KHORLOCHHU HYDRO POWER LIMITED

4x150MW KHORLOCHHU HYDRO POWER PROJECT

BIDDING DOCUMENT

FOR

CONSTRUCTION OF 10 BEDDED BHU AT DOKSUM NEW TOWNSHIP, TRASHIYANGTSE.

DOMESTIC COMPETITIVE BIDDING

Tender No. 06/KHPL/C&PD/INFRA/2026 dated 29.09.2026

These documents are meant for the exclusive purpose of bidding against this NIT and shall not be transferred, reproduced or otherwise used for purposes other than that for which they are specifically issued.

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A. NOTICE INVITING TENDER

1. The **Khorlochhu Hydropower Limited (KHPL)** invites sealed Bids from eligible and qualified Bidders for the **"*Construction of 10 Bedded BHU at Doksum New Township, Trashiyangtse*"**. The duration for execution of the Work is **550 days**.
2. The bidding will be conducted through the Domestic Competitive Bidding procedures specified in the DHI Group Procurement Manual and other relevant regulations and is open to all Bidders from countries as defined in Section II of the Bidding Documents.
3. Interested eligible Bidders may obtain further information and inspect the Bidding Documents at the address given below from **September 30, 2026,** during office hours.
4. A complete set of Bidding Documents can be downloaded from the website www.khpl.bt/tender free of cost. Bidders downloading the Bidding Documents from the website should register expressing their intention to submit the Bid by submitting a written application to the address below.
5. Bids must be delivered to the address below at or before **10:30 AM (BST) of October 29, 2026**. Submission of Bids through e-mail shall not be permitted.

   Late Bids will be rejected. Bids will be opened physically on **October 29, 2026, at 11:00AM (BST)** in presence of the Bidder's representatives who choose to attend in person or on-line at the address below.
6. All Bids shall be accompanied by a Bid Security for an amount of **BTN 2,393,000.00** ***(BTN Two Million Three Hundred Ninety-Three Thousand)*** only, in the form of unconditional Bank Guarantee/Demand Draft/Cash Warrant and shall be enforceable in any financial institutions in Bhutan. The Bid Security shall be valid till 30 days beyond the Bid validity period. Bids not accompanied with an acceptable Bid Security shall be rejected. In such case, Bids shall be returned to the Bidders unopened.
7. The qualification requirement for Bidders shall be as specified in the Bidding Data Sheet.
8. Bidding Documents are not transferrable.
9. The Employer reserves the right to accept or reject Bids partly or fully or cancel the bidding process without assigning any reasons thereof and in such case no Bidder shall have any claim arising out of such action of the Employer.
10. The address referred to above is as under:

    General Manager,
    Contracts & Procurement Division,
    Khorlochhu Hydro Power Limited,
    Corporate Office, Post Box 46002,
    Doksum New Township, Trashiyangtse,
    Email: gm.cnp@khpl.bt

SECTION I – INSTRUCTIONS TO BIDDERS

B. GENERAL

ITB.1. Scope of Bid and Source of Funds

ITB.1.1. The Employer as defined in Section II [Bid Data Sheet (BDS)], invites Bids for the execution of Works, as described in the BDS and Section VI [Special Conditions of Contract (SCC)]. The name and identification number of the Contract is provided in the BDS and SCC.

ITB.1.2. The successful Bidder will be expected to complete the Works by the intended completion date specified in the Special Condition of Contract.

ITB.1.3. The Employer has provisioned a budget towards the cost of the execution of Works and intends to apply this fund to cover eligible payments under the contract for this works.

ITB.1.4. Unless otherwise stated, throughout this Bidding Documents, definitions and interpretations shall be as prescribed in the General Conditions of Contract (GCC).

ITB.2. Fraud and Corruption

ITB.2.1. In line with the policy of the Royal Government of Bhutan (RGOB), the Employer requires that the Bidders, Contractors and their Subcontractors shall observe the highest standards of ethics during the bidding process and execution of Contracts. The terms "corrupt practice", "fraudulent practice", "collusive practice", "coercive practice" and "obstructive practice" shall be as per the definition in GCC 1.6. In pursuance of this policy, the Employer:

a) will reject a Bid for award if it determines that the Bidder, recommended for award, has directly or through an agent engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;

b) will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing contract;

c) will have the right to require that a provision be included in Bidding Documents and in contracts, requiring Bidders, Suppliers, Contractors and their Subcontractors to permit the Employer, any organization or person appointed by the Employer and/or any relevant RGoB agency to inspect their accounts and records and other documents relating to the Bid submission and contract performance and to have them audited by auditors appointed by the Employer;

d) requires that Bidders, as a condition of admission to eligibility, execute and attach to their bids an Integrity Pact Statement in the form provided in Section III, Bidding Forms. Failure to provide a duly executed Integrity Pact Statement may result in disqualification of the Bid; and

e) will report any case of corrupt, fraudulent, collusive, coercive or obstructive practice to the relevant RGoB agencies, including but not limited to the Anti-Corruption Commission (ACC) of Bhutan, for necessary action in accordance with the statutes and provisions of the relevant Agency.

ITB.2.2. Furthermore, the Bidders shall be aware of the provisions stated in GCC Sub-Clause 1.6.

ITB.3. Eligible Bidders

ITB.3.1. A Bidder may be a private entity, government-owned entity, subject to ITB sub-clause 3.4, or any combination of such entities in the form of a Joint Venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent, subject to provisions under ITB Clause 5.

ITB.3.2. A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB sub-clause 3.7. A Bidder shall be deemed to have the nationality of ta country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration document, as the case may be. This criterion

also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services.

ITB.3.3. A Bidder shall not have conflict of interest. All Bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this bidding process, if:

a) they have at least one controlling partner in common; or
b) they receive or have received any direct or indirect subsidy from either party; or
c) they have the same authorized legal representative for purpose of this Bid; or
d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
e) a Bidder participates in more than one Bid in this bidding process. Participation by a Bidder in more than one Bid shall result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same sub-contractor in more than one Bid; or
f) a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Works that are subject of the Bid or in any other way provided consulting services in any aspect of the preparatory stages leading up to the issue of these Bidding Documents; or
g) a Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Employer as the Project Manager for the Contract implementation; or
h) tis and/or other documents to be used for the procurement of the Works to be executed pursuant to these Bidding Documents, or in any other way provided the consulting services in any aspect of the preparatory stages leading up to the issue of these Bidding Documents or hired/proposed to be hired by Employer as Project Manager for the Contract implementation;
i) a Bidder or any of its affiliates employs or otherwise engages a close relative of the Employer's employee who has an authority over the Bidder or its affiliates or over the Bid. For the purpose of this sub-clause a close relative is defined as immediate family which includes father, mother, brother, sister spouse and own children.

ITB.3.4. A Bidder that is determined to be ineligible pursuant to any of the provisions of this Bidding Documents shall not be eligible to be awarded a Contract.

ITB.3.5. Government-owned enterprises in Bhutan shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Employer.

ITB.3.6. Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer as the Employer shall reasonably request.

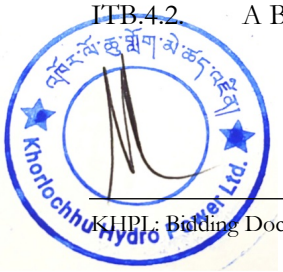
ITB.4. Exclusions

ITB.4.1. A firm shall be excluded if:

a) as a matter of law or official regulation, Bhutan prohibits commercial relations with the country in which the firm is constituted, incorporated or registered; or
b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Bhutan prohibits any import of goods or contracting of Works or services from that country in which the firm is constituted, incorporated or registered or any payments to persons or entities in that country.

ITB.4.2. A Bidder shall be excluded if:

a) he is insolvent or is in receivership or is a bankrupt or is in the process of being wound up, or has entered into an arrangement with his creditors; or



b) his business affairs are being administered by a court, judicial officer or appointed liquidator; or

c) he has suspended business or is in any analogous situation arising from similar procedures under the laws and regulations of his country of establishment; or

d) he has been found guilty of professional misconduct by a recognized tribunal or any professional body; or

e) he has not fulfilled his obligations with regard to the payment of taxes, social security or other payments due in accordance with the laws of the country in which he is established or of the Kingdom of Bhutan; or

f) he is or has been guilty of serious misrepresentation in supplying information required for any prior registration with the Employer or the Construction Development Board of Bhutan; or

g) he has been convicted of fraud and/or corruption by a competent authority or Anti-Corruption Commission of Bhutan.

h) he has not fulfilled his contractual obligations with the Employer in the past; or

i) he has been debarred/blacklisted from participation in public procurement by any competent authority as per law.

ITB.5. Joint Venture Bids

ITB.5.1. Bids submitted by a joint venture, if so permitted in the BDS, formed by a number of legal entities as specified in the BDS subject to the condition that the total number of legal entities shall not exceed three (3) entities, shall comply with the following requirements:

a) JV shall nominate a Lead Partner from amongst its members and a Representative from the Lead Partner who shall have the authority to conduct all business for and behalf of any and all members of the joint venture during the bidding process and, in the event the JV is awarded the Contract, during contract execution. This authorization shall be evidenced by submitting with the bid a power of attorney signed by legally authorized signatories of the other members;

b) Bids shall be signed by an authorized Representative of the joint venture so that the bids submitted by JV shall become legally binding on all members;

c) Lead Partner shall be authorized to receive instructions for and on behalf of any and all members of the JV and the entire execution of the Contract, including payment, shall be done exclusively with the Lead Partner;

d) All members of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the contract terms; and

ITB.5.2. In order to qualify for participation in the bidding process, either the Lead Partner must meet the minimum technical qualification requirements or jointly by the JV partners, as specified in the BDS, as the case may be.

ITB.5.3. The financial qualification requirements, however, may be met jointly by the members of the JV subject to the condition that each member can independently meet at least the minimum financial qualification requirements as specified in the BDS. Failure to comply with this requirement will result in rejection of the Bids.

ITB.6. One Bid per Bidder

ITB.6.1. Each Bidder shall submit only one Bid, either individually or as a partner in a JV, Consortium or Association. A Bidder who submits or participates in more than one Bid (other than as a sub-contractor or in cases of alternatives that have been permitted or requested) shall cause all the proposals with Bidder's participation to be disqualified.

ITB.7. Responsibility of Bidders

ITB.7.1. The Employer shall not assume any responsibility regarding information gathered, interpretations or conclusions made by the Bidder or regarding information, interpretations or deductions the Bidder may derive from the data or any report furnished by the Employer. Verbal communication or conversation with any employee of the Employer either before or

after the submission of Bids shall not affect or modify any of the terms or obligations contained herein.

ITB.7.2. It shall be the sole responsibility of Bidders to determine and to satisfy themselves by such means as they consider necessary or desirable as to all matters pertaining to this bidding process including in particular all factors that may affect the performance of the Contract in the event of award.

C. BIDDING DOCUMENTS

ITB.8. Contents of Bidding Documents

ITB.8.1. The set of Bidding Documents comprises the documents listed below and addenda issued in accordance with ITB Clause 12.

Section I	:Instructions to Bidders (ITB)
Section II	:Bid Data Sheet (BDS)
Section III	:Bidding Forms
Section IV	:General Conditions of Contract
Section V	:Special Conditions of Contract
Section VI	:Technical Specifications
Section VII	:Contract Forms

ITB.8.2. The Bidder is expected to examine all instructions, forms, terms, conditions, specifications and other information in the Bidding Documents and shall be deemed to have carefully examined the Bidding Documents and also to have satisfied himself as to the nature, character and scope of Work to be executed. Failure to furnish all information and documents required as per the Bidding Documents or submission of Bids not substantially responsive to the Bidding Documents in every respect shall be at the Bidder's risk and may result in rejection of the Bids

ITB.9. Clarifications on Bidding Documents

ITB.9.1. A prospective Bidder requiring any clarifications of the Bidding Documents may notify the Employer in writing, including by facsimile, telex or electronic mail, at the Employer's address indicated in the BDS, not later than the date and time specified in BDS.

ITB.9.2. The Employer shall respond to any request for clarification received prior to the date specified in the BDS. Copies of the Employer's response shall be forwarded to all purchasers of the Bidding Documents, including a description of the inquiry, but without identifying its source. Alternatively, the Employer may upload the clarifications on the Employer's website. Bidders are advised to visit the website of the Employer from time to time in their own interest. All such clarifications shall form part of the Bidding Documents. Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Document, following the procedures in ITC Clause 12 and ITB sub-clause 20.

ITB.10. Site Visit and Familiarization

ITB.10.1. The Bidder is advised to visit and examine the site and its surroundings where the Works are to be executed and obtain for itself on its own responsibility and risk, all information that may be necessary for preparing the Bids and entering into a contract for execution of the Works. The costs of visiting the site shall be the Bidder's own expense. The Employer shall facilitate the site visit upon receipt of advance notification form the Bidder.

ITB.10.2. The Bidder shall acquaint himself with the local conditions and requirements including the approach roads to the site, adequacy of existing culverts, bridges and roads for the expected traffic, water and power supply, nature of ground and sub-soil conditions, water table level, river regime, river water levels and other details, geological and climatic conditions, local terrain, availability of labour and construction material, communication facilities, utility and labour conditions and shall not claim at any time after submission of the Bid or during the execution of the Contract that there was lack of understanding with regard to the conditions imposed in the Contract or prevailing at the site.

ITB.10.3. In their own interest, the Bidders are required to familiarize themselves with the Income Tax Act, prevailing labour laws including laws and regulations governing engagement of labour for employment and deployment at site and other related acts and laws prevalent in the Kingdom of Bhutan. Further, the Bidders are required to comply with these acts/laws and other relevant provisions particularly with reference to the execution of the works.

ITB.10.4. Foreign Bidders shall familiarize themselves especially with the rules and regulation applicable to the foreign firms for carrying out business in the Kingdom of Bhutan.

ITB.11. Pre-Bid Meeting

ITB.11.1. A pre-bid meeting shall be conducted, if necessary, or as specified in the BDS. The Bidders shall be invited to attend the pre-bid meeting to be held on the date, time and location specified in BDS.

ITB.11.2. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

ITB.11.3. The Bidder is requested to submit any questions in writing or by facsimile or e-mail to reach the Employer not later than one week prior to the meeting.

ITB.11.4. Minutes of the meeting, including the test of the question raised (without identifying the source of inquiry) and the responses given will be transmitted without delay to all purchasers of the Bidding Documents. Any modification of the Bidding Documents as a result of the pre-bid meeting shall be made by the Employers exclusively through the issue of an Addendum pursuant to ITC Clause 12 and not through the minutes of the pre-bid meeting.

ITB.11.5. Non-attendance of the pre-bid meeting will not be a cause for disqualification of the Bidder.

ITB.12. Amendment of Bidding Documents

ITB.12.1. Before the deadline for submission of Bids, the Employer may modify the Bidding Documents by issuing an addenda. This may be done either on Employer's own initiative or in response to clarification requests from any the Bidders.

ITB.12.2. Any addendum thus issued shall be part of the Bidding Documents and shall be binding on all Bidders. Addendum shall be communicated in writing, including by post, facsimile, or e-mail to all purchasers of the Bidding Documents. The addendum shall also be uploaded on the Employer's website.

ITB.12.3. The Employer may, at its discretion, extend the deadline for submission of Bids pursuant to ITB. 25.2 to allow prospective Bidders reasonable time to take the addendum into account in preparation of their Bids. It would be in the interest of the Bidders to regularly visit the Employer website for information on any amendment or clarification to the Bidding Documents. The Employer shall in no way be responsible for any ignorance of the Bidder about the amendment to the Bidding Documents.

D. PREPARATION OF BIDS

ITB.13. Language of Bid

ITB.13.1. All documents relating the Bid shall be in English language. The documents and printed literatures provided by the Bidder as documentary evidences shall also be in English. Such documents, in other language, should be translated to English. The English translation shall prevail in the interpretation.

ITB.14. Cost of Bidding

ITB.14.1. The Bidder shall bear all costs, direct or indirect, associated with the preparation and submission of his Bids (including site visits and attending pre-bid meetings). The Employer shall , in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

ITB.15. Documents Comprising the Bid

ITB.15.1. The Bid submitted by the Bidder shall comprise the following:

a) Bid form (in the format indicated in Form 6 of Section III);

b) Bid Security in accordance with ITB Clause 21;

c) Priced Bill of Quantities – this must be submitted in paper form, signed by the duly authorized signatory of the Bidder, and also in electronic form, if required by the Employer;

d) Integrity Pact Statement duly executed by the Bidder as per Form: 2 of Section III;

e) Power of Attorney: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB;

f) Qualification: documentary evidences in accordance with ITB Clause ….establishing Bidder's qualification to perform the Contract if its Bid is accepted;

g) Deviations sheet in accordance with bidding Form: 5 of Section III. No deviation, whatsoever, shall be permitted by the Employer to the provisions of the Bidding Documents listed in the BDS;

h) Alternative offers, if permitted in the BDS;

i) any other documents specified in the BDS.

ITB.15.2. In addition to the requirements under ITB 16.2, bids submitted by a Joint Venture, Consortium or Association of two or more firms as partners shall comply with the following requirements, unless otherwise stated in the BDS:

a) the Bid shall include all information listed in the ITB for each JV, Consortium or Association partner;

b) the Bid shall be signed so as to be legally binding on all partners;

c) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

d) one of the partners shall be nominated as the Lead Partner, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the JV, Consortium or Association;

e) the execution of the entire Contract, including payment, shall be done exclusively with the Lead Partner; and

f) a copy of the JV/Consortium/Association Agreement entered into by the partners shall be submitted with the Bid; or a Letter of Intent to execute a JV/Consortium/Association Agreement in the event of a successful Bid shall be signed by all partners and submitted with the Bid, together with a copy of the proposed Agreement.

ITB.16. Bid Prices and Discounts

ITB.16.1. The Contract shall be for the whole Works, as described in the ITB sub-clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.

ITB.16.2. Bidder shall fill in unit rates and prices for all items of the Works described in the Bill of Quantities. Items for which no rate or price is entered by the Bidder shall not be paid by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. The unit rates and prices shall also be deemed to include any incidentals not shown or specified but reasonably implied or necessary for the proper completion and functioning of the whole specified item of the Works in accordance with the Bidding Documents and shall also deemed to include the cost of construction of infrastructural facilities required for execution of the Contract and not included in the Works. Corrections, if any, shall be made by crossing out, initialling, dating and rewriting.

ITB.16.3. The Bidder shall quote its all-inclusive net price, including incidental costs, for carrying out the Contract. All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause (including those levied on the construction material quarried from land owned by the Employer or otherwise) as of the date 30 days prior to the deadline for submission of Bids, shall be included in the rates, prices and total Bid price submitted by the Bidder.

ITB.16.4. The total price at the bottom of the Priced Bill of Quantities shall be indicated both in figures and words.

ITB.16.5. If rebate/discount is offered, the overall discount in percentage shall be brought out in the Priced Bill of Quantities. Conditional rebates/discount, if any, offered by Bidder shall not be considered for Bid evaluation.

ITB.17. Contract Price Adjustment

ITB.17.1. The rates and prices quoted by the Bidder shall be fixed during the performance of the Contract or subjected to adjustment if provided in for in the BDS and the SCC and the provisions of GCC Clause 12 of the General Condition of Contract. A Bid submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected pursuant to ITB. 31 unless adjustable price quotations are permitted.

ITB.17.2. If price adjustment is provided in for in the BDS and the SCC and the provisions of GCC Clause 12 of the General Condition of Contract, prices quoted by the Bidder are subject to adjustment during the performance of the Contract.

ITB.17.3. The prices quoted by the Bidder shall reflect changes in the cost of labour, material, etc. in accordance with the procedures specified in GCC Clause 12.1

ITB.17.4. A Bid submitted with a fixed price quotation when Bids have been invited with price variation, will not be rejected, but the price adjustment will be treated as zero.

ITB.17.5. The estimated effect of the price adjustment provision applied over the period of execution of the Contract shall not be taken into consideration in Bid evaluation.

ITB.17.6. The Employer shall indicate the name, source and origin of indices along with their base values and corresponding coefficients as per SCC.

ITB.18. Bid Submission Forms

ITB.18.1. The Bidder shall submit the bid using the Bid Submission Form prescribed under Form: 6 of Section III. This form must be completed without any alterations to its text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

ITB.18.2. A bid in which the Bid Submission Form is not duly filled, signed and/or sealed by the bidder shall be rejected.

ITB.19. Currencies of Bid and Payment

ITB.19.1. The unit rates and prices shall be quoted by the Bidder in Ngultrum (Nu.) or foreign currency as specified in the BDS.

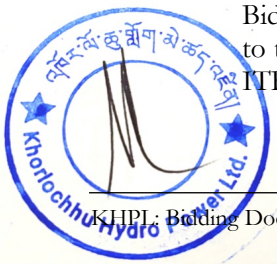
ITB.19.2. The rate of exchange shall be the selling rates prevailing on the date 30 days prior to the deadlines for submission of Bids. The selling rates posted by the Royal Monetary Authority of the Kingdom of Bhutan shall be used for the conversion of prices.

ITB.19.3. The payment to the Contractor shall be made in the currency of Bid Price and any banking charges related to payment shall be borne by the Contractor.

ITB.20. Bid Validity

ITB.20.1. Bids shall remain valid for the period specified in the BDS. A Bid valid for a shorter period shall be liable for rejection by the Employer as non-responsive.

ITB.20.2. In exceptional circumstances, prior to the expiry of the Bid validity period, the Employer may request Bidders to extend the period of validity for a specified additional period. The request and the Bidder's responses shall be made in writing or by electronic mail. The Bid Security required pursuant to ITB Clause 22 shall be extended to 30 days after the deadline of the extended Bid validity period. A Bidder may refuse the request to extend the validity of its Bid without forfeiting the Bid Security. The refusal to extend the Bid validity period will make the Bid invalid and shall not be further considered for evaluation and award. A Bidder agreeing to the request shall not be required or permitted to modify its Bid, except as provided for in ITB Clause 22.



ITB.21. Bid Security

ITB.21.1. The Bidder shall furnish, as part of the Bid, a Bid Security as specified in the BDS.

ITB.21.2. The Bid Security shall be fixed amount as specified in BDS and denominated in Ngultrum (Nu.) or the currency of the Bid or in any freely convertible currency, and shall:

a) at the Bidders option, be in any of the following forms:
   i) an unconditional and irrevocable Bank Guarantee; or
   ii) a Banker's Cheque/Cash Warrant; or
   iii) a Demand Draft; or
   iv) cash deposit in the Employer's bank account (*in exceptional circumstances only*).

b) be issued by a reputable financial institution and enforceable in any Banks in Bhutan;

c) in case of a bank guarantee, be substantially in accordance with the form of Bid Security included in Section X, Bid Security Forms, or other form approved by the Employer prior to Bid submission;

d) be payable promptly upon written demand by the Employer in the case of the conditions listed in ITB Sub-Clause 15.5 are invoked;

e) be submitted in its original from; copies shall not be accepted;

f) remain valid for period of 30 days beyond the validity period of the Bids, as extended, if applicable, in accordance with ITB Sub-Clause 14.2.

ITB.21.3. Any Bid not accompanied by a responsive Bid Security shall be rejected by the Employer as non-responsive.

ITB.21.4. The Bid Securities of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder furnishing the Performance Security and in any event not later than 30 days after the expiration of the validity of the unsuccessful Bidder's Bid. In case of Single Stage–Two-Envelope and Two-Stage bidding processes, the Bid Security of non-responsive Bidders shall be returned immediately after the technical evaluation.

ITB.21.5. The Bid Security may be forfeited:

a) if a Bidder withdraws its Bid as a whole or in part during the Bid validity period; or

b) if the Bidder that submitted the lowers evaluated Bid does not accept the correction of the Bid price pursuant to ITB Clause 27; or

c) if the Bidder has been found practicing corrupt or fraudulent or collusive or coercive practices during bidding process; or

d) if the successful Bidder fails to within the specified time limit to:
   i) sign the Contract in accordance with ITB 41; or
   ii) furnish a Performance Security in accordance with ITB 40.

ITB.21.6. The Bid Security of a JV/Consortium/Association must be in the name of JV/Consortium/Association that submits the Bid.

ITB.22. Alternative Bids

ITB.22.1. Alternative bids shall not be considered, unless specifically allowed in the BDS. If so allowed, ITB. 15.1 and ITB. 15.2 shall govern, and the BDS shall specify which of the following options shall be allowed:

a) Option One: A Bidder may submit alternative bids with his base bid and Employer shall only consider the alternative bids offered by the Bidder whose bid for the base case was determined to be the lowest-evaluated bid, or

b) Option Two: A Bidder may submit an alternative bid with or without a bid for the base case. All bids received for the base case, as well as alternative bids meeting the Technical Specifications pursuant to Section VI, shall be evaluated on their own merits.

ITB.22.2. Alternative bids shall provide all information necessary for a complete evaluation of the alternative by Employer, including design calculations, technical specifications, breakdown of prices, proposed construction methods and other relevant details.

ITB.23. Documents establishing Eligibility and Qualifications of the Bidder

ITB.23.1. To establish Bidder's eligibility in accordance with ITB Clause 3, Bidders shall complete the Letter of Bid, included in Section V [Bidding Forms].

ITB.23.2. In accordance with Section IV [Evaluation and Qualification Criteria], to establish its qualifications to perform the Contract, the Bidder shall provide the information requested in the corresponding information sheets included in Section V[Bidding Forms].

ITB.23.3. If a margin of preference applies as specified in accordance with ITB Clause 34, domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITB Clause 34.

ITB.24. Format and Signing of Bids

ITB.24.1. The Bidder shall prepare ONE Original of the documents comprising the Bid as described in ITB Clause 18, bound with the volume containing the Form of Bid, and clearly mark "ORIGINAL". In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS and clearly mark as "COPIES". In the event of any discrepancy between the original and the copies, or between the original paper form of the Bill of Quantities (or Activity Schedule in case of lump sum Contracts) and the electronic version, the original shall prevail.

ITB.24.2. The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized by the Bidder with official seal pursuant to ITB Sub-Clause 17.1. However, any published documents submitted along with the Bid shall be signed by the authorized signatory (ies) at least on the first page and last page of such documents. Unsigned Form of Bid and BOQ shall make the Bid non-responsive. All pages of the Bid where entries or amendments have been made shall be initialed by the person or persons singing the Bid.

ITB.24.3. The Bid shall contain no alternations, additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which such corrections shall be initialed by the person or persons signing the Bid.

E. SUBMISSION OF BIDS

ITB.25. Sealing and Marking of Bids

ITB.25.1. Bids shall be delivered by hand, courier or registered post or electronic means so as to reach Employer at the address specified in BDS on or before the date and time mentioned in BDS. Employer shall not be responsible for any delay in receipt of the bid where sent by post or courier.

ITB.25.2. Bidder may submit their Bids by hand, courier, registered post or by hand to reach the Employer at the address specified in BDS on or before the date and time specified in the BDS. The Employer shall not be responsible for any delay in receipt of the bid where sent by post or courier. When so specified in the BDS, Bidders shall have the option of submitting the Bids electronically. Bidders submitting Bids electronically shall follow the procedures specified in the BDS.

ITB.25.3. The Bidder shall seal the original and all copies of the Bid, including alternative Bids if permitted in accordance with ITB Clause 16, in separate inner envelopes contained within one out envelope. All envelopes shall be sealed with adhesive or other sealant to prevent reopening.

ITB.25.4. For Single-Stage-Two-Envelopes bidding process; the inner Envelope-I shall:

i) contain technical bids signed across their seals by the person authorized to sign the Bid on behalf of the Bidder; and
ii) be marked "ORIGINAL", "ALTERNATIVE" (if permitted) and "COPY"

Whereas, the inner Envelope-II shall:

i) contain Financial bids and be signed across their seals by the person authorized to

sign Bid on behalf of the Bidder; and

ii) be marked "ORIGINAL", "ALTERNATIVE" (if permitted) and "COPY".

Where bids are invited under the Single-Stage-Single-Envelope bidding process, both technical and financial bid shall be in a single inner envelope

ITB.25.5. The outer Envelope shall:

i) be marked "CONFIDENTIAL";
ii) be addressed to the Employer at the address provided in the BDS;
iii) bear the name and number of the Contract as defined in the BDS and SCC; and
iv) provide a warning not to open before the time and date for Bid Opening as specified in the BDS.

ITB.25.6. In addition to the identification required in ITB. 24.4, the inner envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late pursuant to ITB. 26.

ITB.25.7. If the outer envelope is not sealed and marked as above, the Employer shall assume no responsibility for the misplacement or premature opening of the Bid.

ITB.25.8. In the two-stage bidding process, Bidders shall be advised to submit only the technical bids in the first stage. In the second stage, Bidders shall be requested to submit both their technical bids as modified and agreed with the Employer and the financial bids based on the modified technical bids simultaneously in two separate sealed envelopes.

ITB.26. Deadline for Submission of Bids

ITB.26.1. Bids shall be delivered to the Employer at the address specified above no later than the time and date specified in the BDS. In the event, the specified date for submission of Bids is declared a holiday for the Employer, the Bids shall be received up to the specified time on the next working day. Such postponement of date shall not have any impact on the other dates specified in the Bidding Documents (i.e., bid validity and validity of Bid Security).

ITB.26.2. The Employer may, at its discretion, extend the deadline for the submission of Bids or opening of Bids by issuing an addendum in accordance with ITB Clause 9, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline shall then be subject to the new deadline.

ITB.26.3. In the event when the deadline for submission of Bid has been extended by Employer, the Bidders who have already submitted their Bids within the original deadline of submission shall have the option to submit their revised Bid in substitution, either in full or in part of earlier Bid. In the absence of a revised Bid, the original Bid shall be considered for opening and subsequent evaluation. Wherever, the Bidder has submitted the revised Bid in modification of earlier Bid, the earlier Bid shall be returned unopened to the Bidder.

ITB.27. Late Bids

ITB.27.1. Any Bid received by Employer after the deadline prescribed in ITB Clause 20 shall be declared late, rejected and returned unopened to the Bidder.

ITB.28. Withdrawal, Substitution or Modification of Bids

ITB.28.1. Bidders may withdraw, substitute or modify their Bids by giving after it has been notice in writing prior to the deadline prescribed in ITB Clause 26.

ITB.28.2. Each Bidder's withdrawal, substitution or modification notice shall be prepared, sealed marked and delivered in accordance with ITB Clause 24 and 25, with the outer and inner envelopes additionally marked "WITHDRAWAL", "SUBSTITUTION" or "MODIFICATION" as appropriate.

ITB.28.3. No Bid may be withdrawn, substituted or modified after expiry of the deadline for submission of Bids.

ITB.28.4. Withdrawal, substitution or modification of a Bid between the deadline for submission of Bids and expiration of the period of bid validity specified in the BDS or as extended pursuant to ITB Sub-Clause 14.2 may result in the forfeiture of the bid security pursuant to ITB.24.5. If

the lowest or the lowest evaluated Bidder withdraws his Bid between the periods specified pursuant to ITB.29.4, the bid security of the Bidder shall be forfeited.

ITB.28.5. Bidders may only offer discounts to, or otherwise modify the prices of their bids, by submitting bid modifications in accordance with this clause or included in the initial submission.

F. BID OPENING AND EVALUATION

ITB.29. Bid Opening

ITB.29.1. The Employer shall open the Bids, including modifications made pursuant to ITB Clause 28, in presence of the Bidders' representative who choose attend at the time and in the place specified in the BDS. Any specific electronic bid opening procedures required if electronic bidding is permitted shall be as specified in the BDS.

ITB.29.2. Envelopes marked "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to ITB Clause 28 shall not be opened.

ITB.29.3. The "ORIGINAL" and "COPIES" will be opened at the bid opening. The Bidder's names, the bid prices, the total amount of each Bid and of any alternative Bid (if alternatives have been requested or permitted), any discounts, Bid withdrawals, substitutions or modifications, the presence or absence of Bid Security (and any other details the Employer may consider appropriate), responses to any bidding documents addenda, fulfilment of any such other specific formal requirements as are prescribed in the Bidding Documents, and such other details as the Employer may consider appropriate, shall be announced by the Employer at the opening. This information also shall be written on a notice board for the public to copy. Any Bid price, discount or alternative bid price not announced and recorded shall not be taken into account in the Bid evaluation.

ITB.29.4. The Bid Form including appendices to Bid Form, Bill of Quantities, Price Schedules, Bid Securities, any discounts offered, and any other important documents shall be initialed by all members of the Tender Committee. All corrections/overwriting will be noted and recorded on each page of the Bill of Quantities. The Bid evaluation will be done using the "COPIES" while the "ORIGINAL" will be kept in safe custody. If there are any discrepancies between the "ORIGINAL" and "COPIES", the "ORIGINAL" shall prevail.

ITB.29.5. No Bid shall be rejected at bid opening except for late bids pursuant to ITB Clause 27. Substitution Bids and modifications submitted pursuant to ITB Clause 28 that are not opened and read out at bid opening shall not be considered for further evaluation regardless of their circumstances. Late, withdrawn and substituted Bids shall be returned unopened to Bidders.

ITB.30. Confidentiality

ITB.30.1. Information relating to the examination, clarification, evaluation and comparison of Bids, and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until publication of the award to the successful Bidder has been announced pursuant to ITB Sub-Clause 39. Any effort by a Bidder to influence the Employer in processing of the Bids or award decisions may result in the rejection of his Bid. Notwithstanding the above, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it should do so in writing.

ITB.31. Clarification of Bids

ITB.31.1. To assist in the examination, evaluation, comparison and post-qualification of the Bids, the Employer may, at Employer's discretion, ask any Bidder for a clarification of the Bidder's Bid, including justification and breakdowns of unit rates. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. Employer's request for clarification and the response thereto shall be in writing and shall be delivered by e-mail, post or hand delivery.

ITB.31.2. No change in the prices or substance of the Bid shall be sought, offered or permitted, except to confirm the correction of arithmetic errors discovered by Employer in the evaluation of the Bids, in accordance with ITB. 32.

ITB.32. Examinations of Bids and Determination of Responsiveness

ITB.32.1. Prior to the detailed evaluation of Bids, the Employer shall determine to its satisfaction whether each Bidder meets the eligibility and qualifying criteria as prescribed in ITB Clause 3 and BDS respectively. The determination shall be based upon examination of the documentary evidence of the Bidder's qualification submitted by the Bidder, pursuant to ITB Clause 23.

ITB.32.2. The Employer shall also determine whether each Bid

a) has been properly signed;
b) is accompanied by the Bid Security; and
c) is substantially responsive to the requirements of the Bidding Documents.

ITB.32.3. A substantially responsive Bid is one which conforms to all the terms, conditions and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one

a) which affects in any substantial way the scope, quality or performance of the Works;
b) which limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the Bidder's obligations under the Contract; or
c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

ITB.32.4. If a Bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

ITB.33. Correction of Errors

ITB.33.1. Bids determined to be substantially responsive shall be checked by the Employer for any arithmetical errors. Corrections in the bid price shall be done as per the provisions of this clause and shall be binding on the Bidders. If the Bidder does not accept the correction of errors as per the provisions of this clause, the Bid shall be rejected and the Bid Security forfeited in accordance with ITB Sub-Clause21.5.

ITB.33.2. The errors shall be corrected by the Employer as follows:

a) where there is a discrepancy between the words and figures against the unit price or amount, the expression in words shall prevail;
b) where there is a discrepancy between the unit price and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted shall prevail, unless in the opinion of the Employer there is an obviously gross misplacement of decimal point in the unit rate, in which case the line item total as quoted shall govern, and unit rate shall be corrected.
c) Where there is discrepancy between summation of subtotals and total amount, the summation of subtotal amount shall prevail, and the total amount shall be corrected.

ITB.33.3. In case the Bidder has not quoted unit price against any item, the Employer shall treat the price of unquoted items as zero for the purpose of evaluation, comparison and award (if such Bidder emerges as the lowest evaluated Bidder), with the assumption that the costs have been absorbed elsewhere in the Priced Bid.

ITB.33.4. In case prices for any specific item is given by a Bidder as lump sum instead of unit rate as required, the Employer reserves the right to arrive at unit rate on the basis of dividing the quoted lump sum amount by the specified quantity in the Bill of Quantities. If the Bidder has quoted lump sum price for multiple items and in the event the Bidder is declared successful, the breakup of unit prices for such items shall be discussed and agreed during the pre-award meeting. The price breakup as agreed shall form part of the Contract.

ITB.34. Evaluation and Comparison of Bids

ITB.34.1. The Employer shall evaluate and compare only the Bids determined to be substantially responsive in accordance with ITB Clause 32.

ITB.34.2. In evaluating the Bids, the Employer shall determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

a) making any correction for errors pursuant to ITB Clause 33;

b) excluding provisional sums and the provision (unless no rates have been asked from the Bidder), if any, for contingencies in the Bill of Quantities, but including Daywork, where priced competitively;

c) making an appropriate adjustment for any other acceptable variations, deviations or alternative offers submitted in accordance with ITB Clause 22; and

d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with ITB Sub-Clause 16.5; and

e) making adjustment for margin of preference for the domestic Bidders and Joint Ventures, Consortia or Association in accordance with ITB Clause 35.

ITB.34.3. The estimated effect of nay price adjustment conditions under GCC Clause 47, during the period of implementation of the Contract, shall not be taken into account for bid valuation.

ITB.34.4. The lowest evaluated Bid shall be determined by comparing all evaluated bids of substantially responsive Bidders.

ITB.35. Abnormally Low Bids

ITB.35.1. An abnormally low Bid is one where the bid price, in combination with other constituent elements of the bid, appears unreasonably low to the extent that the Bid prices raises material concerns as to the capability of the Bidder to perform the Contract for the offered bid price. Before proceeding to further analysis, the Employer shall revisit their estimate to ensure its realistic compared to the prevailing market rates.

ITB.35.2. Abnormally low bids shall be scrutinized by seeking written clarifications from the Bidder, including detailed price analyses of its bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities, and any other requirements of the request for Bidding Documents.

ITB.35.3. After evaluation of the price analyses, in the event that the Employer determines that the Bidder failed to demonstrate its capability to perform the Contract for the offered bid price, the Employer shall reject the Bid.

ITB.35.4. If the Employer decides to accept the abnormally low Bid after considering the detailed price analysis, the Employer shall increase the performance security to protect itself against any financial loss in the event the successful Bidder is not able to perform the Contract. The Employer shall ask the successful Bidder to deposit additional performance security, equivalent to the difference between the estimated and quoted price, in the form of cash warrant or unconditional bank guarantee in addition 10% performance security. However, the additional performance security shall not exceed 10% (ten percent) of the quoted price.

ITB.35.5. to protect Employer against any financial loss in the event of default of the successful Bidder under the Contract. If the lowest evaluated Bid is abnormally high in the discretion of the Employer, then the Employer may seek justification for the high rates and if necessary, negotiate with the lowest evaluated Bidder and may reject the bid if considered to be abnormally higher than the estimate.

ITB.35.6. The Employer reserves the right to accept or reject any variation, deviation or alternative offer. Variations, deviations and alternative offers and other factors which are in excess of the requirements of the Bidding Documents or otherwise result in unsolicited benefits for Employer shall not be taken into account in Bid evaluation.

ITB.36. Seriously unbalanced Bids or Front Loaded

ITB.36.1. If the Bid that is evaluated as the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or front loaded the Employer may require the Bidder to provide written

clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the bid prices with the scope of works, proposed methodology, schedule and any other requirements of the Bidding Documents.

ITB.36.2. After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may as appropriate:

a) accept the Bid and increase the performance security and ask the Bidder to deposit additional performance security, equivalent to the difference between the estimated and quoted price, in the form of cash warrant or unconditional bank guarantee in addition to 10% performance security. However, the additional performance security shall not exceed 10% (ten percent) of the quoted price; or

b) reject the Bid.

ITB.37. Preference for Domestic Bidders

ITB.37.1. As indicated in the BDS, domestic contractors may receive a margin of preference in Bid evaluation, for which this clause shall apply.

ITB.37.2. A domestic Bidder shall provide all evidence necessary to prove that it meets the following criteria to be eligible for a margin of preference in the comparison of its Bid with those Bidders who do not qualify for the preference. A domestic Bidder shall:

a) be registered within Bhutan, constituted under and governed by the civil, commercial or public law of Bhutan, and have its statutory office, central administration or principal place of business there;

b) have majority ownership by nationals of Bhutan;

c) not subcontract more than twenty percent (20%) of the initial Contract Price, excluding provisional sums, to foreign contractors, suppliers and/or consultants.

ITB.37.3. Joint Ventures, Consortia and Associations of domestic firms may be eligible for the margin of preference provided that:

a) the individual partners satisfy the criteria of eligibility of ITB 34.2 (a) and (b);

b) the JV/C/A is registered in Bhutan;

c) the JV/C/A does not subcontract more than ten percent (10%) of the initial Contract Price, excluding provisional sums, to foreign firms; and

d) the JV/C/A satisfies any other criteria specified for the purpose of domestic preference eligibility, as specified in the BDS.

ITB.37.4. The procedure used to apply the margin of preference shall be as stipulated in the BDS.

ITB.38. Subcontracting

ITB.38.1. Unless otherwise stated in the BDS, Employer does not intend to execute any specific elements of the Works by subcontractors. If permitted, Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the BDS.

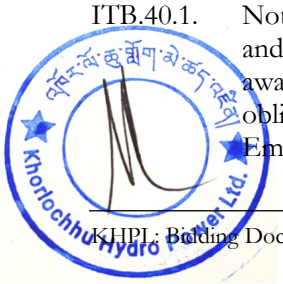
G. AWARD OF CONTRACT

ITB.39. Award Criteria

ITB.39.1. Subject to ITB Clause 41, the Employer shall award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding Documents and determined as the lowest evaluated Bidder.

ITB.40. Right to Accept or Reject Bids

ITB.40.1. Notwithstanding ITB Clause 39, the Employer reserves the right to accept or reject any bid, and to cancel the bidding process and reject all Bids, at any time prior to the award of Contract award, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action of the Employer.



ITB.41. Notification of Award

ITB.41.1. The Employer shall notify the concerned Bidder whose bid has been selected in accordance with ITB Clause 39 in writing (using the format in Section VII – hereafter called the "Letter of Intent to Award") that the Employer has intention to accept its Bid and the copy of this information shall be given to all other Bidders who submitted the Bid. Such notifications should be communicated in writing, including facsimile, telex or electronic mail to all the Bidders on the same day of dispatch. The Employer shall also ensure that the same information is uploaded on their website on the same day of dispatch.

ITB.41.2. The concerned Bidder shall return a copy of the Letter of Intent to Award to the Employer after duly recording "Accepted Unconditionally" under the signature of the authorized signatory within seven (7) days of the date of notification.

ITB.41.3. If no Bidder submits complaint pursuant to ITB Clause 47 within a period of ten (10) days of the notice provided under ITB Sub-Clause 41.1 above, the Bidder whose Bid has been accepted shall be notified in writing of the award by the Employer prior to expiration of the Bid validity period. This notification letter (hereinafter and in the GCC called the "Letter of Acceptance") shall state the sum that the Employer shall pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

ITB.41.4. The Letter of Acceptance shall constitute the formation of the Contract, subject to the Bidder furnishing the Performance Security in accordance with ITB Clause 43 and signing of the Contract in accordance with ITB Clause 44. Until a formal contract is prepared and executed, the NoA shall constitute a binding contract between the successful Bidder and Employer.

ITB.41.5. Upon the furnishing of performance security pursuant to ITB.40 by the successful Bidder, Employer shall:

a) Promptly notify each unsuccessful Bidder and return their bid security; and
b) Publish a notification of award on its website.

ITB.42. Debriefing by Employer

ITB.42.1. On receipt of the Employer's Notification of Intention to Award referred to in ITB Clause 41, an unsuccessful Bidder has three (3) working days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.

ITB.42.2. Where a request for debriefing is received within the deadline, Employer shall provide a debriefing within five (5) working days.

ITB.42.3. The Employer shall discuss only such Bid and not the bids of other competitors. The debriefing shall not include:

a) point-by-point comparisons with another Bid; and
b) information that is confidential or commercially sensitive to other Bidders.

ITB.42.4. The purpose of debriefing is to inform the aggrieved Bidder of the reasons for lack of success, pointing out the specific shortcomings in its bid without disclosing contents of other bids.

ITB.43. Performance Security

ITB.43.1. Within thirty days (30) days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in the amount stipulated in the GCC (usually 10% of the Contract Price) and in the form stipulated in the BDS, denominated in the type and proportions od currencies in the Letter of Acceptance and in accordance with the GCC.

ITB.43.2. Failure of the successful Bidder to comply with the requirements of ITB. 40.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

ITB.43.3. Upon the successful Bidder's signing of the Contract and furnishing of the Performance Security pursuant to ITB 41.1, the Employer shall promptly notify the name of the winning

Bidder to each unsuccessful Bidder and shall discharge the Bid Securities of the unsuccessful Bidders.

ITB.44. Signing of Contract

ITB.44.1. The Contract shall incorporate all agreements between the Employer and the successful Bidder. The Contract shall be signed by the parties, upon furnishing of the Performance Security by the successful Bidder, on a date and time, and place notified by the Employer.

ITB.44.2. Where the Contract cannot be signed by both parties in person, the Employer shall send to the successful Bidder a complete set of Contract Documents signed by the Employer, including the Letter of Acceptance. Within the stipulated time the successful Bidder shall sign these documents and deliver it to the Employer. The Letter of Acceptance shall indicate the deadline within which the successful Bidder shall sign these documents with the date of signature and return it to the Employer.

ITB.44.3. The Contract shall become effective from the date of signing the Contract Documents.

ITB.44.4. Failure of the successful Bidder to accept the award/sign the contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

ITB.45. Performance Management System

ITB.45.1. The performance of the Contractor shall be assessed as per the Vendor Performance Management System (VPMS) available in the Employer's website for the purpose of assessing the performance of the Contractor. The Employer, at its discretion, may use any other Performance Management System.

ITB.46. Complaint and Review

ITB.46.1. If the Bidder has or is likely to suffer, loss or injury due to breach of a duty imposed on the Employer by the provisions of these Bidding Documents, the Bidder shall submit the complaint in writing to the Employer within five (5) days from the date of Letter of Intent to Award the contract pursuance to ITB Sub-Clause 41.1.

ITB.46.2. The Employer shall, within five (5) days after the submission of the complaint, issue a written decision.

ITB.46.3. The Bidder may appeal to the Independent Review Body within five (5) days of the decision of the Employer or, where no such decision has been taken, within fifteen (15) days of the original complaint. The Bidder shall deliver a copy of the appeal to the Employer on the same day.



SECTION II – BID DATA SHEET

The Bid Data Sheet (BDS) contains information and provisions that are specific to a particular clause in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in the ITB.

ITB Clause Reference	Particulars
	A. GENERAL
1.1	The Employer is ***Khorlochhu Hydropower Limited (KHPL)***. The name and identification of the Contract are: ***"Construction of 10 Bedded BHU at Doksum New Township, Trashiyangtse";*** ***Tender No.: 06/KHPL/C&PD/INFRA/2026/ dt.29.09.2026*** The Works are for construction of 10 Bedded BHU, Staff Quarters and other associated roads and site development works in complete.
1.2	The Indented Completion Period is **550 days** from the Effective Date or date of Contract Signing.
4.1	Name of the Countries: ***"Nil"***
5	Joint Venture/Consortium Bids are permitted: ***"No"*** The number of legal entities forming the Joint Venture shall be not more than: ***"Not Applicable"***
	B. BIDDING DOCUMENTS
9.1, 9.2	The Employer's address for clarification is: Attention: ***General Manager,*** ***Contracts & Procurement Division,*** ***Khorlochhu Hydro Power Limited,*** ***Corporate Office, Doksum New Township, Trashiyangtse,*** ***Email: gm.cnp@khpl.bt*** Bid clarification request shall be received on or before: **Time: 5:00PM (BST)** **Date: October 20, 2026**
11.1	No Pre-bid Meeting shall be held.
	C. PREPARATION OF BIDS
15.1 g)	Any additional materials required to be completed and submitted by the Bidders are: *i) Valid Trade Licence;* *ii) Certificate of Incorporation (if any);* *iii) Valid Contractor's Registration Certificate; and* *iv) Latest Tax Clearance Certificate.*
17.1	The Contract ***"is"*** subject to price adjustment in accordance with GCC Clause 12.
18.1	The currencies of Bid shall be: ***"Bhutanese Ngultrum"***
19.1	The Bid shall be valid for ***90 days*** from the deadline for submission of Bids stipulated in ITB Clause 25.

ITB Clause Reference	Particulars
20.1	The Bid Security amount is ***BTN 2,393,000.00*** only and shall be valid for a period of ***30 days beyond the bid validity period***.
21.1	Alternative Bids ***"shall not be"*** permitted.
23.1	In addition to the original Bid, the number of copies is: ***"One"***
	D. SUBMISSION OF BIDS
24.1	Bidders may submit their Bids electronically (i.e. through e-mail): ***"No"***
24.1	The Employer's address for the purpose of Bid submission is: ***General Manager,*** ***Contracts & Procurement Division,*** ***Khorlochhu Hydro Power Limited,*** ***Corporate Office, Post Box 46002,*** ***Doksum New Township, Trashiyangtse,*** ***Email: gm.cnp@khpl.bt***
24.3	The markings of the Bids shall be as follows: ***"Single-Stage-Single-Envelope Bidding Process"*** For Single-Stage-Single-Envelope bidding process, the superscript of cover envelope shall be: ***"CONFIDENTIAL"*** *Bid for [insert name of the Contract] bearing identification No. [insert identification number and date]* *Name and address of Bidder:* …….. ***DO NOT OPEN BEFORE*** *[insert date & time]* Addressed to the Employer: ***General Manager,*** ***Contracts & Procurement Division,*** ***Khorlochhu Hydro Power Limited,*** ***Corporate Office, Post Box 46002,*** ***Doksum New Township, Trashiyangtse,*** ***Email: gm.cnp@khpl.bt*** The superscript of Envelope-1 shall be: *"Bid Security for [insert name and identification number of the Contract]"* *Name of Bidder:* ..... The superscript of Envelope 2 shall be: ***"CONFIDENTIAL"*** *Bid for [insert name of the Contract] bearing identification No. [insert identification number and date]* *Name and address of Bidder:* …….. ***DO NOT OPEN BEFORE*** *[insert date & time]*
25.1	The deadline for submission of Bids shall be: ***Time: 10:30 AM (BST)***

<table>
<tr><th>ITB Clause Reference</th><th>Particulars</th></tr>
<tr><td></td><td>Date: October 29, 2026.</td></tr>
<tr><td colspan="2">E. BID OPENING AND EVALUATION</td></tr>
<tr><td>28.1</td><td>The Bid opening shall take place on the same day as the closing day of the Bid submission at:

Venue: Conference Hall, Corporate Office, KHPL, Doksum New Township, Trashiyangtse.

Date: October 26, 2026.

Time : 11:00 AM (BST).</td></tr>
<tr><td>31.1</td><td>In addition to the requirements specified in ITB Clause 15.1, 22.2 and 31.1, the following qualifying requirements shall be met by the Bidder:

A. Experience and Technical Capability

i) Aggregate size of each similar work (two similar works) or size of the largest similar work executed by the Bidder in the last 3 (three) years shall be BTN 119.60 million.

ii) The essential key construction equipment to be made available for the Contract by the Bidder shall be:

<table>
<tr><th>Sl. No.</th><th>Description of Equipment</th><th>Min. Required</th></tr>
<tr><td>1</td><td>Excavator with Rock Breaker (PC 200 or higher)</td><td>1 No.</td></tr>
<tr><td>2</td><td>Excavator without Rock Breaker (PC 200 or higher)</td><td>1 No.</td></tr>
<tr><td>3</td><td>Dumper/Tripper</td><td>3 Nos.</td></tr>
<tr><td>4</td><td>Concrete Mixer</td><td>1 No.</td></tr>
<tr><td>5</td><td>Transit Mixer</td><td>1 No.</td></tr>
</table>
Note:
✓ The listed equipment is the minimum requirement either owned or hired. The document to prove the ownership of the equipment shall be submitted. If proposed to be hired from others, then the Bidders should submit hire deeds valid till the duration of the project period along with its registration details.
✓ If the proposed equipment or machinery is shown as engaged under the BCTA's CiNET/eTools database, the bid shall be disqualified as a non-responsive bid, for non-availability of the minimum key equipment.

iii) The skilled and experienced manpower required for the timely and quality execution of the work to be made available for the Contract by the Bidder shall be:

<table>
<tr><th>Sl. No.</th><th>Qualification & Experience</th><th>Nos. Required</th></tr>
<tr><td>1</td><td>Project Manager (Degree) with min. 5 years working experience in similar works.</td><td>1 No.</td></tr>
<tr><td>2</td><td>Project Engineer (Degree with min. 5 years working experience or Diploma with min. 7 years working experience in similar works)</td><td>1 No.</td></tr>
<tr><td>3</td><td>Electrical Engineer (Degree with minimum of min. 3 or Diploma with min. 5 years working experience in similar works).</td><td>1 No.</td></tr>
<tr><td>4</td><td>Safety/OHS Officer (Degree and/or certified in compliance to requirement of DoL, MoICE)</td><td>1 No.</td></tr>
<tr><td>5</td><td>Site Supervisor (VTI/TVET certificate holders with experience in similar works)</td><td>2 Nos.</td></tr>
</table>
</td></tr>
</table>

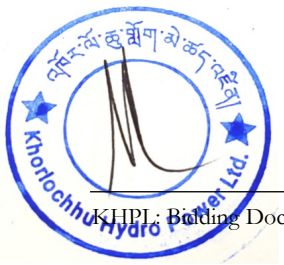
ITB Clause Reference	Particulars
	Note: ✓ *The Bidder shall submit the CV along with educational qualification certificates and reference for proof of work experience shall be submitted.* ✓ *If the proposed key personnel is shown as engaged under the CiNET/eTool database, the bid shall be disqualified as a non-responsive bid, for non-availability of the minimum key personnel.* iv) The Bidder shall submit the past history of litigation for a period of last five years, which shall comprise the contracts both completed and under execution. **B. Financial Capacity** (i) **Net-worth of the Bidder** for the last two financial years immediately preceding the date of Bid Opening shall be: ***"Positive"***. *[Net worth for this purpose shall be defined as:* *= Paid up share capital* *Add: Reserves net of losses* *Subtract: Revaluation reserves* *Subtract: Intangible Assets* *Subtract: Miscellaneous expenditures to the extent not written off]* (ii) **Average Annual Turnover** of the 3 (three) highest annual turnovers for the last 5 (five) financial years immediately preceding the last date of Bid submission shall be equal to: **BTN 119.60 million.** *In case where the bidders do not have the operations for the no. of completed financial years as prescribed above, the annual turnover of the bidder for the completed financial years immediately preceding the last date for submission of Bids based on audited accounts as available shall be considered but for the purpose of calculation of the average annual turnover, the turnover shall be divided by the no. of years prescribed and the figures so obtained shall be compared with the prescribed qualifying requirement.* *The value of completed works or turnover for the part of the financial year shall also be considered for the purpose of meeting the qualification criteria in regard to turnover provided the bidder has completed at least its operations for one (1) financial year. The value of completed works for part of the financial year shall be considered based on the certificate issued by the Chartered Accountant. In such cases also, the average annual turnover will be calculated by dividing the turnover for the period available by the no. of years as prescribed.* *The Bidder must submit the duly certified copies of the Audited Annual Reports, Profit & Loss Account and DRC/RRCO's CIT Field Assessment Report for the last five financial years. Bidder's annual turnover shall be evaluated explicitly based on the above documents and the work records as provided in the CiNET/eTools database. Any other qualifying documents submitted by the bidder other than those listed above including the private works executed by the Bidder but not recorded in either the i) Annual Audited Account; or ii) DRC/RRCO's Tax Field Assessment Report; or iii) in the BCTA's CiNET Database, shall not be considered for assessment and/or evaluation of its bid.* (iii) The Bidder must have a credit facility of: **BTN 48.00 million** **C. Bid Capacity** The Bid capacity of the Bidder shall be computed as follows: ***Assessed Available Bid Capacity = (A*N*2 – B);*** *Where,* *A = Maximum total value of all Works executed in any one year out of the last five years (updated to the current price level by adding 5% per year);* *N = Time Period prescribed for the completion of Work under evaluation i.e. (specify duration in years);* *B = Value of existing commitments and on-going works to be completed.* The assessed Bid capacity of the Bidder should be more than the proposed value of the Contract to be awarded.

ITB Clause Reference	Particulars
	However, in case the lowest evaluated bidder irrespective of whether it meets the requirement for bid capacity, if the bidder is having 7 (seven) works in hand pending completion and/or awarded, the bidder shall be considered as not meeting the required bid capacity to undertake the proposed work. Accordingly, the bid of such bidder shall be rejected and consider the next lowest evaluated bidder.
36.1	Margin of domestic preference of ten percent (10%) ***"shall not"*** apply.
36.3 d)	Other criteria to be used for the purpose of assessing domestic preference eligibility are: ***"None"***
36.4	The procedure used to apply the margin of preference shall be: ***"Not Applicable"***
37.1	The ceiling for sub-Contractor's participation and conditions are: ***"Not Applicable"***
F. AWARD OF CONTRACT	
42.1	The Performance Security shall be provided in any one of the following forms issued by a reputable financial institution and enforceable in any Banks in Bhutan: *i) Unconditional Bank Guarantee in the form provided in Section VII, Contract Forms; or* *ii) Demand Draft; or* *iii) Cash Warrant; or* *iv) Cash Deposit in the Employer's Bank Account (in exceptional circumstances).*

SECTION III – BIDDING FORMS

(Form No. 1 to Form No. 8)

Applicable forms from this section shall be submitted by the Bidder along with the Bid



Form 1: Bid Security (Bank Guarantee)

Bank Guarantee No. .....

Date.....

To

[Employer's Name and Address]

Dear Sir/ Madam,

In accordance with NIT No. ....., M/s ..... having its Registered/Head Office at ..... (Here-in-after called the 'Bidder') wish to participate in the said Tender for .....*[Name of Package]* .....

As an unconditional and irrevocable bank guarantee against Bid Security for an amount of .....[*insert currency and amount in words and figures*]* ..... valid up to.....*[insert date@]* .....is required to be submitted by the Bidder as a condition precedent to participating in the said Tender which amount is liable to be forfeited on the happening of any of the events mentioned in the Bidding Document.

We, the ..... *[Name & address of the Bank]* ..... having our Head Office at ..... (#) ..... guarantee and undertake to pay immediately on demand by the Employer or its authorized representative, the amount of .....*[insert currency and amount in words and figures*]* ..... without any reservation, protest, demand and recourse. Any such demand made by Employer shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This Guarantee shall be irrevocable and shall remain valid up to .....(@) ..... If any further extension of this guarantee is required, the same shall be extended to such required period on receiving instructions from M/s..... *[Bidder's Name]* ..... on whose behalf this guarantee is issued.

All rights of Employer under this Guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities there under unless a demand or claim is lodged by Employer under this Guarantee against the Bank within thirty (30) days from the above-mentioned expiry date of validity or, from that of the extended date.

In witness where of the Bank, through its authorized officer, has set its hand and stamp on this.....day of.....20.....at.....

WITNESSES: SIGNATURE OF AUTHORIZED SIGNATORY OF THE BANK

1.	1.
……	……
(Signature)	(Signature)
……	……
(Name)	(Name)
……	……
(Official Address)	(Designation)
	Authorized vide
	Power of Attorney No…….
	Date…….
2.	2.

……	……
(Signature)	(Signature)
……	……
(Name)	(Name)
……	……
(Official Address)	(Designation)

Authorized vide
Power of Attorney No……..
Date……..

Note: *(*) Shall be as specified in the BDS.*
(@) The Bid security shall be valid till the date as specified in BDS.
(#) Complete mailing address of the Head Office and issuing branch of the Bank to be given with fax no./telephone no. of the contact person

Form 2: Integrity Pact Statement

1. General:

Whereas, Mr. Sonam Rixin, General Manager, Contracts & Procurement Division, representing the Khorlochhu Hydro Power Limited (KHPL), hereinafter referred to as the **"Employer"** on one part, and *(Name of bidder or his/her authorized representative, with Power of Attorney)* representing M/s. (……..), hereinafter referred to as the **"Bidder"** on the other part hereby execute this agreement as follows:

1.1. This agreement shall be a part of the standard bidding document, which shall be signed by both the parties at the time of purchase of bidding documents and submitted along with the tender document. This IP is applicable only to "**large**" scale works, goods and services, the threshold of which will be announced by the government from time to time. The signing of the IP shall not apply to framework contracting such as annual office supplies etc.

2. Objectives:

Whereas, the Employer and the Bidder agree to enter into this agreement, hereinafter referred to as IP, to avoid all forms of corruption or deceptive practice by following a system that is fair, transparent and free from any influence/unprejudiced dealings in the **bidding process**[1] and **contract administration**[2], with a view to:

2.1. Enabling the Employer to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works or goods or services; and

2.2. Enabling bidders to abstain from bribing or any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also refrain from bribing and other corrupt practices.

3. Scope:

The validity of this IP shall cover the bidding process and contract administration period.

4. Commitments of the Employer:

The Employer Commits itself to the following:-

4.1. The Employer hereby undertakes that no officials of the Employer, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the Bidder, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process and contract administration.

4.2. The Employer further confirms that its officials shall not favor any prospective bidder in any form that could afford an undue advantage to that particular bidder in the bidding process and contract administration and will treat all Bidders alike.

4.3. Officials of the Employer, who may have observed or noticed or have reasonable suspicion shall report to the head of the employing agency or an appropriate government office any violation or attempted violation of clauses 4.1 and 4.2.

4.4. Following report on violation of clauses 4.1 and 4.2 by official (s), through any source, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings shall be initiated by the Employer and such a person shall be debarred from further dealings related to the bidding process and contract administration.

5. Commitments of Bidders

The Bidder commits himself/herself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of the bidding process and contract administration in order to secure the contract or in furtherance to secure it and in particular commits himself/herself to the following:-

[1] Bidding process, for the purpose of this IP, shall mean the procedures covering tendering process starting from bid preparation, bid submission, bid processing, and bid evaluation.
[2] Contract administration, for the purpose of this IP, shall mean contract award, contract implementation, un-authorized sub-contracting and contract handing/taking over.

5.1. The Bidder shall not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Employer, connected directly or indirectly with the bidding process and contract administration, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding process and contract administration.

5.2. The Bidder shall not collude with other parties interested in the contract to manipulate in whatsoever form or manner, the bidding process and contract administration.

5.3. If the bidder(s) have observed or noticed or have reasonable suspicion that the provisions of the IP have been violated by the procuring agency or other bidders, the bidder shall report such violations to the head of the procuring agency.

6. Sanctions for Violation:

The breach of any of the aforesaid provisions shall result in administrative charges or penal actions as per the relevant rules and laws.

6.1. The breach of the IP or commission of any offence (forgery, providing false information, mis-representation, providing false/fake documents, bid rigging, bid steering or coercion) by the Bidder, or any one employed by him, or acting on his/her behalf (whether with or without the knowledge of the Bidder), shall be dealt with as per the terms and conditions of the contract and other provisions of the relevant laws, including De-barment Rules.

6.2. The breach of the IP or commission of any offence by the officials of the procuring agency shall be dealt with as per the rules and laws of the land in vogue.

7. Monitoring and Administration:

7.1. The respective procuring agency shall be responsible for administration and monitoring of the IP as per the relevant laws.

7.2. The bidder shall have the right to appeal as per the arbitration mechanism contained in the relevant rules.

We, hereby declare that we have read and understood the clauses of this agreement and shall abide by it.

The parties hereby sign this Integrity Pact at *(place)* _____ on *(date)* _____

Affix Legal Stamp

Affix Legal Stamp

EMPLOYER

CID : 1 1 1 0 7 0 0 6 5 7 7

BIDDER/REPRESENTATIVE

CID : | | | | | | | | | | | |

Witness: _____

Name: Ugyen Namgay

CID : 1 1 6 0 5 0 0 0 2 0 3

Witness: _____

Name:

CID : | | | | | | | | | | | |

Form 3: Bidder's Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: .....*[insert date of Bid submission]* .....

NIT No.: .....

1.	Bidder's Legal Name:
2.	In the case of a Joint Venture (JV) legal name of each member of the Joint Venture:
3.	Bidder's or each member of JV's Country of Registration:
4.	Bidder's or Each member of JV's Year of Registration:
5.	Bidder's or Each member of JV's Legal Address in Country of Registration:
6.	Bidder's or Lead member of JV's Local Address in Bhutan (if any):
7.	Bidder's or Each member of JV's Website Address:
8.	Bidder's or Each member of JV's Business Activities:
9.	Bidder's or Lead member of JV's Authorized Representative Name: Designation: Address: Telephone: E-mail Address:
10.	Bidder's or Lead member of JV's Authorized Representative in Bhutan (if any) Name of the Employer or firm: Name of the contact person: Designation: Address: Telephone:

	E-mail Address: Services to be provided by the local representative:
11.	Status of the Bidder (check the box as applicable): ▪ Bidding Company ▪ Lead Member of the Joint Venture ▪ Agent of the Foreign Bidder
12.	Attached are copies of the following original documents: *[check the box(es) of the attached original documents]* ▪ Tax Clearance Certificate of Bidder named in 1or 2 above (applicable for Bhutanese Bidders) ▪ Trade License of Bidder named in 1or 2 above (applicable for Bhutanese Bidders) ▪ Certificate of Incorporation or Registration of Bidder named in 1or 2 above ▪ Any other certificate to support the legal entity of the Bidder named in 1or 2 above

Date: Signature.....

Place: Name.....

Designation.....

Seal.....

Form 4: Power of Attorney

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT WE, …… *[insert name of the Bidder]* ……. an Employer incorporated under the …….. *[insert relevant statute of the country of incorporation]* ……. and having its registered office at …… *[insert address]* ……. (Hereinafter referred to as the "Bidder") having been authorized by the Board of Directors of the Employer, inter alia, to execute contracts in the name of and for and on behalf of the Employer. I ……. *[insert name of the person giving the power of attorney]* ……. presently holding the position of ……... *[insert designation of the person giving the power of attorney]* …… in the Employer do hereby constitute, appoint and authorize Mr.…… [*insert name, designation and residential address of the person to whom the power of attorney is being given]* …… as our true and lawful attorney to do in our name and on our behalf all such acts, deeds, things necessary and incidental to submission of our Bid against NIT No. ……..., floated by Employer. I hereby further authorize the above attorney for signing and submission of the Bid and all other documents, information related to the Bid including undertakings, letters, certificates, declarations, clarifications, acceptances, guarantees, any amendments to the Bid and such documents related to the Bid, and providing responses and representing us in all the matters before Employer in connection with the Bid for the said NIT till the completion of the bidding process.

I accordingly hereby nominate, constitute and appoint above named …… severally, as my lawful attorney to do all or any of the acts specifically mentioned immediately herein above.

WE do hereby agree and undertake to ratify and confirm whatever the said Attorney shall lawfully do or cause to be done under and by virtue of this power of Attorney and the Acts of Attorney to all intents and purposes are done as if I had done the same on behalf of the Employer if these presents had not been made.

IN WITNESS whereof I, ……... have executed these presents this the ……. day of ……at ……...

EXECUTANT

Signature……...……

Name: .....

Designation…….…….……...

ACCEPTED:

Signature of Attorney...…….

Name: .....……

Designation…….....……...

Signature of the Attorney Attested

….……

EXECUTANT

Name…….

Designation……..…

Office Seal……

Note: The Power of Attorney should be notarized as per applicable legal provisions in the Country of the Bidder

Form 5: Deviation Schedule *(if applicable)*

NIT No: _____

To:

[Employer's relevant official, name and address]

Sir/Madam,

The following are the deviations and variations from and exceptions to the terms, conditions and specifications of the Bidding Documents for procurement of…….*[insert brief description of works]* ……... These deviations and variations are exhaustive. We are furnishing below the cost of withdrawal for the deviations and variations stated in this Form. We shall withdraw the deviations proposed by us in this Form at the cost of withdrawal indicated herein, failing which our Bid may be rejected and bid security forfeited.

We confirm that except for the deviations and variations stated in this Form to our Bid, the entire work shall be performed as per specifications and conditions of the Bidding Documents without any extra cost to Employer, irrespective of any mention to the contrary anywhere else in the Bid, failing which our Bid may be rejected and Bid security forfeited.

Further, we agree that additional condition, deviation, if any, found in the Bidding Documents other than those stated in this Form, save those pertaining to any rebates offered, shall not be given effect to.

Section / Clause No	Page No.	Statement of Deviations	Cost of withdrawal

Date:

Place:

(Signature).....

(Name).....

(Designation).....

(Seal).....

Note: Continuation sheets of like size and format may be used and annexed to this Form if required.

Form 6: Bid Submission Form

Date:

NIT no. ……..…….... and Title of Contract……...

To:

……..,

……..……..,

Employer

[*Address*]

We, the undersigned, declare that:

a) Having examined all the Bidding Documents (with reference ITB 10), including addenda *[insert list]*, we offer to execute the (*name and title of the contract/work*) in accordance with the Conditions of Contract accompanying this Bid for the Contract Price of *BTN……. (In figures), Ngultrums……. (In words).*

b) This Bid and your written acceptance of it shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

c) We hereby confirm that this Bid complies with the Bid validity and Bid Security required by the Bidding Documents and specified in the Bidding Data Sheet.

d) We, including any subcontractors for any part of the Contract, have nationalities from eligible countries in accordance with ITB Clause 7;

e) We have no conflict of interest in accordance with ITB sub clause 5.2;

f) Our firm, its affiliates or subsidiaries—including any subcontractors for any part of the Contract—has not been declared ineligible under the laws or official regulations of Bhutan, in accordance with ITB Clause 6 and other relevant clauses.

g) Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name & address of agent	Amount & Currency	Purpose of commission or gratuity

** If none, please state none*

h) Our duly executed Integrity Pact Statement is attached herewith.

i) We accept the vendor performance management system.

Authorized Signature: _____ *(Affix legal stamp)*

Name and title of signatory: _____

Name of Bidder: _____

Address: _____

Form 7: Bill of Quantities

The Bill of Quantities is provided under Annexure-I to the Bidding Document.

Form 8: Price Adjustment Data

NIT No: ……

To,

[Name, Designation and address of Employer]

Dear Sir,

We hereby furnish the relevant details pertaining to the price adjustment provisions in your specifications and documents.

Sl. No.	Variables	Name of published index and its origin	Value of indices as on 30 days prior to date set for Opening of bids.
	Material		
	Labour		

Date: Signature.....

Place: Name.....

Designation.....

Seal.....

Note:

1. *Bidders shall note that it is mandatory to furnish the values of various indices and name, source & origin of the published indices, wherever called for in the Bidding Document. Bidders are also required to mention whether the indices are monthly average, weekly average or as applicable.*

** Continuation sheets of like size & format shall be used, if required, in case number of currencies is more than one.*

*** Continuation sheets of like size and format may be used, if countries of origin of expatriate labour are more than one.*

SECTION IV – GENERAL CONDITIONS OF CONTRACT

GCC.1. General Provisions

GCC.1.1. Definitions

1.1.1. The following words and expressions shall have the meaning hereby assigned to them except where the context otherwise requires.

(i) Affiliate means business concerns, organizations or individuals that control each other or that are controlled by a common third party. Control may include shared management or ownership; common use of facilities, equipment and resources; or family interests.

(ii) Employer means the Employer including its legal successors and permitted assigns. The term "Employer" and "Employer" are synonymous.

(iii) Bid means an offer to execute Works in accordance with the terms and conditions set out in the bidding documents inviting such offers. The term "tender" is synonymous with the term "bid".

(iv) Bid Data Sheet (BDS) means the proforma sheet, which contains data and information specific to a particular work.

(v) Bidder means an eligible individual, firm, legal entity or joint venture that participates in a competitive bidding process governed by the bidding documents.

(vi) Bidding Document means the set of documents sold or issued by Employer to potential Bidders in which the specifications, terms and conditions of the proposed procurement are prescribed. The terms "Bidding Documents", "Tender Documents" and "Bid Documents" are synonymous.

(vii) Bill of Quantities (BoQ) means summary of the quantities and unit prices of the items of work proposed and agreed under the contract.

(viii) Contract means formal agreement(s) in writing entered into simultaneously between Employer and the Contractor on mutually agreed terms and conditions including the Contract Documents and amendments thereto pursuant to Notification of Award issued by Employer and accepted by the Contractor and which are in compliance with all the relevant provisions of the Governing Law of the Contract as per GCC GCC.1.4.

(ix) Contract Document means the documents referred in Contract Agreement.

(x) Contract Price means the price payable to the Contractor as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom as may be made pursuant to the provisions of the Contract till the completion of the contract, the price so adjusted shall be termed as executed/final Contract Price.

(xi) Contractor means an individual or legal entity whose Bid to perform the Contract has been accepted by Employer and is named as such in the Contract Agreement, and includes the legal successors or permitted assigns of the Contractor.

(xii) Contractor's Representative means any person nominated by the Contractor and approved by Employer in the manner provided in GCC GCC.3.3**Error! Reference source not found.** hereof to perform the duties assigned by the Contractor.

(xiii) Contractor's Equipment means all plant, facilities, equipment, machinery, tools, apparatus, appliances or things of every kind required for erection, completion and maintenance of works that are to be provided by the Contractor, but does not include plant, equipment, materials or other things intended to form or forming part of the works.

(xiv) Day means calendar day of the Gregorian calendar.

(xv) Day works are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

(xvi) Defect Liability Period means the period of validity of the warranties given by the Contractor commencing at completion of the Works or a part thereof, if separate completion of the Works for such part has been provided in the Contract, during which the Contractor is responsible for defects with respect to the Works (or the relevant part thereof) as provided in **Error! Reference source not found.**GCC.10.3 hereof.

(xvii) The Defects Liability Certificate is the certificate issued by the Employer upon correction of defects by the Contractor.

(xviii) Drawings include calculations and other information provided or approved by the Employer for the execution of the Contract.

(xix) Effective Date means the date of Notification of Award/ Work Order/Contract Signing and from which the time for completion shall be determined.

(xx) Foreign Bidder shall mean any Bidder having nationality of any country other than Bhutan.

(xxi) Joint Venture or "JV" means a joint venture, association or consortium of not more than four (4) legal entities that pool their resources and skills to undertake a large or complex Contract in the role as a Contractor, with all legal entities (members in the JV) being legally liable, jointly and severally, through a joint venture agreement between the members of the JV for the execution of the Contract in the event of a member's withdrawal.

(xxii) Notification of Award (NoA) means the letter or order issued by Employer conveying the acceptance of the Bid of the successful Bidder subject to such terms and conditions as may have been stated therein.

(xxiii) Local Transportation shall include loading, unloading, handling of plant, equipment and materials at the port of entry in India/airport in Bhutan; storage at the port/airport, if required, and subsequent transportation from the port of entry/airport up to the Site.

(xxiv) Month means calendar month of the Gregorian calendar.

(xxv) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.

(xxvi) Party means the Employer or the Contractor, as the context requires, and "Parties" means both of them.

(xxvii) Project Manager means the person appointed by Employer in the manner provided in **Error! Reference source not found.** hereof and named as such in the SCC to perform the duties delegated by Employer.

(xxviii) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical or biological function.

(xxix) Site is the area defined as such in the SCC.

(xxx) Subcontractor means any person named in the Contract as a subcontractor, or any person appointed by the Contractor as a subcontractor or designer, for a part of the works; and the legal successors in title to each of these persons.

(xxxi) Time for Completion means the time within which completion of the Works as a whole (or of a part of the Works where a separate Time for Completion of such part has been prescribed) is to be attained in accordance with the stipulations in the SCC and the relevant provisions of the Contract.

(xxxii) Technical Specifications means specifications of the Works incorporated in the bidding documents and forming part of the contract and includes any modification or amendment thereto or any addition thereto or any deduction therefrom, as may be made with the mutual agreement of the Employer and Contractor.

(xxxiii) Temporary Works means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution of the Works.

(xxxiv) Works shall mean the total work to be executed in accordance with the Contract or part(s) thereof, as the case may be, and shall include all extra or additional, altered or substituted works or temporary/enabling works and urgent works as required for performance of the Contract.

(xxxv) A Variation means any change to the Works, which is instructed as a variation under Clause.

GCC.1.2. Interpretation

1.2.1. In the Contract, except where the context requires otherwise:

Words indicating one gender shall include all genders;

Words indicating the singular also include the plural and words indicating the plural also include the singular;

Provisions including the word "agree," "agreed," or "agreement" require the agreement to be recorded in writing;

"Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

"may" means that the party/person referred to has the choice whether to act or not in the matter referred to; and

"shall" means that the party/person referred to has an obligation under the Contract to perform the duty referred to.

1.2.2. "Month" and "Year" and all dates shall be reckoned according to the Gregorian calendar.

1.2.3. A "law" shall be construed as a reference to such law including its amendments or reenactments from time to time.

1.2.4. A "person" shall be construed as a reference to any person, firm, Employer, corporation, society, trust, government, or agency of a government or any association or partnership (whether or not having separate legal personality) of two or more of the above and a person shall be construed as including a reference to its successors, permitted transferees and permitted assigns in accordance with their respective interests.

1.2.5. The words "hereof" or "herein" if and when used in the Contract Documents shall mean a reference to the Contract Documents of this Contract.

1.2.6. Incoterms

a) Unless inconsistent with any provision of the Contract, the meaning of any trade term, when used, and the rights and obligations of Parties thereunder shall be governed by the rules prescribed in the current edition of Incoterms specified in the SCC and published by the International Chamber of Commerce in Paris, France.

1.2.7. Amendment

b) No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by duly authorized representatives of Employer and the Contractor.

1.2.8. Non-waiver

a) Subject to 1.2.8(b) below, no relaxation, forbearance, delay or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect or restrict the rights of that Party under the Contract, nor shall any waiver by either Party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract;

b) Any waiver of a party's rights, powers or remedies under the Contract must be in writing, dated and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

1.2.9. Severability

a) If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

1.2.10. Entire Agreement

a) The Contract constitutes the entire agreement between Employer and the Contractor, with respect to the subject matter of Contract, and supersedes all communications, negotiations and agreements (whether written or oral) of the Parties with respect thereto made prior to the date of Contract.

GCC 1.3. Notices

1.3.1. Notices shall be deemed to include any approvals, consents, instructions, orders, determinations and certificates to be given under the Contract.

1.3.2. Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing, and shall be sent by personal delivery, or courier, or post, or electronic mail, writing to the address specified in the SCC.

1.3.3. Any notice sent by post or courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after dispatch. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped and conveyed to the postal authorities or courier service for transmission by airmail or special courier.

1.3.4. Any notice delivered personally or electronic mail shall be deemed to have been delivered on date of its dispatch. Either Party may change its address at which notices are to be received and/or sent by giving ten (10) days' notices to other Party in writing.

GCC.1.4. Governing Law and Language

1.4.1. The Contract shall be governed by and interpreted in accordance with the laws of the Kingdom of Bhutan.

1.4.2. The Contractor shall, in all matters arising in the performance of the Contract, comply in all respects, give all notices and pay all fees required by the provisions of any statute, ordinance or other law or any regulation or by-law of any duly constituted authority of the Kingdom of Bhutan.

1.4.3. The Contractor shall indemnify and hold Employer harmless from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel including its Sub-Contractors and their employees.

1.4.4. The Contract, as well as all correspondence and documents relating to the Contract exchanged by the Contractor and Employer, shall be written in English. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, the translation shall govern.

1.4.5. The Contractor shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Contractor.

GCC.1.5. Assignment

1.5.1. The Contractor shall not, without the express prior written consent of Employer, assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or there under, except that the Contractor shall be entitled to:

1.5.2. Assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract in favour of its bankers;

1.5.3. Assign to the insurers (in cases where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief from any other liable party.

GCC.1.6. Fraud and Corruption

1.6.1. If Employer determines that the Contractor and/or any of its personnel, or its agents, or its subcontractors, and/or their employees has engaged in corrupt, fraudulent, collusive coercive, or obstructive practices, in competing for or in executing the Contract, then Employer may, after giving fourteen (14) days' notice to the Contractor, terminate the Contract and expel him from the site, and the provisions of **Error! Reference source not found.** shall apply as if such expulsion had been made under 14.2.1.

1.6.2. For the purposes of this sub-clause,

a) "Corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

b) "Fraudulent practice" is 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;

c) "Collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

d) "Coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

e) "Obstructive practice" is

i) Deliberately destroying, falsifying, altering or concealing of evidence material during an investigation or making false statements to investigators in order to materially impede any investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/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

ii) Acts intended materially to impede the exercise of the inspection rights of Employer or any organization or person appointed by Employer.

GCC.1.7. Joint Venture

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

GCC.2. The Employer

GCC.2.1. Access to Site

2.1.1. Employer shall give access to and possession of all parts of the Site including special and/or temporary rights-of-way to the Contractor, free from all encumbrances. Employer reserves the right to hand over the Site in parts progressively to the Contractor. The Contractor shall be required to take possession of the Site without any undue delay and commence the Works on the released fronts in parts without any reservation whatsoever.

2.1.2. The Contractor shall allow the Project Manager and any person authorized by the Employer access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

GCC.2.2. Employer Representative

2.2.1. Project Manager

a) If the Project Manager is not named in the Contract, then within fourteen (14) days of the Effective Date, Employer shall appoint and notify the Contractor in writing of the name of the Project Manager. Employer may from time to time appoint some other person as the Project Manager in place of the person previously so appointed, and shall give a notice of the name of such other person to the Contractor without delay. Employer shall take reasonable care to see that no such appointment is made at such a time or in such a manner as to impede the progress of Works. The Project Manager shall represent and act for Employer at all times during the currency of the Contract and carry out duties and responsibilities specified in the Contract. All notices, instructions, orders, certificates, approvals and all other communications under the Contract shall be given by the Project Manager, except as herein otherwise provided.

b) The Project Manager's representative shall be appointed by and be responsible to the Project Manager and shall carry out such duties and exercise such authority as may be delegated to him by the Project Manager under b) Project Manager's representative shall have no authority to relieve the Contractor of any of his duties or obligations under the Contract except as expressly provided hereunder or elsewhere in the Contract, nor to order any work involving delay or any extra payment by Employer, nor to make any variation in the Works.

c) The Project Manager may, from time-to-time delegate to the Project Manager's representative any of the powers and authorities vested in the Project Manager and he may at any time revoke such delegation. Any communication issued by the Project Manager's representative to the Contractor in accordance with such delegation shall have the same effect as though it had been issued by the Project Manager, provided that:

d) Any failure on the part of the Project Manager's representative to disapprove any work or materials shall not prejudice the authority of the Project Manager thereafter to disapprove such work or materials and to give instructions for the removal or for the rectification thereof;

e) If the Contractor questions any communication of the Project Manager's representative, he may refer the matter to the Project Manager who shall confirm, reverse or vary the contents of such communication.

f) The Project Manager or his representative may appoint any number of persons to assist the Project Manager's representative in carrying out his duties. Such assistants shall have no authority to issue any instructions to the Contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, plant, equipment and machinery or workmanship as being in accordance with the Contract, and any instructions given by any of them for those purposes shall be deemed to have been given by the Project Manager's representative.

GCC.2.3. Employer's Responsibilities

2.3.1. Employer shall ensure the accuracy of all information and/or data to be supplied by Employer, except when otherwise expressly stated in the Contract.

2.3.2. Employer shall be responsible for acquiring and providing legal and physical possession of the site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way.

2.3.3. If requested by the Contractor, Employer shall try its best to assist the Contractor in obtaining in a timely and expeditious manner all permits, approvals and/or licenses necessary for the execution of the Contract from all government authorities or public service undertakings that such authorities or undertakings require the Contractor or subcontractors or the personnel of the Contractor or subcontractors, as the case may be.

2.3.4. If so specified in the SCC, the Employer shall provide qualified personnel; shall supply and make available all raw materials, utilities, lubricants, chemicals, catalysts, other materials and facilities and shall perform work and services of whatsoever nature to enable the Contractor to complete the Works at or before the time specified in the program furnished by the Contractor under GCC.3.14GCC.3.14 hereof and in the manner thereupon specified or as otherwise agreed upon by Employer and the Contractor.

GCC.3. The Contractor

GCC.3.1. Responsibility of the Contractor

3.1.1. The Contractor shall design, execute and complete the works in accordance with the Contract and with the Project Manager's instructions, and shall remedy any defects in the works.

3.1.2. The Contractor shall provide all documents specified in the Contract, and all Contractor's personnel, goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for the design, execution, and completion of Works and remedying of defects.

3.1.3. The Contractor shall be responsible for the adequacy, stability, and safety of all site operations and of all methods of construction. The Contractor (i) shall be responsible for all Contractor's documents, temporary works and such design of each item of Works, equipment or materials as is required for the item to be in accordance with the contract and (ii) shall not otherwise be responsible for the design or specification of the permanent works.

3.1.4. The Contractor shall, whenever required by the Project Manager, submit details of the arrangements and methods which the Contractor purposes to adopt for the execution of the works. No significant alteration to these arrangements and methods shall be made without this having previously being notified to the Project Manager.

3.1.5. If the Contract specifies that the Contractor shall design any part of the permanent works, then unless otherwise stated:

a) The Contractor shall submit to the Project Manager the Contractor's documents for this part in accordance with the procedures specified in the Contract;

b) The Contractor's documents, in this regard, shall be in accordance with the specification and drawings, shall be written in the language for communications defined in **Error! Reference source not found.**GCC.1.4, and shall include additional information required by the Project Manager to add to the drawings for co-ordination of each party's designs;

c) The Contractor shall be responsible for this part and it shall, when the works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and

d) Prior to the commencement of the tests on completion, the Contractor shall submit to the Project Manager the "as- built" documents and operation and maintenance manuals in accordance with the specification and in sufficient detail for the Project Manager to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purpose of taking-over under **Error! Reference source not found.**GCC.9.2 until these documents and manuals have been submitted to the Project Manager.

3.1.6. Within 14 days of possession of site, the Contractor shall erect an information board as specified in SCC and construct a permanent board towards the completion of Project.

GCC.3.2. Performance Security

3.2.1. The Contractor shall, within thirty (30) days of the Notification of Award, provide a Performance Security equivalent to ten percent (10%) of the Contract Price valid until as specified in SCC. However, in case of delay in completion of the Contract, the validity of the contract performance security shall be extended by the Contractor for such period of delay. Employer shall encash the performance security to avoid it becoming invalid in case of failure by Contractor to extend the validity before 7 days of expiry.

3.2.2. For Contracts not deducting retention money if specified in SCC, the Contractor shall extend the validity of the performance security until 30 days beyond defect liability period (DLP) before the release of final bill payment. In case of failure to extend, Employer shall withhold from final payment equivalent to 10% of the executed Contract Price or the total final payment, in lieu of retention money. If the executed Contract Price exceeds the Contract Price, then retention money equivalent to 10% of the exceeded amount in addition to the performance security already submitted shall be deducted from the running bills and retained until 30 days beyond DLP.

3.2.3. The performance security shall be denominated in the currency or currencies of the Contract or in a freely convertible currency acceptable to Employer and shall be in the form specified in SCC, issued/enforceable by any financial institution.

3.2.4. The performance security shall be discharged and returned to the Contractor with in thirty (30) days after the issuance of Work completion certificate/no defects liability certificate, whichever is applicable.

3.2.5. The proceeds from the Performance Security shall be payable to Employer as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract.

GCC.3.3. Contractor's Representative and Construction Manager

3.3.1. If the Contractor's Representative is not named in the Contract, then within fourteen (14) days of the Effective Date, the Contractor shall appoint his representative and shall request Employer in writing to approve the person so appointed. If Employer makes no objection to the appointment within fourteen (14) days, the Contractor's Representative shall be deemed to have been approved. If Employer objects to the appointment within fourteen (14) days giving the reason thereof, then the Contractor shall appoint a replacement within fourteen (14) days of such objection, and the foregoing provisions of this clause 3.3.1 shall apply thereto.

3.3.2. The Contractor's Representative shall represent and act for the Contractor at all times during the currency of the Contract and shall give to the Project Manager all the Contractor's notices, instructions, information and all other communications under the Contract.

3.3.3. All notices, instructions, information and all other communications given by Employer or the Project Manager to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided.

3.3.4. The Contractor shall not revoke the appointment of the Contractor's Representative without Employer's prior written consent, which shall not be unreasonably withheld. If Employer consents thereto, an equivalently qualified, experienced and competent replacement shall be appointed in pursuant to the procedure set out in 3.3.1 3.3.1.

3.3.5. The Contractor's Representative may, subject to the approval of Employer (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may also be revoked at any time subject to the approval of Employer. Any such delegation or revocation shall be subject to a prior notice signed by the Contractor's Representative, and shall specify the powers, functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to Employer and the Project Manager.

3.3.6. Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this clause 3.3.53.3.5 shall be deemed to be an act or exercise by the Contractor's Representative.

3.3.7. From the commencement of Works at the Site until operational acceptance, the Contractor's Representative shall appoint a suitable person as the construction manager (hereinafter referred to as "the Construction Manager"). The Construction Manager shall supervise all work done at the Site by the Contractor and shall be present at the Site throughout normal working hours except when on leave, sick or absent for reasons connected with the proper performance of the Contract. Whenever the Construction Manager is absent from the Site, an equivalently qualified, experienced and competent person shall be appointed to act as his or her deputy.

3.3.8. Employer may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of Employer, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations provided under **Error! Reference source not found.**GCC.3.8. Employer shall provide evidence of the same, whereupon the Contractor shall remove such person from the Site.

3.3.9. If any representative or person employed by the Contractor is removed in accordance with 3.3.83.3.8, the Contractor shall, where required, promptly appoint a replacement.

3.3.10. If any dispute of any kind whatsoever arises between Employer and the Contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the works – whether during the progress of the works or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual consultation.

GCC.3.4. Opportunities for other Contractors

3.4.1. The Contractor shall, upon written request from Employer or the Project Manager, provide a reasonable opportunity to other Contractors employed by Employer to carry out the work at or near the Site. If the Contractor so requires, Employer shall facilitate the Contractor to make use of the facilities created by other Contractors in and around the site, for the purpose of execution of the Contract. In the process of and as a result of using such facilities, if any damage is caused to the Works, the Contractor shall be responsible to make good such damage at his own cost.

3.4.2. If the Contractor, upon written request from Employer or the Project Manager, makes available to other Contractors any roads or access ways, (the maintenance for which the Contractor is responsible), permits the use by such other Contractors of the Contractor's Equipment, or provides any other service of whatsoever nature to such other Contractors, Employer shall fully compensate the Contractor for any loss or damage caused or occasioned by such other Contractors in respect of any such use or service, and shall pay to the Contractor a reasonable remuneration for the use of such equipment or the provision of such services.

3.4.3. The Contractor shall also arrange to perform its work so as to minimize, to the extent possible, interference with the work of other Contractors. The Project Manager shall determine the

resolution of any difference or conflict that may arise between the Contractor and other Contractors and the workers of Employer with regard to their work.

3.4.4. The Contractor shall notify the Project Manager promptly of any defects in the other Contractors' work that come to its notice, and that could affect the Contractor's work. The Project Manager shall determine the corrective measures, if any, required to rectify the situation after inspection of the Works. Decisions made by the Project Manager shall be binding on the Contractor.

GCC.3.5. Emergency Work

3.5.1. If, for reason of an emergency arising during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Works, the Contractor shall immediately carry out such work.

3.5.2. If the Contractor is unable or unwilling to do such work immediately, Employer may do or cause such work to be done, as it may determine it necessary in order to prevent damage to the Works. In such event Employer shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons thereof. If the work done or caused to be done by Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by Employer in connection therewith shall be paid by the Contractor to Employer.

GCC.3.6. Progress Review Meetings

3.6.1. The Contractor shall attend all periodic progress review meetings organized by the Project Manager or his authorized representative. The deliberations in the meetings shall inter-alia include the scheduled program, progress of work achieved (including details of manpower, tools and plants deployed by the Contractor vis-a-vis agreed work schedule), inputs to be provided by Employer, delays, if any and recovery programme, specific hindrances to the Works and work instructions by the Project Manager. The minutes of such meetings shall be prepared by the Project Manager. These minutes shall be jointly signed by the Project Manager or his authorized representative and the Contractor and one copy of the signed minutes shall be handed over to the Contractor.

GCC.3.7. Protection of the Environment

3.7.1. The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation, and shall preserve and protect all existing vegetation and trees on or adjacent to the Site which do not unreasonably interfere with the execution of the Works. The Contractor shall be held responsible for all unauthorized cutting of and damage to trees, by careless operation of his plant, equipment or materials and stockpiling of materials etc. and Employer shall have no responsibility on this account.

GCC.3.8. Site Regulations and Safety

3.8.1. Employer and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply therewith. The Contractor shall draft site regulations and submit a copy to the Project Manager, Employer for his approval, which approval shall not be unreasonably withheld. Notwithstanding the approval of the Project Manager, the Contractor shall be responsible for the adequacy, stability and safety of all Site operations and methods of execution of the Contract.

3.8.2. Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Works, gate control, sanitation, medical care, and fire prevention.

GCC.3.9. Site Clearance

3.9.1. Site Clearance in course of performance: In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.

3.9.2. Clearance of Site after completion: After completion of all parts of the Works, the Contractor shall clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave

the Site and Works clean and safe to the satisfaction of the Project Manager, without which the final bill shall be withheld.

GCC.3.10. Watching and Lighting

3.10.1. The Contractor shall provide and maintain at its own expense all lighting, fencing, and watching when and where necessary for the proper execution and the protection of the Works, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.

GCC.3.11. Explosives

3.11.1. Permission for the use of explosives shall be obtained from the Project Manager or from any appropriate authority as directed by the Project Manager and all explosive materials shall be used only under close supervision. It shall be the responsibility of the Contractor to seek and obtain any necessary permits, and to ensure that the requirements of the authorities are complied with, in all respects. Failure to do so may result in the Project Manager withdrawing permission to use explosives. The indemnification provided for shall include indemnification against all claims in respect of any incident arising from the use of explosives.

GCC.3.12. Temporary Utilities

3.12.1. The Contractor, except as stated in SCC, be responsible for the provision of all temporary utilities, including electricity, gas, telecommunication, drinking water, construction water and any other services the Contractor may require for the execution of the Works.

GCC.3.13. Working hours

3.13.1. Unless otherwise provided in the Contract, no work shall be carried out during the night and on public holidays of the Kingdom of Bhutan without prior written consent of Employer, except where work is necessary to ensure the safety of the Works, for the protection of life, or to prevent loss or damage to property. Where work is needed to be carried out during public holidays, the Contractor shall immediately advise the Project Manager and seek his advice and consent. However, the provisions of this clause shall not apply to any work, which is customarily carried out in multiple shifts. Notwithstanding the above provisions, female labour shall not be employed in night shifts.

3.13.2. Notwithstanding 3.13.1 or GCC.5.1GCC.5.2, if and when the Contractor considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the Employer's consent thereto, Employer shall not unreasonably withhold such consent.

GCC.3.14. Program of Performance

3.14.1. Within twenty-eight (28) days of the Effective Date, the Contractor shall prepare and submit in soft copies to the Project Manager for his approval a detailed program of performance of the Contract, made in the form of PERT network (prepared in the software as may be directed by Employer) and showing the sequence in which it proposes to design, execute and complete the Works as well as the date(s) by which the Contractor reasonably requires that Employer shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the program and to achieve completion of the Works in accordance with the Contract. The Contractor shall update and revise the program as and when appropriate or when required by the Project Manager, but without modification in the Time for Completion given in the SCC and any extension granted in accordance with **Error! Reference source not found.**GCC.8.3, and shall submit all such revisions to the Project Manager for his approval.

GCC.3.15. Progress of Performance

3.15.1. If at any time the Contractor's actual progress falls behind the program referred to in GCC.3.143.14.1, or it becomes apparent that it shall so fall behind, the Contractor shall, at the request of Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain completion of the Works within the Time for Completion under **Error! Reference source not found.**, any extension thereof entitled under **Error! Reference source not found.**, or any extended period as may otherwise be agreed upon between Employer and the Contractor.

GCC.4. Subcontracting

4.1.1. The Contractor shall not Sub-Contract any part of the Contract or any part of the scope of work under the Contract, without explicit and written approval of Employer.

4.1.2. Where sub-Contracting is allowed and approved, the Contractor shall prepare a list of subcontractors with the approval of Employer. The Contractor may propose any addition to or deletion from any such list. The Contractor shall submit any such list or any modification thereto to Employer for its approval in sufficient time so as not to impede the progress of Works. Such approval by Employer for any of the subcontractors shall not relieve the Contractor from any of its obligations, duties or responsibilities under the Contract.

4.1.3. The Contractor shall be responsible fully for the acts, defaults and negligence of his sub-Contractors, their agents, servants, and workmen as if such acts, defaults, and negligence is of the Contractor. The Contractor shall be under obligation to furnish the un-priced copies of the Contracts awarded to the sub-Contractors at the request of Employer.

GCC.5. Contractor's Staff/Labour and Equipment

GCC.5.1. Key Personnel

5.1.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, to carry out the functions stated in the Schedule or other personnel approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule. If the Contractor fails to deploy the personnel as committed in the Biding Document, the employer shall stop the work if the quality of work is going to suffer or otherwise deduct the salaries of such personnel at a rate stipulated in the SCC per month per personnel for every month of absence of such personnel from the site. Such deductions shall continue till such time that the Contractor deploys the key personnel acceptable to the employer. If the Contractor fails to deploy such key personnel within one to four months, the deductions may be discontinued and the Contractor's failure to deploy such personnel shall be treated as a fundamental breach of Contract. This shall also apply to the commitment of employment to Bhutanese.

GCC.5.2. Labour

5.2.1. The Contractor shall provide and employ on the Site in the execution of the Works such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labour that has the necessary skills.

5.2.2. Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation, medical care and catering of all labour, local or expatriate, required for the execution of the Contract and for all payments in connection therewith.

5.2.3. The Contractor shall be responsible, at his own cost, for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labour and personnel to be employed on the Site into the Kingdom of Bhutan. The Contractor shall submit to Employer for its approval details and bio-data of all expatriate personnel, which he proposes to engage for the performance of Works under the Contract, at least sixty (60) days prior to their departure for Bhutan. Such data for each personnel shall contain, among other details, his name, present address, his assignment and responsibility in connection with the Works, and a short resume of his qualifications, experience etc. in relation to the works to be performed by him.

5.2.4. Any expatriate personnel deployed for the Works at Site, if found unsuitable or unacceptable later on to RGoB/ Employer, shall within a reasonable time, be repatriated by the Contractor, who shall make alternative arrangements for providing a suitable replacement.

5.2.5. The Contractor shall at its own expense provide the means of repatriation to all of its and its subcontractor's personnel employed on the Contract at the Site to their various home countries. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance,

Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.

5.2.6. No person brought to Bhutan for the completion of Works shall be repatriated without the consent of the Project Manager on a written request from the Contractor for such repatriation giving reasons thereof. The Project Manager may give permission for such repatriation provided it is satisfied that the progress of Works shall not suffer due to such repatriation/replacement.

5.2.7. The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst its employees and the labour of its subcontractors for the preservation of peace and protection of persons and property at the Site and its surroundings.

5.2.8. In dealing with the labourers and workers engaged at the Works by him or his sub-Contractors, the Contractor shall pay due regards to all recognized festivals, holidays, and traditions and cultures of the labourers. The Contractor shall also comply with all local laws and regulations pertaining to labour and expatriate personnel issued by Ministry of Home and Cultural Affairs, RGOB. The Contractor shall indemnify Employer in respect of all claims that may be made against Employer for non-compliance thereof by the Contractor. In case of non-compliance by the Contractor, the Project Manager may take such actions as may be necessary for compliance of the various labour laws and recover the costs thereof from the Contractor.

5.2.9. The Contractor shall, deliver to the Project Manager or to the Project Manager's representative, a report in such form and at such intervals as the Project Manager may prescribe, regarding the number and names of supervisory staff and different categories of labour engaged by the Contractor.

GCC.5.3. Contractor's Equipment

5.3.1. All the equipment brought by the Contractor onto the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Contractor shall not remove the same from the Site without the Project Manager's consent stating that the equipment is no longer required for the execution of the Contract.

5.3.2. The Contractor shall deploy construction equipment as per agreed schedule. Provided further that in case of slow rate of progress of Works, the Contractor should supplement the agreed schedule of Contractor's Equipment with additional construction equipment so as to ensure completion of Works within Time for Completion at no extra cost to Employer.

5.3.3. If the Contractor does not make available at site the equipment committed for the Contract, the hiring charges of such equipment shall be deducted at a rate stipulated in the SCC per month for every month of absence for a period up to four months after which the deductions shall be discontinued and the Contractor's failure to produce such equipment at site shall be treated as a fundamental breach of Contract.

5.3.4. Unless otherwise specified in the Contract, upon completion of the Works, the Contractor shall remove from the Site all Contractor's Equipment brought by the Contractor onto the Site and any surplus materials remaining thereon.

5.3.5. Employer may, if requested, use its best endeavours to assist the Contractor in obtaining any government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.

GCC.6. Plant, Material and Workmanship

GCC.6.1. Methodology of Construction & Equipment mobilization

6.1.1. Methodology of construction and the work plan adopted by Contractor shall match the construction methodology/requirements specified in the Technical Specifications. The suggested minimum plant & equipment and machinery to be deployed by the Contractor for the execution of Works shall be as given in Technical Specifications. The Contractor shall arrange at his own expense all tools, plant and equipment required for execution of the Works.

GCC.6.2. Test and Inspection

6.2.1. The Contractor shall at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the plant, materials and any part of the Works as specified in the Contract.

6.2.2. Employer and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that Employer shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all travelling and boarding & lodging expenses.

6.2.3. Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Contractor shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable Employer and the Project Manager (or their designated representatives) to attend the test and/or inspection.

6.2.4. The Contractor shall provide the Project Manager with a certified report of the results of any such test and/or inspection.

6.2.5. If Employer or Project Manager (or their designated representatives) fails to attend the test and/or inspection, or if it is agreed between the Parties that such persons shall not do so, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Project Manager with a certified report of the results thereof.

6.2.6. The Project Manager may require the Contractor to carry out any test and/or inspection not required by the Contract, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of Works and/or the Contractor's performance of its core obligations under the Contract, due allowance shall be made in respect of the Time for Completion and the other obligations so affected.

6.2.7. If any part of the Works fails to pass any test and/or inspection, the Contractor shall either rectify or replace such part of the Works and shall repeat the test and/or inspection upon giving a notice in accordance with clause 6.2.36.2.3.

6.2.8. If any dispute or difference of opinion shall arise between the Parties in connection with or arising out of the test and/or inspection of any part of the Works that cannot be settled between the Parties within a reasonable period of time, it may be referred to the Adjudicator for determination in accordance with GCC.3.2.

6.2.9. The Contractor agrees that neither the execution of a test and/or inspection of plant, equipment or any part of the Works, nor the attendance by Employer or the Project Manager, nor the issue of any test certificate pursuant to 6.2.4, shall release the Contractor from any other responsibilities under the Contract.

6.2.10. No part of the Works or foundations shall be covered up on the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Project Manager whenever any such part of the Works or foundations is ready or about to be ready for test and/or inspection; such test and/or inspection and notice thereof shall be subject to the requirements of the Contract. The Project Manager shall then without unreasonable delay carry out the test/inspection or measurement.

6.2.11. The Contractor shall uncover any part of the Works, or shall make openings in or through the same as the Project Manager may from time to time require at the Site, and shall reinstate and make good such part or parts.

6.2.12. If any part of the Works have been covered up at the Site after compliance with the requirement of 6.2.106.2.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by Employer, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.

GCC.7. Work Execution

GCC.7.1. Benchmark

7.1.1. The Contractor shall be responsible for the true and proper setting-out of the Works in relation to bench marks, reference marks and lines provided to it in writing by or on behalf of Employer.

7.1.2. If, at any time during the progress of Works, any error shall appear in the position, level or alignment of the Works, the Contractor shall forthwith notify the Project Manager of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Project Manager. If such error is based on incorrect data provided in writing by or on behalf of Employer, the expense of rectifying the same shall be borne by Employer. The checking of any benchmark by the Project Manager shall not relieve the Contractor of his responsibility.

GCC.7.2. Contractor's Supervision

7.2.1. The Contractor shall give or provide all necessary superintendence during the execution of Works, and the Construction Manager or its deputy shall be on the Site to provide full-time superintendence of the execution as long as the Project Manager may consider necessary for the proper fulfilment of the Contractual obligations. The Contractor shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand.

GCC.7.3. Quality Assurance Program

7.3.1. Sampling, testing and quality assurance requirements shall be as per the details given in Technical Specifications. All costs associated with testing of materials required as per Technical Specifications shall be deemed to be included in the rates/prices in the Bill of Quantities.

GCC.7.4. Progress Report

7.4.1. The Contractor shall monitor progress of all the activities specified in the program referred to in GCC.3.143.14.1 above, and supply a progress report to the Project Manager every month.

7.4.2. The progress report shall be in a form acceptable to the Project Manager and shall include, among other details: (a) percentage completion achieved vis-à-vis planned activities; and (b) where any activity is behind schedule providing reasons and likely consequences and stating the corrective action being taken. The progress report shall be supported by photographs and other written material as the Project Manager may direct.

GCC.7.5. Materials obtained from excavation

7.5.1. Materials of any kind obtained from excavation on the Site shall remain the property of Employer and shall be disposed of as the Project Manager may direct.

7.5.2. All fossils, coins, articles of value or antiquity, structures and other remains or things of geological or archaeological interest discovered on the Site shall be the absolute property of Employer and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing. Upon discovery and before removal of such items or structures, the Contractor shall immediately inform the Project Manager and shall dispose the same as per the direction of the Project Manager and at the cost of Employer.

GCC.8. Commencement, Delays and Suspension

GCC.8.1. Time for commencement and completion

8.1.1. The Works must be taken up and completed in all respects within the specified time of completion as mentioned in the SCC and the NoA.

8.1.2. Before the actual commencement of works, the Contractor shall submit an execution schedule of work clearly showing the materials, men and equipment to be mobilized by him to execute the works. The schedule should contain the planned monthly progress of the works for the approval of the Project Manager who shall have the authority to make additions, alternations and substitutions to such schedule in consultation with the Contractor.

GCC.8.2. Manner of Execution

8.2.1. The Contractor shall carry out all aspects of the Works in the manner (if any) specified in the Contract:

a) In a proper workmanlike and careful manner with a high sense of aesthetics and in accordance with recognized good practice; and

b) With properly equipped facilities and using non-hazardous materials, except as otherwise specified in the Contract.

8.2.2. Within thirty (30) days of the Effective Date, the Contractor shall prepare and submit in soft copies to the Project Manager for his approval a detailed construction schedule showing the sequence and interdependence of activities and work breakdown structure covering all the activities to meet milestone schedules for complete performance of work, starting from the commencement date to completion within the Time for Completion.

8.2.3. The detailed construction schedule shall include time scaled network diagrams and Gantt charts, based on calendar days. It shall be constructed to show the order in which the Contractor proposes to carry out the work and availability/requirement and use of manpower, materials and construction equipment. The Contractor shall utilize the detailed construction schedule in planning, scheduling, monitoring, coordinating and performing the Works under the Contract (including activities of subcontractors, plant vendors, material suppliers, etc.). The program so submitted by the Contractor shall be in accordance with the Contract.

8.2.4. The Project Manager and Contractor shall meet within seven (7) days of submittal of the detailed construction schedule to review and make any necessary adjustments or revisions. The Contractor shall submit the revised schedule within seven (7) days of re-submission. The process of finalizing the detailed construction schedule shall be completed within sixty (60) days from the date of issue of Notification of Award. The detailed construction schedule, once approved by Employer, shall become the baseline record schedule. The baseline detailed construction schedule shall be used for all monitoring and evaluation of Contractor's performance.

8.2.5. The Contractor shall update and revise the schedule as and when appropriate or when required by the Project Manager, but without modification in the Time for Completion and any extension granted and shall submit all such revisions to the Project Manager for his approval.

8.2.6. If at any time the Contractor's actual progress falls behind the program, or it becomes apparent that it shall so fall behind, the Contractor shall, at the request of Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain completion of the Works within the Time for Completion, any extension thereof entitled, or any extended period as may otherwise be agreed upon between Employer and the Contractor.

GCC.8.3. Extension of Time for Completion

8.3.1. The Time(s) for Completion specified in the SCC shall be extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:

a) Any Change in the Works as provided in **Error! Reference source not found.**GCC.12.2;

b) Any occurrence of Force Majeure as provided in **Error! Reference source not found.**GCC.16;

c) Any suspension order given by Employer under **Error! Reference source not found.** hereof or reduction in the rate of progress pursuant to 14.5.4;

d) Any changes in laws and regulations as provided in **Error! Reference source not found.**12.7.1;

e) Any default or breach of the Contract by Employer, specifically including failure to supply agreed items or any activity, act or omission of any other Contractors employed by Employer; or

f) Any other matter specifically mentioned in the Contract.

8.3.2. Extension of time shall be for such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contractor.

8.3.3. Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion, together with

particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, Employer and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept Employer's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to the Adjudicator, pursuant to GCC.3.2.

8.3.4. In no case the extension in Time for Completion shall be permitted for the defaults on the part of the Contractor.

GCC.8.4. Liquidated Damages

8.4.1. The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the ten percent (10%) of the executed Contract Price. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

GCC.9. Taking Over

GCC.9.1. Test on Completion

9.1.1. The Contractor shall carry out the tests on completion in accordance with clause **Error! Reference source not found.**GCC.6.2.

9.1.2. The Contractor shall provide to the Project Manager with a minimum of twenty-one (21) days' notice of the date after which the Contractor shall be ready to carry out each of the tests on completion. Unless otherwise agreed, tests on completion shall be carried out within fourteen (14) days after the notice period on such day or days, as the Project Manager shall instruct.

9.1.3. In considering the result of the tests on completion, Employer shall make allowances for the effect of any use of the Works by Employer on the performance or other characteristics of the Works. As soon as the Works, or a part, have passed any tests on completion, the Contractor shall submit a certified report of the results of these tests to Employer.

9.1.4. If the tests on completion are being unduly delayed by the Contractor, Employer may by notice require the Contractor to carry out the tests within twenty-one (21) days after receiving the notice. The Contractor shall carry out the tests on such day or days within that period as the Contractor may fix and of which he shall give notice to Employer.

9.1.5. If the Contractor fails to carry out the tests on completion within the period of twenty-one (21) days, the Employer's personnel may proceed with the tests at the risk and cost of the Contractor. The tests on completion shall then be deemed to have been carried out in the presence of the Contractor and the result of the tests shall be accepted as accurate.

9.1.6. If the Works, or a part, fail to pass the tests on completion, Employer may require the failed tests on completion on any related work, to be repeated under the same terms and conditions.

9.1.7. If the Works, or a part, fail to pass the tests on completion repeated under GCC.GCC.9.1 above, the Project Manager shall be entitled to:

a) order further repetition of tests on completion as provided under GCC.GCC.9.1;
b) reject the Works if the effect of the failure is to deprive Employer of substantially the whole benefits of the Works in which event Employer shall have the same remedies as are provided in GCC 10.3.3 (c);
c) issue a Taking-Over Certificate, if Employer so requests.

GCC.9.2. Taking Over of Works

9.2.1. The Works shall be taken over by Employer upon successful execution of Works by the Contractor in accordance with provisions of Contract.

9.2.2. On successful completion of Works or any part thereof and upon request of the Contractor for taking over the Works and issuance of Taking Over Certificate (TOC), Employer shall, within forty-five (45) days after the receipt of the Contractor's application, or within fifteen (15) days from the date of actual handing over of relevant Works, whichever is later, either issue the TOC

or reject the application giving its reasons and specifying the work required to be done by the Contractor to enable the TOC to be issued.

9.2.3. TOC shall be issued to the Contractor specifying the date on which the Works or any part thereof were complete and ready for taking over, after ascertaining the following:

a) The Works have been satisfactorily completed by the Contractor as per the provisions of Contract.

b) The Contractor has cleared the Site of all the surplus materials, removed all scaffoldings, shuttering materials, labour huts/sheds, cleaned the dirt from Site, temporary sanitary and water supply arrangements and all electrical gadgets/ equipment/ switches, wiring, any woodwork or any such item, as relevant to the Contract to the satisfaction of the Project Manager, except those required for carrying out rectification works.

c) All the defects have been rectified to the complete satisfaction of the Project Manager.

9.2.4. Issuance of such certificates shall not relieve the Contractor of any of his obligations which otherwise were to be complied with under the terms and conditions of the Contract.

9.2.5. Notwithstanding the above-mentioned provisions, the issuance of TOC shall not be held up due to a delay in completion/ rectification of works of minor nature that do not affect the performance/ use of the Works. In such a case the Contractor shall, however, be required to give an undertaking stating that in case he fails to complete/rectify the defects within a mutually agreed period, Employer shall be at liberty to carry out the work at his risk and cost, and deduct an amount as may be considered appropriate by Employer.

