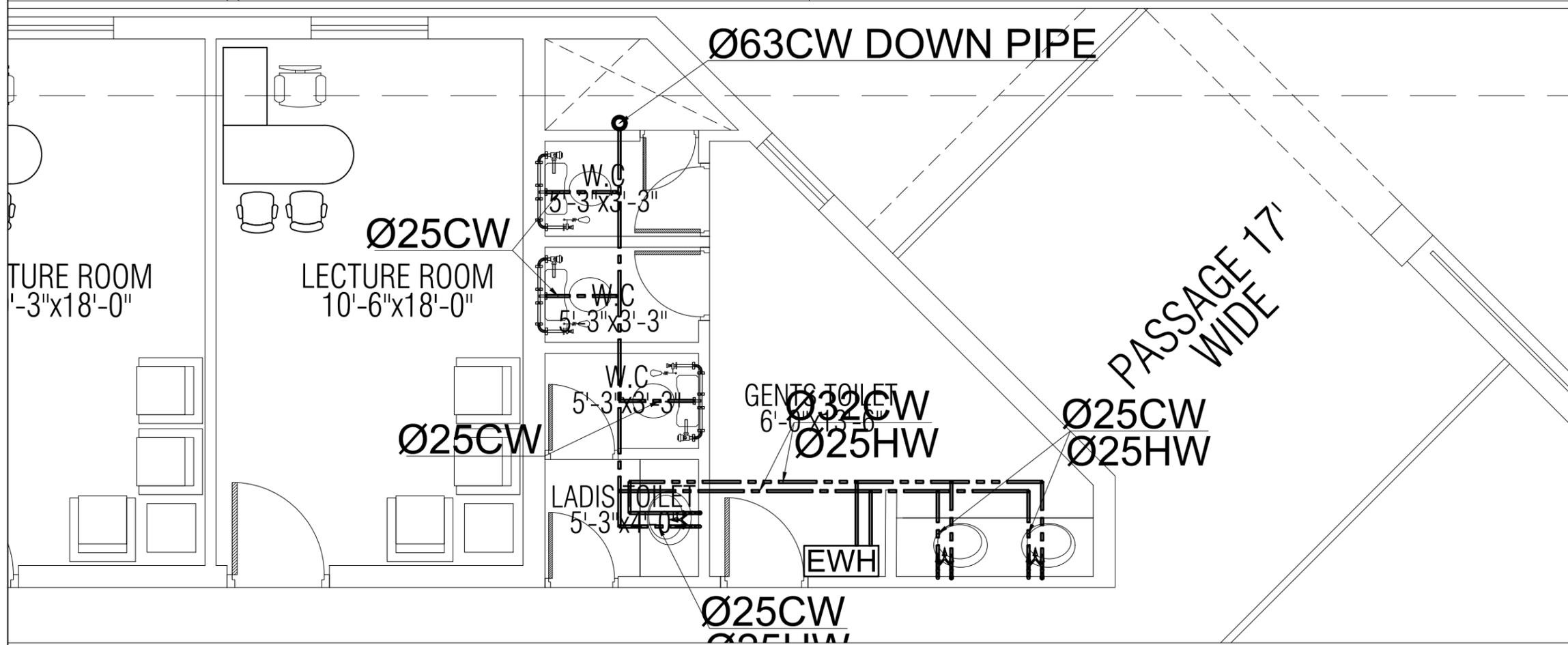


PERZADA MASROOR RAZA SIDDIQUIE

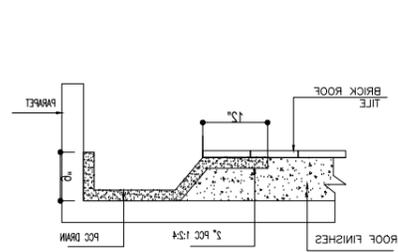
DRAWING TITLE  
**TOILETS BLOWUP DETAILS**  
**WATER SUPPLY SYSTEM**

PROJECT ARCHITECT	DATE: 28-09-2022	DRAWING NO:
	SCALE: 1'-0"=1/8"	PH-12
	DRAWN BY: TAMOOR	
	CHECKED BY: SUHAIL AHMED	

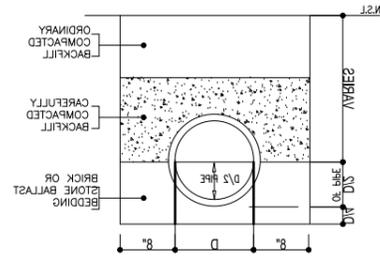
PROJECT ARCHITECT: IFTIKHAR A. SIDDIQUIE



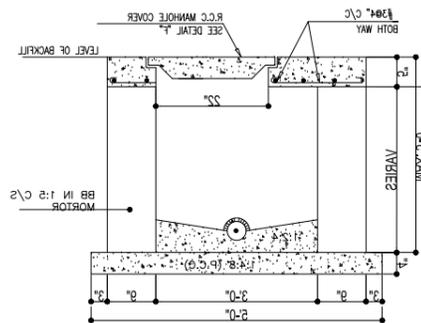
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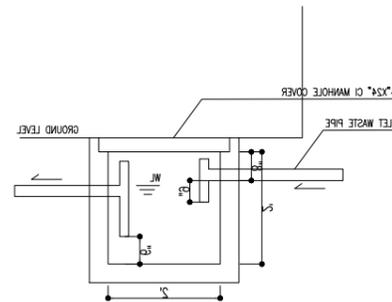
PCC ROOF DRAIN DETAIL