9.2.6. Issuance of TOC for any part of the Works is only for the purpose of facilitating the Contractor to receive the payment for part of the Works completed and for determination of liquidated damages in respect thereof and shall not relieve the Contractor of his responsibilities under the Contract towards other parts of the Works.

9.2.7. At the time of taking over the work, the Project Manager shall ensure that the Contractor constructs a permanent information board as specified in SCC.

GCC.9.3. Operating and Maintenance Manuals

9.3.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

9.3.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the SCC from payments due to the Contractor.

GCC.10. Defects

GCC.10.1. Correction of Defects

10.1.1. The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period (DLP), which begins at Completion, and is defined in the SCC. Every time notice of a Defect is given; the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

GCC.10.2. Uncorrected Defects

10.2.1. If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount to the Employer. At the option of the Employer, payment of such costs may be made in whole or in part by the Employer deducting and keeping for itself appropriate amounts from the Retention Money and/or claiming against any bank guarantee provided by the Contractor.

10.2.2. Defects Liability Period shall be extended for as long as the defects remain to be corrected.

GCC.10.3. Defect Liability

10.3.1. If during the Defect Liability Period any defect is found in the design, engineering, materials and workmanship of the Works executed by the Contractor, the Contractor shall promptly, in consultation and agreement with Employer regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good such defect as well as any damage to the Works caused by such defect.

10.3.2. The Defect Liability Period shall be as specified in the SCC. Where any part of the Works is taken over separately, the Defects Liability Period for that part shall commence on the date it was taken over.

10.3.3. If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Works caused by such defect within fifteen (15) days of the intimation of the defect, and complete the remedying of such defect within the time specified by Employer, Employer reserves the right to get such work done in a manner as mentioned hereunder:

a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for the work. The Contractor shall pay to Employer the costs reasonably incurred by Employer in remedying the defect or damage;

b) require the Project Manager to agree or determine a reasonable reduction in the Contract Price; or

c) if the defect or damage deprives Employer of substantially the whole benefit of the Works or any major parts of the Works, Employer may terminate the Contract as a whole, or in respect of such major part, which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the site and returning plant and materials to the Contractor. If the Works or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Works or such part, as the case may be, shall be extended by a period equal to the period during which the Works or such part cannot be used by Employer because of any of the aforesaid reasons. Upon correction of the defects in the Works or any part thereof by repair/replacement, such repair/replacement shall have the Defect Liability Period for a period of twelve (12) months from the time such replacement/repair of the Works or any part thereof has been completed.

10.3.4. On completion of the Defect Liability period of the whole of the Works or where Works have been taken over in parts, Employer shall issue a Defect Liability Certificate to the Contractor certifying the successful completion of defect liability period.

GCC.11. Measurement and Valuation

GCC.11.1. Except as otherwise stated in the Contract and notwithstanding local practice:

11.1.1. Measurement shall be made of the net actual quantity of each item of the Works, and

11.1.2. The method of measurement shall be in accordance with the BoQ, technical specifications or other applicable schedules.

GCC.11.2. Whenever Employer requires any parts of the Works to be measured, reasonable notice shall be given to the Contractor's representative, who shall:

11.2.1. Promptly either attend or send a qualified representative to assist the Project Manager in making the measurement, and

11.2.2. Supply any particulars requested by Project Manager.

GCC.11.3. If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) Employer shall be accepted as accurate.

GCC.11.4. Except as otherwise stated in the Contract, wherever any Works are to be measured from records, these shall be prepared by Employer. The Contractor shall, as and when requested, attend to examine and agree with the records with Employer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

GCC.11.5. If the Contractor examines and disagrees with the records, and/or does not sign them as agreed, then the Contractor shall give notice to Employer citing the reasons/basis for the records to be allegedly inaccurate. After receiving this notice, Employer shall review the records and either confirm or vary them. If the Contractor does not so give notice to Employer within fourteen (14) days after being requested to examine the records, they shall be accepted as accurate.

GCC.12. Variations and Adjustments

GCC.12.1. Contract Price Adjustment

12.1.1. The regulation and payment of Contract Price Adjustment under the Contract shall be governed by the provisions specified in the Bidding Documents. The Contract Price as awarded shall be the base Contract Price. A certain fixed percentage of the base Contract Price shall not be subject to any Contract Price Adjustment. The balance percentage to be specified shall be of identified components towards labour, material(s) and H.S. diesel oil, hereinafter called the variable component, shall be subject to Contract Price Adjustment.

12.1.2. The fixed component and the variable components shall be specified in SCC. The amount of Contract Price Adjustment payable/recoverable for the work done during the relevant period shall be calculated as under:

CPA = ACP – BCP

Where,

CPA = Control Price Agreement
BCP = Base Contract Price
ACP = Adjusted Contract Price

ACP shall be computed as under:

$$ACP = BCP * \left[F + \frac{l * L_1}{L_0} + \frac{m * M_1}{M_0} + \frac{m * M_2}{M_0}\right]$$

$$\boldsymbol{F+l+m = 1}$$

Where:

F = Fixed component expressed in percentage of the Base Contract Price which shall not be subject to any adjustment as quantified and stipulated in the SCC, generally 20%.
L = Labour component expressed in percentage of the Base Contract Price which shall be subject to Price Adjustment as quantified and stipulated in the SCC, generally up to 15% to 30%
M = Material component expressed in percentage (excluding material issued by Employer) of the Base Contract Price which shall be subject to Price Adjustment as quantified and stipulated in the SCC, generally 30% to 60%
L = Labour Index
M = Material Index

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'0' = refers to the value of the above-mentioned labour/material indices as on thirty (30) days prior to the Bid Opening Date.
'1' = refers to the value of the corresponding labour /material indices as applicable for the preceding month in which the work is executed for which the adjustment is applicable, respectively.

12.1.3. The total amount payable on the Base Contract Price on account of the Contract Price Adjustment as indicated in above shall not exceed the maximum of twenty percent (20%) of the Contract Price as awarded.

12.1.4. Contract Price Adjustment(s) shall be calculated for the value of Works executed for the billing month as per agreed work schedule. For the purpose of payment/recovery of Price Adjustments, such payment/refund shall be operative and payable in accordance with the schedule completion period (including authorized extensions, if any) or actual completion period, whichever is earlier.

Provided further that the Contractor would be eligible for such price adjustment claims or shall be liable for refund on the quantum of Works scheduled or the actual quantum of Works done provided always that the work done is more than or equal to the scheduled of work as per agreed work schedule.

12.1.5. The Contractor shall not be eligible for the payment of the price adjustment claims or liable for refund of Contract Price adjustment for the period beyond the schedule date of execution of Works if the Works has been delayed beyond the scheduled date(s) for reasons attributable to the Contractor. However, for quantities of Works executed beyond the scheduled dates of execution, the Contractor would be liable for refund of Contract Price Adjustment(s) for such delayed Work based on the value of the indices as applicable to the scheduled dates of execution, provided that if the indices of the actual dates of execution are lower than the indices as on scheduled dates of execution, then lower indices shall be applicable. In cases where the execution of Works is delayed for reasons attributable to Employer, the Contractor shall be eligible for payment or refund of price adjustment on such delayed execution of Works based on the indices prevailing as on the date of execution of such Works.

12.1.6. Rates of items included in the Bill of Quantities, whose quantities have varied beyond the permissible deviation limits and rates of extra items, derived and agreed from items included in the Bill of Quantities shall also be subject to price adjustment as per this clause.

12.1.7. The Contractor shall, every month after commencement of the Works, submit to the Project Manager a written notice of the changes, if any, that have occurred in the specified indices of Materials, and Labour or that of Diesel price, etc. during the previous reporting period containing the effective date of such change, with authenticated documentary evidence of the relevant applicable published indices / diesel price, etc.

12.1.8. Monthly bills for Contract Price Adjustment shall be made by the Contractor commencing first, from the month when all the relevant/ applicable indices/ diesel prices are available and not later than fifteen (15th) day of every month thereafter. The period for processing and making payment for these bills shall also be governed by the provisions as applicable to on-account/ progressive interim payments.

GCC.12.2. Change in Works

12.2.1. Introducing a Change

Employer shall have the right to propose, and subsequently require, that the Project Manager order the Contractor from time to time during the performance of the Contract to make any change, modification, addition or deletion to, in or from the Works in the form, quantity or quality of the Works or any part thereof (hereinafter called "Change"), provided that such Change falls within the general scope of the Works and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Works and the technical compatibility of the Change envisaged with the nature of the Works as specified in the Contract. Such changes shall include but not be limited to the following:

a) Increase or decrease in the quantity of any work included in the Contract;
b) Omission, insertion, or substitution of any item of work;
c) Change in the drawings, designs, specifications, character or quality or kind of any such work;
d) Change in the levels, lines, positions and dimensions of any part of the Works;
e) Additional work of any kind necessary for the completion of the Works;
f) Change in any specified sequence, method or timing of construction of any part of the Works.

12.2.2. Employer shall make any such variations by issuing written instructions to the Contractor and shall ensure that such variations are duly noted by the Contractor and the Project Manager. A variation made shall not, in any way, vitiate or invalid the Contract, but the effect, if any, of such variations shall be valued.

12.2.3. The Contractor shall execute and be bound by each variation, unless the Contractor promptly gives notice to Employer stating (with supporting particulars and documents) that (i) the

Contractor cannot readily obtain the goods and materials required for the variation, or (ii) such variation triggers a substantial change in the sequence of the progress of the on-going works. Upon receipt of such a notice, Employer shall cancel, confirm or vary the instructions.

12.2.4. The Contractor may from time to time during its performance of the Contract, propose to Employer (with a copy to the Project Manager) any Change that the Contractor considers necessary or desirable to improve the quality, efficiency or safety of the Works. Employer may at its discretion approve or reject any Change proposed by the Contractor.

12.2.5. Notwithstanding 012.2.1 and 12.2.2 12.2.1(b), change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall not be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.

GCC.12.3. Variations in Contract

12.3.1. The Contractor shall be under obligation to agree for the Changes as may be required during the execution of the Contract as per directions of the Project Manager and execute such changes at the same rates included in the Contract, provided the total effect of such changes does not exceed the limit of plus/minus twenty percent (+-20%) of the Contract Price. Such ceiling shall however be applicable only for items of work for which rates are provided in the Contract. Notwithstanding the aforesaid provision, the quantities for individual items, if specified in the Contract, can vary to any extent. No claim for revision of rates for any individual item in the Bill of Quantities shall be admissible irrespective of the extent to which the ordered quantity may get revised (+) or (-) during the actual execution of the Works. For Change beyond twenty percent (20%) of the Contract Price, the adjustment in the rates for Bill of Quantity items shall be made as per GCC.GCC.12.4. The procedure on how to proceed with and execute Changes is specified in GCC.GCC.12.4.

GCC.12.4. Adjustment of the Contract Price

12.4.1. If reduction or increase in the Contract Price due to Change is found to be more than twenty percent (20%) of the Contract Price, the Contract Price shall be adjusted as per the rates below:

Variation in value of Work	Increase in payment for minus variation	Decrease in payment for plus variation
Up to 20%	*Nil*	*Nil*
Above 20% & up to 35%	*6.00%*	*3.00%*
Above 35% & up to 60%	*8.00%*	*4.00%*
Above 60% & up to 100%	*10.00%*	*5.00%*
Above 100%		*5.00%*

12.4.2. While working out the value of work for the purpose of variation, the extra items for which new rates have been paid and payment towards price adjustment; and the *adjustment towards statutory variations shall not be considered.*

Illustration:

a. *In case of variation in value of work by (plus) + sixty percent (60%), the payment for (60-20) percent, i.e., forty percent (40%) of value of work shall be decreased by four percent (4%). The reduction in Contract rates shall commence as soon as the value of work executed reaches 120% of Contract Price.*

Award Value (AV)=100

Executed Value (EV)=160

Variation=+ 60%

Final Payable= EV-((60-20) %(4%*160))*

= 160-((40%(4%*160)) =160-2.56=157.44*

b. In case of variation in value of work by (minus) – fifty-five percent (55%), the payment for (45-20) percent i.e., twenty-five percent (25%) of value of work shall be increased by eight percent (8%).

A=Award Value (AV) =2013935.35

B=Executed Value (EV) =1164731.44

C=Decrease in value of work (B-A) = 849,203.91

D=% decrease in value of work (C/A%) = -42.17%

E=% increase in payment on plus variation of -42.17% based on variation slab=8%

*F=Amount on which 8% increase in payment will be applied (42.17%- 20%) *A=446,489.47*

*G=Decrease in payment (E%*F) =35,719.16*

Final payable=B+G=12, 00,450.60

12.4.3. The Contractor within fifteen (15) days from the receipt of an order to execute any extra item shall submit rate analysis to the Project Manager supported by documentary evidence of basic rates adopted therein; having regard to the cost of materials, actual wages of labour, and other operational costs. The analysis so provided by the Contractor shall form the basis for determination of rates for such extra items. Extra items of work which are not provided in the Bill of Quantities shall be paid on the basis of Bhutan Schedule of Rates (BSR) after adjusting such rates for the place of Works and time period elapsed after the date of BSR. If rates for such extra items are not available in BSR, the rates for such items shall be determined based on the actual expenditure relating to that item including cost of materials, fabrication/machinery handling and erection at site plus twenty percent (20%) towards overheads including profits. The price of varied items determined by the Project Manager shall be final and binding on the Contractor. No payment shall be made for the items of Works ordered to be omitted.

12.4.4. If there is delay in Employer and the Contractor coming to an agreement on the rate of varied work, provisional rates at the rate of seventy-five percent (75%) of the rates as determined by Employer shall be payable till such time as the rates are finally determined. In any case, Employer shall decide the rates within a maximum period of forty-five (45) days from the date of submission for the analysis of rates by the Contractor.

12.4.5. Items of work for which rates have been derived shall be eligible for price adjustment as per the price adjustment formula with base date as per the Contract. Rates for extra items, derived as per GCC.12.4.2 above, shall be eligible for price adjustment as per the price adjustment formula with base date corresponding to the date of input costs considered for working out the rates.

GCC.12.5. Day Work

12.5.1. For work of a minor or incidental nature not covered in the Bill of Quantities, the Project Manager may instruct that a Change shall be executed on a daywork basis.

12.5.2. The Contractor shall deliver each day to the Project Manager accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

a) the names, occupations and time of Contractor's employees;
b) the identification, type and time of Contractor's Equipment and temporary works; and
c) the quantities and types of plant and materials used.

12.5.3. One copy of each statement shall, if correct, or when agreed, be signed by the Project Manager and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Project Manager for further approval and inclusion in the next running bill for payment.

GCC.12.6. Record of costs

12.6.1. In any case where the Contractor is instructed to proceed with a variation prior to the determination of the adjustment to the Contract Price in respect thereof, the Contractor shall keep records of the cost of undertaking the variation and of time expended thereon. Such records shall be open to inspection by the Project Manager at all reasonable times.

GCC.12.7. Change in Laws and Regulations

12.7.1. If, after the date seven (7) days prior to the last date of Bid submission, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed in the Kingdom of Bhutan (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. However, these adjustments would be restricted to direct transactions between Employer and the Contractor. These adjustments shall not be applicable on procurement of raw materials, intermediary components etc. by the Contractor of foreign Contractor and shall also not be applicable on the bought-out items dispatched directly from sub-vendor's works to site. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with clause GCC GCC.12.2 hereunder.

GCC.13. Contract Price and Payment

GCC.13.1. Contract Price

13.1.1. The Contract Price shall be as specified in the Contract Agreement subject to any additions and adjustments thereto or deductions therefrom as may be made pursuant to the Contract. If specified in the SCC, the Contract Price shall be adjusted.

13.1.2. The Contract Price charged by the Contractor for the performance of the Works shall not vary from the prices quoted by the Contractor in its Bid, with the exception of any price adjustments as per the provisions of the Contract specified in the SCC.

13.1.3. Subject to 2.3.12.3.1 and **Error! Reference source not found.**GCC.16.1(h) hereof, the Contractor shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract.

GCC.13.2. Advance Payment

13.2.1. Mobilization Advance

a) Employer may provide for payment of interest free mobilization advance of a maximum ten (10) percent of the Contract price on request from the Contractor, if the payment of mobilization advance is stated in the SCC.

b) Together with the request for mobilization advance, the Contractor shall submit an unconditional bank guarantee for an equivalent amount of advance requested in accordance with the Contract agreement.

c) The advance shall be recovered through proportionate/percentage deductions from payments made to the Contractor. All advances shall be fully recovered by the time eighty percent (80%) of the Contract is executed.

13.2.2. Secured Advance

a) If stated in the SCC, Employer may provide for payment of secured advance to the Contractor against the construction materials brought to the work site as per the Contract agreement and verified by the Project Manager. The list of materials and the quantities not liable for secured advance if any, shall be specified in the SCC. In exceptional circumstances if specified in SCC, secured advance shall be given on account of plants & machineries.

b) The payment of the secured advance shall be based on the following conditions:

i) The materials shall be in accordance with the specifications and shall not be in excess of the requirements;

ii) A declaration shall be given by the Contractor passing on the lien on the rights of the materials to the Employer. However, the materials delivered at work site, shall be properly stored and protected against loss, damage or deterioration by the Contractor;

iii) The amount of the secured advance shall not be more than seventy-five (75%) of the cost of materials delivered at the site of works, which shall be supported by the original invoices/bills. All materials imported from other countries shall be supported by

Bhutan Sales Tax receipts or customs clearance. In case of fabrication works off site, secured advance may be paid to the Contractor after site inspection is carried out by the Procuring Agency at the cost of the Contractor, submission of proof of payment and submission of work order;

iv) The advance shall be recovered through proportionate/percentage deductions from payments made to the Contractor. All advances shall be fully recovered by the time eighty percent (80%) of the Contract is executed.

GCC.13.3. Terms of Payment

13.3.1. The Contract Price shall be paid as specified in the Contract:

a) The Contractor's request for payment shall be made to Employer in writing accompanied by invoices and documents, describing, as appropriate, the work done and related services performed in fulfilment of the obligations stipulated in the Contract.

b) Payment shall be made promptly by Employer, no later than 30 (thirty) days after the receipt of bills and documents in accordance with GCC 13.3.1(a), provided that the documents are compliant with all the requirements of Employer.

c) No payment made by Employer herein shall be deemed to constitute acceptance by Employer of the works or any part(s) thereof.

d) The currency or currencies in which payments are made to the Contractor under this Contract shall be those in which the Contract Price is expressed in the Contractor's Bid. In cases where the Bid price is in Indian Rupees or Bhutanese Ngultrum, Employer shall at its discretion make payment in either of the currencies at the exchange rate of one Ngultrum = one Indian Rupees.

e) Wherever applicable, the release of first progressive interim payment shall be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy (ies) and acceptance of the same by the Project Manager.

GCC.13.4. Taxes and Duties

13.4.1. The prices bid by the Contractor shall include all duties, taxes, and levies that may be levied in accordance with the laws and regulations in force as of the date 30 days prior to the closing date for submission of Bids. As such, except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its subcontractors or their employees by all municipal, state or national government authorities in connection with the Works in and outside of the Kingdom of Bhutan.

13.4.2. At the time of release of payment, tax shall be deducted at source (TDS) from Bhutanese Bidders and International Bidders as specified in the SCC from the gross amount of bills. Employer shall furnish necessary TDS Certificate to the Bidders, issued by the Department of Revenue & Customs, RGoB. The Contractor shall be responsible to deduct tax at source from the gross payments made to the sub-Contractors and deposit the same to the account of RGoB as per provisions of law in this regard in force from time to time.

13.4.3. If any rates of taxes or levies are increased or decreased, a new tax or levy is introduced, an existing tax is abolished, or any change in interpretation or application of any tax occurs in the course of the performance of Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction therefrom, as the case may be.

13.4.4. The Contractor's staff, personnel and labour shall be liable to pay personal income tax in Bhutan in respect of such of their salaries and wages as are chargeable under the laws and regulations in force and the Contractor shall perform such duties with regard to such deductions thereof as may be imposed on him by such laws and regulations.

GCC.13.5. Retention Money

13.5.1. The Employer shall retain ten percent (10%) from each payment due to the Contractor in the proportion stated in the SCC until Completion of the whole of the Works as retention money.

13.5.2. The Retention Money may be returned to the Contractor upon issuance of No Defects Liability Certificate. After completion of the work, the Contractor may substitute the retention money with

an unconditional bank guarantee, issued/enforceable by any financial institution in Bhutan. Such bank guarantee shall be valid until the completion of Defect Liability Period.

13.5.3. If the Contractor fails to remedy any reported defect within the Defects Liability Period, Employer shall withhold the payment or realize claims from the Retention Money, of an amount, which in the opinion of Employer, represent the cost of the defects to be remedied.

13.5.4. On completion of the Defects Liability Period, the Project Manager shall issue a no Defect Liability Certificate to the Contractor and release the retention money and/ or bank guarantee as available within fifteen (15) days from the issue of such certificate.

GCC.14. Termination

GCC.14.1. Termination for Employer's Convenience

14.1.1. Employer shall at any time terminate the Contract for any reason by giving the Contractor (and a copy to the Project Manager) a sixty (60) days prior notice of termination that refers to this clause GCC 14.1.

GCC.14.2. Termination for Contractor's default

14.2.1. In situations/conditions defined below, Employer shall serve a notice to the Contractor highlighting the default/limitation on the part of the Contractor and advising the Contractor to take appropriate corrective/remedial measures. If the Contractor fails to correct or to take steps to remedy the faults/limitations within fourteen (14) days of the notice served by Employer, Employer may, without prejudice to any other rights it may possess, terminate the Contract forthwith by giving a fifteen (15) days prior notice of termination with a copy to the Project Manager and its reasons thereof to the Contractor, referring to this clause GCC 14.2.1.

a) If the Contractor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor is a corporation, a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Contractor takes or suffers any other analogous action in consequence of debt;

b) If the Contractor assigns or transfers or sub-Contracts the Contract in whole or in part or any right or interest therein in violation of the provision of GCC.1.51.5.1;

c) If the Contractor, in the judgement of Employer has engaged in fraud or corruption, as defined in GCC.1.3GCC.1.6 in competing for or in executing the Contract;

d) If the Contractor has abandoned or repudiated the Contract for more than 30 days;

e) If the Contractor has, without valid reasons, failed to commence the Works promptly or has suspended (other than pursuant to 14.5.414.5.4) the progress of Contract performance for more than twenty-eight (28) days after receiving a written instruction from Employer to proceed;

f) If the Contractor persistently fails to execute the Contract in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause and does not make good such failure or neglect within reasonable period even after a written notice by the Project Manager;

g) If the Contractor refuses or is unable to provide required/sufficient materials, services, equipment or manpower to execute and complete the Works in the manner specified in the program furnished under GCC.3.143.14.1 at rates of progress that give reasonable assurance to Employer that the Contractor can attain completion of the Works by the Time for Completion as extended;

h) If the liquidated damages to be levied in terms of the provisions under **Error! Reference source not found.**8.4.1 has reached a maximum of ten percent (10%) of the Contract Price and it appears to the Project Manager that the Contractor is unable to complete the Works.

14.2.2. Upon receipt of the notice of termination under GCC GCC.14.1 and GCC GCC.14.2, the Contractor shall, either immediately or upon such date as is specified in the notice of termination:

a) Cease all further work, except for such work as Employer may specify in the notice of termination for the sole purpose of protecting that part of the Works already executed, or any work required to leave the Site in a clean and safe condition;

b) Terminate all subcontracts, except those to be assigned to Employer pursuant to paragraph (d)(ii) below;

c) Remove all Contractor's Equipment from the Site, repatriate the Contractor's and its subcontractors' personnel from the Site, remove from the Site any wreckage, rubbish and debris of any kind, and leave the whole of the Site in a clean and safe condition;

d) In addition, the Contractor, subject to the payment specified in GCC.GCC.14.4, shall:

(i) Deliver to Employer the parts of the Works executed by the Contractor up to the date of termination;

(ii) To the extent legally possible, assign to Employer all right, title and benefit of the Contractor to the Works and to the plant, equipment or material as at the date of termination, and, as may be required by Employer, in any subcontracts concluded between the Contractor and its subcontractors;

(iii) Deliver to Employer all non-proprietary drawings, specifications and other documents prepared by the Contractor or its subcontractors as at the date of termination in connection with the Works.

14.2.3. Upon termination under GCC GCC.14.2, Employer may expel the Contractor, and complete the Works itself or by employing any third party. Employer may, to the exclusion of any right of the Contractor over the same, take over and use any Contractor's equipment owned by the Contractor and at site in connection with the Works for such reasonable period, as Employer considers expedient for the completion of the work. However, in doing so, Employer shall pay a fair rental rate to the Contractor, bear all the maintenance costs and indemnify the Contractor for all liability including damage or injury to persons arising out of Employer's use of such equipment. Upon completion of the Works or at such earlier date as Employer thinks appropriate, Employer shall give notice to the Contractor that such Contractor's Equipment shall be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the Site.

GCC.14.3. Termination by Contractor

14.3.1. The Contractor may terminate the Contract forthwith by giving a notice to Employer to that effect, referring to this clause 14.3.1, if Employer becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if Employer takes or suffers any other analogous action in consequence of debt.

14.3.2. If the Contract is terminated under 14.3.1, then the Contractor shall immediately:

a) Cease all further work, except for such work as may be necessary for the purpose of protecting that part of the Works already executed, or any work required to leave the Site in a clean and safe condition;

b) Terminate all subcontracts, except those to be assigned to Employer pursuant to paragraph (d)(ii) below;

c) Remove all Contractor's Equipment from the Site and repatriate the Contractor's and its subcontractor's personnel from the Site;

d) In addition, the Contractor, subject to the payment specified in **Error! Reference source not found.**GCC.14.4, shall

(i) Deliver to Employer the parts of the Works executed by the Contractor up to the date of termination;

(ii) To the extent legally possible, assign to Employer all right, title and benefit of the Contractor to the Works and to the plant, equipment or materials as of the date of termination, and, as may be required by Employer, in any subcontracts concluded between the Contractor and its subcontractors;

(iii) Deliver to Employer all non-proprietary drawings, specifications and other documents prepared by the Contractor or its subcontractors as of the date of termination in connection with the Works.

GCC.14.4. Payment upon Termination

14.4.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of work not completed, as indicated in the SCC. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable by the Contractor to the Employer.

14.4.2. If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

GCC.14.5. Suspension

14.5.1. Employer /Project Manager may, by notice to the Contractor, order the Contractor to suspend performance of any or all of its obligations under the Contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons thereof. The Contractor shall thereupon suspend performance of such obligation (except those obligations necessary for the care or preservation of the Works) until ordered in writing to resume such performance by the Project Manager/ Employer.

14.5.2. If, by virtue of a suspension order given by the Project Manager/ Employer, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than ninety (90) days, then at any time thereafter and provided that at that time such performance is still suspended, the Contractor may give a notice to the Project Manager requiring that Employer shall, within twenty-eight (28) days of receipt of the notice, order the resumption of such performance or request and subsequently order a Change in the Works in accordance with **Error! Reference source not found.**GCC.12.2, excluding the performance of the suspended obligations from the Contract.

14.5.3. If Employer fails to do so within such period, the Contractor may, by a further notice to the Project Manager, elect to treat the suspension, where it affects only a part of the Works, as a deletion of such part of the Works in accordance with **Error! Reference source not found.**GCC.12.2 or, where it affects the whole of the Works, as termination of the Contract under GCC.14.1.

14.5.4. Under the condition (a) and (b) below, the Contractor may, by giving fourteen (14) days' notices to Employer suspend performance of all or any of its obligations under the Contract, or reduce the rate of progress:

a) If Employer has failed to pay the Contractor any sum due under the Contract within the specified period, or has failed to approve any invoice or supporting documents without just cause or commits a substantial breach of the Contract, the Contractor may give a notice to Employer that requires payment of such sum, requires approval of such invoice or supporting documents, or specifies the breach and requires Employer to remedy the same, as the case may be. If Employer fails to pay such sum, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, or fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice; or

b) If the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to Employer, including but not limited to Employer's failure to provide possession of or access to the Site or other areas in accordance with 2.3.2, or failure to obtain any governmental permit necessary for the execution and/or completion of the Works;

14.5.5. If the Contractor's performance of its obligations is suspended or the rate of progress is reduced pursuant to this clause **Error! Reference source not found.**, then the Time for Completion shall be extended in accordance with **Error! Reference source not found.**8.3.1, and any and all

additional costs or expenses incurred by the Contractor as a result of such suspension or reduction shall be paid by Employer to the Contractor in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Contractor's default or breach of the Contract.

14.5.6. During the period of suspension, the Contractor shall not remove from the Site any plant, equipment, material or any part of the Works or any Contractor's Equipment, without the prior written consent of Employer.

GCC.15. Care of the Works and Indemnities

GCC.15.1. Protection of Works

15.1.1. The Contractor shall have total responsibility for protecting the Works till it is finally taken over by Employer. No claim shall be entertained by Employer for any damage or loss to the Works and the Contractor shall be responsible for the complete restoration of the damaged works/equipment to its original condition to comply with the specification and drawings.

15.1.2. The Contractor shall, in connection with the Works, provide and maintain at his own cost all lights, guards, fencing and security when and where necessary or required by Employer or by any authority for the protection of the Works or for the safety and convenience of the public or others.

GCC.15.2. Copyright

15.2.1. The copyright of all drawings, documents and other materials containing data and information furnished to Employer by the Contractor shall remain vested in the Contractor, or, if they are furnished to Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third Party.

GCC.15.3. Confidential Information

15.3.1. Employer and the Contractor shall keep confidential and shall not, without the written consent of the other Party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other Party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Sub-vendors such documents, data and other information as it receives from Employer to the extent required for the Sub-vendors to perform its obligations under the Contract, in which event the Contractor shall be under obligation to have a clause in the Contracts with their sub vendors regarding confidentiality similar to that provided herein.

15.3.2. Employer shall not use such documents, data and other information received from the Contractor for any purposes unrelated to the Contract. Similarly, the Contractor shall not use such documents, data and other information received from Employer for any purpose other than the design, procurement of plant and equipment, construction or such other work and services as are required for the performance of the Contract.

15.3.3. The obligation of a Party under 15.3.1 and 15.3.2 above, however, shall not apply to information that:

a) Employer or the Contractor needs to share with the RGoB;
b) Is already in public domain now, or enters the public domain during the execution of the Contract through no fault of that Party;
c) Can be proven to have been possessed by that Party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other Party; or
d) Otherwise lawfully becomes available to that Party from a third party that has no obligation of confidentiality.

15.3.4. The above provisions of **Error! Reference source not found.** shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Contract in respect of the performance of the Contract or any part thereof.

15.3.5. The provisions of **Error! Reference source not found.** shall survive completion or termination, for whatever reason, of the Contract.

GCC.15.4. Patent Indemnity

15.4.1. The Contractor shall, subject to Employer's compliance with 15.4.2, indemnify and hold harmless Employer and its employees from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs and expenses of any nature, including attorney's fees and expenses, which Employer may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

a) The execution of the Works by the Contractor or the use of the Works in the Kingdom of Bhutan; and

b) The sale in any country of the products produced by the Works.

15.4.2. Such indemnity shall not cover any use of the Works or any part thereof other than for the purpose indicated by or reasonably to be inferred from the Contract, neither any infringement resulting from the use of the Works or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Contractor, pursuant to the Contract.

15.4.3. If any proceedings are brought or any claim is made against Employer arising out of the matters referred to in 15.4.1, Employer shall promptly give the Contractor notice thereof, and the Contractor may at its own expense and in Employer's name conduct such proceedings or claims and any negotiations for the settlement of any such proceedings or claims.

15.4.4. If the Contractor fails to notify Employer within thirty (30) days after receipt of such notice that it intends to conduct any such proceedings or claims, then Employer shall be free to conduct the same on its own behalf at the cost of the Contractor.

15.4.5. Employer shall, at the Contractor's request, provide all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.

15.4.6. Employer shall indemnify and hold harmless the Contractor and its employees from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs and expenses of any nature, including attorney's fees and expenses, which the Contractor may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification or other documents or materials provided or designed by or on behalf of Employer.

GCC.15.5. Limitations of Liability

15.5.1. In cases of gross negligence or willful misconduct:

a) Neither Party shall be liable to the other Party, whether in Contract, tort or otherwise, for any indirect or consequential loss, damage, loss of use, loss of production, or loss of profits or interest costs. However, this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to Employer; and

b) The aggregate liability of the Contractor to Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price. However, this limitation shall not apply to the cost of repairing or repairing defective works, or to any obligation of the Contractor to indemnify Employer with respect to patent infringement.

15.5.2. In all cases, the Party claiming a breach of Contract or a right to be indemnified in accordance with the Contract shall be obliged to take all reasonable measures to mitigate the loss or damage.

GCC.15.6. Indemnification Employer

15.6.1. The Contractor shall indemnify and hold harmless Employer and its employees from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property (other than the Works whether accepted or not), arising in connection with the execution of Works and caused due to the negligence of the Contractor or its subcontractors, or its employees, or agents. For any injury,

death or damages to property caused by the negligence of Employer, its other Contractors, employees, or agents Employer shall be responsible.

15.6.2. If any proceedings are brought or any claim is made against Employer that might subject the Contractor to liability under 15.6.1, Employer shall promptly give the Contractor a notice thereof and the Contractor shall at its own expense and in the Employer s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

15.6.3. If the Contractor fails to notify Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify Employer within the twenty-eight (28) day period, Employer shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

15.6.4. Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.

15.6.5. Employer shall indemnify and hold harmless the Contractor and its employees and subcontractors from any liability for loss of or damage to property of Employer, other than the Works not yet taken over, that is caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under GCC.GCC.17, provided that such fire, explosion or other perils were not caused by any act or failure of the Contractor.

15.6.6. The Party entitled to the benefit of an indemnity under this clause shall take all reasonable measures to mitigate any loss or damage, which has occurred. If the Party fails to take such measures, the other party's liabilities shall be correspondingly reduced.

GCC.16. Exceptional Event (Force Majeure)

GCC.16.1. "Force Majeure" shall mean any unavoidable event beyond the reasonable control of Employer or of the Contractor, as the case may be, and which has impeded the progress of work unreasonably and shall include, without limitation to the following:

a) War, hostilities or warlike operations whether a state of war be declared or not, invasion, act of foreign enemy and civil war;

b) Rebellion, terrorism, revolution, sabotage by persons other than the Contractor's personnel, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion and terrorist acts;

c) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's personnel;

d) Munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity;

e) Confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any government authority;

f) Embargo, import restriction, port congestion, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics/pandemic, quarantine and plague;

g) Natural catastrophes such as earthquake, hurricane, typhoon, volcanic activity, fire, landslide or flood;

h) The physical conditions or artificial obstructions on the Site.

GCC.16.2. If a force majeure situation arises, the Bidder shall notify the Employer in writing within seven (7) days of such conditions and the cause thereof along with documentary or pictorial evidence acceptable to the Employer. Unless otherwise directed by the Employer in writing, the Bidder shall continue to perform its obligation.

GCC.16.3. The Party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such Party's performance is prevented, hindered or

delayed. The Time for Completion shall be extended in accordance with **Error! Reference source not found.**GCC.8.3.

GCC.16.4. The Party or Parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfil its or their obligations under the Contract so far as reasonably practicable.

GCC.16.5. Delay or non-performance by either Party hereto caused by the occurrence of any event of Force Majeure after the Contract has become effective shall not:

a) Constitute a default or breach of the Contract;

b) Give rise to any claim for damages or additional cost or expenses occasioned thereby.

GCC.16.6. If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the currency of the Contract, the Parties shall attempt to develop a mutually satisfactory solution, failing which the dispute shall be resolved in accordance with GCC.2.

GCC.16.7. Notwithstanding GCC.16.5, Force Majeure shall not apply to any obligation of Employer to make payments to the Contractor herein.

GCC.17. Insurance

GCC.17.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the date of commencement of the Works to the end of the respective periods specified below, in the amounts and deductibles stated in the SCC for the following events:

Sl. No.	Nature of insurance	Period of insurance coverage
i	*Loss of or damage to the Works including Employer issued materials, if any*	*Up to the date of Taking Over of the last Works*
ii	*Loss of or damage to the Contractor's tools and plant*	*Up to the date of Taking Over of the last Works*
iii	*Loss of or damage to the property other than Works including those of third parties*	*Up to the completion of the Defects Liability Period*
iv	*Injury or death of personnel belonging to the Contractor, Employer or any other party*	*Up to the completion of the Defects Liability Period*

The insurance policy for above shall be taken from Bhutanese insurance companies.

GCC.17.2. Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the start date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred. Payments received from insurers shall be used for the rectification of loss or damage.

GCC.17.3. If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due from the Contractor to the Employer.

GCC.17.4. Alterations to the terms of insurance shall not be made without the approval of the Project Manager. Both parties shall comply with any conditions of the insurance policies.

GCC.18. Claims

GCC.18.1. Contractor's Claims

18.1.1. If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any clause of GCC.GCC.18 or otherwise in connection with the Contract, the Contractor shall give notice to Employer, describing the event or circumstances

giving rise to the claim. The notice shall be given as soon as practicable, and not later than thirty (30) days after the Contractor became aware, or should have become aware, or the event or circumstance.

18.1.2. If the Contractor fails to give notice of a claim within such period of thirty (30) days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this sub-clause shall apply.

18.1.3. The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, as relevant to such event or Circumstances.

18.1.4. The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Employer's liability, the Project Manager may, after receiving any notice under this sub-clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

18.1.5. Within forty-two (42) days after the Contractor became aware (or should have become aware) of the event or circumstances giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and for the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

a) this fully detailed claim shall be considered as interim;

b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and

c) the Contractor shall send a final claim thirty (30) days after the end of the effects resulting from the event or circumstances, or within such other period as may be proposed by the Contractor and approved by the Project Manager.

18.1.6. Within forty-two (42) days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principals of the claim within such time.

18.1.7. Each payment certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claims, as he has been able to substantiate.

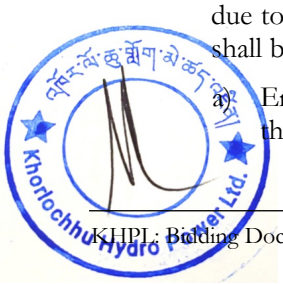
18.1.8. The Project Manager shall proceed to determine (i) the extension (if any) of the Time for Completion (before or after its expiry), and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

18.1.9. The requirements of this sub-clause are in addition to those of any other sub-clause, which may apply to a claim. If the Contractor fails to comply with this or any other sub-clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this sub-clause.

GCC.18.2. Claims towards idling of resources

18.2.1. Components of claim admissible hereunder towards additional cost incurred by the Contractor due to idling of resources in connection with execution of Contract for reasons given hereunder shall be evaluated by the Project Manager:

a) Employer does not give possession to Site or a part of the Site free of all encumbrances by the Site possession date stated in the SCC;



b) Employer modifies the schedule of other Contractors in a way which affects the works of the Contractor under the Contract;

c) Employer's representatives' does not issue Drawings, Technical Specifications or instructions required for the execution of Works as per agreed schedule;

d) Other Contractors or Employer does not work within the dates stated in the Contract that cause delay or extra work to the Contractor.

18.2.2. The evaluation of compensation towards idling of resources done by the Project Manager shall be final and binding on the Contractor. The procedure as provided in GCC.GCC.17.1 for settlement of claims shall also apply for such claims.

GCC.18.3. Early Warning

18.3.1. The Contractor shall warn the Project Manager in writing at the earliest of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance. If the Contractor fails to give notice of a claim within such period of 30 days, the Employer may be discharged from all liability in connection with the claim.

GCC.19. Disputes and Arbitrations

GCC.19.1. Amicable Settlement

19.1.1. If any dispute of any kind whatsoever arises between Employer and the Contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the works – whether during the progress of the works or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual consultation.

GCC.19.2. Dispute Resolution

19.2.1. In case of dispute, the objecting party may file a written Notice of dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute shall consider it and respond in writing within 14 days after receipt. If that Party fails to respond within 14 days, or the dispute cannot be amicably settled within 14 days following the response of that Party, clause GCC.19.2.2 shall apply.

19.2.2. Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably according to clause GCC.19.2.1 and GCC.19.2.2 may be submitted by either Party for settlement in accordance with the provisions specified in the SCC.

19.2.3. Notwithstanding any reference to the settlement of dispute settlement herein:

a) The Parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

b) Employer shall pay the Contractor any monies due to it.

SECTION V - SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement and/or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC Clause Ref., if any	Particulars
1.1.1 (xxvii)	The Project Manager shall be: ***Head, Infra Unit, Khorlochhu Hydro Power Limited.***
1.1.1 (xxix)	The Site is located at: ***New Doksum Township, Trashiyangtse***.
1.1.1 (xxxi)	Completion of Works shall be attained within ***550 Days*** from the Commencement Date.
1.2.6 (a)	The applicable Incoterms edition shall be of: ***Incoterms 2020***.
1.3.2	For notices, the addresses shall be: For the Employer: ***Head, Infra Unit,*** ***Khorlochhu Hydro Power Limited,*** ***Corporate Office, Postal Box. 46002,*** ***Doksum New Township, Trashiyangtse*** ***Email: head.infra@khpl.bt***
2.3.4	The list of manpower, equipment, raw material etc. to be provided by the Employer: "***None"***
3.1.6	The information board shall be with following details: *i) Name of Work:* *ii) Start and Completion Date:* *iii) Value of Work:* *iv) Name of Contractor:* v) *Name of Employer.*
3.2.1 3.2.3	The amount of the Performance Security shall be: ***10% of the Contract Price***. The types of acceptable Performance Securities are: *i) Unconditional bank guarantee issued by a reputable financial institution enforceable in any banks in Bhutan, in the form provided for in the Contract or in any other form acceptable to the Employer.* *ii) Cash warrant, or* *iii) Demand Draft*
3.12.1	The temporary utilities to be provided by Employer are: ***"None"***.
5.1.1	**Key Personnel:** The amount to be deducted for the key personnel not employed by the Contractor for each personnel shall be:

Sl. No.	***Designation***	***Monthly Deduction for Non-Availability***
1	*Project Manager*	*Nu.50,000.00*
2	*Project Engineer*	*Nu.75,000.00*
3	*Electrical Engineer*	*Nu. 50, 000.00*
4	*Safety/OHS Officer*	*Nu. 30, 000.00*
5	*Site Supervisor*	*Nu. 25, 000.00*

<table>
<tr><th>GCC Clause Ref., if any</th><th>Particulars</th></tr>
<tr><td>5.3.3</td><td>Key Construction Equipment:
The amount to be deducted for the equipment not available at site is:
<table>
<tr><th>Sl. No.</th><th>Equipment</th><th>Monthly Deduction for Non-Availability</th></tr>
<tr><td>1</td><td>Excavator (200PC or higher)</td><td>Nu. 150,000.00</td></tr>
<tr><td>2</td><td>Dumper/Tripper</td><td>Nu.85,000.00</td></tr>
<tr><td>3</td><td>Concrete Mixer</td><td>Nu. 25,000.00</td></tr>
<tr><td>4</td><td>Transit Mixer</td><td>Nu.85,000.00</td></tr>
</table></td></tr>
<tr><td>8.4.1</td><td>The applicable rate for liquidated damages for delay shall be: 0.10% of Contract Price per each day of delay.
The maximum amount of liquidated damages shall be 10% of the Contract Price.</td></tr>
<tr><td>9.2.7</td><td>The permanent information board shall be with following details:
i) Name of Work:
ii) Completion Year:
iii) Constructed by:
iv) Name of Employer:
The date by which operating and maintenance manuals are required is: Not Applicable.
The date by which “as built” drawings are required is 30 days upon taking over of works by the Employer.</td></tr>
<tr><td>10.1.1
10.3.2</td><td>The Defect Liability Period shall be: 12 Months.</td></tr>
<tr><td>12.1.2</td><td>Fixed component of the Base Contract Price (F) = 20%.
Variable components of the Base Contract Price:
1) Labour (l) = 30%
2) Materials(m) = 50%
L = Labour Index, All India Consumer Price Index for Industrial Workers (Base 2016=100), published by Labour Bureau, Ministry of Labour, India.
M = Material Index, All Commodities (2022-23=100) published by Office of the Economic Advisor, India.
D = Fuel (High Speed Diesel), the official retail price of HSD at Doksum, Trashiyangtse, published by MoICE, Royal Govt. of Bhutan.
However, the maximum amount of Contract Price Adjustment payable shall be twenty percent (20%) of the Contract Price as awarded.</td></tr>
<tr><td>13.1.1</td><td>The Contract Price is adjustable.</td></tr>
<tr><td>13.2.1 (a)</td><td>The Mobilization Advance Payment shall be a maximum of ten percent (10%) of the Contract Price against the submission of unconditional Bank Guarantee issued by a reputable financial institution and enforceable by any Banks in Bhutan.</td></tr>
<tr><td>13.2.2 (a)</td><td>The secured advance shall not be more than seventy-five (75%) of the cost of materials delivered at the site of work, which shall be supported by the original invoices/bills.
The Contractor shall be entitled to secured advance against the construction materials.</td></tr>
<tr><td>13.3.1</td><td>The Contractor shall open a designated Escrow Account and provide its particulars to the Employer. All interim payments and secured advances shall be paid only into the designated Escrow Account.</td></tr>
</table>

<table>
<tr><th>GCC Clause Ref., if any</th><th>Particulars</th></tr>
<tr><td>13.4.2</td><td>The present rate of tax deducted at source (TDS) of the gross value of the invoice is 2% in case of Bhutanese Bidders.

However, the quoted price should be exclusive of the 5% GST.</td></tr>
<tr><td>13.5.1</td><td>The Employer shall retain ten percent (10%) from each payment due to the Contractor as Retention Money.</td></tr>
<tr><td>17.1</td><td>The nature and content, amounts and deductibles on insurance shall be as follows:
<table>
<tr><th>SN</th><th>Insurance</th><th>Amount Insured</th><th>Deductible</th></tr>
<tr><td>1</td><td>Loss of or damage to the Works including Employer issued materials, if any</td><td>110% of the cost of Works</td><td>Minimum as per insurance policy</td></tr>
<tr><td>2</td><td>Loss of or damage to the Contractor's tools and plant</td><td>110% of the cost of tools and plant</td><td>Minimum as per insurance policy</td></tr>
<tr><td>3</td><td>Loss of or damage to the property other than Works including those of third parties</td><td>As permissible under the policy</td><td>Not applicable</td></tr>
<tr><td>4</td><td>Injury or death of personnel belonging to the Contractor, Employer or any other party</td><td>As permissible under the policy</td><td>Not applicable</td></tr>
</table>
The Contractor shall provide the evidence of insurance or copy of policies within 60 days from the commencement date or date of contract signing.</td></tr>
<tr><td>19.2.2</td><td>Institution whose arbitration procedures shall be used:

<u>For Contracts with Bhutanese Contractors</u>

All disputes arising in connection with the present Contract shall be finally resolved by arbitration in accordance with the rules and procedures of the Alternate Dispute Resolution Act of Bhutan 2013.</td></tr>
</table>

SECTION VI – TECHNICAL SPECIFICATIONS & DRAWINGS

1. Scope of Works

The brief scope of work includes but not limited to the Construction of BHU, residential buildings with CRM and RCC works, including the site development, access roads with DBM, retaining walls, chain link fencing, footpath, water supply, sewerage including other auxiliary works for the 10 Bedded BHU.

2. Technical Specifications

i) The works should correspond to the latest edition of the **"Specifications for Buildings and Road Works** published by Department of Infrastructure Development, MoIT, Thimphu.

ii) Any specification not covered/included in the above document and/or any additional works overlooked in this contract and is deemed necessary to complete this contract, such works shall be permitted to be carried out with the prior approval of the Engineer In-Charge or the Project Manager-KHPL.

iii) Contractor should adhere to any/all instructions from the Employer, as provided based on actual site condition during the execution of works.

3. Inspection and Tests

The inspection and tests shall confirm to the requirements as specified in the Bidding Document or the latest edition of the **"Specifications for Buildings and Road Works** published by Department of Infrastructure Development, MoIT, Thimphu.

4. Construction Drawings

The Construction Drawings are provided under **Annexure-II of the Bidding Document**.

SECTION VII – CONTRACT FORMS

(Form No. 1 to Form No. 4)

Applicable Forms from this Contract Forms section shall either be submitted by the successful Bidder or by Employer, post award of Contract.

Form 16: Notification of Award

To: *[name and address of the Contractor]*

Sub: Notification of Award for

Ref: Our NIT No: (*insert number and reference of the NIT*)

Dear Sir or Madam,

With reference to your Bid dated *[insert date]* for execution of the *[insert name of the Contract and identification number, as given in the SCC]* for the Contract Price of the equivalent of *[insert amount in numbers and words] [insert name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

[Insert one of the following (x) or (y) options if applicable]

(i) We accept that *[insert name proposed by Bidder]* be appointed as the Adjudicator.

(ii) We do not accept that *[insert name proposed by Bidder] be* appointed as Arbitrator, and by sending a copy of this Notification of Award to *[insert name of the Appointing Authority] we* are hereby requesting *[insert name]*, the Appointing Authority, to appoint the Arbitrator in accordance with SCC 7.

The Contract in duplicate is attached hereto. Kindly be advised of the following:

a) Please confirm your acceptance of this Notification of Award by signing and dating both copies of it, and returning one copy to us no later than 15 days from the date hereof;

b) Please report to this office to sign the formal Contract Agreement within 15 (fifteen) days of the date of this Notification of Award.

c) Prior to the signing of Contract Agreement, you are required to submit performance security in the form of a Bank Guarantee/demand draft/cash warrant as per ITB clause 42 and GCC clause 17. The performance security may be submitted in advance or at the time of signing the contract agreement. The bank guarantee/demand draft/cash warrant should be in favour of (*insert appropriate name and designation*).

d) The stipulated commencement of the work shall be reckoned from the date of Contract signing.

Kindly acknowledge the receipt of this letter.

Yours sincerely,

[xyz]

Form 17: Contract Agreement

This agreement is made the *[insert day]* day of *[insert month]*, *[insert year]* between *[insert name and address of Employer]* (hereinafter called "the Employer"), of the one part, and *[insert name and address of Contractor]* (hereinafter called "the Contractor") of the other part.

Whereas the Employer desires that the Contractor execute *[name and identification number of Contract]* (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

The Employer and the Contractor agree as follows:

a) In this Contract, words and expressions shall have the same meanings as are respectively assigned to them in the contract documents referred to.

b) The following documents shall be deemed to form and be read and construed as part of this Agreement:

   i) The Notification of Award
   ii) The Bid Submission Form
   iii) The addenda Nos. (insert addenda number if any)
   iv) The General Conditions of Contract
   v) The Special Conditions of Contract
   vi) The Technical Specifications
   vii) The Drawings
   viii) The Schedules

c) In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

d) The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

e) This Agreement shall prevail over all other Contract documents.

In Witness whereof the parties thereto have caused this Agreement to be executed on the day, month and year indicated above.

Sign & Seal of Contractor: _____

Sign & Seal of witness of Contractor: _____

Sign & seal of Employer authorized representative:_____

Binding signature of Employer's representative's signature:_____

Form 18: Bank Guarantee for Contract Performance Security

[To be provided on the relevant legal document, as per applicable law, in the country of execution]

Bank Guarantee No. .....

Date.....

To

[Employer's Address]

Dear Sir/Madam,

In consideration of Employer's name (hereinafter referred to as Employer which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s …… with its Registered/Head Office at ……(hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract by issue of Letter of Award No…….. dated ……... valued at .....*[amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]* ....., for …….. *(Insert Scope of Contract)* …… and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to ten percent (10%) of the said value of the Contract to Employer.

We ……... *(insert Name and Address of the bank issuing the Guarantee)* ……. having its Head Office at ……... hereinafter referred to as the 'Bank' which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns), do hereby guarantee and undertake to pay Employer, on demand any and all monies payable by the Contractor to the extent of ……. *[insert amount of the Bank Guarantee and its currency]* ……... at any time up to ……@.....(day/month/year) without any demur, reservation, contest recourse or protest and or without any reference to the Contractor. Any such demand made by Employer on the Bank shall be conclusive and binding notwithstanding any difference between Employer and the Contractor or any dispute pending before any Court, Tribunal or any other Authority. The Bank undertakes not to revoke this guarantee during its currency without prior consent of Employer.

Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance of the Contract by the Contractor. Employer, shall have the fullest liberty, without affecting this guarantee to postpone from time to time the exercise of any powers vested in Employer or of any right which they might have against the Contractor and to exercise the same at any time and any manner, and either to enforce or to forbear to enforce any covenants, contained or implied in the Contract between Employer and the Contractor or any other course of remedy or security available to Employer. The Bank shall not be released of its obligations under these presents by any exercise by Employer of its liberty with reference to the matters aforesaid or any of them or by reason or any other acts of omission or commission on the part of Employer or any other indulgence shown by Employer or by any other matter or thing whatsoever which under the law would but for these provisions have the effect of relieving the Bank.

The Bank also agrees that Employer at its option shall be entitled to enforce this guarantee against the Bank as a Principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained herein above, our liability under this guarantee is restricted to …… and shall remain in force up to and including …… and shall be extended from time to time for such period, as may be desired by M/s ……. on whose behalf this guarantee has been given.

All rights of Employer under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities after the above-mentioned date or from the extended date.

Dated this ……day of …….20 …… at …….

Witness:

……	……
(Signature)	(Signature)
……	……
(Name)	(Name)
……	……
(Official Address)	(Official Address)

Authorized vide
Power of Attorney No…….
Date…….

Note:	*(@) This date shall be ninety (90) days beyond the scheduled end of Defect Liability Period of the last equipment covered under the Contract* *(#) Complete mailing address of the Head Office of the Bank to be given*



Form 19: Bank Guarantee for Advance Payment

[To be provided on the relevant legal document, as per applicable law, in the country of execution]

Bank Guarantee No. .....

Date.....

To

[Employer's address]

Dear Sir/Madam,

In consideration of the Employer Corporation Ltd (hereinafter referred to as Employer) which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns having awarded to M/s..... with its registered/Head Office at ..... (Here-in-after referred to as the Contractor) which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns, a Contract by issue of Employer 's Notification of Award No. ……. dated ……. and the same having been unequivocally accepted by the Contractor resulting in a 'Contract', dated …… valued at …….....*[amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]* ……. for …… *(insert Scope of Contract)* ……. (Hereinafter called the Contract) and Employer having agreed to make advance payment to the Contractor for performance of the above Contract amounting to .....*[insert currency and amount of the advance]* ....., as an advance against Bank Guarantee to be furnished by the Contractor.

We, ……. *[Insert name and address of the bank issuing Branch]* ……... having its Head Office at ……... (Hereinafter referred to as the 'Bank' which expression shall, unless repugnant to the context of meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay Employer immediately on demand any or all monies payable by the Contractor to the extent of ……. *[insert currency and amount of the advance]*…….at any time up to …….@…….... without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by Employer on the Bank shall be conclusive and binding not withstanding any difference between Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.

Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to vary the advance or to extend the time for performance of the Contract by the Contractor. Employer shall have the fullest liberty, without affecting this guarantee to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants contained or implied in the Contract between the Employer and the Contractor or any other course or remedy or security available to Employer. The Bank shall not be released of its obligations under these presents by any exercise by Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of Employer or any other indulgence shown by Employer or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is limited to…… *[insert currency and amount of the advance]*……. and it shall remain in force up to and including …… and shall be extended from time to time for such period as may be desired by M/s …… on whose behalf this guarantee has been given.

All rights of Employer under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities after the above-mentioned date or from the extended date.

Dated this ……day of …….20 …… at ……..

Witness:

……	……
(Signature)	(Signature)
……	……
(Name)	(Name)
……	……
(Official Address)	(Official Address)

Attorney as per

Power of Attorney No: ……

Date…….

Note:	*(@) This date shall be ninety (90) days beyond the schedule date of Completion of the last Facility covered under the Contract.*



ANNEXURE-I: BILL OF QUANTITIES



Abstract of Cost - Bill of Quantities

Sl. No.	BUILDINGS AND ANCILLARY WORKS	Total Cost (Nu.)	Remarks
A	**BHU**		
1	Civil Works		
2	Electrical Works		
	Sub-Total (A)		
B	**DOCTOR'S QUARTER**		
1	Civil Works		
2	Electrical Works		
	Sub-Total (B)		
C	**STAFF QUARTER**		
1	Civil Works		
2	Electrical Works		
	Sub-Total (C)		
D	**CARETAKER & DRIVER'S QUARTER**		
1	Civil Works		
2	Electrical Works		
	Sub-Total (D)		
E	**KITCHEN & LAUNDRY**		
1	Civil Works		
2	Electrical Works		
	Sub-Total (E)		



F	**ANCILLARY WORK:**		
1	SITE DEVELOPMENT		
2	CHAIN LINK FENCE		
3	STAIRCASE		
4	FOOTPATH		
5	PARKING & ROAD		
6	2M, RETAINING WALLS		
7	3M, RETAINING WALLS		
8	4M, RETAINING WALLS		
9	5M, RETAINING WALLS		
10	MS RAILING		
11	COMPOUND GATE		
12	WATER SUPPLY, SEWERAGE		
13	DRAINAGE		
14	COMPOUND LIGHTING		
	Sub-Total (F)		
G	**OCCUPATIONAL HEALTH & SAFETY (OHS)**		
	Sub-Total (G)		
	GRAND TOTAL (Nu.)		



BILL OF QUALTITIES FOR CONSTRUCTION OF 10 BEDDED BHU AND ANCILLARY WORKS

A. BUILDINGS

1. BHU

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
1	**Earthwork**					
1.01	Excavation in foundation trenches or drains, not exceeding 1.5 m in width or 10 sq.m on plan, including setting out, dressing of sides, ramming and leveling of bottoms, and disposal of surplus excavated material within 50 m lead and 1.5 m lift, in all kinds of soil and rock, with or without blasting, complete.	Cu.M	1177.88			
1.02	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m &lift 1.5m.	Cu.M	1718.12			
1.03	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing	Cu.M	162.77			
2	**Damp Proof Course**					
2.01	Providing & laying sand bedding, including watering, ramming, dressing(75mm thk)	Cu.M	46.56			
2.02	Providing and laying moisture barrier using plastic sheeting underlay -200 micro metre.	Sq.M	620.79			
3	**Stonework**					
3.01	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cu.M	170.46			
3.02	Random Rubble Masonry with hard stone in CM 1:4 in foundation and plinth	Cu.M	559.97			
4	**Concrete Work**					
4.01	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level - 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)	Cu.M	62.64			
4.02	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level-1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	Cu.M	47.69			
5	**RCC Work**					
5.01	Providing and laying RCC 1:1.5:3, 20mm aggregate excluding form work and reinforcement in foundation for footings and beams up to plinth	Cu.M	200.03			
5.02	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm aggregate nominal size) excluding form work and reinforcement in columns, Pillars, posts above plinth up to roof.	Cu.M	46.15			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
5.03	Providing and laying RCC 1:1.5:3, 20mm aggregate excluding form work and reinforcement in beams, lintels, slabs, staircase above plinth up to roof	Cu.M	225.53			
5.04	Providing & laying in position RCC 1:1.5:3 work , 20mm aggregate in walls (any thickness) including attached pilasters buttresses, piers, abutments etc. upto floor five level excluding the cost of centering, shuttering and reinforcement	Cu.M	41.68			
6	**Steel Reinforcement**					
6.01	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	Kg	69768.26			
7	**Formwork**					
7.01	Providing & fixing centering and shuttering (formwork) using Timber, including strutting, propping etc. and removal of formwork-Foundation, Footings and all works upto Plinth Level, etc.	Sq.M.	695.69			
7.02	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Columns, Pillars, Post, Struts, etc.	Sq.M.	501.09			
7.03	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Lintels, Beams, Griders, Bresummers, Cantilevers, Slab, Suspended floor, roof and landing.	Sq.M.	1696.97			
7.04	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Lintels, Beams, Griders, Bresummers, Cantilevers, Slab, Suspended floor, roof and landing-Walls (any thickness), pilasters, buttresses, string course etc.	Sq.M.	335.34			
8	**Course Rubble Masonry/ Concrete Block Brick**					
8.01	Providing &laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth (In cement mortar 1:4) +Extra for C.R masonry with hard stone chisel dressed in superstructure above plinth, below & including floor 2 level	Cu.M	205.64			
8.02	Providing & laying concrete block brick in Foundation & Plinth including superstructure above plinth level upto floor three level (including all lifts and heights) - 250mm	Cu.M	99.45			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
8.03	Providing & laying locally manufactured Concrete Solid Block Masonry (115mm) in superstructure below floor 2 level in cement mortar 1:4.	Sq.m	693.67			
9	**Doors & Windows**					
9.01	Providing & fixing in position dressed wook work in frame for window including aluminium framed windows in position with all accessories, including sliding shutters glazed with 5 mm thick plain glass, pelmet and curtain rod, and all required fittings, fixtures, and holdfasts, complete as per drawings and specifications. Rate includes traditional timber cornices, synthetic enamel painting on internal woodwork, and traditional painting on internal and external surfaces, complete as directed by the Engineer-in-Charge.					
i)	RW-01	Each	2.00			
ii)	RW-02	Each	2.00			
iii)	DW285	Each	1.00			
iv)	WA243	Each	5.00			
v)	WA180	Each	13.00			
vi)	WA180a	Each	1.00			
vii)	WA100	Each	7.00			
viii)	WA100a	Each	8.00			
ix)	WA80	Each	12.00			
9.02	Providing & fixing in position with timber (of mixed conifer) in door frames including 30mm thick timber shutter, 100mm long hinges, 100mm long L-drop latch, 100mm long tower bolts, 125mm long door handle, door stopper and 400mm long hold fasts as per drawing, etc.., complete. - (Inclusive of traditional wooden cornices, pink primer in woodworks and painting works of Sumdang 'Rab' quality in traditional cornices)					
i)	D135	Each	2.00			
ii)	D120	Each	7.00			
iii)	D100	Each	23.00			
iv)	D100a	Each	2.00			
v)	D85	Each	3.00			
vi)	D85a	Each	12.00			
9.03	Providing & fixing in position with timber (of mixed conifer) in entrance porch- complete (Inclusive of traditional wooden cornices, drey- zhu, kachen, etc.., pink primer in woodworks and painting works of Sumdang 'Ding' quality in traditional cornices)	Each	1.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
10	**Steel Work**					
10.01	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint- In M.S Angles/ Tee for external ceiling.	kg	484.22			
10.02	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red- In tubular sections	kg	11252.91			
10.03	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	278.18			
10.04	Providing & fixing bolts of various sizes including nuts & washers, complete in all areas.	Kg	91.88			
10.05	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	1406.53			
10.06	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc… including welding, grinding, buffing, polishing and making curvature (wherever required) and fittings the same with necessary stainless steel nuts and bolts complete, i/e fixing railing with necessary accessories and stainless steel dash fasteners, stainless steel bolts etc, of required size on the top of the floor or the side of waist slab with suitable arrangement as per approval of engineers in charge.	Mtr.	76.68			
11	**Roofing Work**					
11.01	Providing & fixing 0.5mm thick pre-painted Al-Zn alloy coated Steel roofing sheets of 24G in natural finish, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses of Colour Roof India Limited (CRiL or equivalent).	Sq.M	1052.00			
11.02	Providing & fixing 600mm ridges or hips in Pre Painted Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection.	Mtr.	55.38			
11.03	Providing and fixing on wall face single socketed rigid PVC (Working Pressure 4kgf per sq.cm) rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete -90mm dia	Mtr.	24.17			
11.04	Providing & fixing Semi circular/half round Poly Vinyl Chloride (PVC) roof gutter of 180mm dia 3.04m long, including fittings (brackets, bolts, nuts, washer, end cap, tee end cap etc) excluding the cost of pipes	Mtr.	103.60			
11.05	Providing & fixing in position dressed wood work in frames of doors, windows, clerestory windows and other frames, wrought and framed (for timber truss and purlins) -Mixed Conifer	Cu.M	1.15			
11.06	Providing, preparing and applying Sumdang washable painting-ding	sq.m	19.05			
12	**Flooring & Tiling Work**					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
12.01	Providing & laying marble stone flooring including skirting (height 150mm) over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete.	Sq.M	437.28			
12.02	Providing and laying vitrified tiles 10mm thick (600x600) in floorings and skirting laid on a bed of 20mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	695.55			
12.03	Providing and laying Anti Skid Tiles (600*600*10mm) in floors on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	64.75			
12.04	Providing and laying Anti Slip ramp flooring (20mm Thick) in floors on a bed of 20mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	49.97			
12.05	Providing and laying ceramic tiles of size 300x300mm in walls on 10mm thick cment mortar of 1:3 finished with flush pointing in white cement	Sq.M	194.39			
13	**Finishing Works**					
13.01	Providing and laying cement plaster , 15 mm thick 1:4 .(Inside wall)	Sq.M	2748.65			
13.02	Providing and laying 6mm thick cement plaster in C.M 1:4 in ceiling.	Sq.M	946.70			
13.03	Providing & laying 20mm cement plaster - In Staircase & Ramp	Sq.M	62.75			
13.04	Providing & applying putty of thickness 2mm or more over plastered surface to prepare the surface even and smooth complete.	sq.m	3500.95			
13.05	Acrylic washable distemper, two coats on new work, including cement primer coat (Inside wall and ceiling)	Sq.M	3500.95			
13.06	High gloss synthetic enamel\for steel & wood work, two coats on new work - For Eaves Board	Sq.M	77.53			
14	**External Works**					
14.01	Providing & laying 50mm thick Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth - With cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel (40mm)	Sq.M	178.79			
14.02	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4,12 mm aggregate for filling haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. complete-150mm wide x 200mm average depth.	m	129.00			
14.03	Providing and fixing to frames 8mm thick Cement Fibre Board in ceiling or soffit including ceiling frames as per manufacturer's specifications (sample to be approved by client).	sq.m	147.13			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
14.04	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws.	m	193.83			
15	**Plumbing Works**					
15.01	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in- Charge.- 32mm	Mtr.	25.90			
15.02	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in-Charge. - 25MM	Mtr.	78.93			
15.03	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN-16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings including fixing pipe with clamps at 1.0m spacing. This includes testing of joints, cutting chases and making good the wall complete as per direction of Engineer-in- Charge -20MM	Mtr.	69.86			
15.04	Providing & fixing white vitreous china wash basin, including C.I brackets, 15mm C.P. brass pillar taps, c.p. chain & rubber plug, 32mm pvc waste, 32mm dia. trap & union, repair walls- Flat back wash basin 630x450mm with single 15mm c.p. brass pillar taps	Each.	12.00			
15.05	Providing & fixing European-type(One piece) vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white vitreous china low level cistern, fittings, brackets, repair walls (coloured, with plastic seat & lid)	Each.	8.00			
15.06	Providing & fixing Indian-type vitreous china w.c squatting pan, including 100 mm H.C.I P or S trap, 10 lit low level vitreous china cistern & fittings, repair walls, 580mm, colour Orissa-model	Each.	2.00			
15.07	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	Each	4.00			
15.08	Providing & fixing 800x1200mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	Each	4.00			
15.09	Providing & Fixing toilet paper holder with necessary fittings. (C.P. brass)	Each	10.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
15.1	Providing & fixing brass stop cock , 32mm -Parryware or equivalent brand	Each	8.00			
15.11	Providing and fixing c.p. brass bibcock - 15mm standard vertical, c.p. knob	Each	10.00			
15.12	Providing & fixing PVC Connection pipe in WC cistern, Geyser, Wash Basin etc….	Each	30.00			
15.13	Providing & fixing pedestals for basins, white vitreous china, recessed back for pipes and necessary fittings	Each	2.00			
15.14	Providing & fixing Angle valves 20 mm- Parryware or equvalent brand	Each	30.00			
15.15	Providing & fixing c.p. brass mixers, 15mm - For basin, single-hole, casted spout	Each	2.00			
15.16	Providing & fixing c.p. towel rail 600 x 20mm with c.p brass brackets fixed to wooden cleats	Each	8.00			
15.17	Providing & fixing Grab Rail/Hand Rail 600mm- Parryware or equvalent brand	Each	4.00			
15.18	Providing & fixing Hinged Grab Rail- Parryware or equvalent brand	Each	2.00			
15.19	Providing & fixing Electric water heater including necessary fittings - 25 Litres	Each	2.00			
16	**Sewerage Works**					
16.01	Providing & laying H.D.P.E Pipes, 4 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) ,160mm	Mtr.	80.18			
16.02	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) -50mm	Mtr.	26.18			
16.03	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) - 75mm dia	Mtr.	16.46			
16.04	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) - 110mm dia	Mtr.	30.34			
16.05	Providing & fixing P.V.C Long arm bend with door- 75mm dia	Each	6.00			
16.06	Providing & fixing P.V.C Single Tee with door - 110mm dia	Each	6.00			
16.07	Providing & fixing P.V.C Single Tee with door- 75 dia	Each	6.00			
16.08	Providing & fixing P.V.C plain bend- 110mm dia	Each	20.00			
16.09	Providing & fixing P.V.C door bend-75mm dia	Each	10.00			
16.1	Providing & fixing P.V.C Double Tee with door- 110mm dia	Each	4.00			
16.11	Providing & fixing P.V.C Double Y, plain- 110mm dia	Each	2.00			
16.12	Providing & fixing P.V.C Nahani Trap- 110mm inlet & 75mm outlet	Each	12.00			

Khorlochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
16.13	Constructing Brick masonry manhole in cement mortar 1:5, R.C.C top slab with 1:2:4 20mm aggregates, foundation concrete 1:4:8 40mm aggregates, 12mm plaster in CM 1:3 finished with floating coat of neat cement and making channels in cement concrete 1:2:4 20mm aggregates, neatly finished complet: Inside dimension 900 x 800mm & 450mm deep including C.I. cover & frame (weight >38 kg)	Each	6.00			
	Total for BHU (Nu.)					

2. Doctor's Quarter

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	**Earthwork**					
1.1	Excavation in foundation trenches or drains, not exceeding 1.5 m in width or 10 sq.m on plan, including setting out, dressing of sides, ramming and leveling of bottoms, and disposal of surplus excavated material within 50 m lead and 1.5 m lift, in all kinds of soil and rock, with or without blasting, complete.	cu.m	143.34			
1.2	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m &lift 1.5m.	cu.m	93.19			
1.3	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing.	cu.m	13.94			
2	**Damp Proof Course**					
2.1	Providing & laying 75mm thick sand bedding, including watering, ramming and dressing.	cu.m	6.94			
2.2	Providing and laying moisture barrier using plastic sheeting underlay -200 micro meter.	sq.m	113.03			
3	**Stone Work**					
3.1	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone.	cu.m	44.17			
3.2	Random Rubble Masonry with hard stone in CM 1:4 in foundation and upto plinth level.	cu.m	48.08			
4	**Concrete Work**					
4.1	Providing and laying in position plain cement concrete 1:3:6 (1 cement :3 sand :6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	24.50			
4.2	Providing and laying in position plain cement concrete - 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	8.74			
5	**RCC Work**					

Kholochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
5.1	Providing & laying in position reinforced cement concrete 1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size) excluding the cost of centering, shuttering and reinforcement - all work upto plinth level.	cu.m	19.88			
5.2	Providing & laying in position reinforced cement concrete 1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size) in columns, Pillars, posts above plinth up to roof excluding the cost of centering, shuttering and reinforcement.	cu.m	5.01			
5.3	Providing & laying in position reinforced cement concrete 1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size) in beams, lintels, slabs, staircase above plinth up to roof excluding the cost of centering, shuttering and reinforcement.	cu.m	14.13			
6	**Steel Reinforcement**					
6.1	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete.	kg	10962.80			
7	**Form Work**					
7.1	Providing & fixing centering and shuttering (formwork) using Timber, including strutting, propping etc. and removal of formwork-Foundation, Footings and all works upto Plinth Level, etc.	sq.m	40.25			
7.2	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Columns, Pillars, Post, Struts, etc.	sq.m	75.44			
7.3	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Lintels, Beams, Griders, Bresummers, Cantilevers etc.	sq.m	280.76			
7.4	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Slab, Suspended floor, roof and landing.	sq.m	108.65			
8	**Coursed Rubble Masonry/ Concrete Cement Block works**					
8.1	Providing & laying Coursed Rubble Masonry with hard stone hammer-dressed laid in cement mortar 1:4 (1 cement: 4 sand) in foundation, plinth and in superstructure, complete in all respects.	cu.m	30.82			
8.2	Providing & laying locally manufactured Concrete Solid Block Masonry (115mm) in superstructure below floor 2 level in cement mortar 1:4.	sq.m	79.82			
9	**Doors & Windows**					

Khorlochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
9.1	Providing & fixing in position dressed wook work in frame for window including aluminium framed windows in position with all accessories, including sliding shutters glazed with 5 mm thick plain glass, pelmet and curtain rod, and all required fittings, fixtures, and holdfasts, complete as per drawings and specifications. Rate includes traditional RCC cornices, synthetic enamel painting on internal woodwork, and traditional painting on internal and external surfaces, complete as directed by the Engineer-in-Charge.					
i)	W164	each	1.00			
ii)	W165	each	3.00			
iii)	W210	each	4.00			
iv)	V95	each	2.00			
9.2	Providing & fixing in position dressed wook work in frame for door including flush door shutter (pre-fabricated), block-board with ply vaneer 35mm thick treated with anti-termite polishes with all fittings & fixtures & hold fasts as per drawing complete. Rate includes traditional RCC cornices, synthetic enamel painting on internal woodwork, and traditional painting on internal and external surfaces, complete as directed by the Engineer-in-Charge.					
i)	D80	each	2.00			
ii)	D85	each	2.00			
iii)	D90	each	3.00			
iv)	DW255	each	1.00			
10	**Steel works**					
10.1	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red- In tubular sections.	kg	1968.62			
10.2	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint- In M.S Angles/ Tee for external ceiling.	kg	374.28			
10.3	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	kg	31.25			
10.4	Providing & fixing bolts of various sizes including nuts & washers.	kg	15.44			
10.5	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work.	kg	180.17			
11	**Roofing Works**					
11.1	Providing & fixing Pre-Painted Galvanised Iron (PPGI) sheets, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses (24g, 0.50mm).	sq.m	211.62			

Kholochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
11.2	Providing & fixing 600mm ridges or hips in Pre Painted Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection - 25g.	m	37.19			
11.3	Providing and fixing to frames 8mm thick Cement Fibre Board in ceiling or sofit encluding ceiling frames as per manufacturer's specifications (sample to be approved by client).	sq.m	86.55			
11.4	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws.	m	57.70			
11.5	Providing and fixing on wall face single socketed rigid PVC (Working Pressure 4kgf per sq.cm) rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete -90mm dia.	m	18.40			
11.6	Providing & fixing Semi circular/half round Poly Vinyl Chloride (PVC) roof gutter of 180mm dia 3.04m long, including fittings (brackets, bolts, nuts, washer, end cap, tee end cap etc) excluding the cost of pipes	m	57.70			
12	**Traditional Cornices**					
12.1	Providing & fixing in position dressed wood work in frames of doors, windows, clerestory windows and other frames,wrought and framed - Class 'B' (conifer) for varandah railing.	cu.m	0.26			
12.2	Providing & fixing traditional wooden Tshegay for windows\railing etc. as per standard design -In Class 'B' (conifer) for varandah railing.	sq.m	3.07			
12.3	Providing, preparing and applying Sumdang washable painting - Ding for varandah railing.	sq.m	3.53			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
13	**Flooring works**					
13.1	Providing and laying Vitrified Tiles (600*600*10mm) in floorings laid on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	sq.m	87.66			
13.2	Providing and laying Vitrified Tiles in skirtings on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement -150mm height.	sq.m	7.76			
13.3	Providing and laying Anti Skid Tiles (600*600*10mm) in floors on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	sq.m	7.88			
13.4	Providing and laying Ceramic Tiles (300*300*10mm) in walls on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	sq.m	33.74			
13.5	Providing and laying Pre-Polished/ Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M. 1:4 upto 20 mm thick average cement slurry for fixing the tiles with required slopes, curing, cleaning, filling the joints with pigments of similar colour and at all levels with all leads and lifts etc ...complete as per directions of site in-charge and as per pattern required. - 18mm Thick granite stone flooring over 18mm thick base of cement mortar 1:4.	sq.m	3.12			
14	**Finishing Works**					
14.1	Providing and laying cement plaster in CM 1:4, 15 mm thick (Inside wall).	sq.m	301.67			
14.2	Providing & laying cement plaster, finished with floating coat of neat cement - 20mm plaster in C.M 1:4.	sq.m	22.62			
14.3	Providing and laying 6mm thick cement plaster in C.M 1:4 in ceiling.	sq.m	105.13			
14.4	Providing & applying putty of thickness 2mm or more over plastered surface to prepare the surface even and smooth complete.	sq.m	406.80			
14.5	Providing and applying finishing coats Acrylic washable distemper, two coats on new work, including cement primer coat for internal walls and room ceiling.	sq.m	406.80			
14.6	Providing and applying finishing coats synthetic enamel paint - 2 coats on new work including applying primer for external ceiling and internal portion for window & door.	sq.m	140.91			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
15	**Plumbing Work**					
15.1	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings including connection from existing GI-pipe, excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in- Charge. - 32mm.	m	10.00			
15.2	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in-Charge. - 25mm.	m	18.00			
15.3	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN-16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings including fixing pipe with clamps at 1.0m spacing. This includes testing of joints, cutting chases and making good the wall complete as per direction of Engineer-in- Charge. - 20mm.	m	48.61			
15.4	Providing & fixing European-type vitreous china w.c One piece Toilet with seat cover, repairing walls complete.	each	2.00			
15.5	Providing & fixing white vitreous china wash basin, including C.I brackets, 15mm C.P. brass pillar taps, c.p. chain & rubber plug, 32mm pvc waste, 32mm dia. trap & union, repair walls Flat back wash basin 630x450mm with a pair of 15mm c.p. brass pillar taps.	each	2.00			
15.6	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats.	each	2.00			
15.7	Providing & Fixing soap dish- including including brackets, wooden cleats, c.p. brass screws.	each	4.00			
15.8	Providing & Fixing toilet paper holder (C.P. brass)	each	2.00			
15.9	Providing & fixing c.p. towel rail 750 x 20mm with c.p brass brackets fixed to wooden cleats.	each	2.00			
15.10	Providing & fixing Electric water heater including necessary fittings. -50 litres	each	2.00			
15.11	Providing & fixing Electric water heater including necessary fittings. -10 litres	each	1.00			
15.12	Providing & fixing Kitchen Sinks including all connections and fittings. - Stainless steel, 1740*520*200mm, double bowl & single drain-board.	each	1.00			

Kholongchhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
15.13	Providing & fixing c.p. brass mixers, 15mm. -For wall, non-telephonic type.	each	2.00			
15.14	Providing & fixing c.p. brass mixers, 15mm -For sink, with casted spout swinging for kitchen sink.	each	1.00			
15.15	Providing & fixing c.p. brass bibcock- 15mm, long body, c.p. knob.	each	2.00			
15.16	Providing & fixing c.p. brass stop cock -15mm, angle, c.p knob.	each	12.00			
15.17	Providing anf fixing c.p glass shelt (450x120)mm fixed to wooden cleats, complete.	each	2.00			
15.18	Providing & fixing plastic tank including all accessories complete - 1000 litre capacity.	each	1.00			
16	**Sewerage Works**					
16.1	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 1.5m, disposal of surplus material within lead of 50m: All kinds of soil-Pipes, cables etc. 80mm < dia < 300mm.	m	72.00			
16.2	Providing & laying H.D.P.E Pipes, 4 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) -110mm.	m	60.00			
16.3	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (including the cost of PVC fittings)-75mm.	m	12.00			
16.4	Providing & fixing P.V.C waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) -110mm.	m	12.00			
16.5	Providing & fixing P.V.C waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) - 75mm dia.	m	12.00			
16.6	Providing & fixing P.V.C Nahani Trap - 110mm inlet & 75mm outlet.	each	2.00			
16.7	Providing & fixing P.V.C bend with door cap- 75mm dia.	each	2.00			
16.8	Providing & fixing P.V.C bend with door cap- 110mm dia.	each	2.00			
17	**External Works**					
17.1	Providing & laying 50mm thick Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth - With cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel (40mm).	sq.m	84.83			
17.2	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4,12 mm aggregate for filling/haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. complete-150mm wide x 200mm average depth.	m	56.55			

Khorlochhu Hydro Power Ltd.

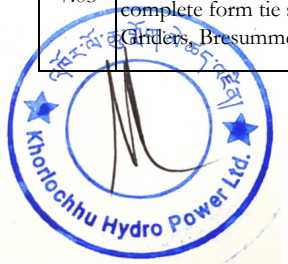
S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
17.3	Constructing Brick masonry manhole/ inception chamber in cement mortar 1:4, R.C.C top slab with 1:2:4 20mm aggregates, foundation concrete 1:4:8 40mm aggregates, 12mm plaster in CM 1:3 finished, Inside dimension 800 x 900mm & 450mm deep & additional depth as per site requirement including C.I. cover & frame (weight >38 kg).	each	5.00			
	Total for Doctor's Quarter (Nu.)					

3. Staff Quarter

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	**Earthwork**					
1.01	Excavation in foundation trenches or drains, not exceeding 1.5 m in width or 10 sq.m on plan, including setting out, dressing of sides, ramming and leveling of bottoms, and disposal of surplus excavated material within 50 m lead and 1.5 m lift, in all kinds of soil and rock, with or without blasting, complete.	Cu.M	821.12			
1.02	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m &lift 1.5m.	Cu.M	1221.63			
1.03	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing	Cu.M	41.96			
2	**Damp Proof Course**					
2.01	Providing & laying sand bedding, including watering, ramming, dressing(75mm thk)	Cu.M	20.98			
2.02	Providing and laying moisture barrier using plastic sheeting underlay -200 micro metre.	Sq.M	279.74			
3	**Stonework**					
3.01	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cu.M	87.27			
3.02	Random Rubble Masonry with hard stone in CM 1:4 in foundation and plinth	Cu.M	146.10			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
4	**Concrete Work**					
4.01	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level - 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)	Cu.M	30.28			
4.02	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level-1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	Cu.M	37.36			
5	**RCC Work**					
5.01	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm aggregate nominal size) excluding form work and reinforcement in foundation for footings and beams up to plinth.	Cu.M	101.57			
5.02	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm aggregate nominal size) excluding form work and reinforcement in columns, Pillars, posts above plinth up to roof.	Cu.M	35.46			
5.03	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm aggregate nominal size) excluding form work and reinforcement in beams, lintels, slabs, staircase above plinth up to roof.	Cu.M	144.06			
6	**Steel Reinforcement**					
6.01	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	Kg	38501.14			
7	**Formwork**					
7.01	Providing & fixing centering and shuttering (formwork) using Timber, including strutting, propping etc. and removal of formwork-Foundation, Footings and all works upto Plinth Level, etc.	Sq.M.	464.01			
7.02	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Columns, Pillars, Post, Struts, etc.	Sq.M.	407.16			
7.03	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Lintels, Beams, Girders, Bresummers, Cantilevers, Slab, Suspended floor, roof and landing.	Sq.M.	1109.64			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
8	**Course Rubble Masonry/ Concrete Block Brick**					
8.01	Providing &laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth (In cement mortar 1:4) +Extra for C.R masonry with hard stone chisel dressed in superstructure above plinth, below & including floor 2 level	Cu.M	190.24			
8.02	Providing & laying concrete block brick in Foundation & Plinth including superstructure above plinth level upto floor three level (including all lifts and heights) - 250mm Thick	Cu.M	46.70			
8.03	Providing & laying locally manufactured Concrete Solid Block Masonry (115mm) in superstructure below floor 2 level in cement mortar 1:4.	Sq.m	368.09			
9	**Doors & Windows**					
9.01	Providing & fixing in position with timber in mixed conifer with aluminium windows including Shutter 6mm thick plain glass, Pelmet & curtain rod, fittings & fixtures & hold fasts as per drawing complete - synthetic enamel paint on new work of steel.(Inclusive of traditional wooden cornices and painting works)					
i)	W243	Each	20.00			
ii)	DW251	Each	8.00			
iii)	W95	Each	8.00			
iv)	W175	Each	8.00			
v)	RW01	Each	8.00			
vi)	RW02	Each	4.00			
vii)	Balcony Rabsey	Each	4.00			
9.02	Providing & fixing in position doors in timber of mixed conifer including, timber shutter with all fittings & fixtures & hold fasts as per drawing (complete)with timber as the frame. (Inclusive of traditional cornices and all types of paintings)					
i)	D110	Each	8.00			
ii)	D95	Each	16.00			
iii)	D85	Each	8.00			
iv)	D85a	Each	8.00			
9.03	Providing and fixing in position timber railings including fittings and fixtures complete (Inclusive of 'ding' traditional sumdang paint)	Each	2.00			
10	**Steel Work**					
10.01	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint- In M.S Angles/ Tee for external ceiling.	kg	383.42			
10.02	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red- In tubular sections	Kg.	4349.65			

Chhorlochhu Hydro Power Ltd.

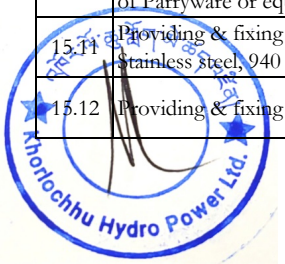
S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
10.03	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	292.97			
10.04	Providing & fixing bolts of various sizes including nuts & washers, complete in all areas.	Kg	40.92			
10.05	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	507.74			
10.06	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc… including welding, grinding, buffing, polishing and making curvature (wherever required) and fittings the same with necessary stainless steel nuts and bolts complete, i/e fixing railing with necessary accessories and stainless steel dash fasteners, stainless steel bolts etc, of required size on the top of the floor or the side of waist slab with suitable arrangement as per approval of engineers in charge.	m	51.96			
11	**Roofing Work**					
11.01	Providing & fixing 0.5mm thick pre-painted Al-Zn alloy coated Steel roofing sheets of 24G in natural finish, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses of Colour Roof India Limited (CRiL or equivalent).	Sq.M	599.56			
11.02	Providing & fixing 600mm ridges or hips in Pre Painted Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection.	Mtr.	46.00			
11.03	Providing and fixing on wall face single socketed rigid PVC (Working Pressure 4kgf per sq.cm) rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete -90mm dia	Mtr.	30.26			
11.04	Providing & fixing Semi circular/half round Poly Vinyl Chloride (PVC) roof gutter of 180mm dia 3.04m long, including fittings (brackets, bolts, nuts, washer, end cap, tee end cap etc) excluding the cost of pipes	Mtr.	92.00			
12	**Flooring & Tiling Work**					
12.01	Providing and laying Anti Skid Tiles (600*600*10mm) in floors on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	34.56			
12.02	Providing and laying ceramic tiles of size 300x300mm in walls on 10mm thick cment mortar of 1:3 finished with flush pointing in white cement	Sq.M	121.60			
12.03	Providing & laying marble stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete.	Sq.M	35.71			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
12.04	Providing and laying Pre-Polished/ Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M. 1:4 upto 20 mm thick average cement slurry for fixing the tiles with required slopes, curing, cleaning, filling the joints with pigments of similar colour and at all levels with all leads and lifts etc ...complete as per directions of site in-charge and as per pattern required. - 18mm Thick granite stone flooring over 18mm thick base of cement mortar 1:4.	sq.m	6.27			
12.05	Providing and laying vitrified tiles and skirting 10mm thick (600x600) in floorings laid on a bed of 20mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	575.28			
13	**Finishing Works**					
13.01	Providing and laying cement plaster , 15 mm thick 1:4 .(Inside wall)	Sq.M	1440.60			
13.02	Providing and laying 6mm thick cement plaster in C.M 1:4 in ceiling.	Sq.M	516.23			
13.03	Providing & laying 20mm cement plaster in C.M 1:4 -staircase	Sq.M	20.34			
13.04	Providing & applying putty of thickness 2mm or more over plastered surface to prepare the surface even and smooth complete.	Sq.M	1835.23			
13.05	Acrylic washable distemper, two coats on new work, including cement primer coat (Inside wall and ceiling)	Sq.M	1835.23			
13.06	High gloss synthetic enamel\for steel & wood work, two coats on new work - For Eaves Board	Sq.M	72.15			
14	**External Works**					
14.01	Providing & laying 50mm thick Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth - With cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel (40mm)	Sq.M	276.80			
14.02	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4,12 mm aggregate for filling haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. complete-150mm wide x 200mm average depth.	m	138.40			
14.03	Providing and fixing to frames 8mm thick Cement Fibre Board in ceiling or sofit including ceiling frames as per manufacturer's specifications (sample to be approved by client).	sq.m	190.10			
14.04	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws.	m	180.38			
15	**Plumbing Works**					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
15.01	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in-Charge. - 25MM	Mtr.	99.83			
15.02	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in- Charge.- 32mm	Mtr.	13.62			
15.03	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN-16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings including fixing pipe with clamps at 1.0m spacing. This includes testing of joints, cutting chases and making good the wall complete as per direction of Engineer-in- Charge - 20MM	Mtr.	34.65			
15.04	Providing & fixing white vitreous china wash basin, including C.I brackets, 15mm, c.p. chain & rubber plug, 32mm pvc waste, 32mm dia. trap & union, repair walls Flat back wash basin 630x450mm .	Each.	8.00			
15.05	Providing & fixing Indian-type vitreous china w.c squatting pan (one piece) with 10 litres vitreous china cistern including 100 mm P or S trap, fittings and repairing walls complete, 580mm, white Orissa-model	Each.	8.00			
15.06	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	Each	8.00			
15.07	Providing & Fixing toilet paper holder with necessary fittings. (C.P. brass)	Each	8.00			
15.08	Providing & fixing C.P. Brass shower fittings,Shower with revolving joint, 15mm,	Each	8.00			
15.09	Providing & fixing angle valve, 20mm dia - Preferably of Parryware or equivalent brand	Each	8.00			
15.1	Providing & fixing connecting hose in wash basin or kitchen sink - Preferably of Parryware or equivalent brand	Each	8.00			
15.11	Providing & fixing Kitchen Sinks including all connections and fittings, Stainless steel, 940 x 460 x 330 mm, double bowl.	Each.	8.00			
15.12	Providing & fixing Electric water heater including necessary fittings. -50 litres	each	2.00			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
15.13	Providing & fixing Electric water heater including necessary fittings. -10 litres	each	2.00			
15.14	Providing & fixing c.p. brass mixers, 15mm. -For wall, non-telephonic type.	each	8.00			
15.15	Providing & fixing c.p. brass mixers, 15mm -For sink, with casted spout swinging for kitchen sink.	each	8.00			
15.16	Providing & fixing c.p. brass mixers, 15mm- For basin, single-hole, casted spout	each	8.00			
15.17	Providing & fixing brass full way valve with wheel - 32mm.	Each	8.00			
16	**Sewerage Works**					
16.01	Providing & laying H.D.P.E Pipes, 4 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) ,110mm	Mtr.	22.62			
16.02	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) -50mm	Mtr.	19.70			
16.03	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) - 75mm dia	Mtr.	8.00			
16.04	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) - 110mm dia	Mtr.	8.00			
16.05	Providing & fixing P.V.C Nahani Trap ,110mm inlet & 75mm outlet	Each	8.00			
16.06	Providing & fixing P.V.C Single Tee with door - 110mm dia	Each	8.00			
16.07	Constructing Brick masonry manhole in cement mortar 1:5, R.C.C top slab with 1:2:4 20mm aggregates, foundation concrete 1:4:8 40mm aggregates, 12mm plaster in CM 1:3 finished with floating coat of neat cement and making channels in cement concrete 1:2:4 20mm aggregates, neatly finished complet: Inside dimension 900 x 800mm & 450mm deep including C.I. cover & frame (weight >38 kg)	Each	4.00			
	Total for Staff Quarter (Nu.)					

4. Caretaker & Driver's Quarter

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	**Earthwork**					
1.01	Excavation in foundation trenches or drains, not exceeding 1.5 m in width or 10 sq.m on plan, including setting out, dressing of sides, ramming and leveling of bottoms, and disposal of surplus excavated material within 50 m lead and 1.5 m lift, in all kinds of soil and rock, with or without blasting, complete.	Cu.M	47.97			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
1.02	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m &lift 1.5m.	Cu.M	25.36			
1.03	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing	Cu.M	12.93			
2	**Damp Proof Course**					
2.01	Providing & laying sand bedding, including watering, ramming, dressing(75mm thk)	Cu.M	14.63			
2.02	Providing and laying moisture barrier using plastic sheeting underlay -200 micro metre.	Sq.M	86.22			
3	**Stonework**					
3.01	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone	Cu.M	24.28			
3.02	Random Rubble Masonry with hard stone in CM 1:4 in foundation and plinth	Cu.M	43.03			
4	**Concrete Work**					
4.01	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level - 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)	Cu.M	8.92			
4.02	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level-1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	Cu.M	11.73			
5	**RCC Work**					
5.01	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm aggregate nominal size) excluding form work and reinforcement in foundation for footings and beams up to plinth.	Cu.M	11.79			
5.02	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm nominal size aggregates) excluding form work and reinforcement in columns, Pillars, posts above plinth up to roof.	cu.m	0.94			
5.03	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm aggregate nominal size) excluding form work and reinforcement in beams, lintels, slabs, staircase above plinth up to roof.	Cu.M	20.30			
6	**Steel Reinforcement**					
6.01	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete	Kg	4333.50			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
7	**Formwork**					
7.01	Providing & fixing centering and shuttering (formwork) using Timber, including strutting, propping etc. and removal of formwork-Foundation, Footings and all works upto Plinth Level, etc.	Sq.M.	35.50			
7.02	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Columns, Pillars, Post, Struts, etc.	sq.m	15.02			
7.03	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Lintels, Beams, Griders, Bresummers, Cantilevers, Slab, Suspended floor, roof and landing.	Sq.M.	175.81			
8	**Course Rubble Masonry/ Concrete Block Brick**					
8.01	Providing &laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth (In cement mortar 1:4) +Extra for C.R masonry with hard stone chisel dressed in superstructure above plinth, below & including floor 2 level	Cu.M	35.50			
8.02	Providing & laying concrete block brick in Foundation & Plinth including superstructure above plinth level upto floor three level (including all lifts and heights) - 250mm Thick	Cu.M	24.49			
8.03	Providing & laying locally manufactured Concrete Solid Block Masonry (115mm) in superstructure below floor 2 level in cement mortar 1:4.	Sq.m	11.52			
9	**Doors & Windows**					
9.01	Providing & fixing in position with timber (of mixed conifer) in window frames including 6mm thick plain glass, 25mm diameter pelmet & curtain rod, towerbolt, handle and hook of eye, all three of 100mm, 100mm long hinges and 400mm long hold fast as per drawing, etc.., complete - (Inclusive of traditional wooden cornices, pink primer in woodworks and painting works of Sumdang 'Rab' quality in traditional cornices)					
i)	W95	Each	4.00			
ii)	W243	Each	6.00			
iii)	W175	Each	2.00			
9.02	Providing & fixing in position with timber (of mixed conifer) in door frames including 30mm thick timber shutter, 100mm long hinges, 100mm long L-drop latch, 100mm long tower bolts, 125mm long door handle, door stopper and 400mm long hold fasts as per drawing, etc.., complete. - (Inclusive of traditional wooden cornices, pink primer in woodworks and painting works of Sumdang 'Rab' quality in traditional cornices)					
i)	DW240	Each	2.00			
ii)	D95	Each	2.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
iii)	D85	Each	2.00			
iv)	D85a	Each	2.00			
10	**Steel Work**					
10.01	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint- In M.S Angles/ Tee for external ceiling.	kg	130.68			
10.02	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red- In tubular sections	kg	2037.20			
10.03	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	173.12			
10.04	Providing & fixing bolts of various sizes including nuts & washers, complete in all areas.	Kg	49.24			
10.05	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	460.45			
11	**Roofing Work**					
11.01	Providing & fixing 0.5mm thick pre-painted Al-Zn alloy coated Steel roofing sheets of 24G in natural finish, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses of Colour Roof India Limited (CRiL or equivalent)	Sq.M	159.66			
11.02	Providing & fixing 600mm ridges or hips in Pre Painted Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection.	Mtr.	15.95			
11.03	Providing and fixing on wall face single socketed rigid PVC (Working Pressure 4kgf per sq.cm) rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete -90mm dia	Mtr.	8.20			
11.04	Providing & fixing Semi circular/half round Poly Vinyl Chloride (PVC) roof gutter of 180mm dia 3.04m long, including fittings (brackets, bolts, nuts, washer, end cap, tee end cap etc) excluding the cost of pipes	Mtr.	31.90			
12	**Wood Work**					
12.01	Providing, making & fixing woodwork dressed in traditional cornices, kaws,zhu and other frames complete as per standard design in Mixed Conifer, including providing and fixing pre-laminated partical board, applying wood preservative and traditional painting (sumdang) on exposed surfaces with all necessary fittings and fixtures.	Each.	1.00			
13	**Flooring & Tiling Work**					
13.01	Providing and laying Anti Skid Tiles (600*600*10mm) and skirting (height 150mm) in floors on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	22.94			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
13.02	Providing and laying ceramic tiles of size 300x300mm in walls on 8mm thick cment mortar of 1:3 finished with flush pointing in white cement	Sq.M	20.63			
13.03	Providing and laying vitrified tiles 10mm thick (600x600) and skirting (height 150mm) in floorings laid on a bed of 20mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	73.27			
13.04	Providing and laying Pre-Polished/ Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M. 1:4 upto 20 mm thick average cement slurry for fixing the tiles with required slopes, curing, cleaning, filling the joints with pigments of similar colour and at all levels with all leads and lifts etc. complete as per directions of site in-charge and as per pattern required, 20mm Thick granite stone flooring over 20mm thick base of cement mortar 1:4.	Sq.M	6.27			
13.05	Providing & laying marble stone flooring over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete.	Sq.M	8.19			
14	**Finishing Works**					
14.01	Providing and laying cement plaster , 15 mm thick 1:4 .(Inside wall)	Sq.M	240.00			
14.02	Providing and laying 6mm thick cement plaster in C.M 1:4 in ceiling.	Sq.M	74.45			
14.03	Providing & applying putty of thickness 2mm or more over plastered surface to prepare the surface even and smooth complete.	sq.m	293.82			
14.04	Acrylic washable distemper, two coats on new work, including cement primer coat (Inside wall and ceiling)	Sq.M	293.82			
14.05	High gloss synthetic enamel\for steel & wood work, two coats on new work - For Eaves Board	Sq.M	20.56			
15	**External Works**					
15.01	Providing & laying 50mm thick Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth - With cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel (40mm)	Sq.M	47.50			
15.02	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4,12 mm aggregate for filling haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. complete-150mm wide x 200mm average depth.	m	47.50			
15.03	Providing and fixing to frames 8mm thick Cement Fibre Board in ceiling or sofit including ceiling frames as per manufacturer's specifications (sample to be approved by client).	Sq.M	34.08			
15.04	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws.	m	10.28			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
16	**Plumbing Works**					
16.01	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in- Charge.- 32mm	Mtr.	14.59			
16.02	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in-Charge. - 25MM	Mtr.	34.81			
16.03	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN-16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings including fixing pipe with clamps at 1.0m spacing. This includes testing of joints, cutting chases and making good the wall complete as per direction of Engineer-in- Charge. - 20MM	Mtr.	14.59			
16.04	Providing & fixing white vitreous china wash basin, including C.I brackets, 15mm C.P. brass pillar taps, c.p. chain & rubber plug, 32mm pvc waste, 32mm dia. trap & union, repair walls- Flat back wash basin 630x450mm with single 15mm c.p. brass pillar taps	Each.	2.00			
16.05	Providing & fixing pedestals for basins, white vitreous china, recessed back for pipes and necessary fittings	Each	2.00			
16.06	Providing & fixing Indian-type vitreous china w.c squatting pan (one piece), including 100 mm H.C.I P or S trap, 10 lit low level vitreous china cistern & fittings, repair walls, 580mm, colour Orissa-model	Each.	2.00			
16.07	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	Each	2.00			
16.08	Providing & Fixing soap dish- including all necessary fixtures and fittings. (including brackets, wooden cleats, c.p. brass screws)	Each	2.00			
16.09	Providing & Fixing toilet paper holder with necessary fittings. (C.P. brass)	Each	2.00			
16.1	Providing & fixing brass full way valve with wheel	Each	2.00			
16.11	Providing & fixing angle valve, 20mm dia - Preferably of Parryware or equivalent brand	Each	6.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
16.12	Providing & fixing C.P. Brass shower fittings,Shower with revolving joint, 15mm	Each	2.00			
16.13	Providing & fixing c.p. brass mixers, 15mm ,For wall, non-telephonic type	Each	2.00			
16.14	Providing & fixing Kitchen Sinks including all connections and fittings, Stainless steel, 940 x 460 x 330 mm, double bowl.	Each	2.00			
16.15	Providing & fixing Electric water heater including necessary fittings. -50 litres	each	2.00			
16.16	Providing & fixing Electric water heater including necessary fittings. -10 litres	each	2.00			
16.17	Providing & fixing c.p. brass pillar-cock,15mm, standard, c.p knob	Each	2.00			
16.18	Providing & fixing c.p. towel rail 600 x 20mm with c.p brass brackets fixed to wooden cleats	Each	2.00			
16.19	Providing & fixing connecting hose in wash basin or kitchen sink - Preferably of Parryware or equivalent brand	Each	6.00			
17	**Sewerage Works**					
17.01	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) -50mm	Mtr.	7.43			
17.02	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) - 75mm dia	Mtr.	9.80			
17.03	Providing & laying H.D.P.E Pipes, 4 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) ,90mm	Mtr.	4.00			
17.04	Providing & laying H.D.P.E Pipes, 4 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) ,110mm	Mtr.	2.00			
17.05	Providing & laying H.D.P.E Pipes, 4 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) ,160mm	Mtr.	35.85			
17.06	Providing & fixing P.V.C Nahani Trap - 110mm inlet & 75mm outlet	Each	4.00			
17.07	Providing & fixing P.V.C door bend - 75mm Dia	Each	4.00			
17.08	Providing & fixing P.V.C plain bend - 75mm	Each	4.00			
17.09	Providing & fixing H.D.P.E Elbow,110mm	Each	2.00			
17.1	Constructing Brick masonry manhole in cement mortar 1:5, R.C.C top slab with 1:2:4 20mm aggregates, foundation concrete 1:4:8 40mm aggregates, 12mm plaster in CM 1:3 finished with floating coat of neat cement and making channels in cement concrete 1:2:4 20mm aggregates, neatly finished complet: Inside dimension 900 x 800mm & 450mm deep including C.I. cover & frame (weight >38 kg)	Each	5.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
	Total for Caretaker & Driver's Quarter (Nu.)					

5. Kitchen & Laundry

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	**Earthwork**					
1.01	Excavation in foundation trenches or drains, not exceeding 1.5 m in width or 10 sq.m on plan, including setting out, dressing of sides, ramming and leveling of bottoms, and disposal of surplus excavated material within 50 m lead and 1.5 m lift, in all kinds of soil and rock, with or without blasting, complete.	Cu.M	46.13			
1.02	Filling of trenches, sides of foundations, areas to be raised etc. including compaction in layers < 200mm using selected excavated earth within lead 50m & 1.5m lift.	cu.m	38.10			
1.03	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing.	cu.m	21.79			
2	**Damp Proof Course**					
2.01	Providing & laying 75mm thick sand bedding, including watering, ramming, dressing.	cu.m	5.45			
2.02	Providing and laying moisture barrier using plastic sheeting underlay -200 micro metre.	sq.m	103.42			
3	**Stonework**					
3.01	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone.	cu.m	21.84			
3.02	Random Rubble Masonry with hard stone in cement mortar 1:4 in foundation and plinth.	cu.m	33.03			
4	**Concrete Work**					
4.01	Providing and laying in position plain cement concrete 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size aggregates) excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	8.64			
4.02	Providing and laying in position plain cement concrete 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size aggregates) excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	10.24			
5	**RCC Work**					
5.01	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm nominal size aggregates) excluding form work and reinforcement in foundation for footings and beams up to plinth.	cu.m	12.89			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
5.02	Providing & laying in position reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm nominal size aggregates) in walls (any thickness) including attached pilasters buttresses, piers, abutments etc. upto floor five level excluding the cost of centering, shuttering and reinforcement.	cu.m	10.21			
5.03	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm nominal size aggregates) excluding form work and reinforcement in columns, Pillars, posts above plinth up to roof.	cu.m	1.68			
5.04	Providing and laying reinforced cement concrete 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm nominal size aggregates) excluding form work and reinforcement in beams, lintels, slabs, staircase above plinth up to roof.	cu.m	18.35			
6	**Steel Reinforcement**					
6.01	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete. (PERFECT THERMEX TMT or equivalent)	Kg	5666.65			
7	**Formwork**					
7.01	Providing & fixing centering and shuttering (formwork) using Timber, including strutting, propping etc. and removal of formwork-Foundation, Footings and all works upto Plinth Level, etc.	sq.m	66.89			
7.02	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Columns, Pillars, Post, Struts, etc.	sq.m	18.95			
7.03	Providing & fixing centering and shuttering (formwork) using Shuttering Plywood, including Timber frame and timber strutting, propping with complete form tie system etc, and removal of formwork- Lintels, Beams, Griders, Bresummers, Cantilevers, Slab, Suspended floor, roof and landing.	sq.m	224.88			
8	**Course Rubble Masonry/ Concrete Block Brick**					
8.01	Providing &laying Coursed Rubble Masonry with hard stone hammer-dressed in foundation & plinth (In cement mortar 1:4) +Extra for C.R masonry with hard stone chisel dressed in superstructure above plinth, below & including floor 2 level	cu.m	32.69			
8.02	Providing & laying concrete block brick in Foundation & Plinth including superstructure above plinth level upto floor three level (including all lifts and heights) - 250mm Thick	cu.m	12.32			
8.03	Providing & laying locally manufactured Concrete Solid Block Masonry (115mm) in superstructure below floor 2 level in cement mortar 1:4.	sq.m	11.86			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
9	**Doors & Windows**					
9.01	Providing & fixing in position with timber (of mixed conifer) in window frames with window shutter including 6mm thick plain glass, 25mm diameter pelmet & curtain rod, towerbolt, handle and hook of eye, all three of 100mm, 100mm long hinges and 400mm long hold fast as per drawing, etc.., complete - (Inclusive of traditional wooden cornices, pink primer in woodworks and painting works of Sumdang 'Rab' quality in traditional cornices).					
i)	W175	Each	2.00			
ii)	W95	Each	6.00			
9.02	Providing & fixing in position with timber (of mixed conifer) in door frames including 30mm thick timber shutter, 100mm long hinges, 100mm long L-drop latch, 100mm long tower bolts, 125mm long door handle, door stopper and 400mm long hold fasts as per drawing, etc.., complete. - (Inclusive of traditional wooden cornices, pink primer in woodworks and painting works of Sumdang 'Rab' quality in traditional cornices).					
i)	D100	Each	3.00			
ii)	D85	Each	2.00			
10	**Steel Work**					
10.01	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint- In M.S Angles/ Tee for external ceiling.	kg	114.77			
10.02	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red- In tubular sections	Kg	1308.56			
10.03	Providing and fixing MS round hold-down bolts with nuts and washer plates, complete in all areas.	Kg	43.15			
10.04	Providing & fixing bolts of various sizes including nuts & washers, complete in all areas.	Kg	10.42			
10.05	Providing, making and fixing, M.S Gusset Plate, straps, flats, sole plates etc., complete in roof truss work	Kg	275.25			
11	**Roofing Work**					
11.01	Providing & fixing 0.5mm thick pre-painted Al-Zn alloy coated Steel roofing sheets of 24G in natural finish, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses of Colour Roof India Limited (CRI) or equivalent).	sq.m	122.80			
11.02	Providing & fixing 600mm ridges or hips in Pre Painted Steel sheets, including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection.	Mtr.	13.65			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
11.03	Providing and fixing on wall face single socketed rigid PVC (Working Pressure 4kgf per sq.cm) rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete -90mm dia	Mtr.	7.50			
11.04	Providing & fixing Semi circular/half round Poly Vinyl Chloride (PVC) roof gutter of 180mm dia 3.04m long, including fittings (brackets, bolts, nuts, washer, end cap, tee end cap etc) excluding the cost of pipes	Mtr.	27.30			
12	**Flooring & Tiling Work**					
12.01	Providing and laying Anti Skid Tiles (600*600*10mm) in floors on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	sq.m	83.99			
12.02	Providing and laying ceramic tiles of size 300x300mm in walls on 10mm thick cment mortar of 1:3 finished with flush pointing in white cement	sq.m	9.09			
12.03	Providing and laying vitrified tiles in skirting(300x150) on a bed of 12mm thick cement mortar of 1:3 finished with flush pointing in white cement.	Sq.M	10.29			
12.04	Providing and laying Pre-Polished/ Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M. 1:4 upto 20 mm thick average cement slurry for fixing the tiles with required slopes, curing, cleaning, filling the joints with pigments of similar colour and at all levels with all leads and lifts etc ...complete as per directions of site in-charge and as per pattern required. - 18mm Thick granite stone flooring over 18mm thick base of cement mortar 1:4.	sq.m	9.29			
13	**Finishing Works**					
13.01	Providing and laying cement plaster , 15 mm thick 1:4 .(Inside wall)	sq.m	151.22			
13.02	Providing and laying 6mm thick cement plaster in C.M 1:4 in ceiling.	sq.m	69.00			
13.03	Providing & applying putty of thickness 2mm or more over plastered surface to prepare the surface even and smooth complete.	sq.m	211.13			
13.04	Acrylic washable distemper, two coats on new work, including cement primer coat (Inside wall and ceiling)	sq.m	211.13			
13.05	High gloss synthetic enamel for steel & wood work, two coats on new work - For Eaves Board	sq.m	20.33			
13.06	Providing & fixing in position dressed wood work in frames of doors, windows, clerestory windows and other frames, wrought and framed (frames for MC flooring) -Mixed Conifer.	cu.m	1.95			
14	**External Works**					
14.01	Providing & laying 50mm thick Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth - With cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel (40mm)	sq.m	126.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
14.02	Constructing second class brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100 mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4,12 mm aggregate for filling haunches including 12mm cement plastering 1:4 with a floating coat of neat cement and disposal of surplus earth etc. complete-150mm wide x 200mm average depth.	m	37.90			
14.03	Providing and fixing to frames 8mm thick Cement Fibre Board in ceiling or sofit including ceiling frames as per manufacturer's specifications (sample to be approved by client).	sq.m	28.64			
14.04	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws.	sq.m	8.11			
15	**Plumbing Works**					
15.01	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in- Charge.- 32mm	Mtr.	25.10			
15.02	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN 16 pipes, SDR 7.4 UV Stabilized and anti-microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings excluding trenching, refilling but including testing of joints complete as per direction of Engineer-in-Charge. - 25MM	Mtr.	4.02			
15.03	Providing and fixing 3-layer PP-R (Polypropylene Random Copolymer) PN-16 pipes, SDR 7.4 UV Stabilized and anti microbial fusion welded, having thermal stability for hot and cold water supply including all PP-R plain and brass Threaded Polypropylene random fittings including fixing pipe with clamps at 1.0m spacing. This includes testing of joints, cutting chases and making good the wall complete as per direction of Engineer-in- Charge - 20MM	Mtr.	5.20			
15.04	Providing & fixing Kitchen Sinks including all connections and fittings,Stainless steel, Stainless steel, 940 x 460 x 160 mm, single bowl & drain-board	Each	2.00			
15.05	Providing & fixing brass full way valve with sheel stop cock- 32mm dia.	Each	2.00			
15.06	Providing & fixing angle valve, 20mm dia - Preferably of Parryware or equivalent brand	Each	2.00			
15.07	Providing & fixing connecting hose in wash basin or kitchen sink - Preferably of Parryware or equivalent brand	Each	2.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
16	**Sewerage Works**					
16.01	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) -50mm	Mtr.	6.09			
16.02	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip complete (excluding the cost of PVC fittings) - 75mm dia	Mtr.	2.61			
16.03	Providing & fixing P.V.C Nahani Trap ,110mm inlet & 75mm outlet	Each	1.00			
16.04	Providing & fixing P.V.C door bend - 75mm.	Each	2.00			
	Total for Kitchen & Laundry (Nu.)					

B. ANCILLARY WORKS

1. Site Development

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1.00	Earth work in excavation over areas using Excavator, exceeding 300mm in depth, 1.5m in width as well as 10 sq.m in area on plan, including dressing, levelling and disposal of excavated earth, lead up to 50m and lift up to 1.5m. All kind of soil, and rock requiring chiselling (where blasting is prohibated).	Cu.M	5468.28			
2.00	Transport of loose earth and rock in designated locations including loading/ unloading, dressing of dump sites beyond 50m lead and upto 5.00kM.	Cu.M	1890.94			
3.00	Construction of embarkment by providing and laying dry earth in horizontal layers not exceeding 200mm in depth(compacted), including watering, power rolling, dressing and preparation of site with selected excavated earth within 50mm lead	Cu.M	2606.55			
	Total for Site Development (Nu.)					

2. Chain Link Fence

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in surface excavation, depth 1.5m, area >10 Sq.m in plan, including disposal of excavated earth within 50m lead & 1.5m lift and disposed soil to be neatly dressed	sq.m	52.00			
2	Earth work in open area excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earth within 50m lead & 1.5m lift and disposed soil to be neatly dressed. All kind of soil, and rock requiring chiselling (where blasting is prohibated).	cu.m	1.22			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
3	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint- In M.S Angles/ Tee.	Kgs.	848.89			
4	Providing & fixing G.I chain-link mesh including fixing of post or struts, G.I staples (excluding the cost of posts/struts, earthwork, concrete etc.)-4mm (8 SWG) x 50mm4mm (8 SWG) x 50mm	sq.m	131.90			
5	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level. - 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	cu.m	5.65			
6	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth including all lifts and heights	sq.m	44.16			
7	Providing & fixing G.I barbed Wire Netting including fixing of post or struts, G.I staples, coal tarring in case of ballies complete (posts/struts, earthwork, concrete paid separately)- 2.5mm , (12 SWG), 4 barbs form by twisting two point wires, each two turns, pitch of barbs 75mm	m	156.00			
	Total for G.I Chain-linked Fencing (Nu.)					

3. External Staircase

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in excavation over areas, depth >300mm, width >1.5m, area >10 Sq.m on plan, including disposal of excavated earth within 50m lead and 1.5m lift & disposed soil to be neatly dressed - All kind of soils.	Cu.M	315.00			
2	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing.	Cu.M	16.36			
3	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth and in superstructure.	Cu.M	282.72			
4	Providing and laying in position plain cement concrete 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering - All work upto plinth level.	Cu.M	5.45			
5	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth including all lifts and heights.	Sq.M.	8.62			
6	Providing & laying 20mm cement plaster in cement mortar 1:4 in Staircase.	Sq.M.	170.13			
	Total of External Staircase (Nu.)					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	

4. Footpath

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in surface excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earthwithin 50m lead & 1.5m lift and disposed soil to be neatly dressed.	Sq.M	375.00			
2	Providing and laying dry earth bedding, including consolidating each deposited layer by watering, ramming and dressing.	Cu.M	37.50			
3	Providing and laying dry hand packed stone soling/course aggregate filling with hard stone.	Cu.M	3.75			
4	Providing and laying in position plain cement concrete 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering - All work upto plinth level.	Cu.M	11.25			
5	Providing and laying 25 mm thick sand bedding under floor.	Cu.M	9.38			
6	Providing and laying factory made Cement Concrete paver blocks in footpath, parks, lawns, etc, of required strength, thickness & size/ shape, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.-Rectangular Paver Block 40mm Thk Ash Grey.	Sq.M	375.00			
8	Providing and laying factory made kerb stone (Edging)in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (Length & Depth/height of finished kerb edging shall be measured for payment)	Mtr.	500.00			
	Total for Footpath (Nu.)					

5. Parking & Road

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	**Earthwork**					
1.1	Earthwork in surface excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earthwithin 50m lead & 1.5m lift and disposed soil to be neatly dressed.	Sq.M	1205.58			
2	**Subgrade**					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
2.1	Preparation of sub grade with proper camber by excavating earth to depth equal to pavement thickness, consolidation with roller, disposal of surplus earth up to 50m - All kind of soil.	Cu.M	241.12			
2.2	Consolidation of subgrade with roller, and making good the undulation with earth and re-rolling the subgrade	Sq.M	241.12			
3	**Granular Sub-grade**					
3.1	Providing and laying Granular sub-base course (GSB) to required degree of compaction with proper formation of cross fall using motor for laying and compacted to required density as per material gradation and aggregate quality specified - 150mm Thick.	Cu.M	180.84			
3.2	Providing and laying wet mix macadam graded aggregate base course to required degree of compaction with proper formation of cross fall by using well graded crushed aggregates premixed with OMC using suitable mixer, motor grader as per material gradation and a aggregates quality specified - 100mm Thick.	Cu.M	120.56			
3.3	Providing and Laying Dense Bituminous Macadam (DBM) to required degree of compaction based on job mixture design (job mix formula) approved by the supervising engineer, by mechanized method as per material gradation and materials quality specified using VG20/VG30 complete - 50mm Thick.	Sq.M	1205.58			
3.4	Providing and Laying Asphalt/Bituminous Concrete to required degree of compaction based on the job mixture design (job mix formula) approved by the supervising engineer, by mechanized method as per material gradation and materials quality specified using VG20/VG30 complete - 30mm Thick.	Sq.M	1205.58			
3.5	Providing seal coat of premixed sand with bitumen emulsion - Using 5.3 kg of emulsion and 0.045 Cu.M coarse sand per 10 Sq.M of road surface complete	Sq.M	1205.58			
3.6	Road marking with hot applied thermoplastic compound with reflectorising glass beads on Bituminuous surface as per IRC:35 and technical specifications. The finished surface to be level and free from streaks and holes					
	Along Edges and Parking Space	Sq.M	25.50			
4	**Drainage and Shoulder**					
4.1	Construction of Lined V Shaped drain 600 X 300 with 50mm thick PCC 1:2:4, 150mm thick stone soling, RRM in CM 1:5 on sides, finished with 20mm thick 1:4 cement plaster including excavation, levelling and disposal of surplus earth within 50m.	Mtr.	163.37			
4.2	Providing and laying Concrete edging 300 x 300 x 80 mm including excavation, refilling and disposal of surplus earth within 30 m lead	Mtr.	163.37			
	Total for Parking & Road (Nu.)					

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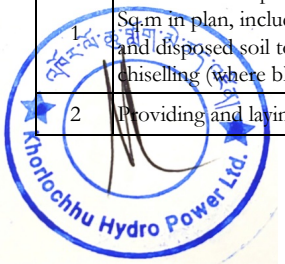
S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	

6. 2M, Retaining Wall

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in open area excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earth within 50m lead & 1.5m lift and disposed soil to be neatly dressed. All kind of soil, and rock requiring chiselling (where blasting is prohibated).	Cu.M	9.16			
2	Providing and laying Hand packed stone filling or soling with stones.	Cu.M	2.62			
3	Providing and laying in position plain cement concrete - 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering.	Cu.M	2.09			
4	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth and in superstructure.	Cu.M	16.72			
5	Providing and laying in position plain cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto floor five level, excluding the cost of centering and shuttering- In 1:3:6 (20mm nominal size crushed rock) in top capping	Cu.M	0.30			
6	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth including in superstructure.	Sq.M	3.88			
7	Providing & laying pointing on stone work with cement mortar 1:3 (Raised and cut pointing)	Sq.M	24.00			
8	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m.	Cu.M	4.73			
	Total for 10m (Nu.)					
	Total for 75.11 Mtrs (10m x 2m x 1.12 m)					

7. 3M, Retaining Wall

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in open area excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earth within 50m lead & 1.5m lift and disposed soil to be neatly dressed. All kind of soil, and rock requiring chiselling (where blasting is prohibated).	Cu.M	15.74			
2	Providing and laying Hand packed stone filling or soling with stones.	Cu.M	3.59			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
3	Providing and laying in position plain cement concrete - 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering.	Cu.M	1.86			
4	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth and in superstructure.	Cu.M	36.15			
5	Providing and laying in position plain cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto floor five level, excluding the cost of centering and shuttering- In 1:3:6 (20mm nominal size crushed rock) in top capping	Cu.M	0.30			
6	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth including in superstructure.	Sq.M	5.04			
7	Providing & laying pointing on stone work with cement mortar 1:3 (Raised and cut pointing)	Sq.M	36.00			
8	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m.	Cu.M	22.44			
	Total for 10m (Nu.)					
	Total for 32.014 Mtrs (10m x 3m x 1.68 m)					

8. 4M, Retaining Wall

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in open area excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earth within 50m lead & 1.5m lift and disposed soil to be neatly dressed. All kind of soil, and rock requiring chiselling (where blasting is prohibated).	Cu.M	23.11			
2	Providing and laying Hand packed stone filling or soling with stones.	Cu.M	4.57			
3	Providing and laying in position plain cement concrete - 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering.	Cu.M	2.64			
4	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth and in superstructure.	Cu.M	66.45			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
5	Providing and laying in position plain cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto floor five level, excluding the cost of centering and shuttering- In 1:3:6 (20mm nominal size crushed rock) in top capping	Cu.M	0.36			
6	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth including in superstructure.	Sq.M	5.25			
7	Providing & laying pointing on stone work with cement mortar 1:3 (Raised and cut pointing)	Sq.M	48.00			
8	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m.	Cu.M	22.44			
	Total for 10m (Nu.)					
	Total for 47.285 Mtrs (10m x 4m x 2.2 m)					

9. 5M, Retaining Wall

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Earth work in open area excavation, depth <300mm, width >1.5m, area >10 Sq.m in plan, including disposal of excavated earth within 50m lead & 1.5m lift and disposed soil to be neatly dressed. All kind of soil, and rock requiring chiselling (where blasting is prohibated).	Cu.M	26.53			
2	Providing and laying Hand packed stone filling or soling with stones.	Cu.M	5.24			
3	Providing and laying in position plain cement concrete - 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering.	Cu.M	4.19			
4	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth and in superstructure.	Cu.M	101.03			
5	Providing and laying in position plain cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto floor five level, excluding the cost of centering and shuttering- In 1:3:6 (20mm nominal size crushed rock) in top capping	Cu.M	0.48			
6	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth including in superstructure.	Sq.M	4.45			

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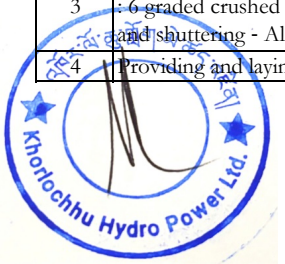
S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
7	Providing & laying pointing on stone work with cement mortar 1:3 (Raised and cut pointing)	Sq.M	50.00			
8	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m.	Cu.M	29.04			
	Total for 10m (Nu.)					
	Total for 260.619 Mtrs (10m x 5m x 2.65 m)					

10. MS Railing

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint and applying finishing coat with synthetic enamal	kg	9742.11			
2	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	cu.m	13.00			
3	Providing & fixing centering and shuttering (formwork) using Timber, including strutting, propping etc. and removal of formwork - Foundations, Footings and all works upto Plinth Level, etc. - Foundations, Footings, all works upto Plinth Level, etc.	Sq.M	173.35			
4	Synthetic enamel, for steel & wood work, two coats on new work	sq.m	6124.93			
	Total for MS Railing (Nu.)					

11. Compound Gate

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Excavation in foundation trenches or drains not exceeding 1.5m in width or area 10 sq.m on plan, including dressing & ramming, disposal of surplus soil within 50m lead & 1.5m lift - all types of soil and all types of rock requiring chiseiling (where blasting is prohibited).	cu.m	3.60			
2	Filing of trenches, sides of foundations etc. in layers < 200mm using selected excavated earth, ramming etc. within lead 50m & lift 1.5m.	cu.m	0.84			
3	Providing and laying in position plain cement concrete 1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size) excluding the cost of centering and shuttering - All work upto plinth level.	cu.m	0.60			
4	Providing and laying hand packed stone filling or soling with stones.	cu.m	0.90			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
5	Providing & laying in position reinforced cement concrete work in 1:1.5:3 (1 cement: 1.5 sand: 3 graded crushed rock 20mm nominal) in foundation, column and beam etc. upto floor five level excluding the cost of centering, shuttering and reinforcement.	cu.m	2.09			
6	Providing & fixing centering and shuttering with timber including strutting, propping etc. and removal of formwork in foundation, column and beam etc.	sq.m	18.66			
7	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete.	kg	324.75			
8	Providing and laying Course Rubble Masonry in cement mortar (1:4) using hard stone, chisel dressed with flush pointing, in the superstructure above plinth level and below, including floor 2 level. The hard stone cladding shall be chisel dressed to a size of 100x100x10mm.	sq.m	1.78			
9	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and applying priming coat of red lead paint in tees, angles and flats.	kg	349.84			
10	Providing & fixing M.S Anchor 1/2" Bolt (Nuts and Washers) - 200mm long	kg	5.04			
11	Proving, Making and Fixing M.S sole plates	kg	90.43			
12	Proving and fixing Gate Hinges with Needle Roller Bearing (heavy Duty) as per sample in drawing	each	12.00			
13	Providing & applying finishing coats synthetic enamel for steel work, two coat on new work.	sq.m	34.33			
	Total for Compound Gate (Nu.)					

12. Water Supply & Sewerage

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
A	**Water Supply Network**					
1	Hand excavation and refilling in layers < 1.5m, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 1.5m, disposal of surplus material within lead of 50m: All types of soil - Pipes, cables etc. 80mm < dia < 300mm	Mtr.	200.54			
2	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ramming of bottom, depth upto 1.5m, disposal of surplus material within lead of 50m. Ordinary rock with or without blasting - Pipes, cables etc. 80mm < dia < 300mm	Mtr.	50.13			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
3	Providing & laying 75mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion.	Mtr.	12.03			
4	Providing & laying 50mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion.	Mtr.	75.38			
5	Providing & laying 32mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion.	Mtr.	163.27			
6	Providing and fixing C.I./D.I. gate valves (with cap) complete with bolts, nuts, rubber insertions etc., resilient seated.					
	80 mm	Nos	1.00			
	50 mm	Nos	2.00			
B	**Water Storage Estimate**					
1	Clearing grasses including removal of rubbish within 50m of site.	sq.m	30.00			
2	Excavation in foundation trenches or drains not exceeding 1.5m in width or area 10 sq.m on plan, including dressing & ramming, disposal of surplus soil within 50m lead & 1.5m lift - all types of soil and rock requiring chiseiling (where blasting is prohibited).	cu.m	67.43			
3	Filling of trenches, sides of foundations etc. in layer <200mm using selected excavated earth, ramming etc. within laid 50m & lift 1.5m.	cu.m	123.16			
4	Providing and laying hand packed stone filling or soling with stones.	cu.m	3.47			
5	Providing & laying plain cement concrete 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size) excluding the cost of centering, shuttering and reinforcement - all work upto plinth level.	cu.m	2.31			
6	Applying a cat of hot bitumen (maxphalt) 80/100 or equivalent using 1.7 kg per Sq.M including the surface cleaning.	sq.m	39.00			
7	Providing & laying in position reinforced cement concrete 1:1:2 (1 cement : 1 sand : 2 graded crushed rock 20 mm nominal size) excluding the cost of centering, shuttering and reinforcement - all work upto plinth level.	cu.m	9.24			
8	Providing & laying in position reinforced cement concrete work in walls (any thickness) including attached pilasters buttresses, piers, abutments etc. upto floor five level excluding the cost of centering, shuttering and reinforcement 1:1:2 (1 cement :1 sand: 2 graded crushed rock 20 mm nominal size aggregates).	cu.m	10.73			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
9	Providing & laying in position reinforced cement concrete 1:1:2 (1 cement :1 sand :2 graded crushed rock 20 mm nominal size aggregates) in slabs up to floor five level excluding the cost of centering, shuttering and reinforcement.	cu.m	1.52			
10	Providing & laying in position reinforced cement concrete 1:1:2 (1 cement :1 sand :2 graded crushed rock 20 mm nominal size aggregates) in beam, lintels & staircase upto floor five level excluding the cost of centering, shuttering and reinforcement.	cu.m	1.23			
11	Providing and fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork.-Foundations, Footings, all works upto Plinth Level, etc.	sq.m	9.70			
12	Providing and fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork.-Walls (any thickness), pilasters, buttresses, string course etc.	sq.m	78.00			
13	Providing and fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork.-Lintels, beams, griders, bresummers, cantilevers etc.	sq.m	46.20			
14	Providing and fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork.-Suspended floor, roof, landing, shelves and their supports, balconies, chajjas, etc.	sq.m	10.14			
15	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete.	Kg	2660.70			
16	Providing and fixing C.I./D.I. gate valves (with cap) complete with bolts, nuts, rubber insertions etc., resilient seated.					
	80 mm	Each	4.00			
C	**Sewerage Network Estimate**					
1	Hand excavation and refilling in layers < 1.5m, of trenches for pipes & sockets, cables, including dressing of sides/ ramming of bottom, depth upto 1.5m, disposal of surplus material within lead of 50m: All types of soil - Pipes, cables etc. 80mm < dia < 300mm	Mtr.	200.54			
2	Hand excavation and refilling in layers < 200mm, of trenches for pipes & sockets, cables, including dressing of sides/ramming of bottom, depth upto 1.5m, disposal of surplus material within lead of 50m. Ordinary rock with or without blasting - Pipes, cables etc. 80mm < dia < 300mm	Mtr.	50.13			
3	Providing & laying 160mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion	Mtr.	99.61			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
4	Providing & laying 225mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion.	Mtr.	148.56			
5	Providing & laying 90mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion.	Mtr.	28.90			
6	Providing & laying 250mm H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) inclusive of elbows and other required parts, inclusive of butt fusion.	Mtr.	66.65			
7	Constructing reinforced cement concrete manhole, reinforced cement concrete top slab and foundation with 1:2:4 (1 cement: 2 sand: 4 graded crushed rock 20mm nominal size aggregates), 12mm plaster in cement mortar 1:3 finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement: 2 sand: 4 graded crushed rock 20mm nominal size aggregates), neatly finished complete.					
	Inside dimension 900dia & 600mm deep including C.I. cover & frame (weight >38 kg)	Each.	9.00			
	Inside dimension 1200dia & 2450mm deep including C.I. cover & frame weight >116 kg)	Each.	4.00			
	Total for Water Supply & Sewerage (Nu.) =					

13. Drainage

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Excavation in foundation trenches or drains, not exceeding 1.5 m in width or 10 sq.m on plan, including setting out, dressing of sides, ramming and leveling of bottoms, and disposal of surplus excavated material within 50 m lead and 1.5 m lift, in all kinds of soil and rock, with or without blasting, complete.					
1.1	A) Drain Size: (300x300)mm	cu.m	22.28			
1.2	B) Drain Size: (400x550)mm	cu.m	20.56			
1.3	C) Drain Size: (500x700)mm	cu.m	47.61			
1.4	D) Drain Size: (550x800)mm	cu.m	38.48			
2	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level - 1:2:4 (1 cement : 2 sand :4 graded crushed rock 20 mm nominal size aggregates)					
2.1	A) Drain Size: (300x300)mm	cu.m	7.00			
2.2	B) Drain Size: (400x550)mm	cu.m	4.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
2.3	C) Drain Size: (500x700)mm	cu.m	8.00			
2.4	D) Drain Size: (550x800)mm	cu.m	5.00			
3	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level - 1:2:4 (1 cement : 3 sand : 6 graded crushed rock 40 mm nominal size aggregates)					
3.1	A) Drain Size: (300x300)mm	cu.m	11.14			
3.2	B) Drain Size: (400x550)mm	cu.m	6.00			
3.3	C) Drain Size: (500x700)mm	cu.m	10.00			
3.4	D) Drain Size: (550x800)mm	cu.m	7.00			
4	Providing & laying Hand packed stone filling or soling with stones.					
4.1	A) Drain Size: (300x300)mm	cu.m	14.86			
4.2	B) Drain Size: (400x550)mm	cu.m	7.00			
4.3	C) Drain Size: (500x700)mm	cu.m	14.00			
4.4	D) Drain Size: (550x800)mm	cu.m	10.00			
5	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth - In cement mortar 1:5.					
5.1	A) Drain Size: (300x300)mm	cu.m	16.71			
5.2	B) Drain Size: (400x550)mm	cu.m	19.00			
5.3	C) Drain Size: (500x700)mm	cu.m	40.00			
5.4	D) Drain Size: (550x800)mm	cu.m	31.00			
6	Providing & laying cement plaster, finished with floating coat of neat cement - 20mm plaster in cement mortar 1:4.					
6.1	A) Drain Size: (300x300)mm	sq.m	111.42			
6.2	B) Drain Size: (400x550)mm	sq.m	74.77			
6.3	C) Drain Size: (500x700)mm	sq.m	158.70			
6.4	D) Drain Size: (550x800)mm	sq.m	123.14			
7	Neat cement punning.					
7.1	A) Drain Size: (300x300)mm	sq.m	55.71			
7.2	B) Drain Size: (400x550)mm	sq.m	27.19			
7.3	C) Drain Size: (500x700)mm	sq.m	56.68			
7.4	D) Drain Size: (550x800)mm	sq.m	38.48			
8	Steel work in single section including cutting, hoisting, fixing and applying priming coat of red lead paint- In Tees, angles and channels (drain).					
8.1	A) Drain Size: (300x300)mm	Kgs	817.08			
8.2	B) Drain Size: (400x550)mm	Kgs	299.07			
8.3	C) Drain Size: (500x700)mm	Kgs	498.78			
8.4	D) Drain Size: (550x800)mm	Kgs	338.62			
9	Providing & fixing ornamental steel grills in frames with M.S. flats & bars including round headed bolts and nuts etc. (drain).					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
9.1	A) Drain Size: (300x300)mm	Kgs	1637.87			
9.2	B) Drain Size: (400x550)mm	Kgs	732.72			
9.3	C) Drain Size: (500x700)mm	Kgs	1444.21			
9.4	D) Drain Size: (550x800)mm	Kgs	1055.89			
10	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork - Foundation and plinth etc.					
10.1	A) Drain Size: (300x300)mm	sq.m	176.54			
10.2	B) Drain Size: (400x550)mm	sq.m	57.96			
10.3	C) Drain Size: (500x700)mm	sq.m	96.55			
10.4	D) Drain Size: (550x800)mm	sq.m	65.62			
	Total for Drainage (Nu.)					

C. ELECTRICAL WORKS

1. BHU

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
A	**WIRING**					
1	Providing & Wiring for light, fans, call bell and 2 pin light socket outlet with 1.5 sq.mm 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe with 6A modular type switch, MS boxes including connections, painting, testing and commissioning etc. as required (Legrand/ schneider make or equivalent)					
	Short Point	Point	9.00			
	Medium point	Point	131.00			
	Long point	Point	129.00			
2	Providing & Wiring for 5/6 pin, 6/16 ampere plug point with 4 sq.mm 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent)in recessed HDPE pipe with providing and fixing 5/6 pin, 6/16 ampere socket outlet and switch including earthing the third pin, connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equivalent)					
	Medium point	Point	1.00			
	Long point	Point	92.00			

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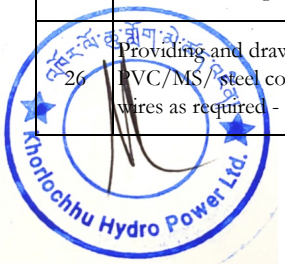
S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
3	Providing & Wiring for points in excess length above long points with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equivalent)					
	2x1.5 sq.mm	Mtr	220.00			
	2x4 sqmm	Mtr.	685.00			
4	Providing & Wiring for points in excess length above long points with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equivalent)					
	2x2.5 sq.mm	Mtr.	684.00			
5	Providing & Wiring for sub-main with 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections including connections, painting, testing and commissioning etc. as required (Legrand/ Schneider make or equipment)					
	4x10 sq.mm Cu. Cable	Mtr.	30.00			
	4x16 sq.mm Cu. Cable	Mtr.	85.00			
B	**FITTING & ACCESSORIES**					
6	Supplying of light fittings complete set with all accessories as required,with lamp (Havells/HPL/Vinay or Equivalent).					
	Cat No./LED Surface Ceiling Light(Round)/Code-650027,18W	Each	97.00			
	Cat No./LED Surface Ceiling Light(Round)/Code-650024,6W	Each	117.00			
	Cat No. LED Up-Down Wall Light(Outdoor)/Code-680701,5W	Each	4.00			
7	Supplying of exhaust fan 240 volt A.C 1400 rpm with all accessories such as frame with arm 3 Nos., sweep 3 Nos., condenser and fan body etc. complete asrequired					
	300mm sweep	Each	2.00			
8	Supplying of ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos.,canopy 2 Nos., condenser and fan body etc. complete as required					
	1200mm sweep	Each	48.00			
C	**CONTROL, SWITCHGEARS & BUSBAR**					
9	Supplying, installation, testing, commissioning of panel moulded case circuit breaker (MCCB) with electronic release, breaking capacity 36KA, 4 pole 415 volt A.C complete with all accessories etc. as required(BSB Approved Make)					
	250A	Each	1.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
10	Supplying of installation, testing, commissioning Aluminium alloy/wrought aluminium busbar complete with all accessories etc. to accomodate in prefabricated MS cubical panel board as required(BSB Approved Make)					
	4 strips, 600mm bar, 300A	Each	1.00			
11	Supply ,installation, testing, commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required(BSB Approved Make)					
	10A	Each	15.00			
	20A	Each	93.00			
12	Supply ,installation, testing, commissioning of miniature circuit breaker (MCB) triple pole & neutral, 415 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required(BSB Approved Make)					
	40A	Each	2.00			
	63A	Each	3.00			
13	Supply & fixing of residual current circuit breaker (RCCB) 4 pole, sensitivity 100mA, 415 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required(BSB Approved Make)					
	40A	Each	2.00			
	63A	Each	3.00			
14	Supply, installation, testing, commissioning of TPN distribution board (DIN type, vertical) with arcylic door, 415 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required (BSB Approved Make)					
	6 way	Each	2.00			
	8 way	Each	3.00			
15	Design, fabrication, providing, erection, connection, testing & commissioning of cubical indoor, floor mounting type, sheet steel, clad dust, and vermin proof, I.P. - 54 protection (Indoor type) L.T. Panel Boards as per the provided in drawings, including 3 phase energy meter provision. The panel should be suitable for 440 Volts, 3 Phase, 4 Wire, 50 Hz, supply System. Complete with cable allays, bus BOTTOM cable entries as required, powder coated finish of approved shade etc. all as specified. with Schneider/ Legrand Make Components. Built by reputed panel manufacturer.	Set	1.00			
D	**EARTHING AND LIGHTING PROTECTION**					
16	Provide and install earthing with GEE slab 4' x 1' x 2" -8 nos connected in series, including 25x4mm GI strip running upto DBs. Manufactured by Druk-Care GEE slab earthing system at Jimena, Thimphu or equivalent. For installation- visit website: www.drukcare.com	Set	2.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
17	Providing and fixing lightning conductor including holes etc. complete as required					
	25mm dia 300mm long G.I tube single prong at top with 85mm dia 6mm thick copper base plate	Each	1.00			
18	Providing and fixing metal strip on parapet or surface of wall/roof for lightning conductor as required for vertical run					
	25x4mm G.I strip	Mtr.	53.00			
E	**POWER CABLE**					
19	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables					
	150 sq.mm	Mtr.	55.00			
20	Supplying &fixing of heavy duty brass single compression gland for 4- Core 1.1KV grade PVC insulated and sheathed Copper/ Aluminium conductor armoured/un-armoured power cables					
	50mm dia, 150sq.mm	Each	2.00			
21	Laying of one number PVC insulated and sheathed power cable copper/aluminium,armoured/un-armoured 1.1KV single core to four core direct in the ground including excavation, sand cushing, protective covering and refilling the trenches etc. as required					
	Above 70sq.mm to 150sq.mm	Mtr.	55.00			
F	**TELEPHONE NETWORK**					
22	Supplying and fixing of HDPE pipe on recessed including all accessories such as screws, bends, elbows, Tees, corners, etc. complete as required					
	25mm	Mtr	240.00			
23	Providing and supplying of air Conditioning , Hitachi or equivalent 1.5 MT , Hot and Cold including wiring of cables and asociated works such as painting , testing and commissioning	Each	16.00			
G	**Lighting Arrestor (Supply and Fix)**					
24	25mm dia 900mm long copper tube four prong	each	1.00			
	Earthing for LA					
25	Providing and fixing of earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, water pipe with excavation and refilling work including charcoal or coke and salt complete required as per standard earthing drawing - With copper earth plate 600x600x3mm.	Sets	1.00			
26	Providing and drawing wire for loop earthing in exisiting surface/recessed PVC/MS/ steel conduit or cassing capping or wooden batten along with other wires as required - 2.032mm (14 SWG) copper wire.	M	60.00			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
27	Providing and laying earth connection from earth electrodes in 15mm dia. GI pipe from earth electrode as required as per guidance of standard earthing drawing … with 4.06mm dia (8SWG) copper wire.	M	60.00			
	Total for BHU (Nu.)					

2. Doctor's Quarter

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
A	**WIRING**					
1	Providing & Wiring for light, fans, call bell and 2 pin light socket outlet with 1.5 sq.mm 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe with 6A modular type switch, MS boxes including connections, painting, testing and commissioning etc. as required (Legrand/ schneider make or equipment)					
	Short Point	Point	3.00			
	Medium point	Point	21.00			
	Long point	Point	4.00			
2	Providing & Wiring for 5/6 pin, 6/16 ampere plug point with 4 sq.mm 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent)in recessed HDPE pipe with providing and fixing 5/6 pin, 6/16 ampere socket outlet and switch including earthing the third pin, connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	Medium point	Point	3.00			
	Long point	Point	12.00			
3	Providing & Wiring for points in excess length above long points with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x4 sqmm	Mtr.	60.00			
4	Providing & Wiring for lighting circuit and lighting point with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x2.5 sq.mm	Mtr.	115.00			
B	**FITTING & ACCESSORIES**					

Khorlochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
5	Supplying &fixing of light fittings complete set with all accessories as required,with lamp (Havells/HPL/Vinay or Equivalent).					
	Cat No./LUMILINE Plus LED Tube/LUMILINEPLUSBS20WLED865SPCSS, 20W	Each	8.00			
	Cat No. LED Surface Ceiling Light(Round)/Code-650024,6W	Each	7.00			
	Cat No. LED Up-Down Wall Light(Indoor)/Code-688576,6W	Each	5.00			
	Cat No. LED Up-Down Wall Light(Outdoor)/Code-680701,5W	Each	1.00			
6	Supply, installation,testing and Commissioningof prewired call bell 250 volt A.C with base, terminal block and all accessories complete					
	Gong bell assembly	Each	1.00			
7	Supplying installation,testing and Commissioning of ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos.,canopy 2 Nos., condenser and fan body etc. complete as required					
	1200mm sweep	Each	5.00			
	1400mm sweep	Each	1.00			
C	**CONTROL, SWITCHGEARS & BUSBAR**					
8	Supplying, installation,Testing & commisioning of panel moulded case circuit breaker (MCCB) with electronic release, breaking capacity 25KA, 4 pole 415 volt A.C complete with all accessories etc. as required in Specification provided in BSR & Single line diagram provided by Enginineer(BSB Approved Make)					
	63A	Each	1.00			
9	Supply installation,testing and Commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required(BSB Approved Make)					
	10A	Each	3.00			
	20A	Each	15.00			
10	Supply installation,testing and Commissioning of residual current circuit breaker (RCCB) 4 pole, sensitivity 30mA/100mA, 415 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required(BSB Approved Make)					
	32A	Each	1.00			
11	Supply of TPN distribution board (DIN type, vertical) with arcylic door, 415 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required (BSB Approved Make)					
	6Qway	Each	1.00			
12	Providing and fixing of standard Cubilce Metal distribution board 1p65/IP66 approved by engineer in-charge for enclosing the MCB DB Box (distribution board) locking arrangement etc. as required	Set	1.00			

Kholochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
D	**EARTHING**					
13	Provide and install earthing with GEE slab 4' x 1' x 2" -8 nos connected in series, including 25x4mm GI strip running upto DBs. Manufactured by Druk-Care GEE slab earthing system at Jimena, Thimphu or equivalent. For installation- visit website: www.drukcare.com	Set	1.00			
E	**POWER CABLE**					
14	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables					
	10 sq.mm	Mtr.	75.00			
15	Supplying of heavy duty brass single compression gland for 4- Core 1.1KV grade PVC insulated and sheathed Copper/ Aluminium conductor armoured/un-armoured power cables					
	25mm dia, 10sq.mm	Each	2.00			
16	Laying of one number PVC insulated and sheathed power cable copper/aluminium,armoured/un-armoured 1.1KV single core to four core direct in the ground including excavation, sand cushing, protective covering and refilling the trenches etc. as required					
	Above 6sq.mm to 25sq.mm	Mtr.	75.00			
17	Installation, Testing and Commissioning of end termination with single/double compresion gland for PVC insulated and sheathed aluminium/ copper conductor cable of 1.1KV grade including connections etc. as required					
	20/22/25mm dia	Each	2.00			
F	**TELEVISION NETWORK**					
18	Supplying and drawing coaxial cable, RG6 in recessed HDPE pipe including necessary cutting, connection, testing etc. as required.	Mtr	60.00			
19	Supplying & fixing of socket/regulator on existing metal box with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc.as required.					
	TV coaxial socket	Each	4.00			
20	Supply, Installation, Testing and commissioning Powder coated Telephone Tag Box including with all accessories.					
	Supplying Television Terminal Cabinet (TTC)(SQCA Appd.)as required.	Each	1.00			
21	Supplying and fixing of HDPE pipe on recessed including all accessories such as screws, bends, elbows, Tees, corners, etc. complete as required					
	25mm	Mtr	45.00			
22	Providing and supplying of air Conditioning , Hitachi or equivalent 1.5 MT , Hot and Cold including wiring of cables and asociated works such as painting , testing and commissioning	Each	2.00			
G	**Lighting Arrestor (Supply and Fix)**					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
23	25mm dia 900mm long copper tube four prong at top with 85mm dia 6mm thick copper pbase platewith finial base plate with 85x6 mm	each	1.00			
	Earthing for LA					
24	Providing and fixing of earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, water pipe with excavation and refilling work including charcoal or coke and salt complete required as per standard earthing drawing - With copper earth plate 600x600x3mm.	Sets	1.00			
25	Providing and drawing wire for loop earthing in exisiting surface/recessed PVC/MS/ steel conduit or cassing capping or wooden batten along with other wires as required - 2.032mm (14 SWG) copper wire.	M	60.00			
26	Providing and laying earth connection from earth electrodes in 15mm dia. GI pipe from earth electrode as required as per guidance of standard earthing drawing … with 4.06mm dia (8SWG) copper wire.	M	60.00			
	Total for Doctor's Quarter (Nu.)					

3. Staff Quarter

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
A	**WIRING**					
1	Providing & Wiring for light, fans, call bell and 2 pin light socket outlet with 1.5 sq.mm 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe with 6A modular type switch, MS boxes including connections, painting, testing and commissioning etc. as required (Legrand/ schneider make or equipment)					
	Short Point	Point	12.00			
	Medium point	Point	46.00			
	Long point	Point	6.00			
2	Providing & Wiring for 5/6 pin, 6/16 ampere plug point with 4 sq.mm 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent)in recessed HDPE pipe with providing and fixing 5/6 pin, 6/16 ampere socket outlet and switch including earthing the third pin, connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	Medium point	Point	16.00			
	Long point	Point	32.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
3	Providing & Wiring for points in excess length above long points with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x4 sqmm	Mtr.	89.00			
4	Providing & Wiring for lighting circuit and lighting point with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x2.5 sq.mm	Mtr.	212.00			
5	Providing & Wiring for sub-main with 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections including connections, painting, testing and commissioning etc. as required (Legrand/ Schneider make or equipment)					
	4x10 sq.mm Cu. Cable	Mtr.	56.00			
B	**FITTING & ACCESSORIES**					
6	Supplying of light fittings complete set with all accessories as required,with lamp (Havells/HPL/Vinay or Equivalent).					
	Cat No./LUMILINE Plus LED Tube/LUMILINEPLUSBS20WLED865SPCSS, 20W	Each	20.00			
	Cat No. LED Surface Ceiling Light(Round)/Code-650024,6W	Each	14.00			
	Cat No. LED Up-Down Wall Light(Indoor)/Code-688576,6W	Each	12.00			
	Cat No. /LED Up-Down Wall Light(Outdoor)/Code-680701,6W	Each	2.00			
7	Supplying of prewired call bell 250 volt A.C with base, terminal block and all accessories complete					
	Gong bell assembly	Each	4.00			
8	Supplying of ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos.,canopy 2 Nos., condenser and fan body etc. complete as required					
	1200mm sweep	Each	12.00			
9	Supplying of exhaust fan 240 volt A.C 1400 rpm with all accessories such as frame with arm 3 Nos., sweep 3 Nos., condenser and fan body etc. complete asrequired					
	300mm sweep	Each	4.00			
C	**CONTROL, SWITCHGEARS & BUSBAR**					
10	Supplying, installation,testing a& Commissioning of pre-fabricated MS busbar chamber with copper busbar complete with all accessories etc. as required(BSB Approved Make)					

Kherlochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
	4 strips, 450mm bar, 100A	Each	1.00			
11	Supply, installation,testing a& Commissioning of panel moulded case circuit breaker (MCCB) with electronic release, breaking capacity 25KA, 4 pole 415 volt A.C complete with all accessories etc. as required(BSB Approved Make)					
	100A	Each	1.00			
12	Supply installation,testing & Commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required(BSB Approved Make)					
	6A	Each	12.00			
	16A	Each	48.00			
13	Supply, installation,testing a& Commissioning of residual current circuit breaker (RCCB) 4 pole, sensitivity 30mA/100mA, 415 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required(BSB Approved Make)					
	40A	Each	4.00			
14	Supply installation,testing & Commissioning of miniature circuit breaker (MCB) triple pole & neutral, 415 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required(BSB Approved Make)					
	40A	Each	4.00			
15	Supply installation,testing & Commissioning of TPN distribution board (DIN type, vertical) with arcylic door, 415 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required (BSB Approved Make)					
	6 way	Each	4.00			
16	Providing and fixing of standard Cubilce Metal distribution board IP 65/IP66 approved by engineer in-charge for enclosing the MCB DB Box (distribution board) locking arrangement etc. as required	Set	1.00			
D	**EARHTING**					
17	Provide and install earthing with GEE slab 4' x 1' x 2" -8 nos connected in series, including 25x4mm GI strip running upto DBs. Manufactured by Druk-Care GEE slab earthing system at Jimena, Thimphu or equivalent. For installation- visit website: www.drukcare.com	Set	1.00			
E	**POWER CABLE**					
18	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables					
	25 sq.mm	Mtr.	45.00			
19	Supply, installation,testing & commmissioning of heavy duty brass single compression gland for 4- Core 1.1KV grade PVC insulated and sheathed Copper/ Aluminium conductor armoured/un-armoured power cables					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
	29mm dia, 25sq.mm	Each	2.00			
20	Laying of one number PVC insulated and sheathed power cable copper/aluminium,armoured/un-armoured 1.1KV single core to four core direct in the ground including excavation, sand cushing, protective covering and refilling the trenches etc. as required					
	Above 6sq.mm to 25sq.mm	Mtr.	45.00			
F	**TELEVISION NETWORK**					
21	Supplying and drawing coaxial cable, **RG6** in recessed HDPE pipe including necessary cutting, connection, testing etc. as required.	Mtr	202.00			
22	Supplying & fixing of socket/regulator on existing metal box with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc.as required.					
	TV coaxial socket	Each	12.00			
23	Supply, Installation, Testing and commissioning Powder coated Telephone Tag Box including with all accessories.					
	Supplying Television Terminal Cabinet (TTC)(SQCA Appd.)as required.	Each	1.00			
24	Supplying and fixing of HDPE pipe on recessed including all accessories such as screws, bends, elbows, Tees, corners, etc. complete as required					
	25mm	Mtr	126.00			
25	Providing and supplying of 5star air Conditioning , Hitachi or equivalent 1.5 MT , Hot and Cold including wiring of cables,plug and asociated works such as painting , testing and commissioning	Each	16.00			
G	**Lighting Arrestor (Supply and Fix)**					
26	25mm dia 900mm long copper tube four prong at Topwith 85 mm dia 3 mm thick copper base plate	each	1.00			
	Earthing for LA					
27	Providing and fixing of earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, water pipe with excavation and refilling work including charcoal or coke and salt complete required as per standard earthing drawing - With copper earth plate 600x600x3mm.	Sets	1.00			
28	Providing and drawing wire for loop earthing in exisiting surface/recessed PVC/MS/ steel conduit or cassing capping or wooden batten along with other wires as required - 2.032mm (14 SWG) copper wire.	M	60.00			
29	Providing and laying earth connection from earth electrodes in 15mm dia. GI pipe from earth electrode as required as per guidance of standard earthing drawing … with 4.06mm dia (8SWG) copper wire.	M	60.00			
	Total for Staff Quarter (Nu.)					

Kholochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	

4. Caretaker & Driver's Quarter

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
A	**WIRING**					
1	Providing & Wiring for light, fans, call bell and 2 pin light socket outlet with 1.5 sq.mm 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe with 6A modular type switch, MS boxes including connections, painting, testing and commissioning etc. as required (Legrand/ schneider make or equipment)					
	Short Point	Point	2.00			
	Medium point	Point	26.00			
	Long point	Point	2.00			
2	Providing & Wiring for 5/6 pin, 6/16 ampere plug point with 4 sq.mm 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent)in recessed HDPE pipe with providing and fixing 5/6 pin, 6/16 ampere socket outlet and switch including earthing the third pin, connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	Medium point	Point	6.00			
	Long point	Point	14.00			
3	Providing & Wiring for points in excess length above long points with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x4 sqmm	Mtr.	14.00			
4	Providing & Wiring for lighting circuit and lighting point with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x2.5 sq.mm	Mtr.	58.00			
5	Providing & Wiring for sub-main with 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections including connections, painting, testing and commissioning etc. as required (Legrand/ Schneider make or equipment)					
	2x16 sq.mm cu cable	Mtr.	38.00			
B	**FITTING & ACCESSORIES**					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
6	Supplying of light fittings complete set with all accessories as required,with lamp (Havells/HPL/Vinay or Equivalent).					
	Cat No./LUMILINE Plus LED Tube/LUMILINEPLUSBS20WLED865SPCSS, 20W	Each	10.00			
	Cat No. LED Surface Ceiling Light(Round)/Code-650024,6W	Each	6.00			
	Cat No. LED Up-Down Wall Light(Indoor)/Code-688576,6W	Each	4.00			
7	Supplying installation,testing and Commissioningof prewired call bell 250 volt A.C with base, terminal block and all accessories complete					
	Gong bell assembly	Each	2.00			
8	Supplying of ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos.,canopy 2 Nos., condenser and fan body etc. complete as required					
	1200mm sweep	Each	6.00			
9	Supplying of exhaust fan 240 volt A.C 1400 rpm with all accessories such as frame with arm 3 Nos., sweep 3 Nos., condenser and fan body etc. complete asrequired					
	300mm sweep	Each	2.00			
C	**CONTROL, SWITCHGEARS & BUSBAR**					
10	Supplying installation,testing and Commissioningof pre-fabricated MS busbar chamber with copper busbar complete with all accessories etc. as required (BSB Approved Make)					
	4 strips, 450mm bar, 100A	Each	1.00			
11	Supplying installation,testing and Commissioningof panel moulded case circuit breaker (MCCB) with electronic release, breaking capacity 25KA, 4 pole 415 volt A.C complete with all accessories etc. as required(BSB Approved Make)					
	32A	Each	1.00			
12	Supplyinstallation,testing and Commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required(BSB Approved Make)					
	10A	Each	2.00			
	20A	Each	18.00			
13	Supply installation,testing and Commissioning of residual current circuit breaker (RCCB) double pole, sensitivity 100mA, 230 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required(BSB Approved Make)					
	25A	Each	2.00			
14	Supplyinstallation,testing and Commissioning of miniature circuit breaker (MCB) double pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required(BSB Approved Make)					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
	63A	Each	2.00			
15	Supply installation,testing and Commissioning of SPN distribution board (DIN type) with arcylic door, 230 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required(BSB Approved Make)					
	12 way	Each	2.00			
16	Providing and fixing of standard Cubilce Metal distribution board IP65/IP66 standard approved by engineer in-charge for enclosing the MCB DB Box (distribution board) locking arrangement etc. as required	Set	1.00			
D	**EARTHING**					
17	Provide and install earthing with GEE slab 4' x 1' x 2" -8 nos connected in series, including 25x4mm GI strip running upto DBs. Manufactured by Druk-Care GEE slab earthing system at Jimena, Thimphu or equivalent. For installation- visit website: www.drukcare.com	Set	1.00			
E	**POWER CABLE**					
18	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables					
	10 sq.mm	Mtr.	150.00			
19	Supplying installation, test ing &commissioning of heavy duty brass single compression gland for 4- Core 1.1KV grade PVC insulated and sheathed Copper/ Aluminium conductor armoured/un-armoured power cables					
	25mm dia, 10sq.mm	Each	2.00			
20	Laying of one number PVC insulated and sheathed power cable copper/aluminium,armoured/un-armoured 1.1KV single core to four core direct in the ground including excavation, sand cushing, protective covering and refilling the trenches etc. as required					
	Above 6sq.mm to 25sq.mm	Mtr.	150.00			
F	**TELEVISION NETWORK**					
21	Supplying and drawing coaxial cable, **RG6** in recessed HDPE pipe including necessary cutting, connection, testing etc. as required.	Mtr	30.00			
22	Supplying & fixing of socket/regulator on existing metal box with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc.as required.					
	TV coaxial socket	Each	2.00			
23	Supply, Installation, Testing and commissioning Powder coated Telephone Tag Box including with all accessories.					
	Supplying Television Terminal Cabinet (TTC)(SQCA Appd.)as required.	Each	1.00			
24	Supplying and fixing of HDPE pipe on recessed including all accessories such as screws, bends, elbows, Tees, corners, etc. complete as required					

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
	25mm	Mtr	20.00			
G	**Lighting Arrestor (Supply and Fix)**					
25	25mm dia 900mm long copper tube four prong at Topwith 85 mm dia 3 mm thick copper base plate	each	1.00			
	Earthing for LA					
26	Providing and fixing of earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, water pipe with excavation and refilling work including charcoal or coke and salt complete required as per standard earthing drawing - With copper earth plate 600x600x3mm.	Sets	1.00			
27	Providing and drawing wire for loop earthing in exisiting surface/recessed PVC/MS/ steel conduit or cassing capping or wooden batten along with other wires as required - 2.032mm (14 SWG) copper wire.	M	60.00			
28	Providing and laying earth connection from earth electrodes in 15mm dia. GI pipe from earth electrode as required as per guidance of standard earthing drawing … with 4.06mm dia (8SWG) copper wire.	M	60.00			
	Total for Caretaker & Driver's Quarter (Nu.)					

5. Kitchen & Laundry

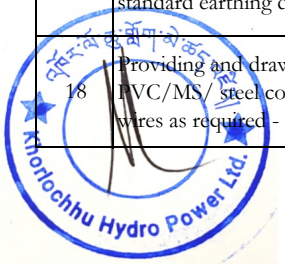
S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
A	**WIRING**					
1	Providing & Wiring for light, fans, call bell and 2 pin light socket outlet with 1.5 sq.mm 1.1kV grade, PVC insulated copper conductor cable(RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe with 6A modular type switch, MS boxes including connections, painting, testing and commissioning etc. as required (Legrand/ schneider make or equipment)					
	Short Point	Point	5.00			
	Medium point	Point	10.00			
	Long point	Point	2.00			
2	Providing & Wiring for 5/6 pin, 6/16 ampere plug point with 4 sq.mm 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent)in recessed HDPE pipe with providing and fixing 5/6 pin, 6/16 ampere socket outlet and switch including earthing the third pin, connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	Long point	Point	10.00			

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S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
3	Providing & Wiring for points in excess length above long points with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x4 sqmm	Mtr.	56.00			
4	Providing & Wiring for lighting circuit and lighting point with 1.1kV grade, PVC insulated copper conductor cable (RR Kabel/HPL/Havels or equivalent) in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required(Legrand/ Schneider make or equipment)					
	2x2.5 sq.mm	Mtr.	54.00			
B	**FITTING & ACCESSORIES**					
5	Supplying & fixing of light fittings complete set with all accessories as required,with lamp (Havells/HPL/Vinay or Equivalent).					
	Cat No./LUMILINE Plus LED Tube/LUMILINEPLUSBS20WLED865SPCSS, 20W	Each	9.00			
	Cat No. LED Up-Down Wall Light(Outdoor)/Code-680701,6W	Each	3.00			
6	Supplying installation,testing and Commissioningof ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos.,canopy 2 Nos., condenser and fan body etc. complete as required					
	1200mm sweep	Each	3.00			
	1400mm sweep	Each	2.00			
C	**CONTROL, SWITCHGEARS & BUSBAR**					
7	Supply,installation,testing and Commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required(BSB Approved Make)					
	10A	Each	1.00			
	20A	Each	10.00			
8	Supplying installation,testing and Commissioningof panel moulded case circuit breaker (MCCB) with electronic release, breaking capacity 25KA, 4 pole 415 volt A.C complete with all accessories etc. as required(BSB Approved Make)					
	100A	Each	1.00			
9	Supply & Fixing of residual current circuit breaker (RCCB) double pole, sensitivity 100mA, 230 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required					
	25A	Each	1.00			

Khorlochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
10	Supply, installation, testing and Commmissioning of SPN distribution board (DIN type) with arcylic door, 230 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required					
	12 way	Each	1.00			
11	Providing and fixing of Cubicle metal Distribution board IP65 approved by engineer in-charge for enclosing the MCB DB Box (distribution board) locking arrangement etc. as required in Single line diagram /BSR Specification	Set	1.00			
D	**EARHTING**					
12	Provide and install earthing with GEE slab 4' x 1' x 2" -8 nos connected in series, including 25x4mm GI strip running upto DBs. Manufactured by Druk-Care GEE slab earthing system at Jimena, Thimphu or equivalent. For installation- visit website: www.drukcare.com	Set	1.00			
E	**POWER CABLE**					
13	Supplying of 2- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables					
	10 sq.mm	Mtr.	95.00			
14	Supplying and fixingof heavy duty brass single compression gland for 2- Core 1.1KV grade PVC insulated and sheathed Copper/ Aluminium conductor armoured/un-armoured power cables					
	25mm dia, 10sq.mm	Each	2.00			
15	Laying of one number PVC insulated and sheathed power cable copper/aluminium,armoured/un-armoured 1.1KV single core to four core direct in the ground including excavation, sand cushing, protective covering and refilling the trenches etc. as required					
	Above 6sq.mm to 25sq.mm	Mtr.	95.00			
F	**Lighting Arrestor (Supply and Fix)**					
16	25mm dia 900mm long copper tube four prong at Topwith 85 mm dia 3 mm thick copper base plate	each	1.00			
	Earthing for LA					
17	Providing and fixing of earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, water pipe with excavation and refilling work including charcoal or coke and salt complete required as per standard earthing drawing - With copper earth plate 600x600x3mm.	Sets	1.00			
18	Providing and drawing wire for loop earthing in exisiting surface/recessed PVC/MS/ steel conduit or cassing capping or wooden batten along with other wires as required - 2.032mm (14 SWG) copper wire.	M	60.00			



S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
19	Providing and laying earth connection from earth electrodes in 15mm dia. GI pipe from earth electrode as required as per guidance of standard earthing drawing … with 4.06mm dia (8SWG) copper wire.	M	60.00			
	Total for Kitchen & Laundry (Nu.)					

6. Compound Lighting

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Providing and fixing 1.1kV grade PVC insulated copper conductor from fittings to marshalling box:					
	P/D 2x2.5 Sq.mm 1.1kVG PVC insul. copper condr.	Mtr	360.00			
2	Providing and laying of HDPE pipe for incoming and outgoing line for compound light post					
	32mm dia HDPE conduit pipe	Mtr	75.00			
3	Providing and laying of 1.1kV grade PVC insulated and sheathed (PVC I&S), armoured underground aluminium cable (AUGC) in the cable trench 500x1000deep with necessary sand bed, required size of thimbles and cable gland, etc for compound light post					
	6Sq.mm 2core PVC I&S, AUGC	Mtr	960.00			
	240Sq.mm 4core PVC I&S, AUGC	Mtr	110.00			
	150Sq.mm 4core PVC I&S, AUGC	Mtr	50.00			
4	Compound light					
	Providing and fixing 70W Slim LED Flood Light,8.5m Street Light Steel Tubular Pole with base plate 250x250x5.4mm, entry hole of 40mm dia 1.1m from bottom and strude bolt as earth terminal complete as required and other required accessories to make the set complete.(Vinay or Euivalent)	set	2.00			
	Providing and fixing 3x8 W COB LED POLE LAMP,5.5m, 5.4mm thick compound light steel tubular pole 50/60mm outer dia having a base plate 250x250x5.4mm, entry hole of 20mm dia 1.1m from bottom and strude bolt as earth terminal complete as required and other required accessories to make the set complete.(Vinay or Euivalent)	set	70.00			
5	Providing & fixing Four pole MCBs & DBs					
	2 pole MCB: 32A & 4way SPNDB	set	2.00			
6	Earthings					
	Provide and installing earthing with 20mm x1800mm GI spike including 8 or 10mm dia GI nuts and bolts, 3m long 2.5 Sq.mm bare copper conductor.	set	74.00			
7	Switch Gear Stand					
	Switch gear stand with RCC 1000x500x1200mm(ratio 1:2:4)	no	2.00			

Kholochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	
8	Switch Gear Boxes					
	Providing & fixing feeder piller of MS sheet metal box 1000mm long 500mm wide 1200mm high (external) with fitted in busbars and to house in meters, Main Switches, timer switch and any other auxiliaries	no	2.00			
9	MCCB					
	Providing & fixing 4pole MCCB, 250A,415V, 36KA breaking capacity	no	1.00			
	Providing & fixing 4pole MCCB, 315A,415V, 36KA breaking capacity	no	1.00			
10	Timer switch and contactor					
	Supply and fixing of electronic timer switch double pole,7days/24hrs, 50Hz, sensitivity 30mA, 230 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required	no	2.00			
	Supply and fixing of 32A 3 pole contactor, 440V with single phase solenoid coil	no	2.00			
	Supply and fixing of 250x180x100 metal box with din bar and hinged, lockable cover.	no	2.00			
	Total for Compound Lighting (Nu.)					

Khorlochhu Hydro Power Ltd.

S.N.	Description	Unit	Qty.	Quoted Rate (Nu.)		Total Amount (Nu.)
				In Figures	*In Words*	

D. OCCUPATIONAL HEALTH & SAFETY (OHS)

S.N.	Description	Unit	Qty.	Rate in Nu.		Total Amount (Nu.)
				Figure	Words	
1	Incorporation of Occupational Health and Safety measures at construction sites as per the attached requirements list. The standards and specifications for the Insurance, OHS materials and (or) equipment shall be in compliance with the Labour and Employment Act - 2007, Regulation on Occupational Health, Safety and Welfare - 2012, and other relevant national documents. All OHS items will remain as the property of the bidder upon completion of the project.	Ls	1.00			
2	Providing temporary living accommodation which includes bed room, kitchen, and toilet cum bathroom including proper water supply and electricity as per the drawing and temporary living accommodation standards. The accommodation facilities must be dismantled and cleaned upon the completion of project. All reusable materials of the accommodation facilities will remain as the property of the bidder upon completion of the project.	Ls	1.00			
	Total for OHS (Nu.)					
	GRAND TOTAL					

Khorlochhu Hydro Power Ltd.

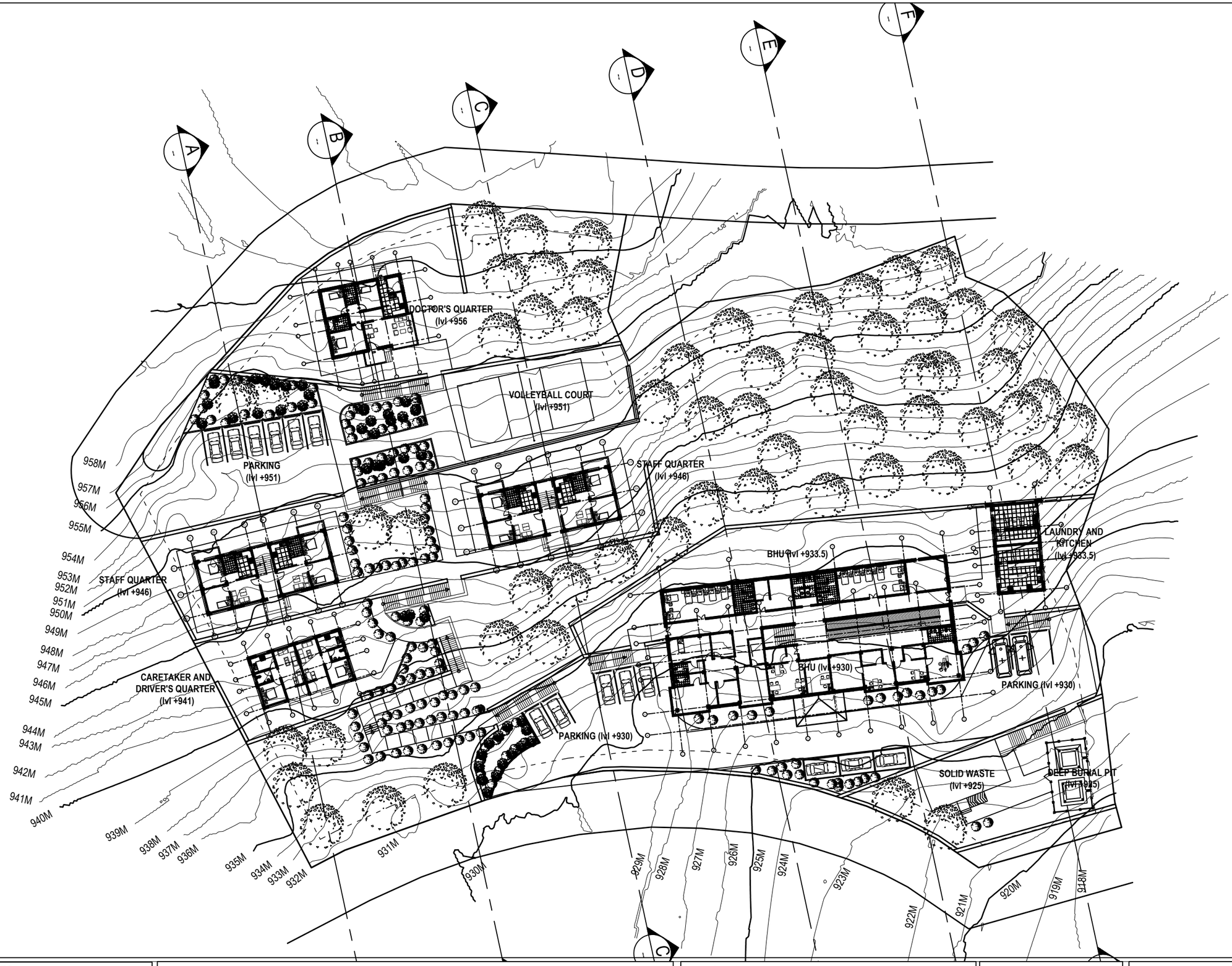
ANNEXURE-II: CONSTRUCTION DRAWINGS

ARCHITECTURAL DRAWINGS

MASTER PLAN- BHU

Owner - KHPL
Location - TRASHIYANGTSE

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ARCHITECTURAL DRAWING

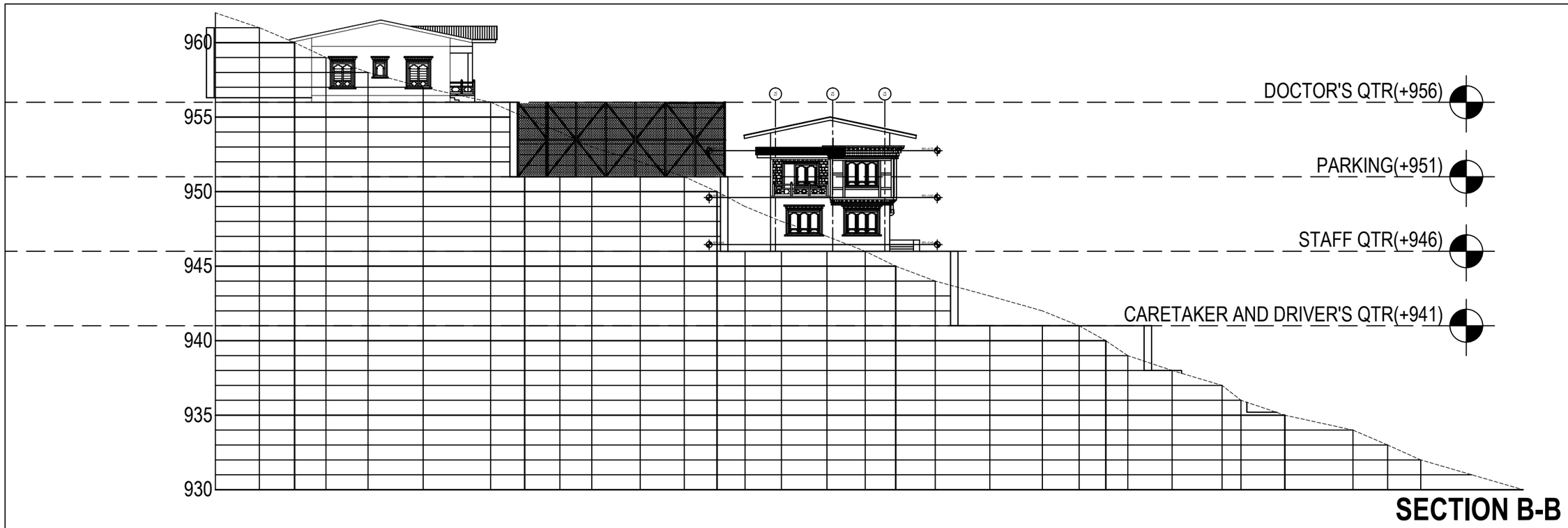
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	MASTER_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_01
			SCALE
			NTS

Khorlochhu



SECTION B-B

SECTION A-A

Khorlochhu

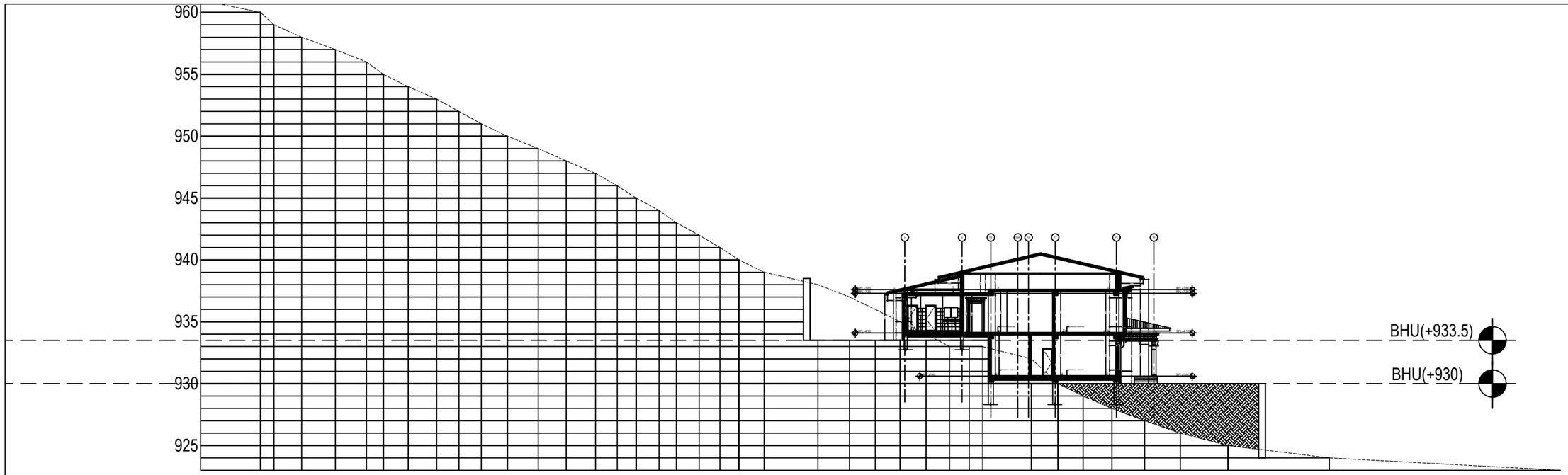
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTIONS

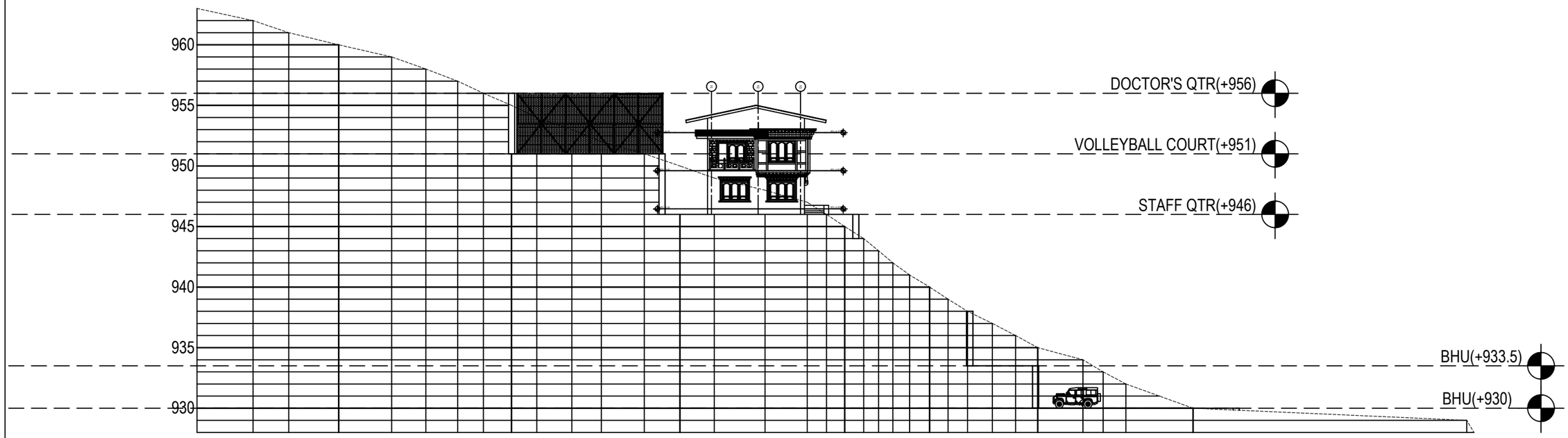
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		Sep, 2026	AR_02
			SCALE
			NTS



SECTION D-D



SECTION C-C

Khorlochhu

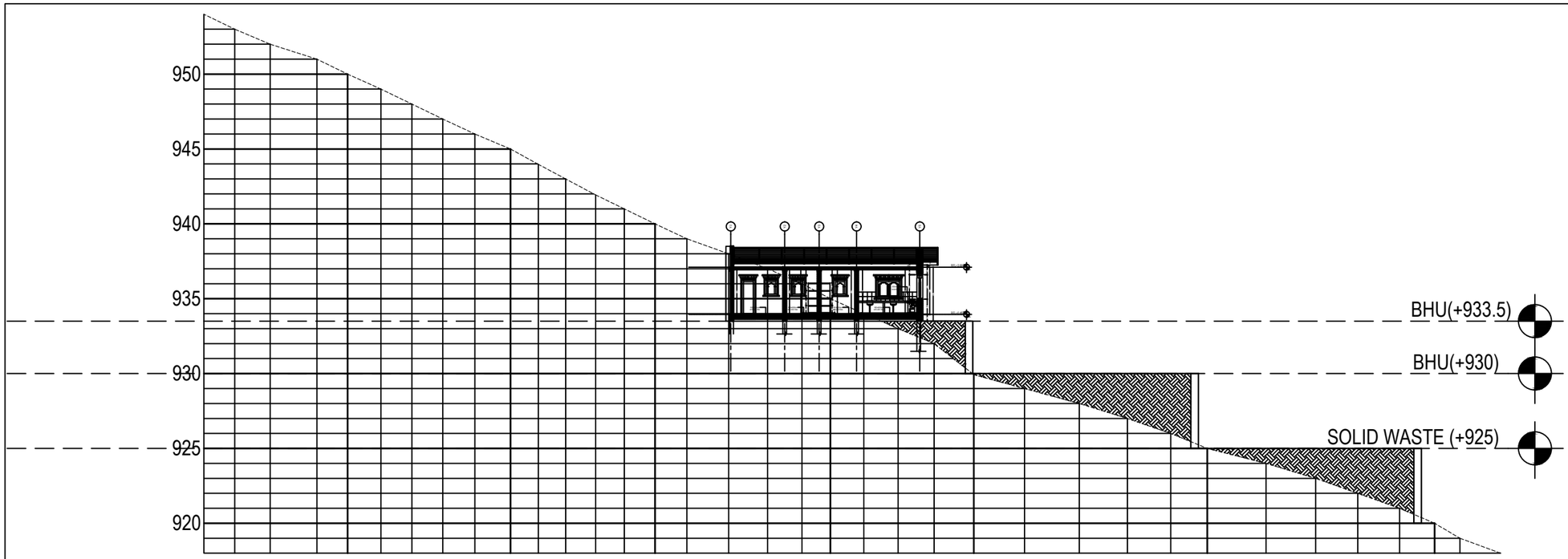
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTIONS

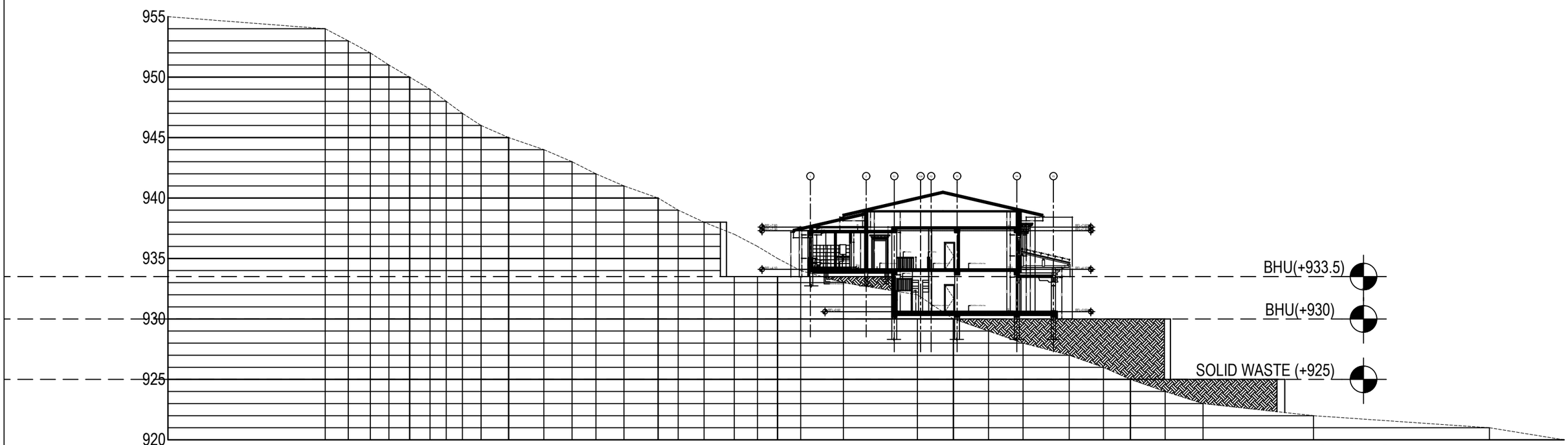
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_03
			SCALE
			NTS



SECTION F-F



SECTION E-E

Khorlochhu

ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTIONS

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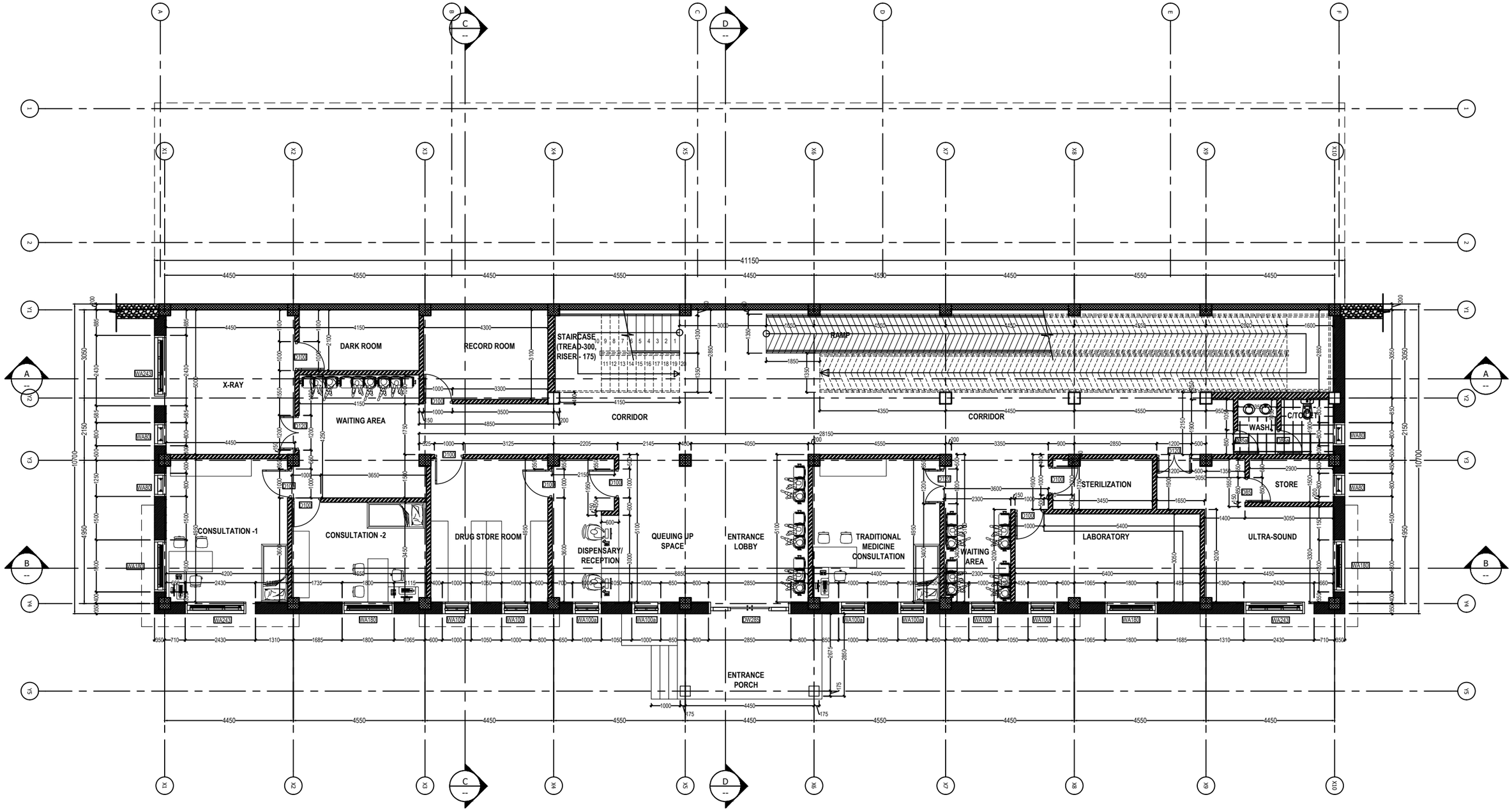
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_04
			SCALE
			NTS

ARCHITECTURE DRAWINGS

PROPOSED BHU

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu



ARCHITECTURAL DRAWING

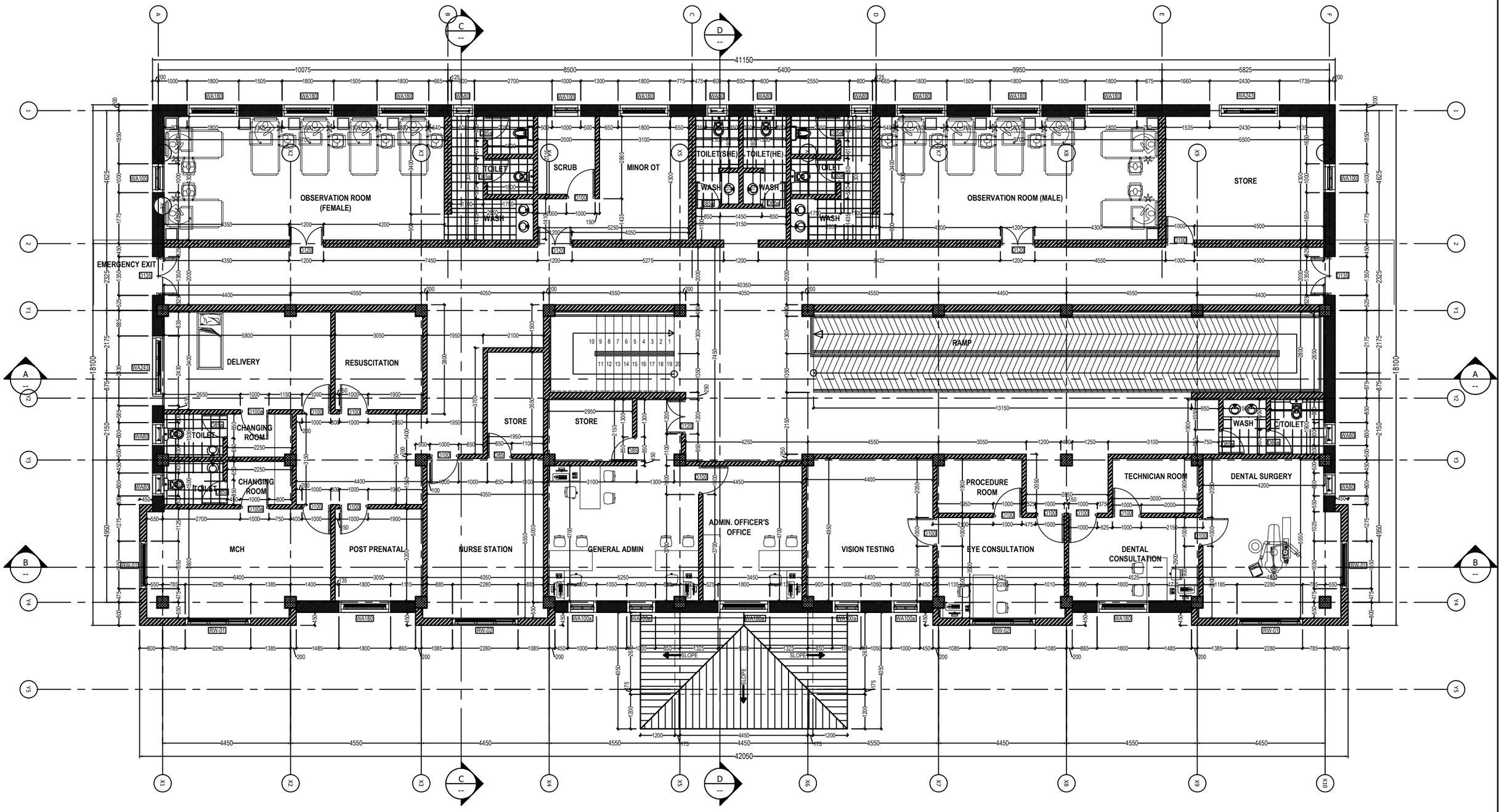
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	GROUND_FLOOR_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS

Khorlochhu



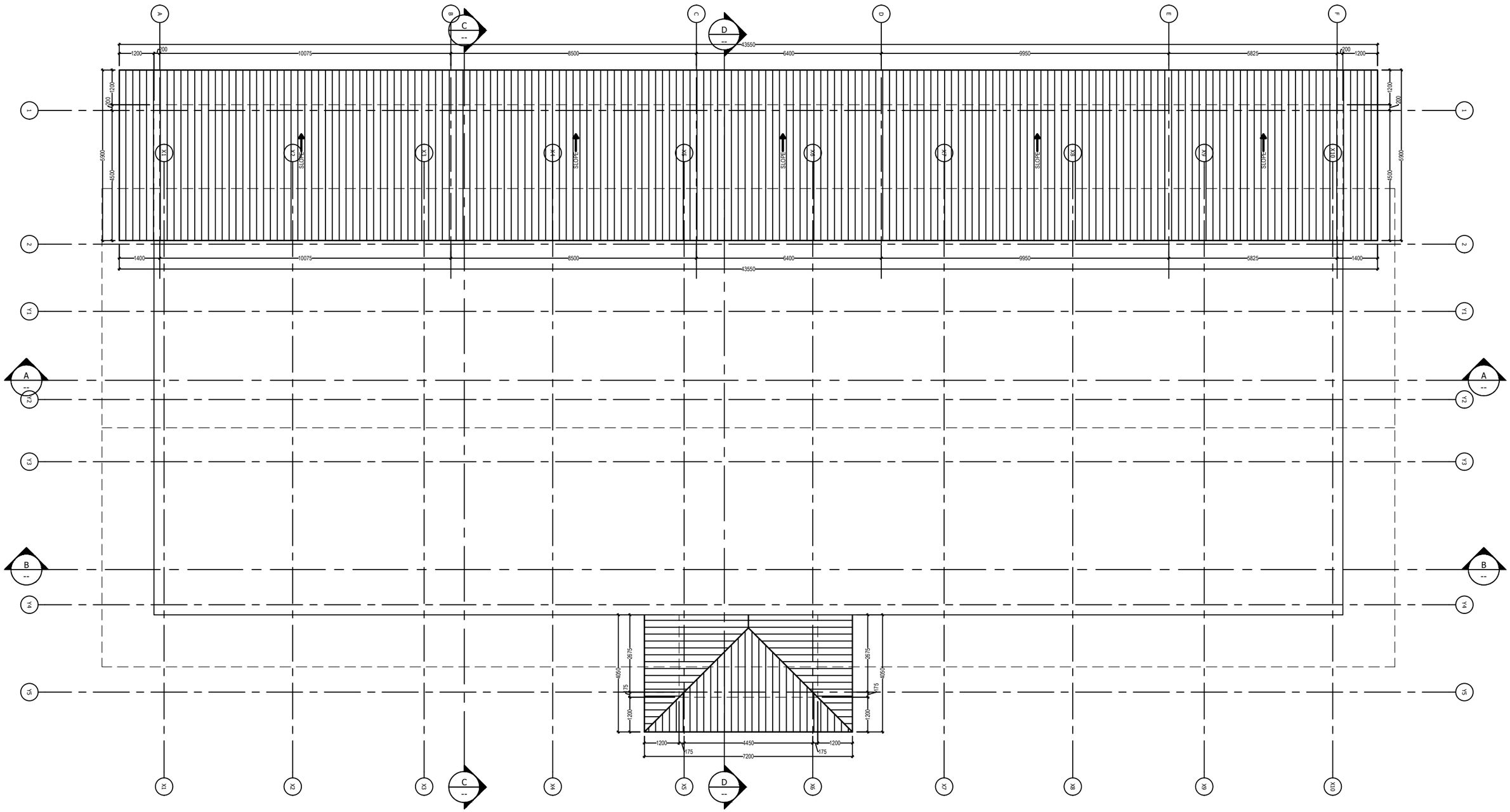
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



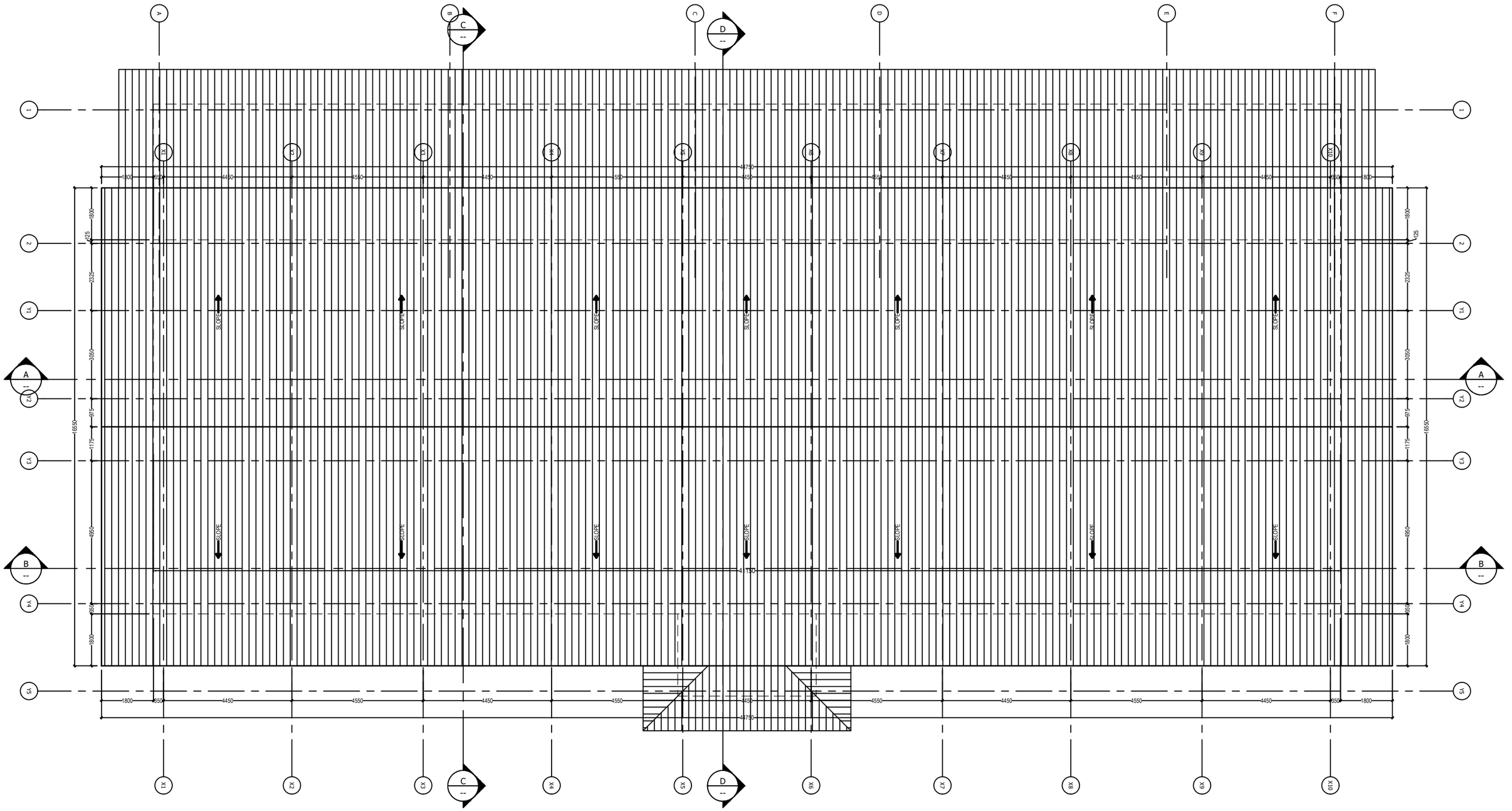
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LEAN_TO_ROOF_PLAN

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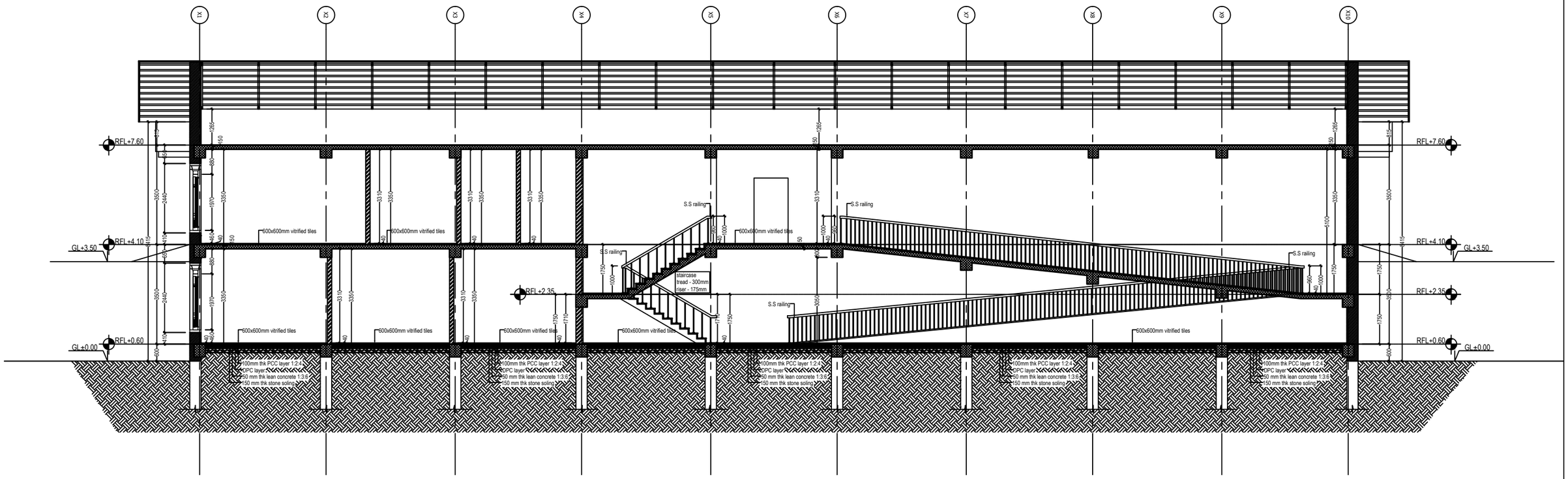
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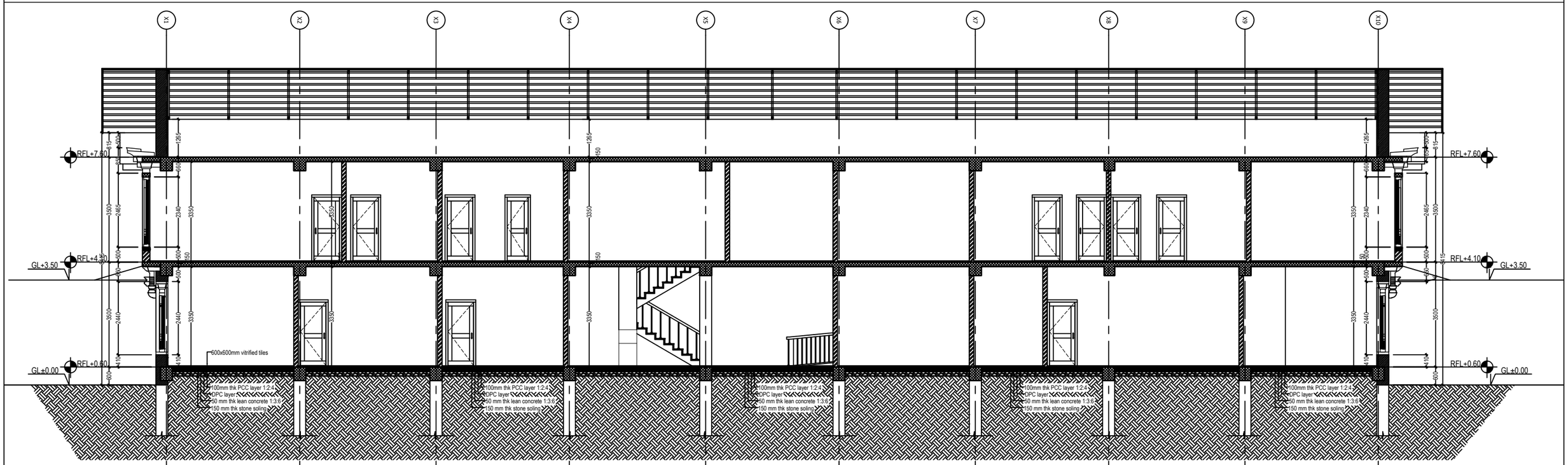
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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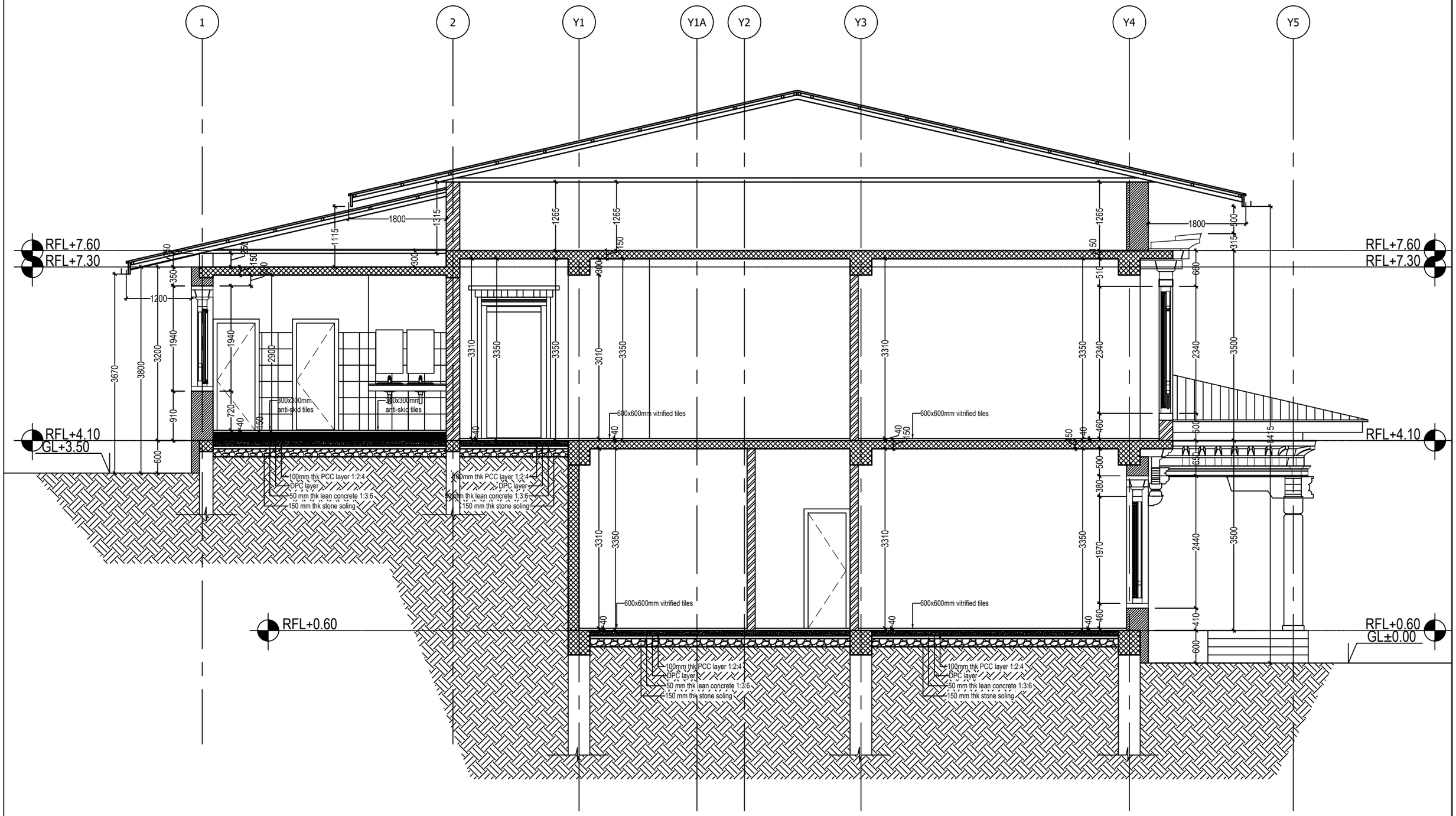
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PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_A-A_AND_B-B

NOTES

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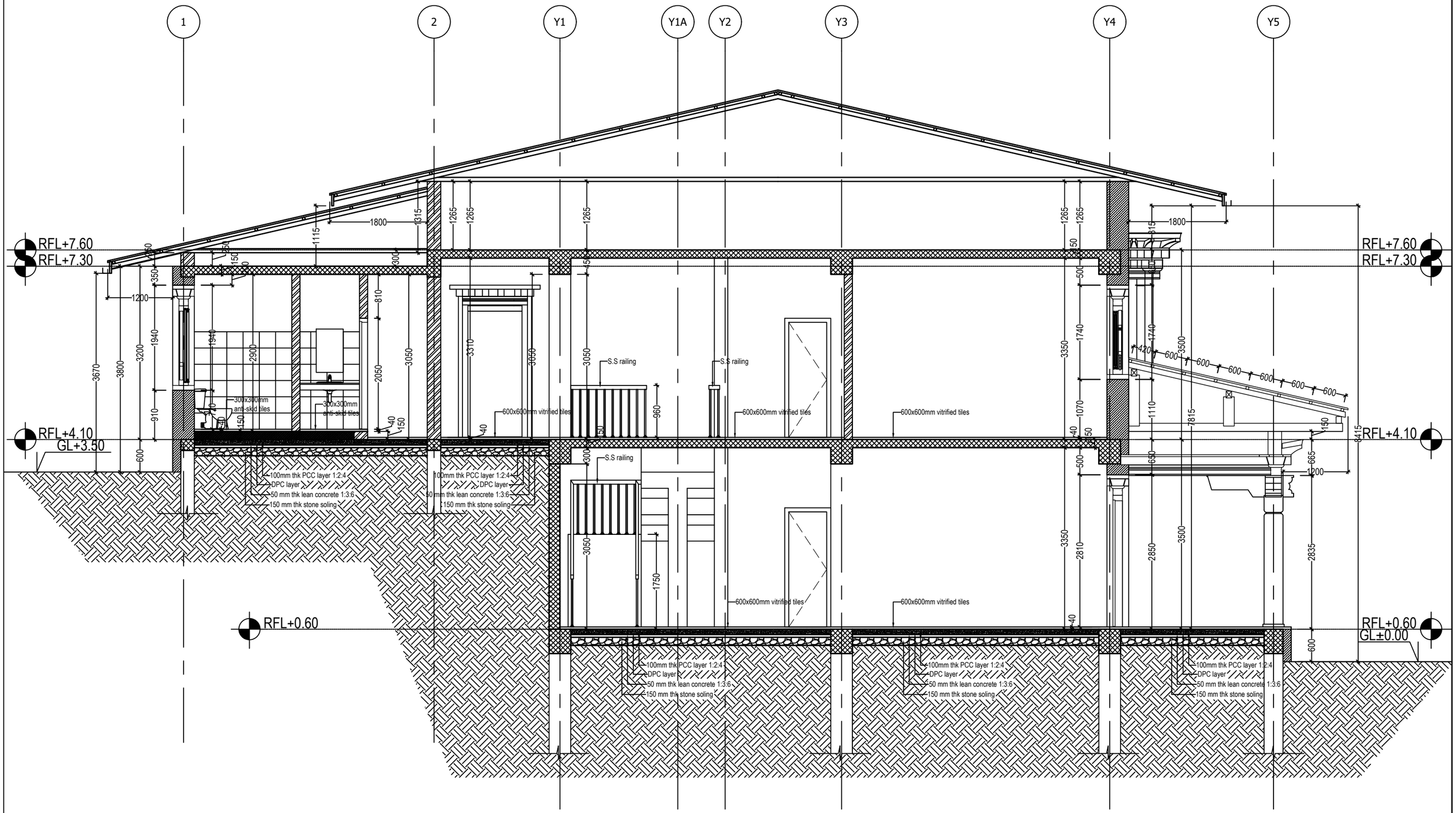
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_C-C

NOTES

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			SCALE
			NTS



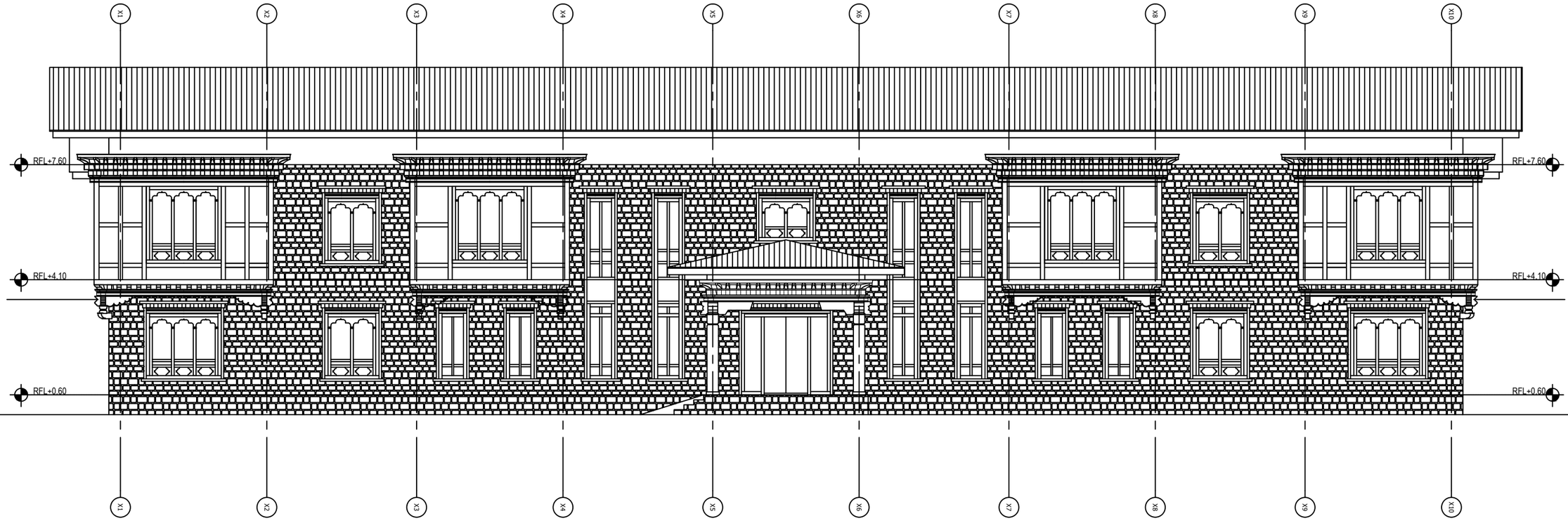
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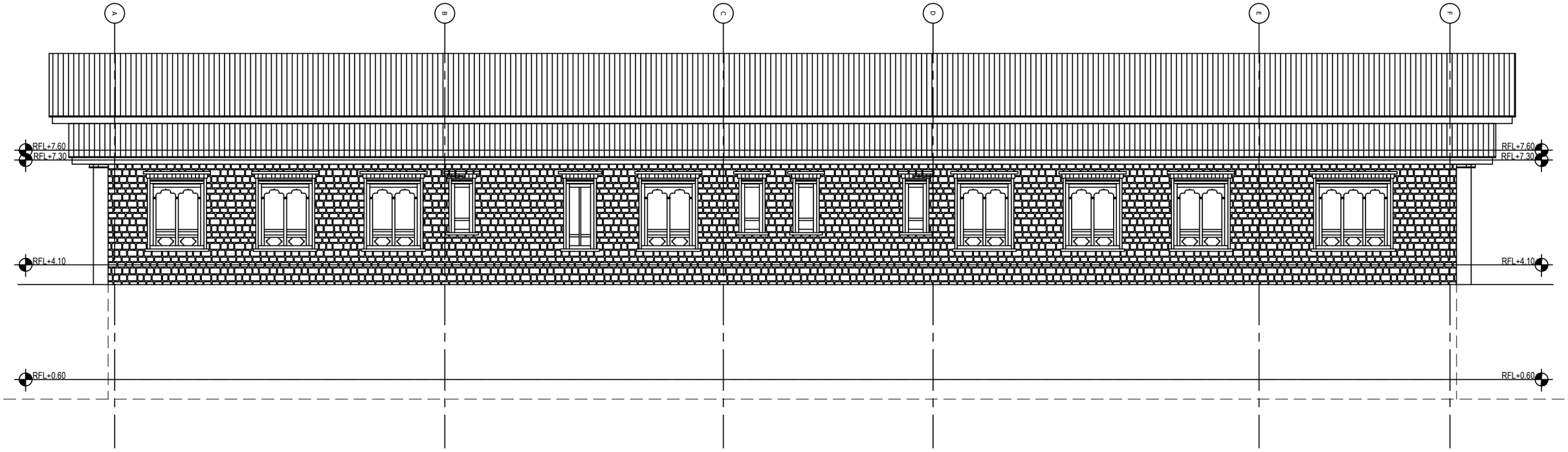
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_D-D

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS





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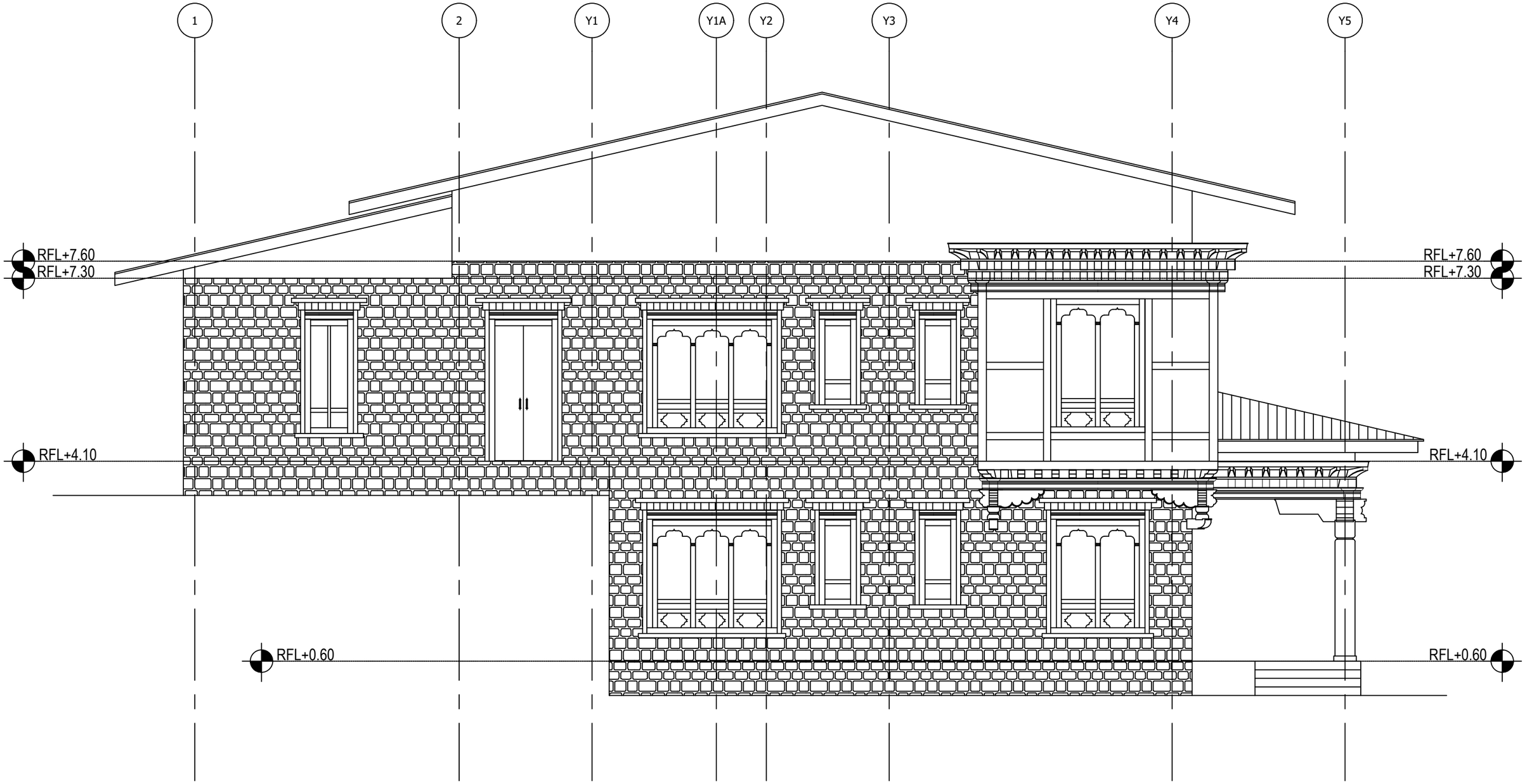
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_A_AND_C

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			NTS



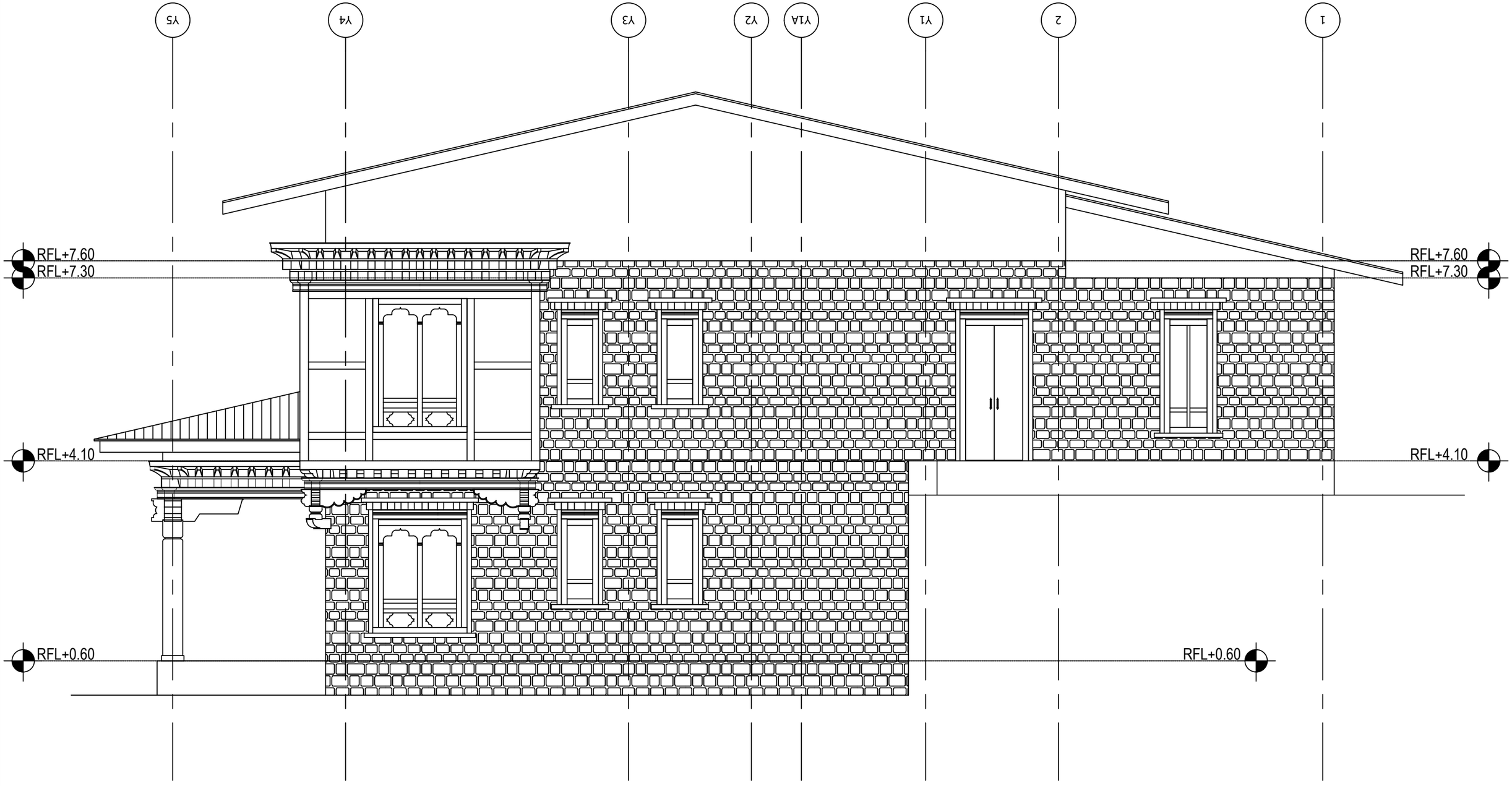
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_B