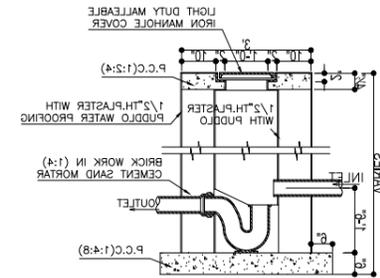
BEDDING FOR LAYING RCC SEWER



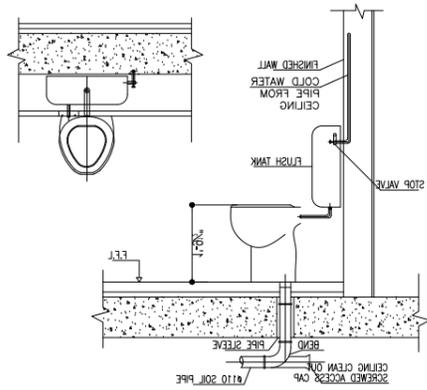
TYPICAL SECTION OF MANHOLE



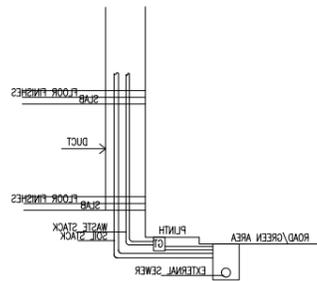
SECTION



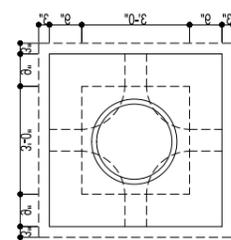
SECTION F-F



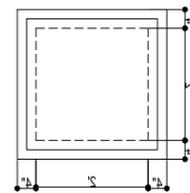
DETAIL OF WATER CLOSET CONNECTION FOR TOILET UNDER CEILING



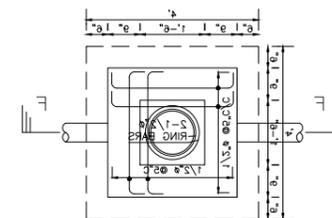
TYPICAL SECTION RAINAGE PIPES FROM BUILDING TO SEWER



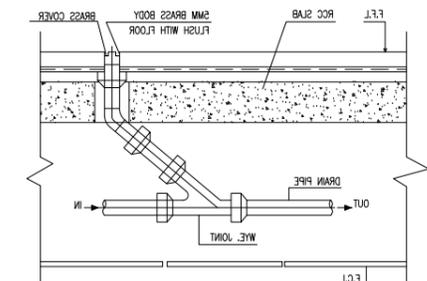
PLAN OF MANHOLE UP TO 3'-0" DEPTH



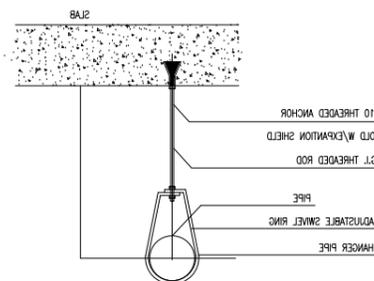
PLAN OF 3'X3' RCC GREASE TRAP



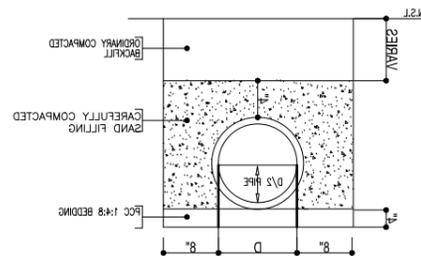
GULLY TRAP



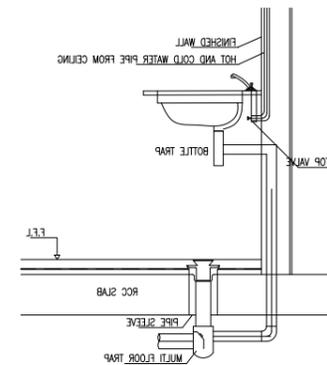
DETAIL OF FLOOR CLEAN OUT PLUG (FCO)



DETAIL OF PIPE HANGER



BEDDING FOR LAYING UPVC SEWER

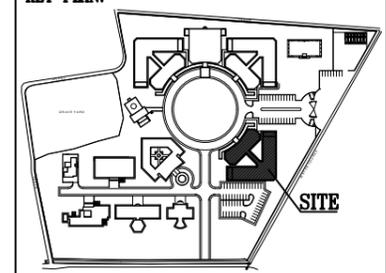


DETAIL OF LAVATORY CONNECTION FOR TOILET UNDER CEILING

PIPE HANGER SCHEDULE				
PIPE SIZE	MAX SPACING	ROD SIZE	RAWL BOLT	
30	500	10	8 X 63	
45	250	13	10 X 63	
100	150	18	13 X 63	
125	120	20	16 X 78	
200	100	25	18 X 78	

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REVISION:	S.NO.	DATE:



**PROJECT TITLE:**  
**ESTABLISHMENT OF SUFISM & MODERN SCIENCES UNIVERSITY BHITSHAH ACADEMIC BLOCK**

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**ARCHITECT**  
**PIRZADA MASROOR RAZA SIDDIQUIE**

**DRAWING TITLE**  
**PLUMBING DETAILS**

<b>PROJECT ARCHITECT</b>	<b>DATE:</b> 28-08-2022	<b>DRAWING NO:</b>
	<b>SCALE:</b> 1'-0"=1/8"	<b>PH-13</b>
	<b>DRAWN BY:</b> TAMOOR	
	<b>CHECKED BY:</b> SUHAIL AHMED	
<b>IFTIKHAR A. SIDDIQUIE</b>		