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			NTS



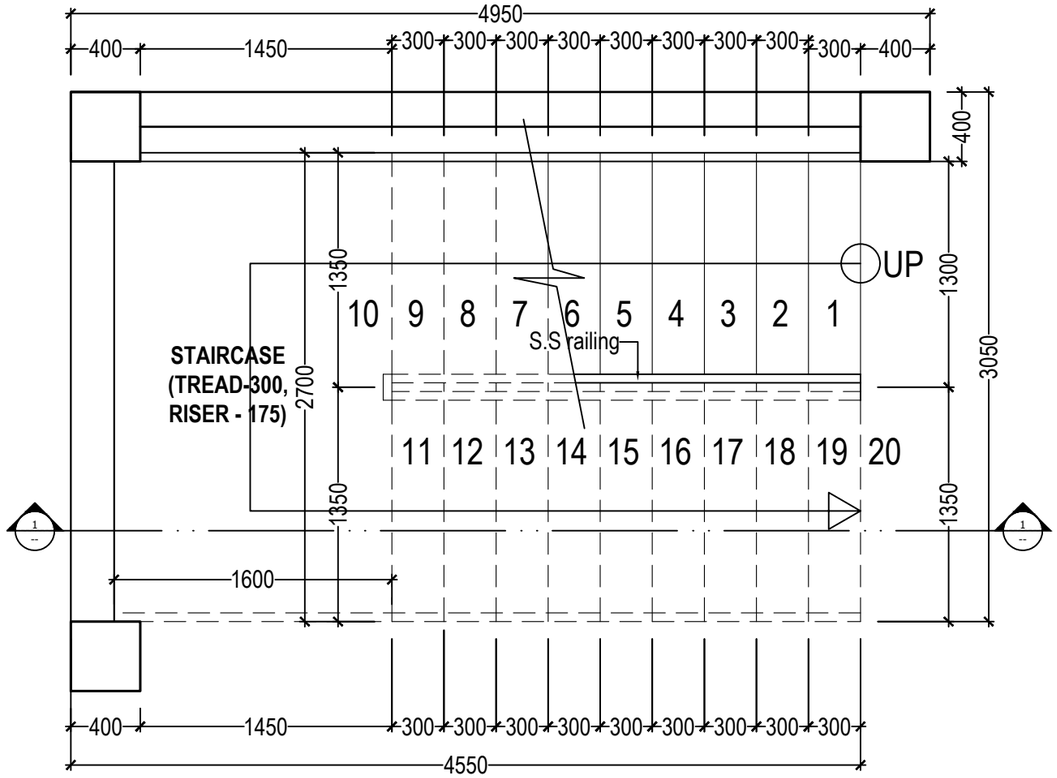
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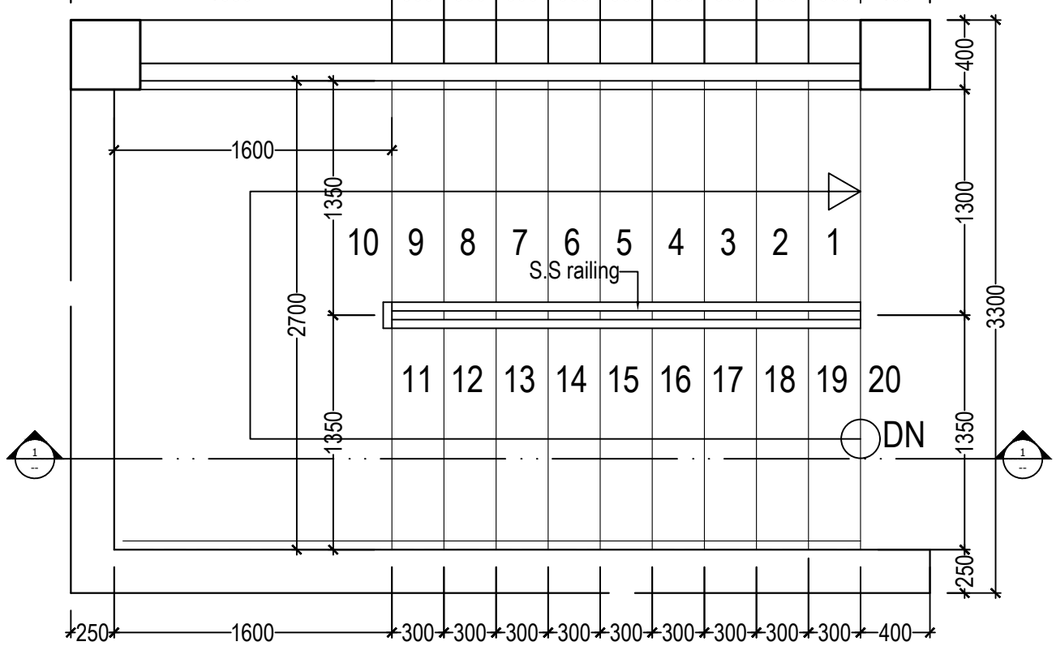
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Construction of BHU Building and Auxiliary Work	ELEVATION_D

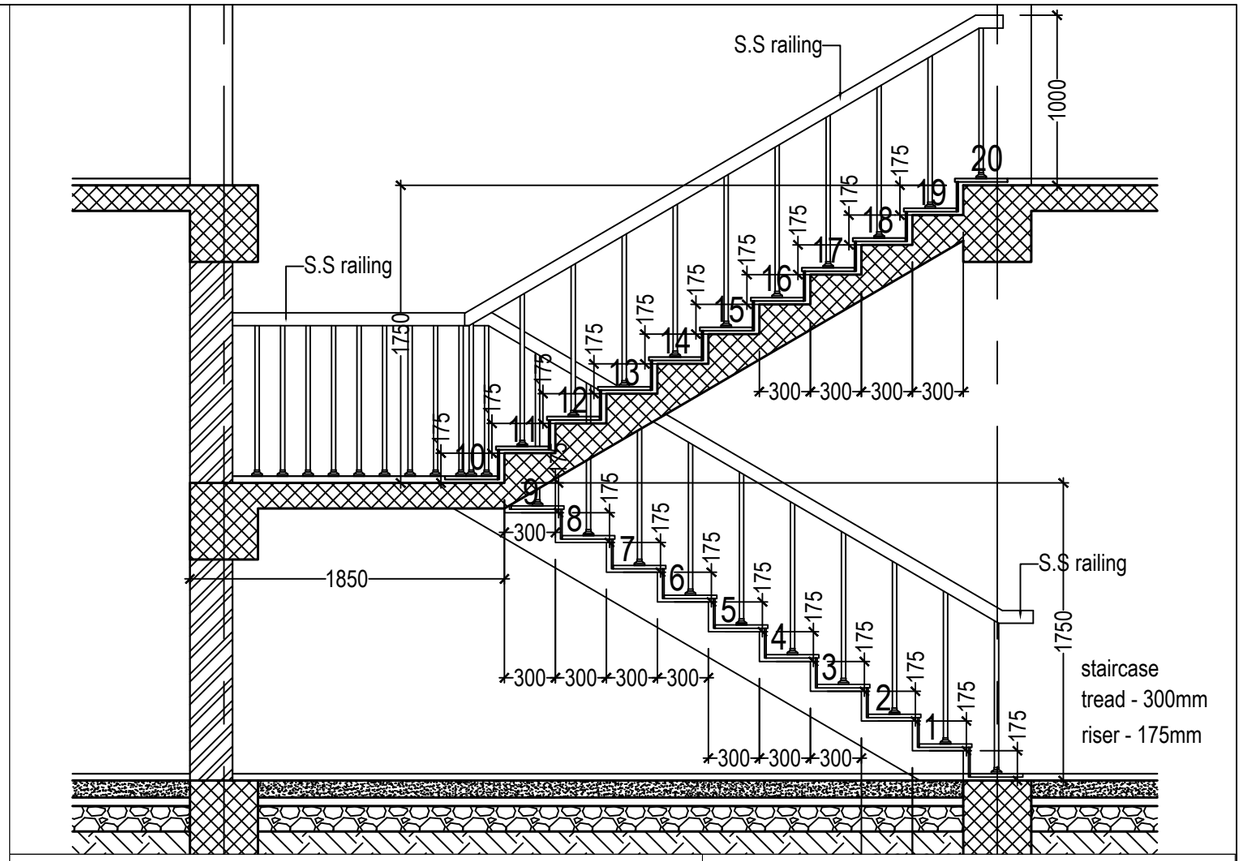
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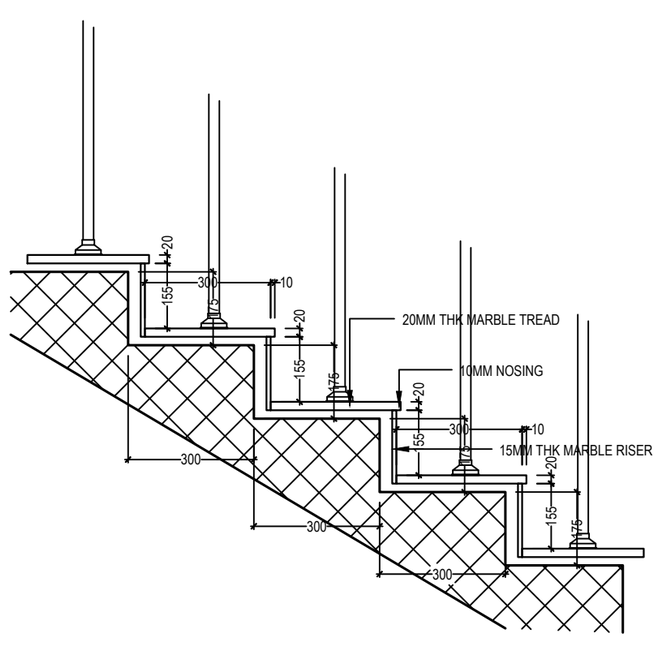
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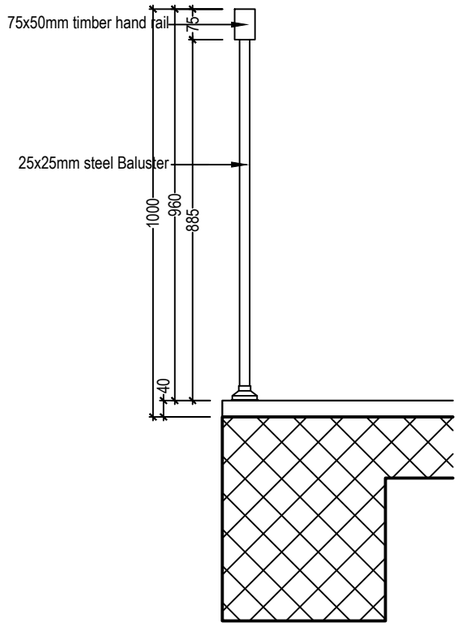
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		Sep, 2026	AR_10
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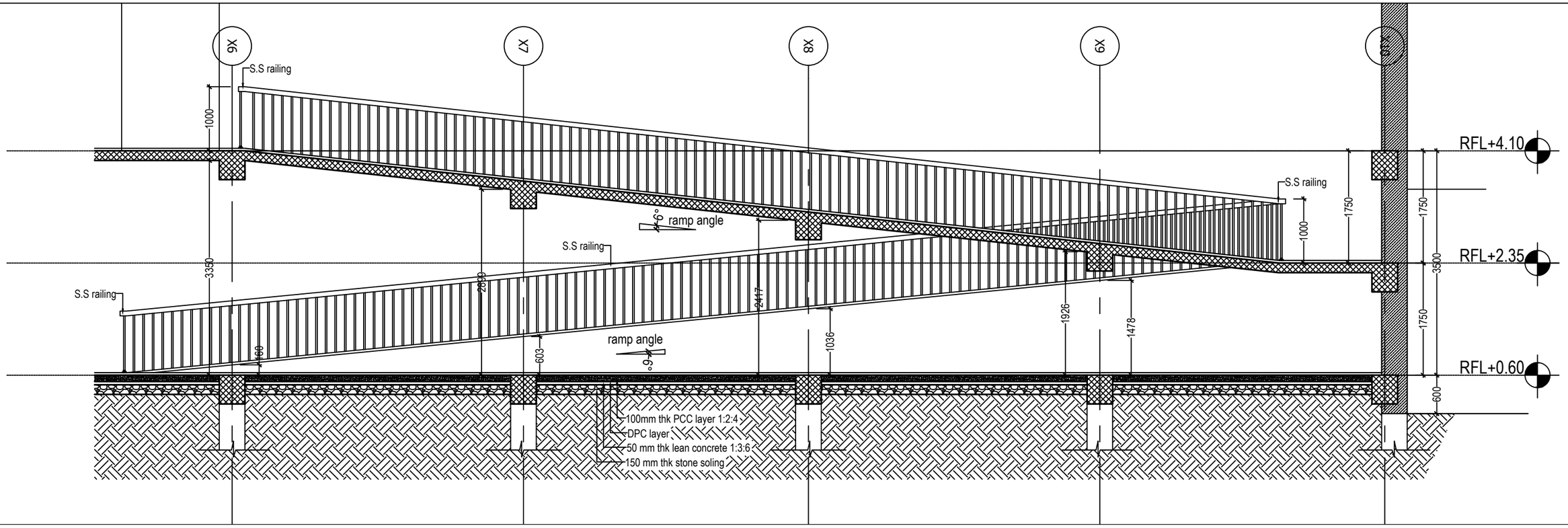


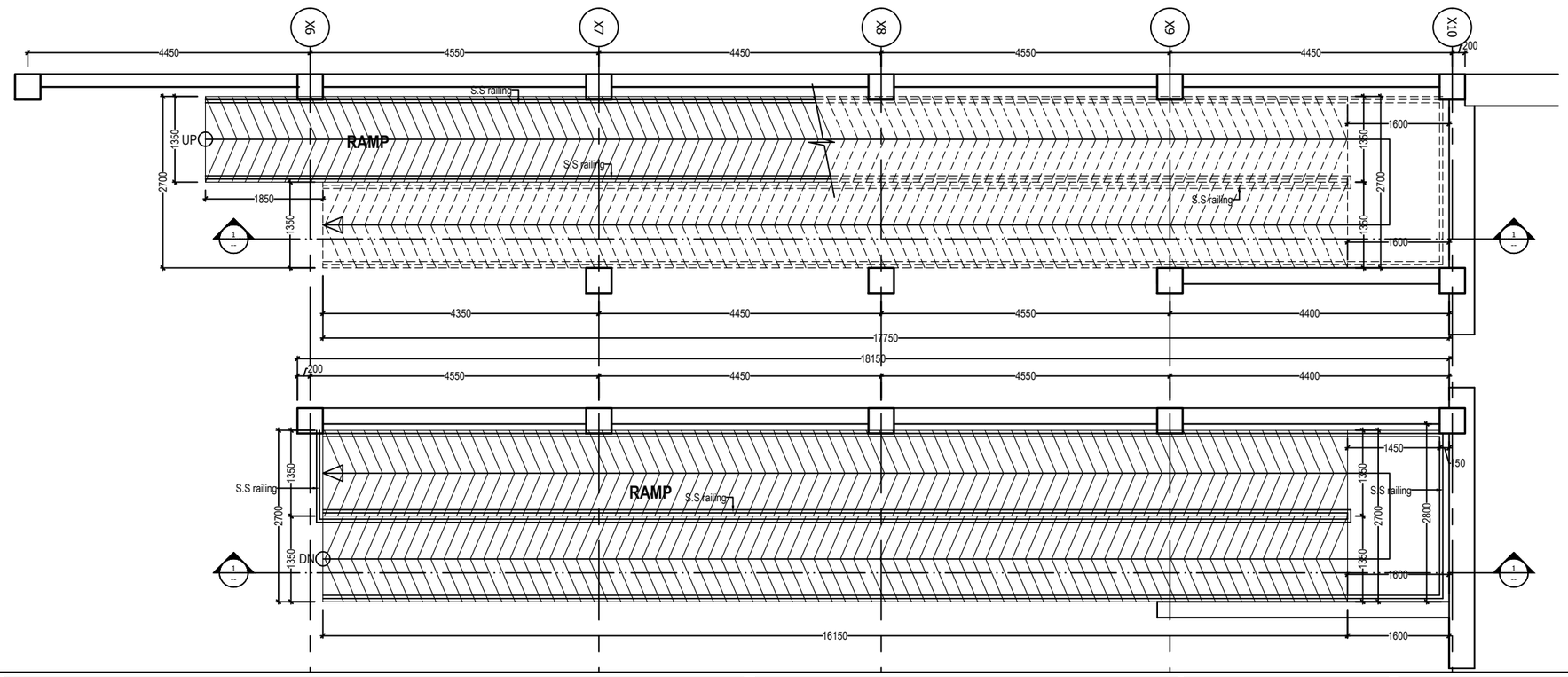




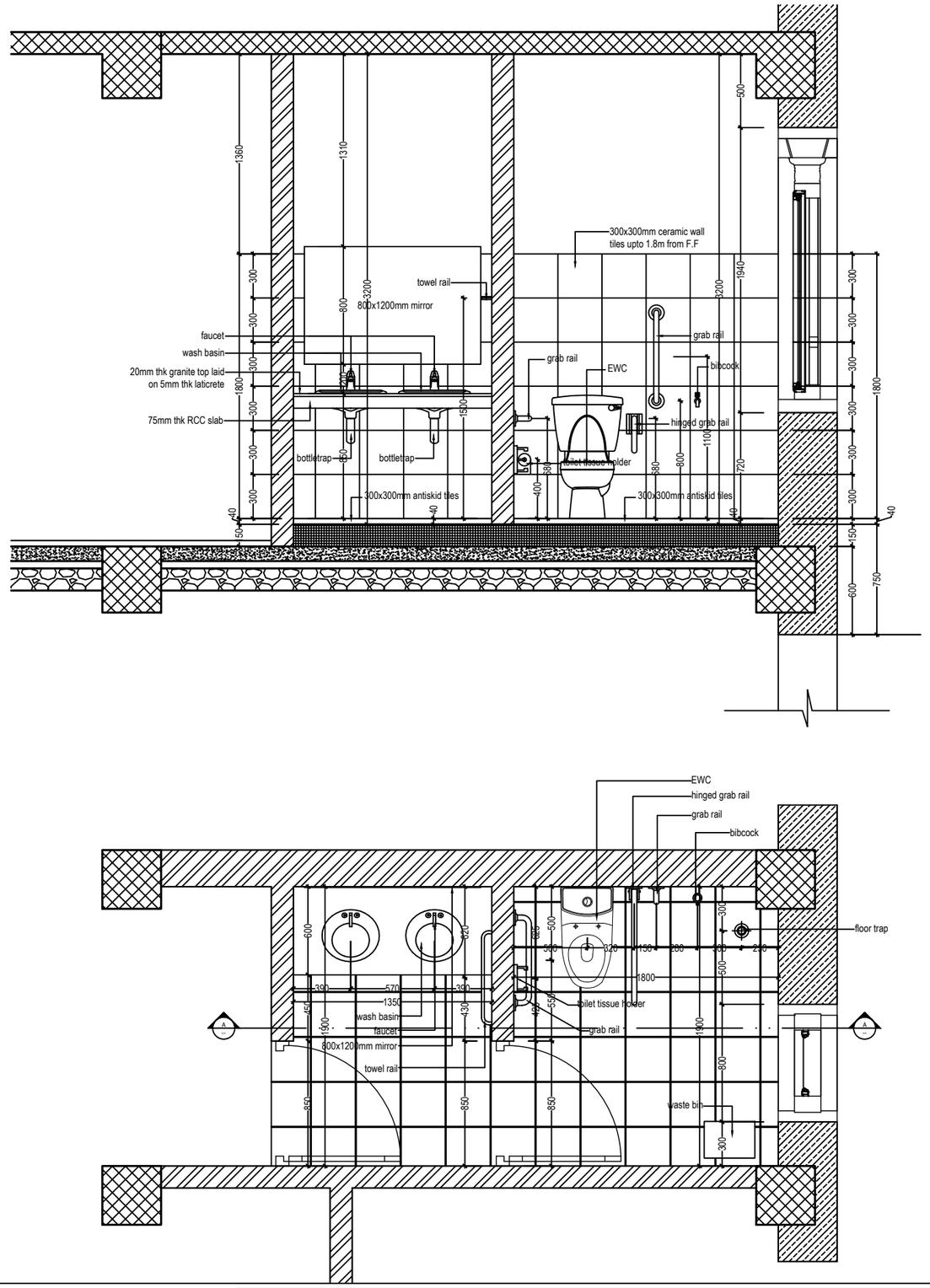


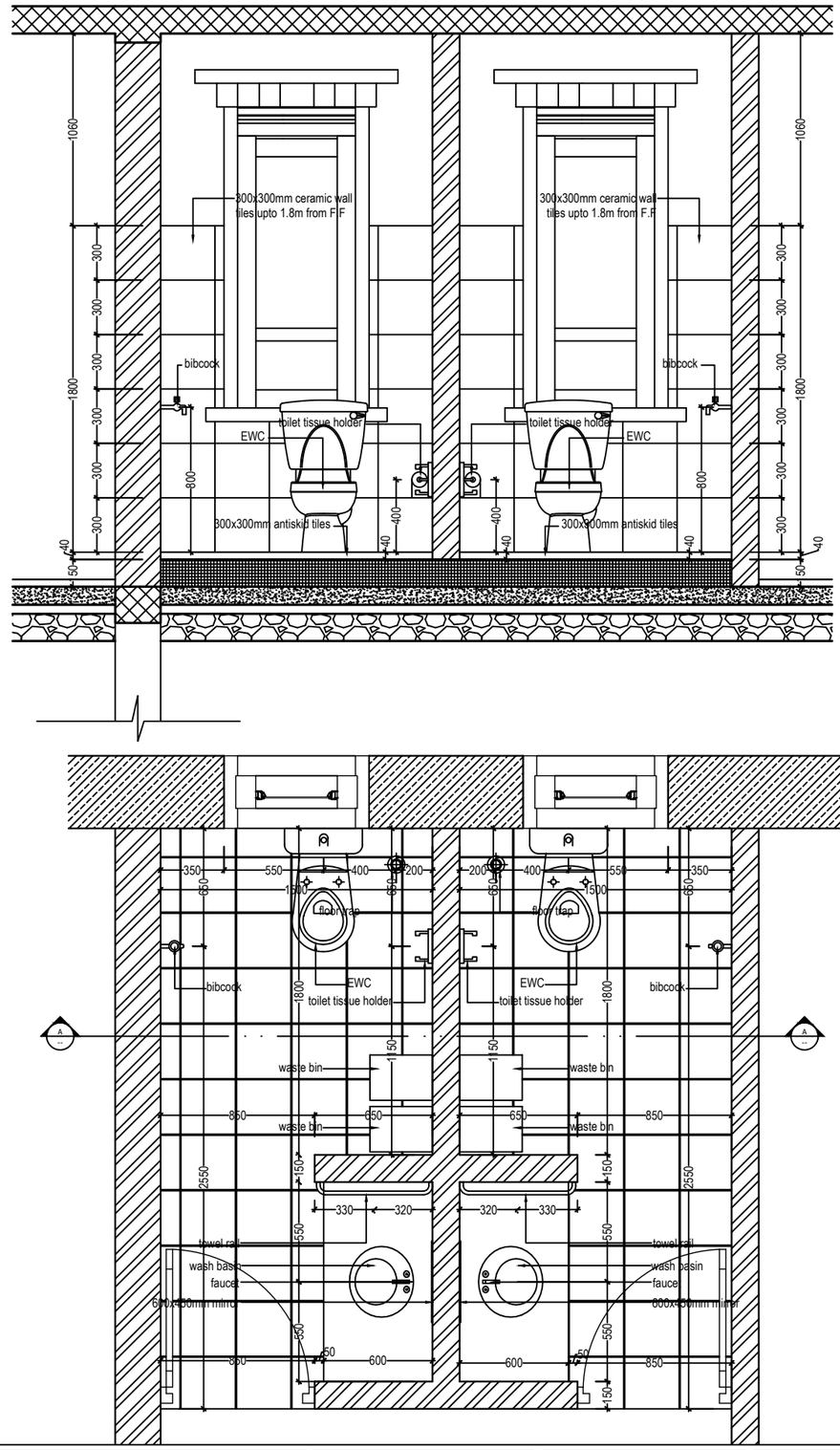
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Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / RAMP_DETAIL				Sep, 2026	**SCALE** NTS





Khorlochhu

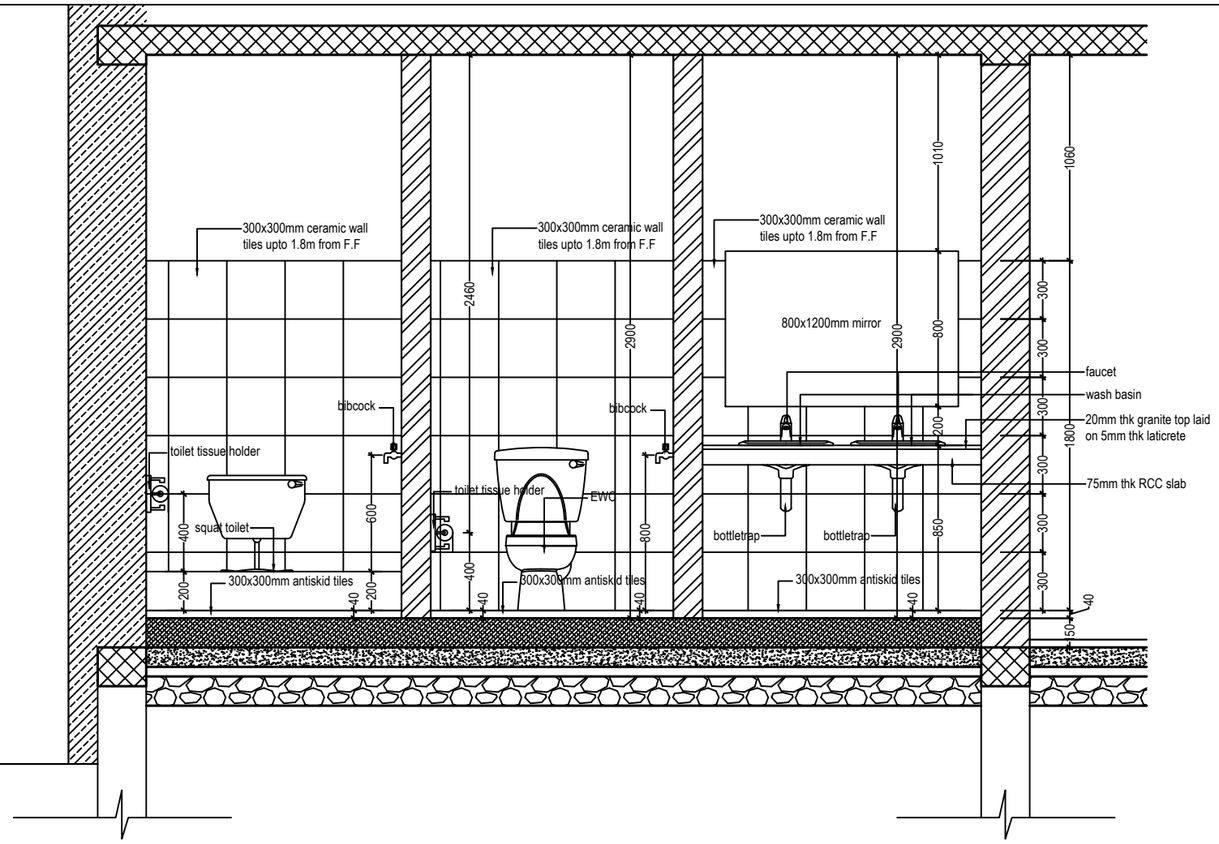
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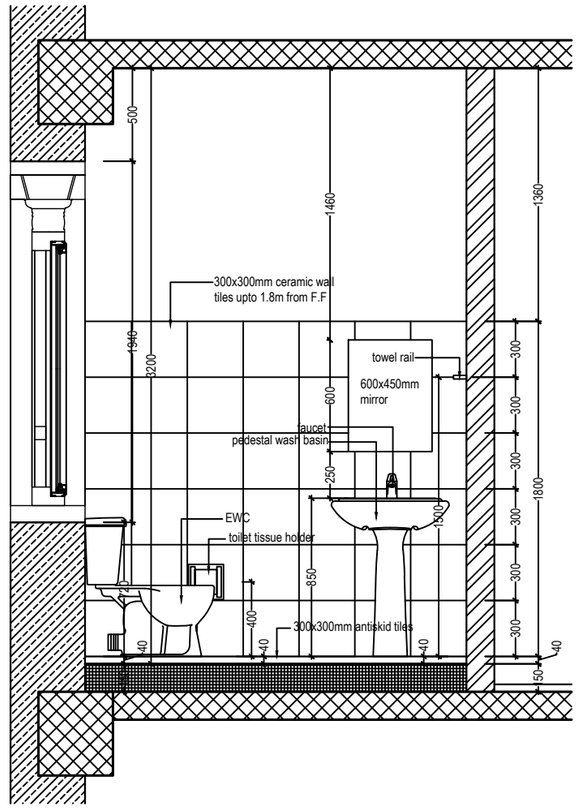
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TOILET_DETAIL

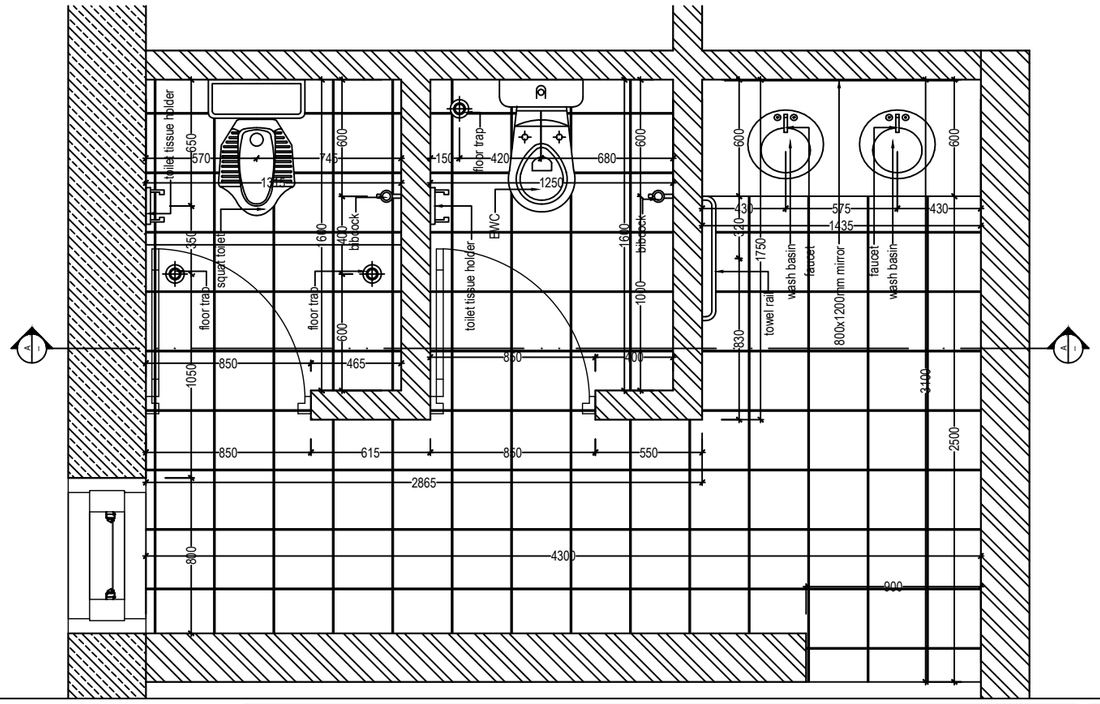
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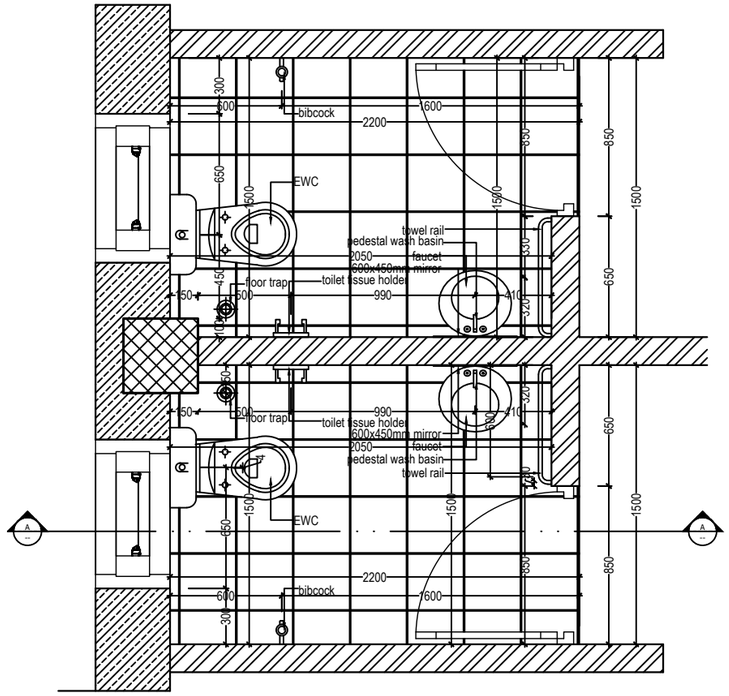
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CHECKED	APPROVED	DATE	DRAWING NO.
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			NTS

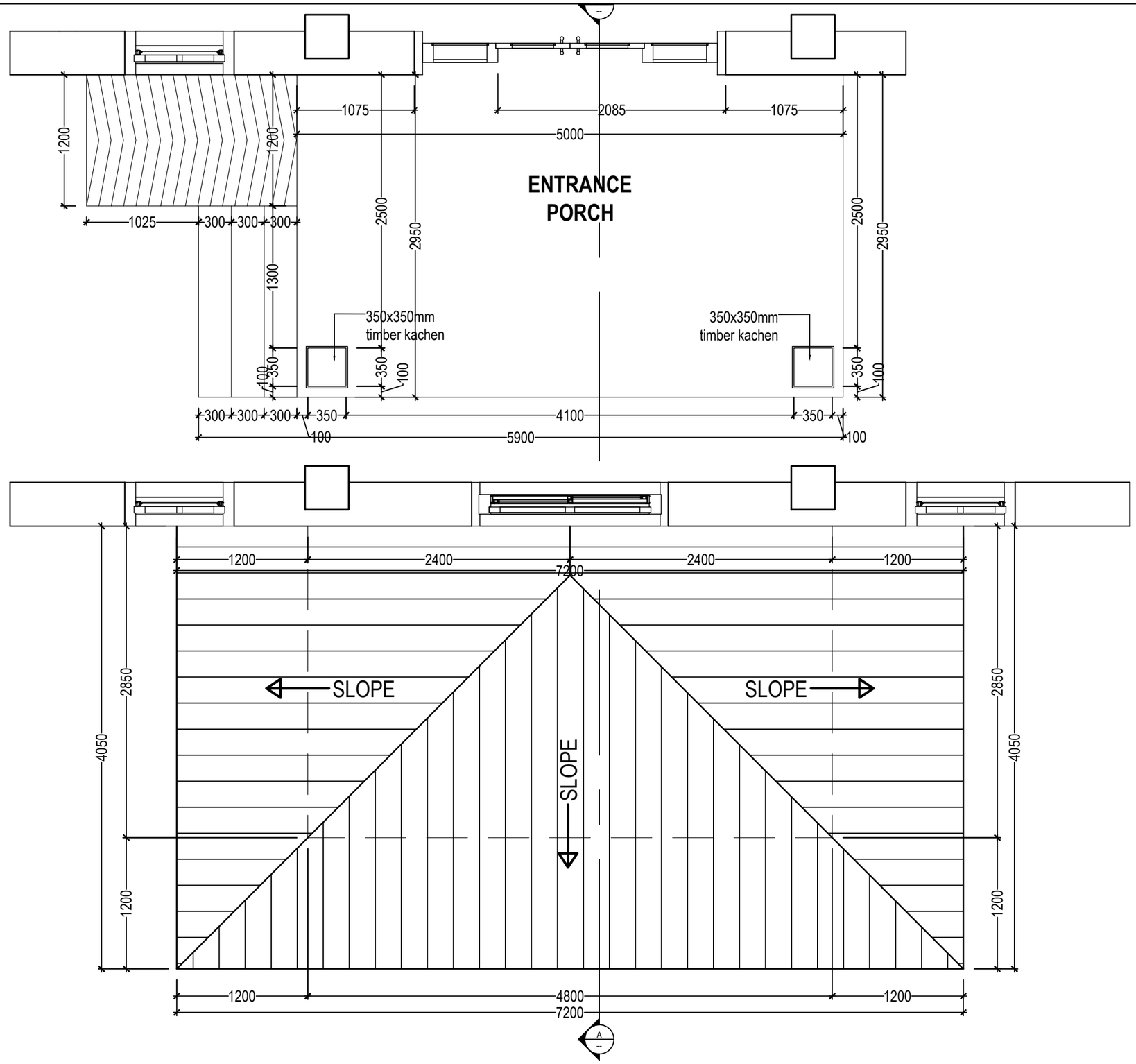




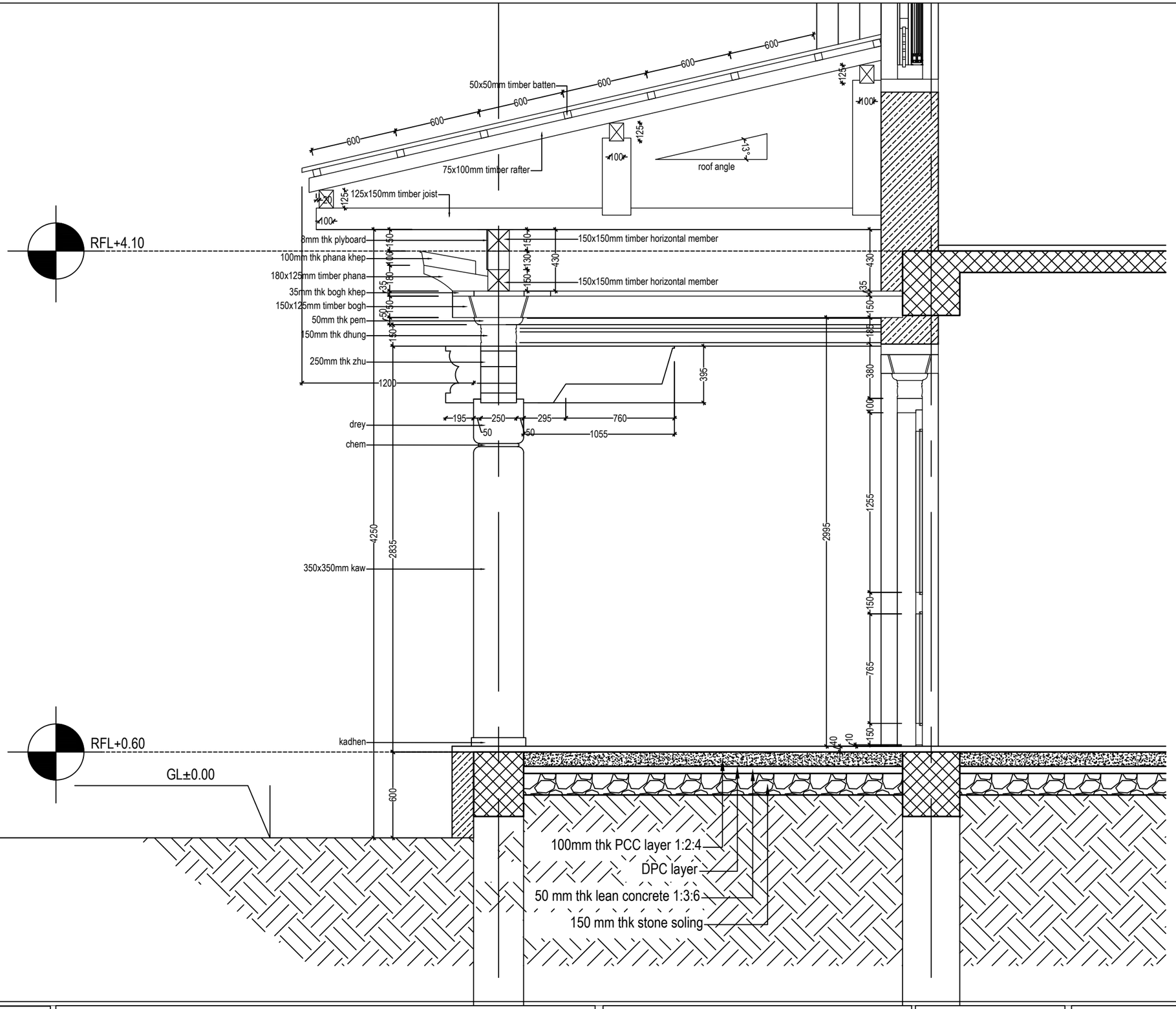




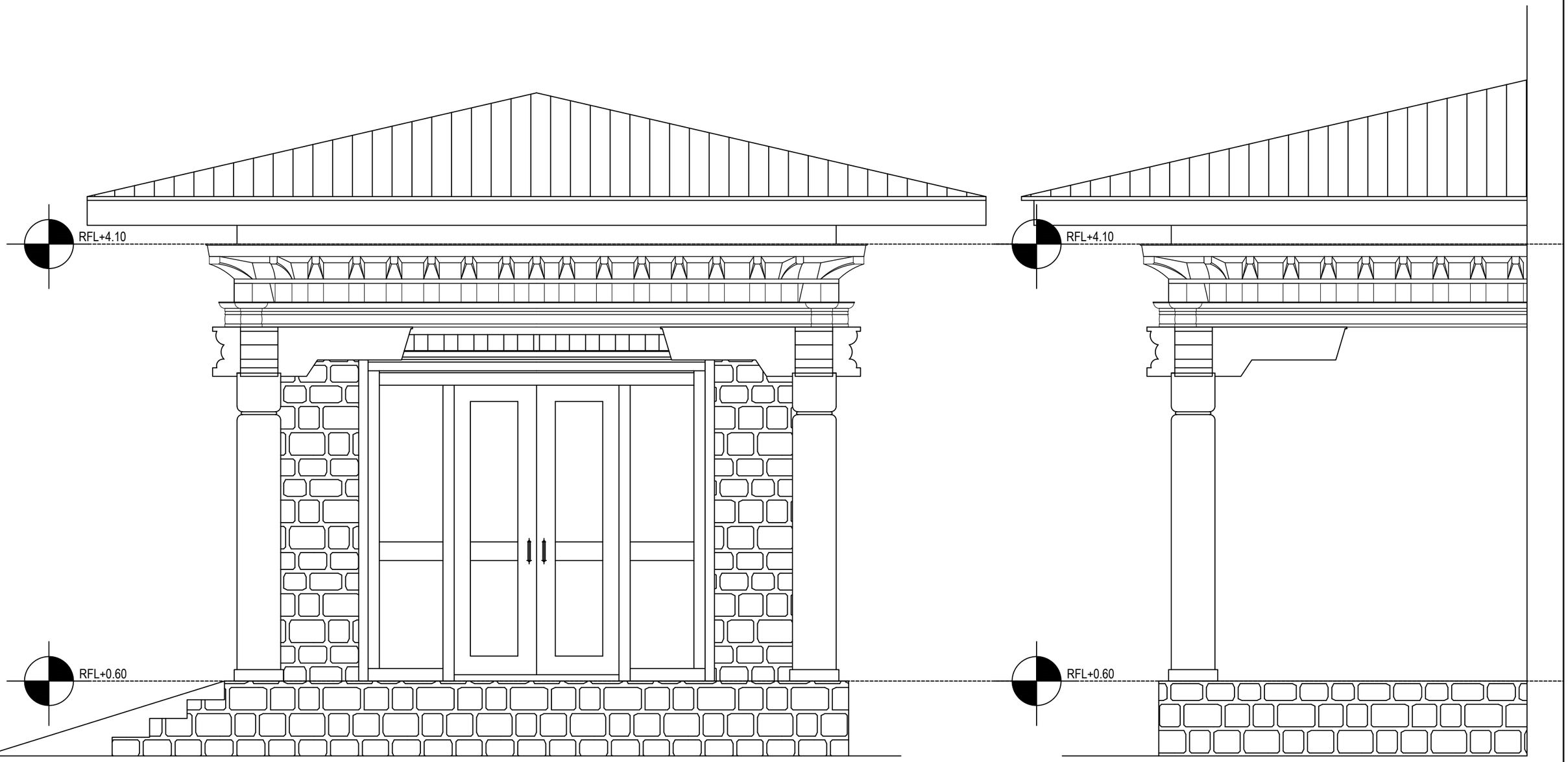
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	Construction of BHU Building and Auxiliary Work / TOILET_DETAIL			Sep, 2026	**SCALE** / NTS



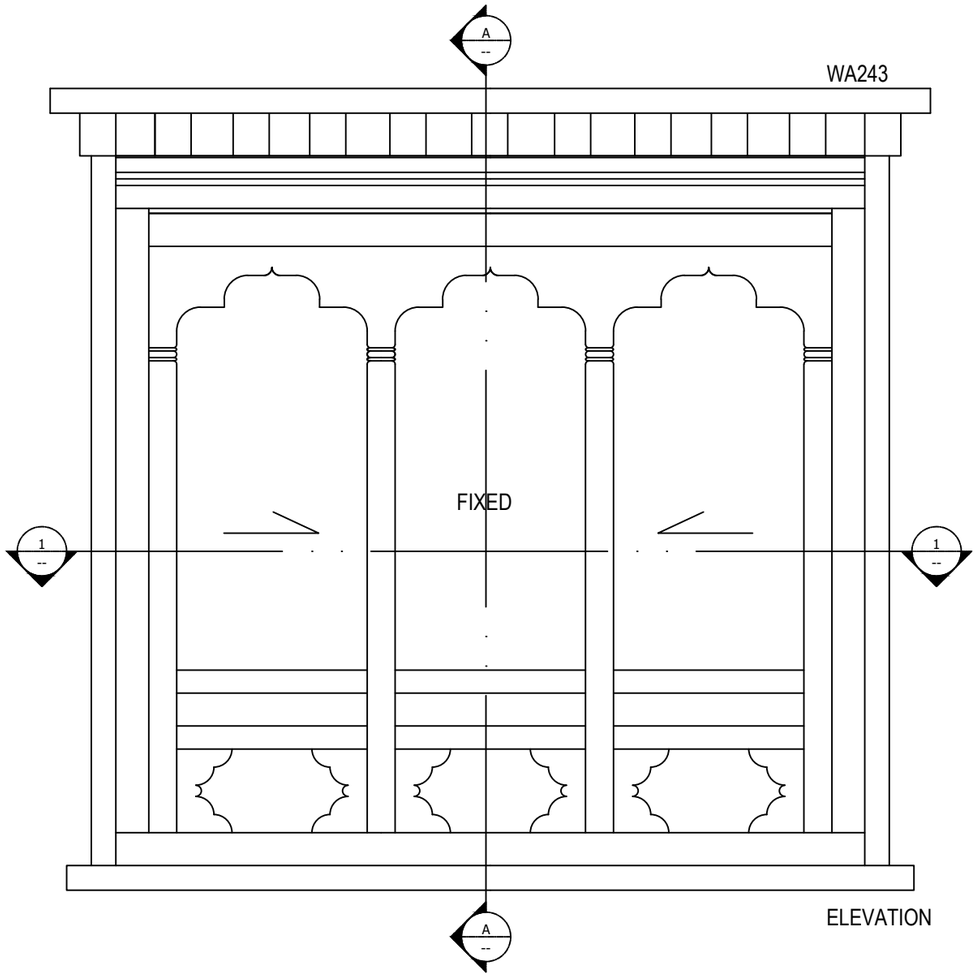
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	Construction of BHU Building and Auxiliary Work / ENTRANCE_PORCH_DETAIL-PLAN				Sep, 2026	**SCALE** NTS



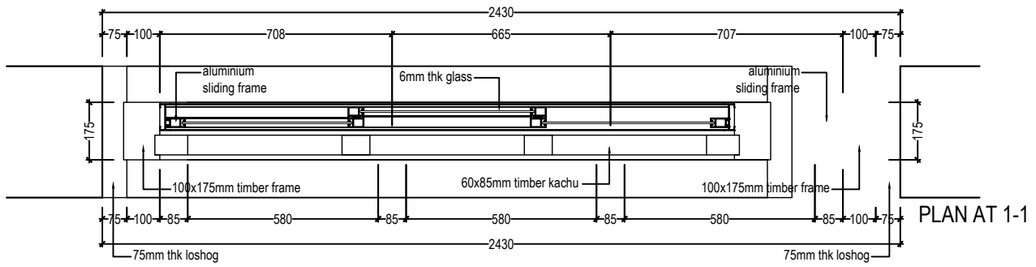
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	Construction of BHU Building and Auxiliary Work / ENTRANCE_PORCH_DETAIL_SECTION_A-A				Sep, 2026	**SCALE** NTS



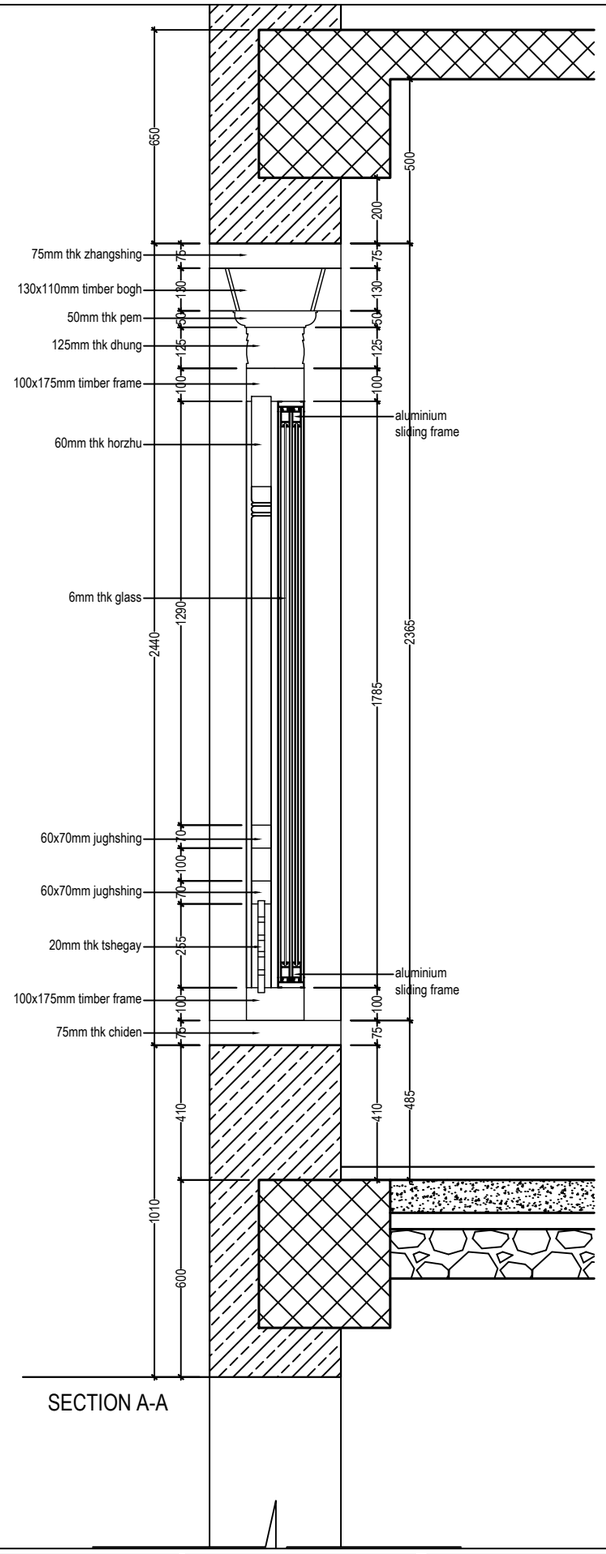
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	Construction of BHU Building and Auxiliary Work / ENTRANCE_PORCH_DETAIL_ELEVATION				Sep, 2026	**SCALE** NTS



ELEVATION



PLAN AT 1-1



SECTION A-A

Khorlochhu

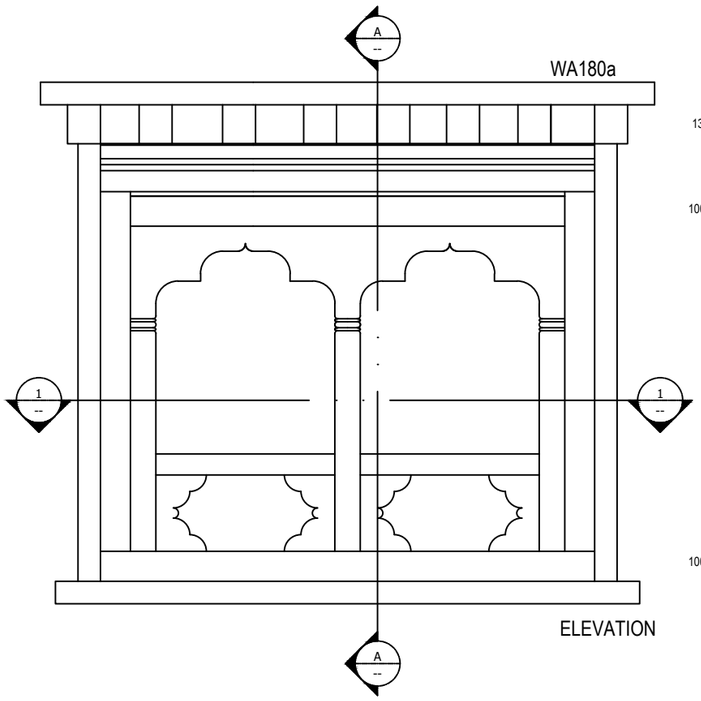
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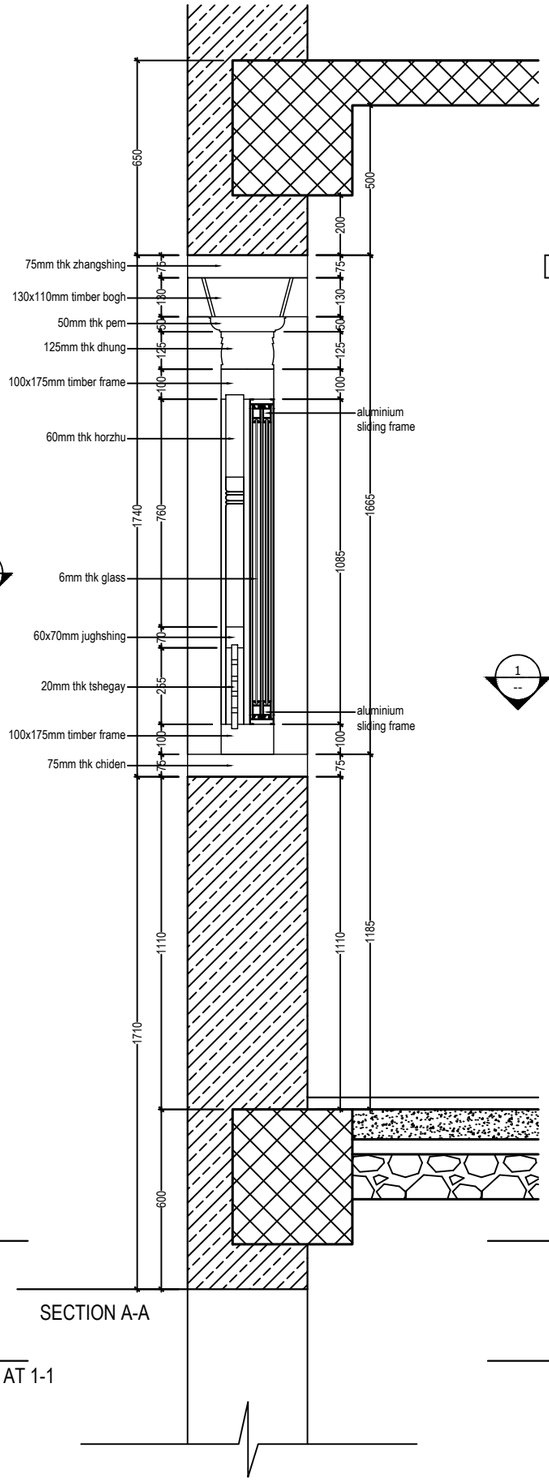
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WNIDOW_DETAIL_WA243

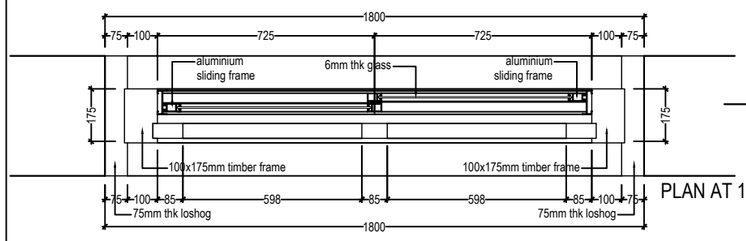
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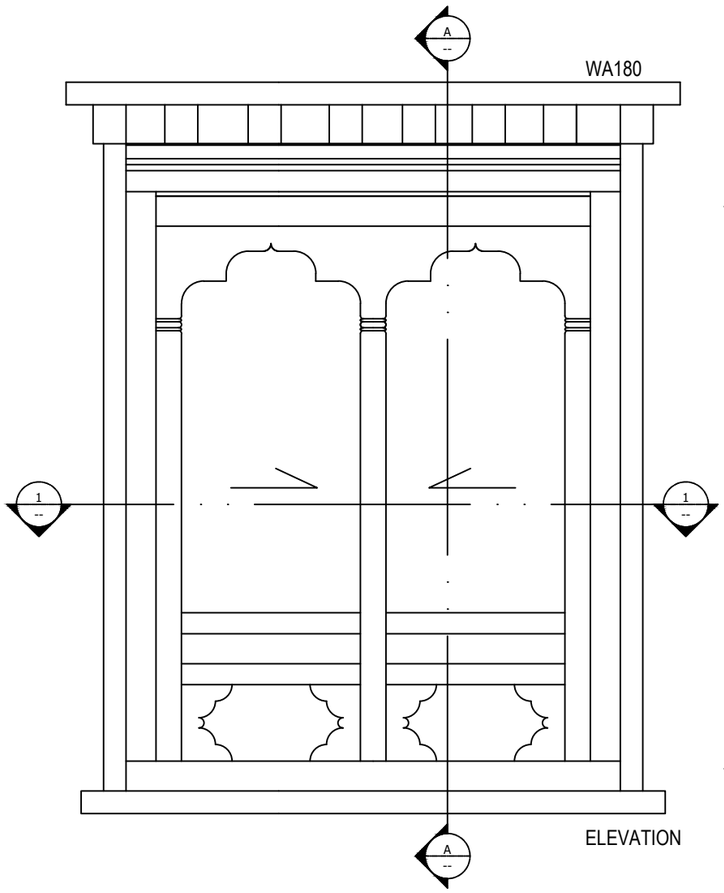
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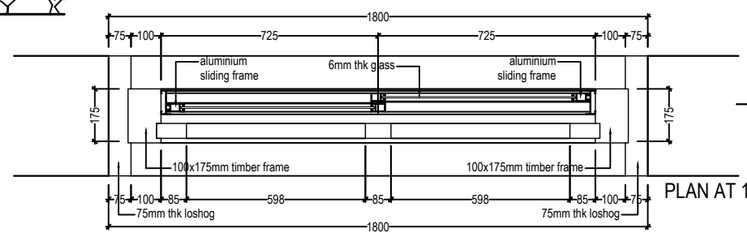
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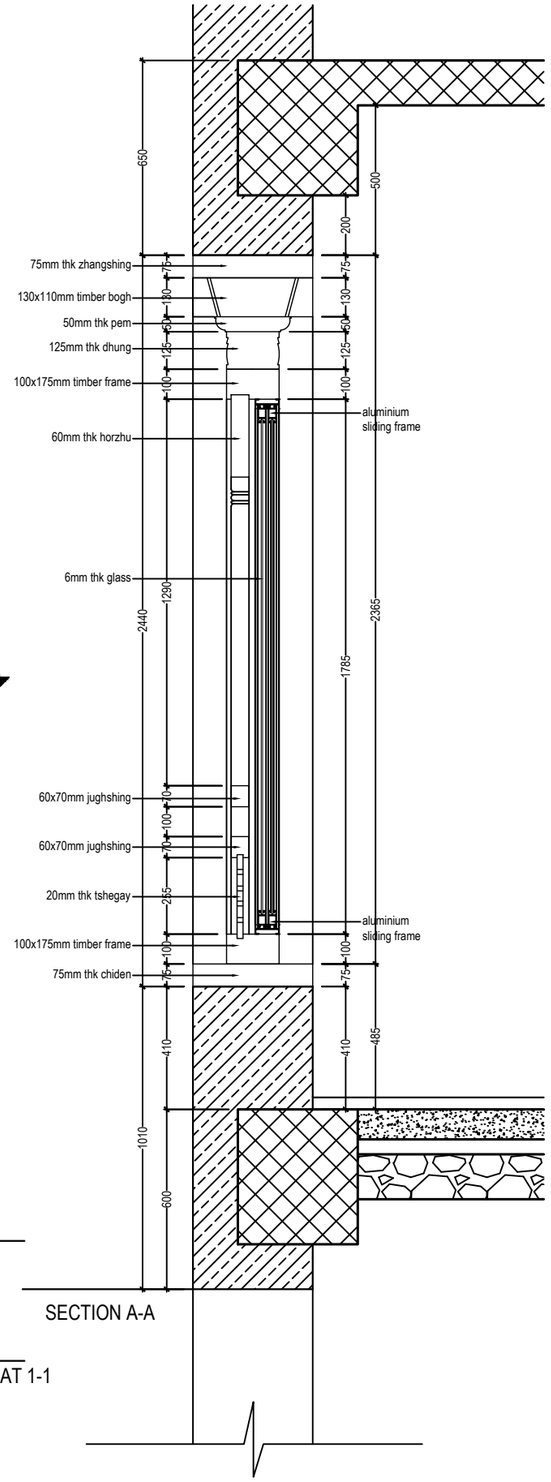




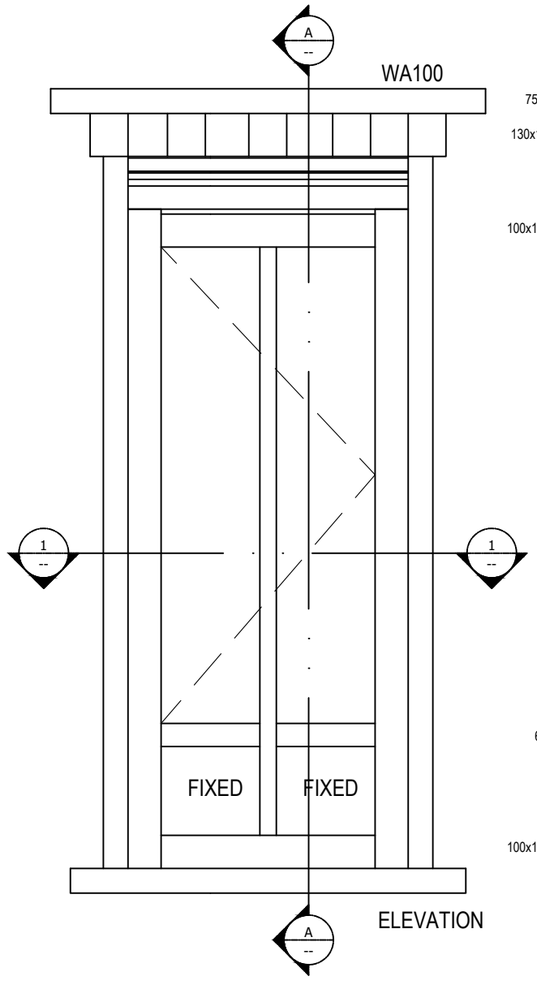


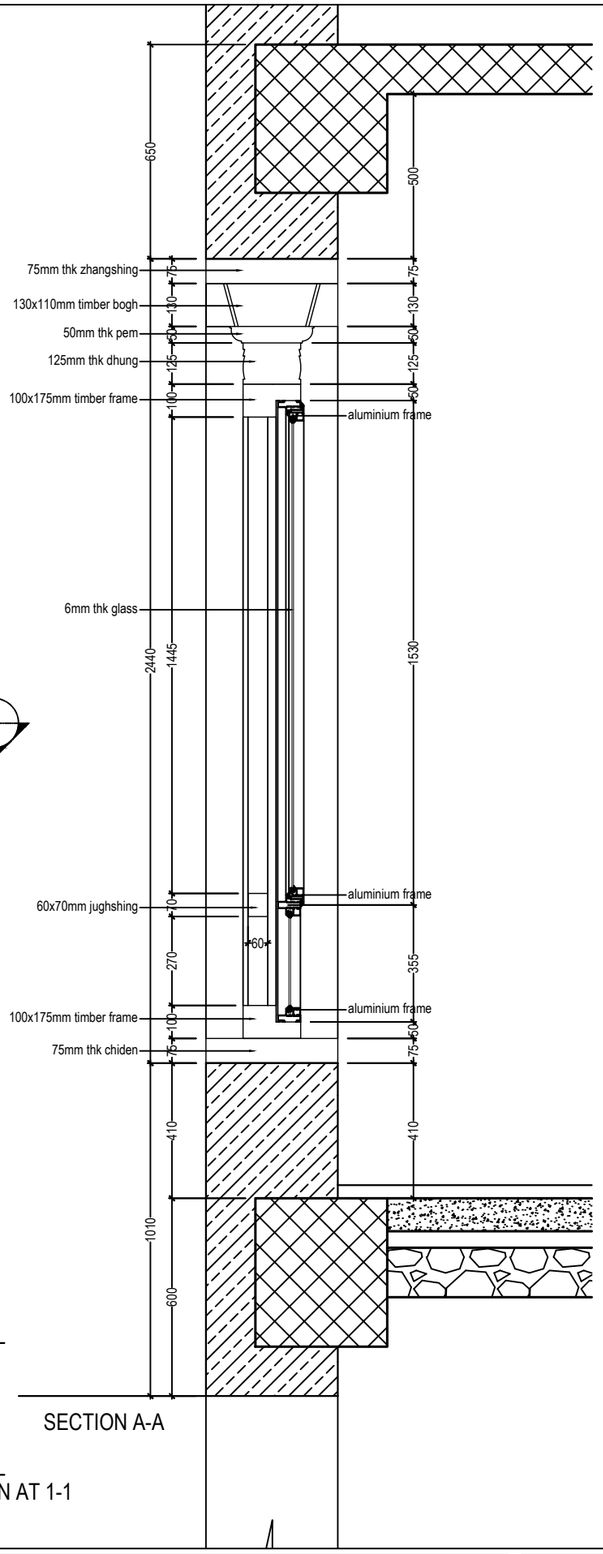


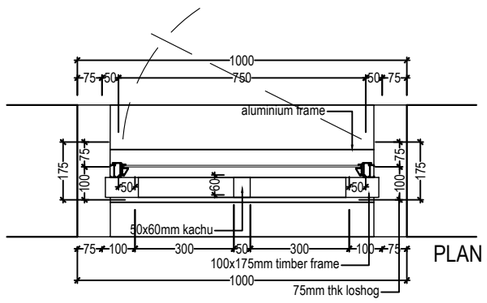


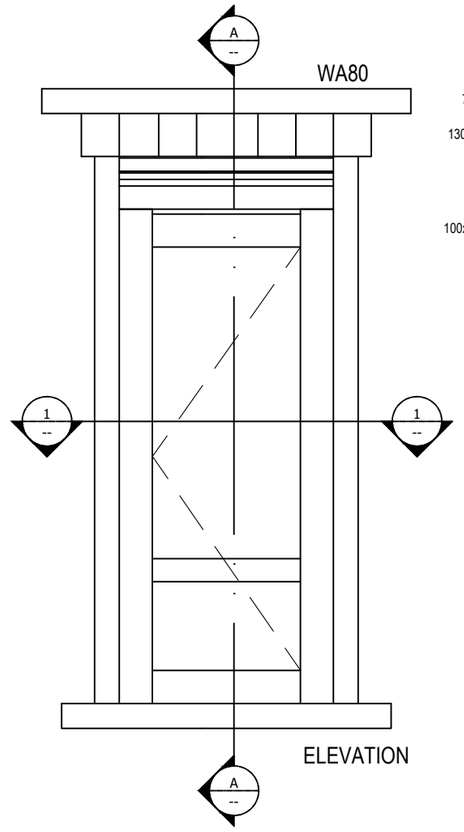


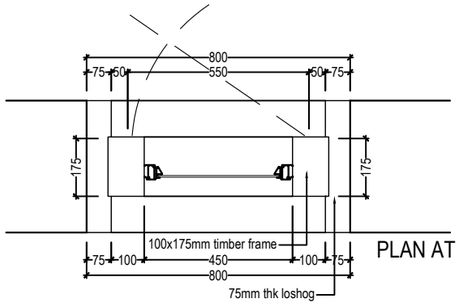
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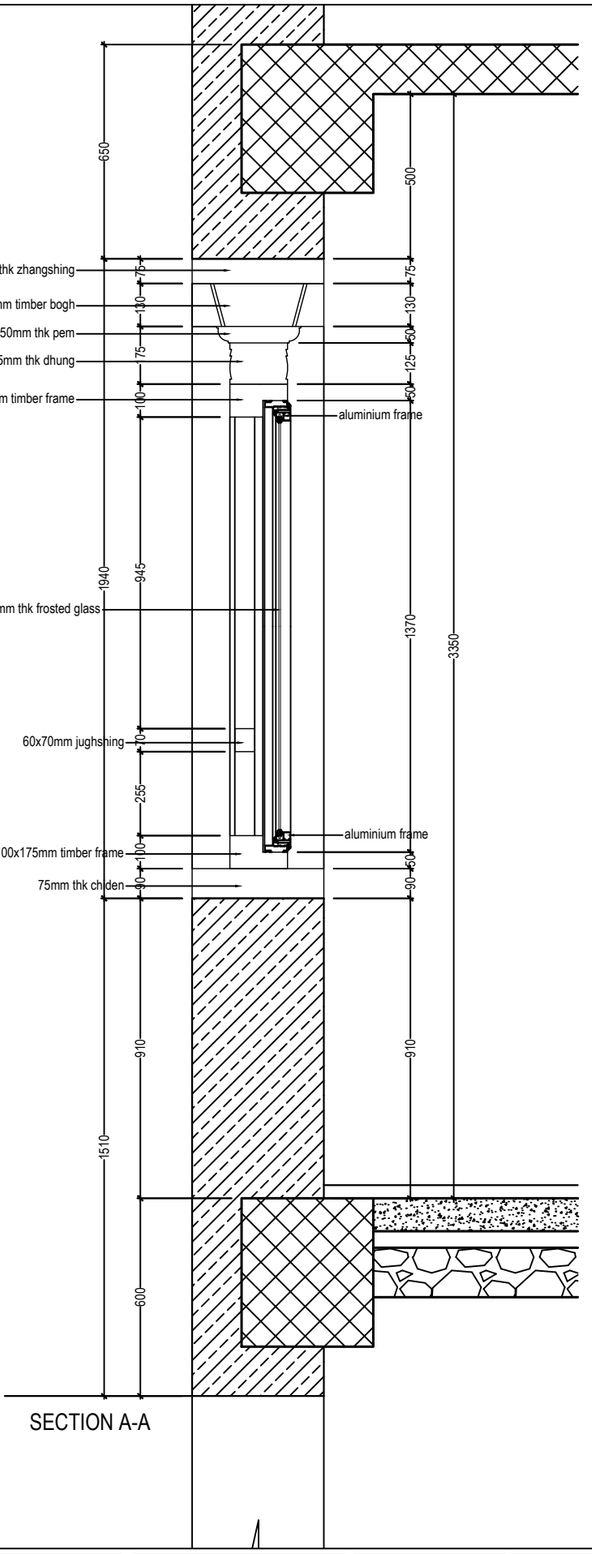












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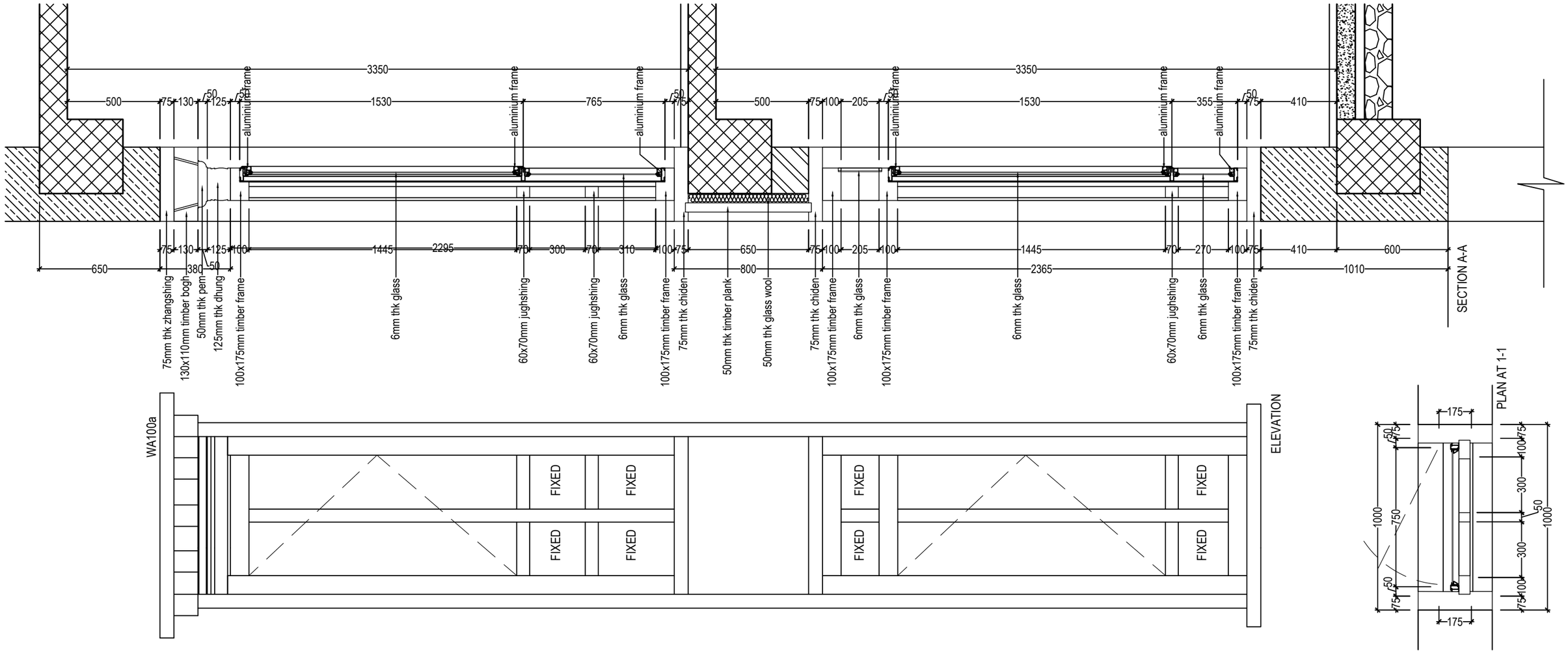
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAIL_WA100&WA80

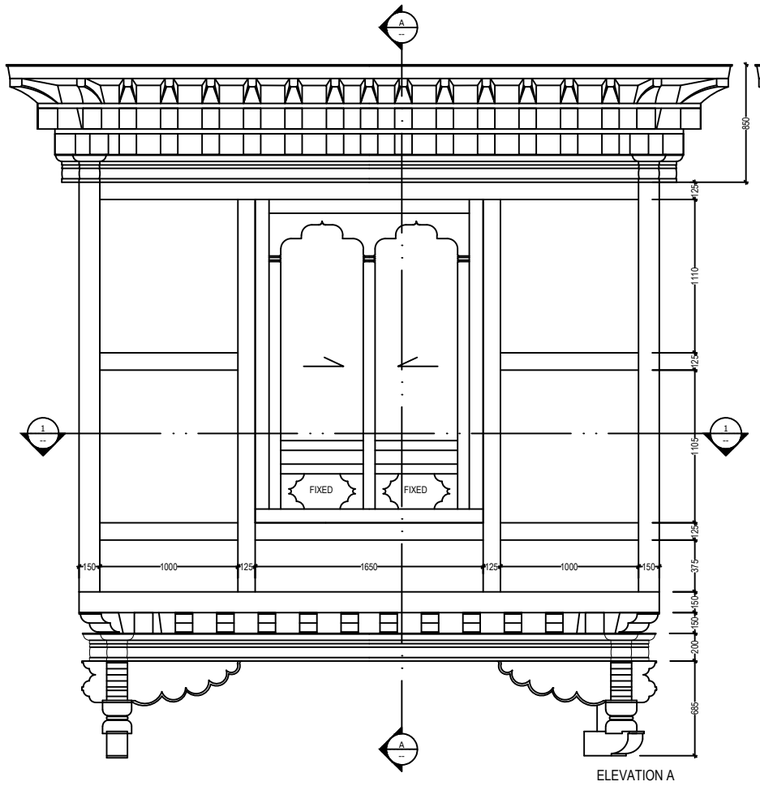
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1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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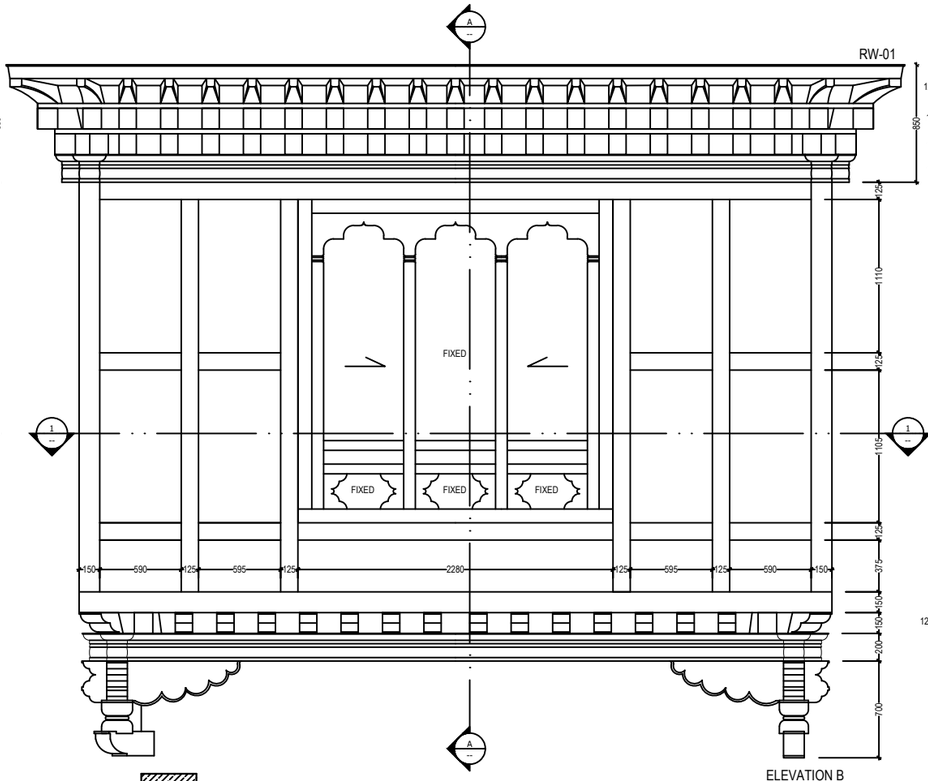
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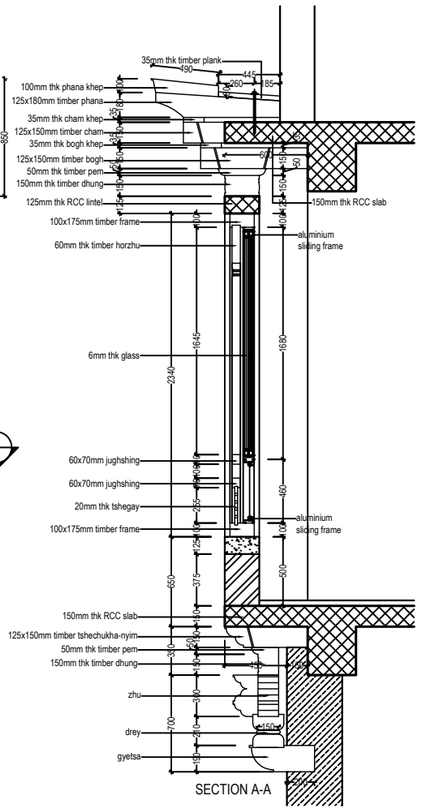
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	Construction of BHU Building and Auxiliary Work / WINDOW_DETAIL-WA100A				**SCALE** / NTS



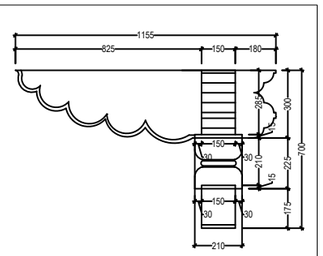
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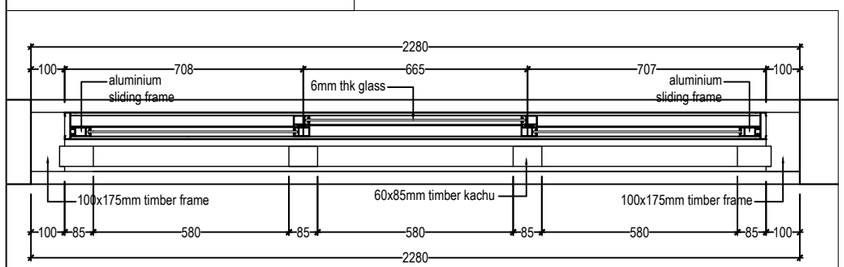


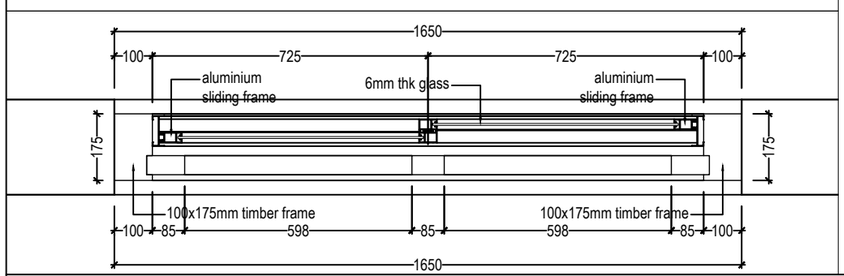
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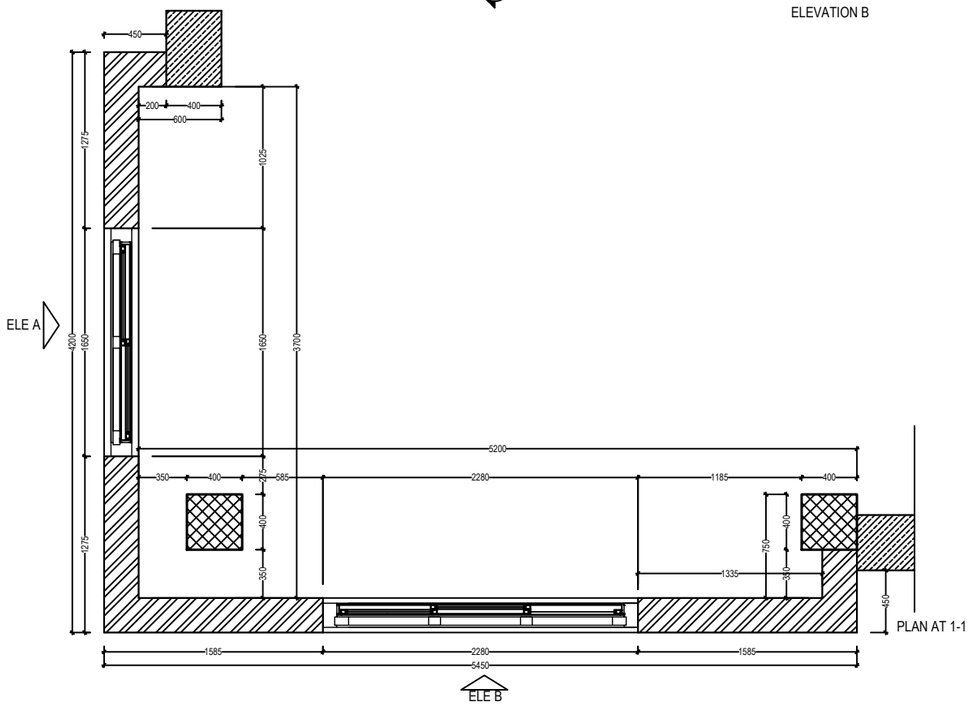


SECTION A-A









Khorlochhu

ARCHITECTURAL DRAWING

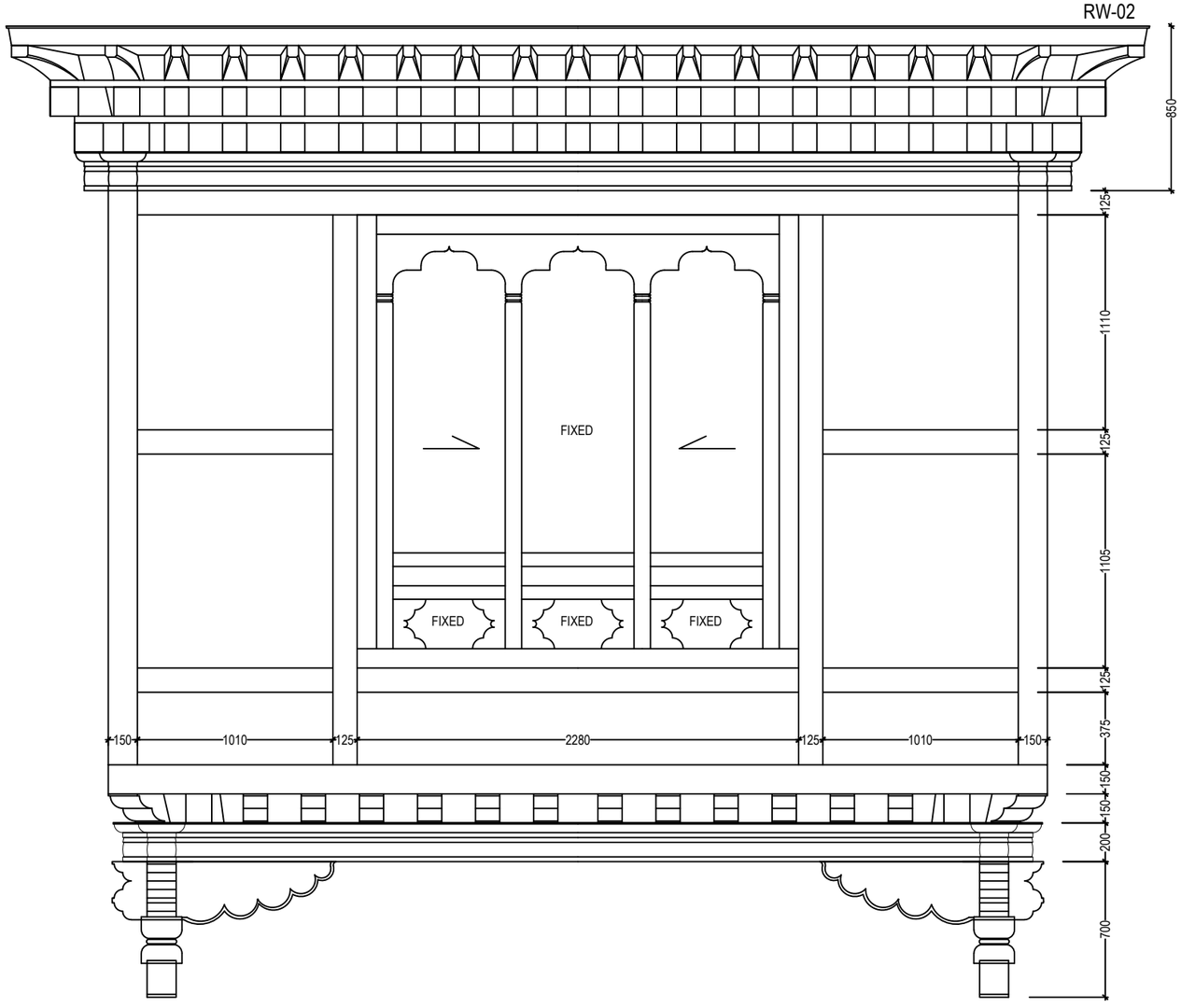
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	RABSEL_WINDOW_DETAIL_RW-01

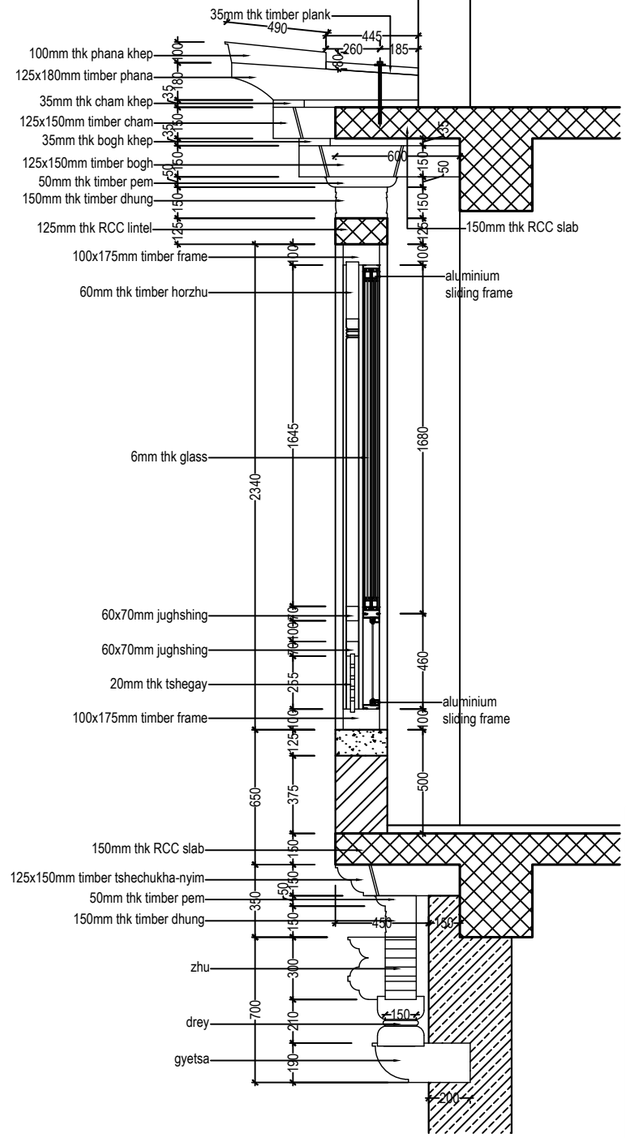
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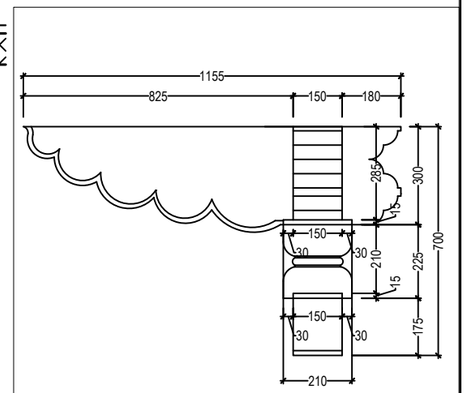
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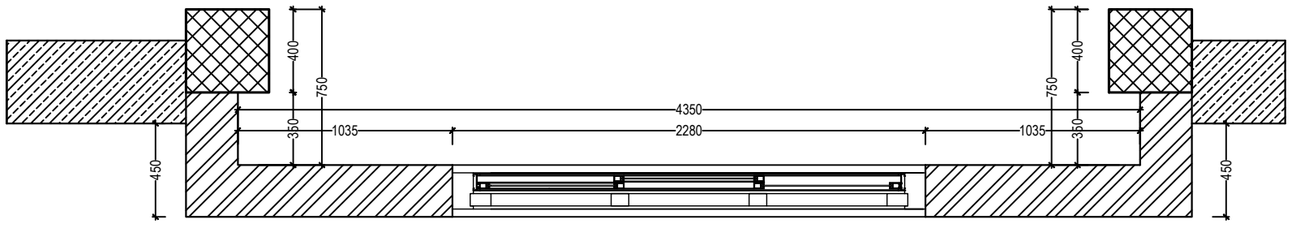
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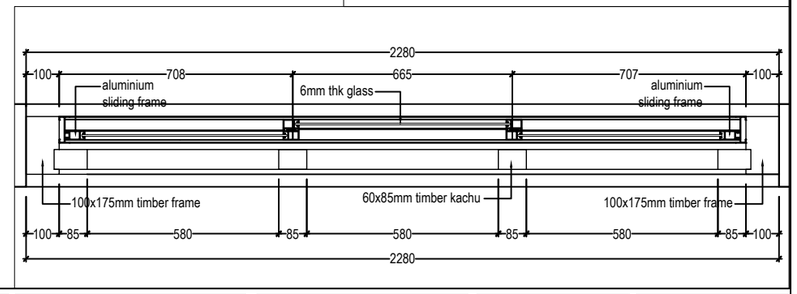
RW-02











ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	RABSEL_WINDOW_DETAIL_RW-01

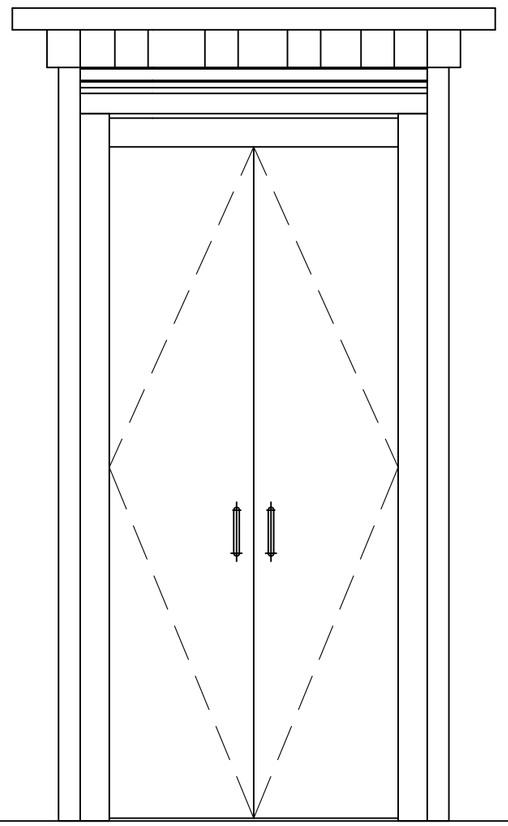
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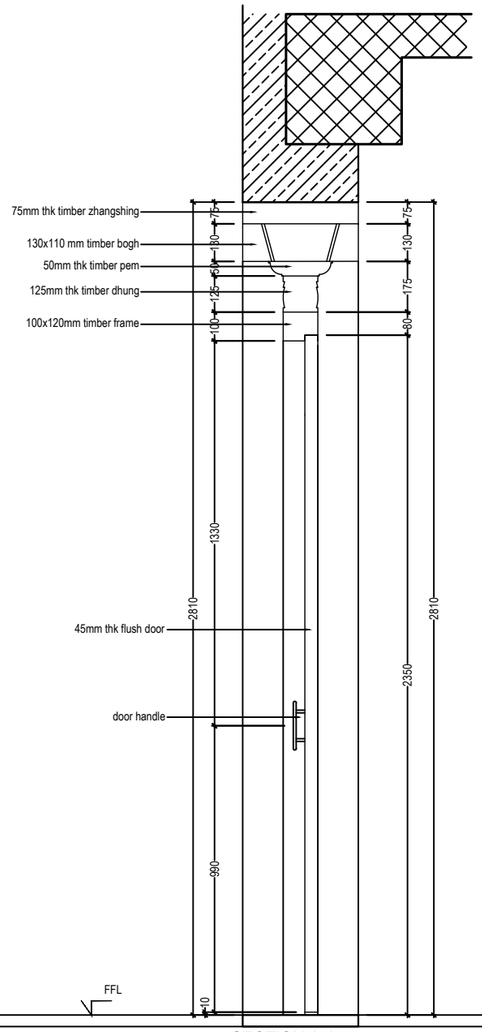
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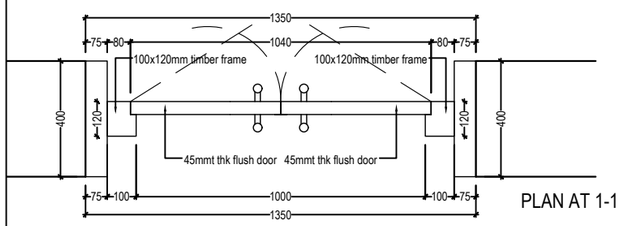
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		Sep, 2026	AR_23
			SCALE
			NTS

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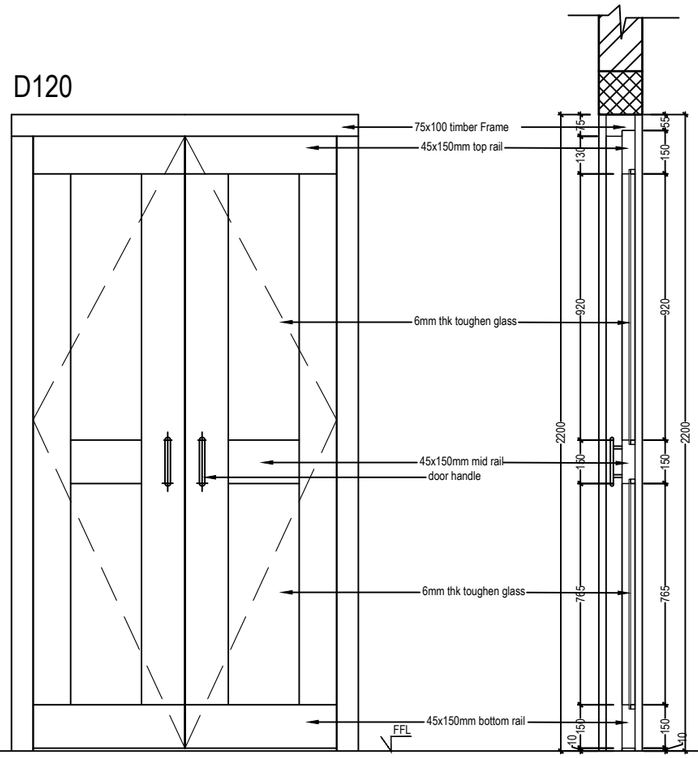
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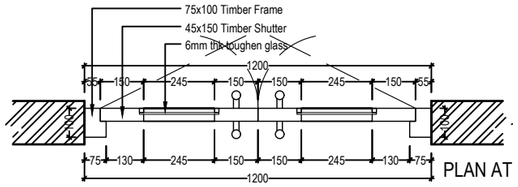




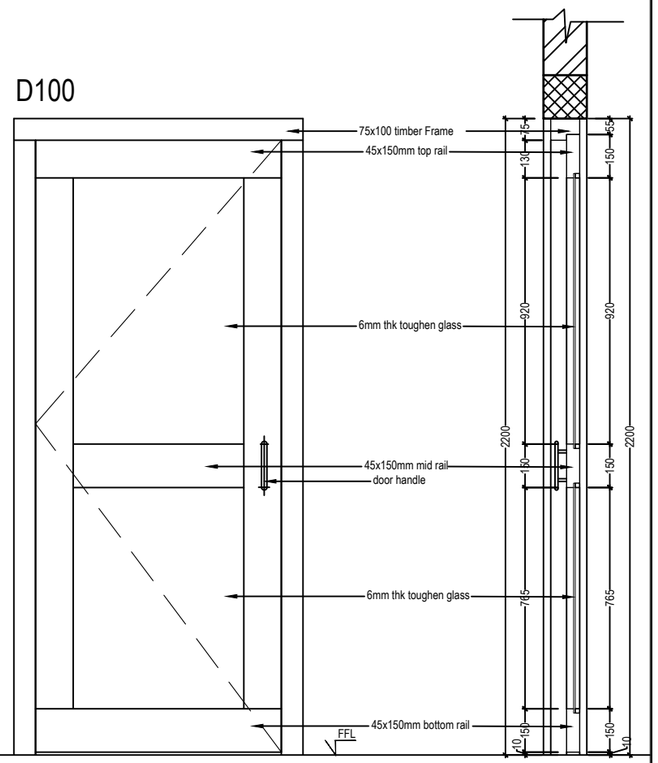


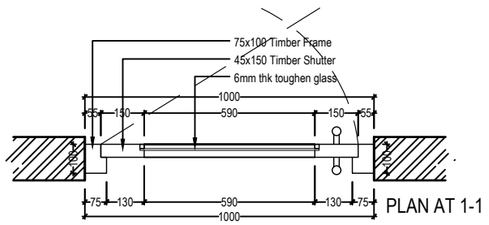
D120





D100





ARCHITECTURAL DRAWING

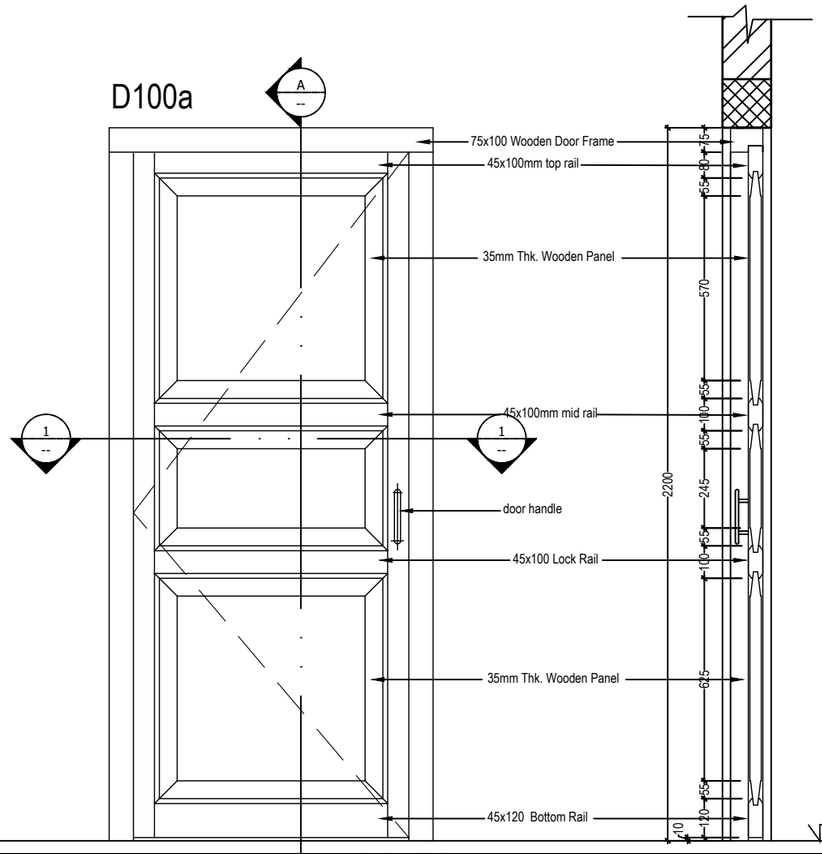
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DOOR_DETAIL_D135,D120&D100

NOTES

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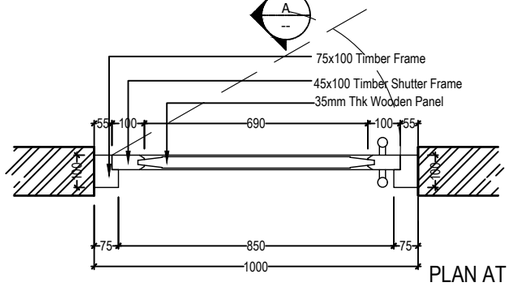
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		Sep, 2026	AR_24
			SCALE
			NTS

D100a



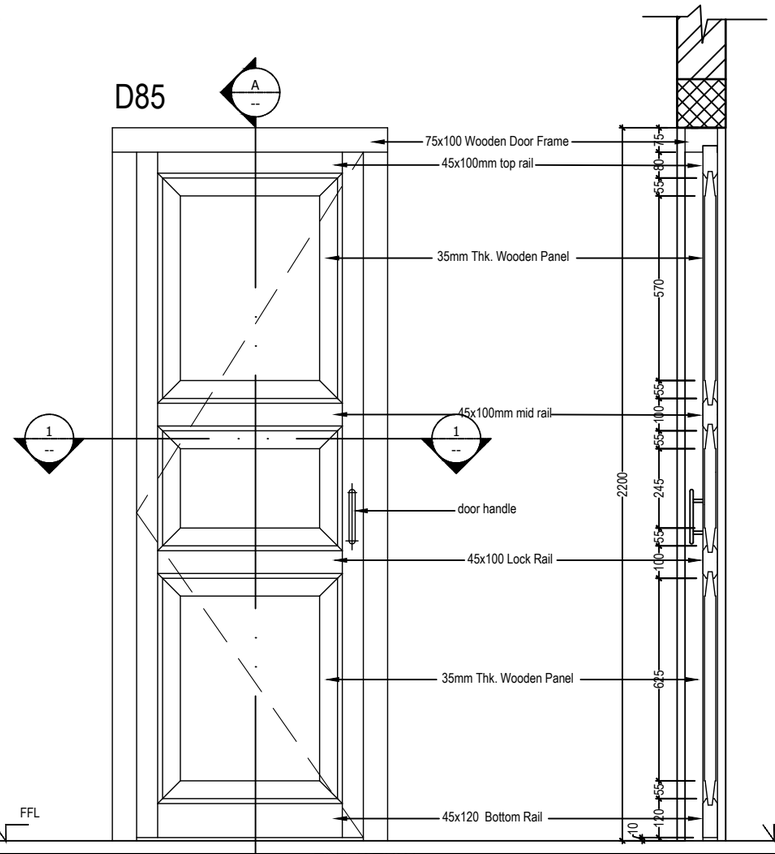
ELEVATION

SECTION A-A



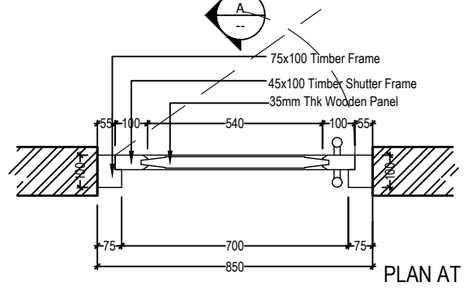
PLAN AT 1-1

D85



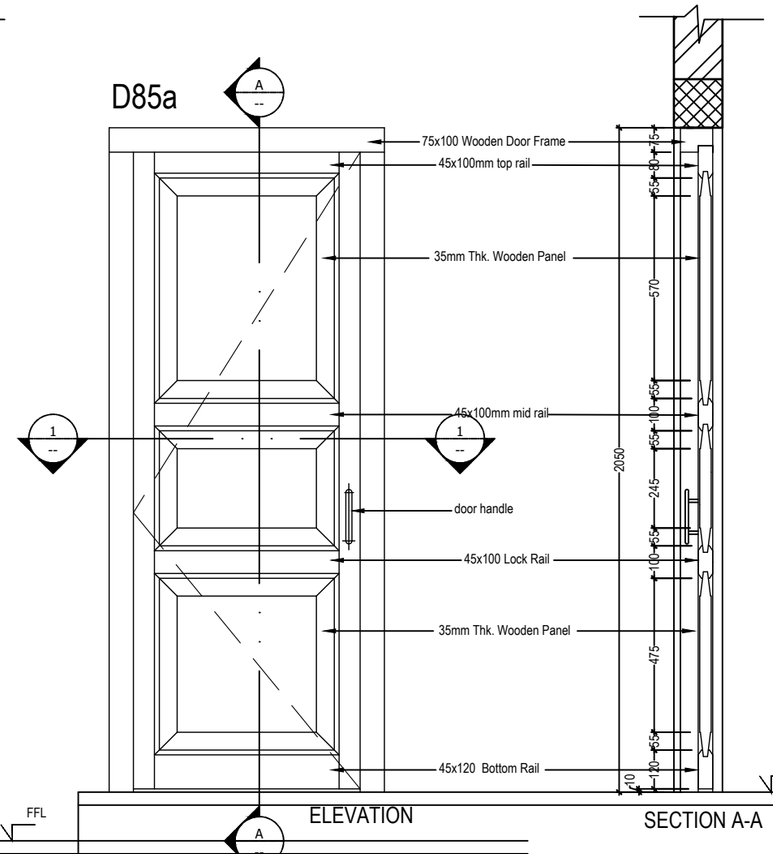
ELEVATION

SECTION A-A



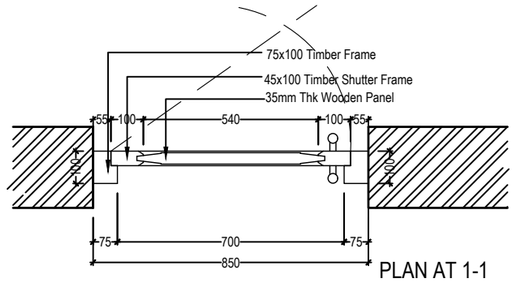
PLAN AT 1-1

D85a



ELEVATION

SECTION A-A



PLAN AT 1-1

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ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DOOR_DETAIL-D100A,D85&D85A

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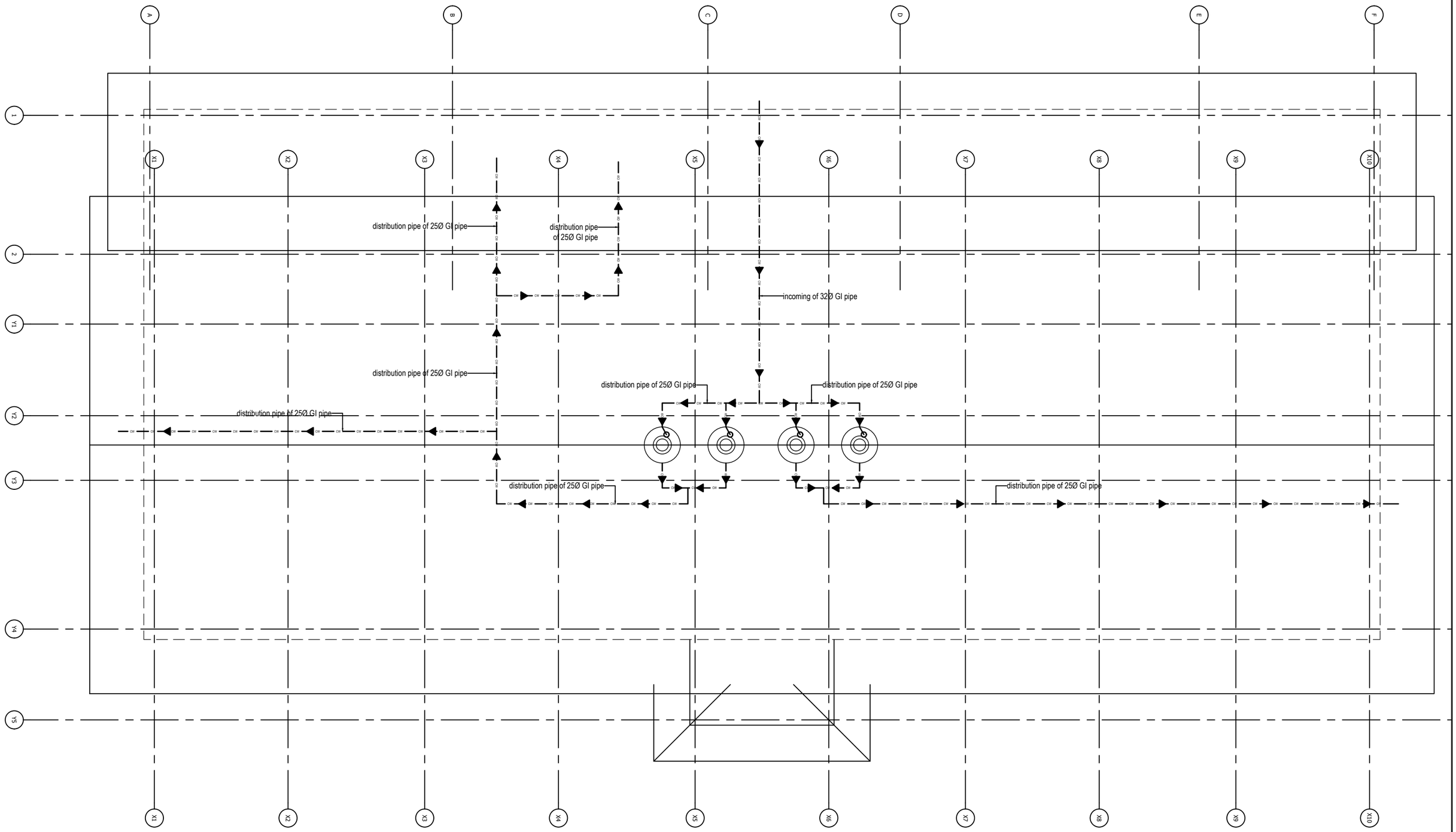
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_25
			SCALE
			NTS

PLUMBING DRAWINGS

PROPOSED BHU

Owner - KHPL
Location - TRASHIYANGTSE

 འཁོར་ལོ་ཆུ་སྐྱེས་མེ་ཏོག་འཛིན།
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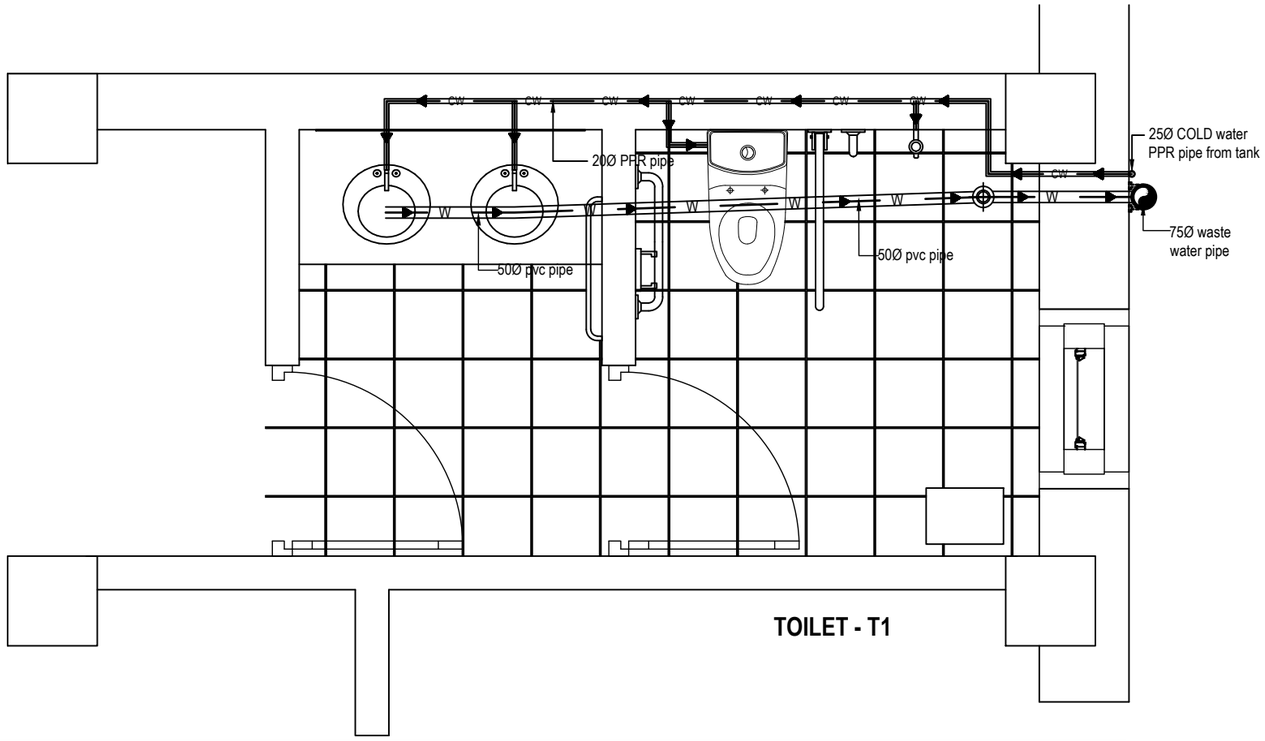
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_LAYOUT

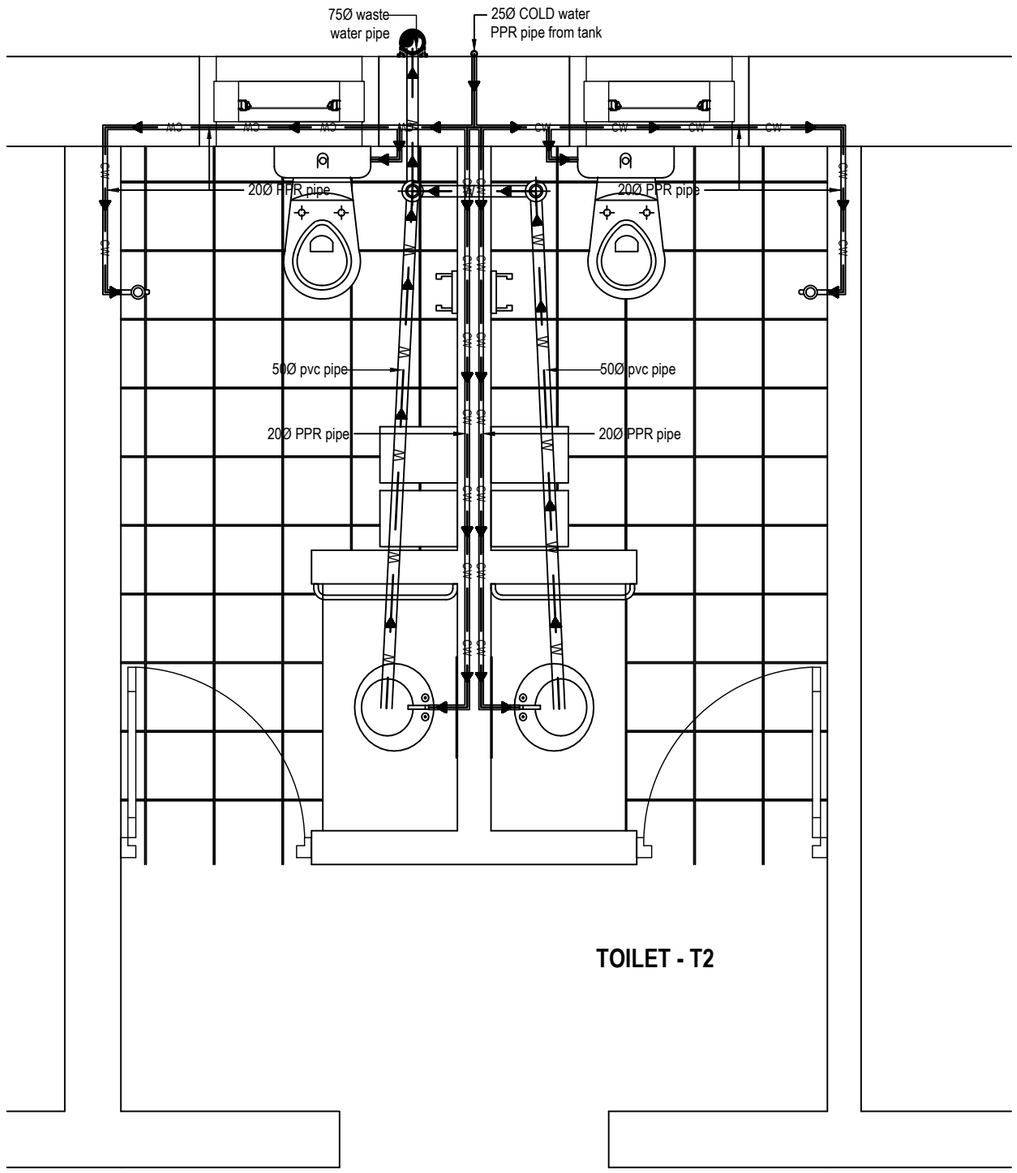
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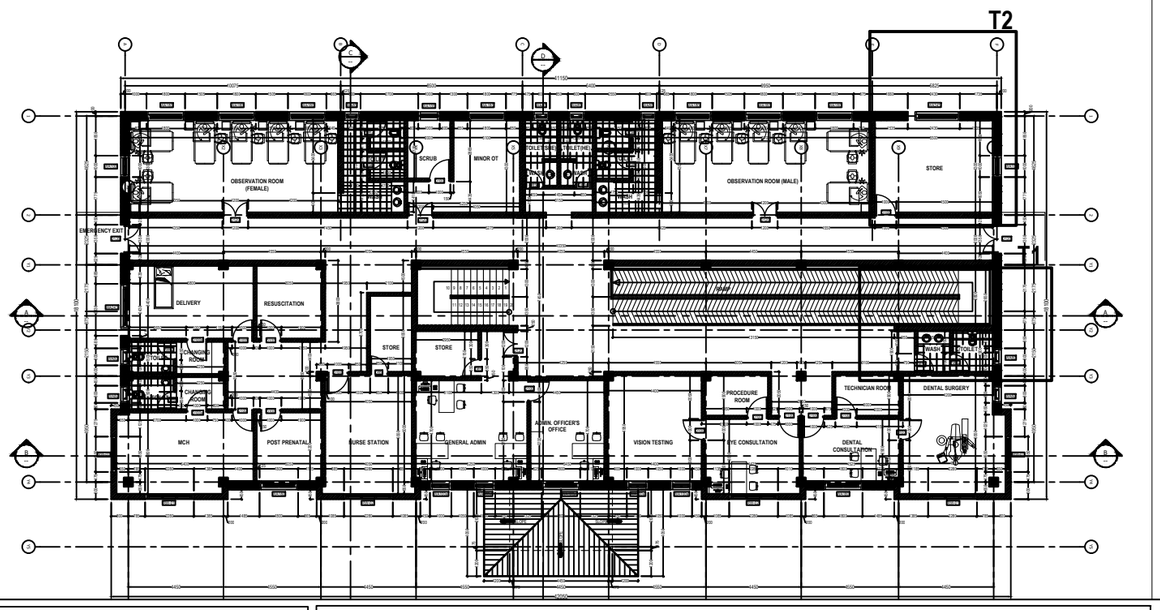
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_01
			SCALE
			NTS



TOILET - T1



TOILET - T2



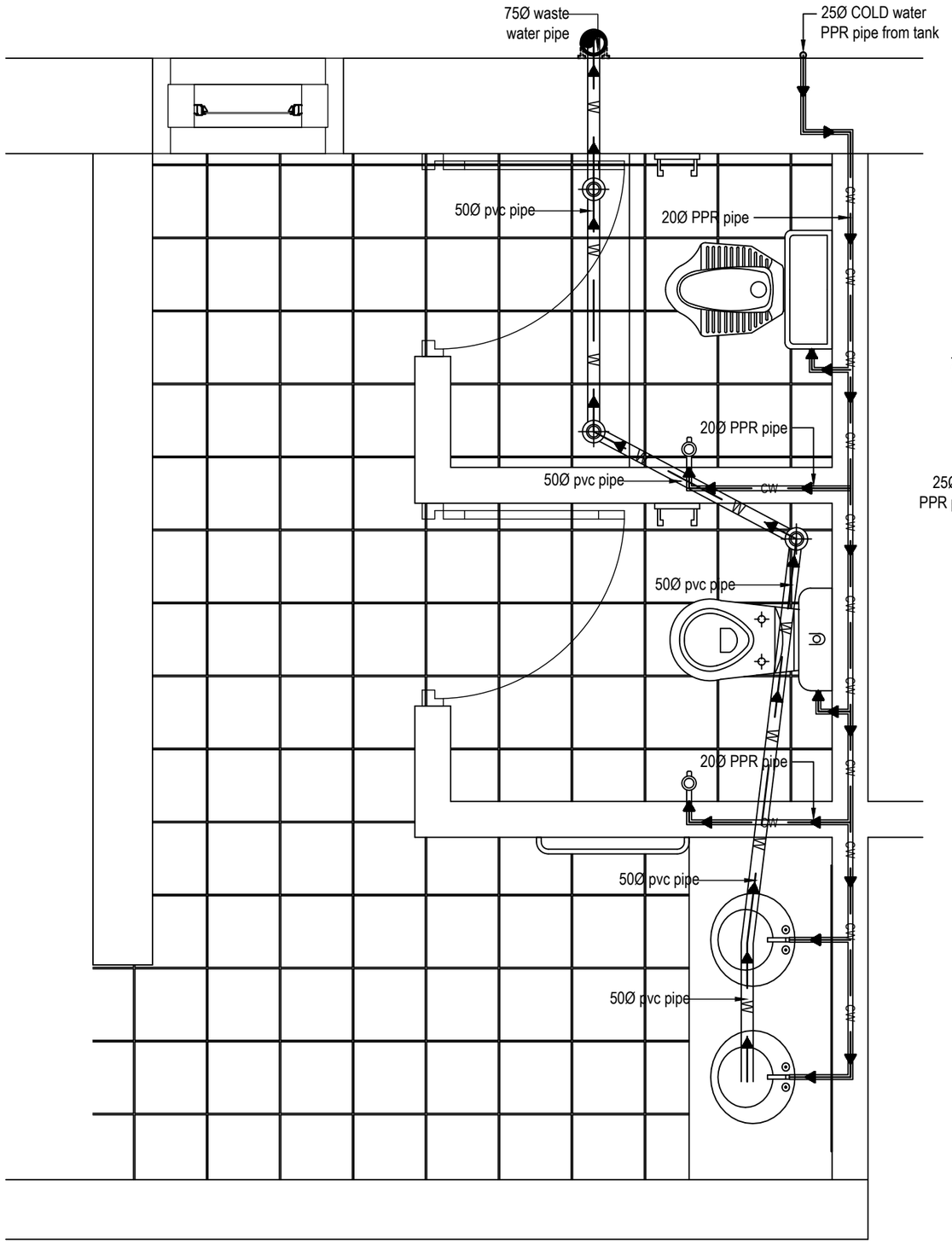
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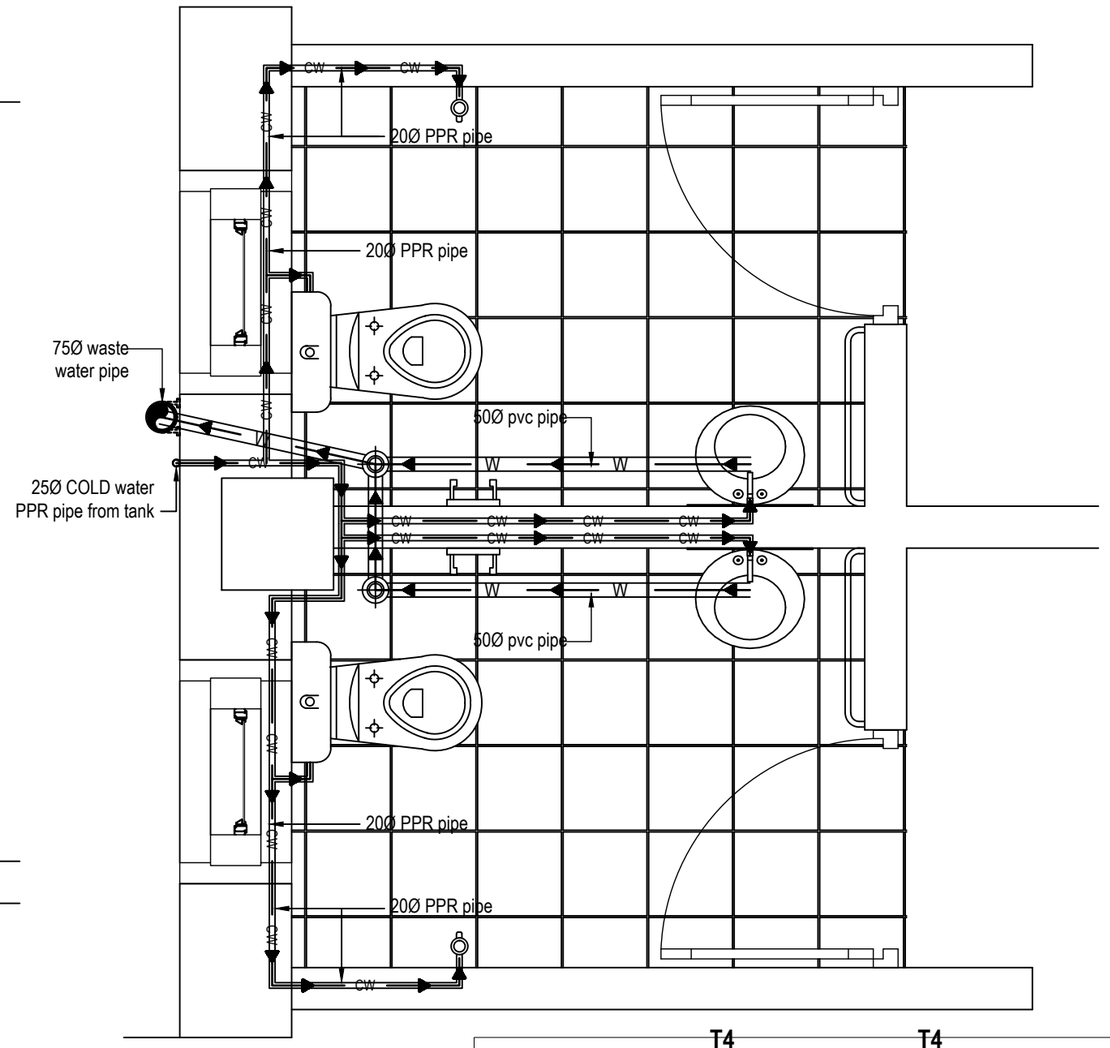
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WASTE_WATER_LAYOUT

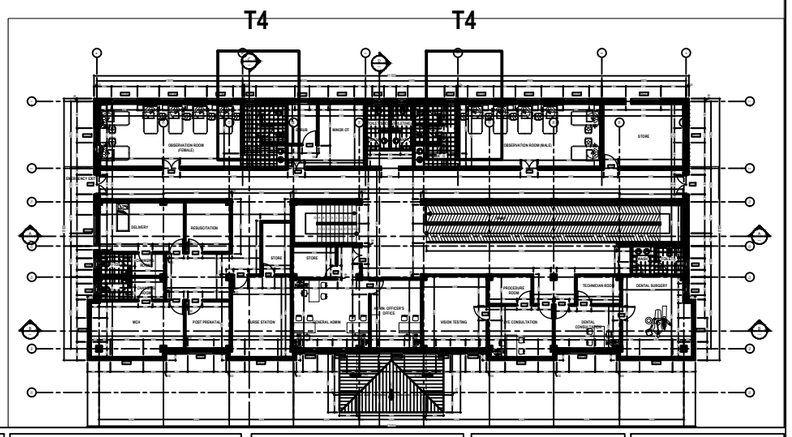
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_02
			SCALE
			NTS







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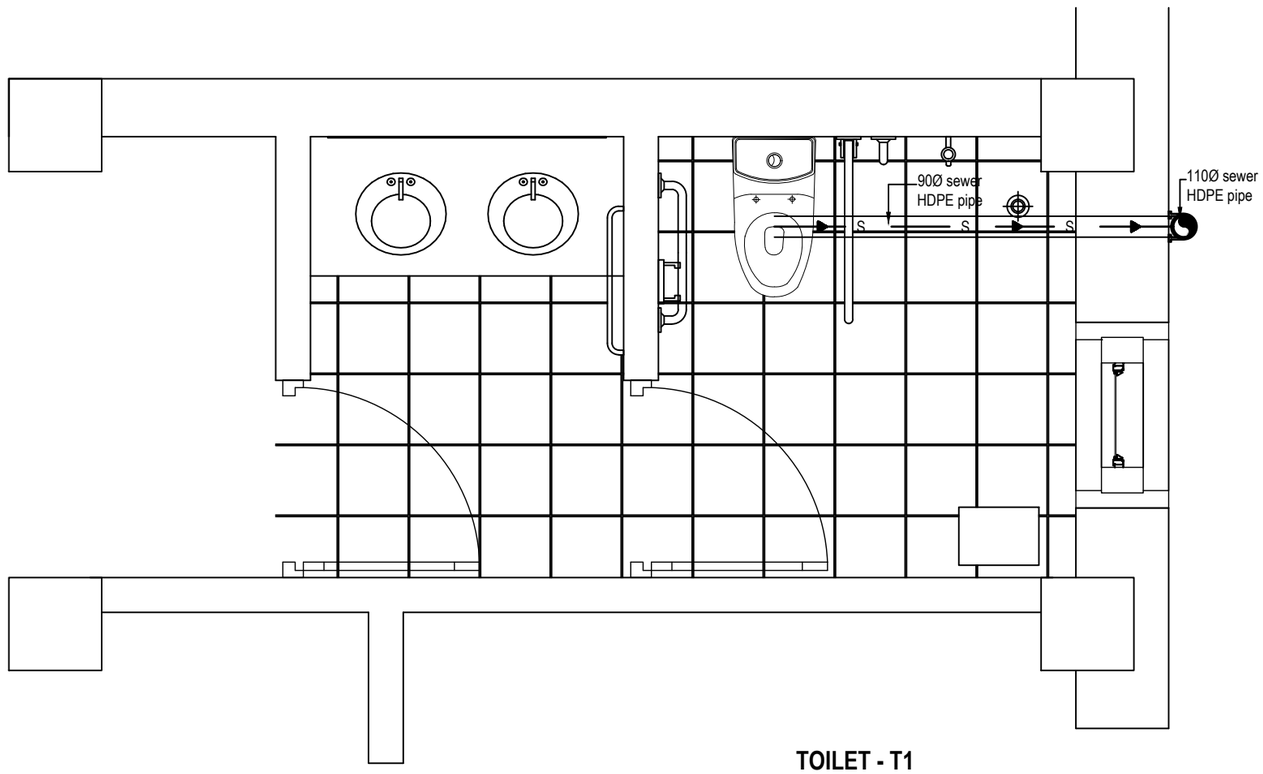
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WATER_LAYOUT

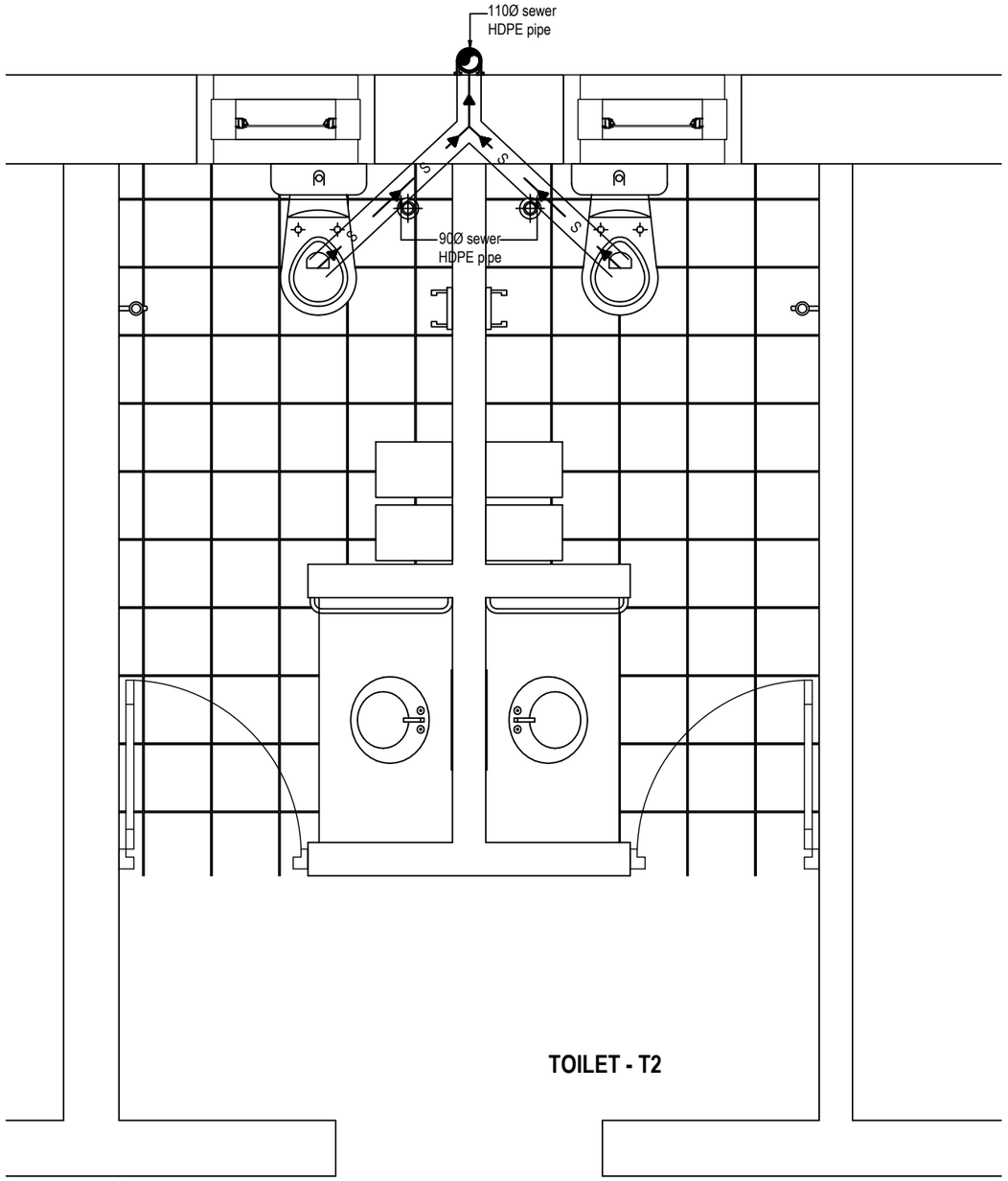
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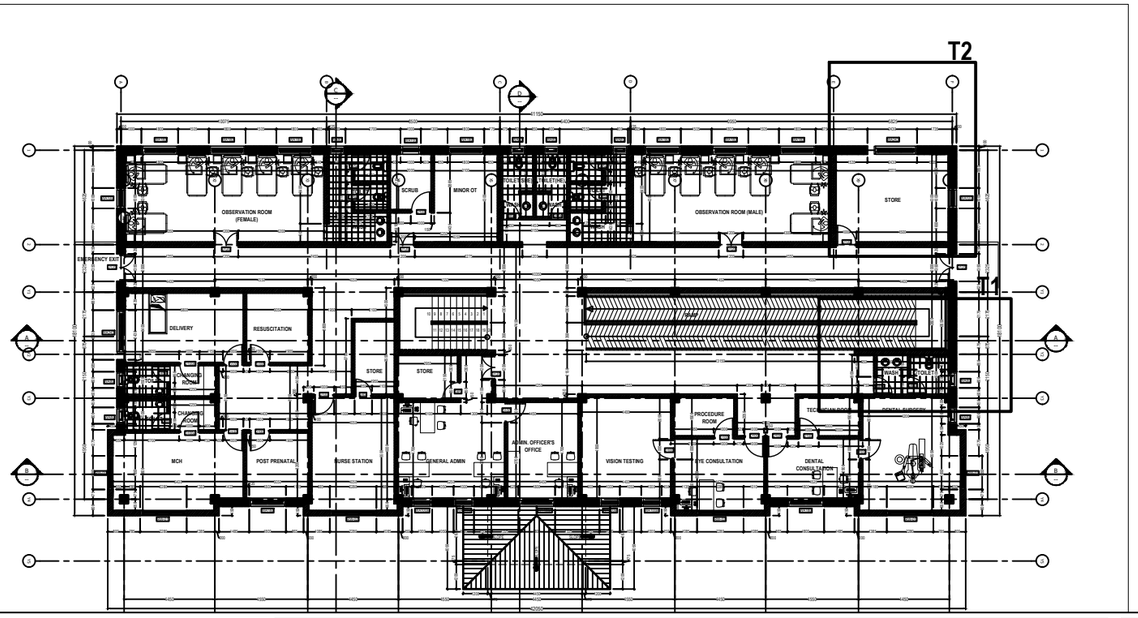
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_03
			SCALE
			NTS



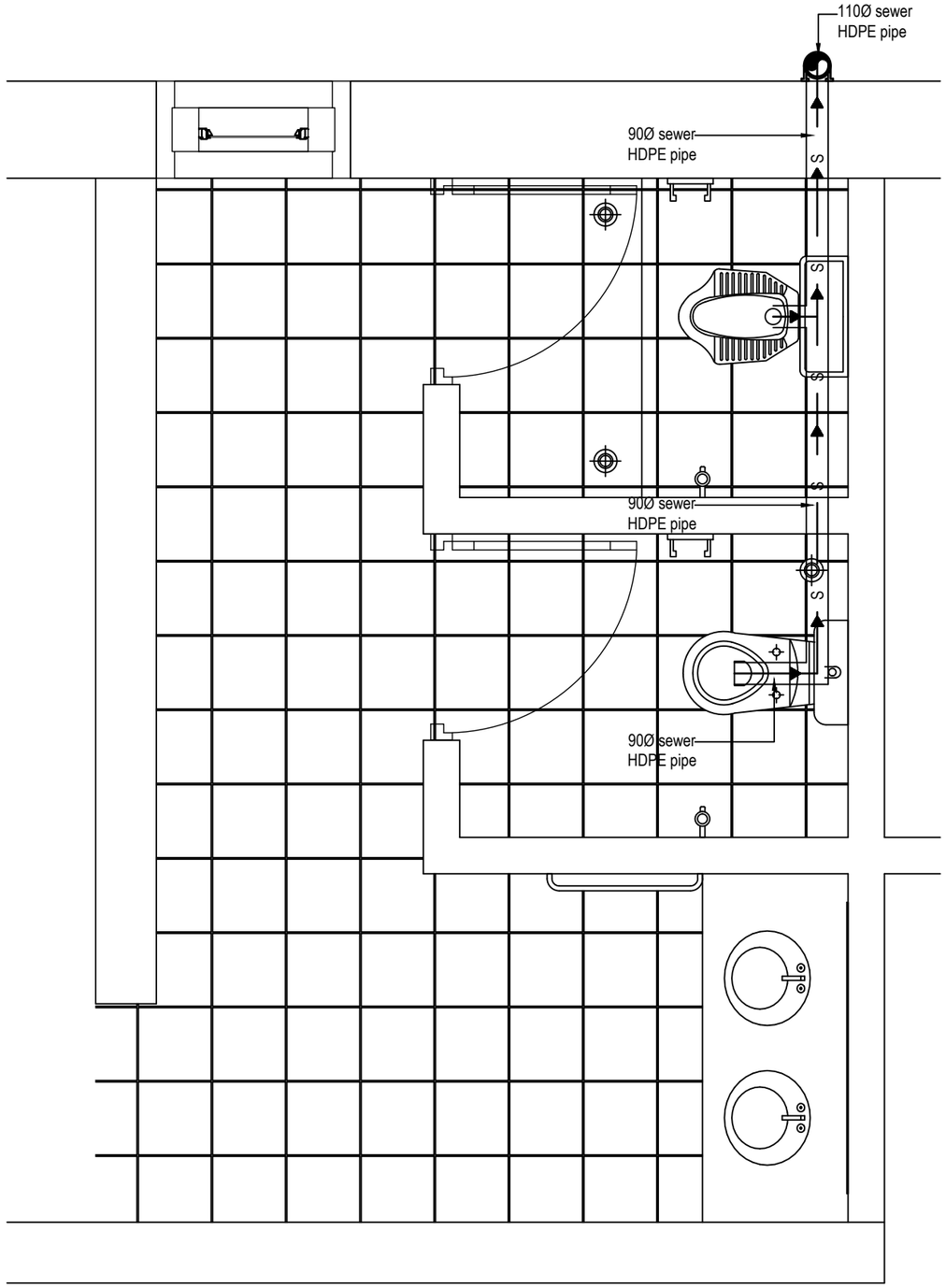
TOILET - T1

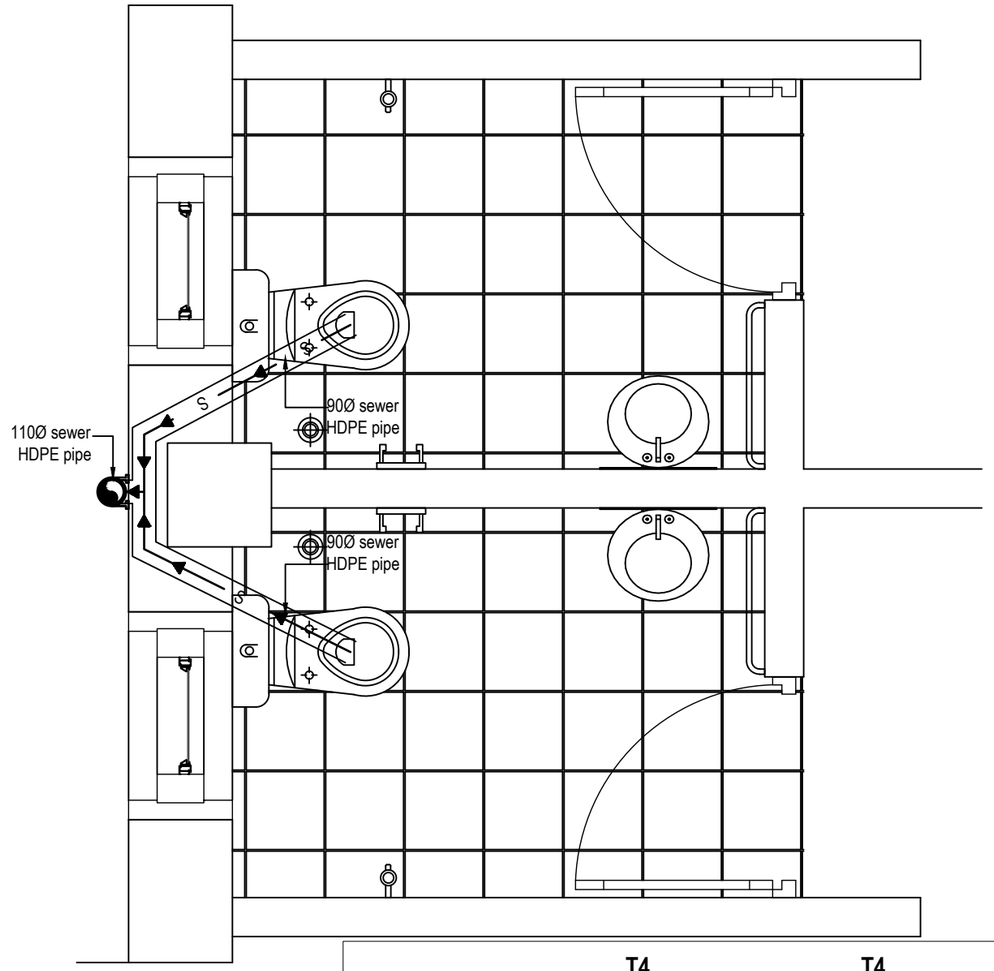


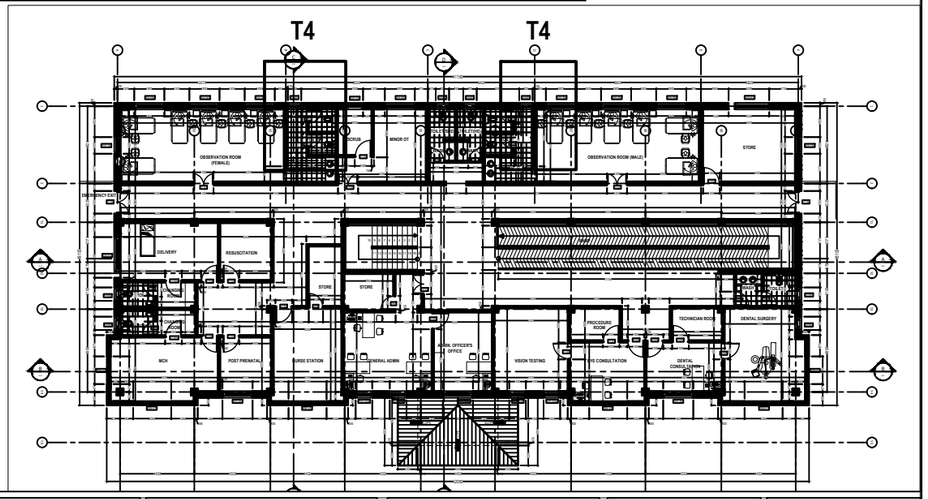
TOILET - T2



Khorlochhu	**ARCHITECTURAL DRAWING**		**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE	**DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				PB_04
	Construction of BHU Building and Auxiliary Work	SEWER_LINE_LAYOUT				Sep, 2026	**SCALE**
							NTS

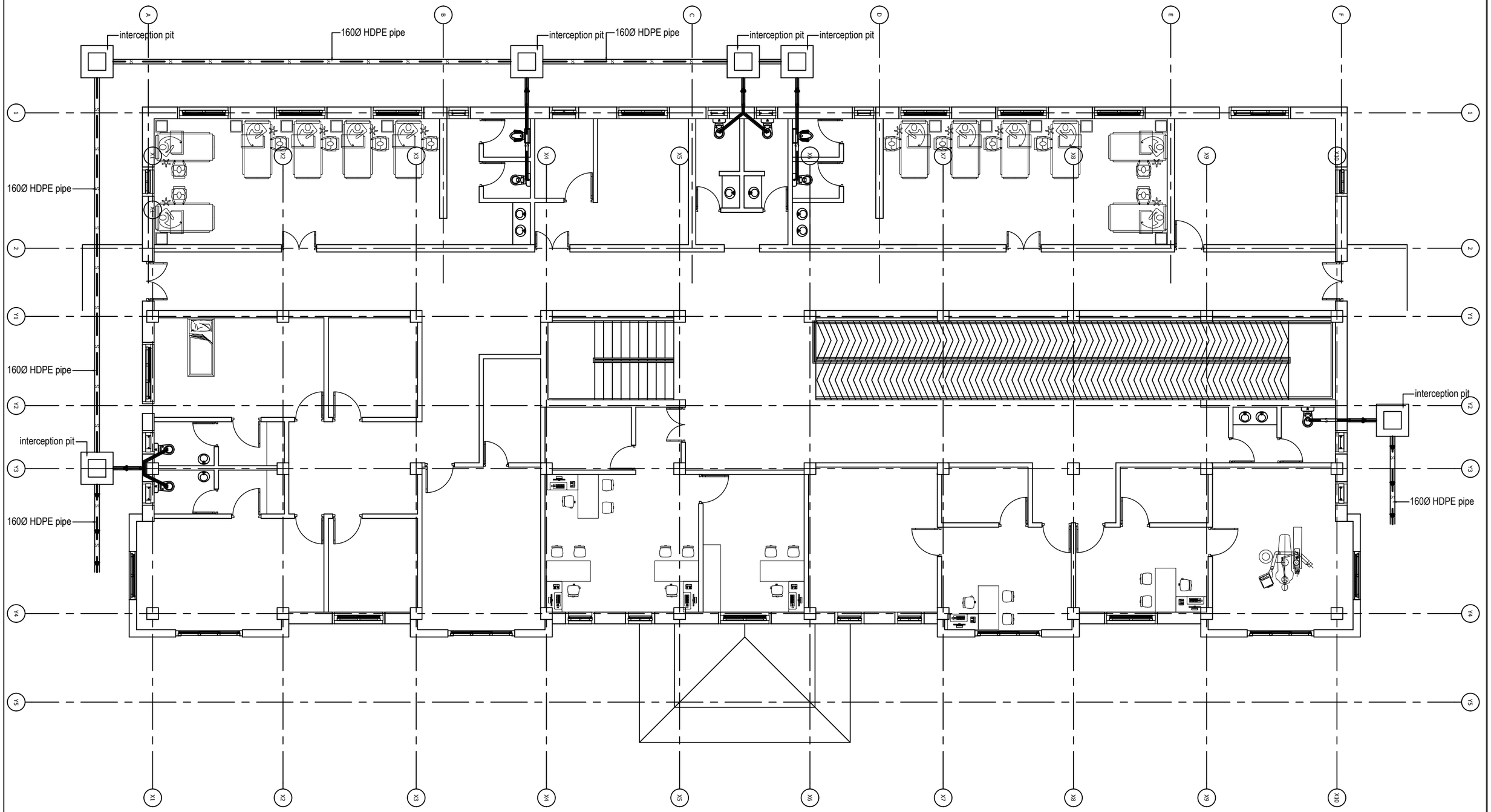






ARCHITECTURAL DRAWING		**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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Construction of BHU Building and Auxiliary Work	SEWER_LINE_LAYOUT				Sep, 2026	**SCALE**
						NTS

Khorlochhu



Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				PB_06
	Construction of BHU Building and Auxiliary Work / OVERALL_SEWER_LINE_LAYOUT				Sep, 2026	**SCALE** NTS

STRUCTURE DRAWINGS

BHU

Owner - KHPL
Location - TRASHIYANGTSE



GENERAL NOTES FOR STRUCTURAL DRAWINGS.

A. GENERAL

1. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND OTHER ENGINEERS' DRAWINGS AND SPECIFICATIONS AND SUCH OTHER WRITTEN INSTRUCTIONS MAY BE ISSUED.
2. ALL DIMENSIONS ARE IN MM AND RELATIVE LEVEL IN M UNLESS STATED OTHERWISE.
3. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
4. DESIGN CONFORMS TO:
   (a). IS 4326:1993 EARTHQUAKE RESISTANT DESIGN AND CONSTRUCTION OF BUILDINGS.
   (b). IS 456:2000 CODE OF PRACTICE FOR PLAIN & REINFORCED CONCRETE.
   (c). IS13930:1993 DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORES.
   (d).BUILDING CODE OF BHUTAN 2003
   (e). IS1893:2002 SEISMIC RESISTANT DESIGN OF STRUCTURES.
   (f). IS 800, SP 38 (S&T)-1987
5. VERIFY ALL SETTING OUT DIMENSIONS WITH ENGINEER/ARCHITECT.
6. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING THE WORK.
7. ALL CONSTRUCTION MATERIALSANDWORKMANSHIP SHALL COMPLY WITH THE SPECIFICATIONS FOR BUILDING AND ROAD WORKS TOGETHER WITH THE REQUIREMENTS OF ALL RELEVANT CODES OF PRACTICE REFERRED TO HEREIN AND THE REQUIREMENTS OF ALL STATUTORY AUTHORITIES.
8. ALWAYS REFER ADDITIONAL NOTES PROVIDED IN THE DRAWINGS.

B. FOUNDATIONS AND FOOTINGS.

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 180 KN/Sq M. VERIFY THE SOIL STRENGTH AND OBTAIN APPROVAL FROM THE ENGINEER BEFORE PLACING THE CONCRETE.
2. WALLS SHALL BE PROVIDED BELOW THE EXTERIOR PLINTH BEAM. IT IS RECOMMENDED TO PROVIDE THE SAME BELOW THE INTERNAL PLINTH BEAM.
3. FOOTINGS ARE DESIGNED CONSIDERING THE MINIMUM DEPTH OF 1500MM BELOW THE ORIGINAL GROUND LEVEL. NOTIFY ENGINEER SHOULD THE DEPTH OF FOOTINGS REQUIRED TO BE PROVIDED IS MORE THAN THE DEPTH SPECIFIED ABOVE.
4. ALL CONCRETE SHALL BE PLACED 'IN THE DRY'FOR FOUNDATIONS.
5. COMPACTION OF FOUNDATION SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

C. LOADING

1. THIS STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LOADS.
   (a). DEAD LOADS;

UNIT WEIGHT OF CONCRETE BLOCK WALL	16.79KN/M3
UNIT WEIGHT OF RCC	25KN/M3
UNIT WEIGHT OF PCC	24KN/M3
UNIT WEIGHT OF STONE	28KN/M3
UNIT WEIGHT OF XPS INSULATION BOARD	.45KN/M3

   (b). SUPERIMPOSED (LIVELOADS)

GROUND FLOOR	3KN/M2
SUPERIMPOSED (LIVELOADS)	
1st FLOORS	3KN/M2
LIVELOAD FOR ROOF FLOORS	.75KN/M2
LIVELOAD FOR STAIRCASE	4KN/M2

   (c). WIND LOAD

WIND PRESSURE	45.6M/S (AS CALCULATED)

   (d). OTHER LOADS:
   EARTHQUAKE LOAD IN ACCORDANCE WITH IS 1893:2002 ASSUMING ZONE V
   SUPERIMPOSED DEAD LOAD 1KN/M2
2. MAINTAIN STRUCTURE IN STABLE CONDITION DURING CONSTRUCTION.
3. DONOT PLACE OR STORE BUILDING MATERIALS ON CONCRETE MEMBERS WITHOUT ENGINEER'S APPROVAL.

D. CONCRETE.

1. CONCRETE QUALITY SHALL COMPLY WITH IS 456:2000
2. PROJECT ASSESSMENT OF CONCRETE STRENGTH IS REQUIRED.
3. GRADE OF CONCRETE IS M25 FOR ALL RCC WORKS. (1:1:2=1 cement:1 Sand: 2Aggregates)
4. FOR THE ABOVE GRADE TO BE ACHIEVED, MAXIMUM FREE WATER-CEMENT RATIO SHALL BE 0.55, MINIMUM CEMENT CONTENT SHALL BE 300KG/M3 AND MAXIMUM AMOUNT OF WATER SHALL BE 180L.
5. WATER USED FOR MIXING AND CURING SHALL COMPLY WITH CLAUSE 5.4 OF IS 456:2000.

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SRUCTURE_NOTE

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_01
			SCALE
			NTS

6. MECHANICALLY VIBRATE CONCRETE IN THE FORM TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.
7. CURE CONCRETE AS REQUIRED BY THE CLAUSE 13.5 OF IS456:2000 AND WORK SPECIFICATIONS.
8. CONCRETE SIZES AS DRAWN ARE MINIMUM AND DONOT INCLUDE APPLIED FINISHES.
9. DONOT MAKE UNSPECIFIED HOLES OR CHASES WITHOUT ENGINEER'S APPROVAL.
10. DONOT PLACE CONDUITS, PIPES AND THE LIKEWITHIN COVER CONCRETE.
11. AGGREGATES SHALL COMPLY WITH CLAUSE 5.3 OF IS456:2000. NOMINAL SIZE OF COARSE AGGREGATES SHALL BE 20MM.
12. THE CHARACTERISTICS STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 20MPA. NOTE THAT THE MEAN COMPRESSIVE STRENGTH OBTAINED FROM THE LABORATORY HAS TO BE WELL ABOVE THIS VALUE.
13. ALL FORMWORKS FOR BEAMS AND SLABS ARE TO REMOVED BEFORE CONSTRUCTION OF WALLS OR OTHER PERMANENT LOADINGS. ALL FORMWORK AND ITS REMOVAL MUST BE IN ACCORDANCE TO IS 456:2000.

E. REINFORCEMENT.

1. GRADE OF STEEL USED FOR RCC WORKS SHALL BE FE500.
2. BAR NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER: NUMBER OF BARS BAR SIZE(MM),SPACING(MM, IF REQUIRED).
3. REINFORCEMENT IS REPRESENTED DIAGRAMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
4. LAP REINFORCEMET ONLYAT LOCATIONS SHOWN IN THE DRAWINGS. LAP LENGTH SHALL COMPLY WITH IS456:2000. LAP SPLICES SHALL NOT BE LESS THAN THE DEVELOPMENT LENGTH IN TENSION(GENERALLY 57Ø).
5. REINFORCEMENT SHALL NOT BE CUT, BENT OR HEATED ON SITE WITHOUT ENGINEER'S APPROVAL.
6. THE DEVIATION OF REINFORCEMENT FROM ITS SPECIFIED POSITION SHALL NOT EXCEED THE FOLLOWING(MM)
   (a). TOLERANCE FOR COVER -0,+10MM. WHERE A NEGATIVE VALUE INDICATE A DECREASE IN SPECIFED COVER, AND POSITIVE VALUE INDICATES AN INCREASE IN COVER.
   (b). TOLERANCE ON PLACEMENT OF REINFORCEMENT.
   FOR SLABS AND STAIRCASE -10,+10MM.
   FOR BEAMS, COLUMNS AND FOUNDATION -15,+15MM.
7. SPACERS AND SUPPORTS SHALL BE LOCATED AT CENTRES CLOSE ENOUGH (PREFERABLY NOT EXCEEDING 750MM C/C FOR COLUMN AND BEAM REINFORCEMENT AND 450MM FOR SLAB REINFORCEMENT). TO PREVENT DISPLACMENT OF REINFORCEMENT BY WORKMEN OR EQUIPMENT DURING FIXING AND SUBSEQUENT CONCRTE PLACEMENT WITHIN TOLERANCE GIVEN ABOVE.
8. THE COVER TO THE REINFORCEMENT NEAREST THE CONCRETE SURFACE SHALL NOT LESS THAN THE FOLLOWING EXCEPT WHERE SPECIFIED OTHERWISE:

BEAMS	30MM
COLUMNS	40MM
FLOOR SLABS AND STAIRCASE	20MM
FOUNDATION	50MM

9. BENDING OF REINFORCEMENT IN BEAMS AND COLUMNS SHALL COMPLY WITH TH REQUIREMENTS OF IS 456:2000
10. FORMWORK SHALL COMPLY WITH CLAUSE 11 OF IS 456:2000
11. STRIPPING OF FORMWORK SHALL COMPLY WITH CLAUSE 11.3 OF IS:456:2000

F. WELDING AND BOLTING.

1. WELDING TO BE CARRIED OUT IN ACCORDANCE WITH IS 816:1969, IS 819:1957, IS 1024:1979, IS 1261:1959, IS 1323:1982 AND IS: 9595: 1980 AS APPROPRIATE.
2. THE STRENGTH OF ELECTRODE USED FOR WELDING SHALL BE EQUAL TO OR GREATER THAN THE STRENGTH OF MEMBER THAT IS BEING WELDED.
3. ALL WELD SHALL BE COMPLETE PENETRATION BUTT WELD.
4. ALL BOLTS SHALL BE HIGH STRENGTH FRICTION GRIP GALVANIZED M16 AND M20 IN ACCORDANCE WITH IS 3757:1967 AND IS 800: 1984.
5. ALL MEMBERS OF STEEL TRUSS SHALL BE DRY AND THROUGHLY CLEANED FROM ALL LOOSESCALE AND RUST PRIOR TO PAINTING.
6. THE MEMBERS SHALL BE PROVIDED WITH COAT OF ZINC COATING.

Khorlochhu

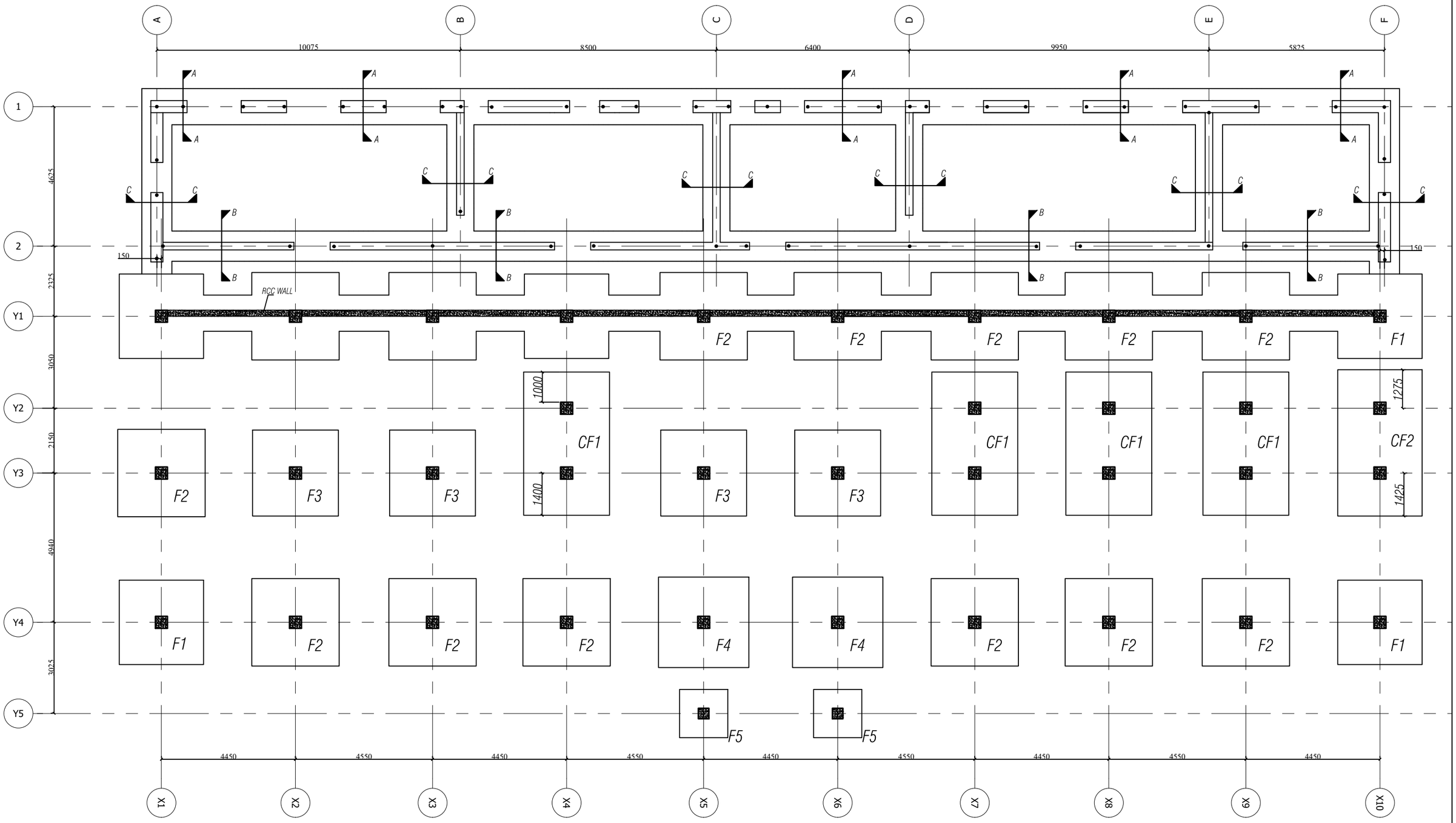
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STRUTURE_NOTES

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_02
			SCALE
			NTS



Footing Layout Plan

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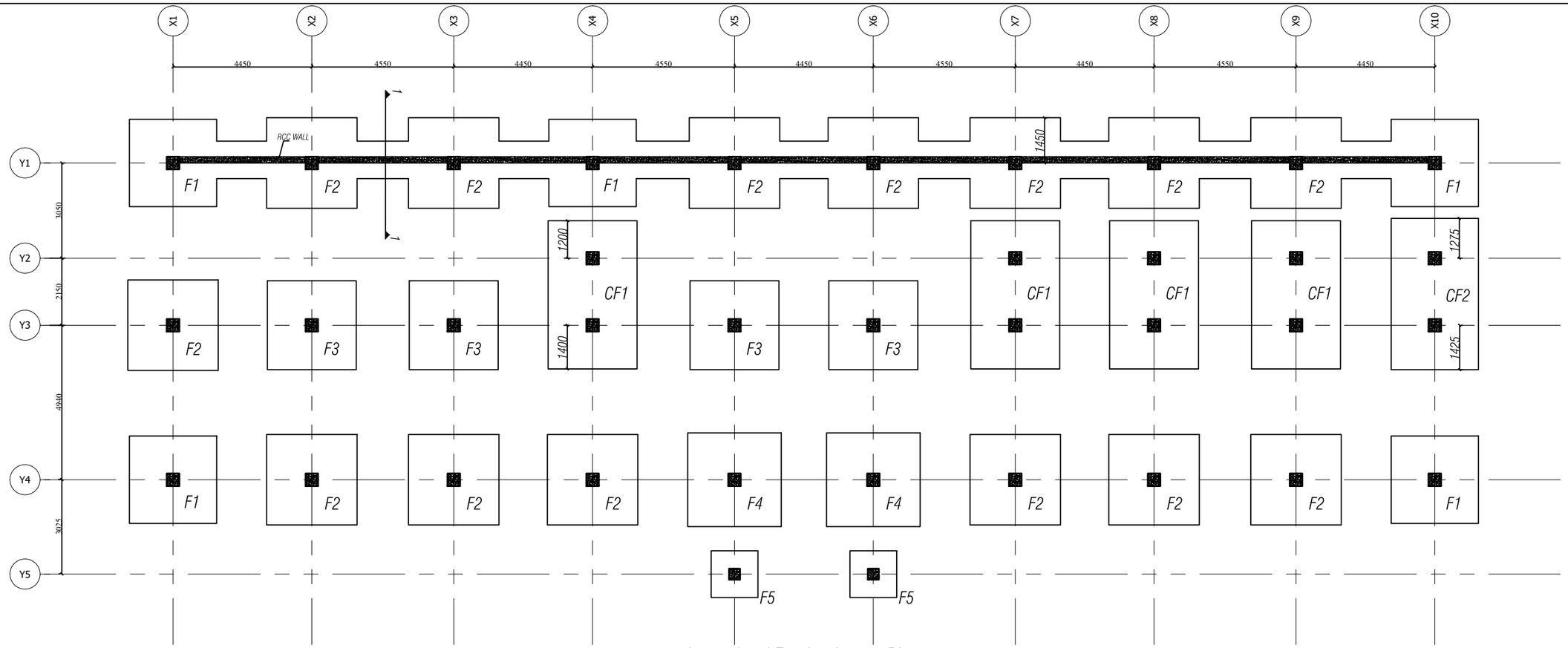
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_LAYOUT

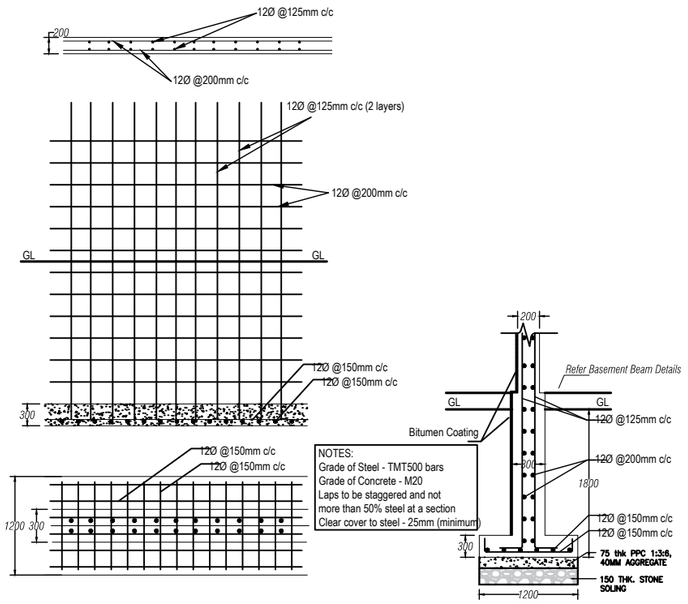
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		Sep, 2026	STR_03
			SCALE
			NTS



Lower level Footing Layout Plan



RCC wall at section 1-1

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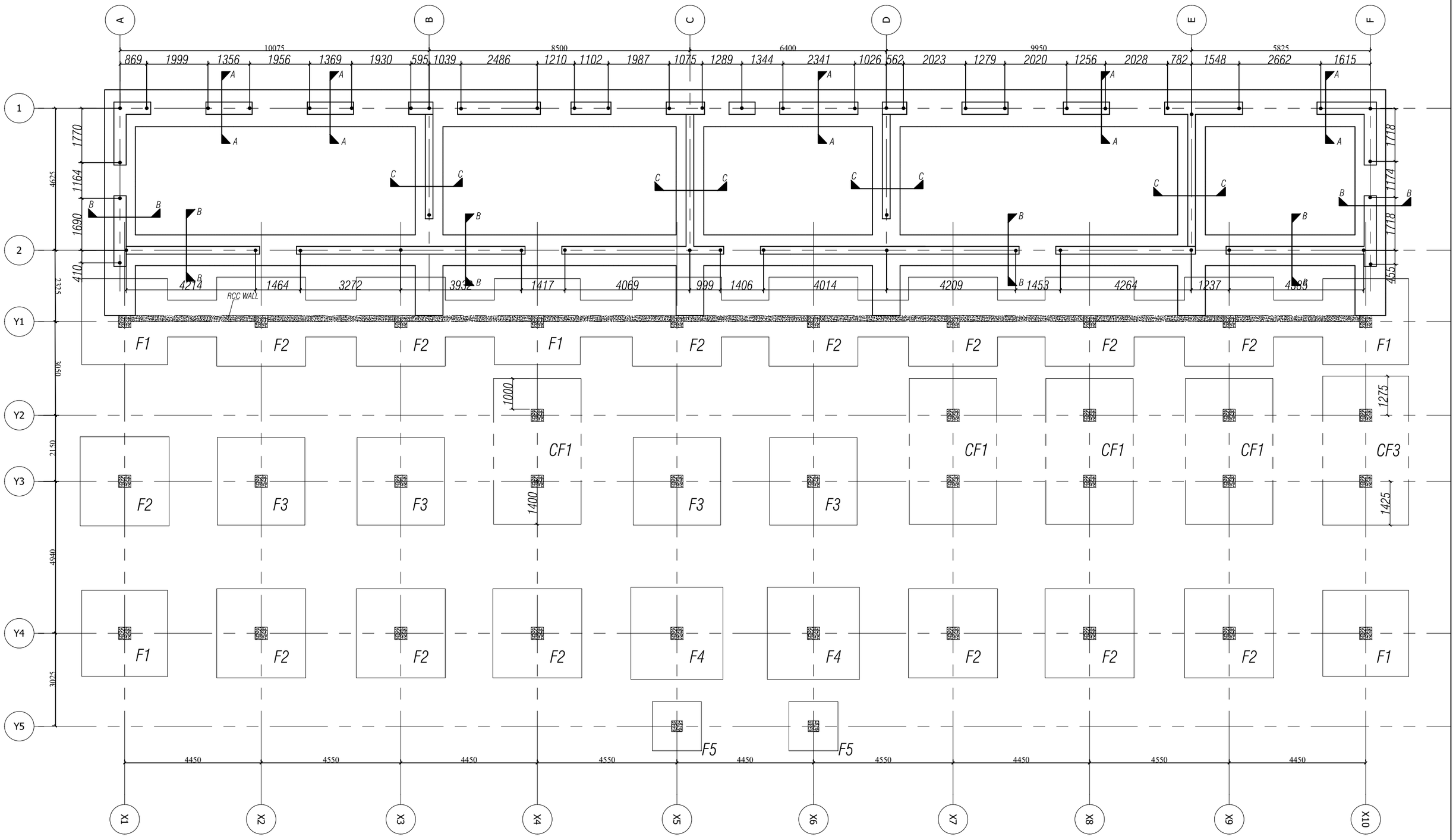
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_LAYOUT_LOWER_LEVEL

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_04
			SCALE
			NTS



Upper level Footing Layout Plan

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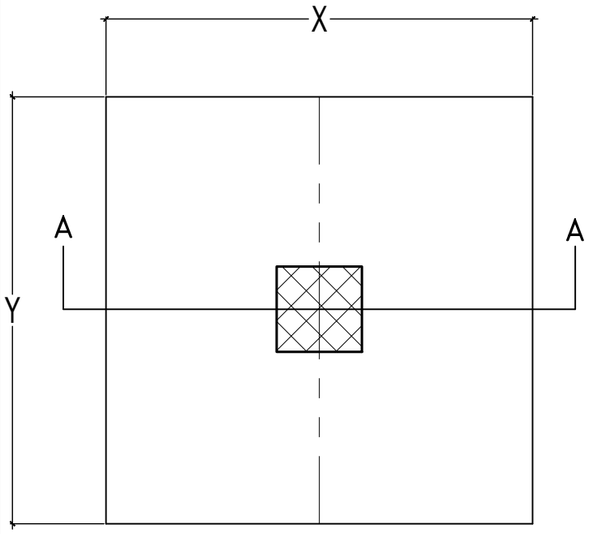
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_LAYOUT_UPPER_LEVEL

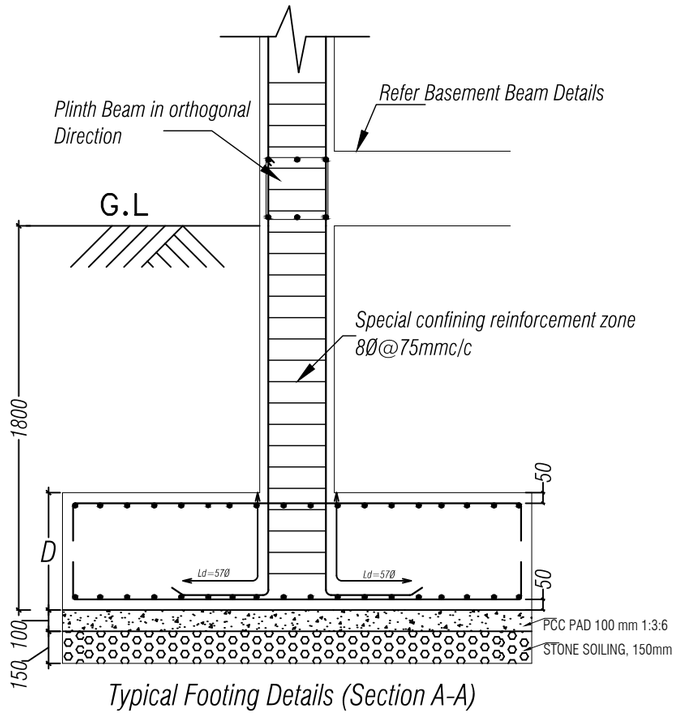
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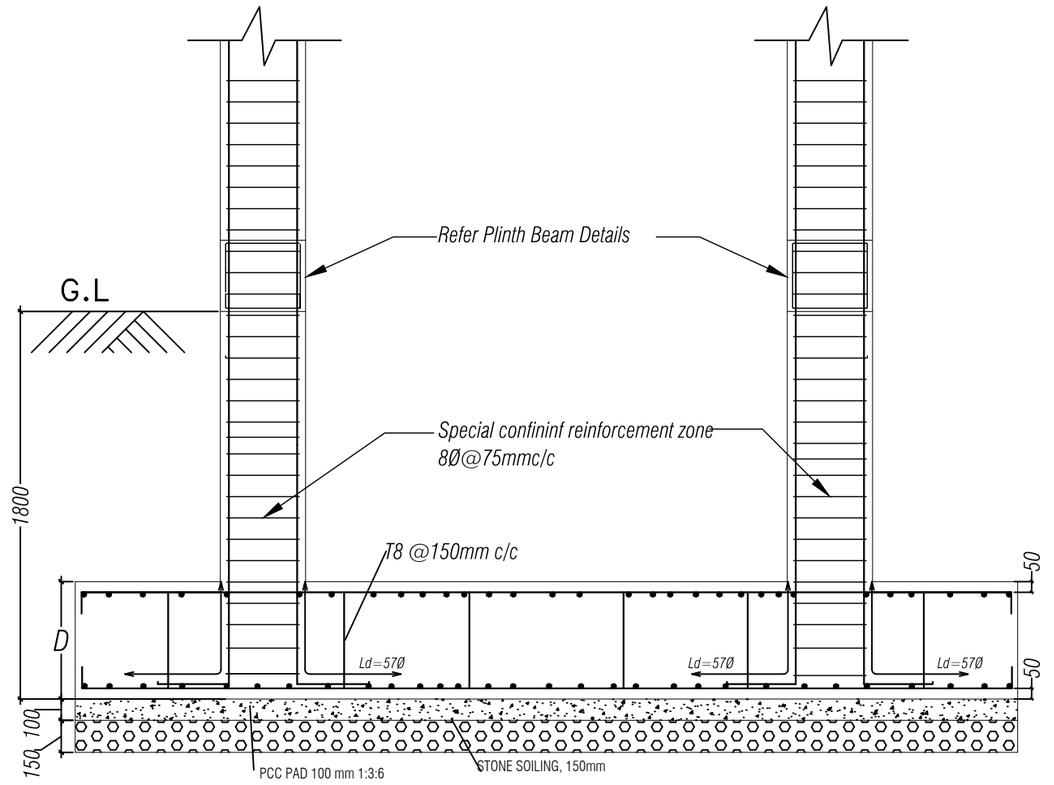
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_05
			SCALE
			NTS



Typical Footing Plan



Typical Footing Details (Section A-A)



Typical Combined Footing Details

		FOOTING SCHEDULE			
Footing Type	Size (X x Y)	Column Size (X x Y)	D	RFT BAR IN Bottom (Bothways)	RFT BAR IN Top (Bothways)
F1	2800 x 2800	400 x 400	450	12Ø@150c/c	12Ø@170c/c
F2	2900 x 2900	400 x 400	500	12Ø@140 c/c	12Ø@160c/c
F3	2850 x 2850	400 x 400	450	12Ø@140c/c	12Ø@160c/c
F4	3000 x 3000	400 x 400	500	12Ø@130 c/c	12Ø@160c/c
F5	1500 x 1500	350 x 350	350	12Ø@160 c/c	12Ø@170c/c
CF1	4750 x 2850	400 x 400 & 400 x 400	500	12Ø@120 c/c	12Ø@150c/c
CF2	4850 x 2800	400 x 400 & 400 x 400	500	12Ø@120 c/c	12Ø@150c/c

Footing Details

Khorlochhu

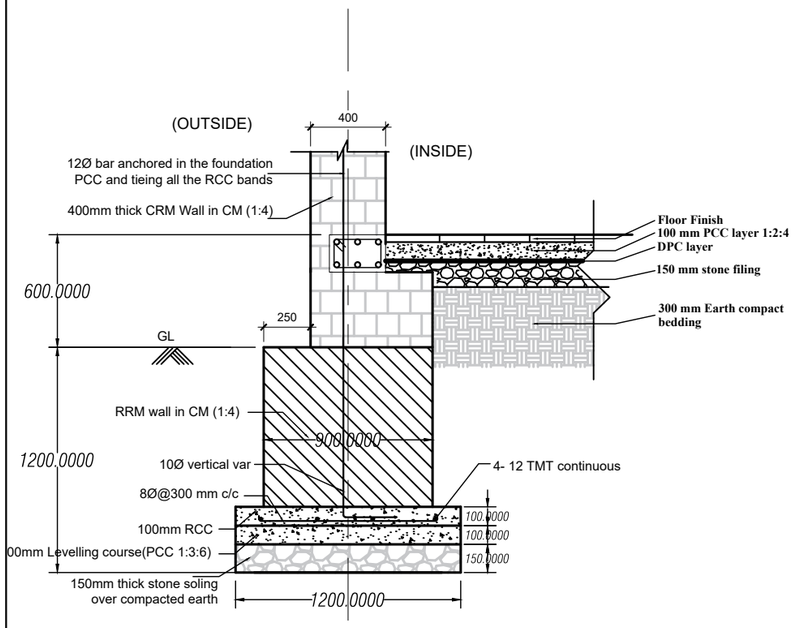
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_DETAILS

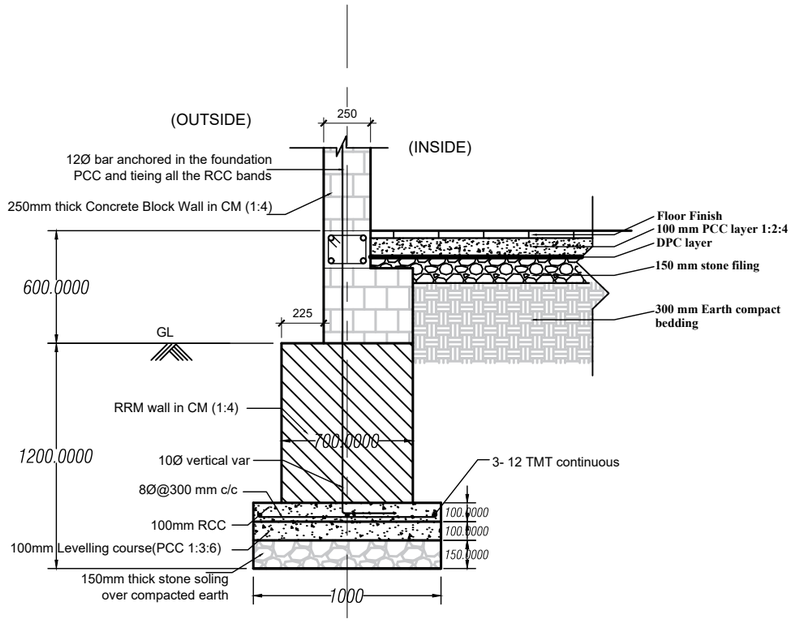
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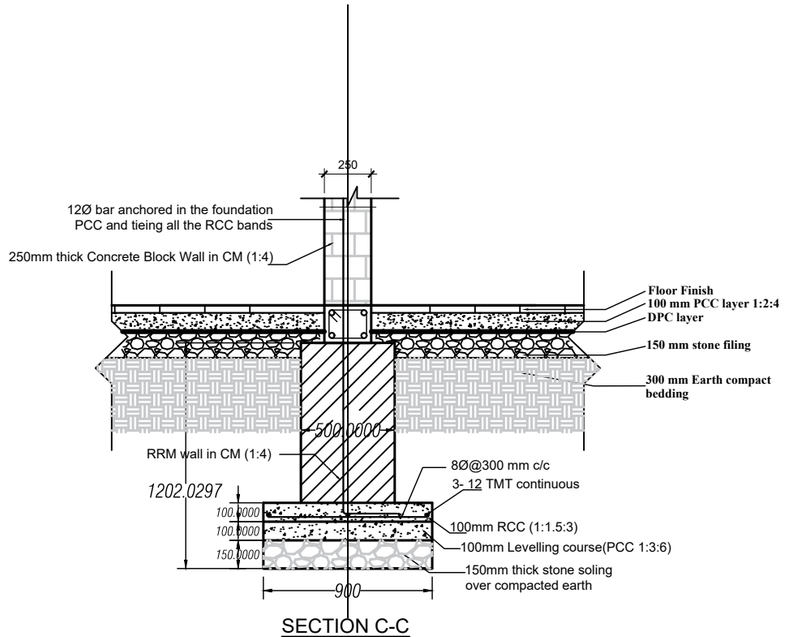
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_06
			SCALE
			NTS



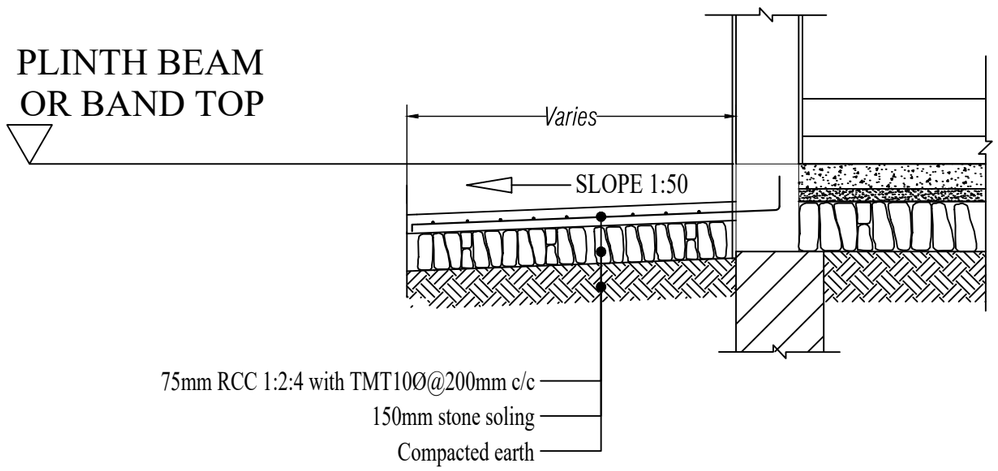
SECTION A-A



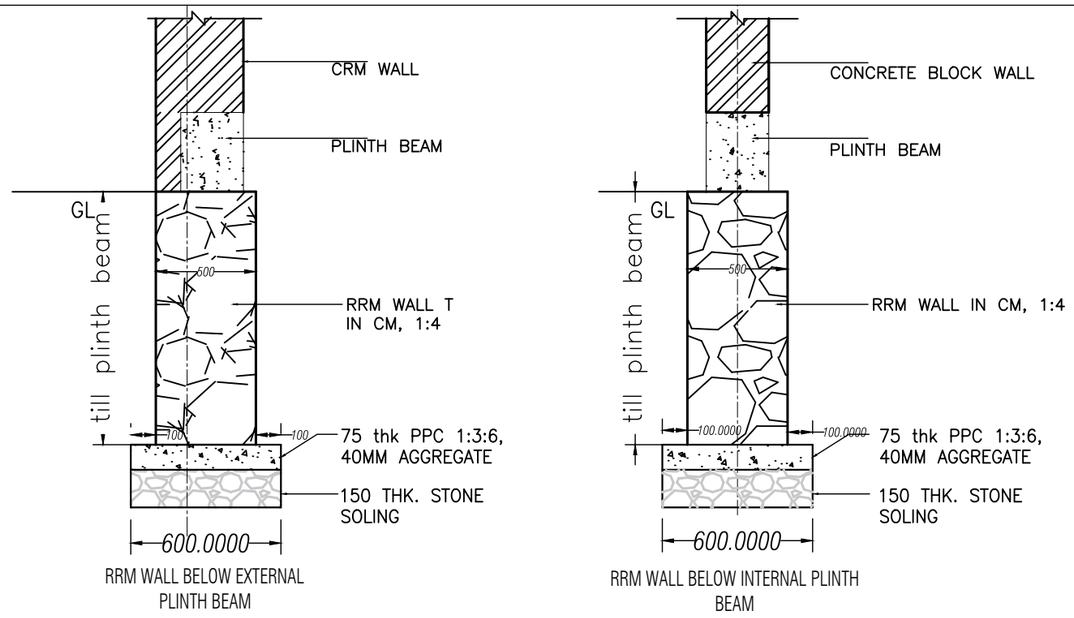
SECTION B-B



SECTION C-C

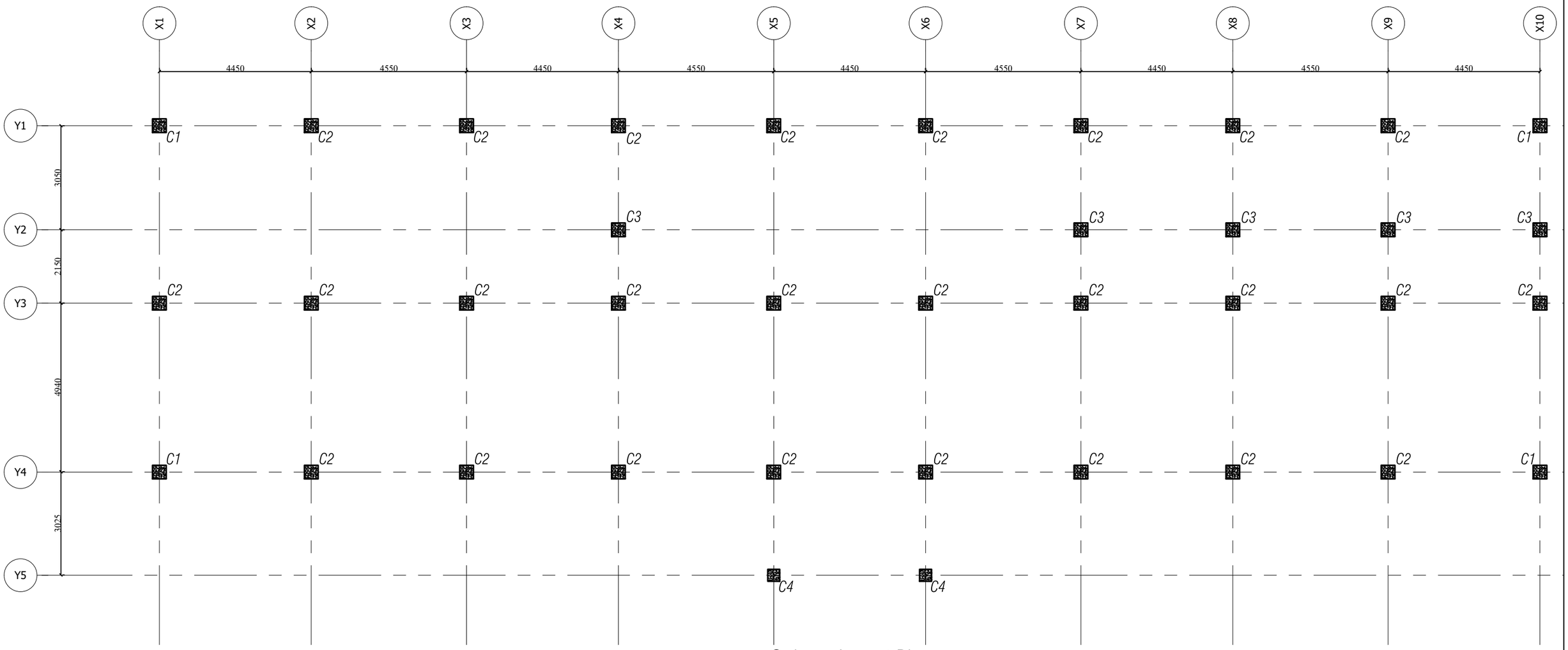


RCC in Plinth Protextion



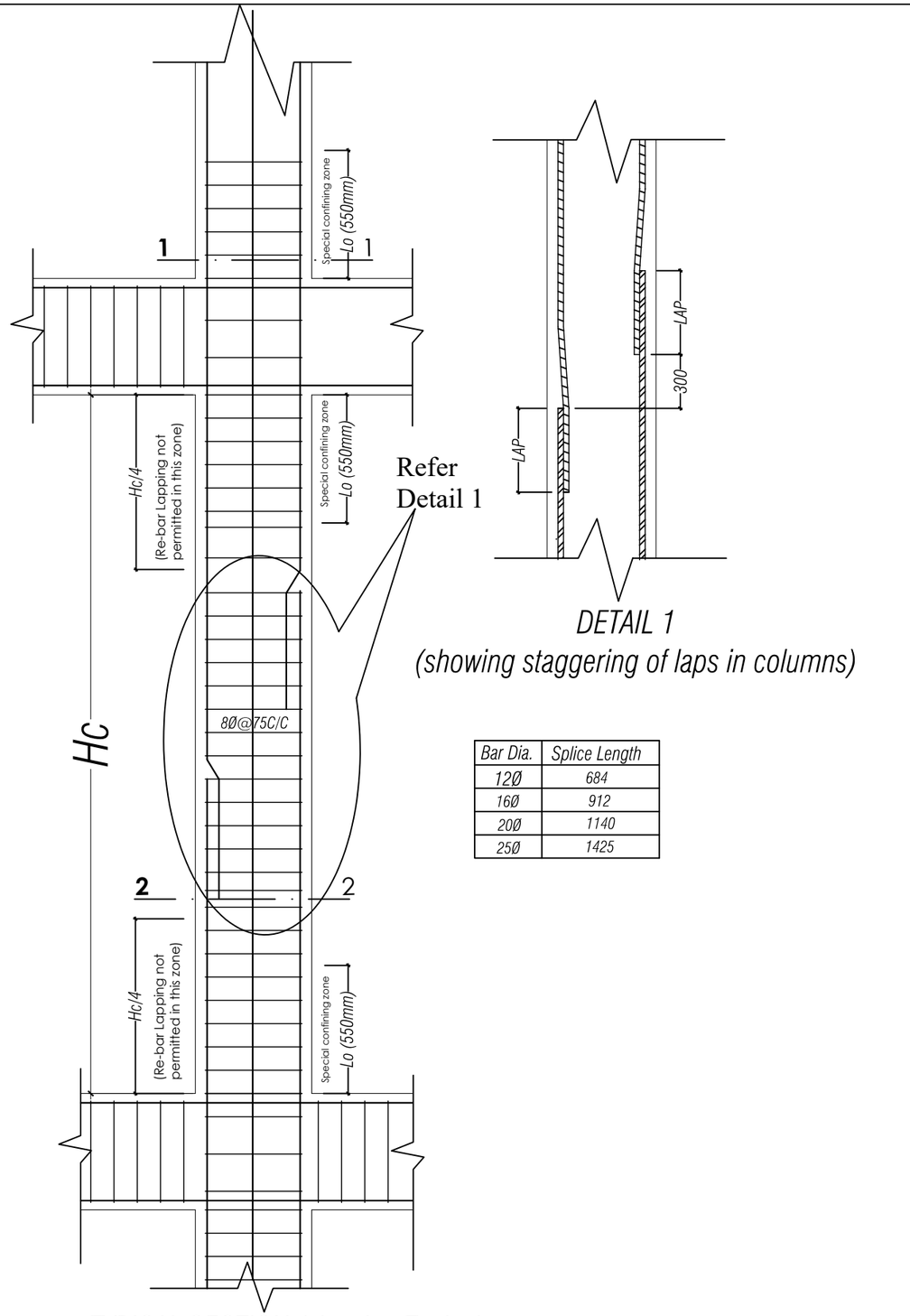
TYPICAL FOUNDATION WALL DETAILS

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			STR_07
	Construction of BHU Building and Auxiliary Work / FOOTING_DETAILS_IN_LOAD_BEARING			Sep, 2026	**SCALE** / NTS



Column Layout Plan

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	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_08
	Construction of BHU Building and Auxiliary Work / COLUMN_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS

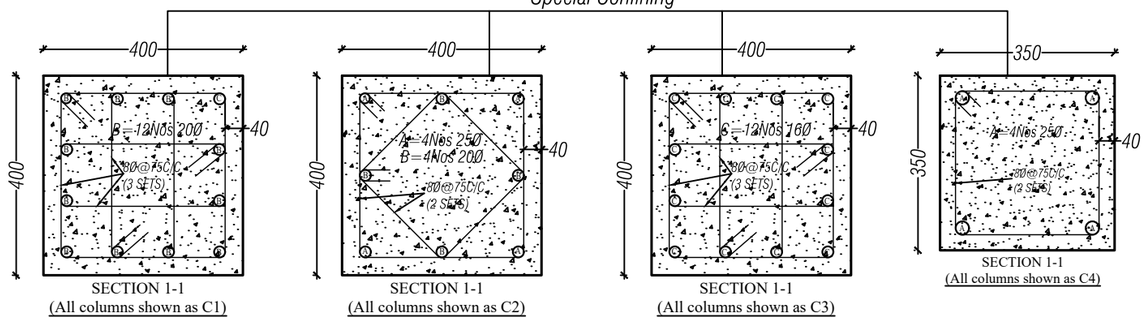


TYPICAL SECTION (showing Typical arrangement of Rebar and Ties in columns)

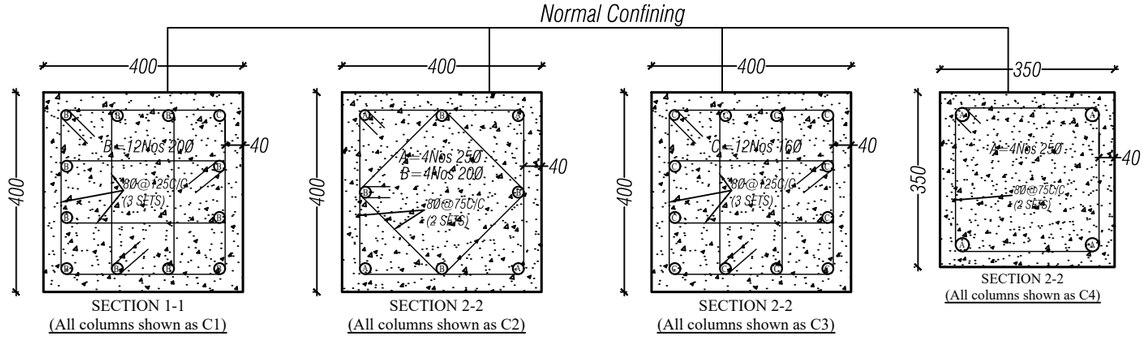
DETAIL 1
(showing staggering of laps in columns)

Bar Dia.	Splice Length
12Ø	684
16Ø	912
20Ø	1140
25Ø	1425

Special Confining



Normal Confining



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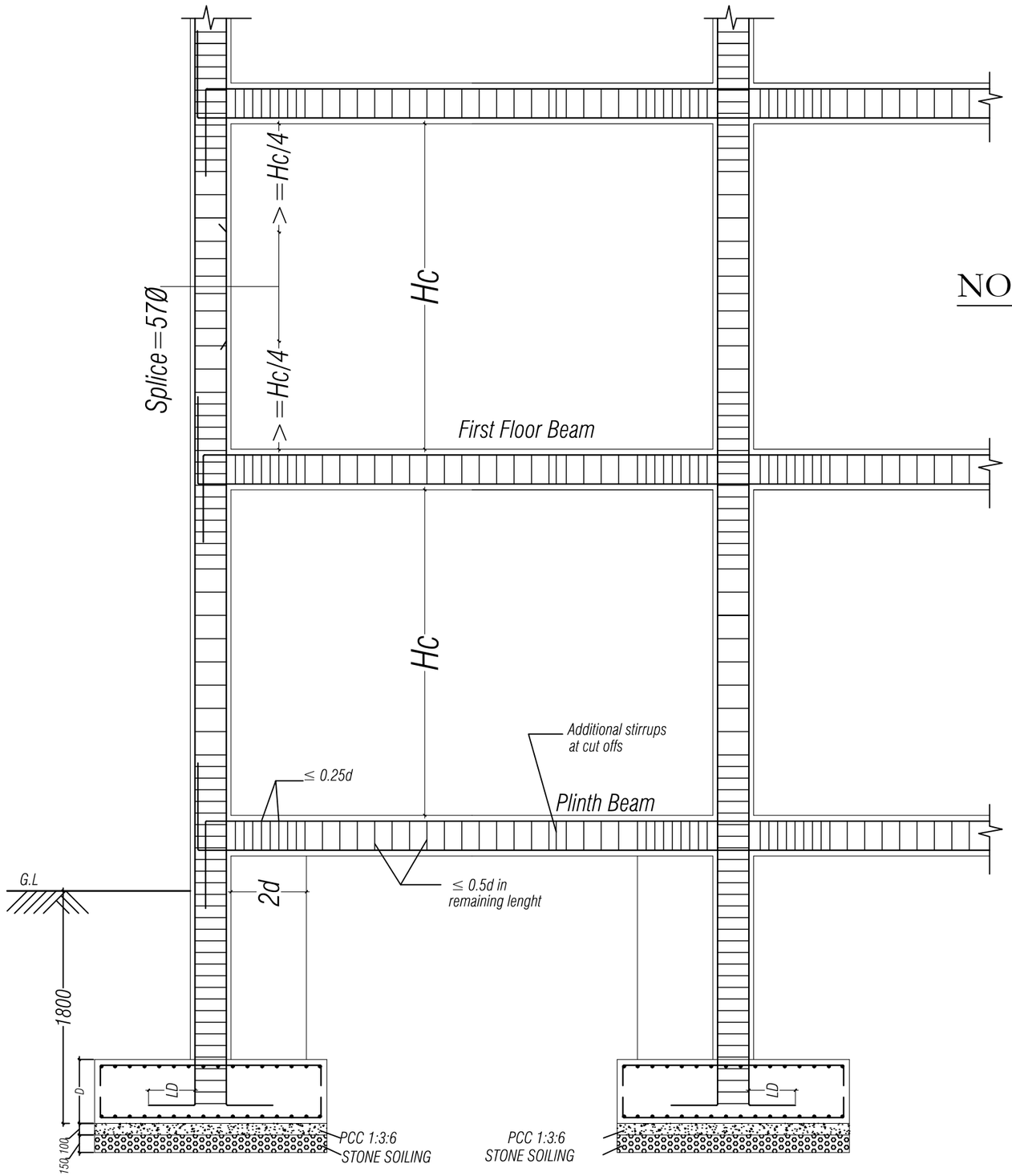
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COLUMN_DETAILS

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_09
			SCALE
			NTS



BEAM-COLUMN JUNCTION DETAILING

NOTE:

Clear Cover Details:

1. The clear cover to all footings should be 50 mm
2. The clear cover to all columns should be 40 mm
3. The clear cover to all beams should be 30 mm
4. The clear cover to all slabs should be 25 mm

Reinforcement Details

1. Not more than 50% of bars shall be spliced at one section both in beams and cloumns.
2. Column bars shall be spliced at a distance of Hc/4 from the face of support
3. No lap splice in columns are provided in first storey
4. Top bars in the beam shall splice at midspan while bottom bars shall be spliced at a distance of 2d from the face of the column but not at mid span
5. Full lenght of splice stirrups in ties in column shall be 8Ø @ 100mm c/c
6. The column encasing the stair case shall be provide with special confining reinforcement 8Ø @ 75mm c/c throughout the height of column

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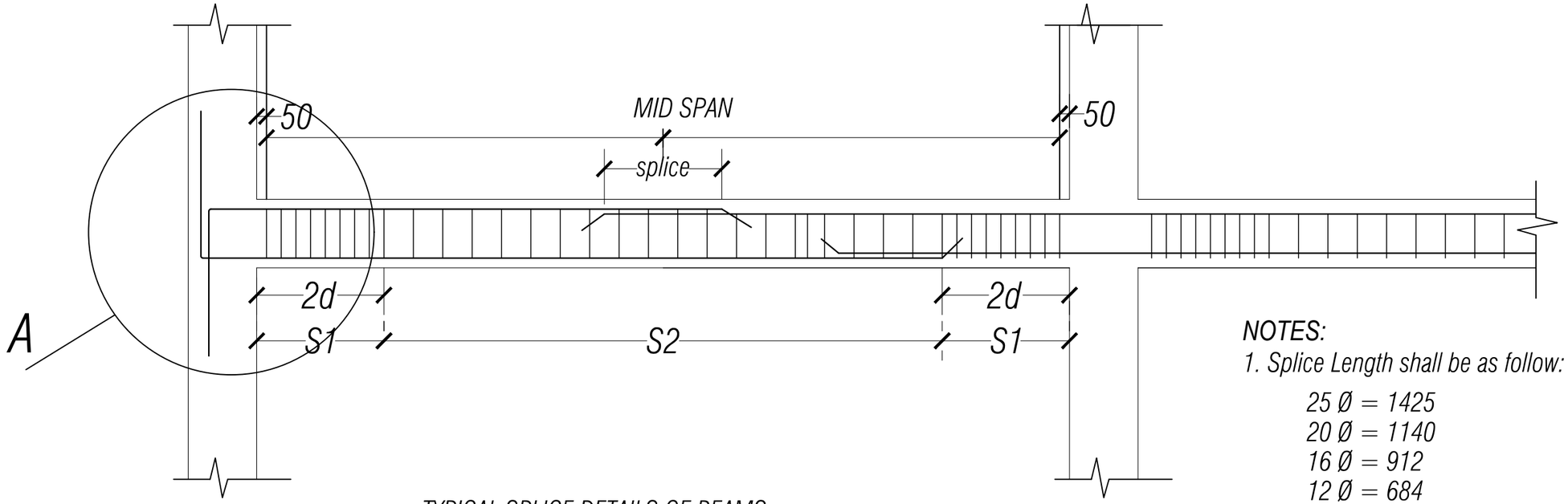
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COLUMN_BEAM_JUNCTION_DETAILS

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_10
			SCALE
			NTS

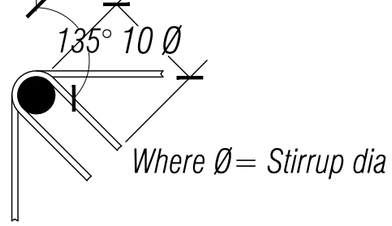


TYPICAL SPLICE DETAILS OF BEAMS

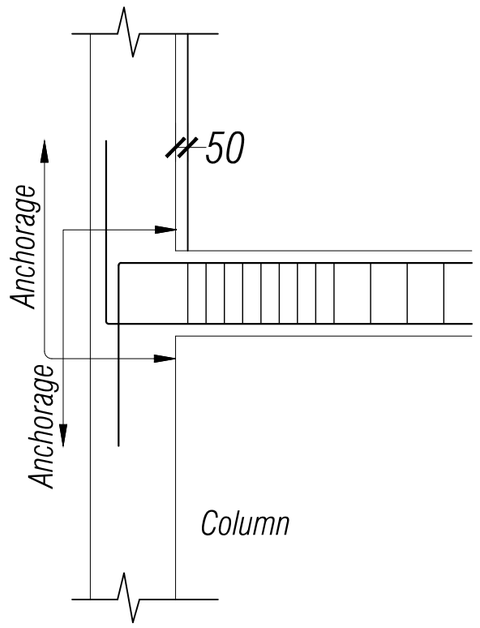
NOTES:

1. Splice Length shall be as follow:

25 Ø = 1425
20 Ø = 1140
16 Ø = 912
12 Ø = 684
10 Ø = 570



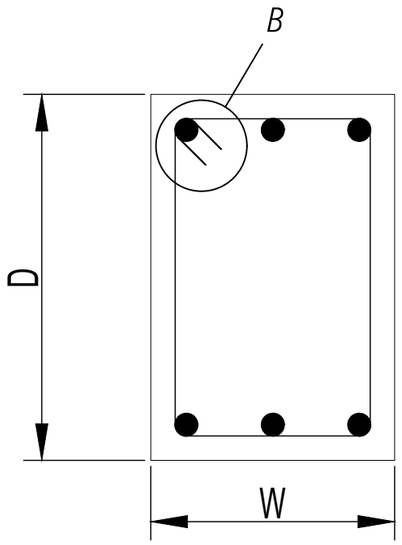
DEATAILS AT -B



ANCHORAGE
DEATAILS AT -A

Bar Anchrage Lenght
(Minimum Lenght = 67Ø)

10 Ø = 670
12 Ø = 804
16 Ø = 1072
20 Ø = 1340
25 Ø = 1675



BEAM STIRRUPS DETAILS

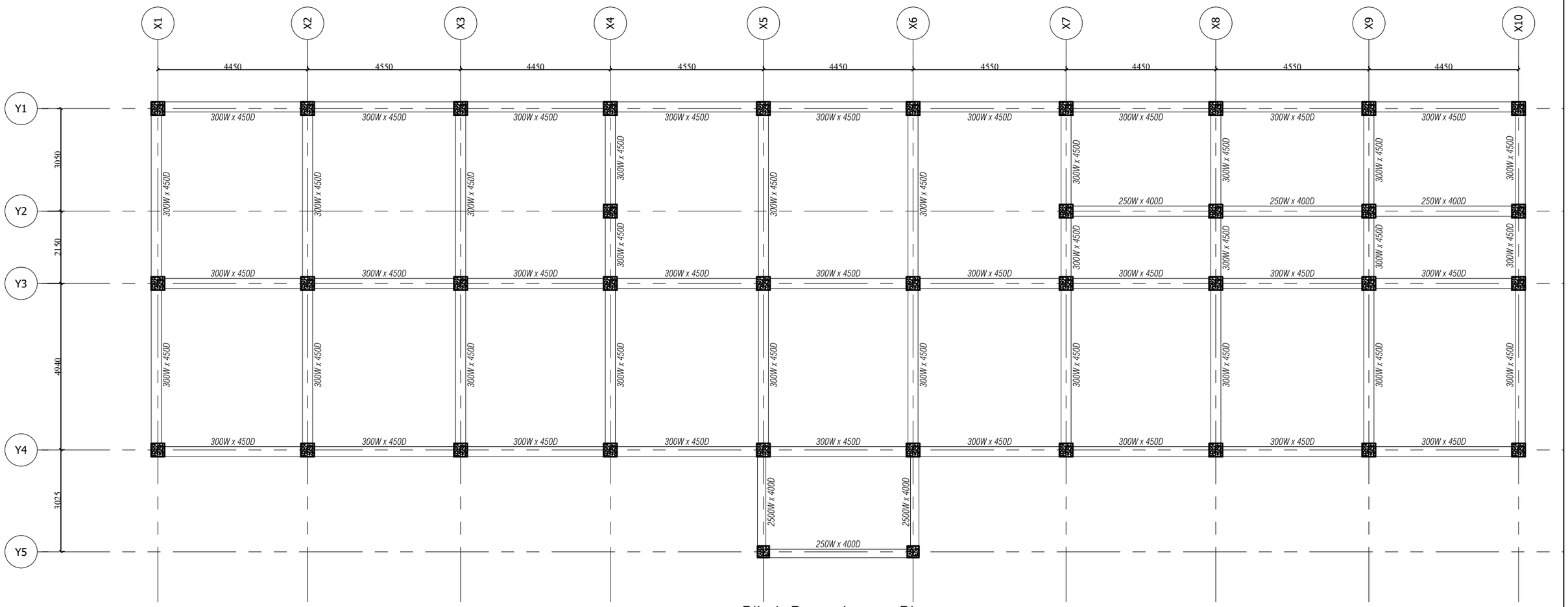
Stirrups in the Beams

Location	: Stirrups provided
2d	: 8Ø@100c/c
S1	: 8Ø@150c/c
Splice	: 8Ø@100c/c

Typical Floor Beam Details

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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_11
Construction of BHU Building and Auxiliary Work	TYPICAL_FLOOR_BEAM_DETAILS				Sep, 2026	SCALE: NTS



Plinth Beam Layout Plan

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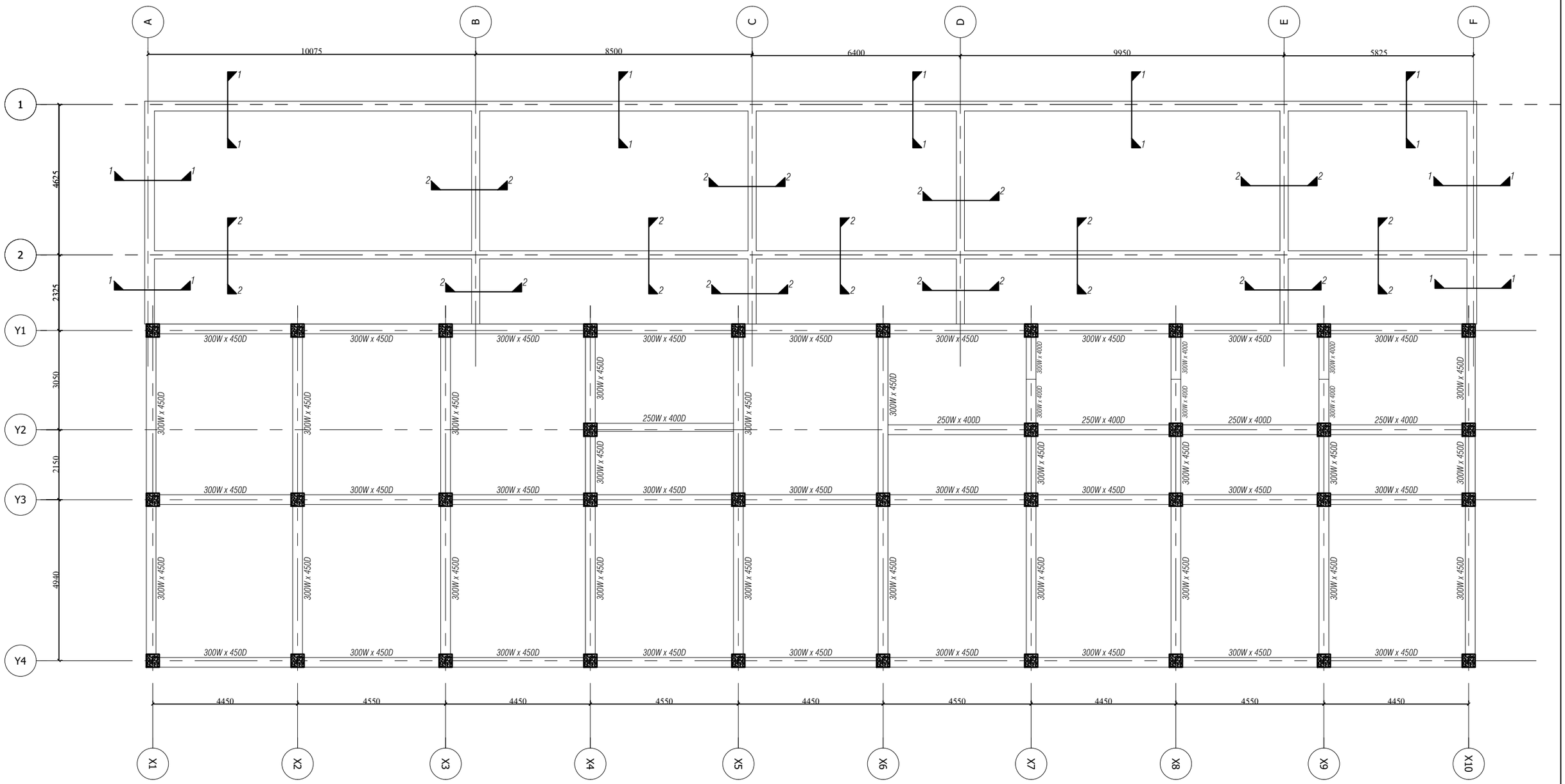
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	PLINTH_BEAM_LAYOUT_PLAN

NOTES

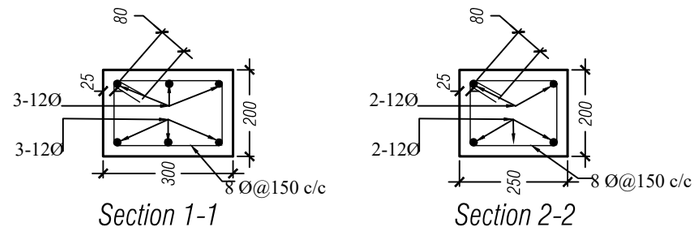
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_12
			SCALE
			NTS



Plinth Band & First Floor Beam Layout Plan

Note: provide Staircase landing Beam 300W x 450D



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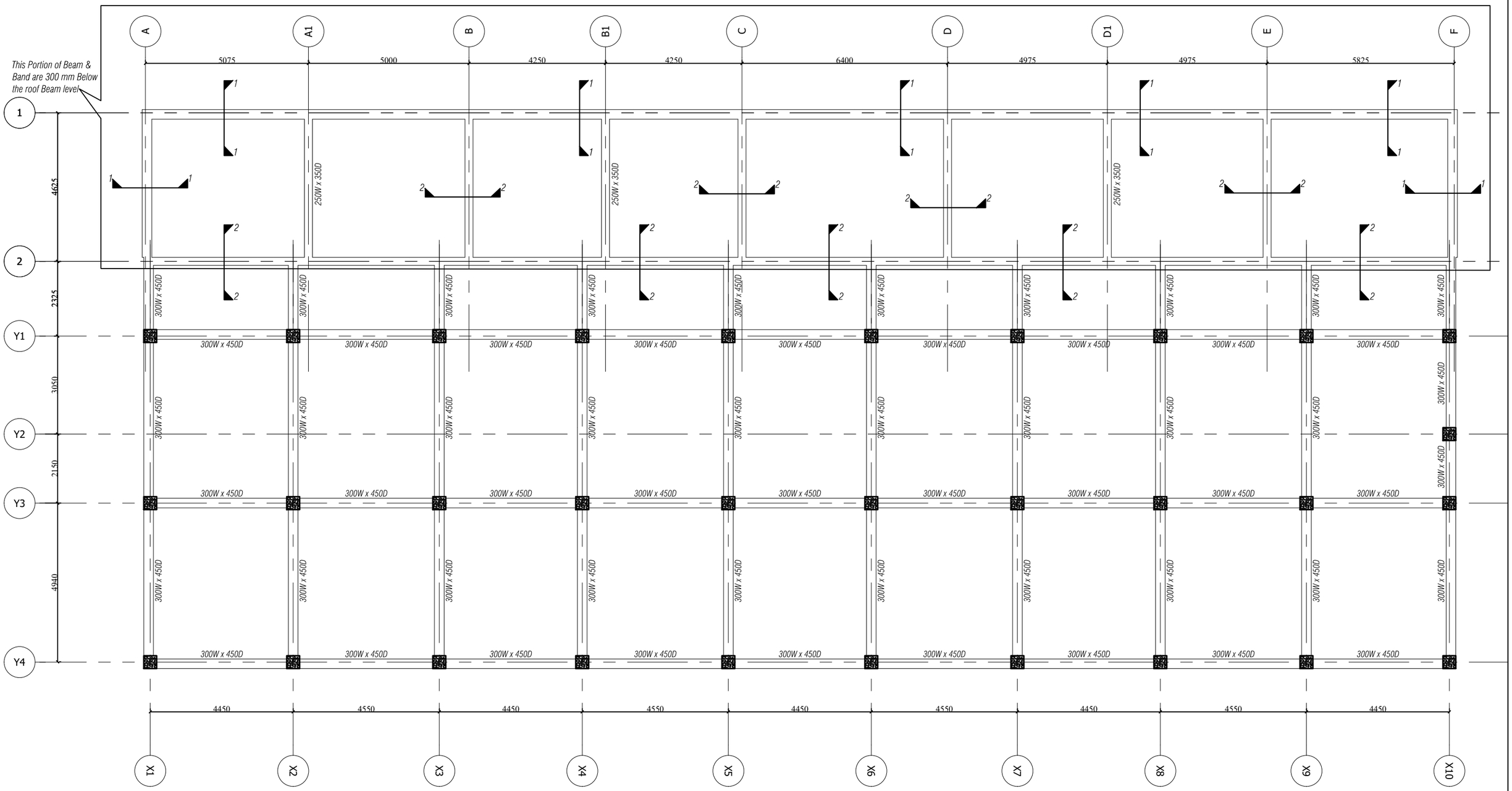
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_BEAM_AND_PLINTH_BAND_LAYOUT_PLAN

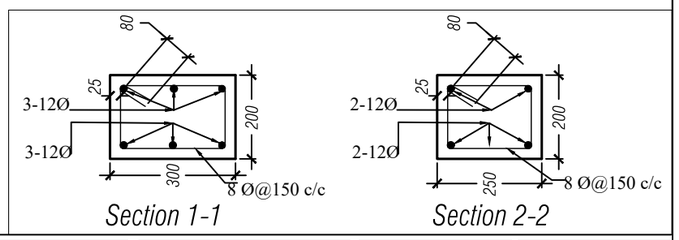
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_13
			SCALE
			NTS



Roof Band & Roof Beam Layout Plan



Section 1-1

Section 2-2

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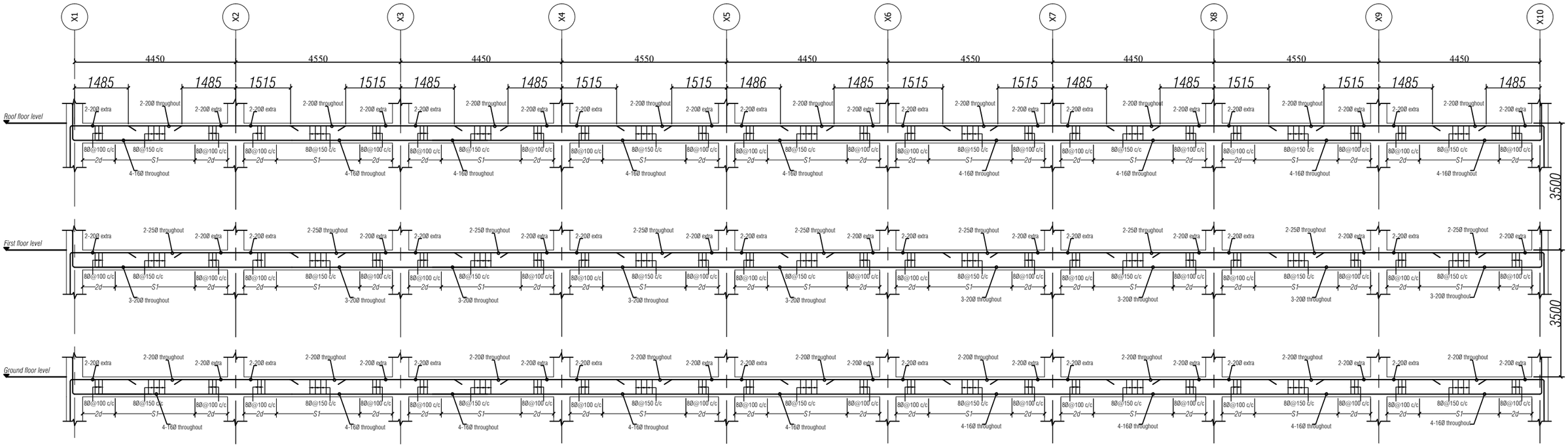
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_BEAM_&_BAND_LAYOUT_PLAN

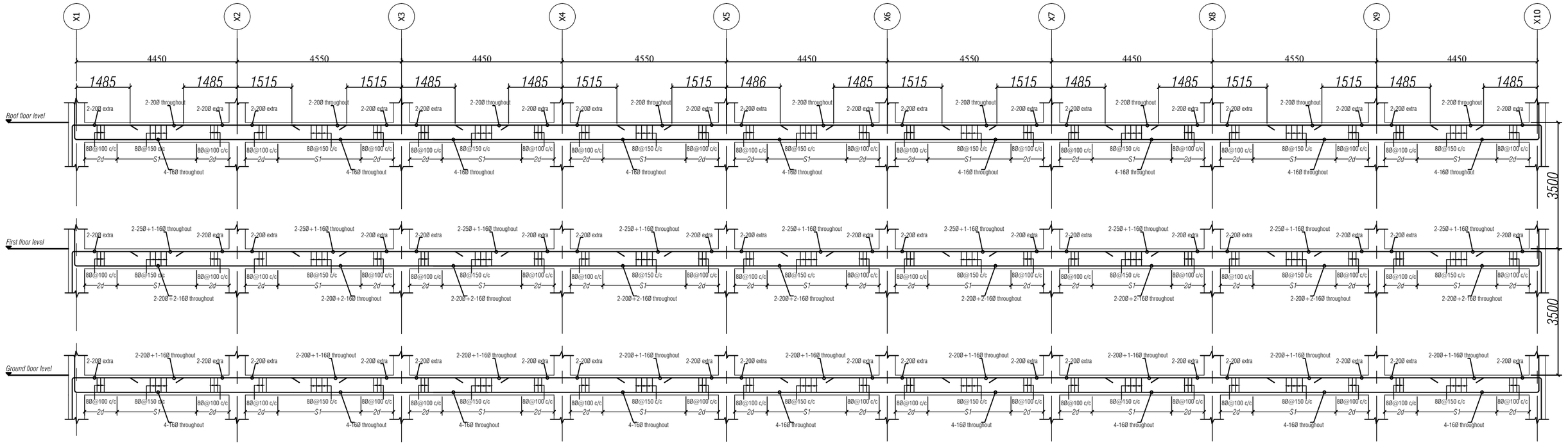
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_14
			SCALE
			NTS



L-Section Along Frame Y1 & Y3



L-Section Along Frame Y4

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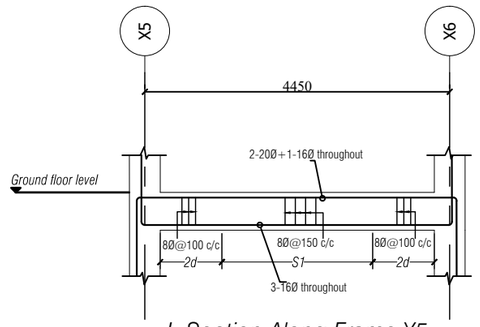
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_Y1,Y3_&_Y4

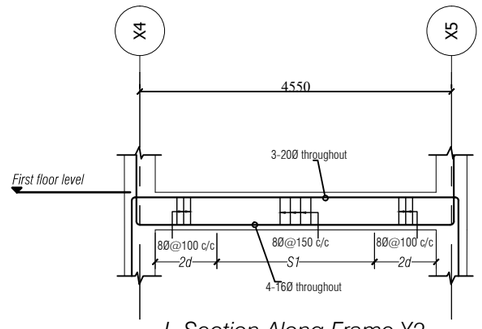
NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

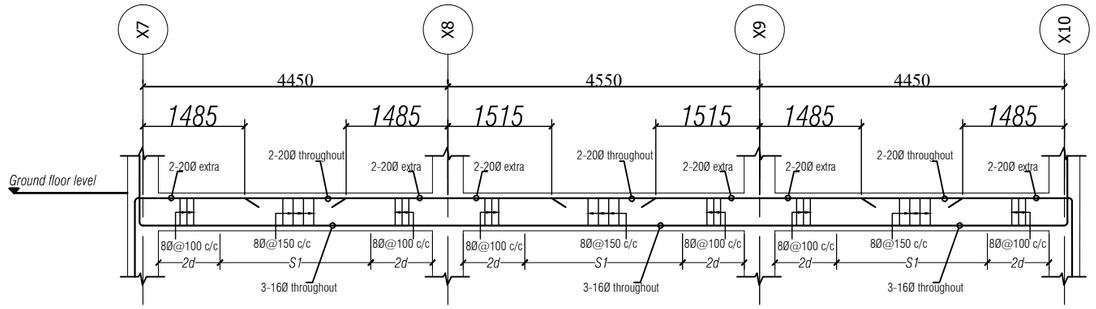
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		Sep, 2026	STR_15
			SCALE
			NTS



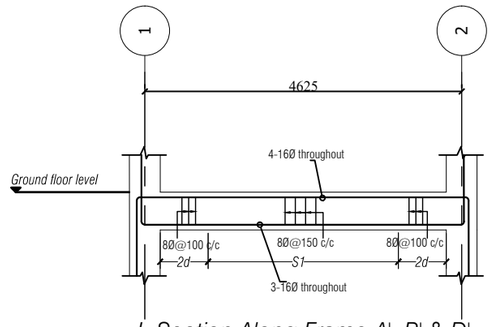
L-Section Along Frame Y5



L-Section Along Frame Y2



L-Section Along Frame Y2



L-Section Along Frame A', B' & D'

Khorlochhu

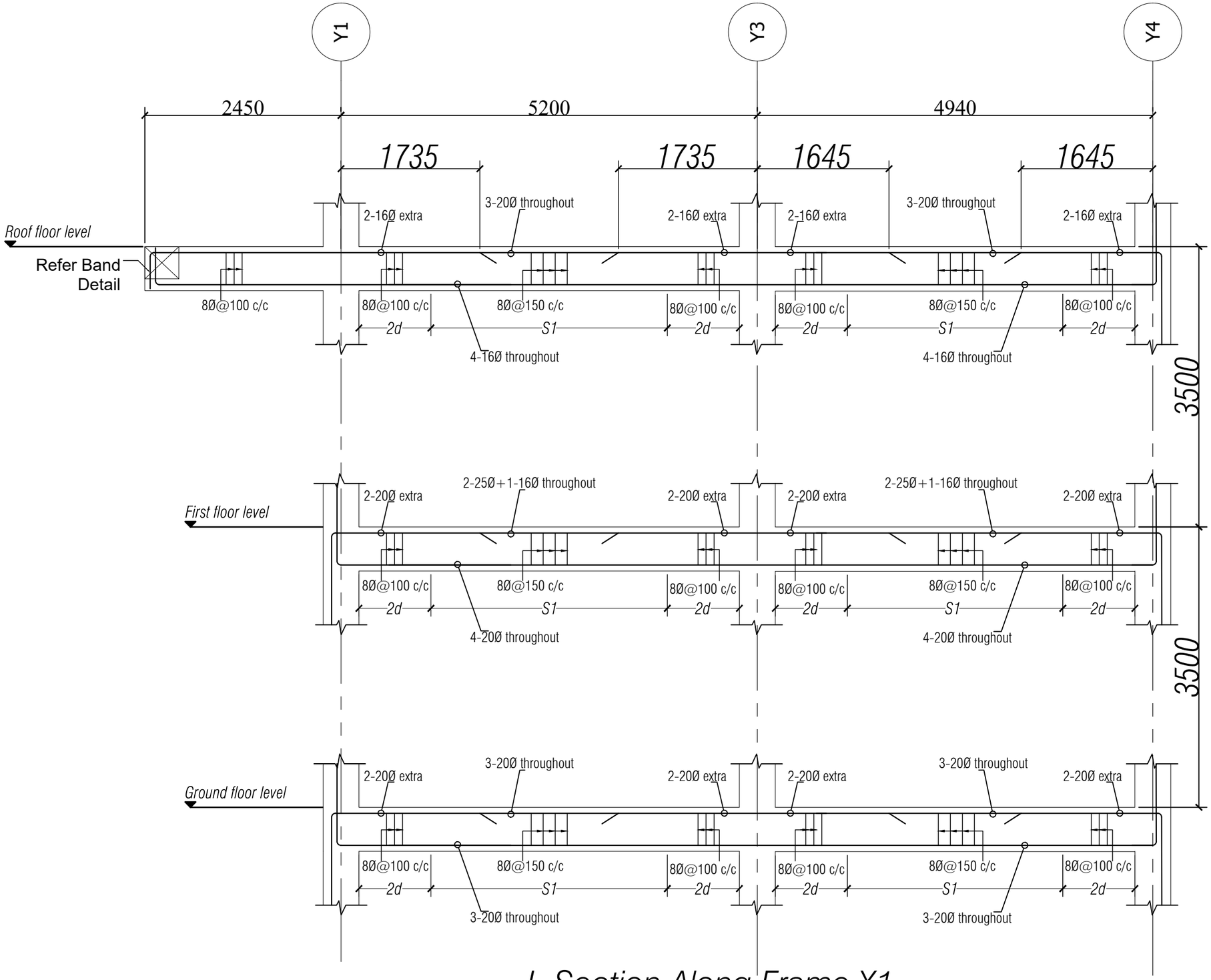
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	AS_MENTIONED

NOTES

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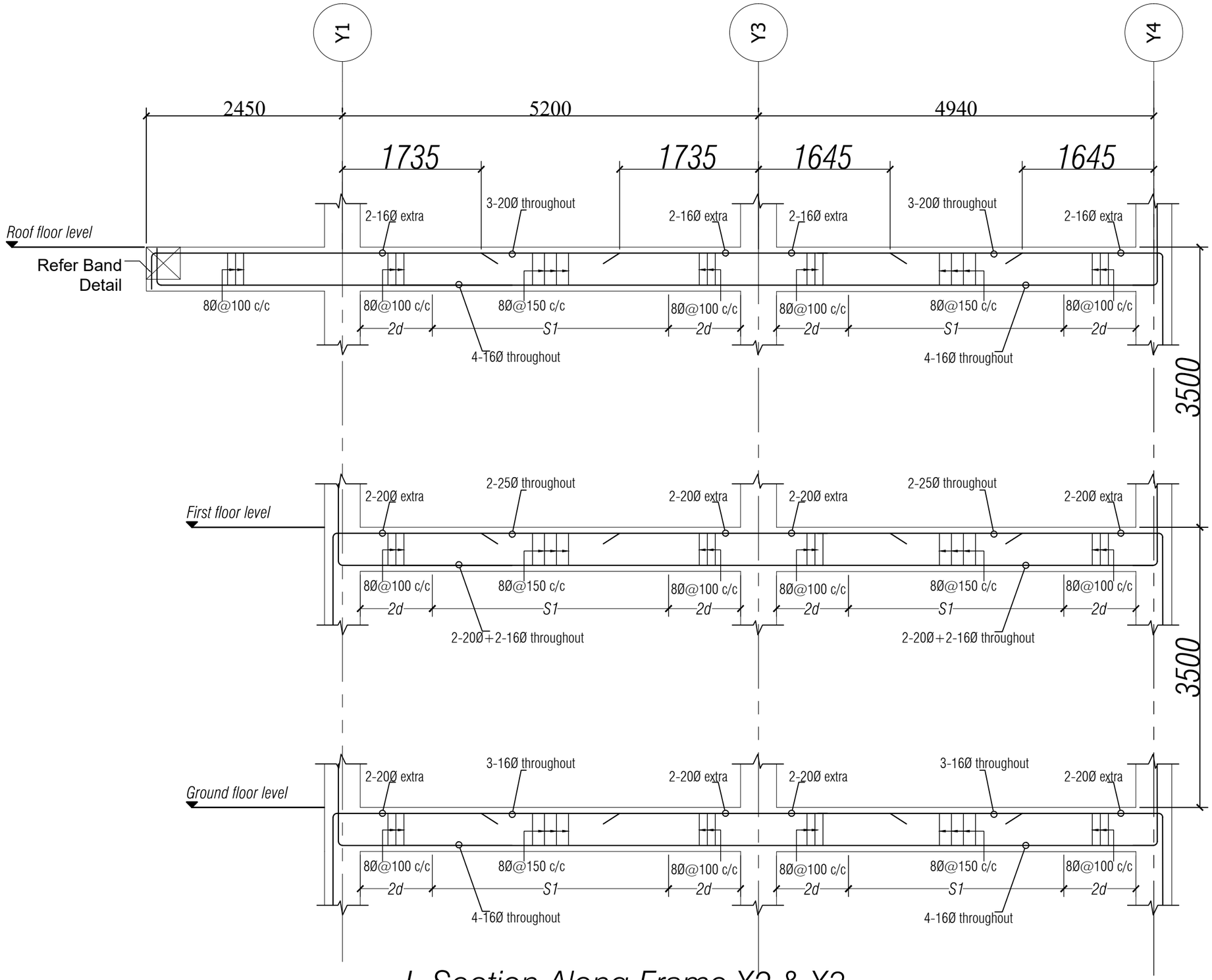
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_16
			SCALE
			NTS



L-Section Along Frame X1

Khorlochhu

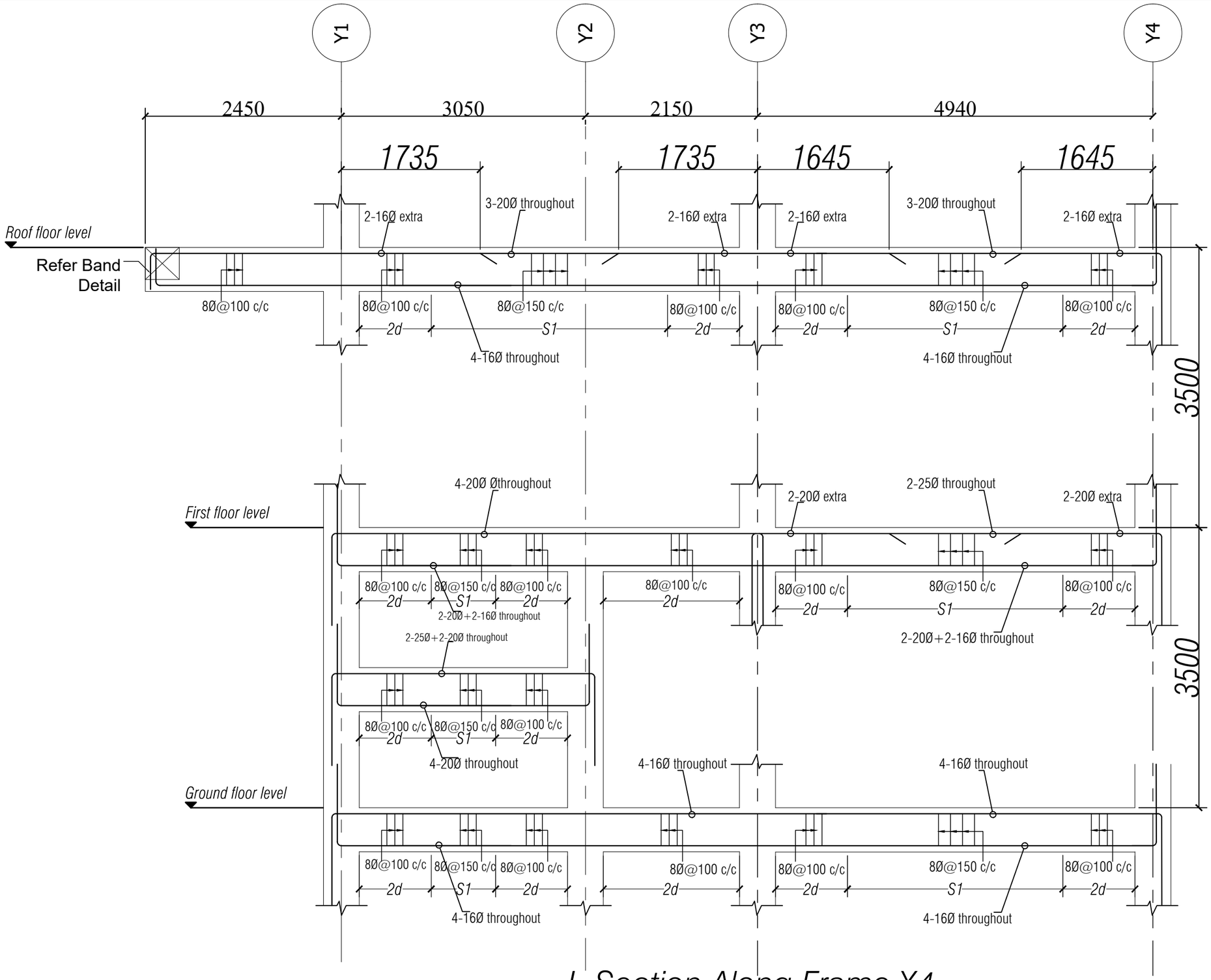
STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_17
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X1				Sep, 2026	SCALE NTS



L-Section Along Frame X2 & X3

Khorlochhu

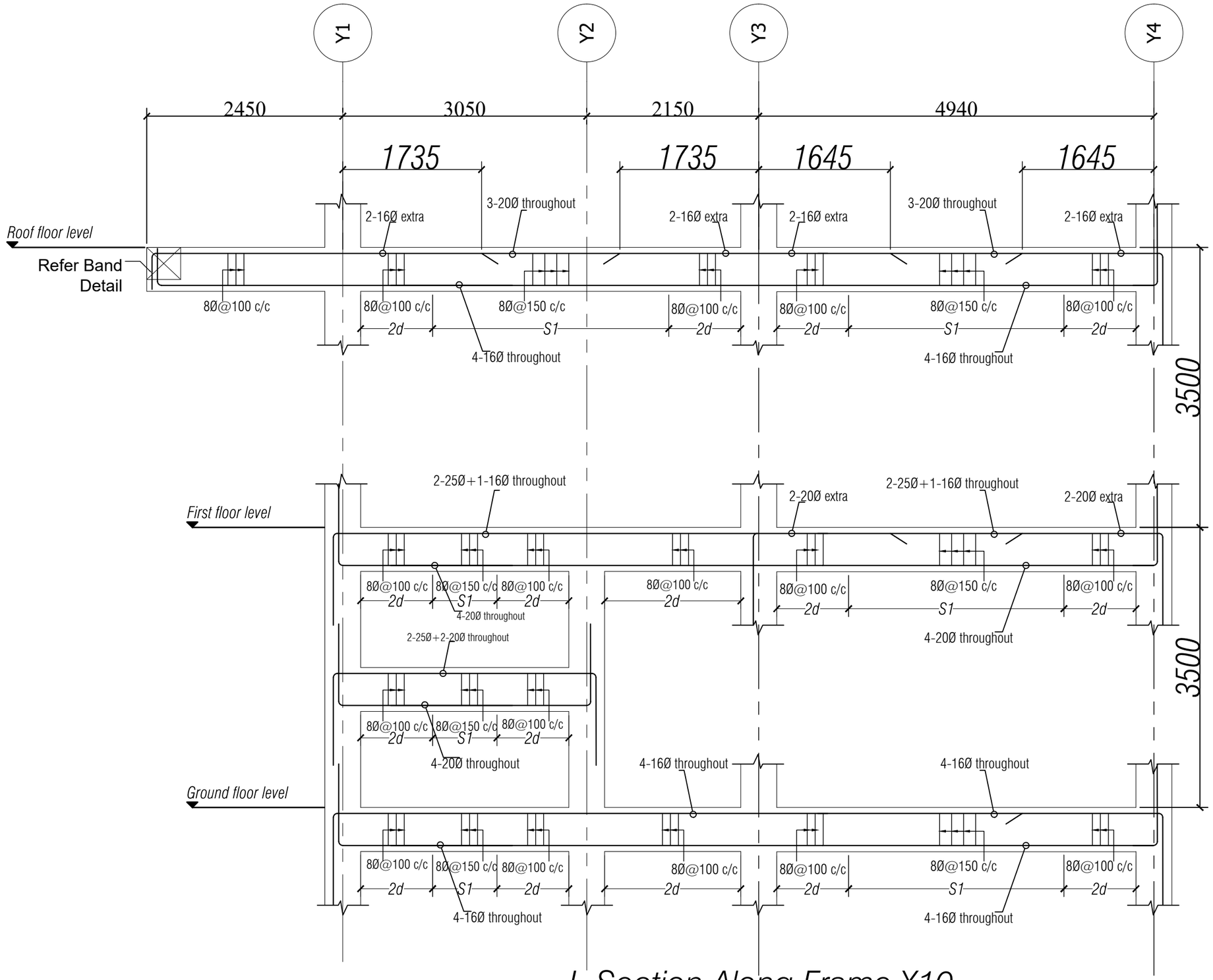
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PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_18
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X2-&X3				Sep, 2026	SCALE NTS



L-Section Along Frame X4

Khorlochhu

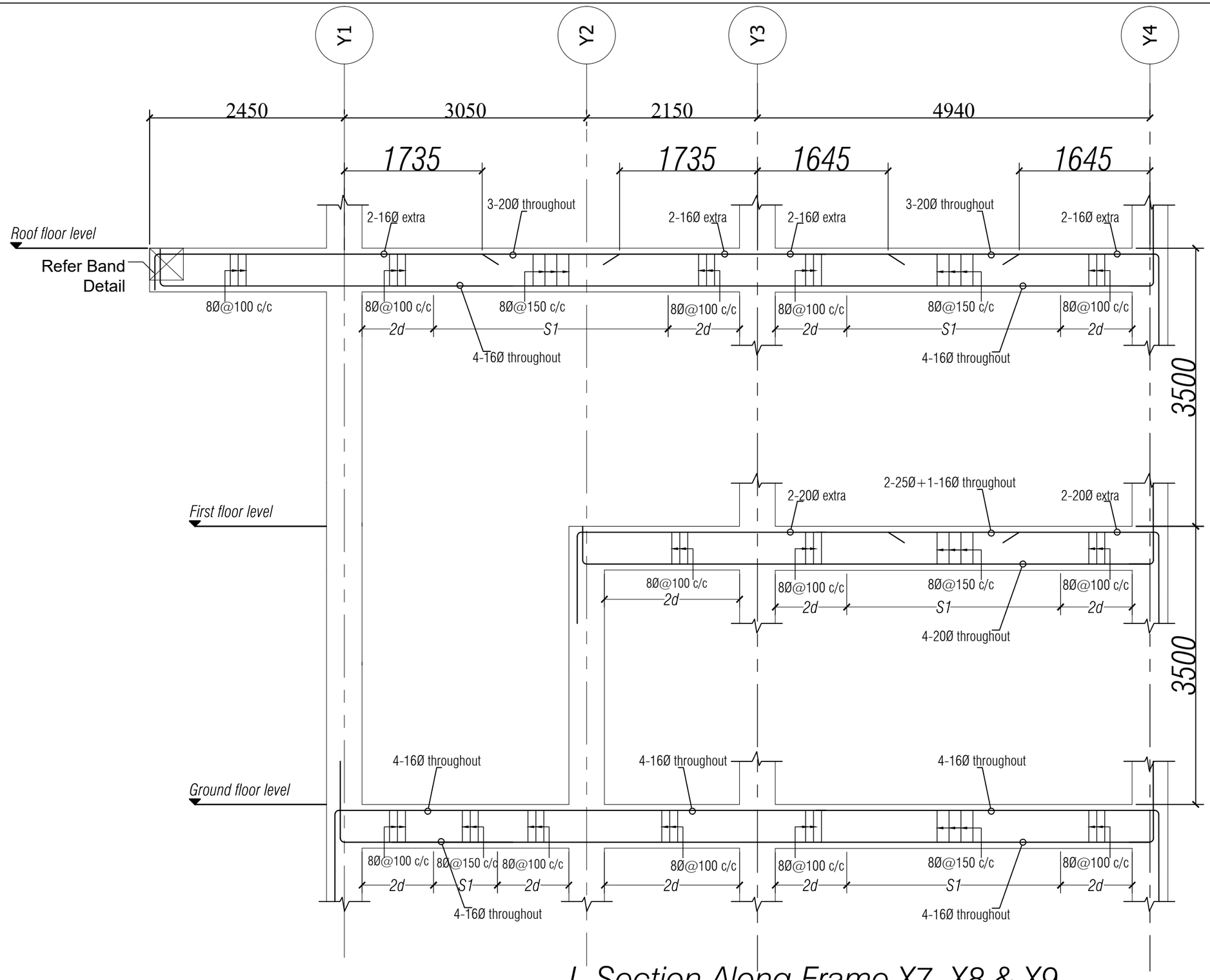
STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_19
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X4				Sep, 2026	SCALE NTS



L-Section Along Frame X10

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_20
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X10				Sep, 2026	SCALE NTS



L-Section Along Frame X7, X8 & X9

Khorlochhu

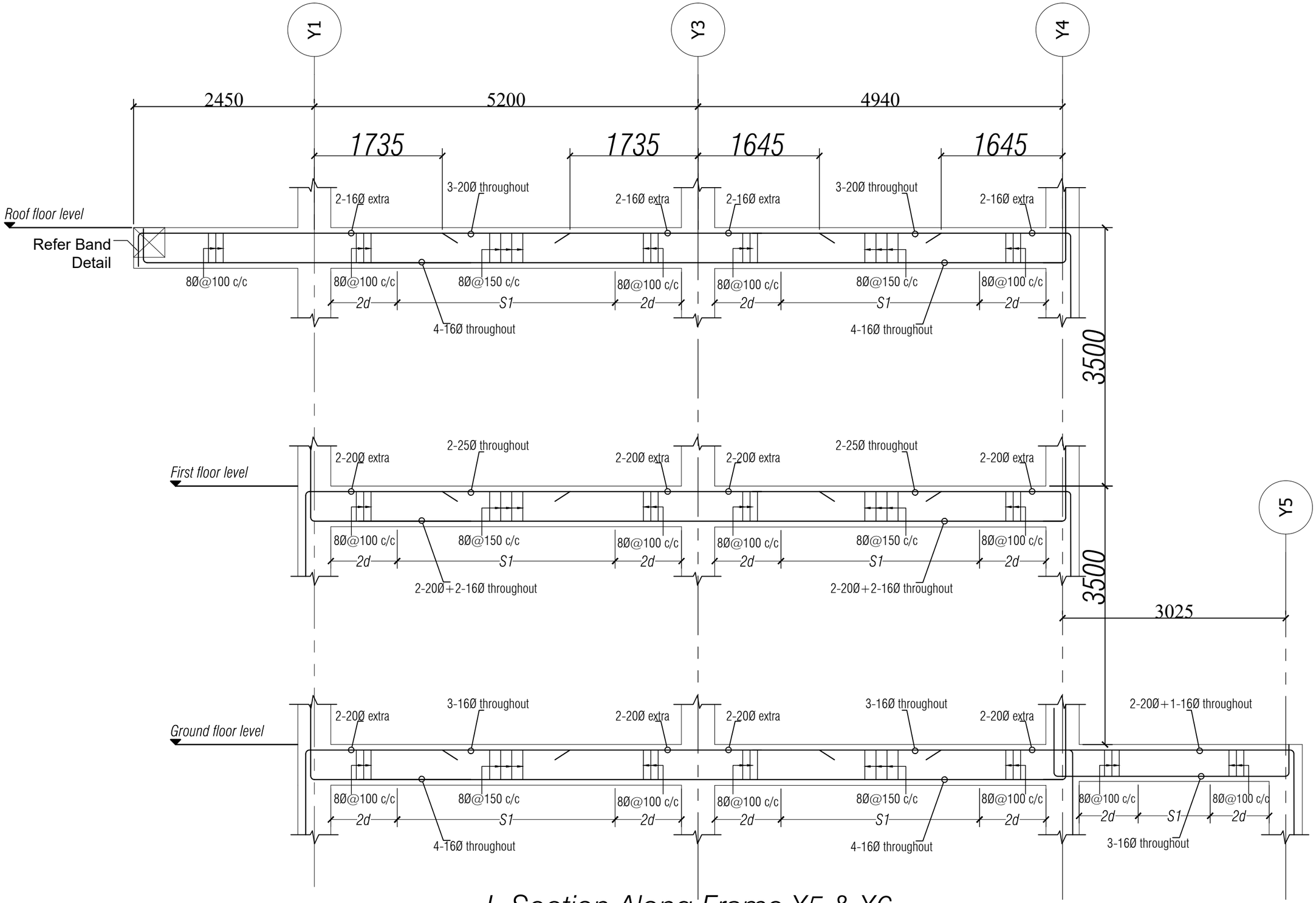
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X7,_X8_&_X9

NOTES

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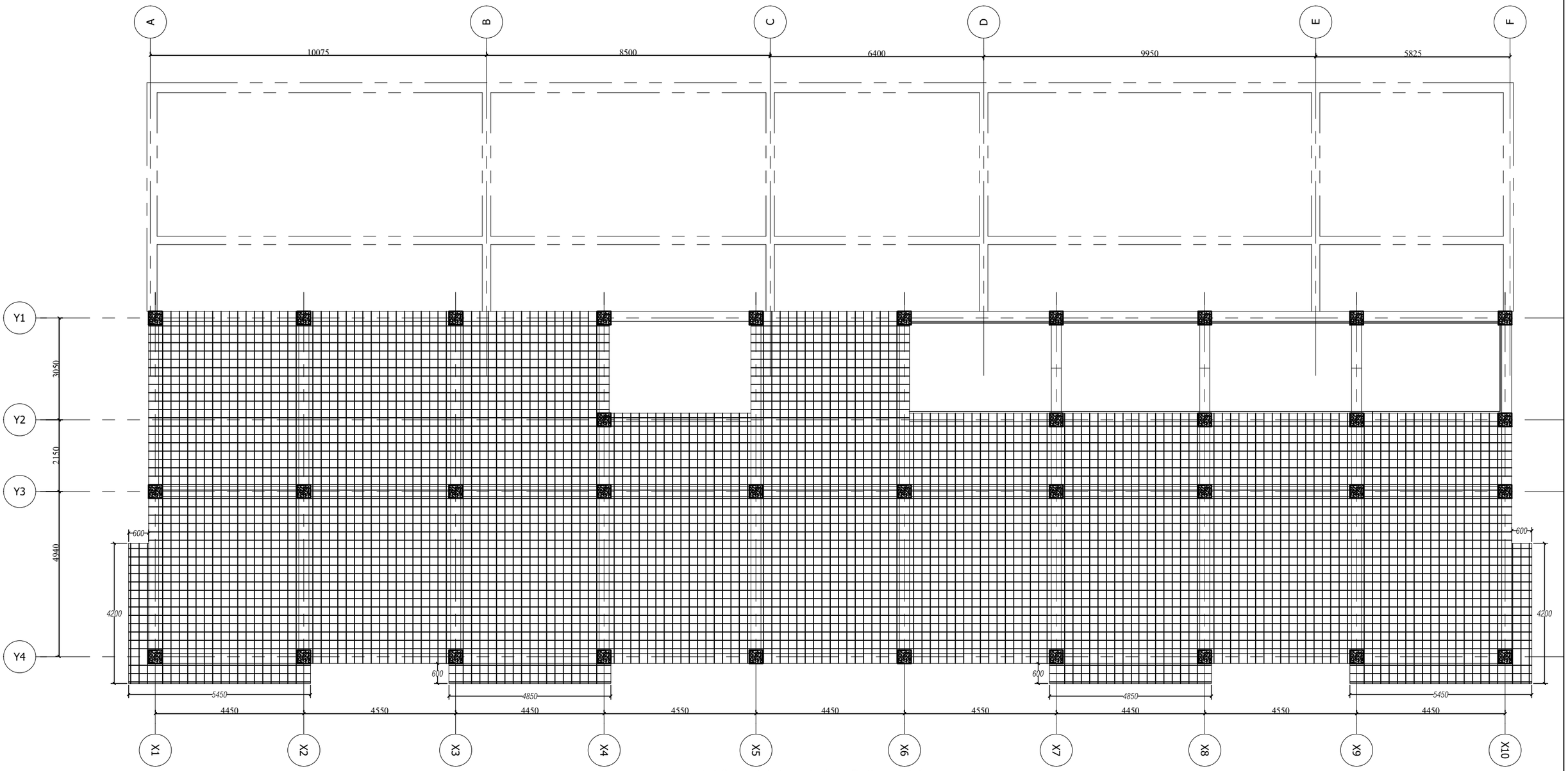
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_21
			SCALE
			NTS



L-Section Along Frame X5 & X6

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_22
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X5_&_X6				Sep, 2026	SCALE NTS



1st floor slab layout plan- Bottom reinforcement

Note: Projection of Slab to be read along with Architectural Drawing
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

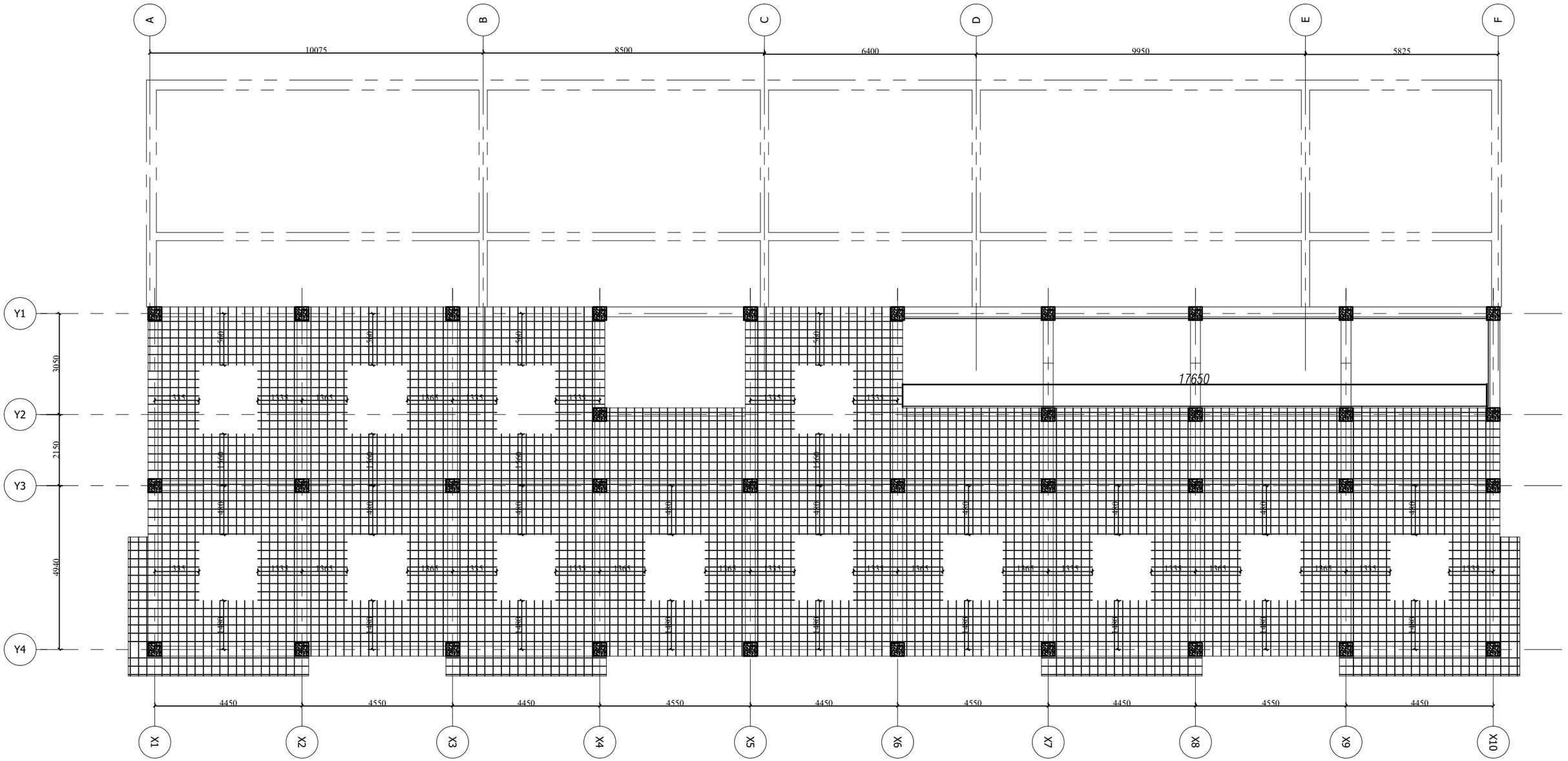
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_SLAB_LAYOUT_PLAN-BOTTOM_REINF

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_23
			SCALE
			NTS



1st floor slab layout plan- Top reinforcement

Note: Projection of Slab to be read along with Architectural Drawing
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

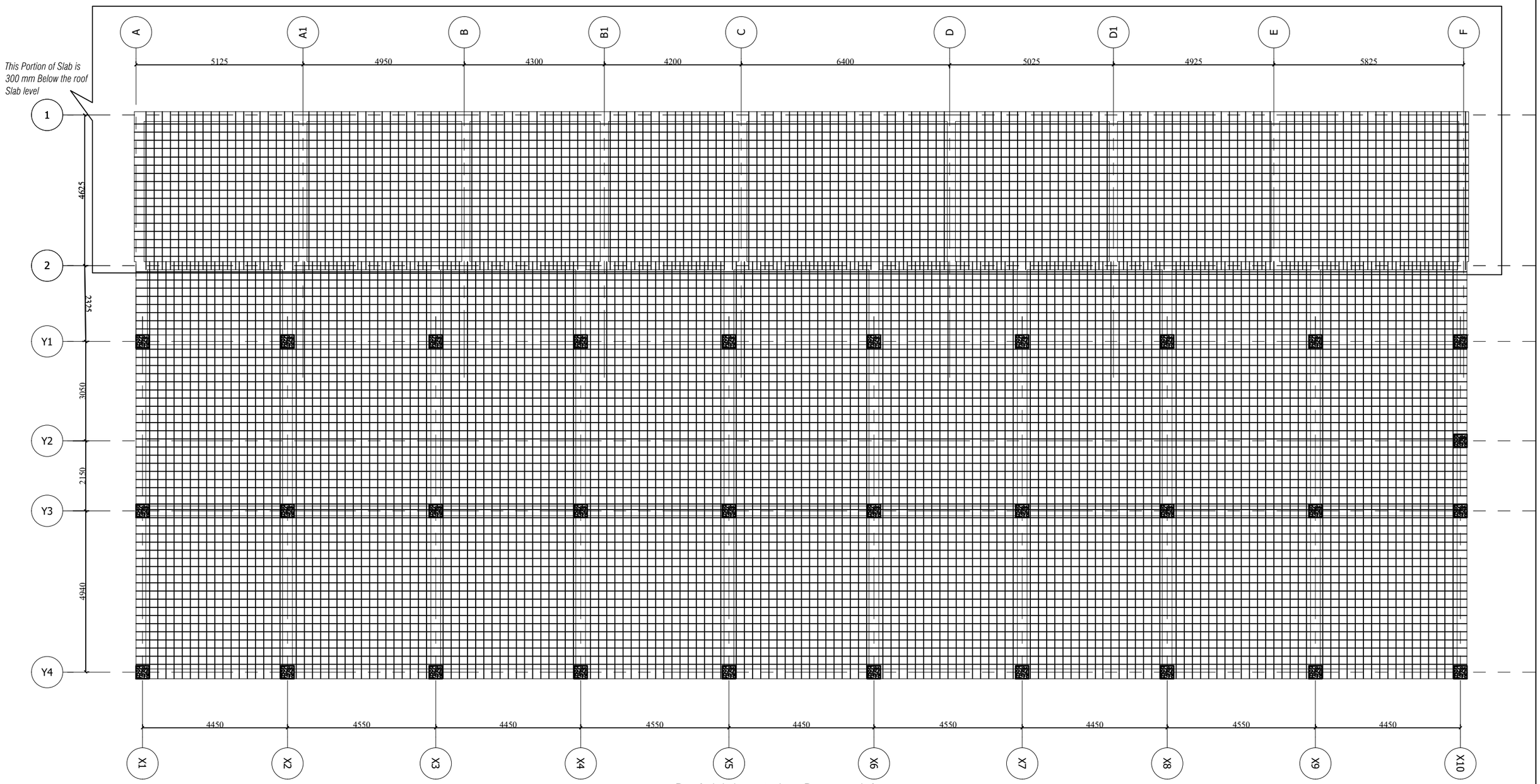
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_SLAB_LAYOUT_PLAN-TOP_REINF

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_24
			SCALE
			NTS



Roof slab layout plan- Bottom reinforcement

Note: Projection of Slab to be read along with Architectural Drawing
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

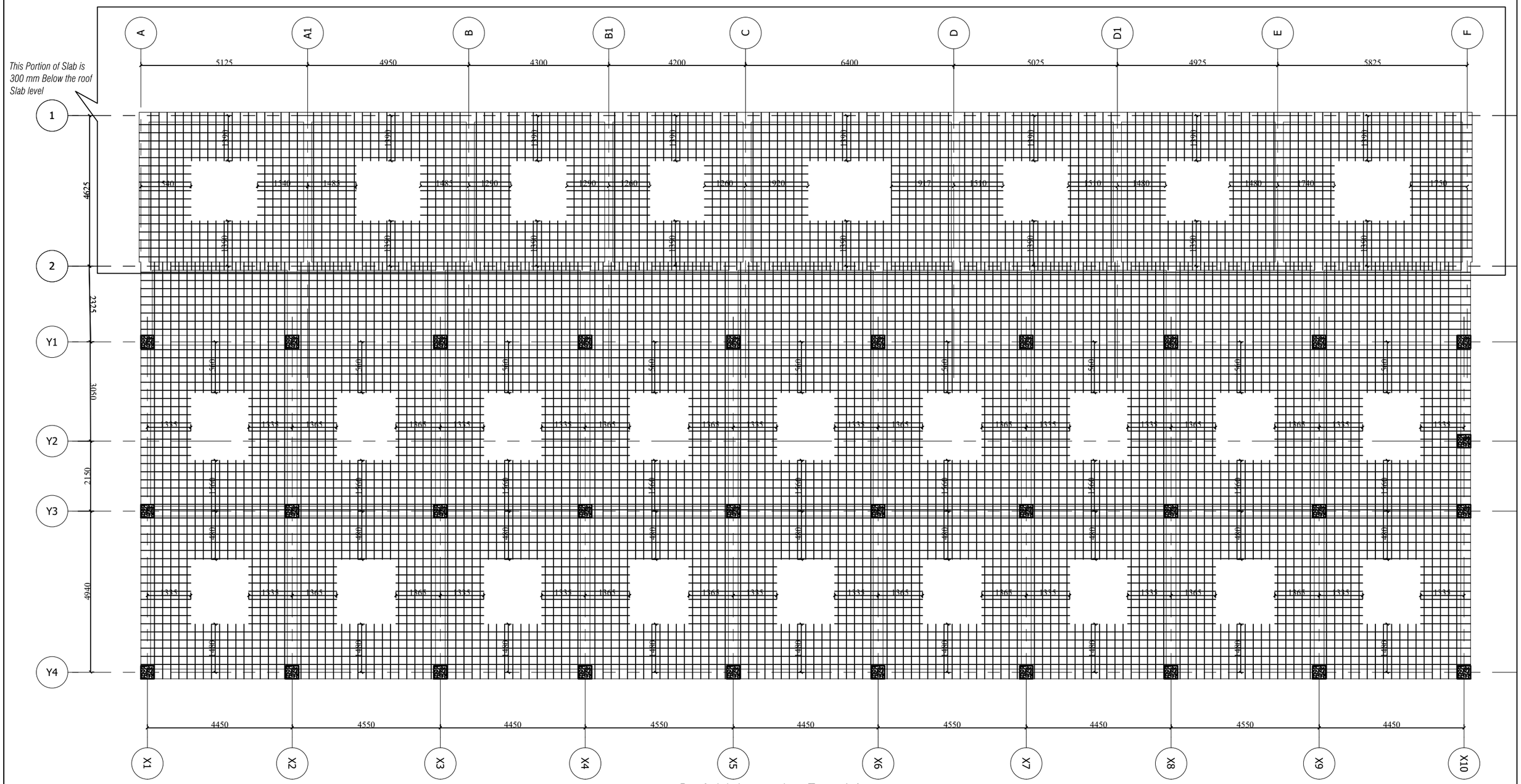
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_SLAB_LAYOUT_PLAN-BOTTOM_REINF

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_25
			SCALE
			NTS



Roof slab layout plan- Top reinforcement

Note: Projection of Slab to be read along with Architectural Drawing
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

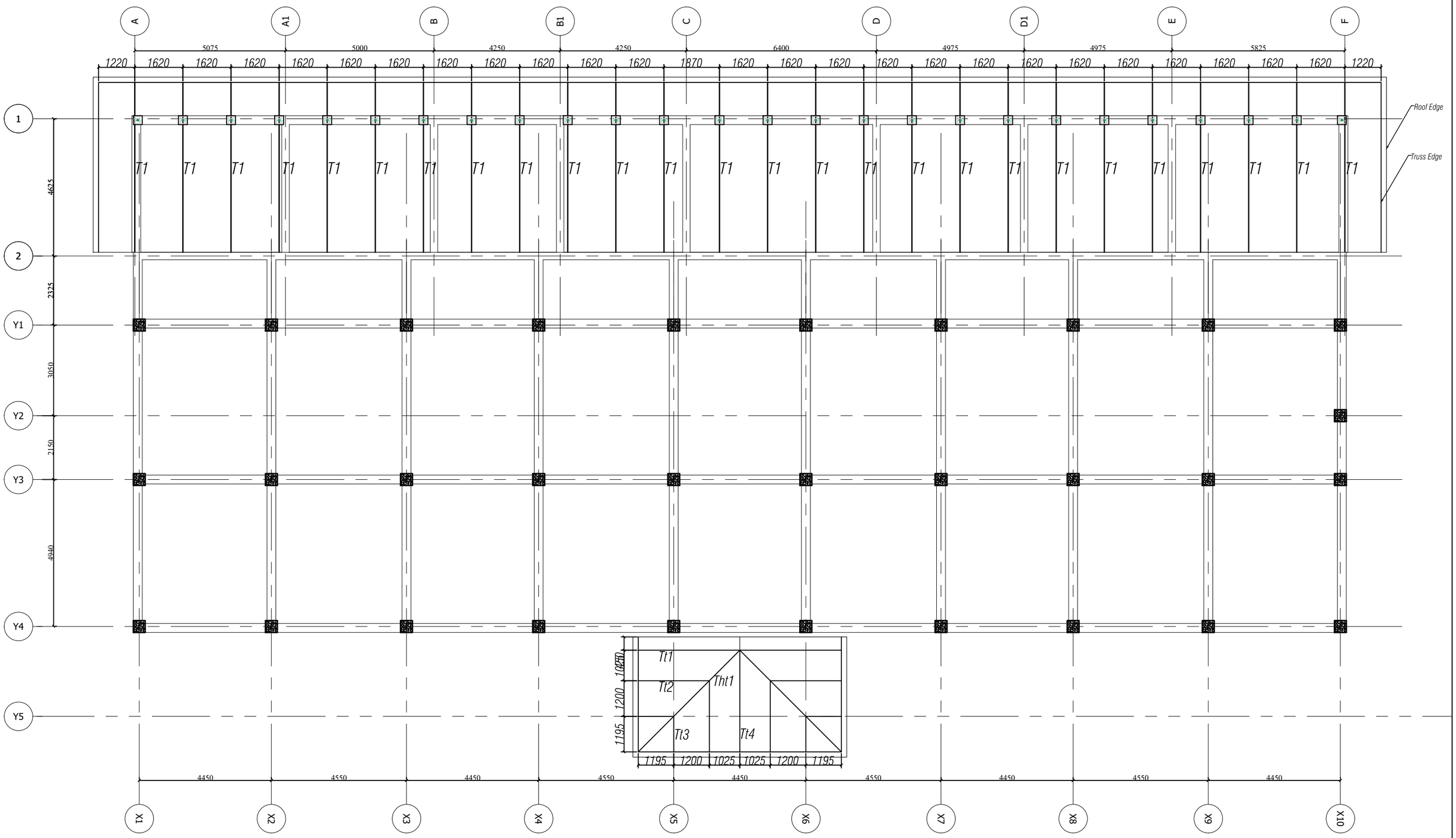
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_SLAB_LAYOUT_PLAN_TOP_REINF

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



Khorlochhu

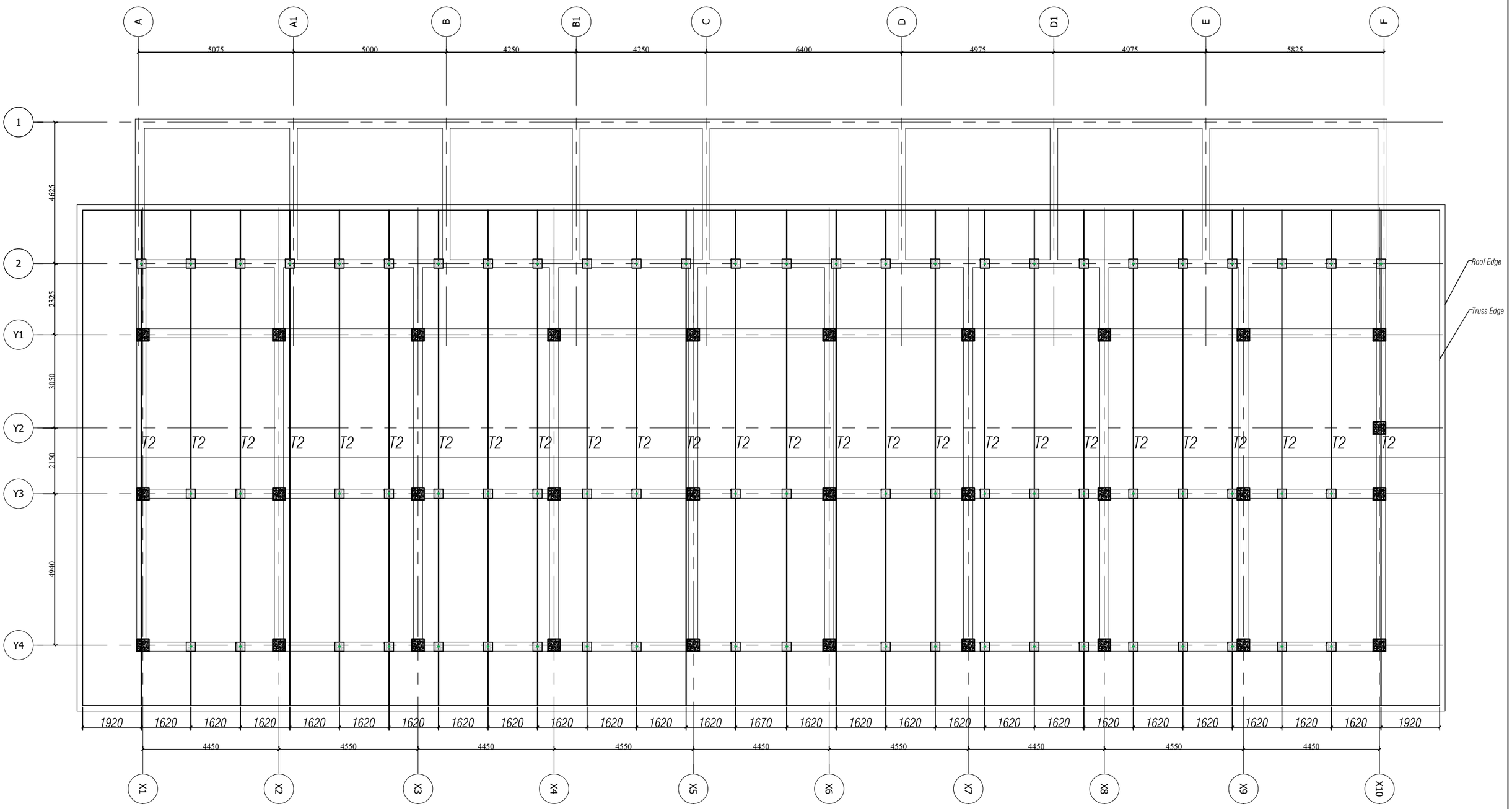
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LOWER_ROOF_TRUSS_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_27
			SCALE
			NTS



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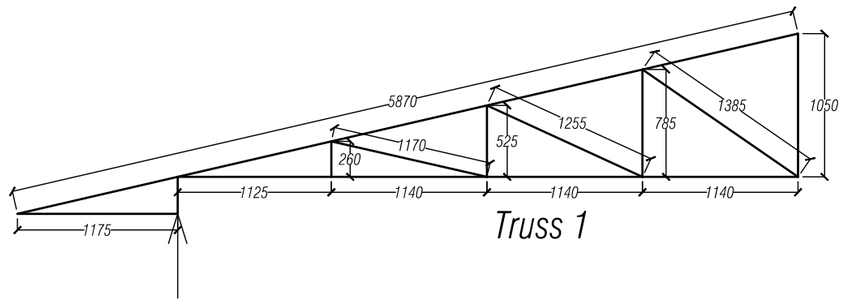
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LOWER_ROOF_TRUSS_LAYOUT

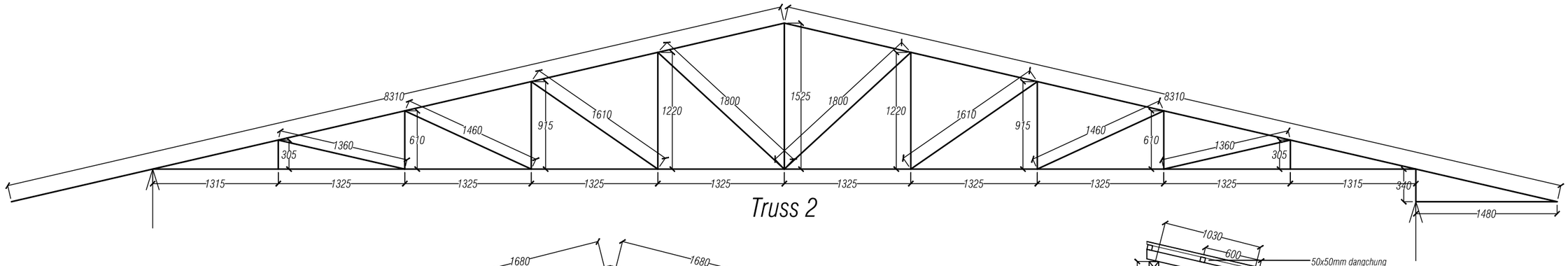
NOTES

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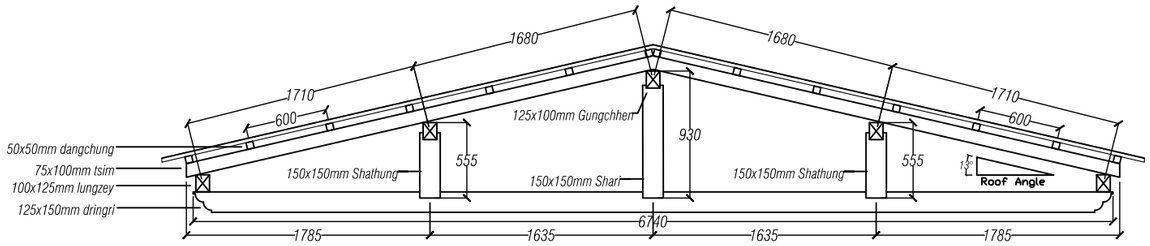
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		Sep, 2026	STR_28
			SCALE
			NTS



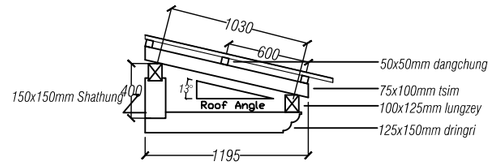
Truss 1



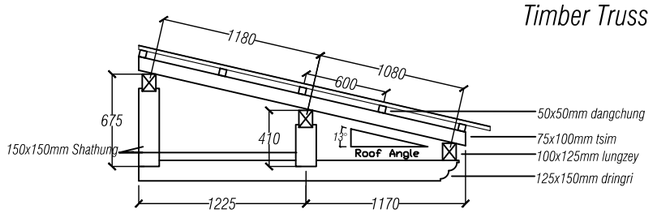
Truss 2



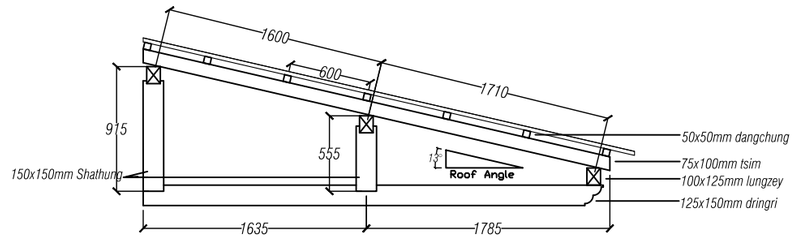
Timber Truss (Tt1)



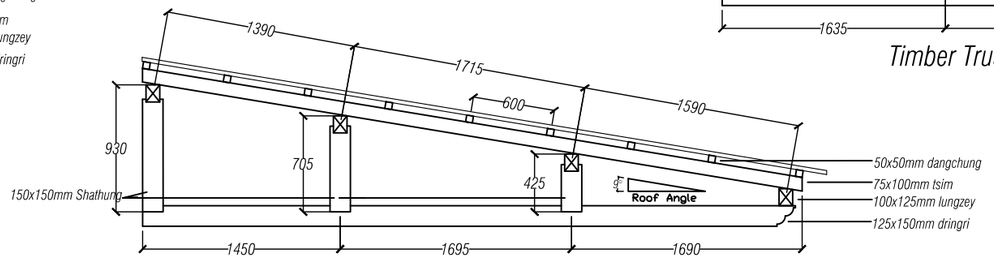
Timber Truss (Tt3)



Timber Truss (Tt2)



Timber Truss (Tt4)



Timber Truss (Tht1)

Khorlochhu

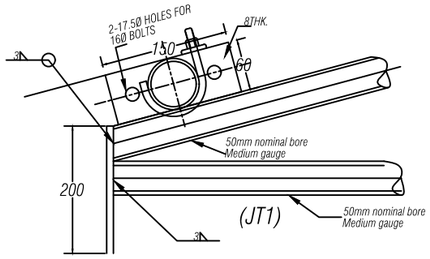
STRUCTURAL DRAWING

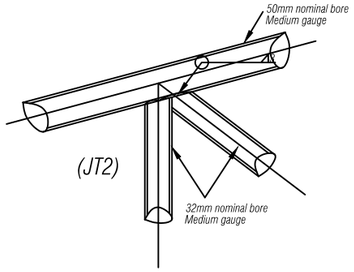
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_DETAILS

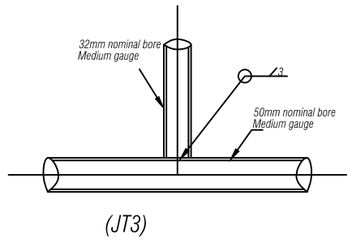
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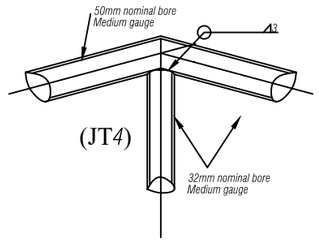
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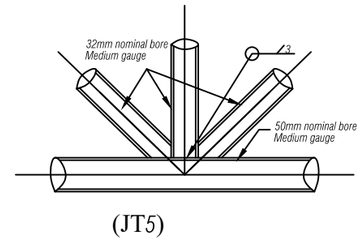
CHECKED	APPROVED	DATE	DRAWING NO.
			STR_29
		Sep, 2026	SCALE
			NTS

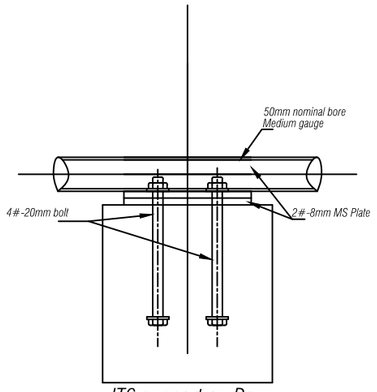




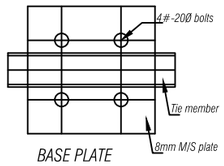




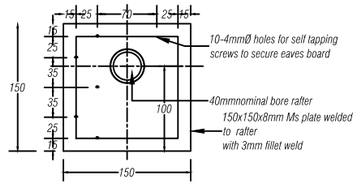




JT6 support on Beam

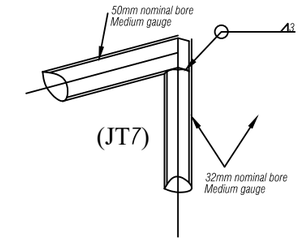


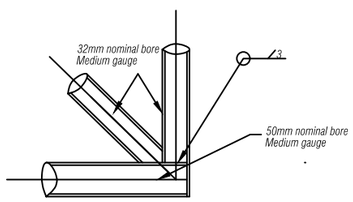
BASE PLATE



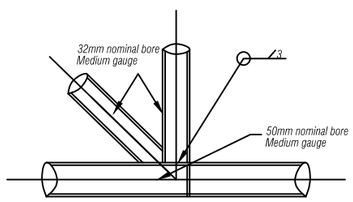
EAVES PLATE detail

NOTES:
Tubular steel of YST22 grade to be used.
All connections to be with fillet weld of 3mm size
Purlin 32mm nominal bore, medium gauge @1200c/c





(JT8)



(JT9)

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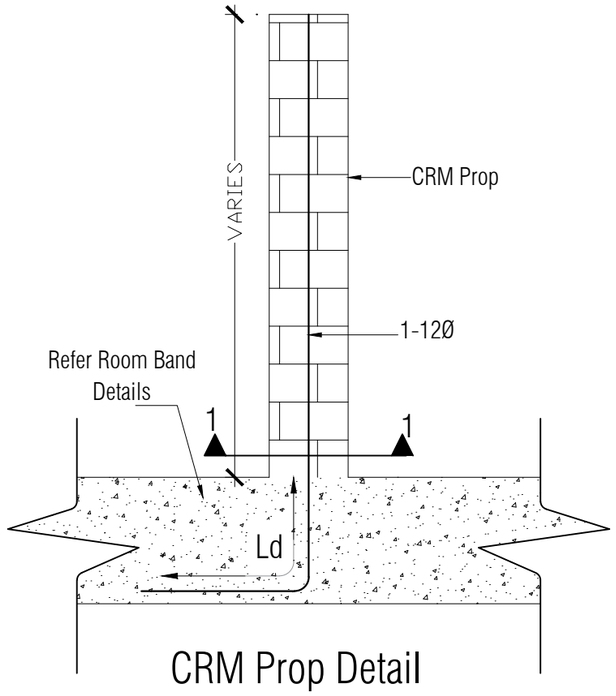
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_DETAILS

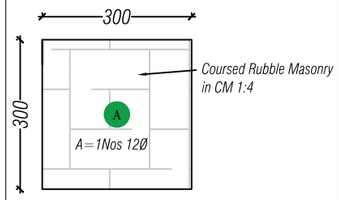
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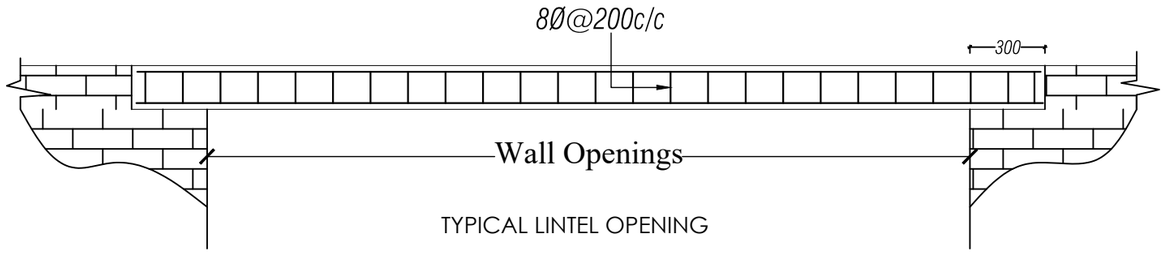
1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_30
			SCALE
			NTS

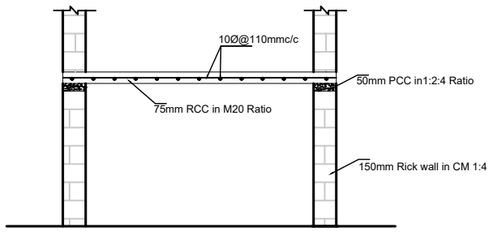


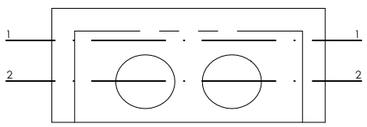
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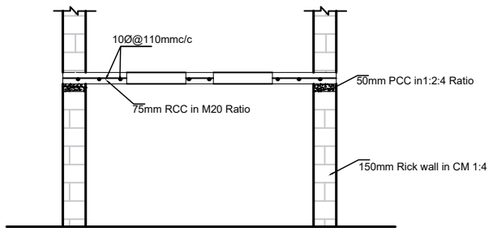


TYPICAL LINTEL OPENING

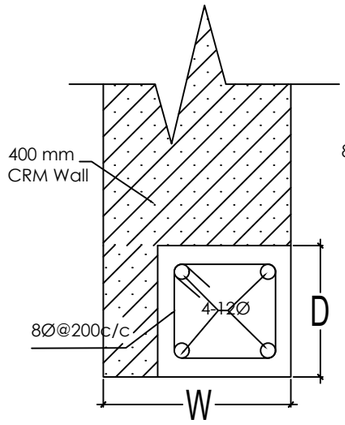


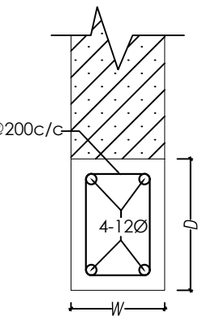


NOTES:
Grade of Steel - TMT500 bars
Grade of Concrete - M20
Clear cover to steel - 25mm (minimum)
Dimension of cut out varies as per the size of the basin



Countertop Slab Details





OPENING WITHIN
INTERNAL WALL

NOTE :

1. Depth (D) of Lintels is to be taken as shown in Architectural drawings, especially for main windows and should be taken as 150mm for all other Lintels.
2. Width (W) of Lintels is to be taken equal to the wall thickness.

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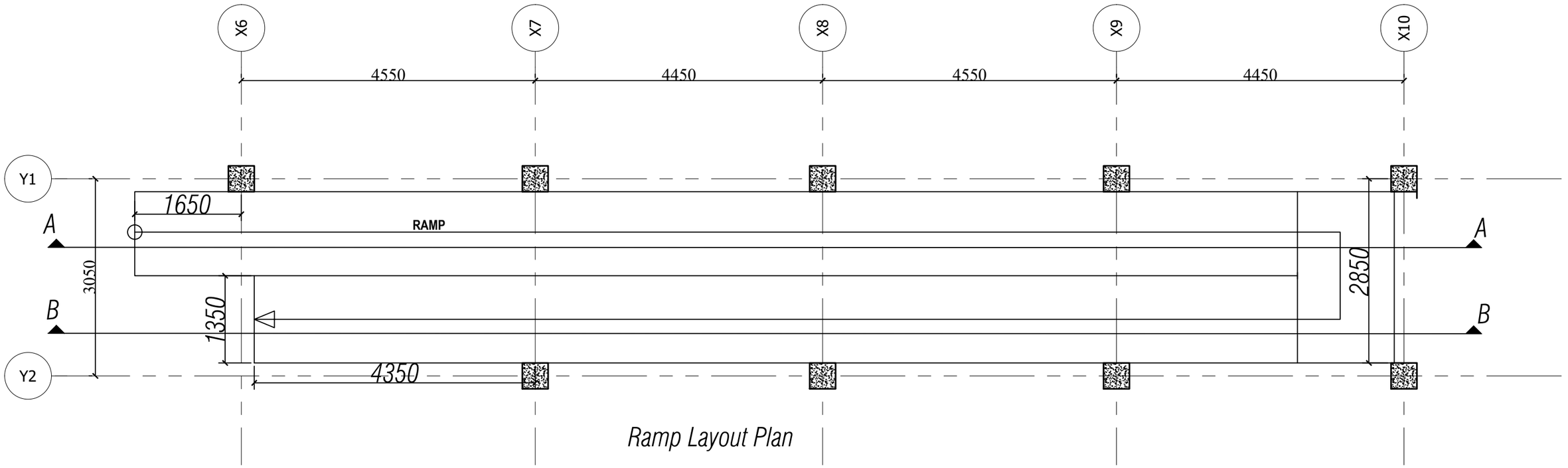
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DETAILS

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_31
			SCALE
			NTS



Ramp Layout Plan

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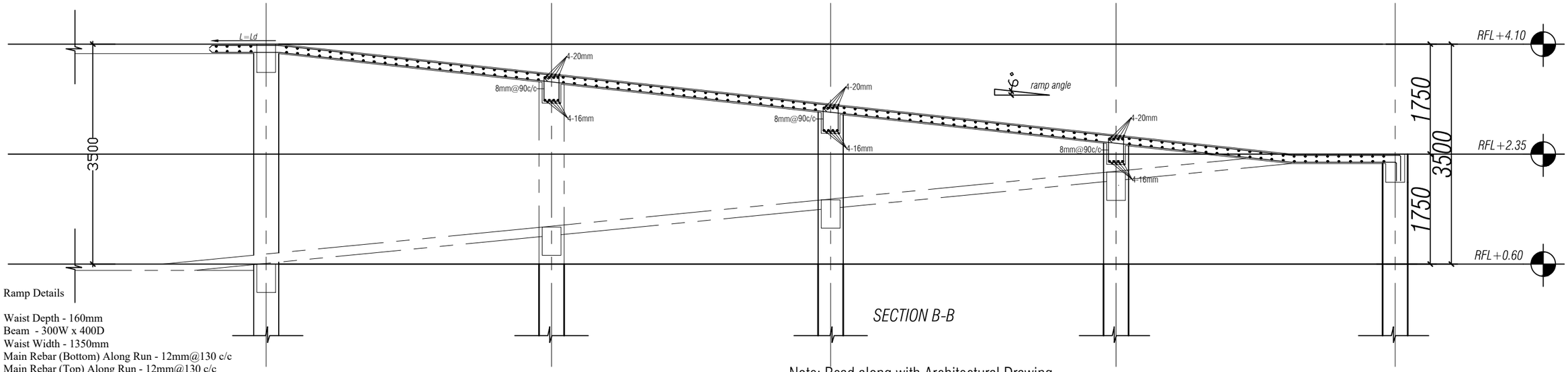
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	RAMP_LAYOUT_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS

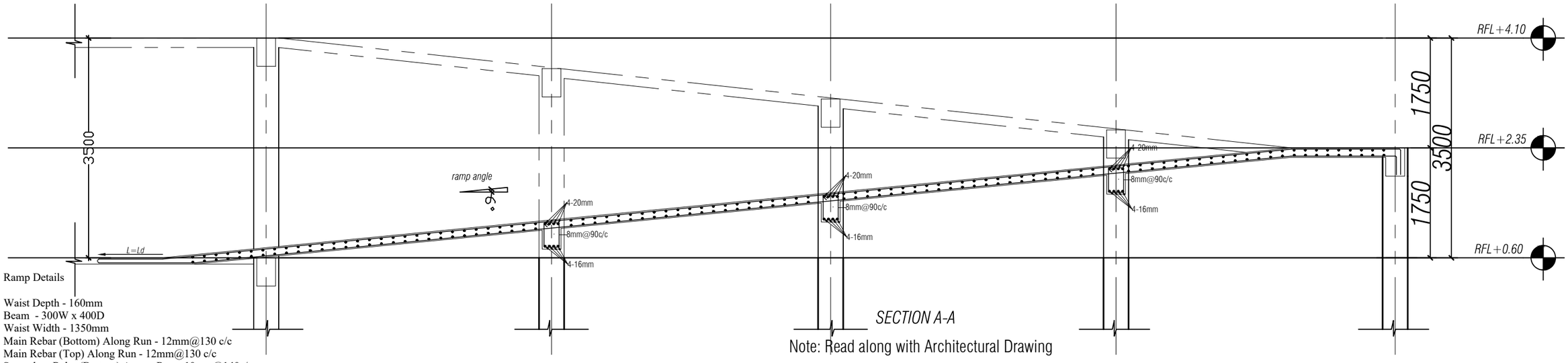


SECTION B-B

Ramp Details

Waist Depth - 160mm
Beam - 300W x 400D
Waist Width - 1350mm
Main Rebar (Bottom) Along Run - 12mm@130 c/c
Main Rebar (Top) Along Run - 12mm@130 c/c
Secondary Rebar(Bottom) Across Run - 10mm@140c/c
Secondary Rebar(Top) Across Run - 10mm@140c/c

Note: Read along with Architectural Drawing



SECTION A-A

Ramp Details

Waist Depth - 160mm
Beam - 300W x 400D
Waist Width - 1350mm
Main Rebar (Bottom) Along Run - 12mm@130 c/c
Main Rebar (Top) Along Run - 12mm@130 c/c
Secondary Rebar(Bottom) Across Run - 10mm@140c/c
Secondary Rebar(Top) Across Run - 10mm@140c/c

Note: Read along with Architectural Drawing

Khorlochhu

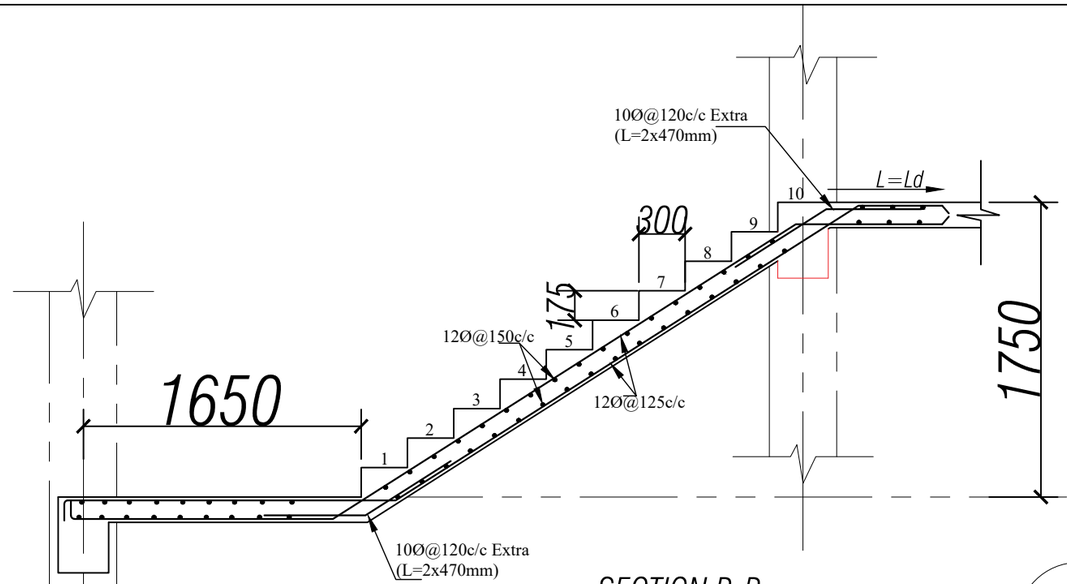
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	RAMP_LAYOUT_PLAN

NOTES

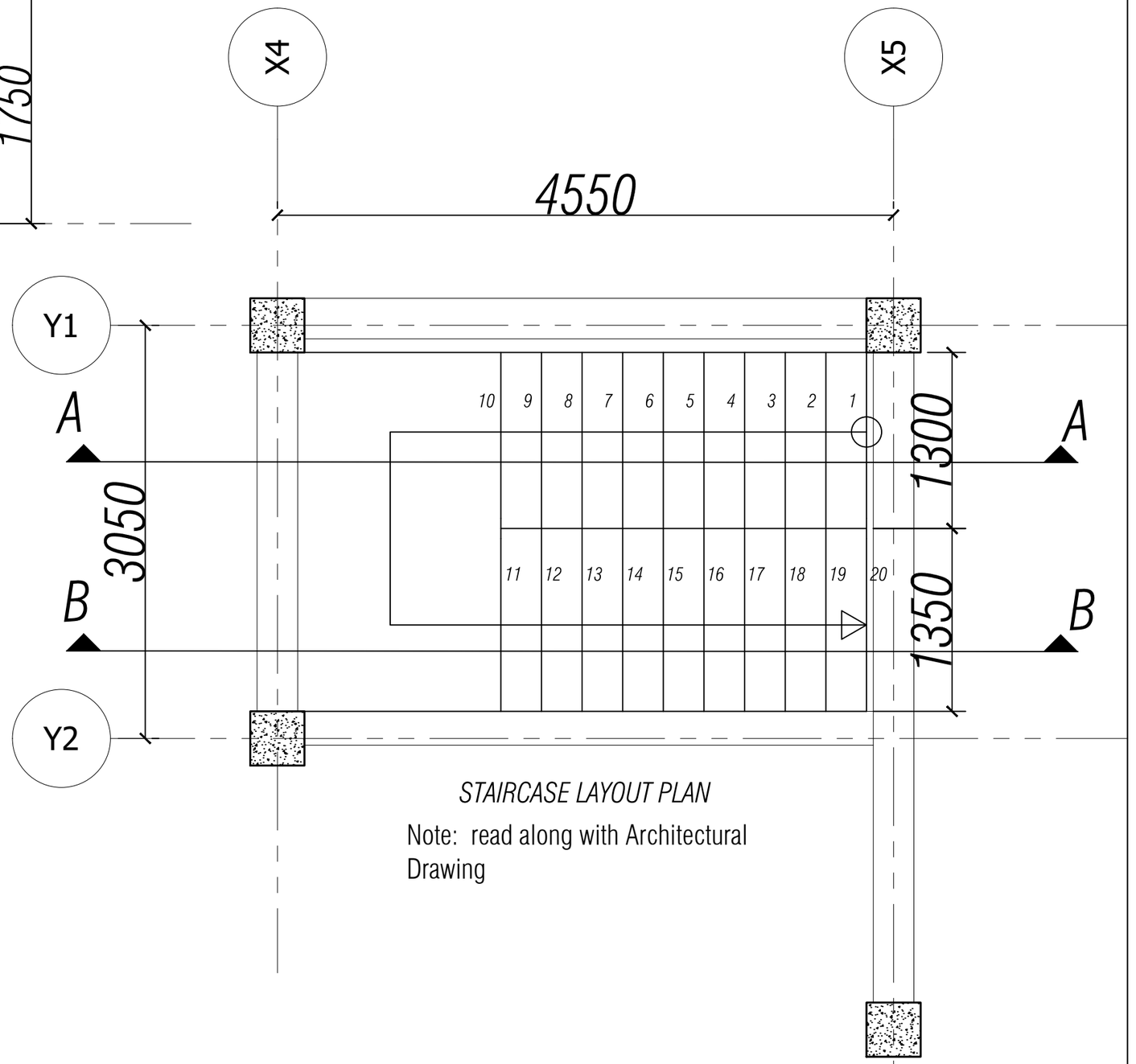
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_33
			SCALE
			NTS



SECTION B-B

SECTION A-A



STAIRCASE LAYOUT PLAN

Note: read along with Architectural Drawing

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STAIRCASE_PLAN_WITH_DETAILS

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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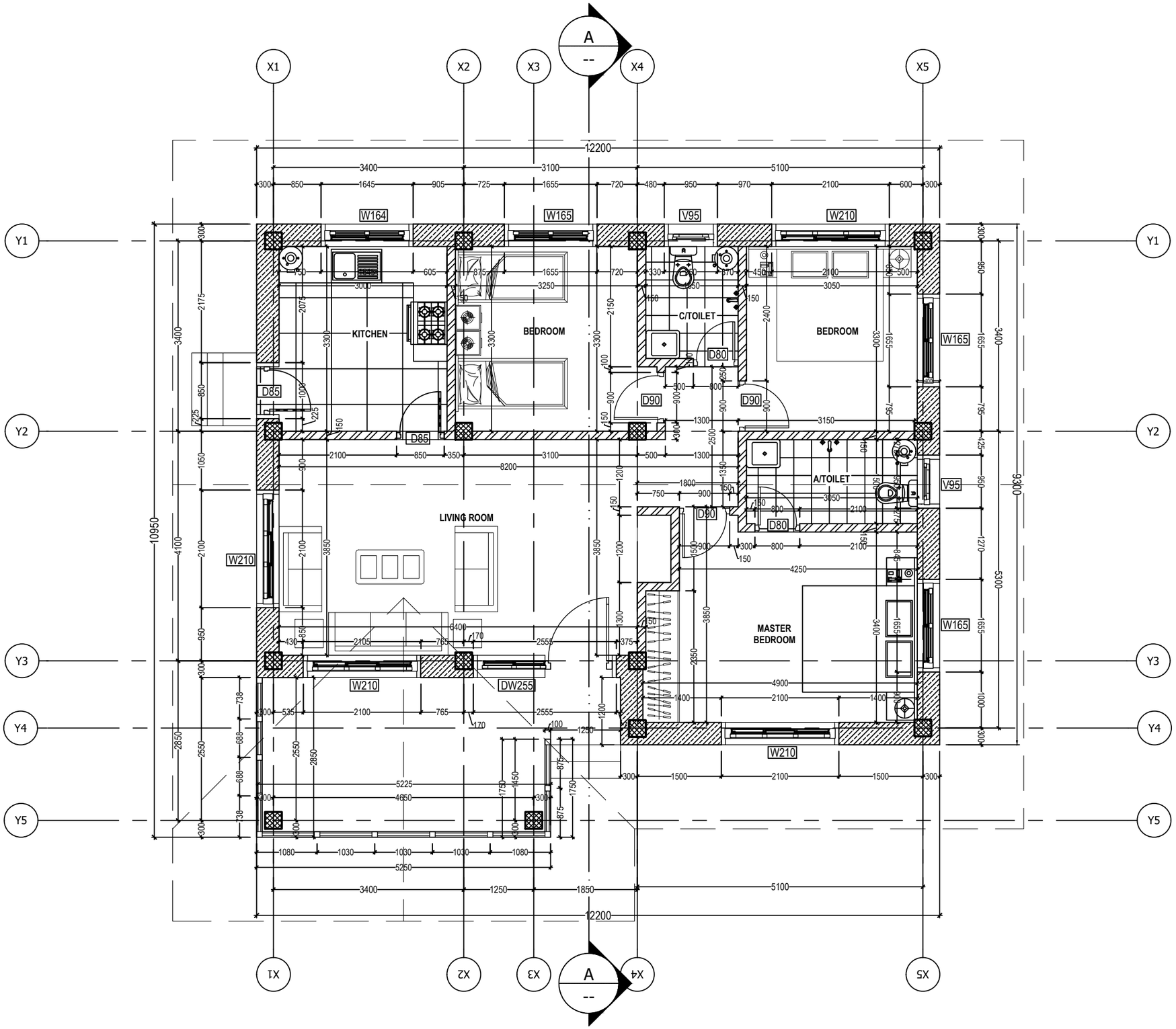
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_34
			SCALE
			NTS

ARCHITECTURE DRAWINGS

DOCTOR'S RESIDENCE

Owner - KHPL
Location - TRASHIYANGTSE

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ARCHITECTURAL DRAWING

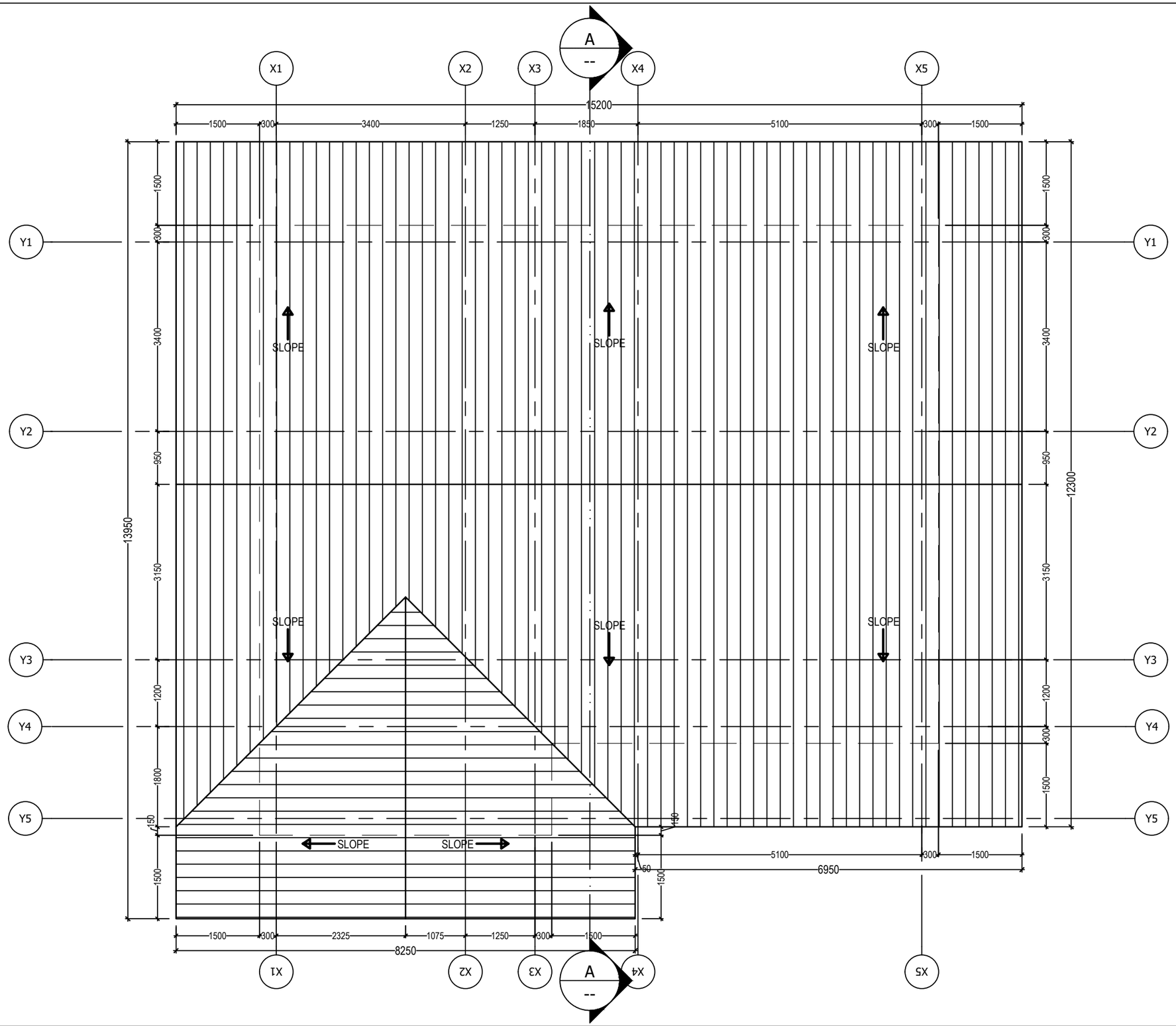
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	GROUND_FLOOR_PLAN

NOTES

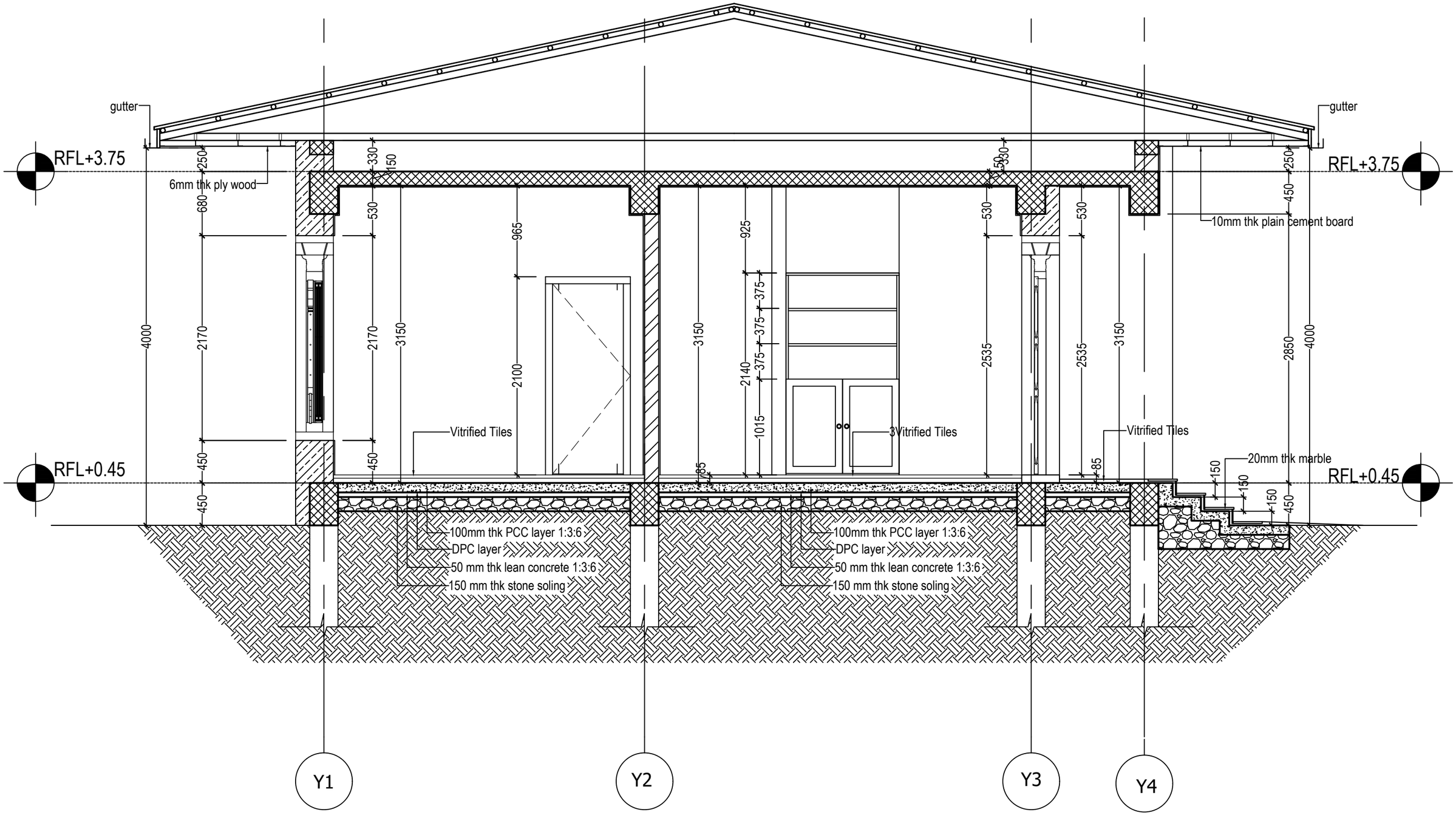
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_01
			SCALE
			NTS

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Khorlochhu	**ARCHITECTURAL DRAWING**		**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE	**DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026 / AR_02
	Construction of BHU Building and Auxiliary Work	ROOF_PLAN				**SCALE** / NTS



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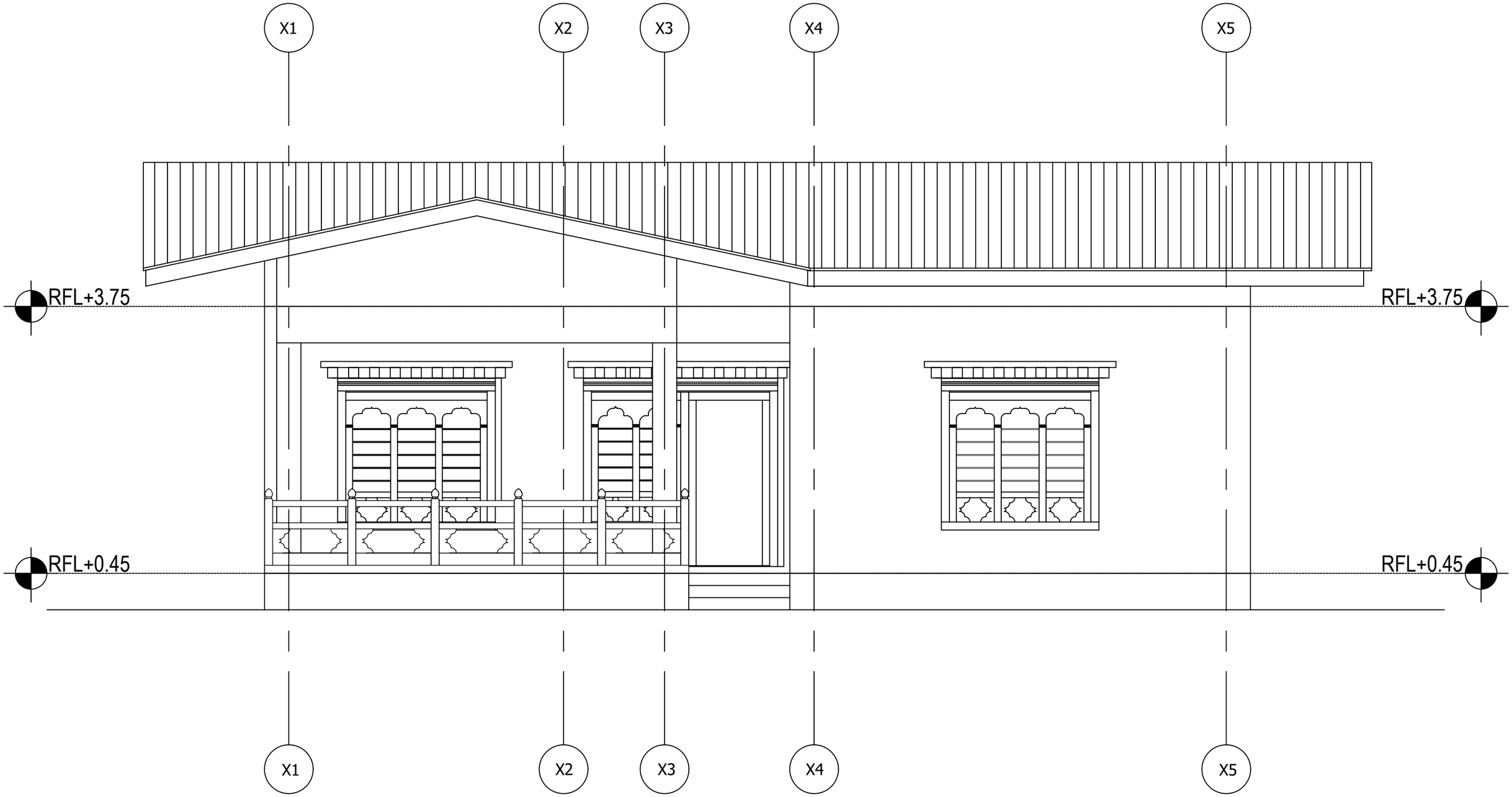
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_A-A

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



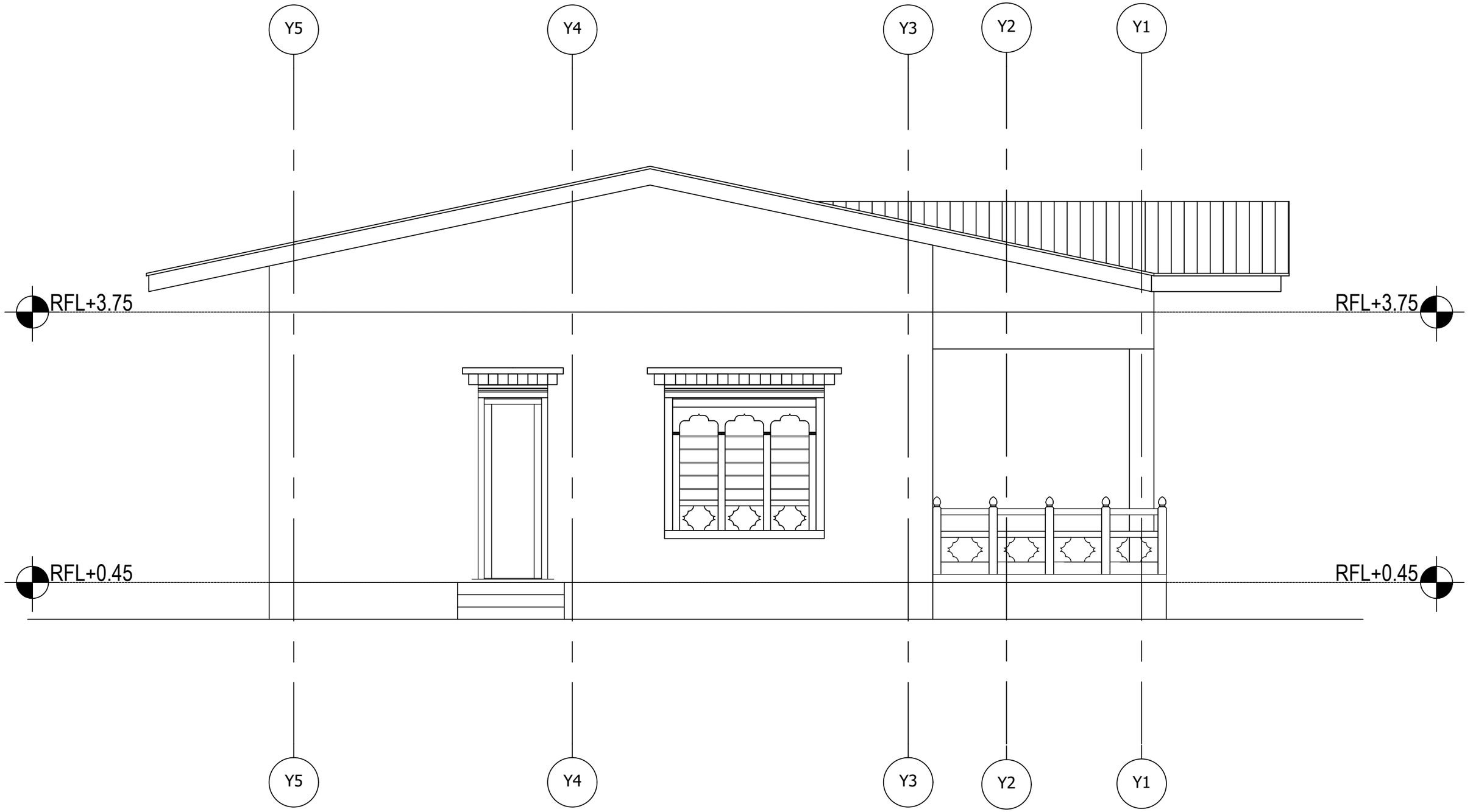
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_A

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			NTS



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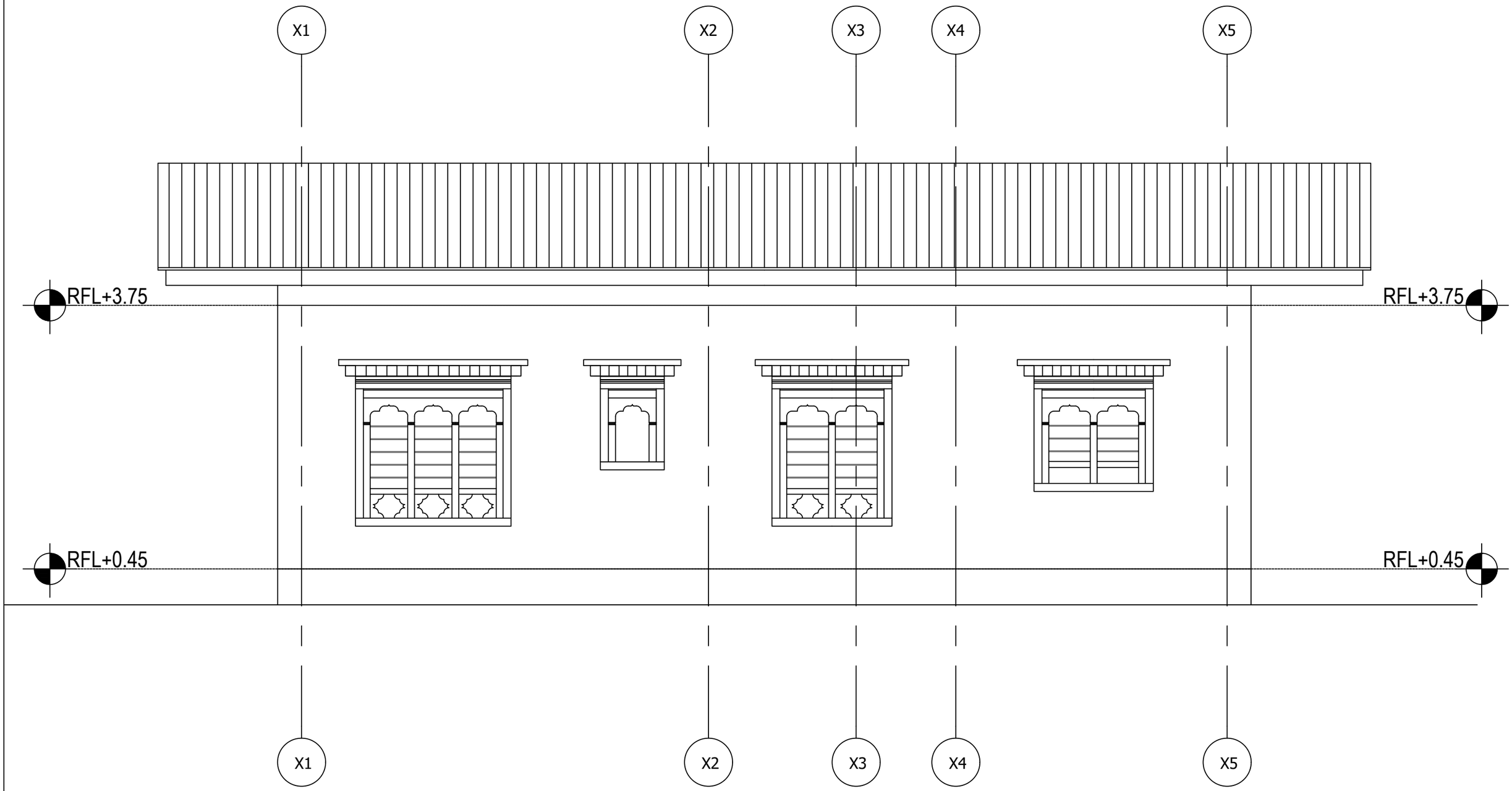
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_B

NOTES

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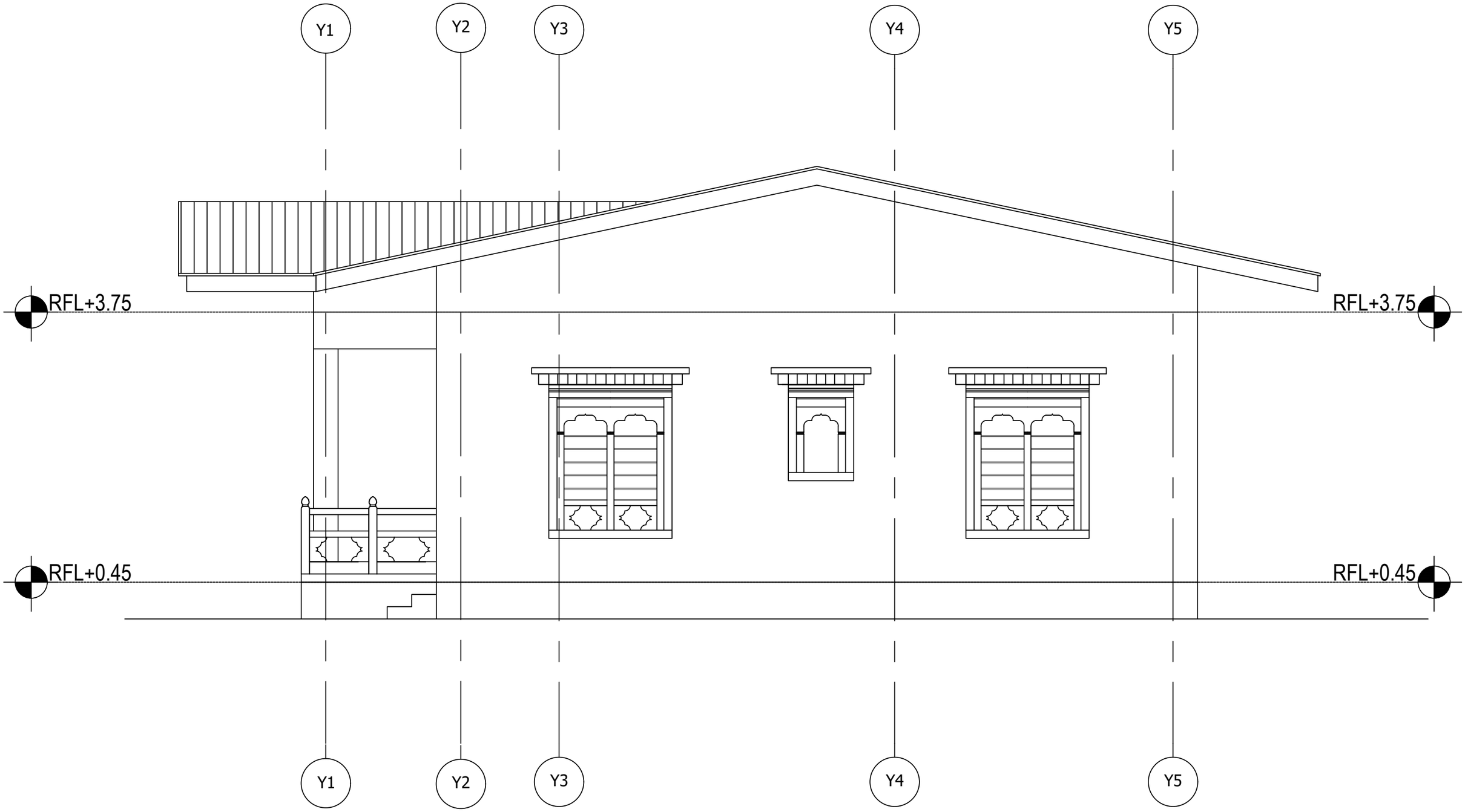
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PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_C

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CHECKED	APPROVED	DATE	DRAWING NO.
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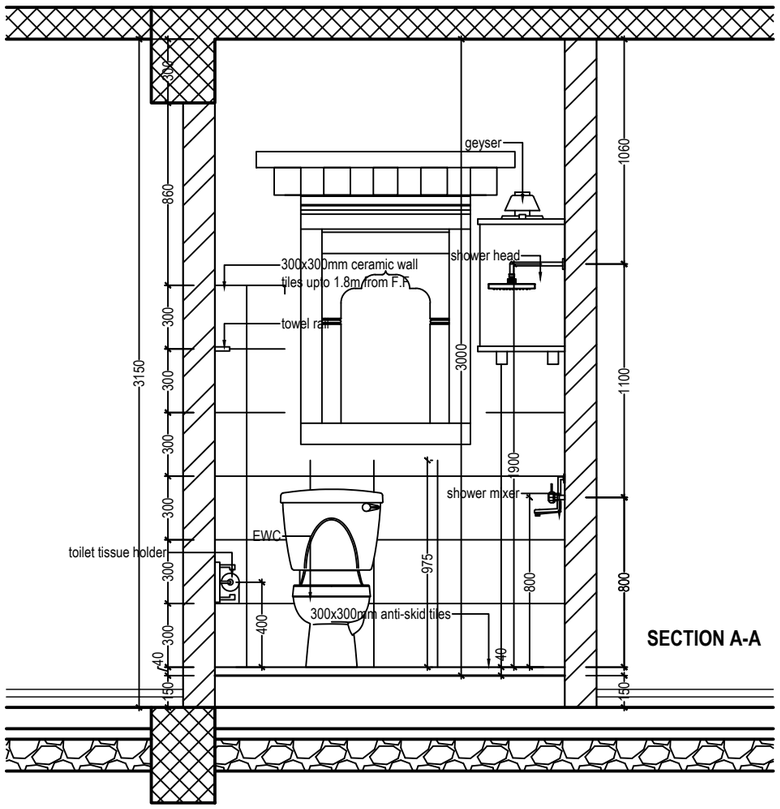
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PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_D

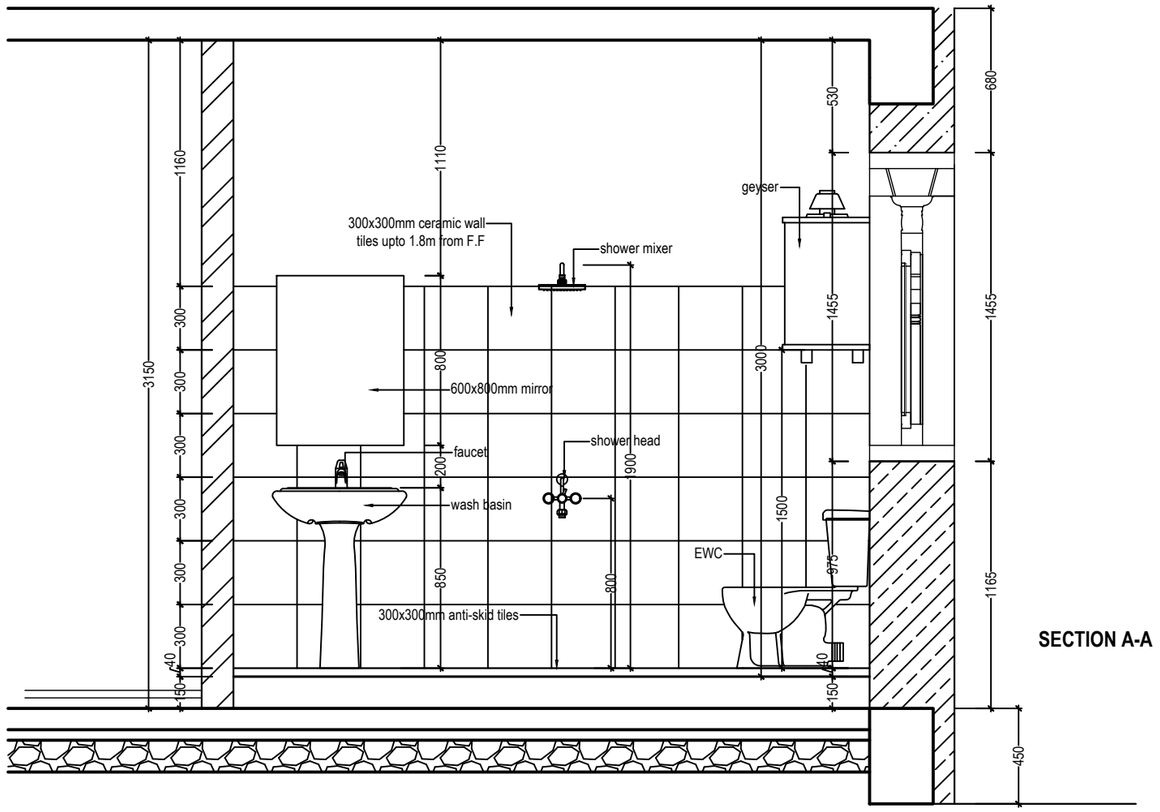
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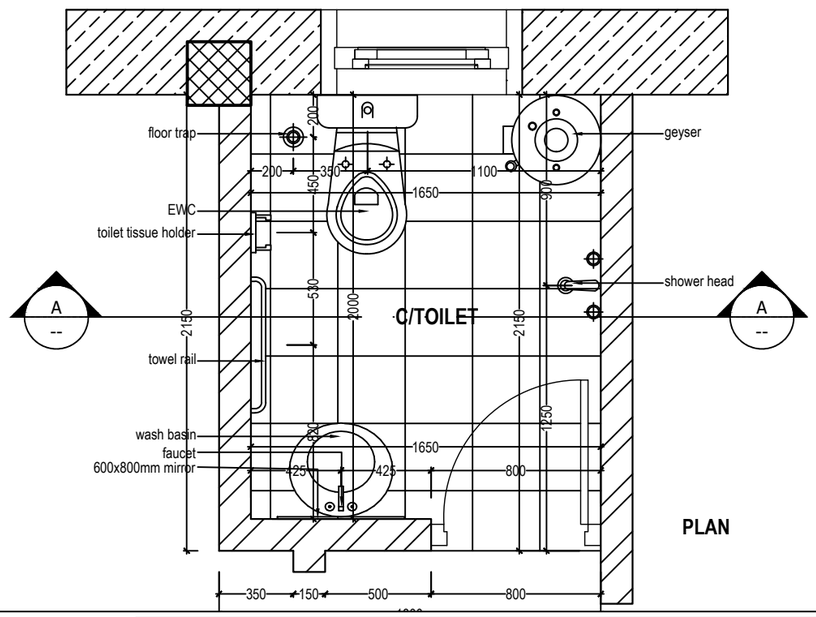
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			SCALE
			NTS



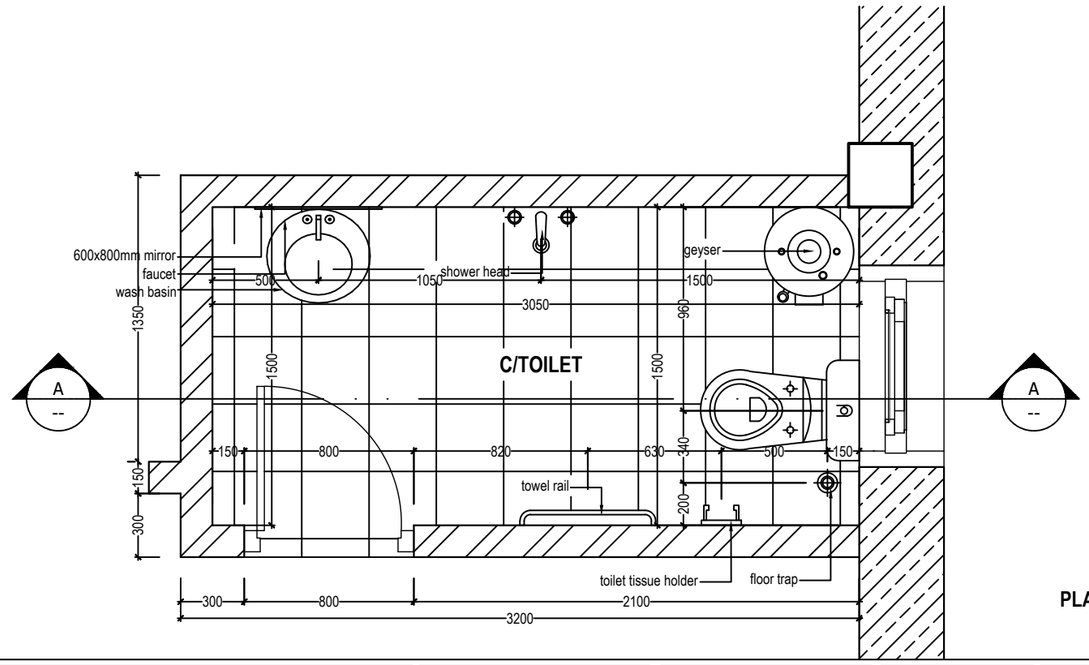
SECTION A-A



SECTION A-A



PLAN



PLAN

Khorlochhu

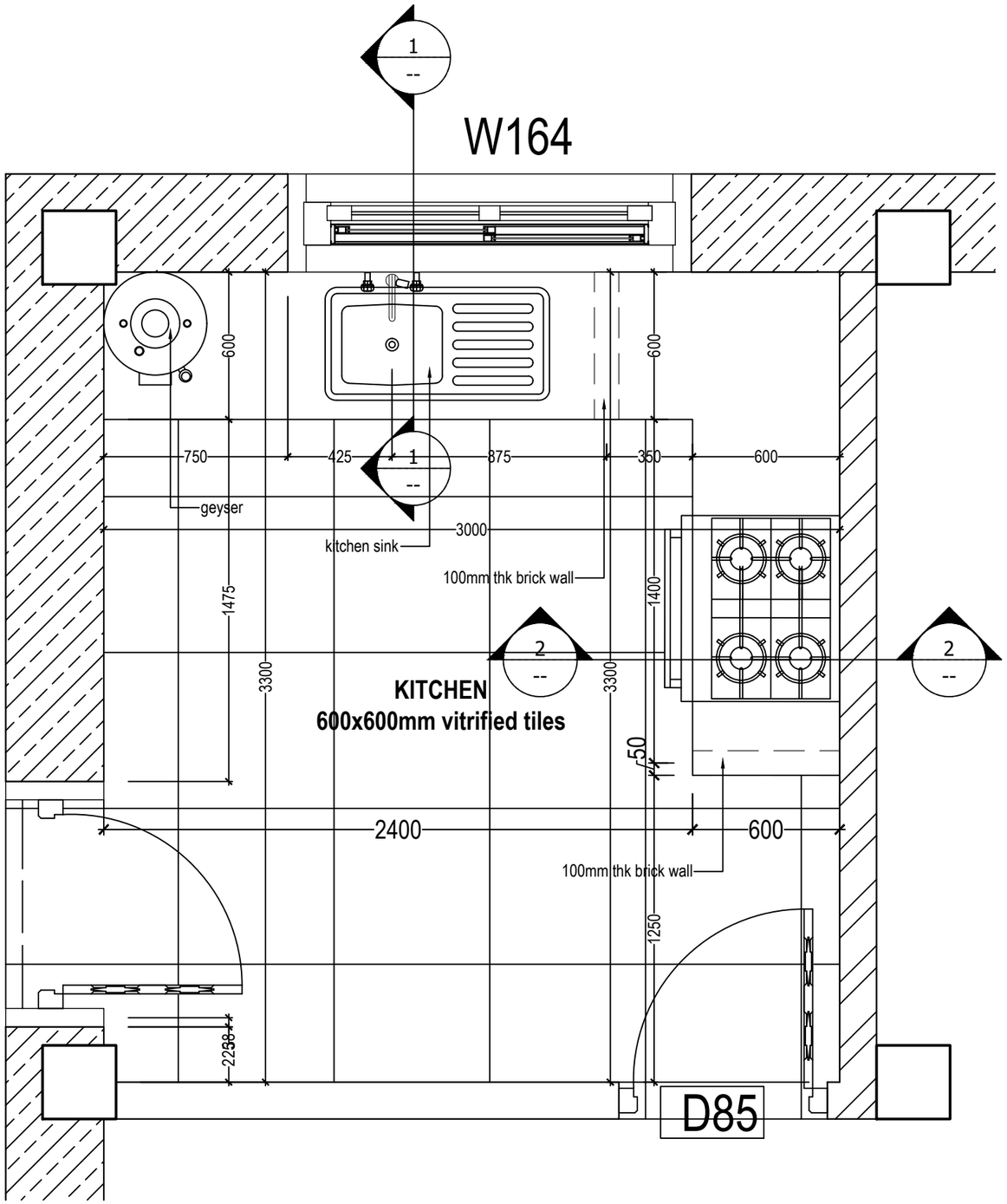
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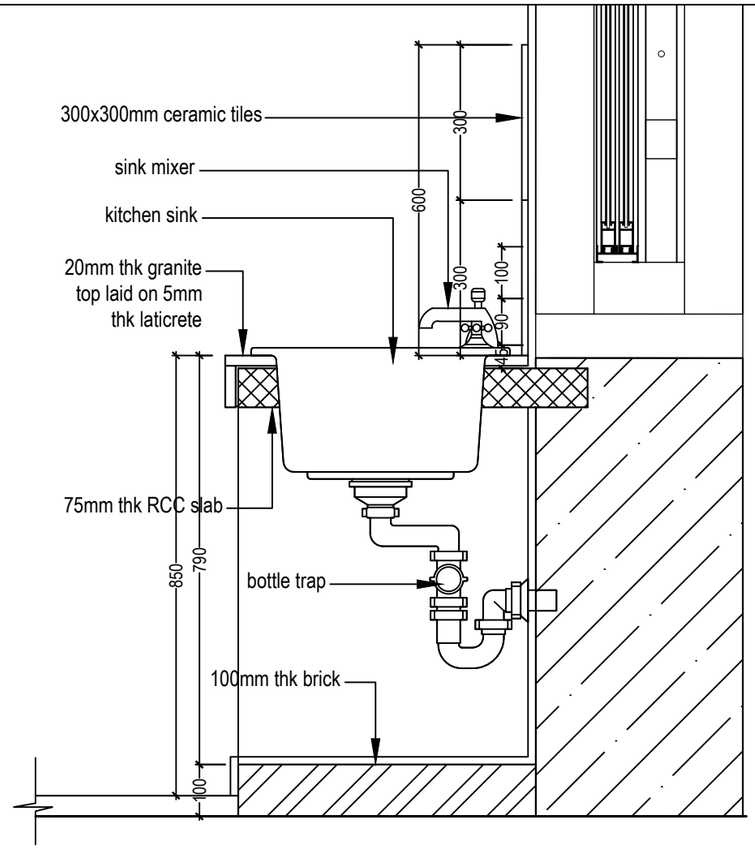
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TOILET_DETAILS

NOTES

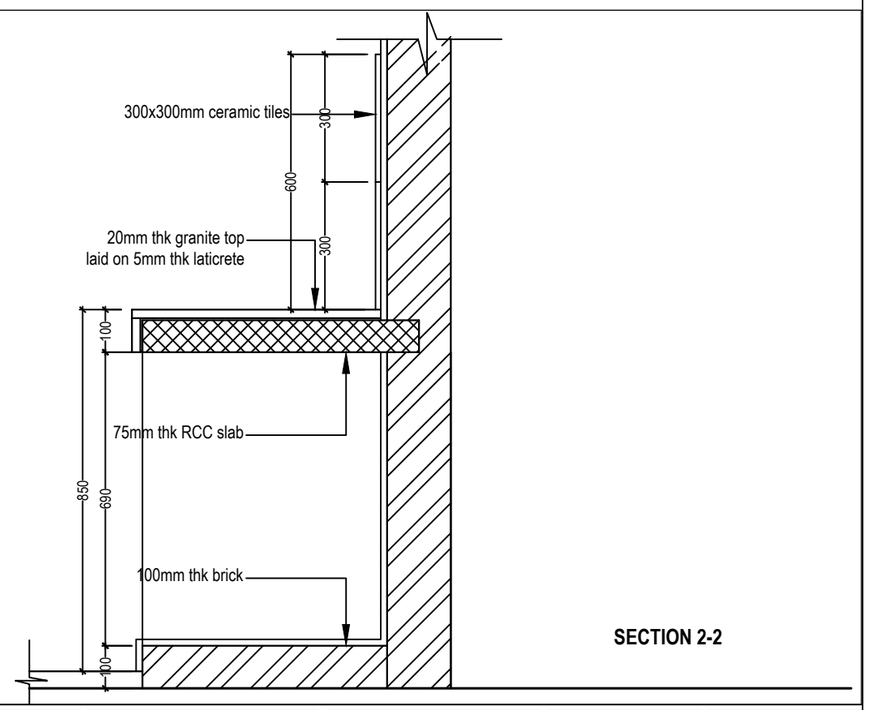
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_08
			SCALE
			NTS





SECTION 1-1



SECTION 2-2

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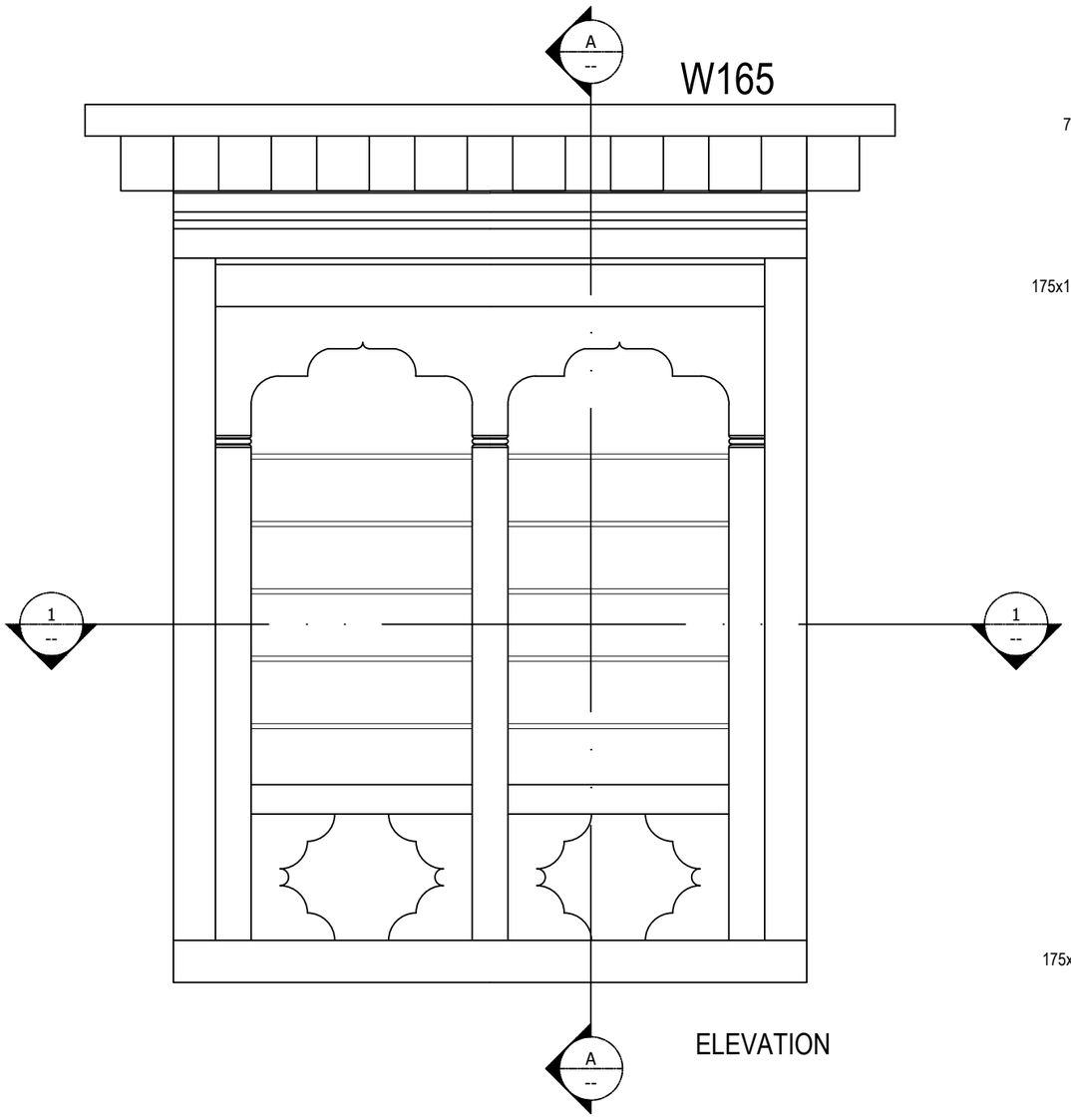
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	KITCHEN_DETAILS

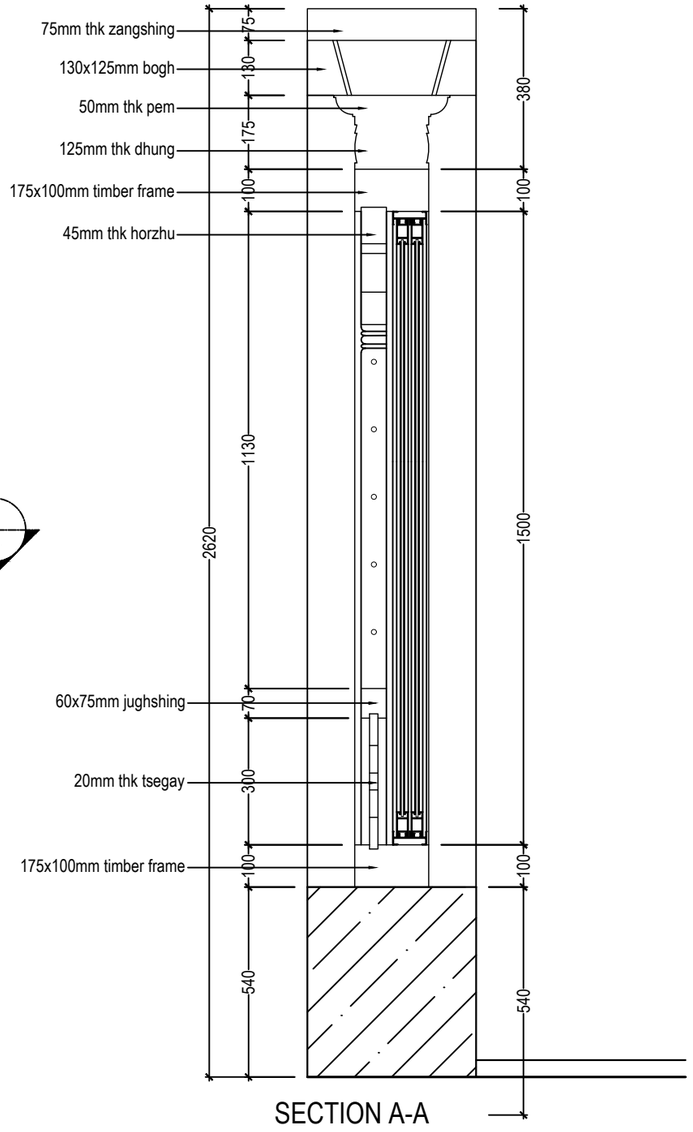
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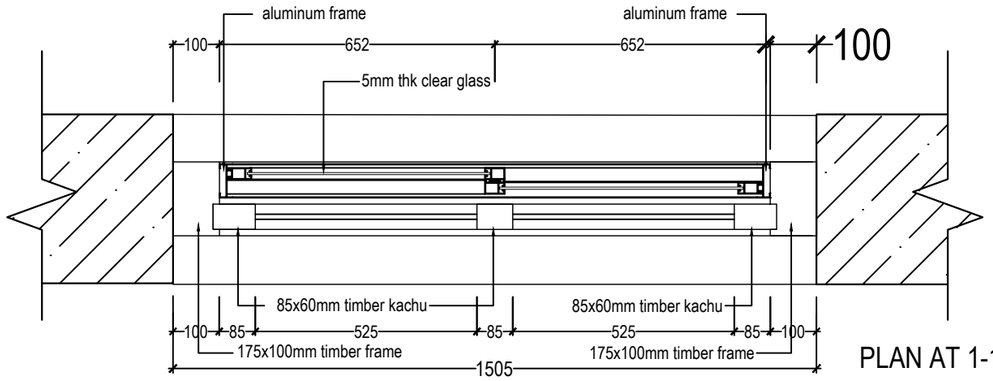
CHECKED	APPROVED	DATE	DRAWING NO.
			AR_09
		Sep, 2026	SCALE
			NTS



ELEVATION



SECTION A-A



PLAN AT 1-1

Khorlochhu

ARCHITECTURAL DRAWING

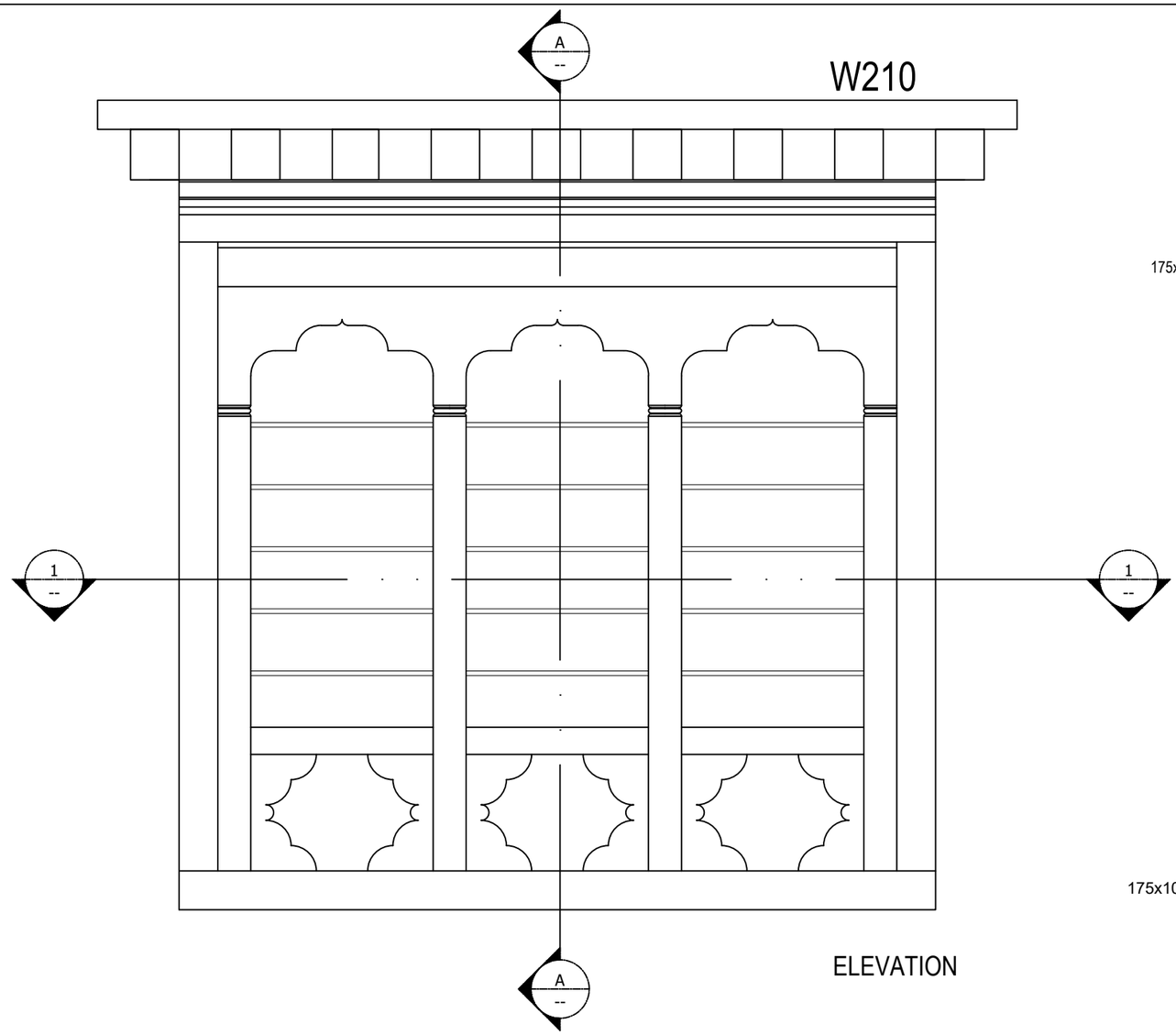
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAILS_W165

NOTES

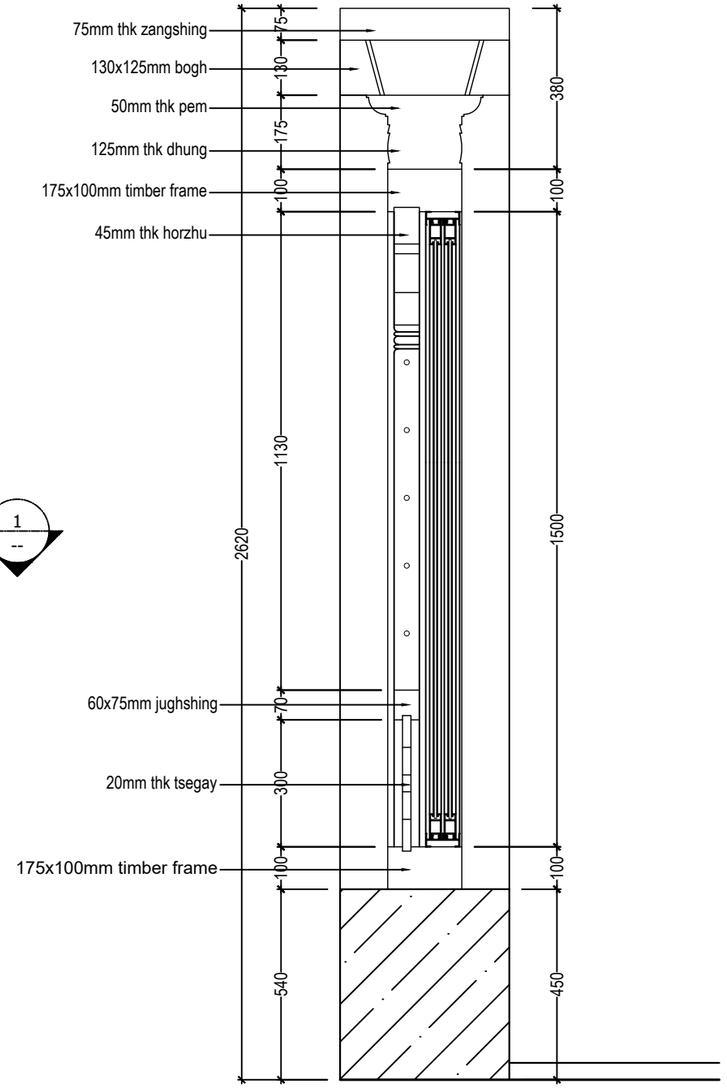
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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS

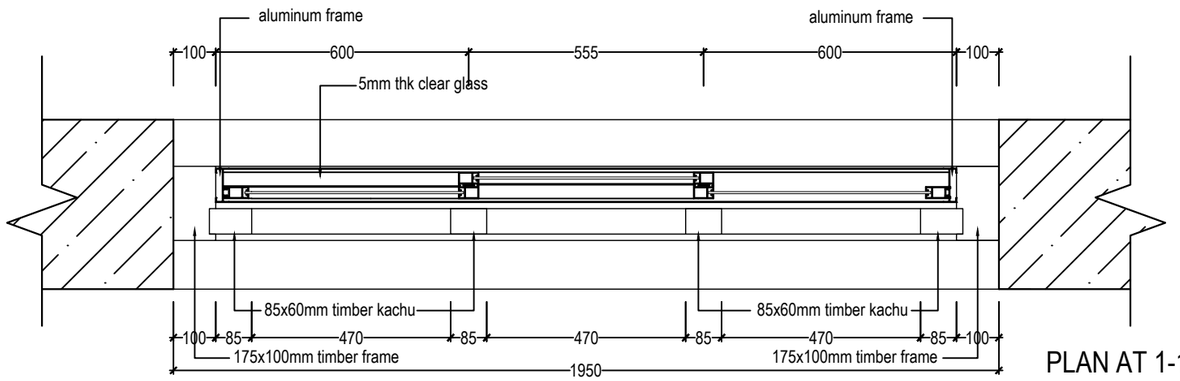
W210



ELEVATION



SECTION A-A



PLAN AT 1-1

Khorlochhu

ARCHITECTURAL DRAWING

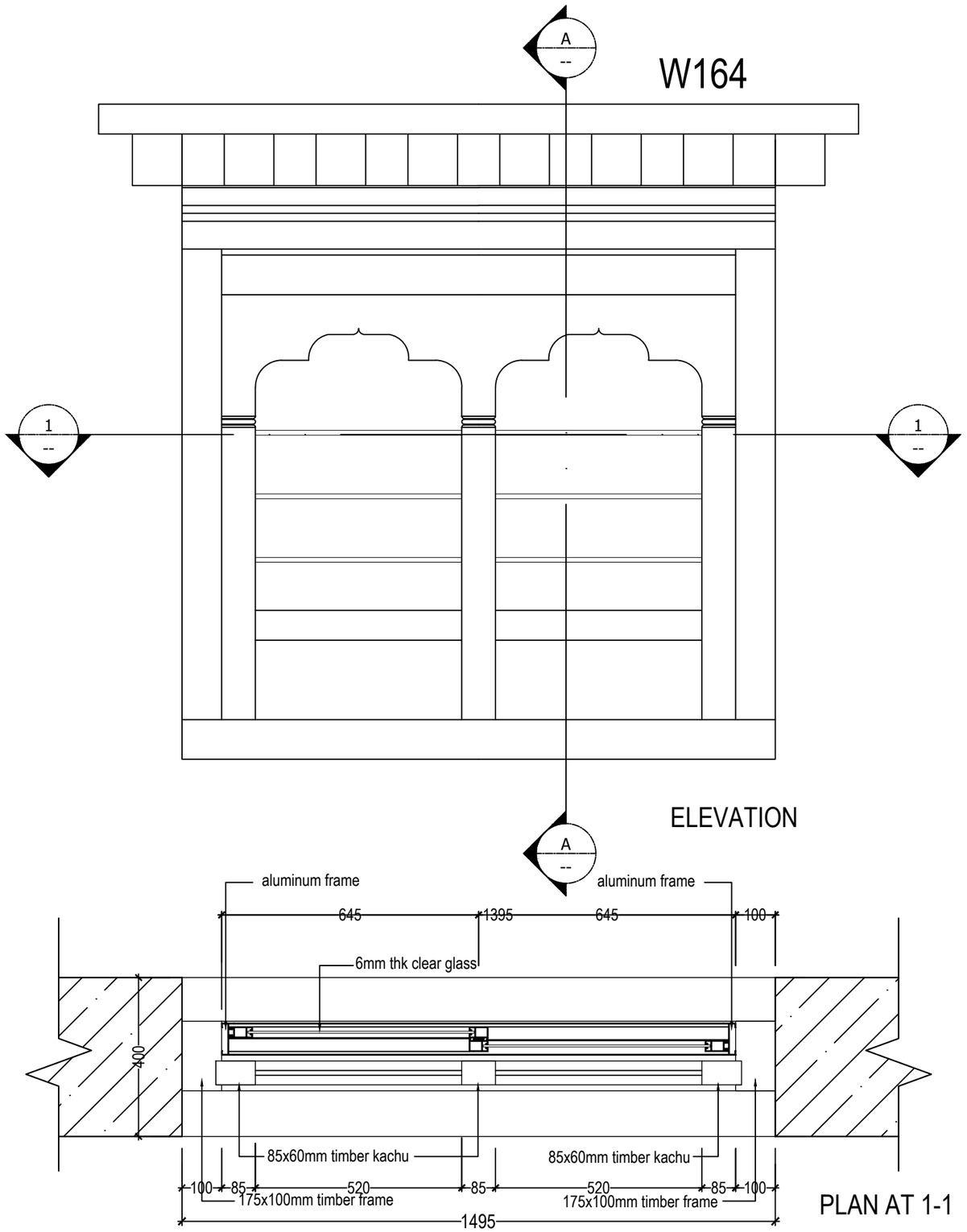
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAILS-W210

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

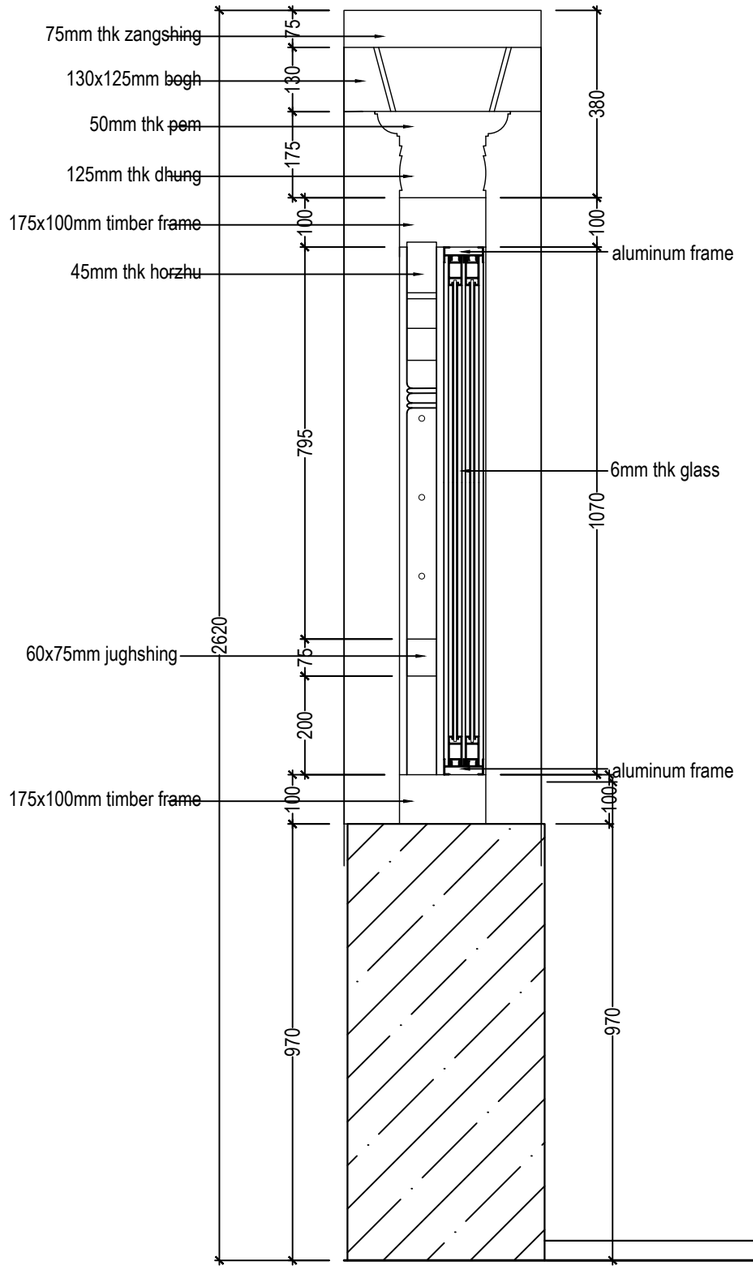
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_11
			SCALE
			NTS

W164



ELEVATION

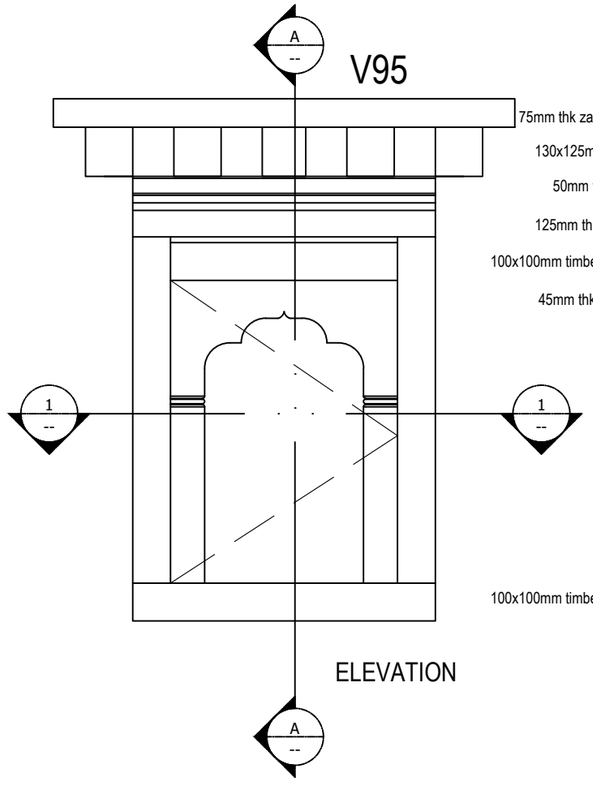
PLAN AT 1-1



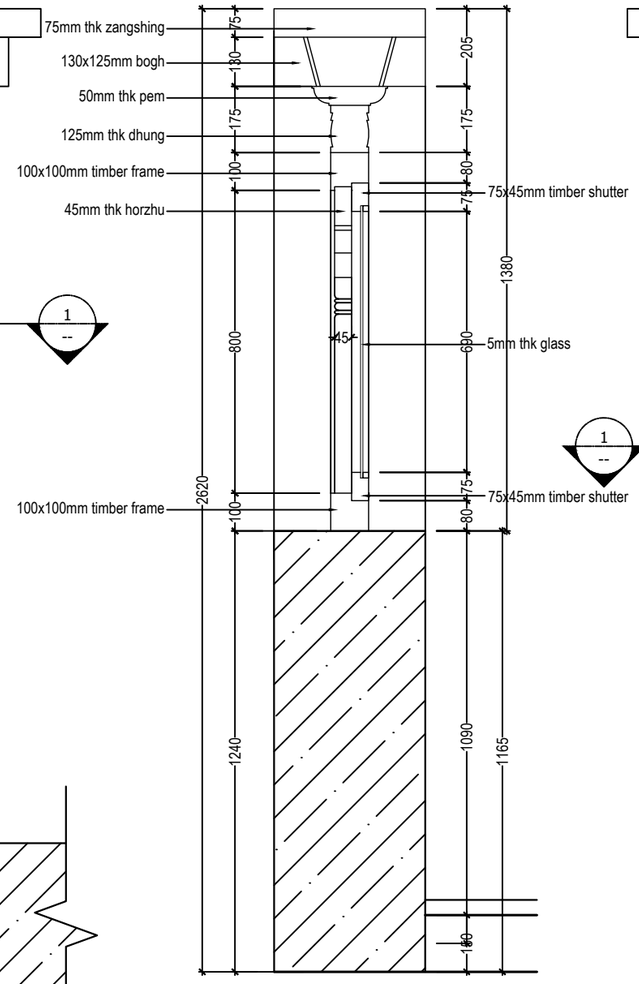
SECTION A-A

Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: WINDOW_DETAILS-W164			Sep, 2026 / AR_12
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS

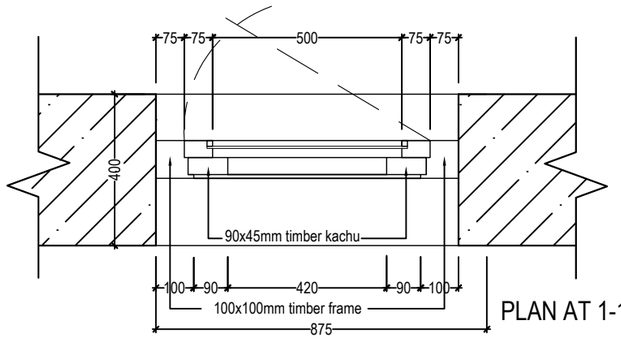
V95



ELEVATION

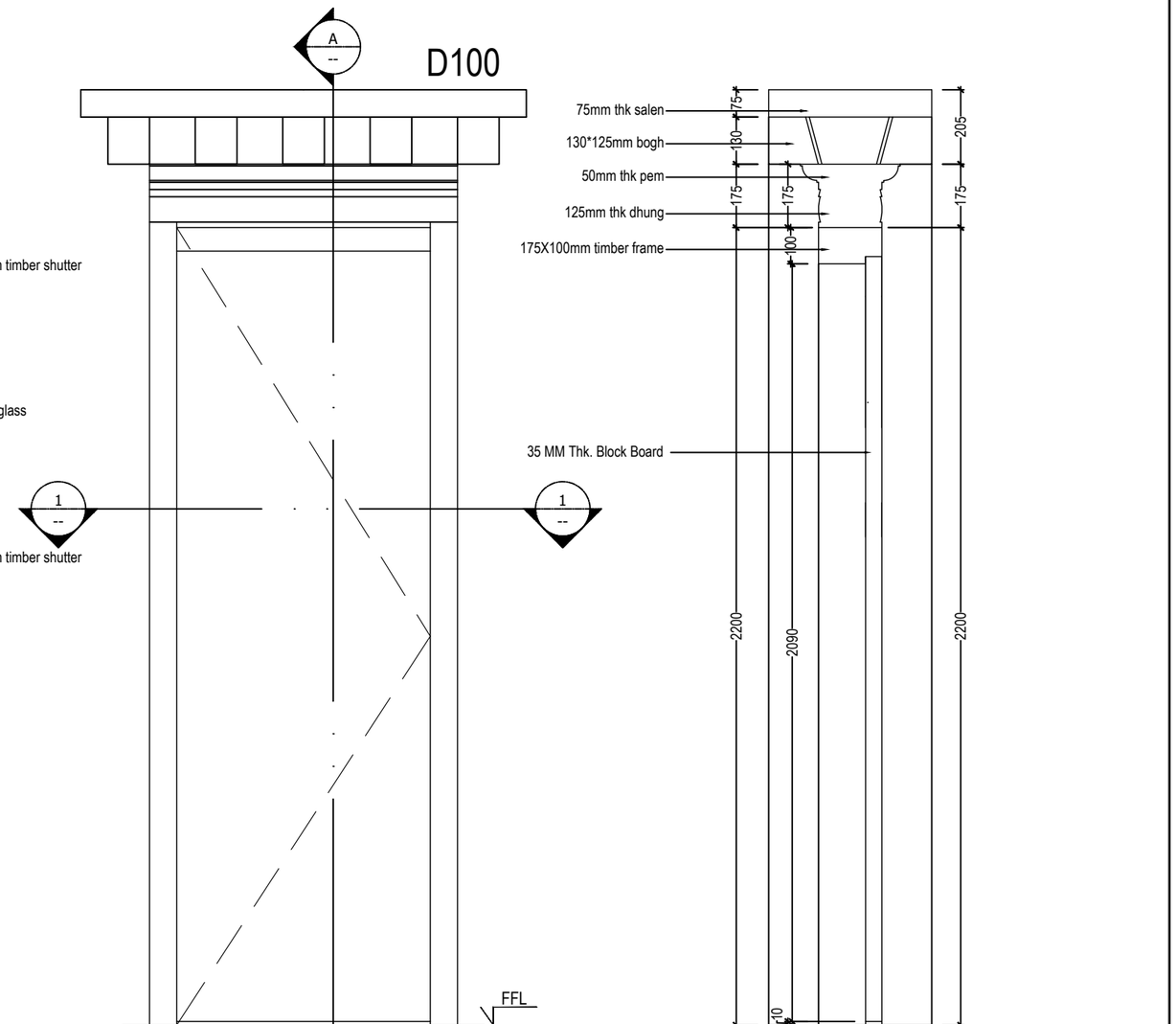


SECTION A-A



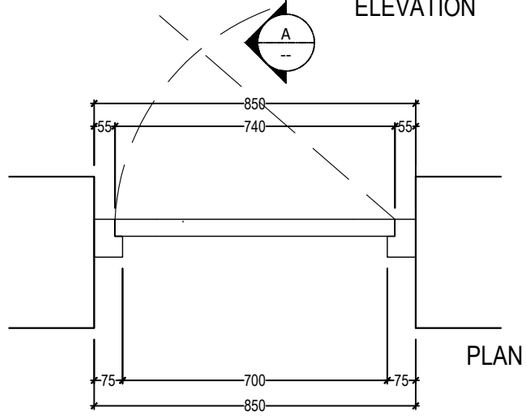
PLAN AT 1-1

D100



ELEVATION

SECTION A-A



PLAN AT 1-1

Khorlochhu

ARCHITECTURAL DRAWING

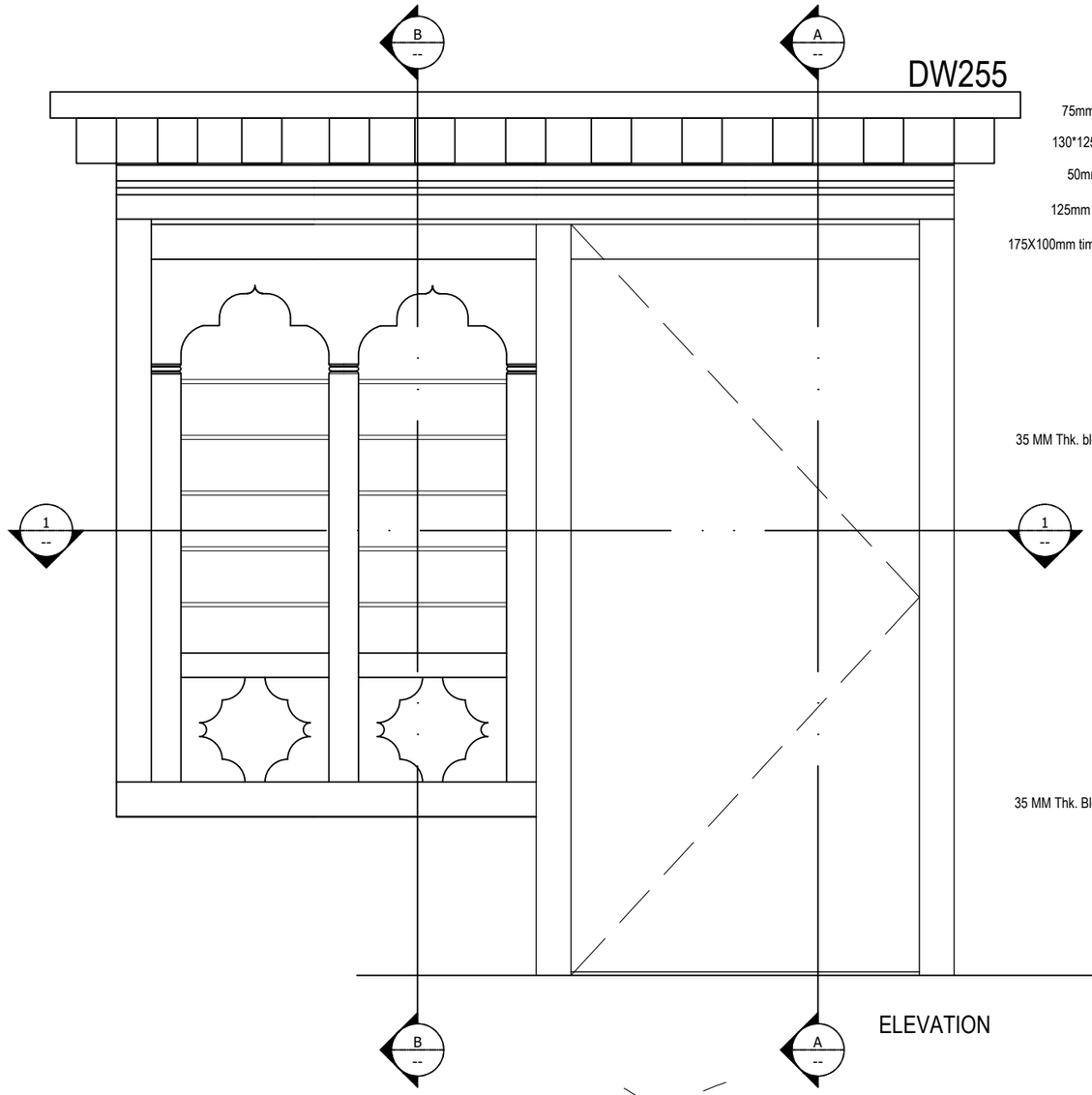
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_AND_DOOR_DETAILS-V95_AND_W100

NOTES

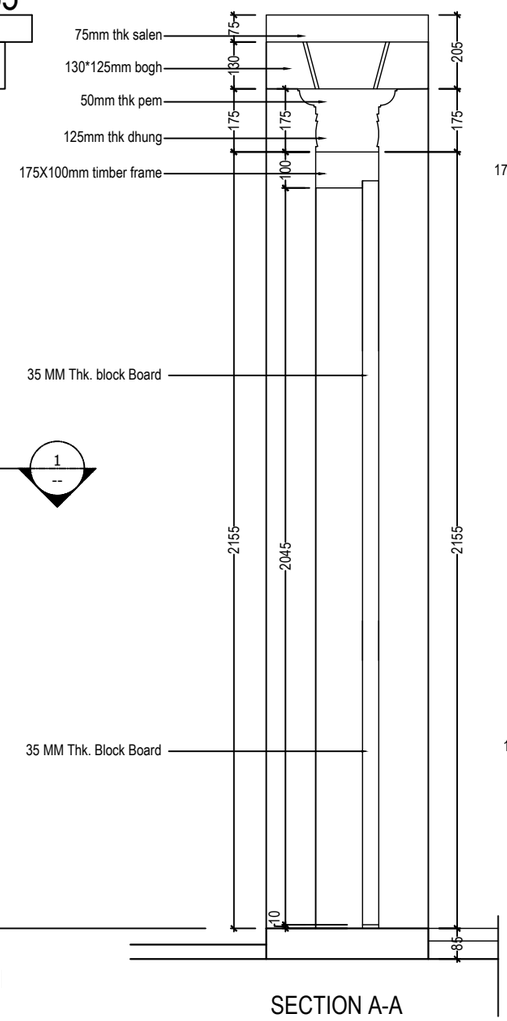
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_13
			SCALE
			NTS

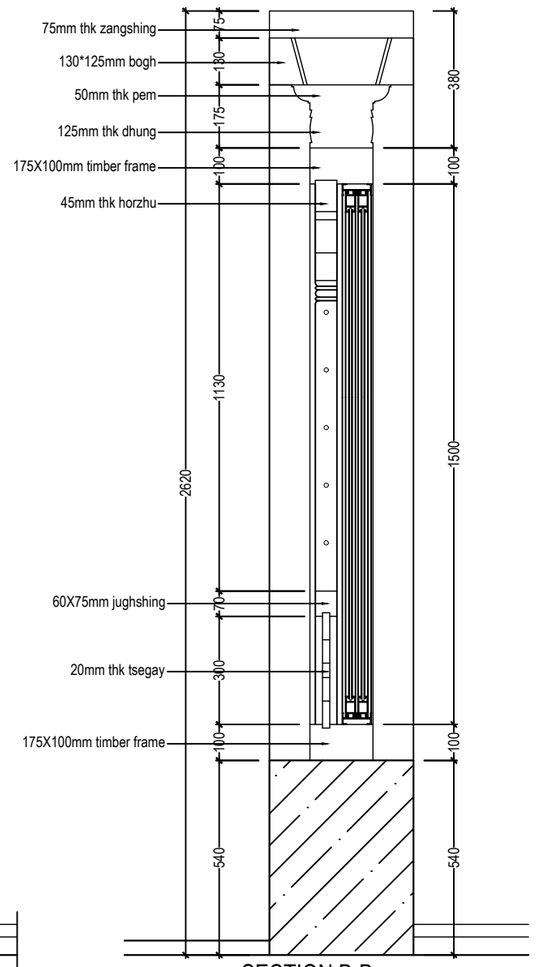
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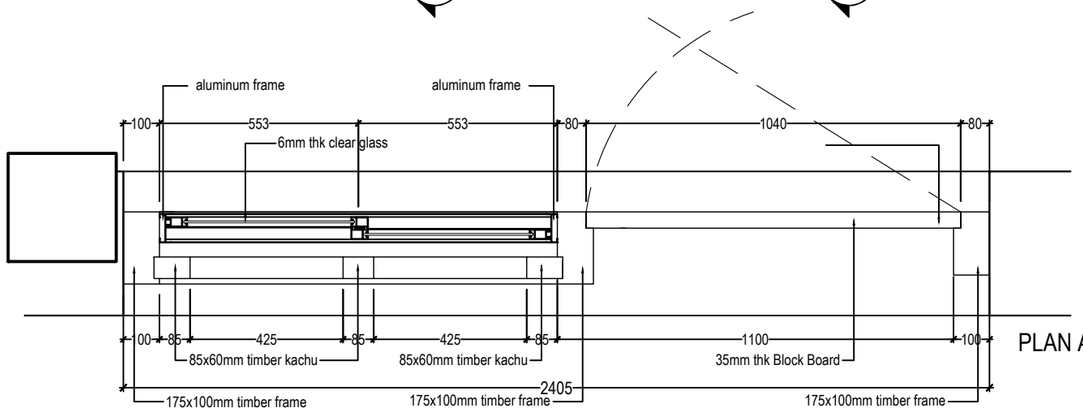
ELEVATION



SECTION A-A

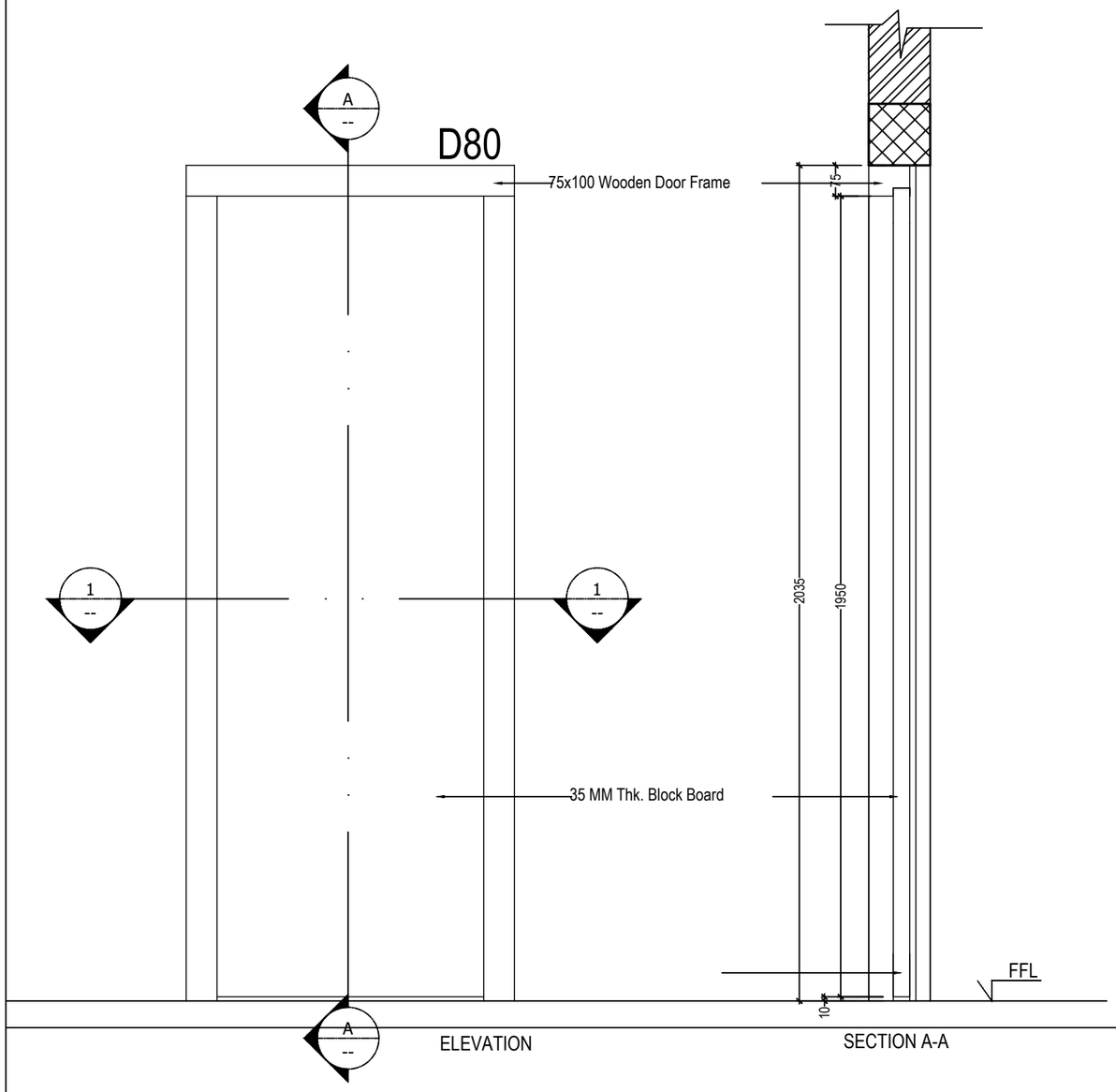


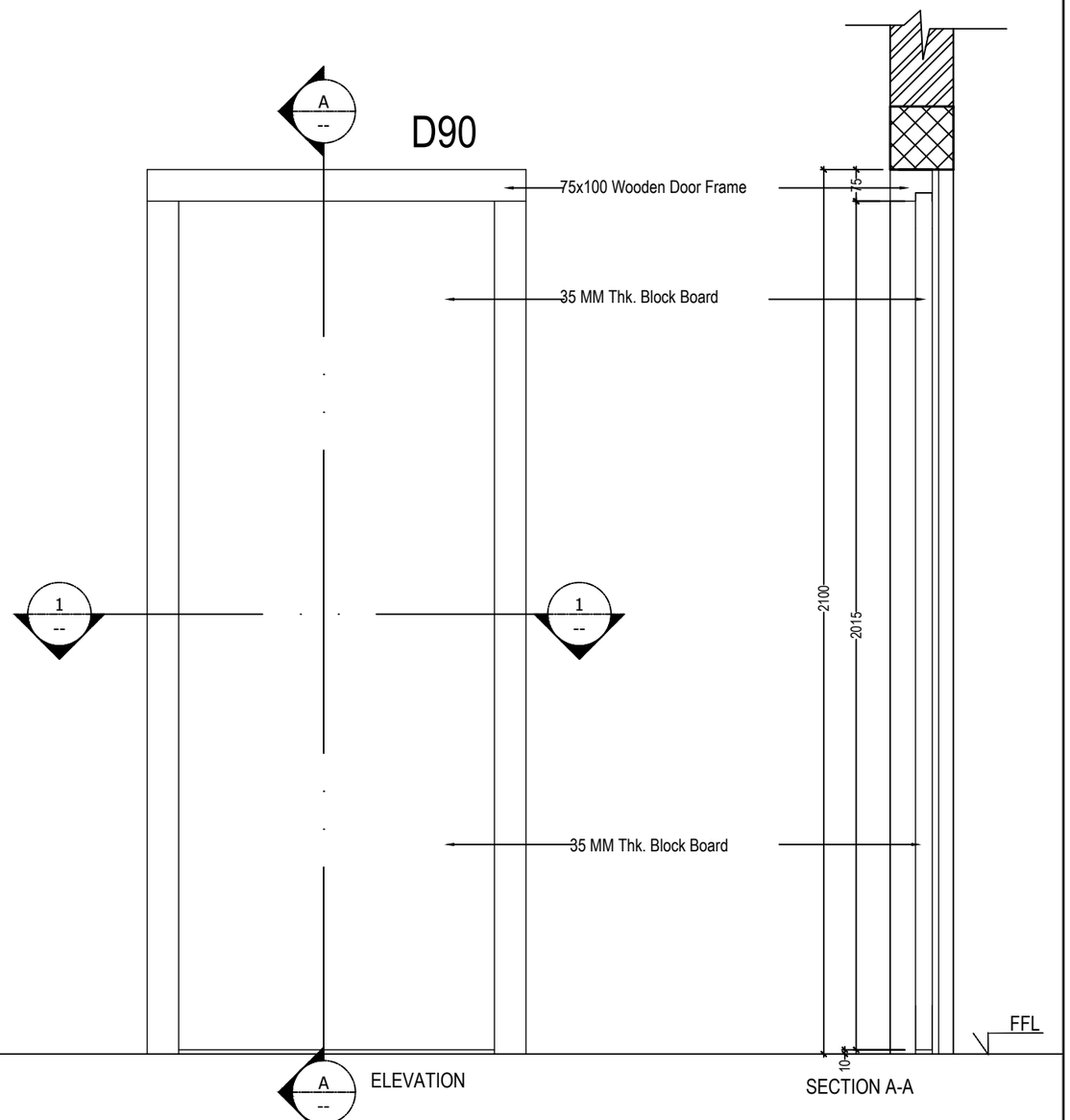
SECTION B-B

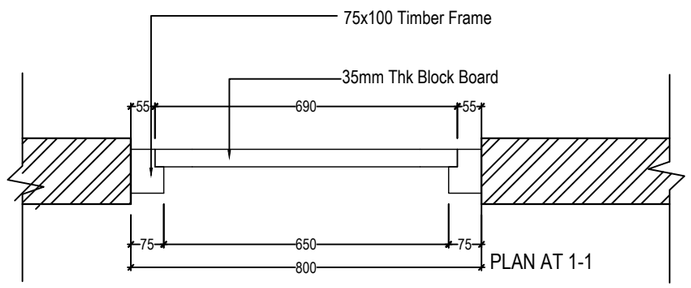


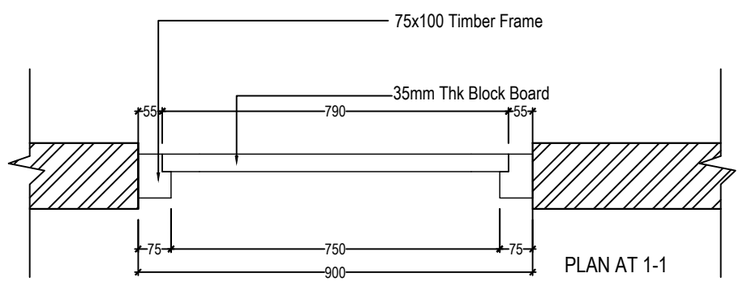
PLAN AT 1-1

Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: DOOR_WINDOW_DETAILS-DW255			Sep, 2026 / AR_14
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS









Khorlochhu

ARCHITECTURAL DRAWING

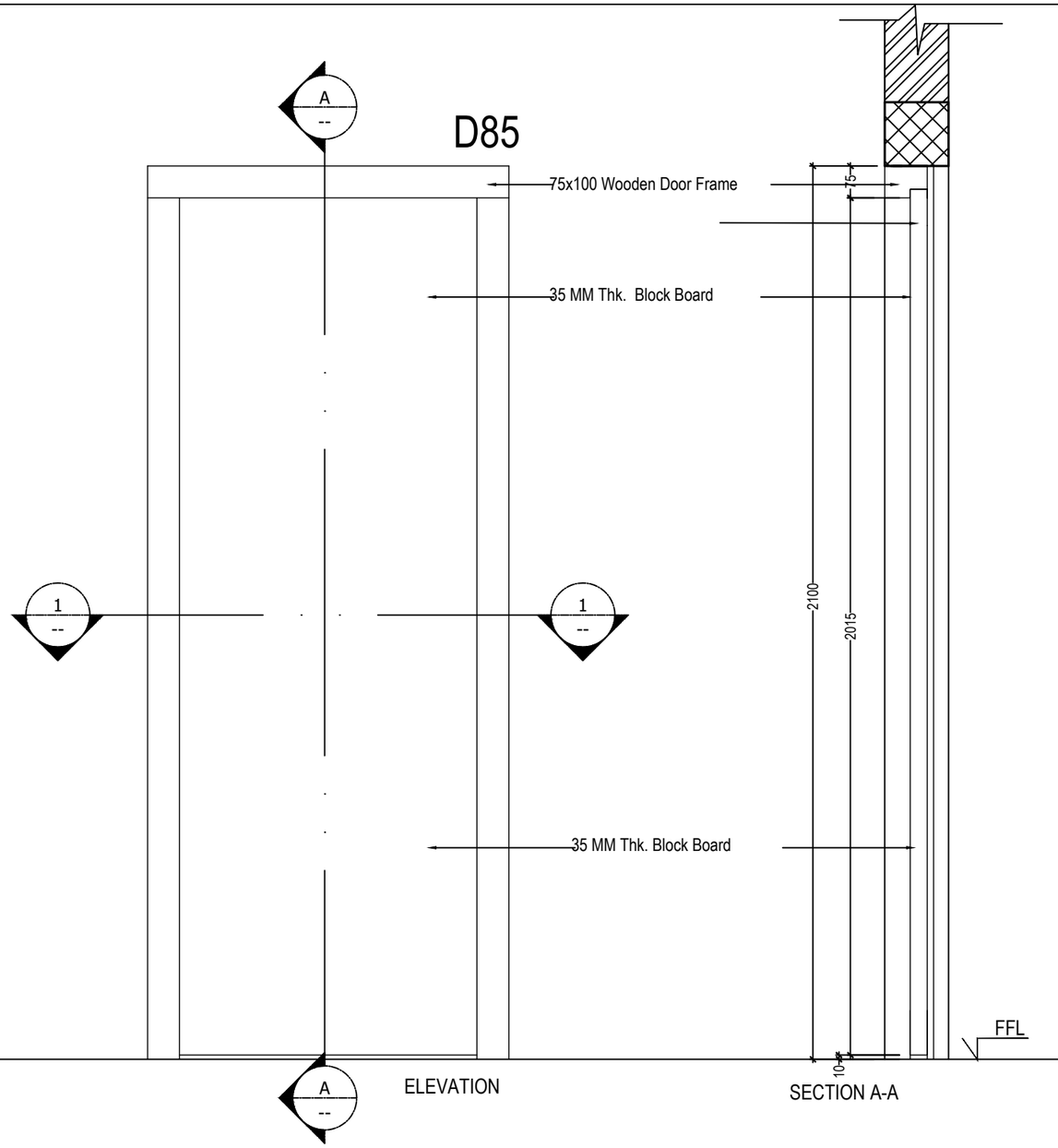
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DOOR_DETAILS-D80_AND_D90

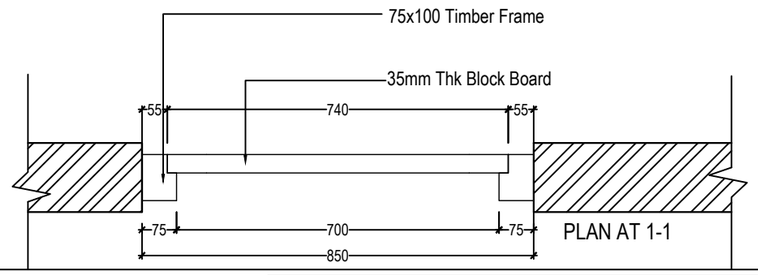
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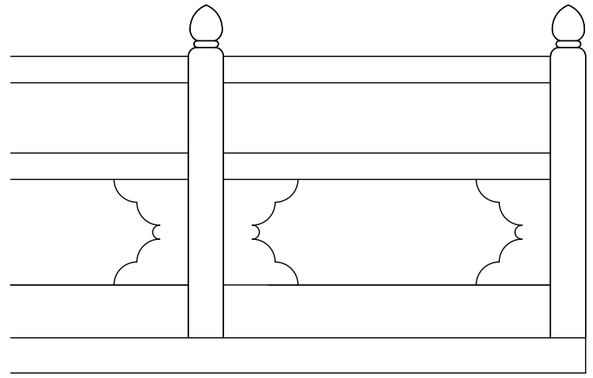
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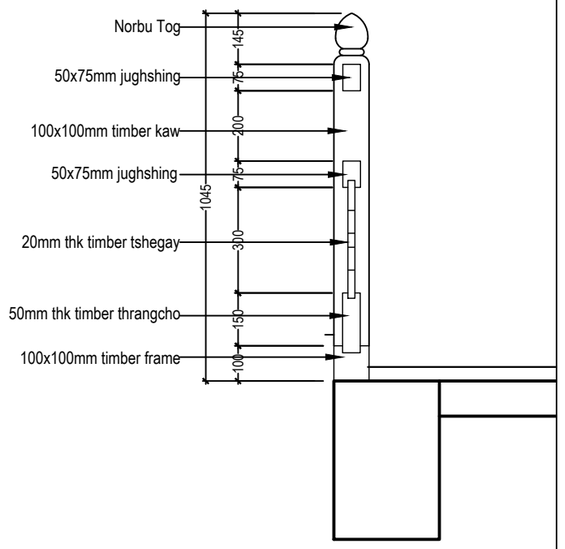
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_15
			SCALE
			NTS

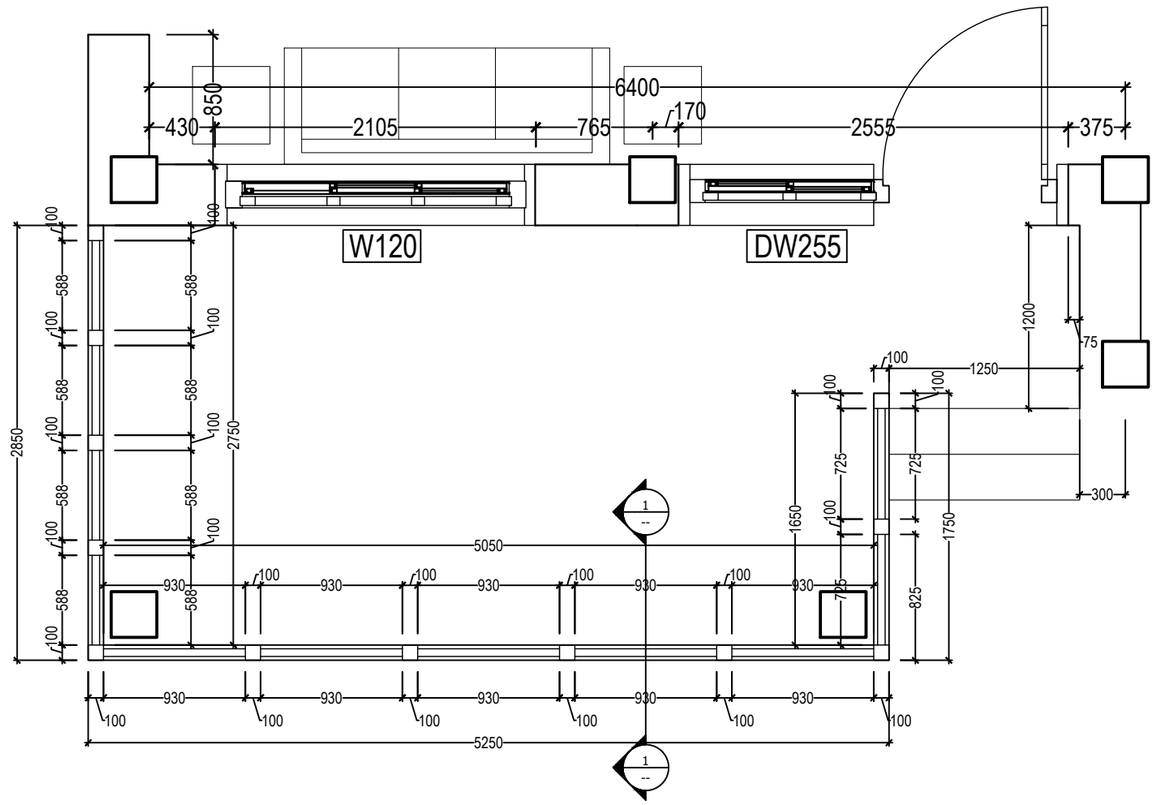
D85











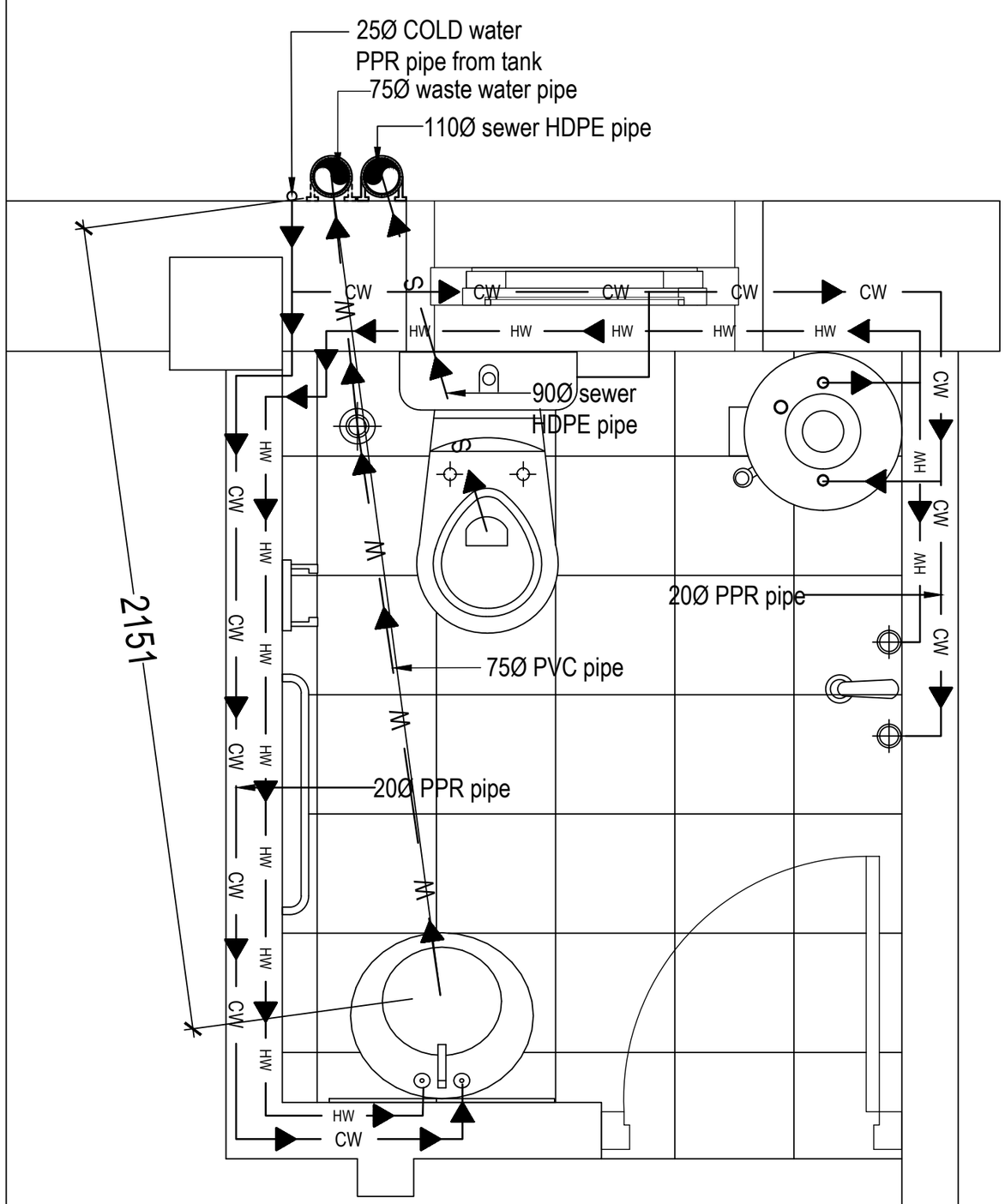
Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: DOOR_DETAILS-D85_AND_RAILING_DETAIL			Sep, 2026 / AR_16
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS

PLUMBING DRAWINGS

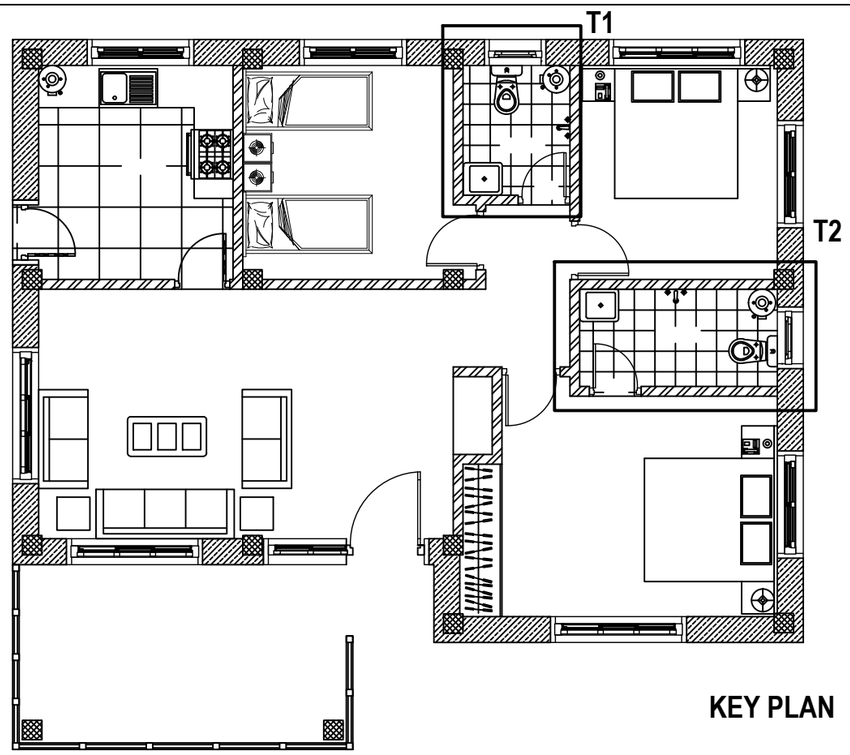
DOCTOR'S RESIDENCE

Owner - KHPL
Location - TRASHIYANGTSE

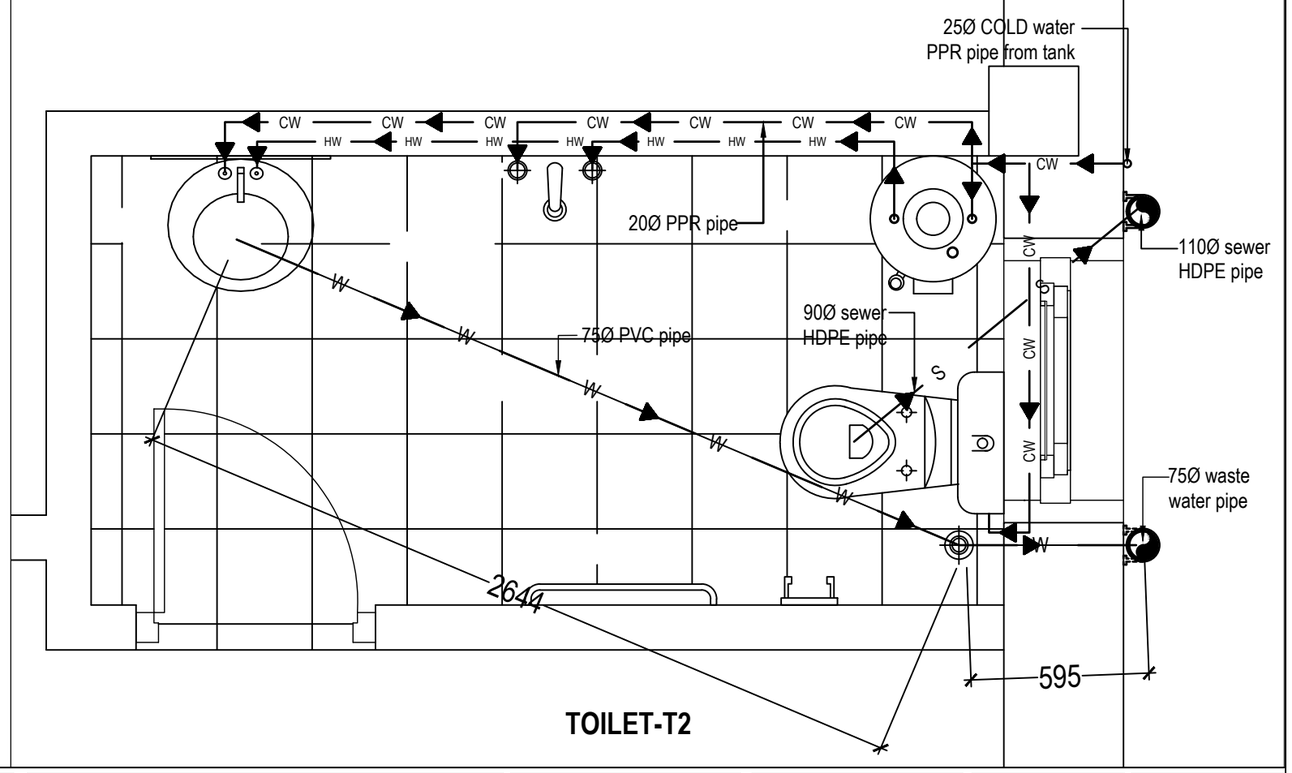
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Khorlochhu



TOILET-T1



KEY PLAN



TOILET-T2

Khorlochhu

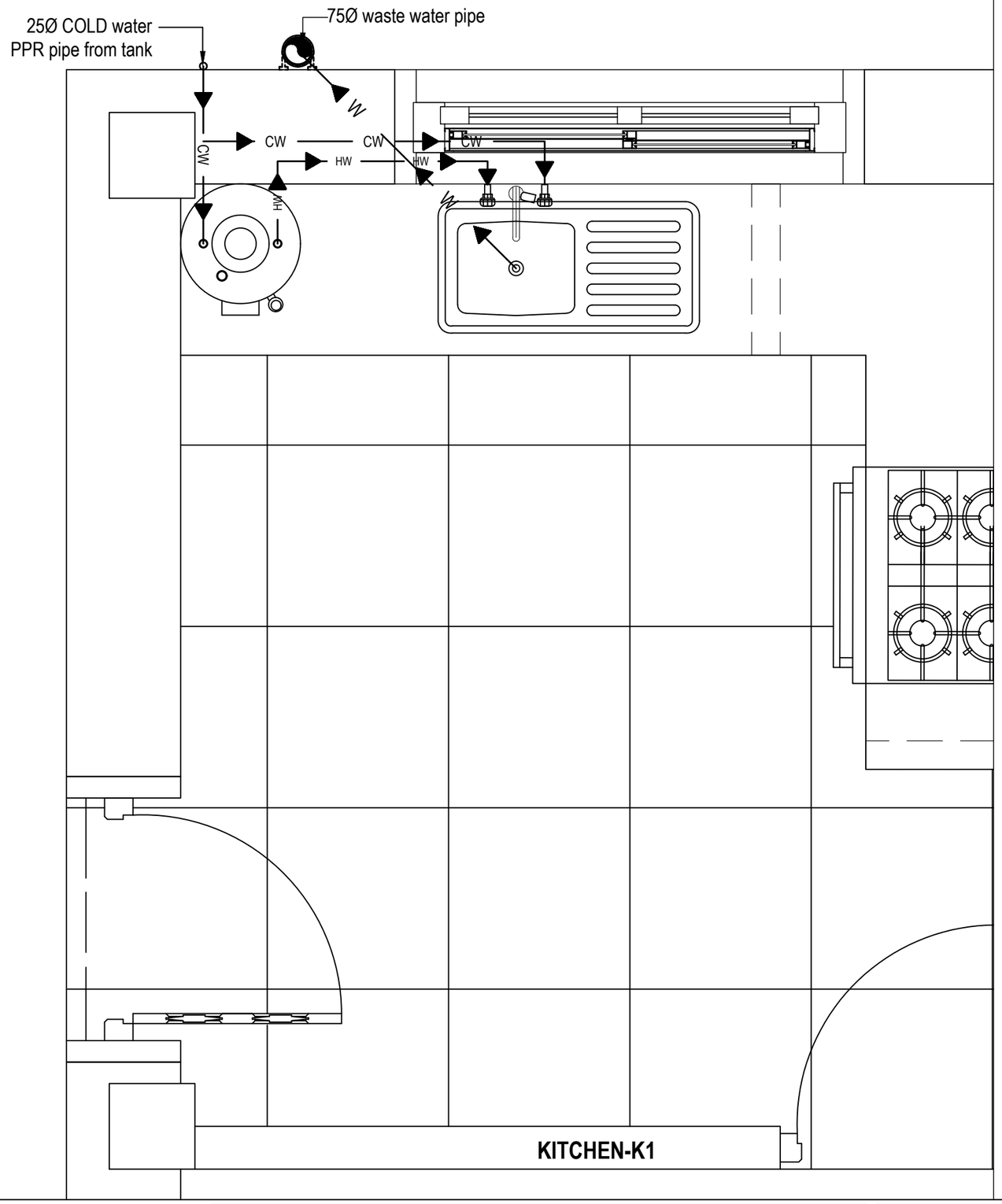
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WASTE_WATER_LAYOUT

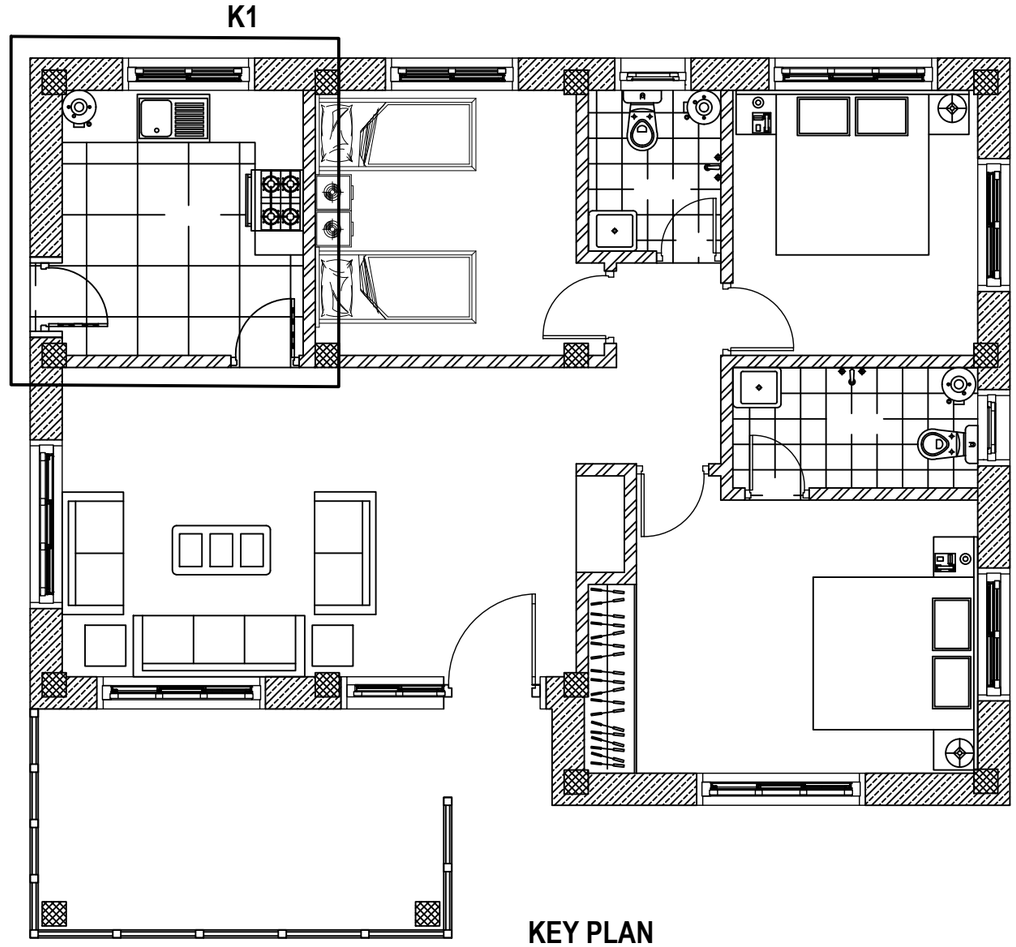
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_01
			SCALE
			NTS



KITCHEN-K1



KEY PLAN

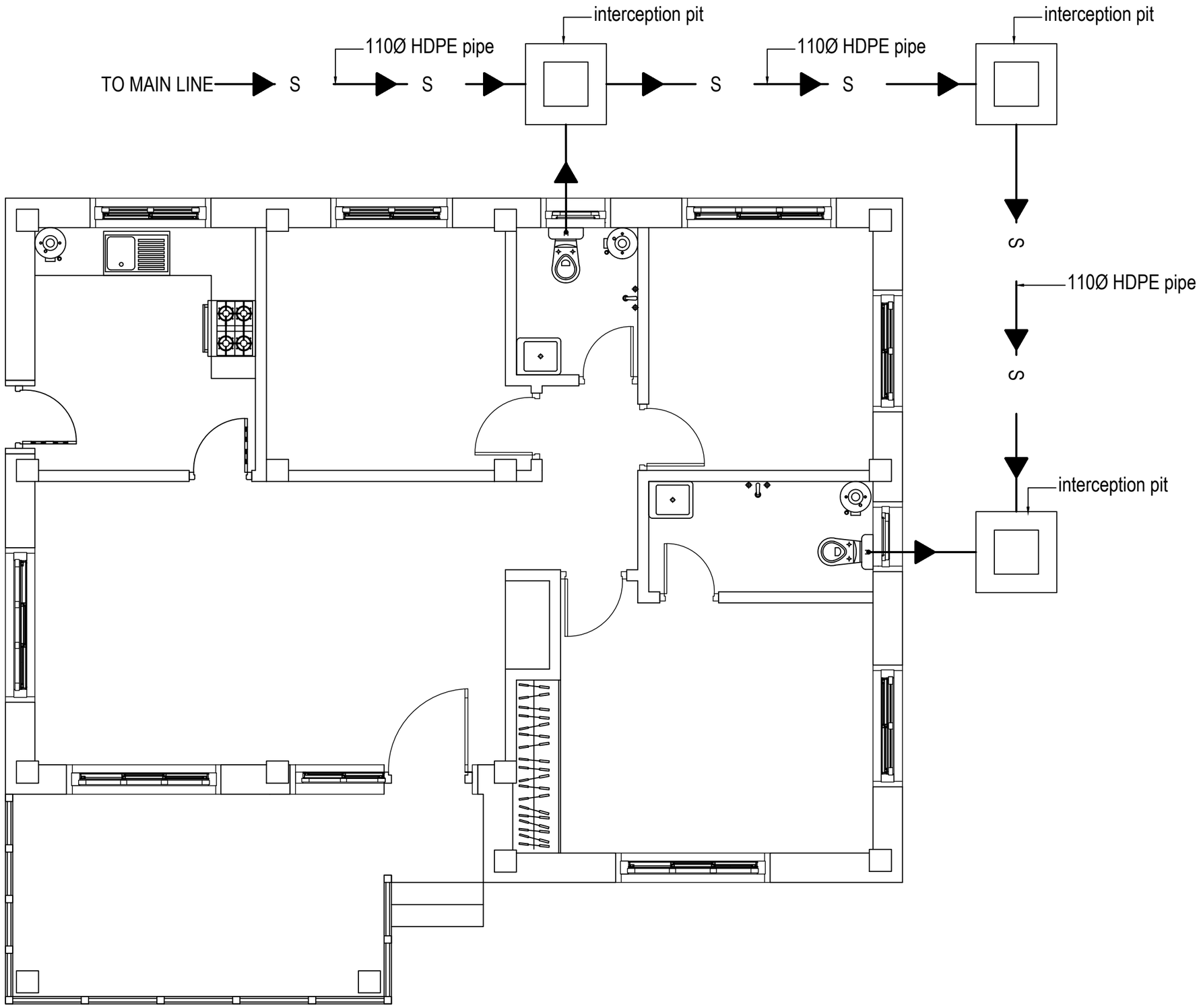
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WASTE_WATER_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_02
			SCALE
			NTS



Khorlochhu

ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	OVERALL_SEWER_LINE_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_03
			SCALE
			NTS

STRUCTURE DRAWINGS

DOCTOR'S RESIDENCE

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu

TECHNICAL NOTES

GENERAL NOTES FOR STRUCTURAL DRAWINGS.

A. GENERAL

1. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND OTHER ENGINEERS' DRAWINGS AND SPECIFICATIONS AND SUCH OTHER WRITTEN INSTRUCTIONS MAY BE ISSUED.
2. ALL DIMENSIONS ARE IN MM AND RELATIVE LEVEL IN M UNLESS STATED OTHERWISE.
3. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
4. DESIGN CONFORMS TO:
   (a). IS 4326:1993 EARTHQUAKE RESISTANT DESIGN AND CONSTRUCTION OF BUILDINGS.
   (b). IS 456:2000 CODE OF PRACTICE FOR PLAIN & REINFORCED CONCRETE.
   (c). IS13930:1993 DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES.
   (d).BUILDING CODE OF BHUTAN 2003
   (e). IS1893:2002 SEISMIC RESISTANT DESIGN OF STRUCTURES.
   (f). IS 800, SP 38 (S&T)-1987
5. VERIFY ALL SETTING OUT DIMENSIONS WITH ENGINEER/ARCHITECT.
6. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING THE WORK.
7. ALL CONSTRUCTION MATERIAL SAND WORKMANSHIP SHALL COMPLY WITH THE SPECIFICATIONS FOR BUILDING AND ROAD WORKS TOGETHER WITH THE REQUIREMENTS OF ALL RELEVANT CODES OF PRACTICE REFERRED TO HEREIN AND THE REQUIREMENTS OF ALL STATUTORY AUTHORITIES.
8. ALWAYS REFER ADDITIONAL NOTES PROVIDED IN THE DRAWINGS.

B. FOUNDATIONS AND FOOTINGS.

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 150 KN/Sq M.
2. WALLS SHALL BE PROVIDED BELOW THE EXTERIOR PLINTH BEAM. IT IS RECOMMENDED TO PROVIDE THE SAME BELOW THE INTERNAL PLINTH BEAM.
3. FOOTINGS ARE DESIGNED CONSIDERING THE MINIMUM DEPTH OF 1500MM BELOW THE ORIGINAL GROUND LEVEL. NOTIFY ENGINEER SHOULD THE DEPTH OF FOOTINGS REQUIRED TO BE PROVIDED IS MORE THAN THE DEPTH SPECIFIED ABOVE.
4. ALL CONCRETE SHALL BE PLACED 'IN THE DRY FOR FOUNDATIONS.
5. COMPACTION OF FOUNDATION SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

C. LOADING

1. THIS STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LOADS.
   (a). DEAD LOADS;

UNIT WEIGHT OF CONCRETE BLOCK BRICK	16.79KN/M3
UNIT WEIGHT OF RCC	25KN/M3
UNIT WEIGHT OF PCC	24KN/M3
UNIT WEIGHT OF STONE	28KN/M3

   (b). SUPERIMPOSED (LIVE LOADS)

LIVE LOAD FOR GROUND FLOORS	3KN/M2
LIVE LOAD ON ROOF	0.75 KN/M2

   (c). WIND LOAD

WIND PRESSURE	45.6M/S (AS CALCULATED)

   (d). OTHER LOADS:
   EARTHQUAKE LOAD IN ACCORDANCE WITH IS 1893:2002 ASSUMING ZONE V
   SUPERIMPOSED DEAD LOAD 1KN/M2
2. MAINTAIN STRUCTURE IN STABLE CONDITION DURING CONSTRUCTION.
3. DO NOT PLACE OR STORE BUILDING MATERIALS ON CONCRETE MEMBERS WITHOUT ENGINEER'S APPROVAL.

D. CONCRETE.

1. CONCRETE QUALITY SHALL COMPLY WITH IS 456:2000
2. PROJECT ASSESSMENT OF CONCRETE STRENGTH IS REQUIRED.
3. GRADE OF CONCRETE IS M20 FOR ALL RCC WORKS.
4. FOR THE ABOVE GRADE TO BE ACHIEVED, MAXIMUM FREE WATER-CEMENT RATIO SHALL BE 0.55, MINIMUM CEMENT CONTENT SHALL BE 300KG/M3 AND MAXIMUM AMOUNT OF WATER SHALL BE 180L.
5. WATER USED FOR MIXING AND CURING SHALL COMPLY WITH CLAUSE 5.4 OF IS 456:2000.

Khorlochhu

STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SRUCTURE_NOTE

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_01
			SCALE
			NTS

6. MECHANICALLY VIBRATE CONCRETE IN THE FORM TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.
7. CURE CONCRETE AS REQUIRED BY THE CLAUSE 13.5 OF IS456:2000 AND WORK SPECIFICATIONS.
8. CONCRETE SIZES AS DRAWN ARE MINIMUM AND DO NOT INCLUDE APPLIED FINISHES.
9. DO NOT MAKE UNSPECIFIED HOLES OR CHASES WITHOUT ENGINEER'S APPROVAL.
10. DO NOT PLACE CONDUITS, PIPES AND THE LIKE WITHIN COVER CONCRETE.
11. AGGREGATES SHALL COMPLY WITH CLAUSE 5.3 OF IS456:2000. NOMINAL SIZE OF COARSE AGGREGATES SHALL BE 20MM.
12. THE CHARACTERISTICS STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 25MPA. NOTE THAT THE MEAN COMPRESSIVE STRENGTH OBTAINED FROM THE LABORATORY HAS TO BE WELL ABOVE THIS VALUE.
13. ALL FORMWORKS FOR BEAMS AND SLABS ARE TO REMOVED BEFORE CONSTRUCTION OF WALLS OR OTHER PERMANENT LOADINGS. ALL FORMWORK AND ITS REMOVAL MUST BE IN ACCORDANCE TO IS 456:2000.

E. REINFORCEMENT.

1. GRADE OF STEEL USED FOR RCC WORKS SHALL BE Fe500
2. BAR NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER: NUMBER OF BARS BAR SIZE(MM),SPACING(MM, IF REQUIRED).
3. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
4. LAP REINFORCEMENT ONLY AT LOCATIONS SHOWN IN THE DRAWINGS. LAP LENGTH SHALL COMPLY WITH IS456:2000. LAP SPLICES SHALL NOT BE LESS THAN THE DEVELOPMENT LENGTH IN TENSION(GENERALLY 47Ø).
5. REINFORCEMENT SHALL NOT BE CUT, BENT OR HEATED ON SITE WITHOUT ENGINEER'S APPROVAL.
6. THE DEVIATION OF REINFORCEMENT FROM ITS SPECIFIED POSITION SHALL NOT EXCEED THE FOLLOWING(MM)
   (a). TOLERANCE FOR COVER -0,+10MM. WHERE A NEGATIVE VALUE INDICATE A DECREASE IN SPECIFIED COVER, AND POSITIVE VALUE INDICATES AN INCREASE IN COVER.
   (b). TOLERANCE ON PLACEMENT OF REINFORCEMENT.
   FOR SLABS AND STAIRCASE -10,+10MM.
   FOR BEAMS, COLUMNS AND FOUNDATION -15,+15MM.
7. SPACERS AND SUPPORTS SHALL BE LOCATED AT CENTERS CLOSE ENOUGH (PREFERABLY NOT EXCEEDING 750MM C/C FOR COLUMN AND BEAM REINFORCEMENT AND 450MM FOR SLAB REINFORCEMENT). TO PREVENT DISPLACEMENT OF REINFORCEMENT BY WORKMEN OR EQUIPMENT DURING FIXING AND SUBSEQUENT CONCERT PLACEMENT WITHIN TOLERANCE GIVEN ABOVE.
8. THE COVER TO THE REINFORCEMENT NEAREST THE CONCRETE SURFACE SHALL NOT LESS THAN THE FOLLOWING EXCEPT WHERE SPECIFIED OTHERWISE:

BEAMS	30MM
COLUMNS	40MM
FLOOR SLABS AND STAIRCASE	20MM
FOUNDATION	50MM

9. BENDING OF REINFORCEMENT IN BEAMS AND COLUMNS SHALL COMPLY WITH THE REQUIREMENTS OF IS 456:2000
10. FORMWORK SHALL COMPLY WITH CLAUSE 11 OF IS 456:2000
11. STRIPPING OF FORMWORK SHALL COMPLY WITH CLAUSE 11.3 OF IS:456:2000

F. WELDING AND BOLTING.

1. WELDING TO BE CARRIED OUT IN ACCORDANCE WITH IS 816:1969, IS 819:1957, IS 1024:1979, IS 1261:1959, IS 1323:1982 AND IS: 9595: 1980 AS APPROPRIATE.
2. THE STRENGTH OF ELECTRODE USED FOR WELDING SHALL BE EQUAL TO OR GREATER THAN THE STRENGTH OF MEMBER THAT IS BEING WELDED.
3. ALL WELD SHALL BE COMPLETE PENETRATION BUTT WELD.
4. ALL BOLTS SHALL BE HIGH STRENGTH FRICTION GRIP GALVANIZED M16 AND M20 IN ACCORDANCE WITH IS 3757:1967 AND IS 800: 1984.
5. ALL MEMBERS OF STEEL TRUSS SHALL BE DRY AND THOROUGHLY CLEANED FROM ALL LOOSE SCALE AND RUST PRIOR TO PAINTING.
6. THE MEMBERS SHALL BE PROVIDED WITH COAT OF ZINC COATING.

Khorlochhu

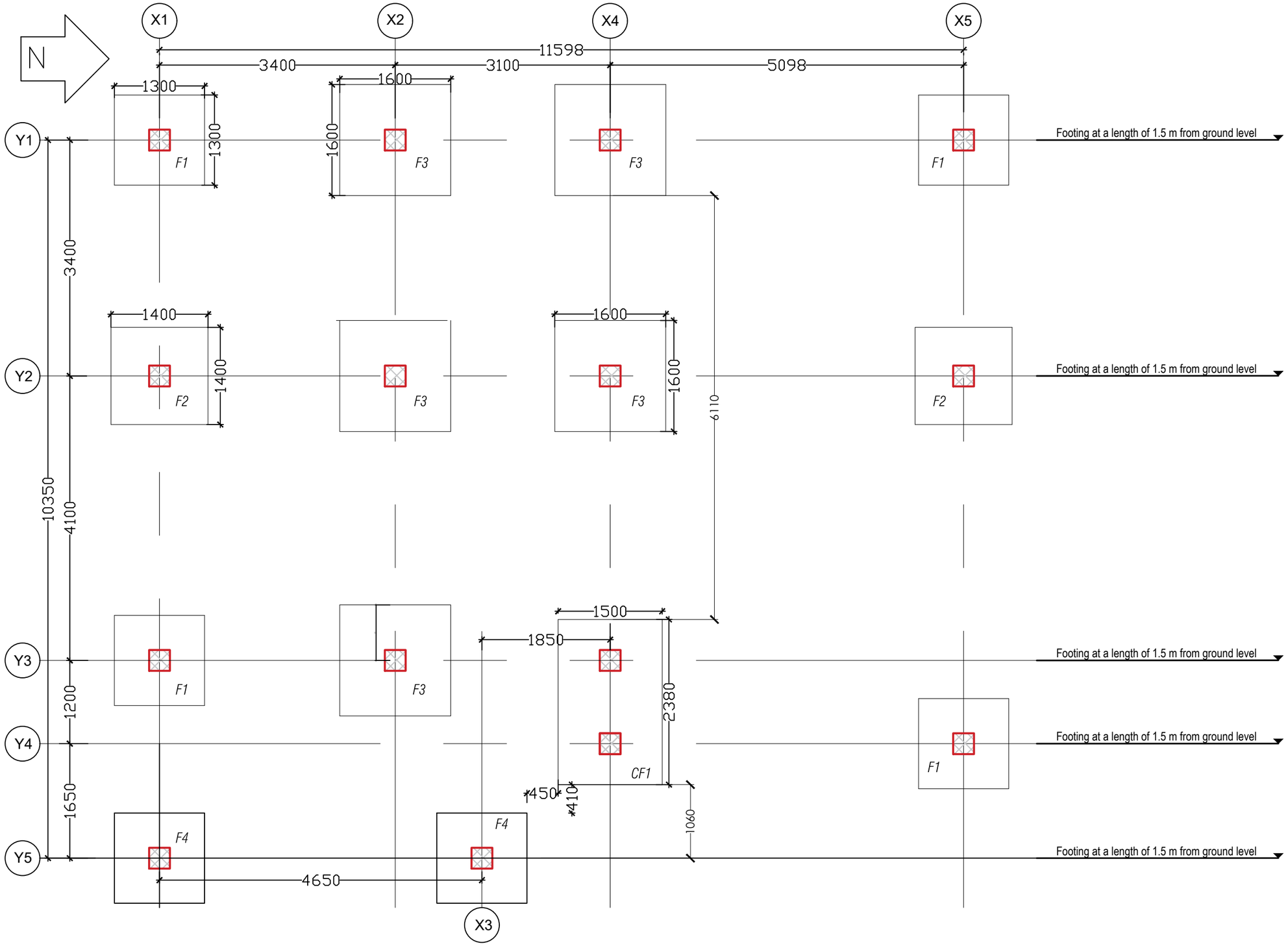
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STRUTURE_NOTES

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

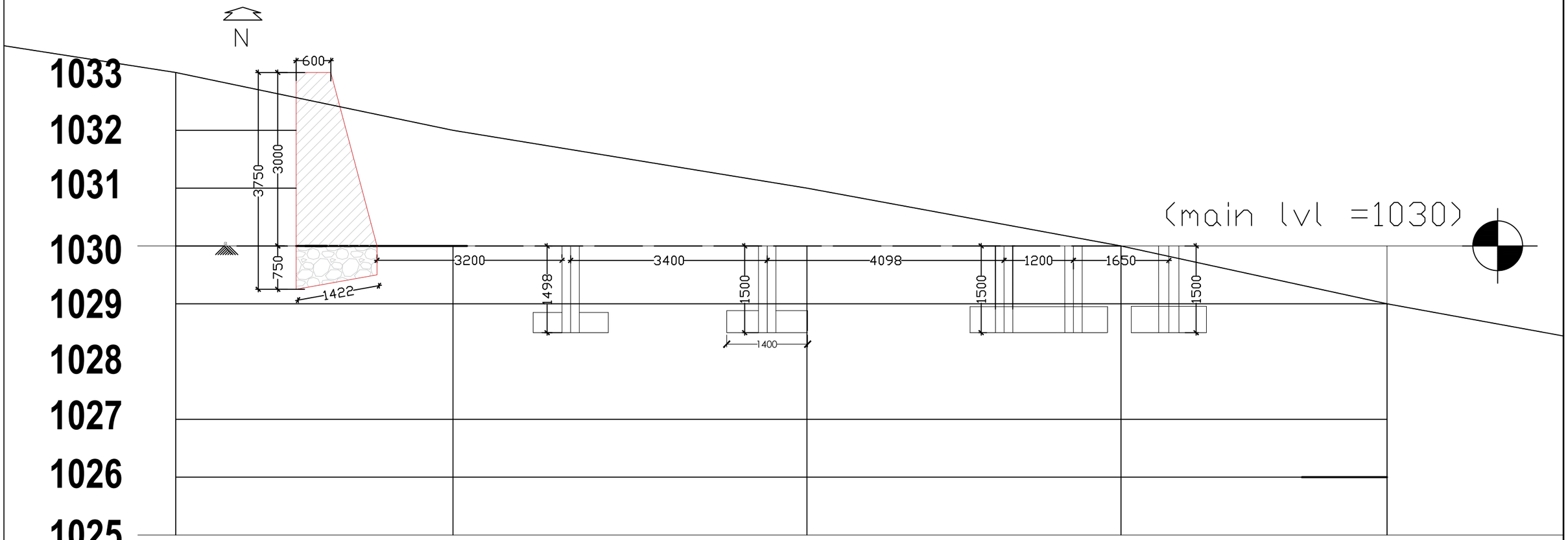
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_02
			SCALE
			NTS



Footing Layout Plan

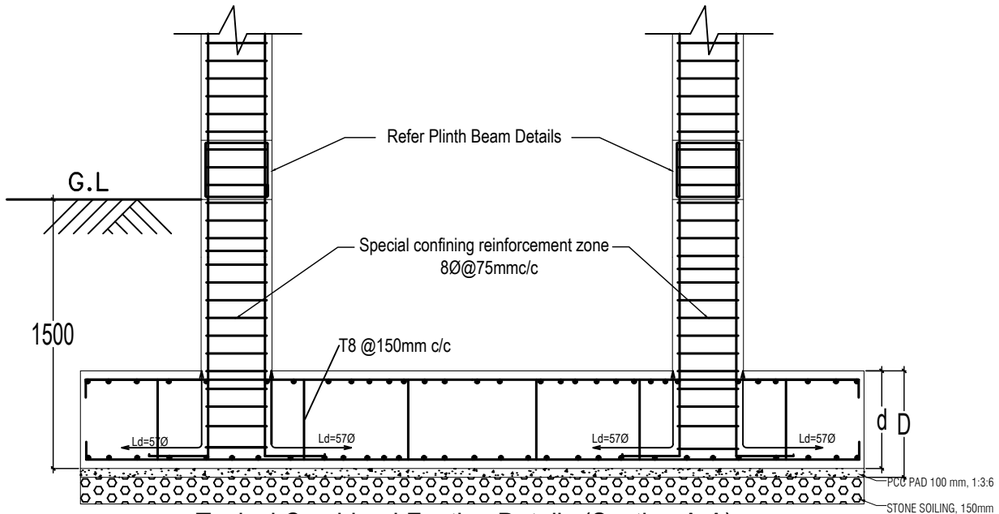
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			STR_03
	Construction of BHU Building and Auxiliary Work / FOOTING_LAYOUT			Sep, 2026	**SCALE** / NTS

NOTES: -
Slope made according to the gradient of the master plan, each at a counter of 1m from existing.

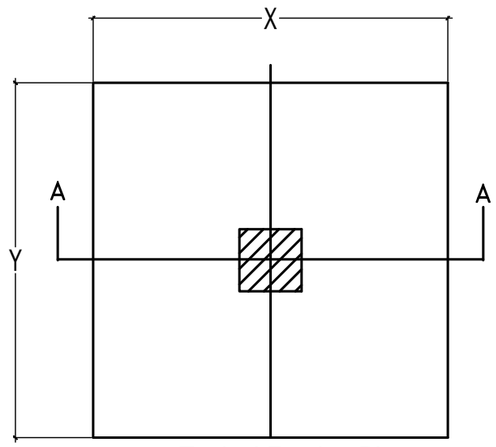


Footing Elevation Layout

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_04
	Construction of BHU Building and Auxiliary Work / FOOTING_ELEVATION_LAYOUT				Sep, 2026	**SCALE** NTS



Typical Combined Footing Details (Section A-A)



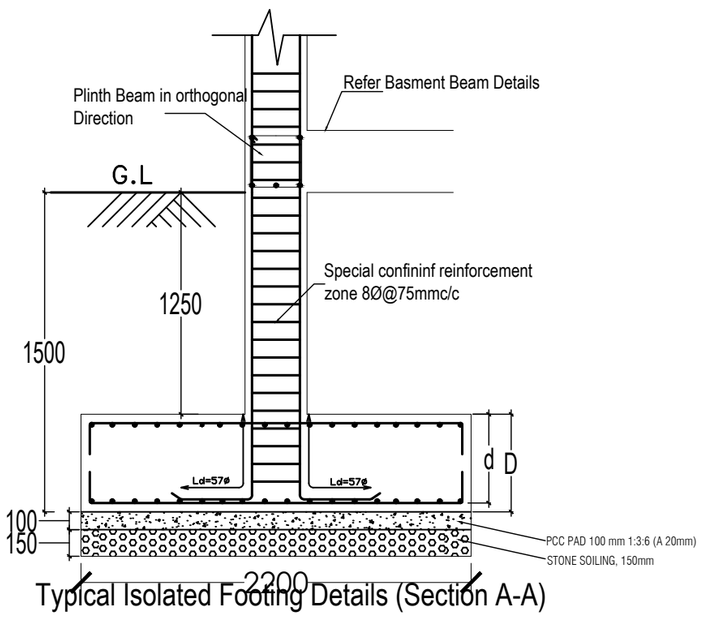
Typical Footing Plan

NOTES: -

The Bearing Capacity of soil is assumed as 150KN/m2 and at site, if any abnormalities in the soil conditions exist, please inform the Design Engineer at SPBD Office.

Grade of Concrete - M20

Grade of Steel - Fe500



Typical Isolated Footing Details (Section A-A)

FOOTING SCHEDULE

Footing Type	No.of footings	Size (X x Y)	Column Size (X x Y)	Depth	RFT BAR IN Bottom (Bothways)	RFT BAR IN Top (Bothways)
F1	4	1300 X 1300	300 x 300	350	12Ø@160 c/c	12Ø@200 c/c
F2	2	1400 X 1400	300 x 300	350	12Ø@170 c/c	12Ø@210 c/c
F3	5	1600 X 1600	300 x 300	350	12Ø@180 c/c	12Ø@220 c/c
F4	2	1300 X 1300	300 x 300	350	12Ø@160 c/c	12Ø@200 c/c
CF1	1	1500 X 2380	300 x 300	350	12Ø@210 c/c	12Ø@230 c/c

FOOTINGS SCHEDULE/TYPICAL DETAILS

Khorlochhu

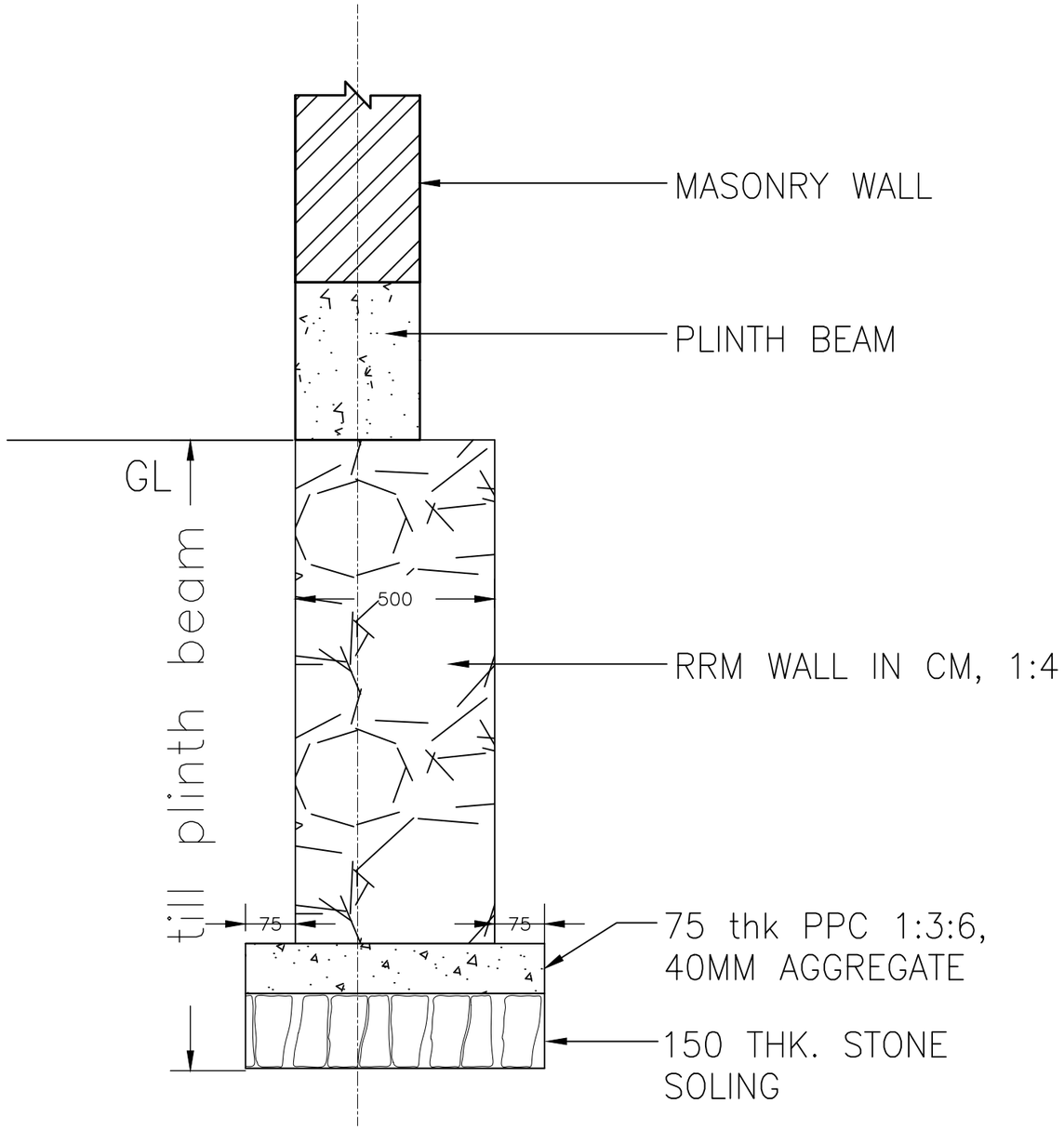
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_DETAILS

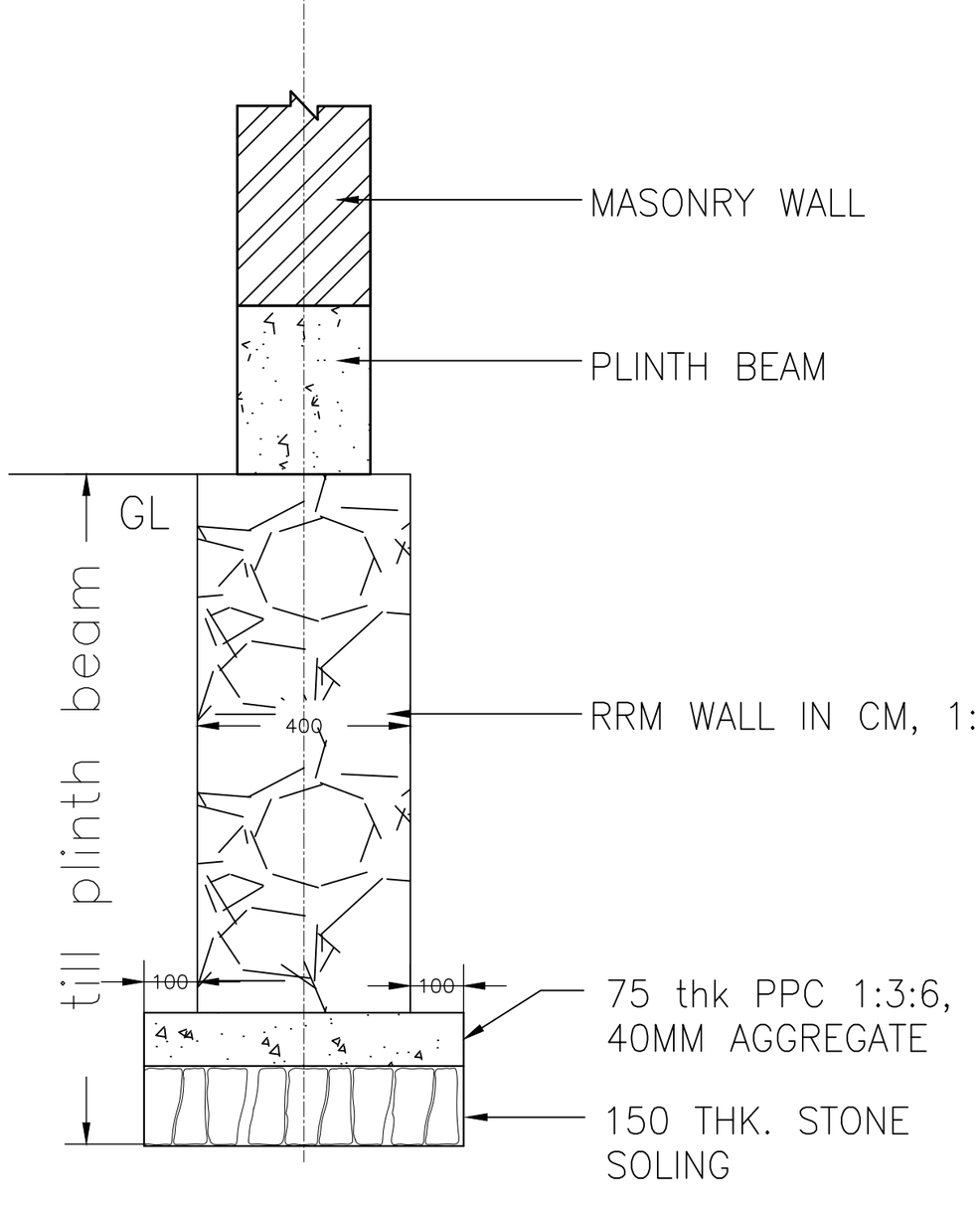
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_05
			SCALE
			NTS



RRM WALL BELOW EXTERNAL PLINTH BEAM

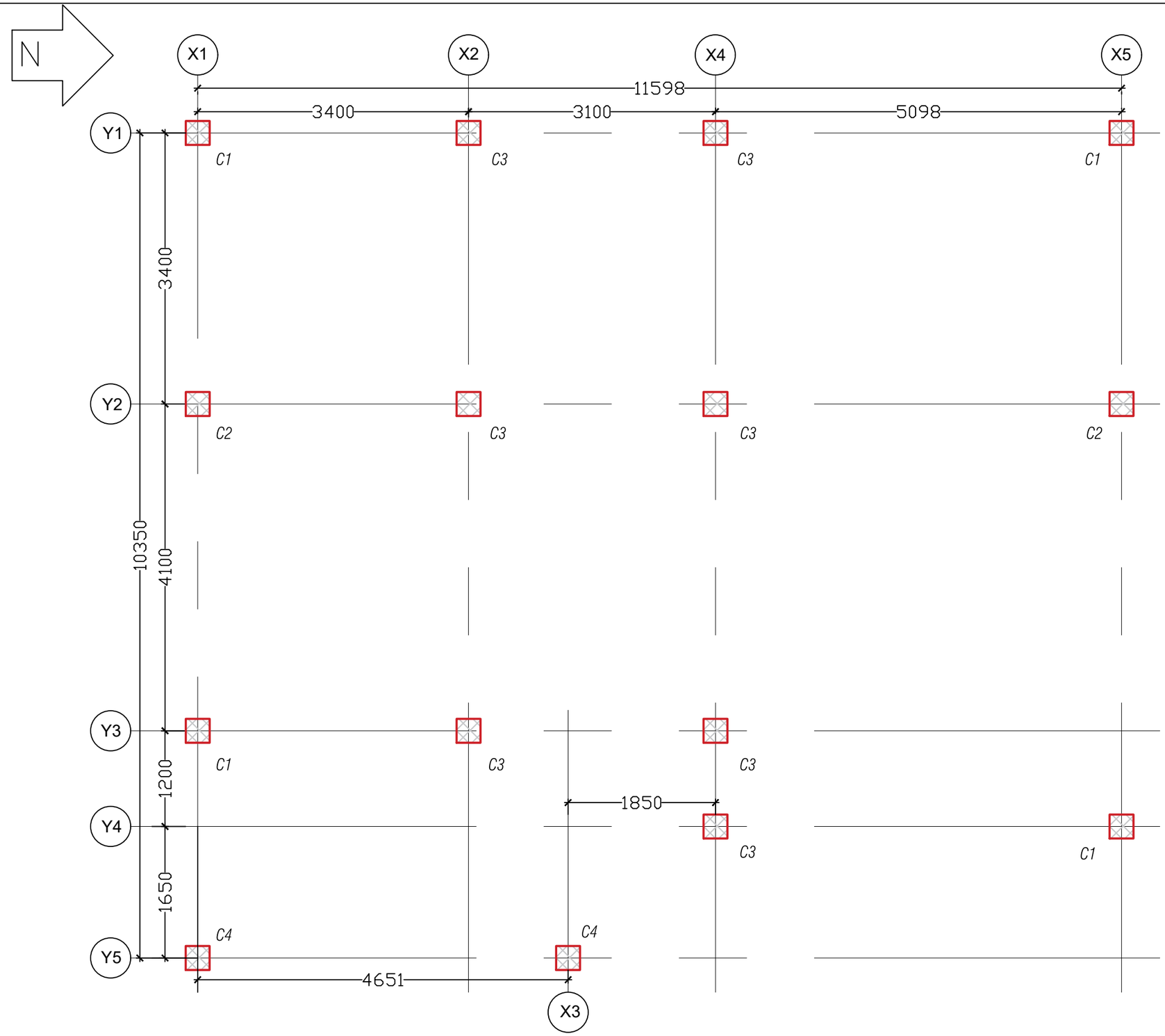


RRM WALL BELOW INTERNAL PLINTH BEAM

TYPICAL FOUNDATION WALL DETAILS

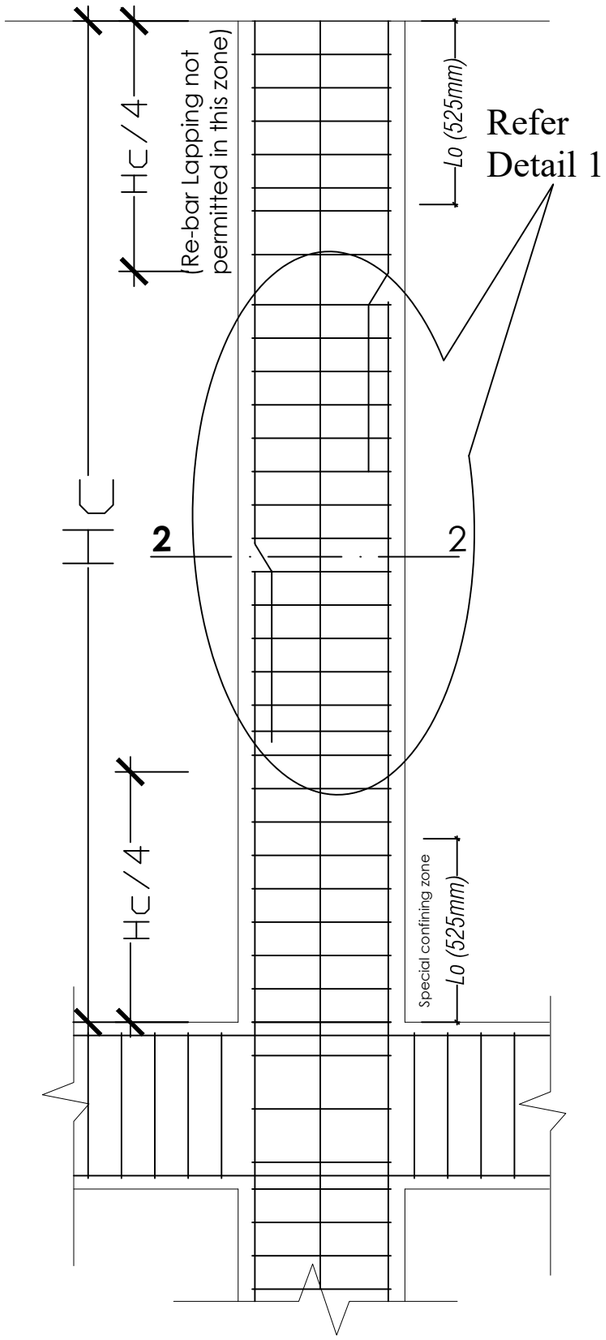
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_06
Construction of BHU Building and Auxiliary Work	RRM_WALL_DETAILS				Sep, 2026	SCALE: NTS

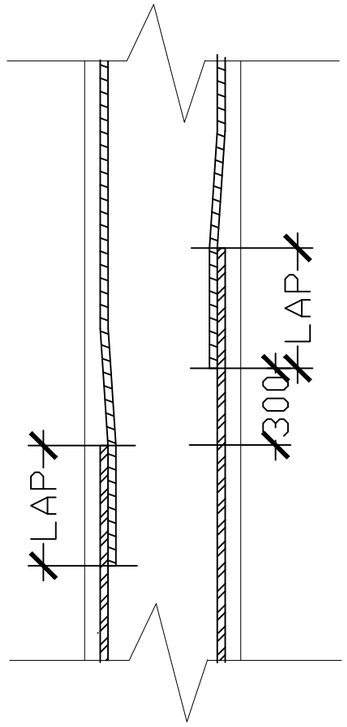


Column Layout Plan

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_07
	Construction of BHU Building and Auxiliary Work / COLUMN_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS



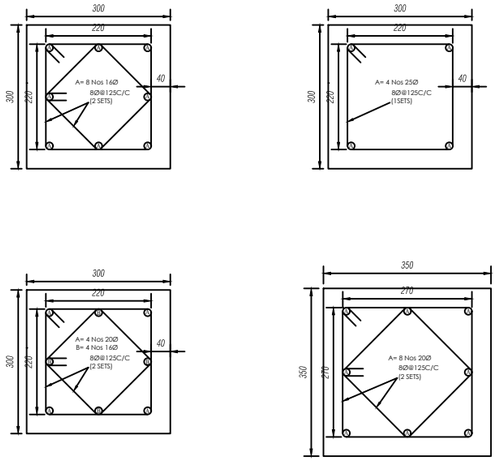
TYPICAL SECTION (showing Typical arrangment of Rebar and Ties in columns)



DETAIL 1 (showing staggering of laps in columns)

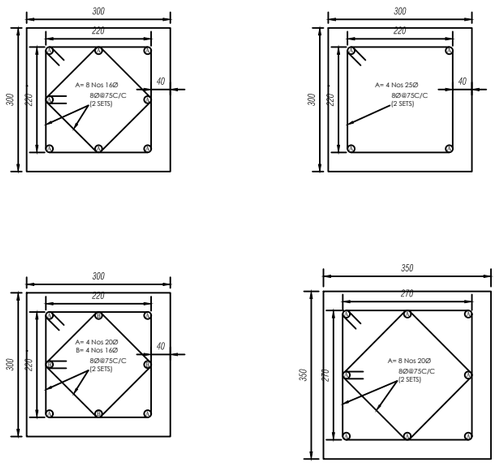
Bar Dia	Splice Length
16ø	912
20ø	1140
25ø	1425

(NORMAL CONFINING)



15 no. of reinforcement throughout the clear span of 2.1 m excluding the special confining reinforcement of column

(SPECIAL CONFINING)



7 no. of reinforcement each for 525 mm on both sides of clear span of column

Khorlochhu

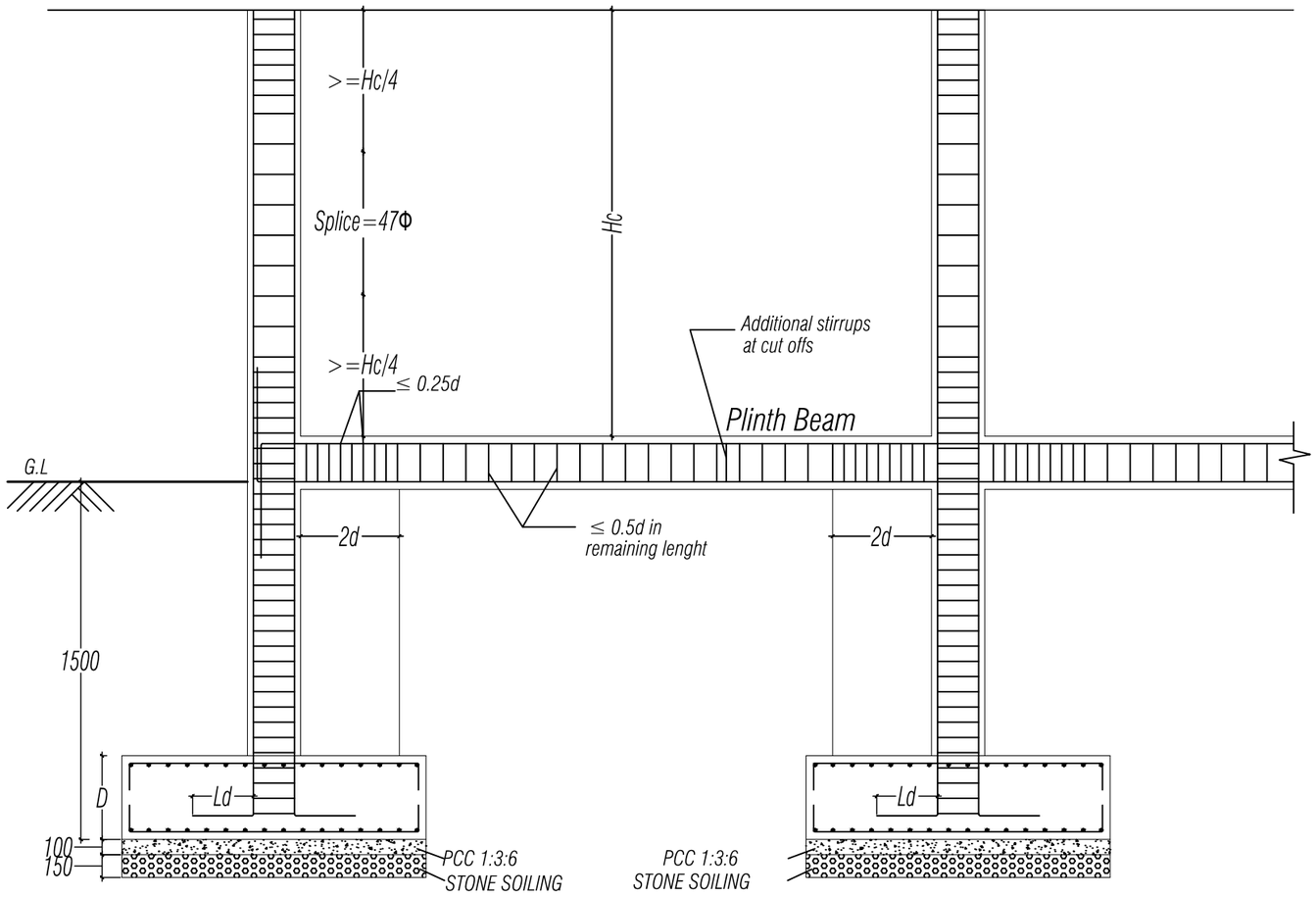
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COLUMN_DETAILS

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_08
			SCALE
			NTS



BEAM-COLUMN JUNCTION DETAILING

NOTE:

Clear Cover Details:

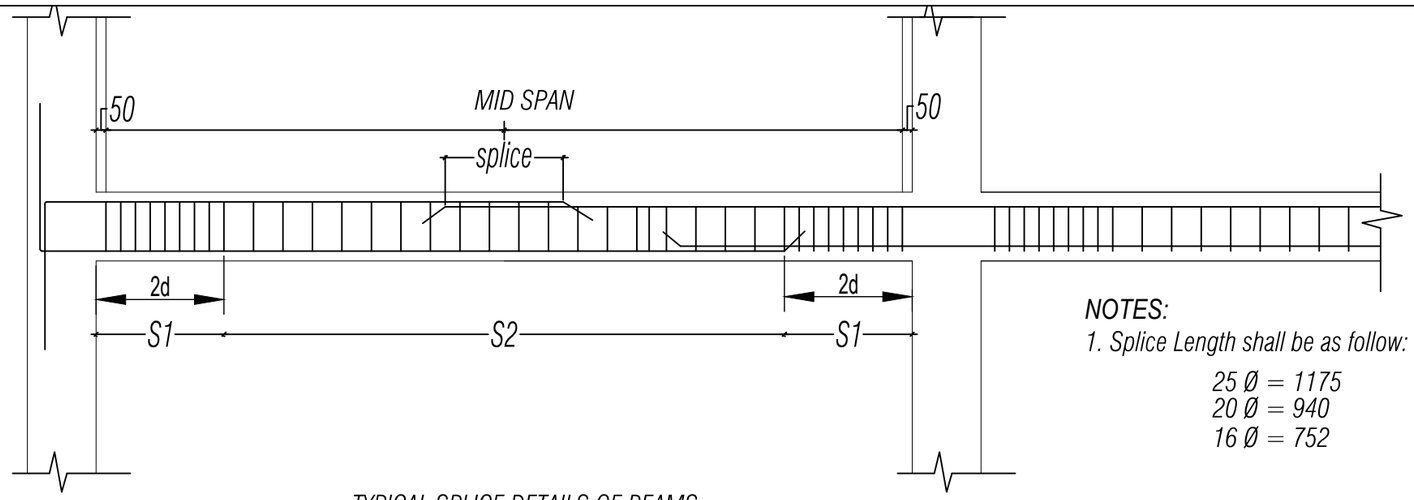
1. The clear cover to all footings should be 50 mm
2. The clear cover to all columns should be 40 mm
3. The clear cover to all beams should be 30 mm
4. The clear cover to all slabs should be 20 mm
5. The clear cover to RCC Wall should be 20 mm

Reinforcement Details

1. Not more than 50% of bars shall be spliced at one section both in beams and columns.
2. Column bars shall be spliced at a distance of Hc/4 from the face of support
3. No lap splice in columns are provided in first storey
4. Top bars in the beam shall splice at midspan while bottom bars shall be spliced at a distance of 2d from the face of the column but not at mid span
5. Full length of splice stirrups in ties in column shall be 8Ø @ 100mm c/c
6. The column encasing the stair case shall be provide with special confining reinforcement 8Ø @ 75mc/c throughout the height of column

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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_09
Construction of BHU Building and Auxiliary Work	COLUMN_BEAM_JUNCTION_DETAILS				Sep, 2026	SCALE NTS

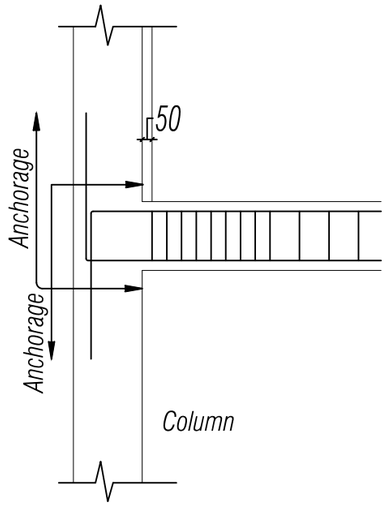


TYPICAL SPLICE DETAILS OF BEAMS

NOTES:

1. Splice Length shall be as follow:

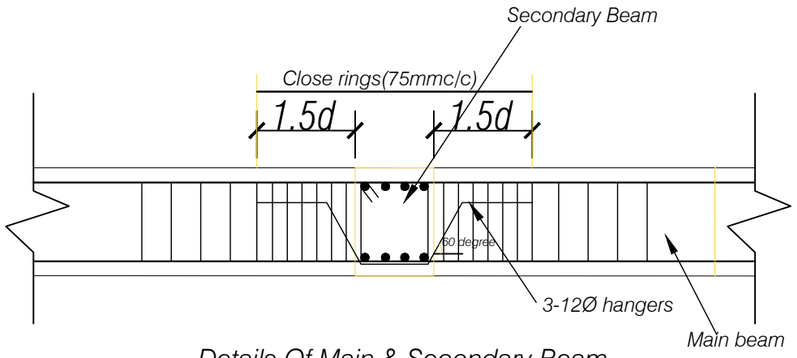
25 Ø = 1175
20 Ø = 940
16 Ø = 752



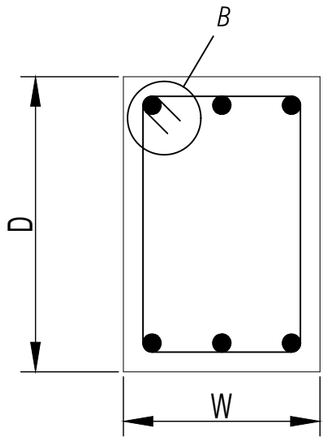
ANCHORAGE
DETAILS AT - A

Bar Anchorage Length
(Minimum Length = 67Ø)

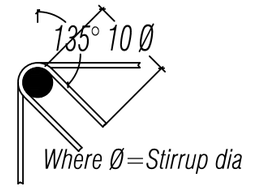
16 Ø = 912
20 Ø = 1140
25 Ø = 1425



Details Of Main & Secondary Beam



BEAM STIRRUPS DETAILS



DETAILS AT - B

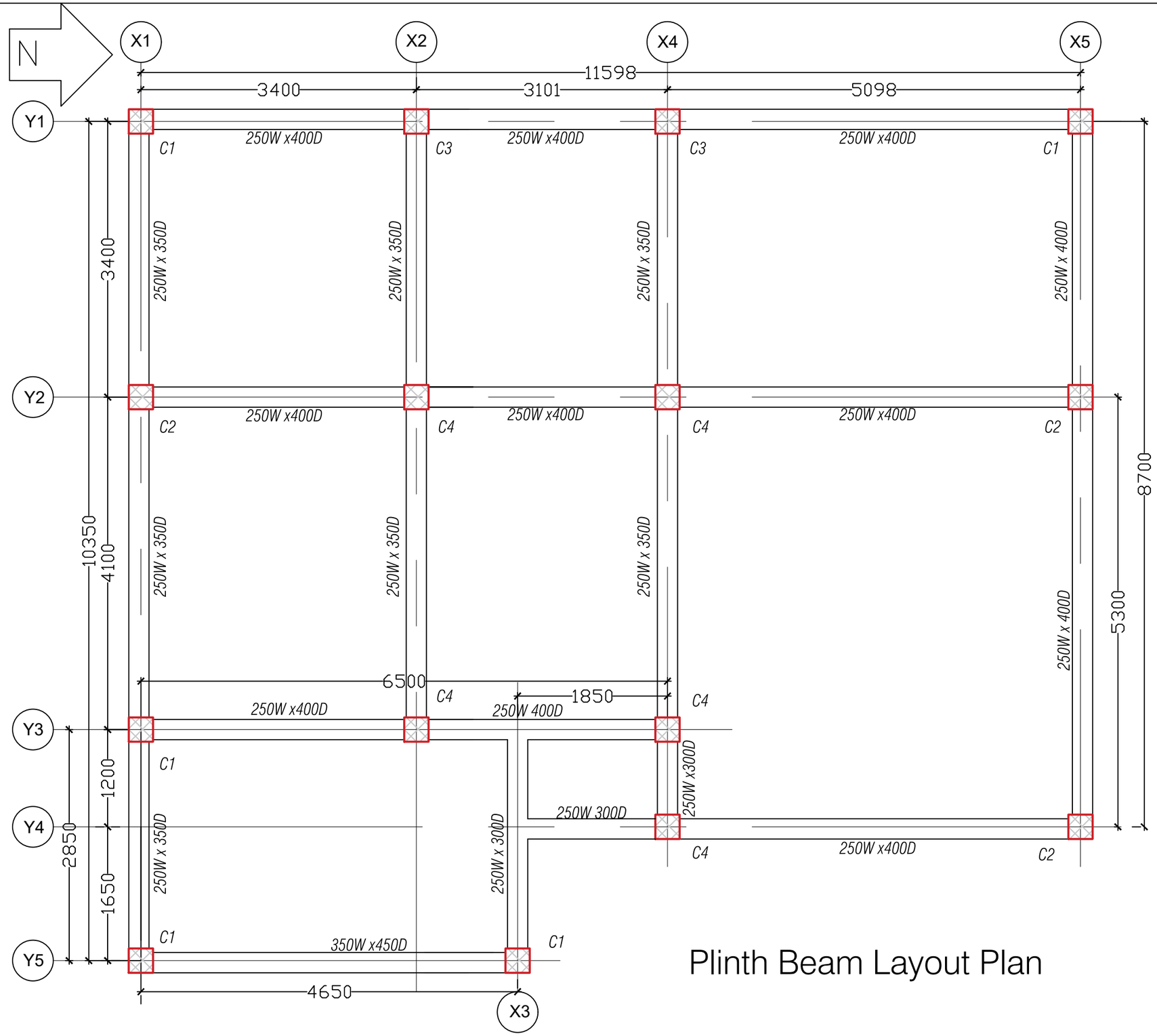
Stirrups in the Beams

Location	: Stirrups provided
2d	: 8Ø@100c/c
S1	: 8Ø@150c/c
Splice	: 8Ø@100c/c

Typical Floor Beam Details

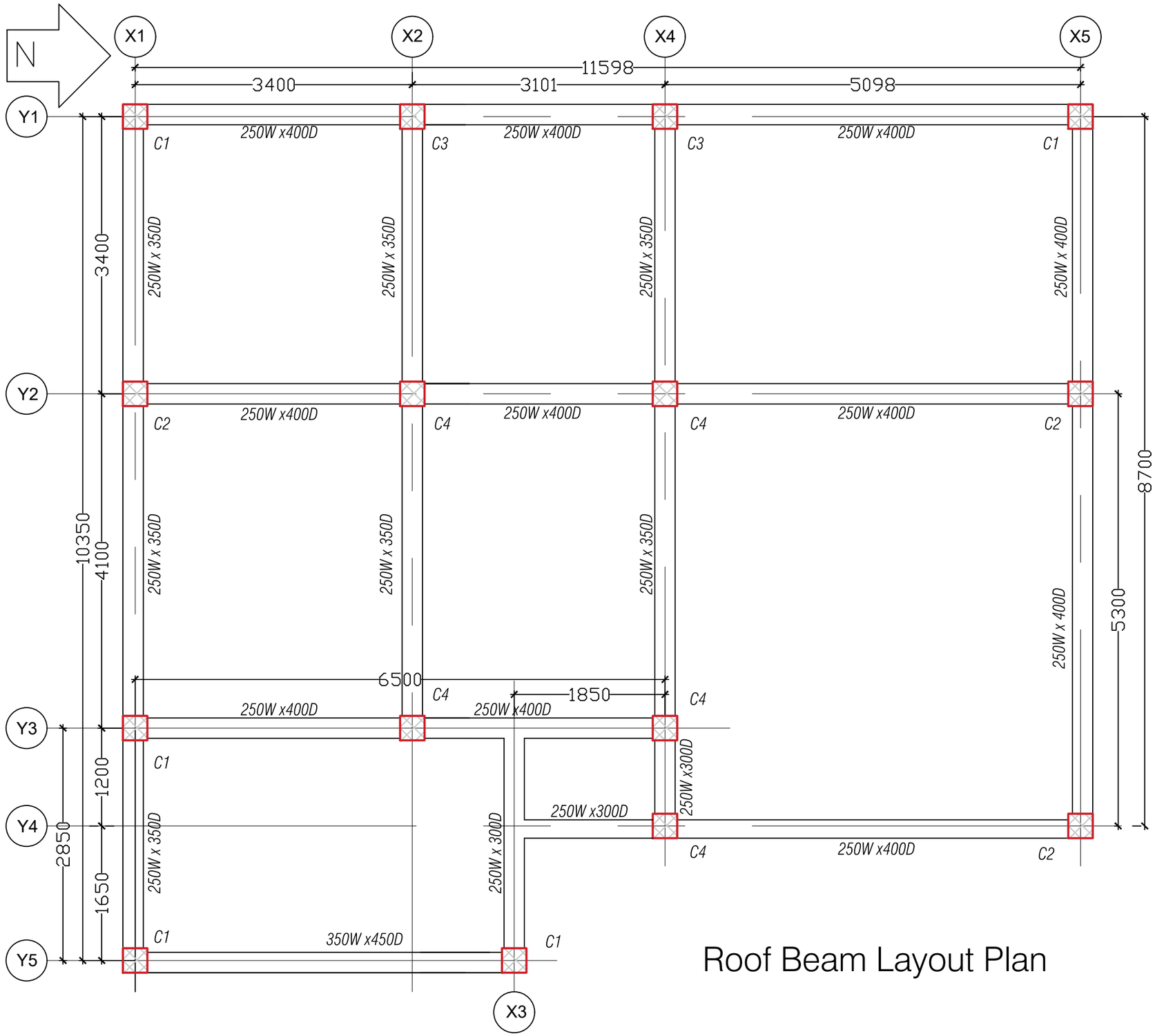
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_10
Construction of BHU Building and Auxiliary Work	TYPICAL_FLOOR_BEAM_PLAN				Sep, 2026	SCALE NTS



Plinth Beam Layout Plan

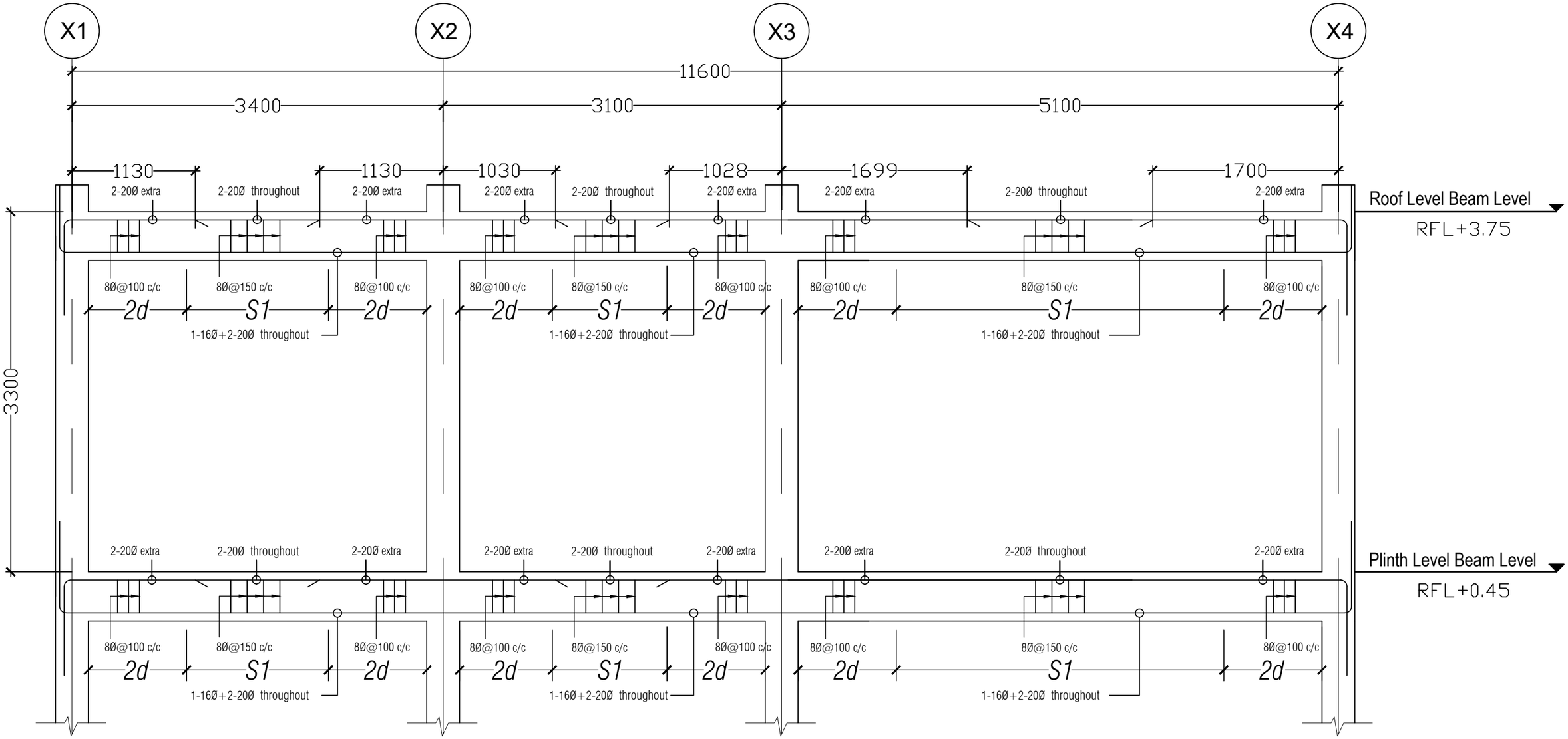
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026 / STR_11
	Construction of BHU Building and Auxiliary Work / PLINTH_BEAM_LAYOUT_PLAN				**SCALE** / NTS



Roof Beam Layout Plan

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_12
Construction of BHU Building and Auxiliary Work	ROOF_BEAM_LAYOUT_PLAN				Sep, 2026	SCALE NTS

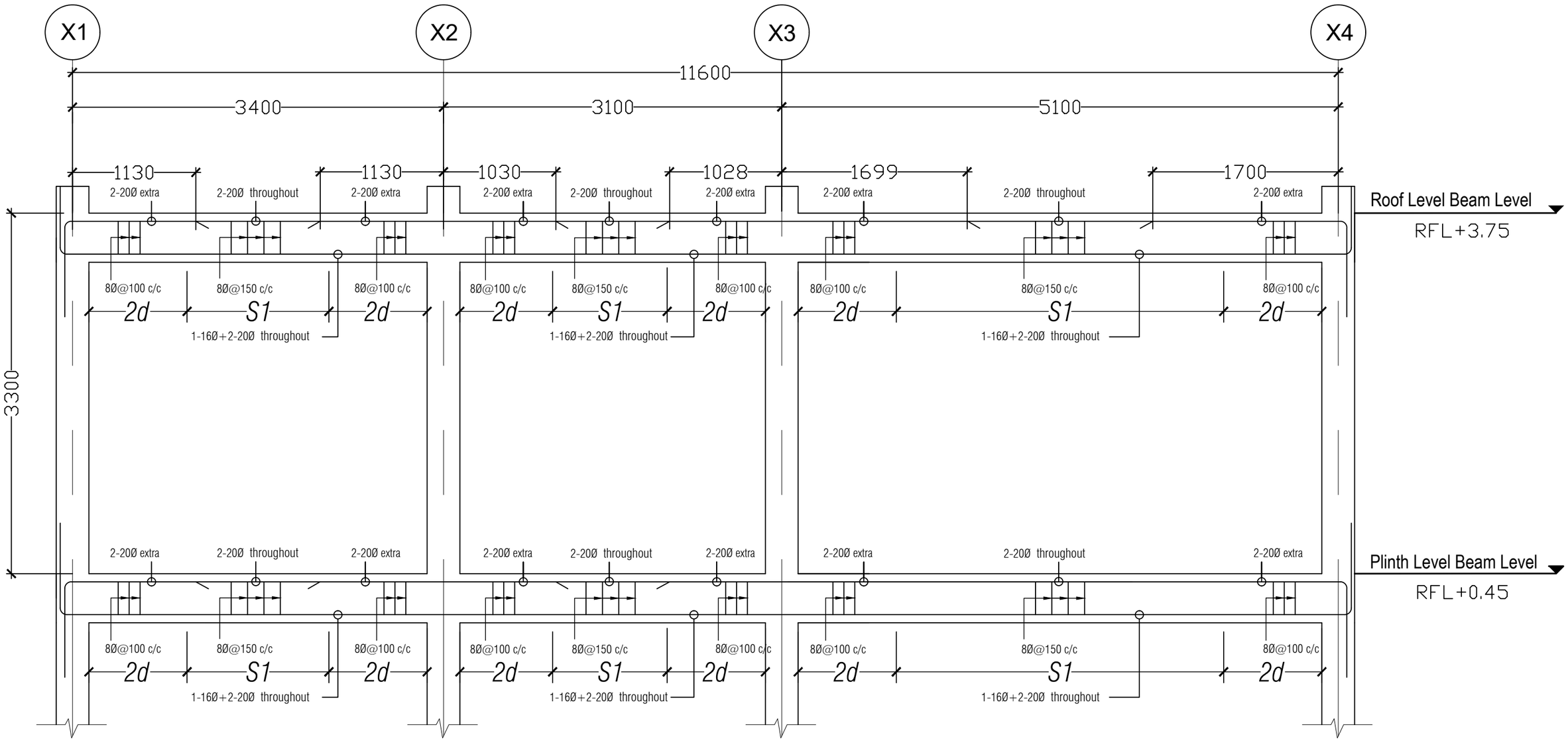


L-Section Along Frame Y1

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_13
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_FRAME_Y1				Sep, 2026	SCALE: NTS

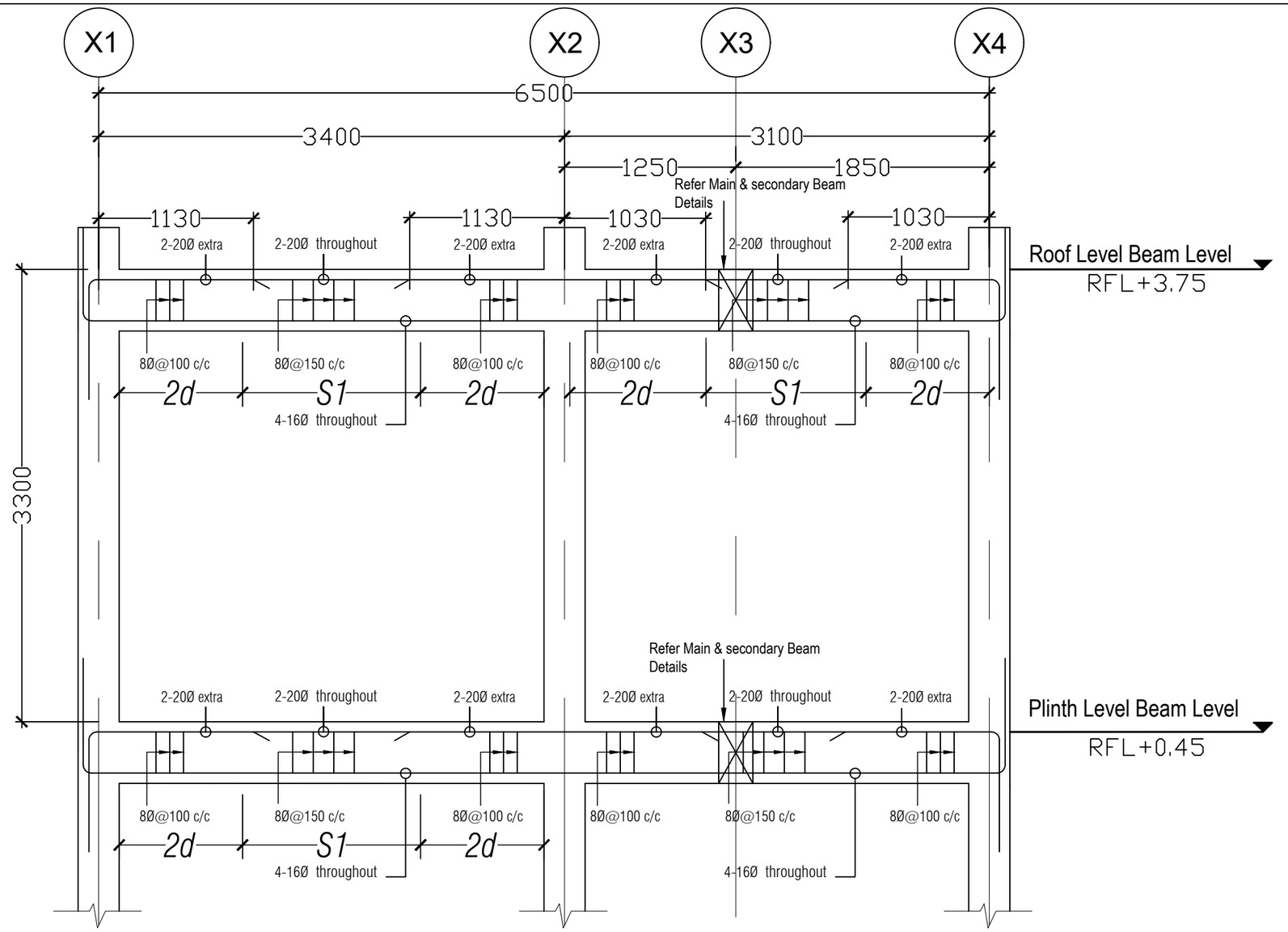


L-Section Along Frame Y2

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_14
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_FRAME_Y2				Sep, 2026	SCALE: NTS

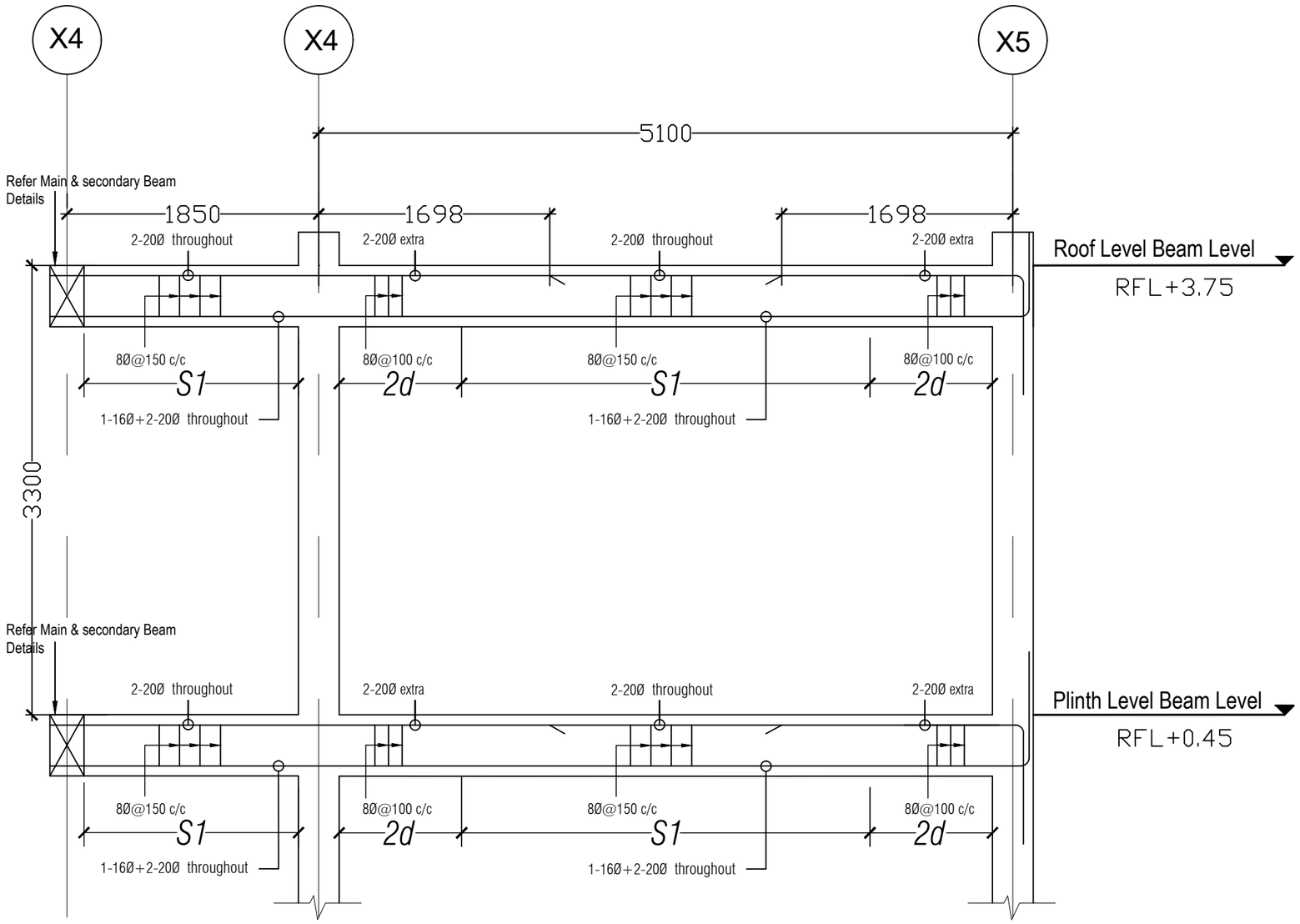


L-Section Along Frame Y3

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_15
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_FRAME_Y3				Sep, 2026	SCALE: NTS



L-Section Along Frame Y4

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

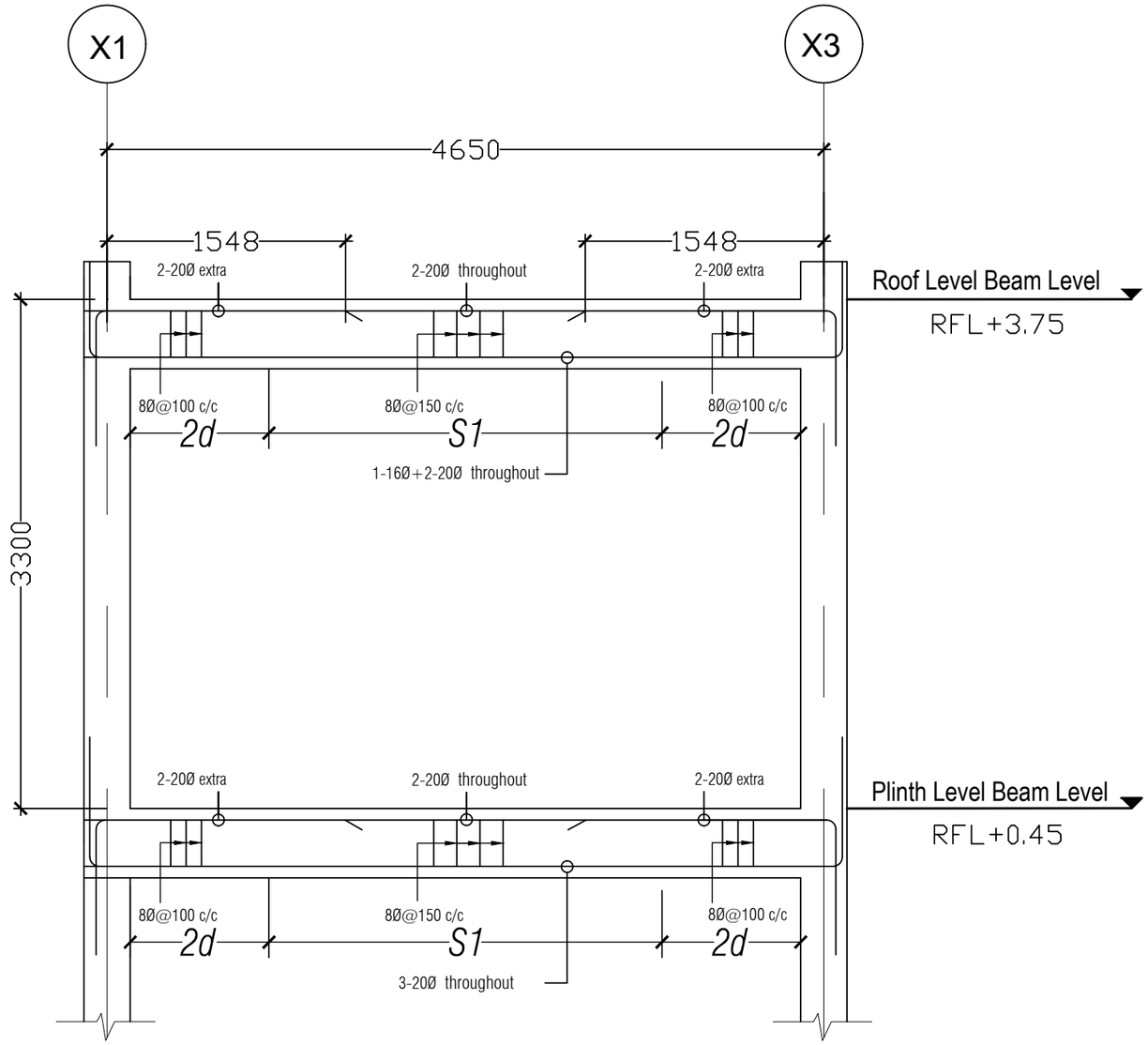
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_FRAME_Y4

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_16
			SCALE
			NTS



L-Section Along Frame Y5

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

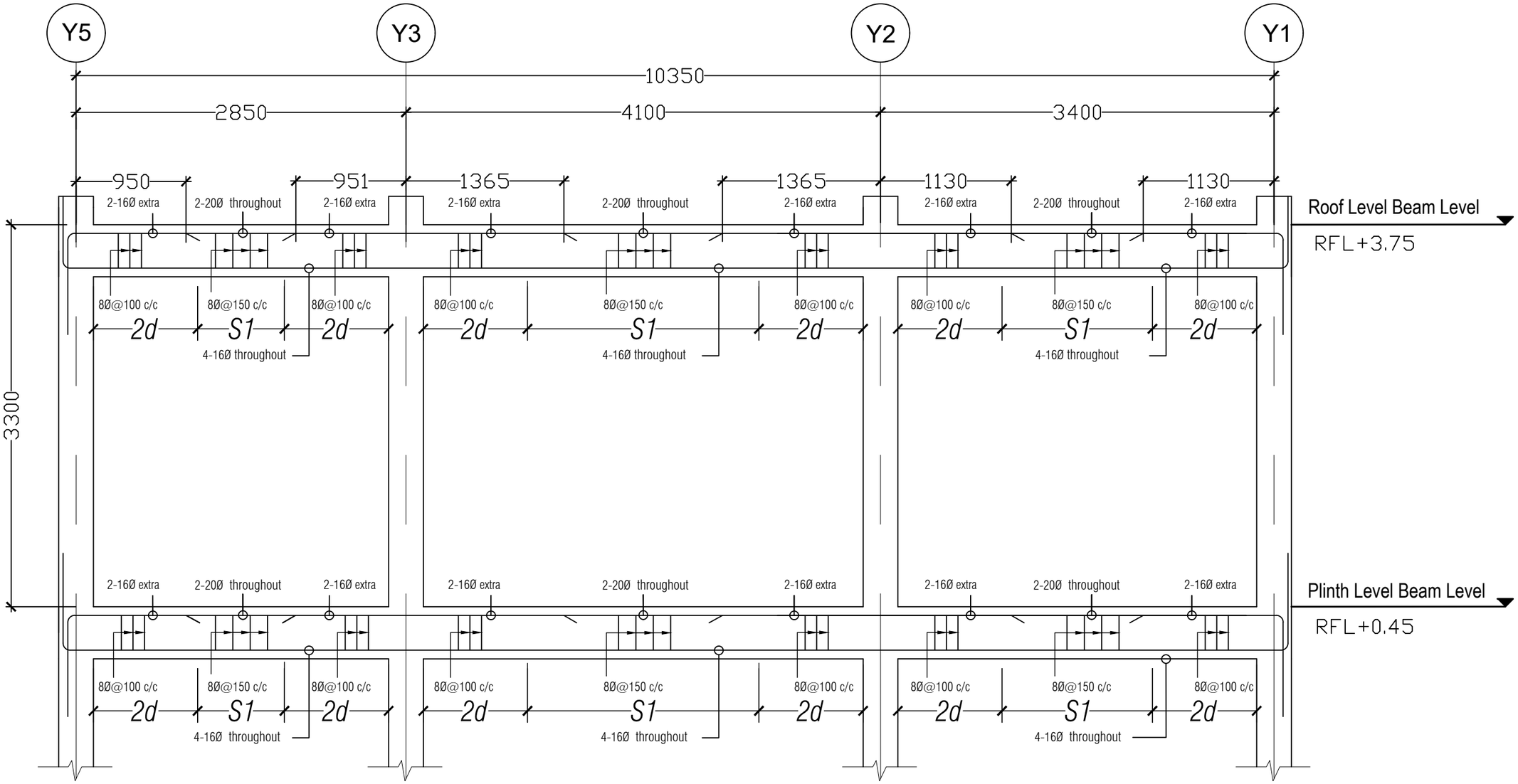
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_Y5

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_17
			SCALE
			NTS



L-Section Along Frame X1

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

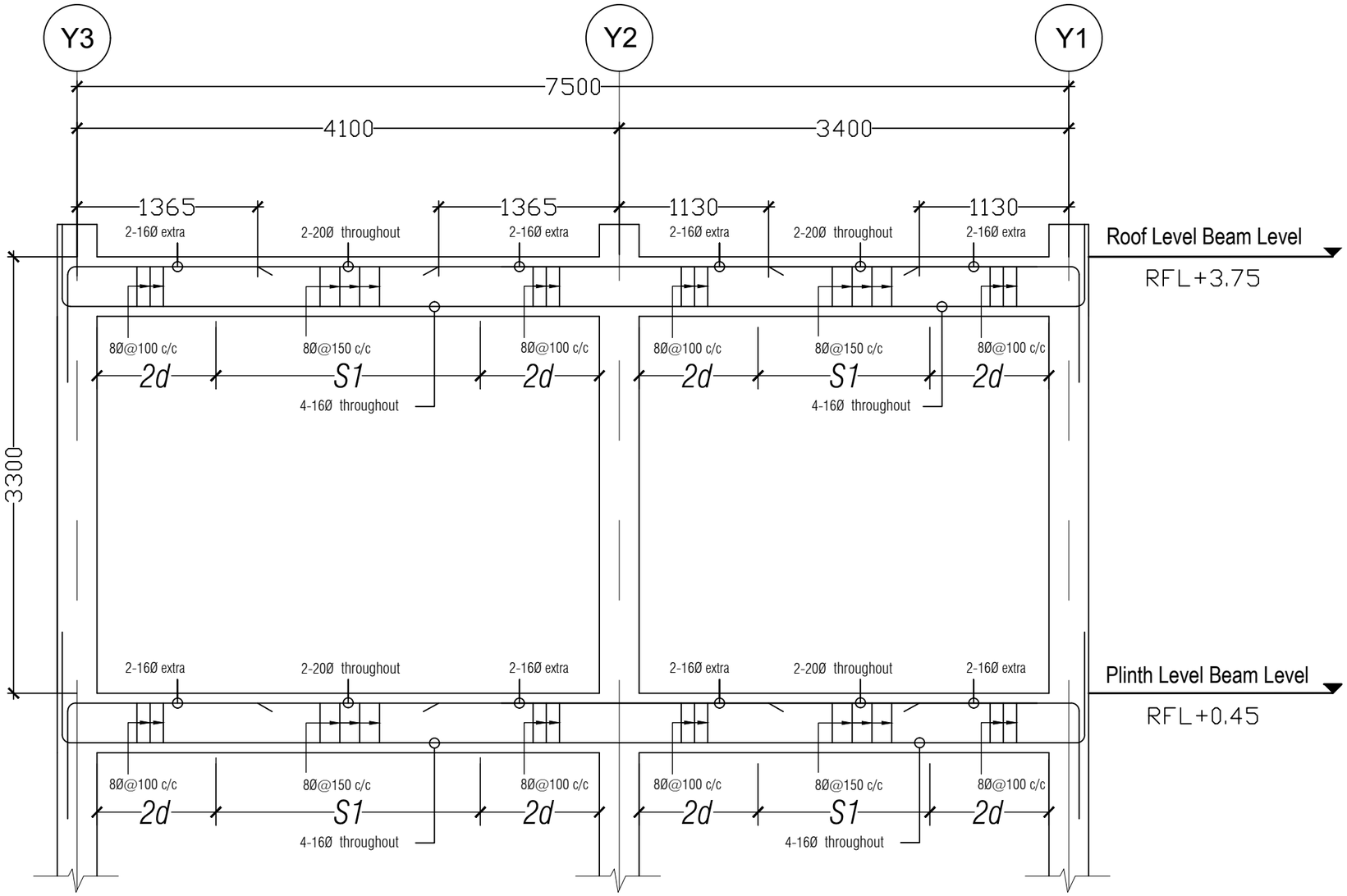
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X1

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_18
			SCALE
			NTS

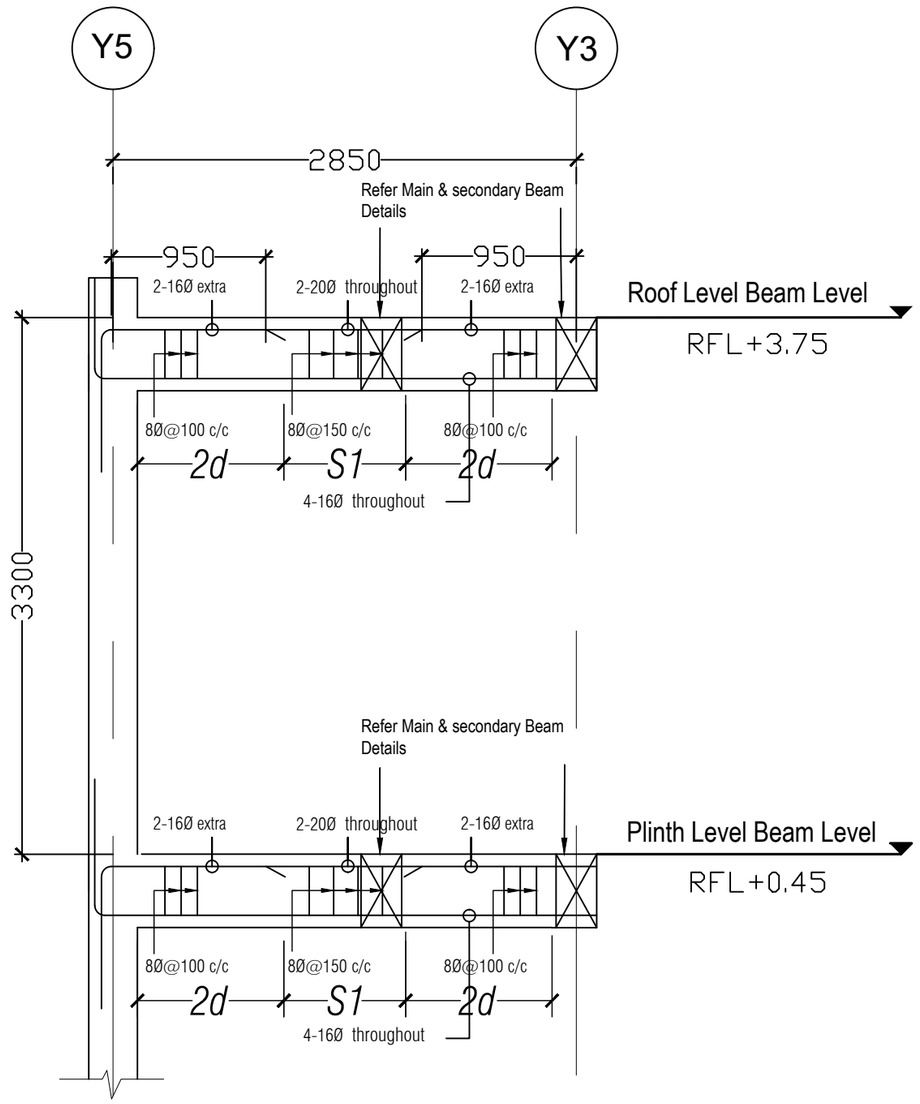


L-Section Along Frame X2

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_19
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X2				Sep, 2026	SCALE NTS

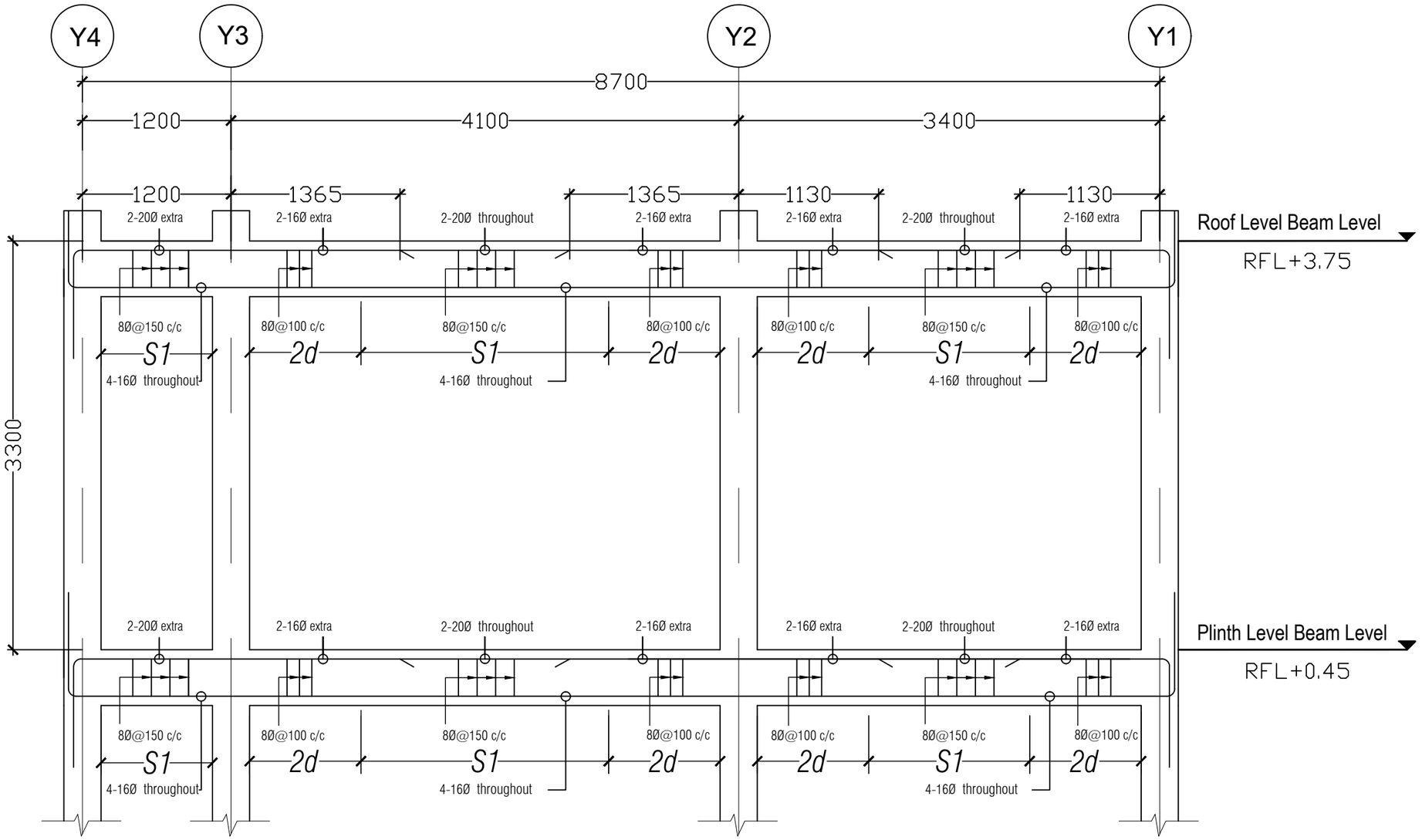


L-Section Along Frame X3

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_20
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X3				Sep, 2026	SCALE: NTS



L-Section Along Frame X4

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

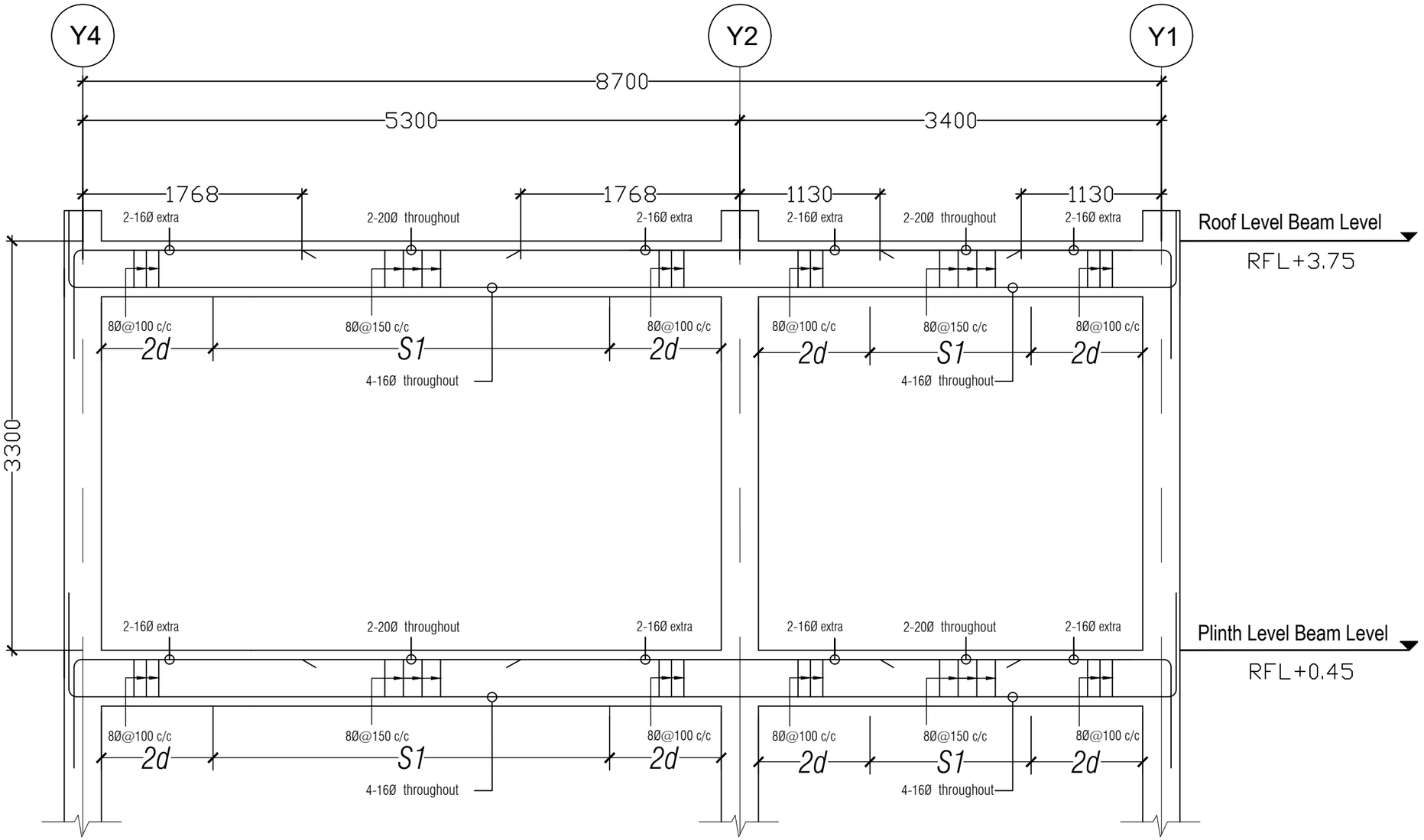
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X4

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_21
			SCALE
			NTS

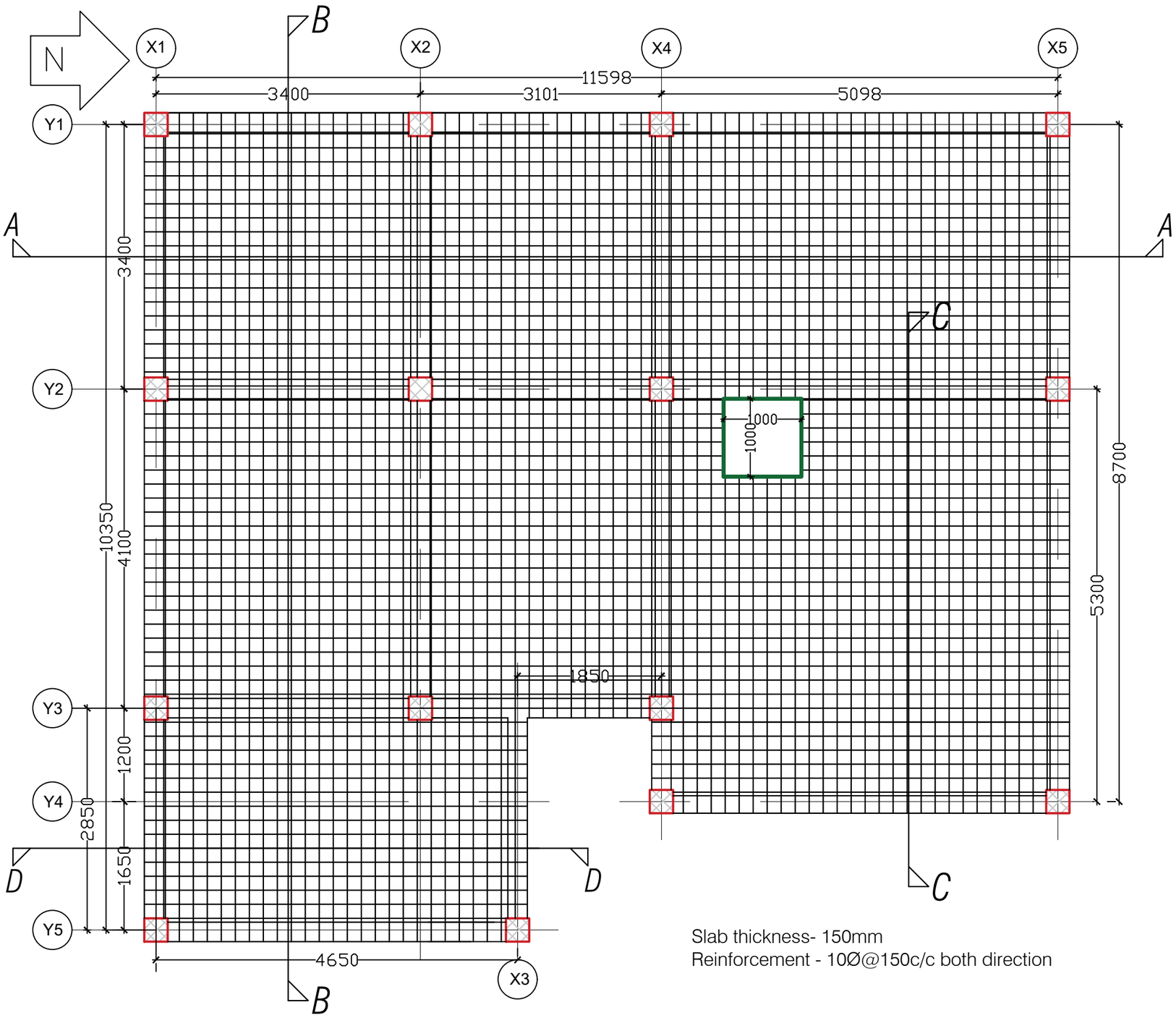


L-Section Along Frame X5

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_22
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X5				Sep, 2026	SCALE: NTS



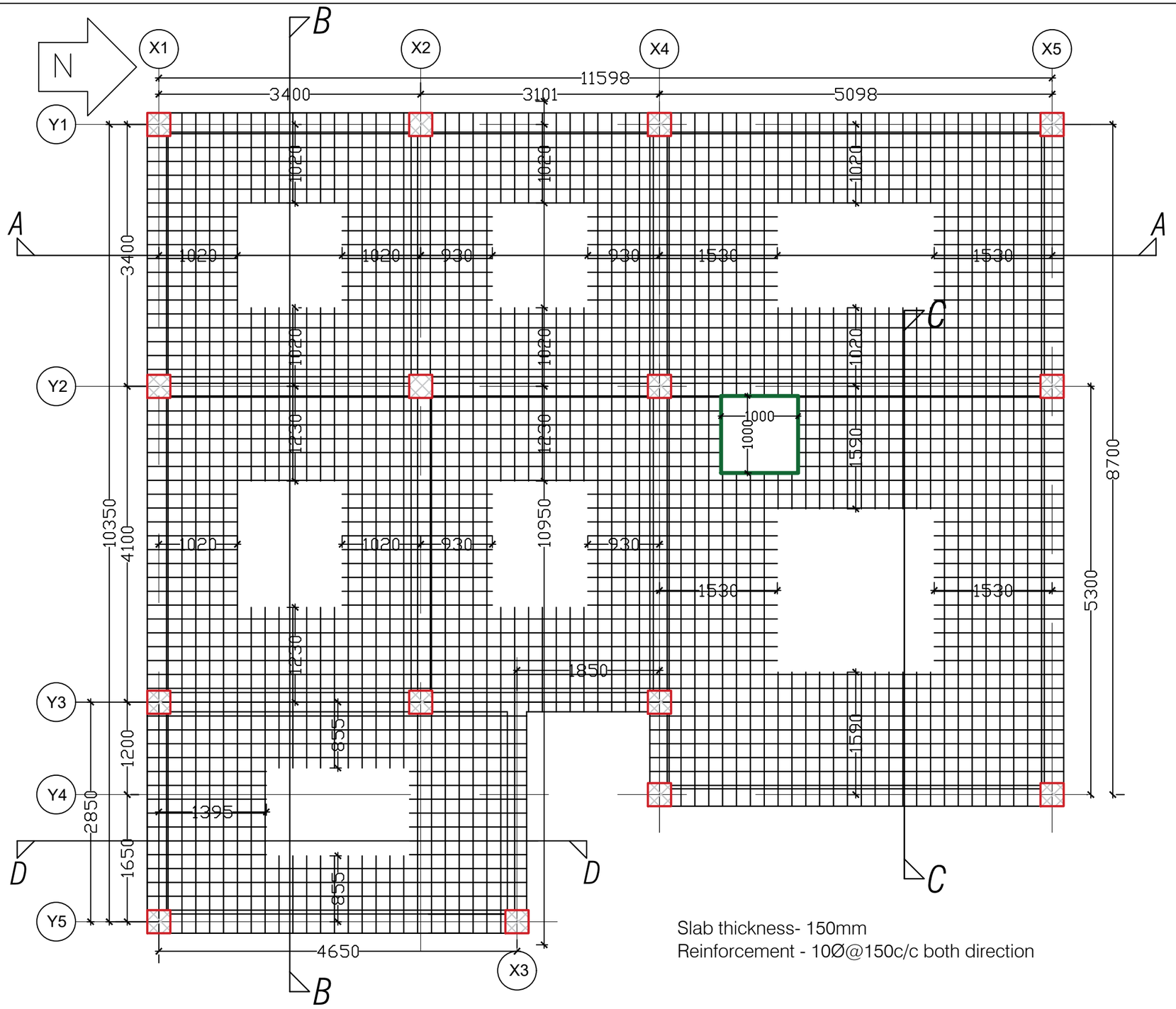
Slab thickness- 150mm
Reinforcement - 10Ø@150c/c both direction

Roof Level Reinforcement Layout Plan - Bottom Reinforcement

Note: Projection of Slab to be read along with Architectural Drawings

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_23
Construction of BHU Building and Auxiliary Work	ROOF_FLOOR_SLAB_LAYOUT_PLAN-BOTTOM_REINF				Sep, 2026	SCALE
						NTS



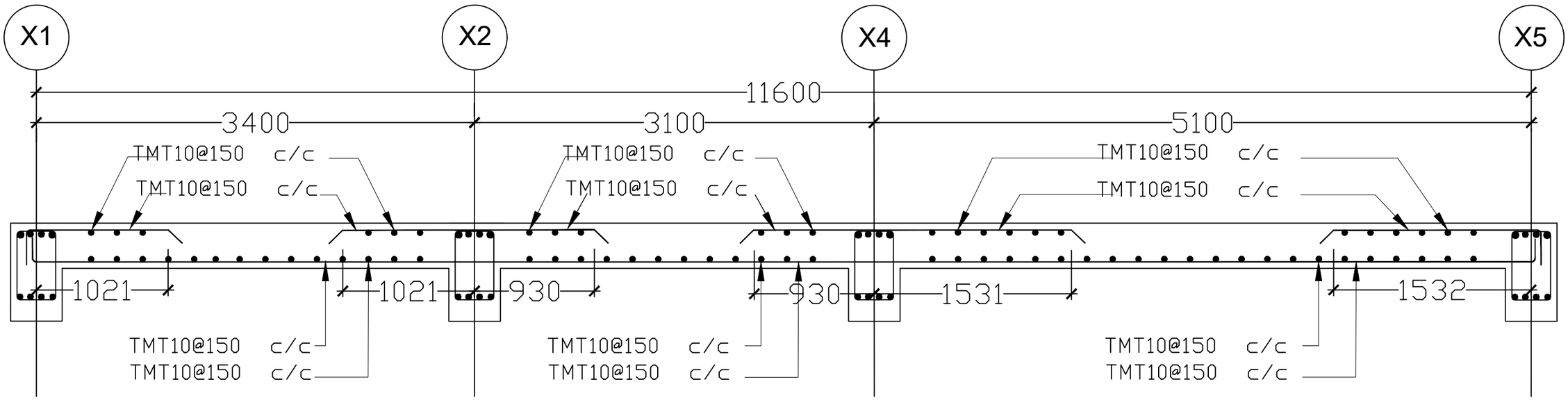
Slab thickness- 150mm
Reinforcement - 10Ø@150c/c both direction

Roof Level Reinforcement Layout Plan - Top Reinforcement

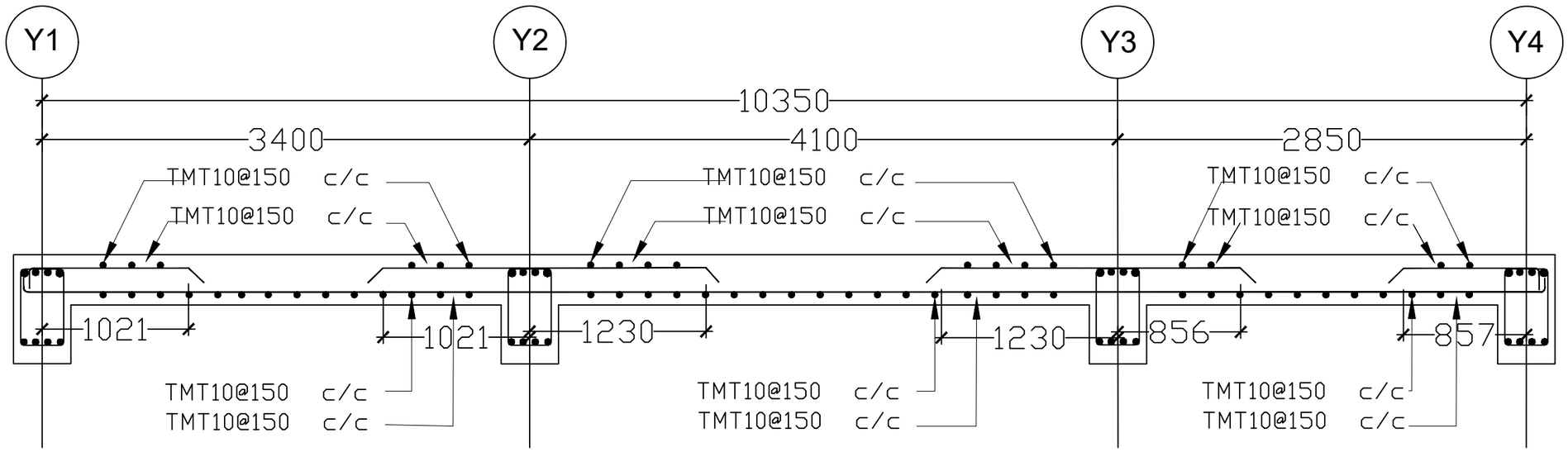
Note: Projection of Slab to be read along with Architectural Drawings

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_24
Construction of BHU Building and Auxiliary Work	ROOF_FLOOR_SLAB_LAYOUT_PLAN-TOP_REINF				Sep, 2026	SCALE
						NTS



First Floor Slab Details at Section A-A
(NOTE : 150 mm THICKNESS OF SLAB)



First Floor Slab Details at Section B-B
(NOTE : 150 mm THICKNESS OF SLAB)

Khorlochhu

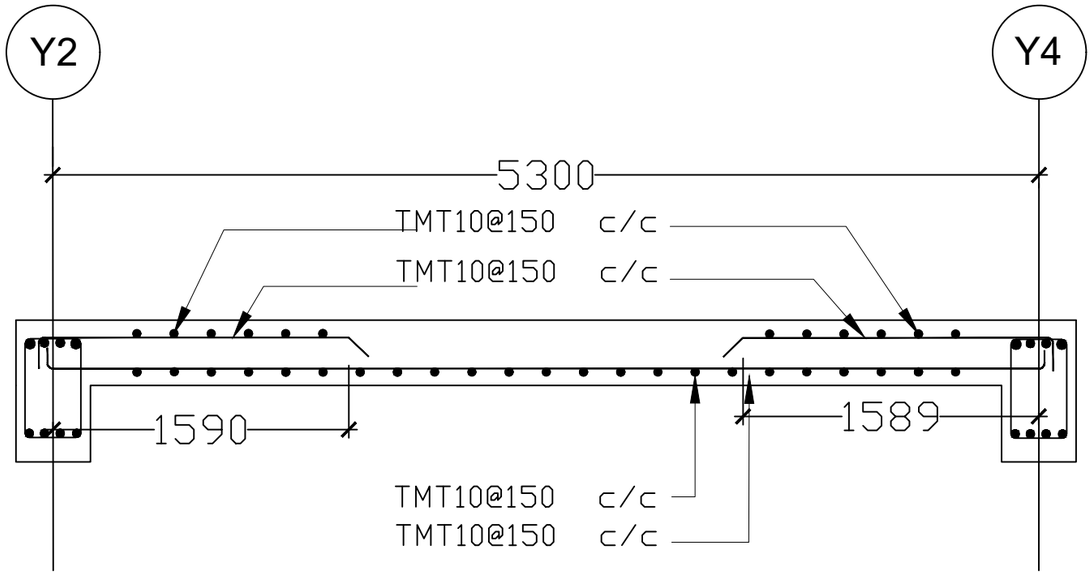
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SLAB_SECTION_A-A_&_B-B

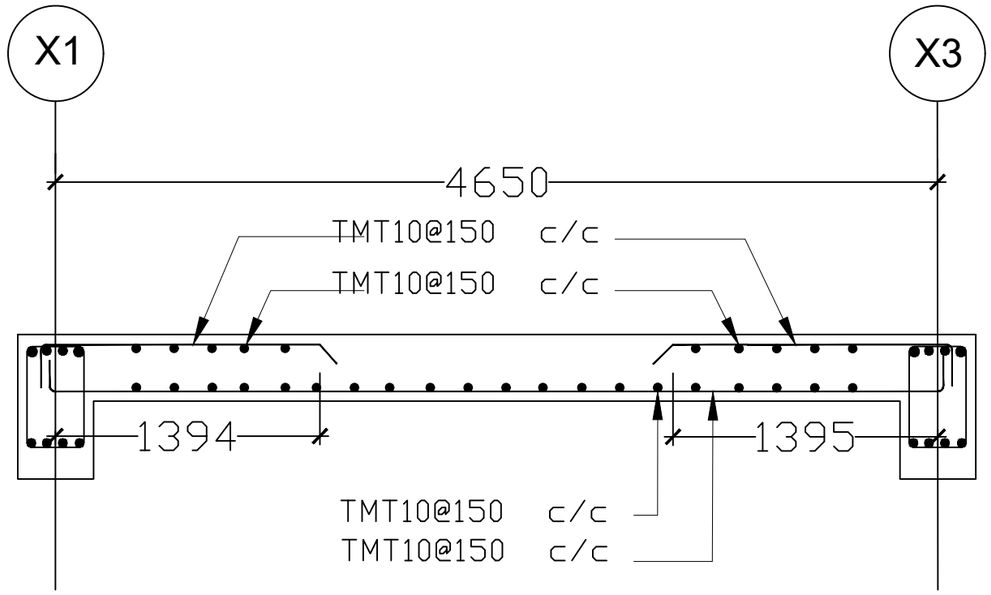
NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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CHECKED	APPROVED	DATE	DRAWING NO.
			STR_25
		Sep, 2026	SCALE
			NTS



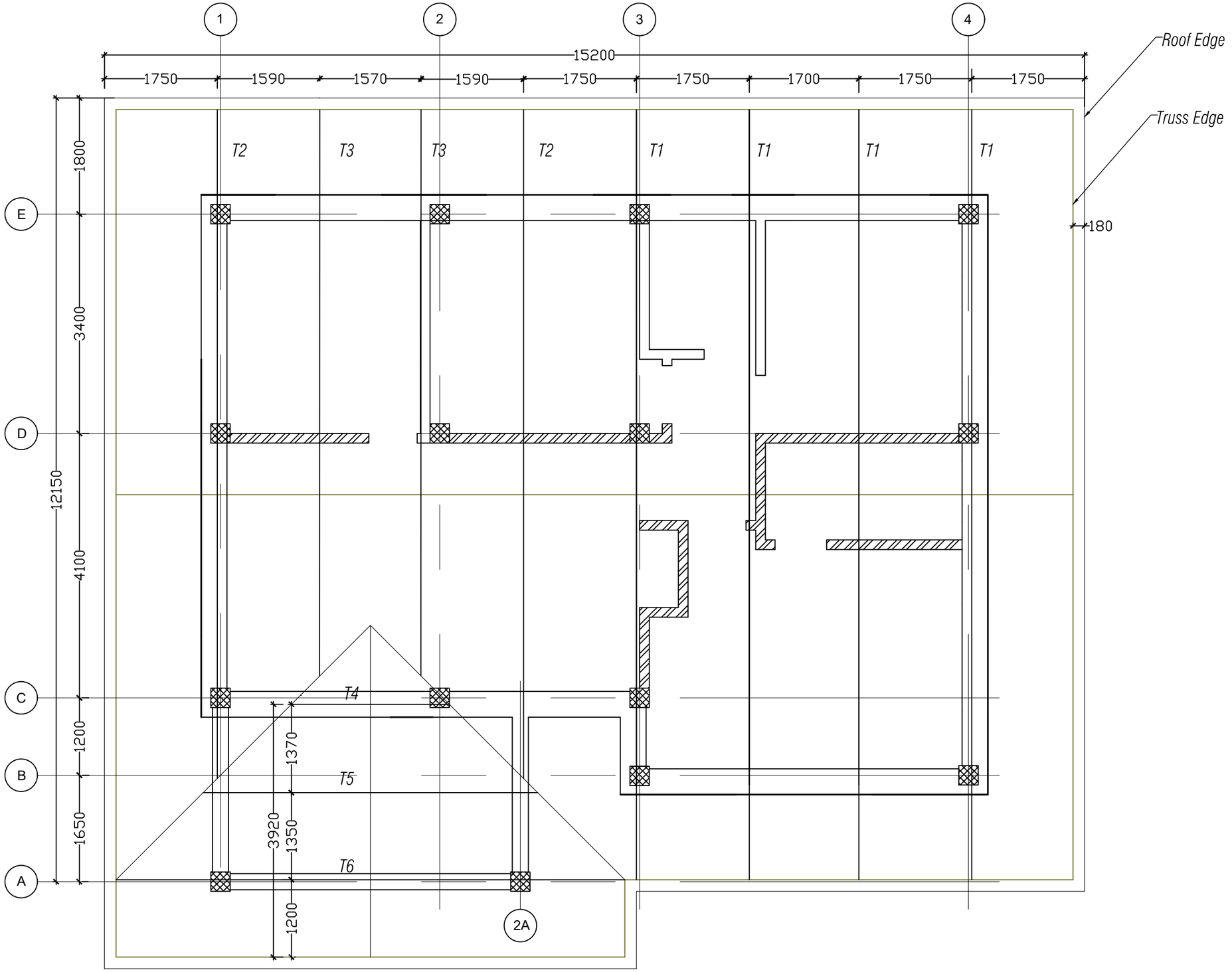
First Floor Slab Details at Section C-C
(NOTE : 150 mm THICKNESS OF SLAB)



First Floor Slab Details at Section D-D
(NOTE : 150 mm THICKNESS OF SLAB)

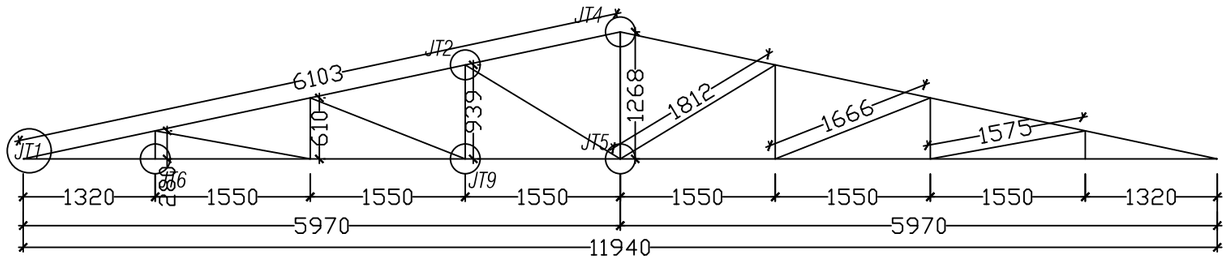
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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_26
Construction of BHU Building and Auxiliary Work	SLAB_SECTION_C-C-&_D-D				Sep, 2026	SCALE: NTS

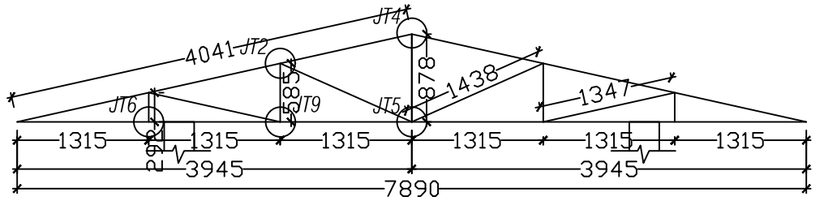


ROOF WITH TRUSS LAYOUT

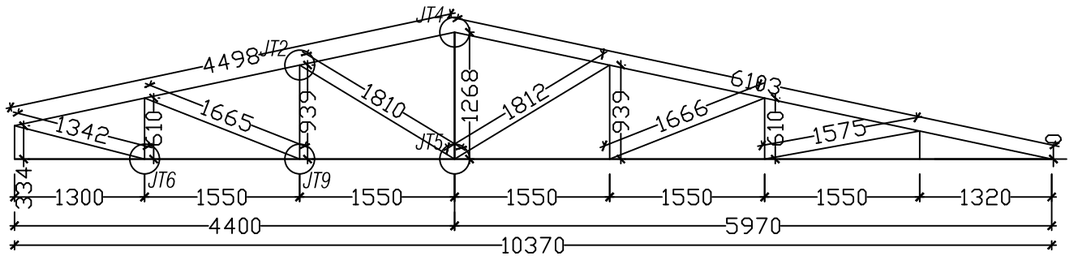
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_27
	Construction of BHU Building and Auxiliary Work / MAIN_ROOF_TRUSS_LAYOUT				Sep, 2026	**SCALE** NTS



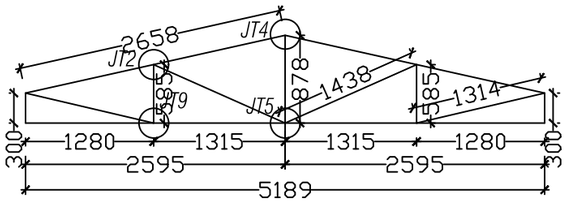
Truss 1 (4.no)



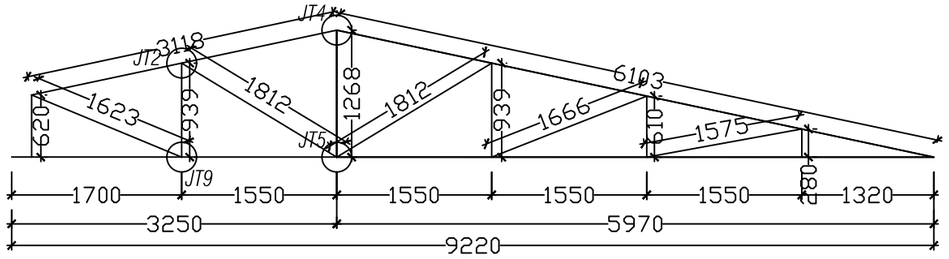
Truss 6 (1.no)



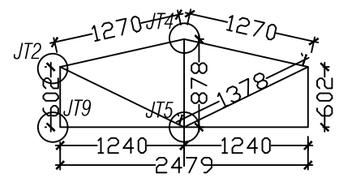
Truss 2 (2.no)



Truss 5 (1.no)



Truss 3 (4.no)



Truss 4 (1.no)

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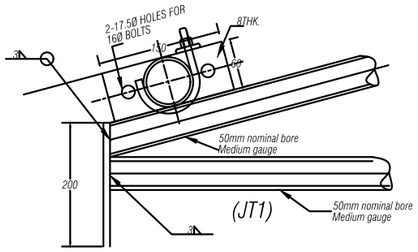
STRUCTURAL DRAWING

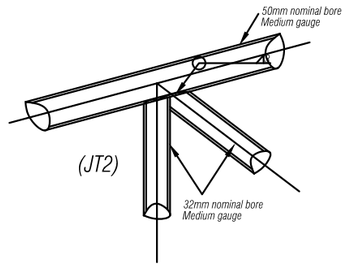
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_DETAILS

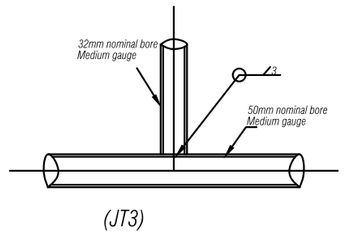
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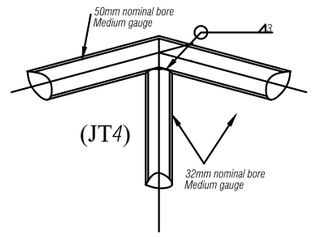
1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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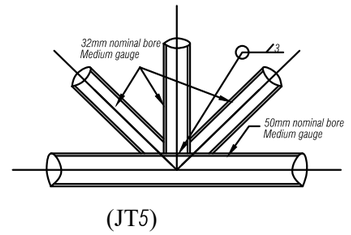
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_28
			SCALE
			NTS

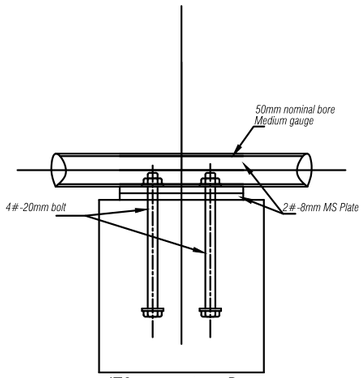




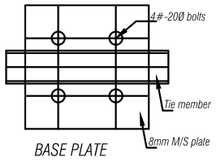




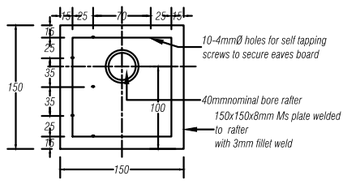




JT6 support on Beam

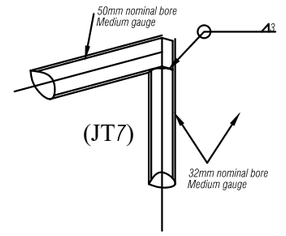


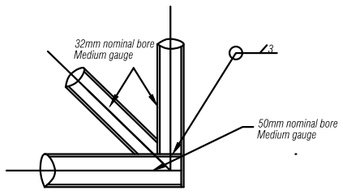
BASE PLATE

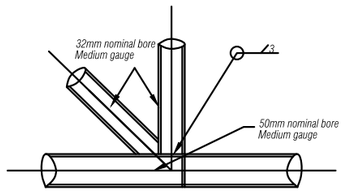


EAVES PLATE detail

NOTES:
Tubular steel of YST22 grade to be used.
All connections to be with fillet weld of 3mm size
Purlin 32mm nominal bore, medium gauge @1100c/c







SCHEDULE OF TRUSS MEMBERS

Sl.No	Particulars	Size	Nominal Bore (NB)	Class
1.	Rafter & Bottom Chord	60.30 OM	50	Medium
2.	Vertical & Inclined Chord	48.30 OM	32	Medium
3.	Purlin	48.30 OM	32	Medium
PURLINS SHALL BE PROVIDED @ 1200 mm C/C				

Khorlochhu

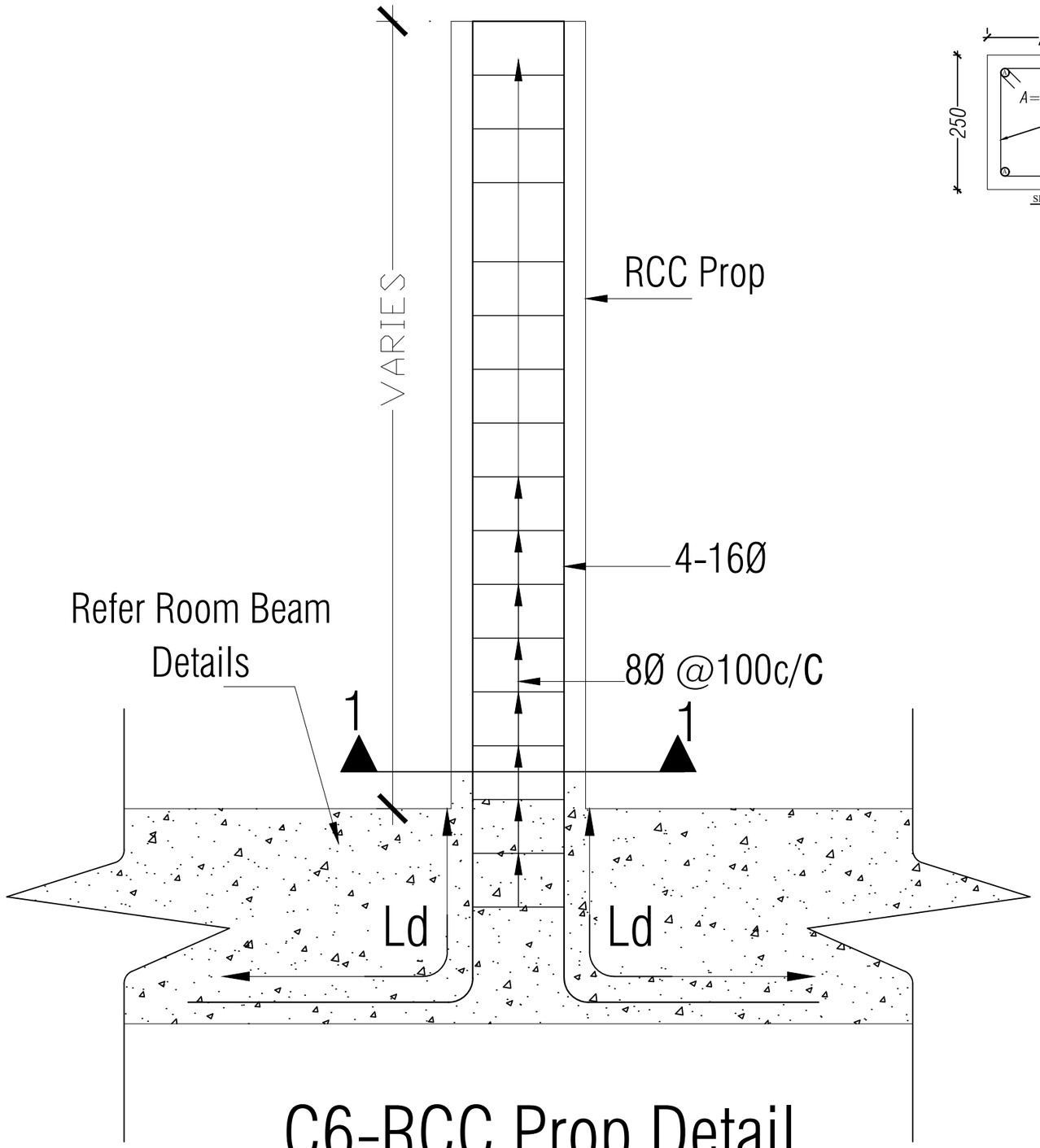
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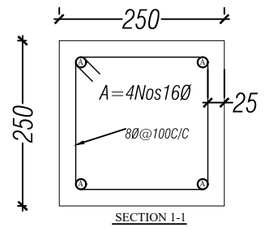
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_DETAILS

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_29
			SCALE
			NTS

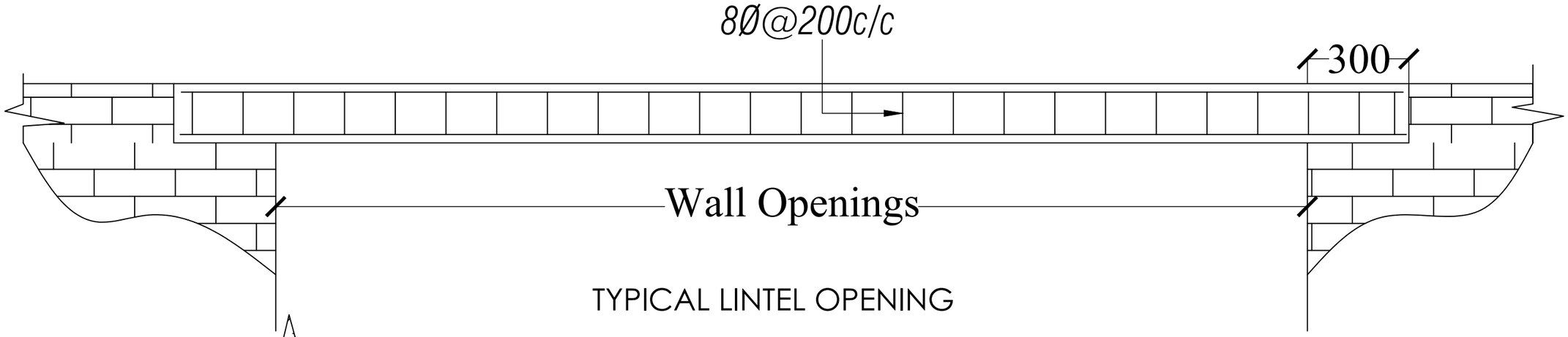




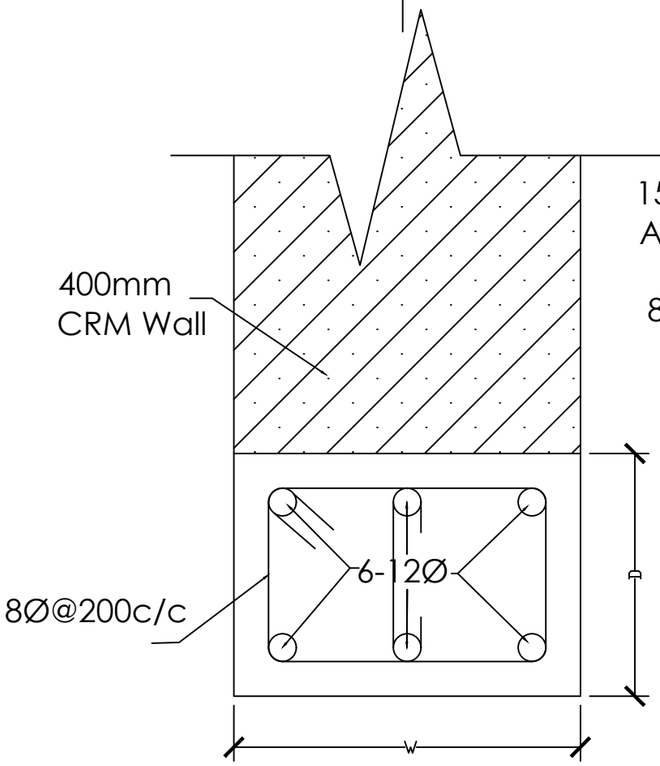
SECTION 1-1

C6-RCC Prop Detail

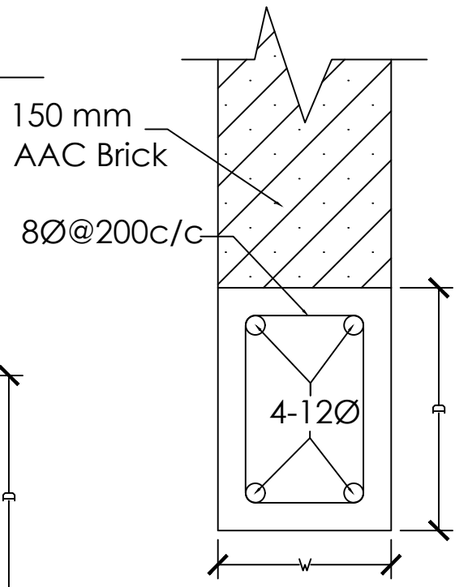
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			STR_30
	Construction of BHU Building and Auxiliary Work / RCC_PROPS_DETAILS				Sep, 2026 / **SCALE** NTS



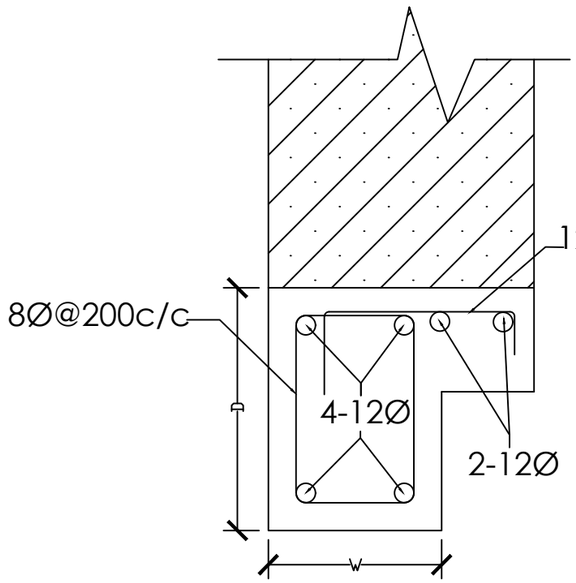
TYPICAL LINTEL OPENING



OPENING WITHIN
EXTERNAL WALL



OPENING WITHIN
INTERNAL WALL



LINTEL WITH CORNICE

NOTE :

1. Depth (D) of Lintels is to be taken as shown in Architectural drawings, especially for main windows and should be taken as 150mm for all other Lintels.
2. Width (W) of Lintels is to be taken equal to the wall thickness.

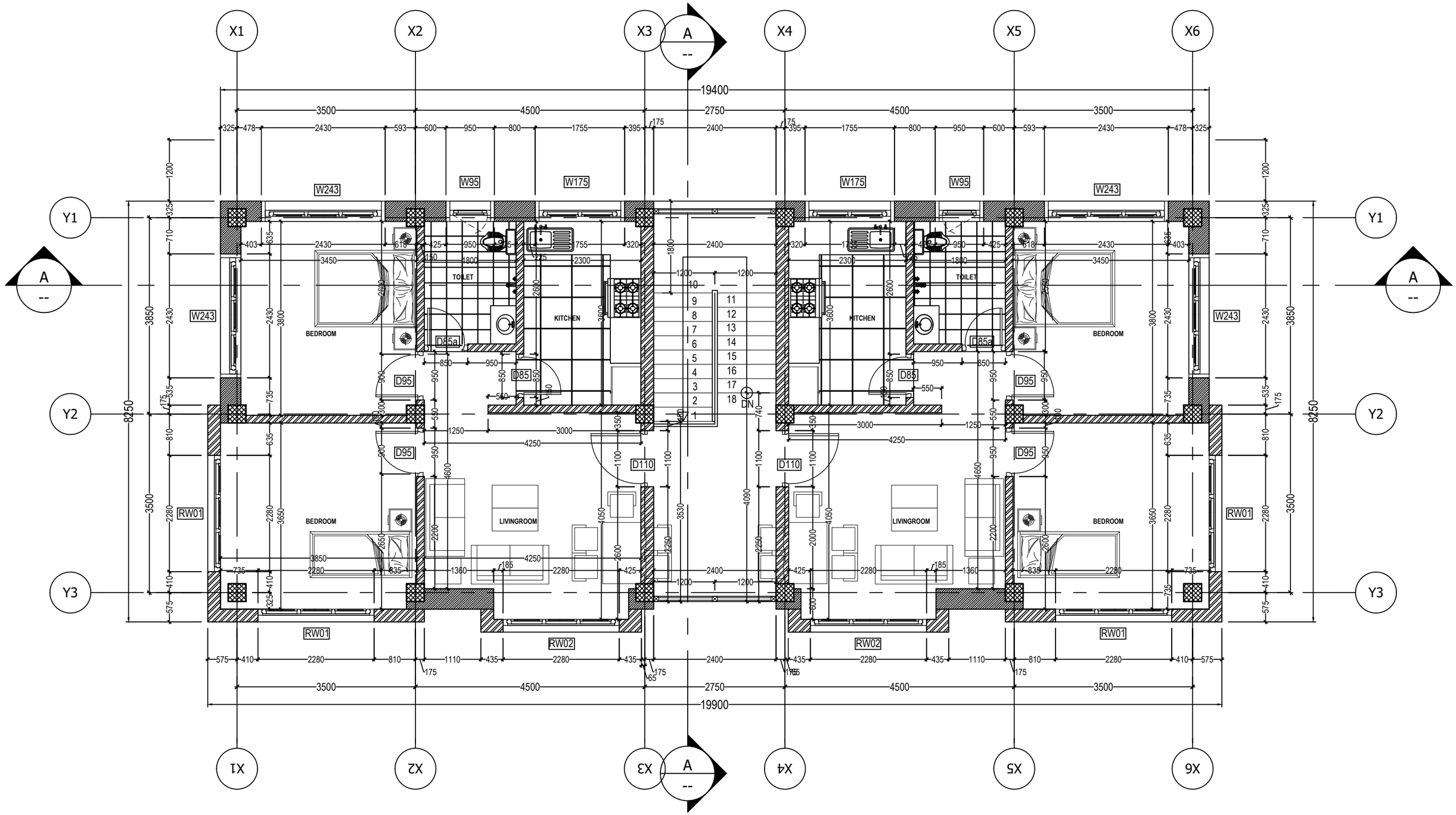
Khorlochhu	**STRUCTURAL DRAWING**		**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE	**DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_31
	Construction of BHU Building and Auxiliary Work	DETAILS				Sep, 2026	**SCALE**
							NTS

ARCHITECTURE DRAWINGS

STAFF QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

 འཁོར་ལོ་ཆུ་གླིང་མེ་ཚོང་འཛིན།
Khorlochhu



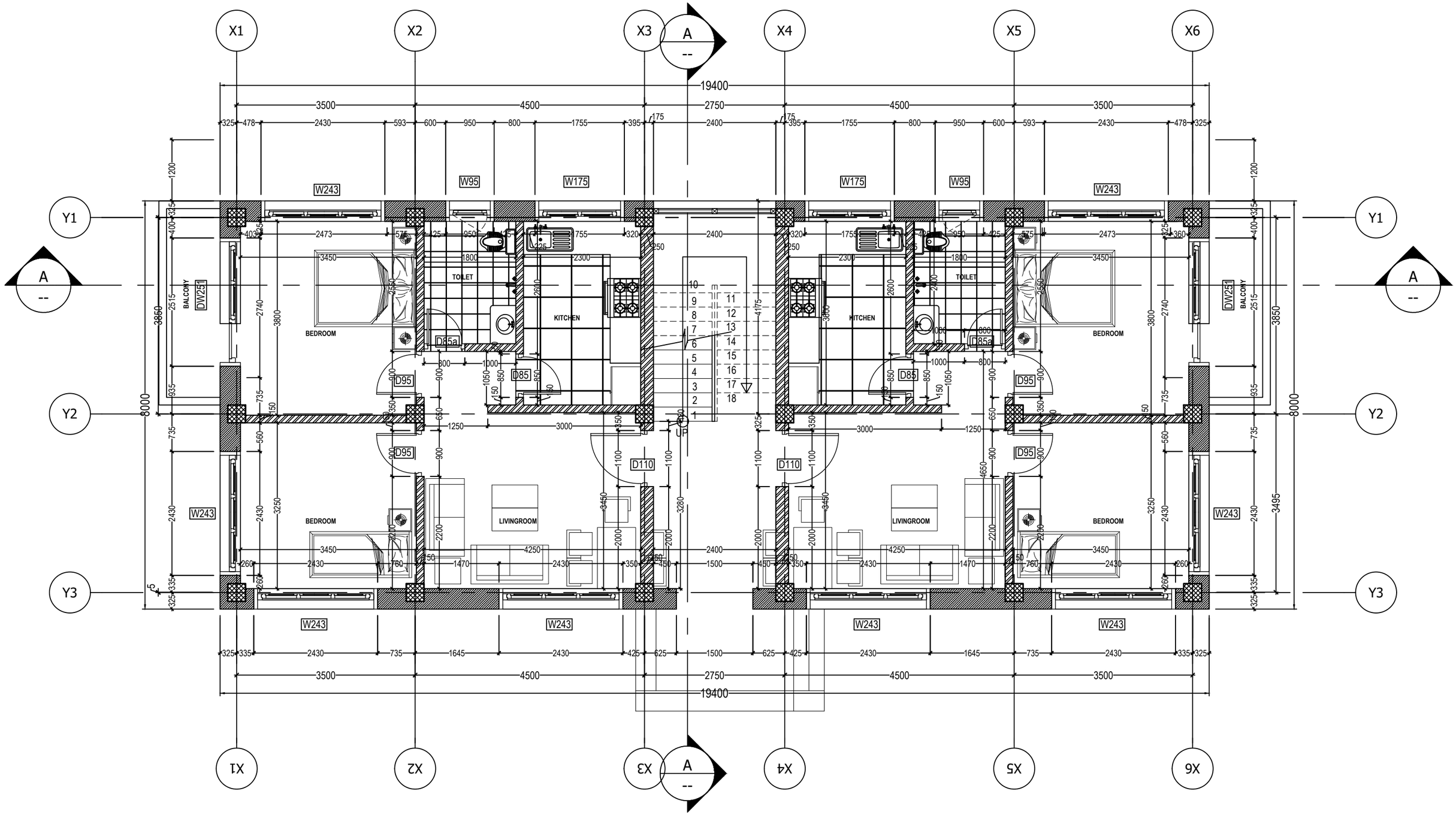
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	GROUND_FLOOR_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_01
			SCALE
			NTS



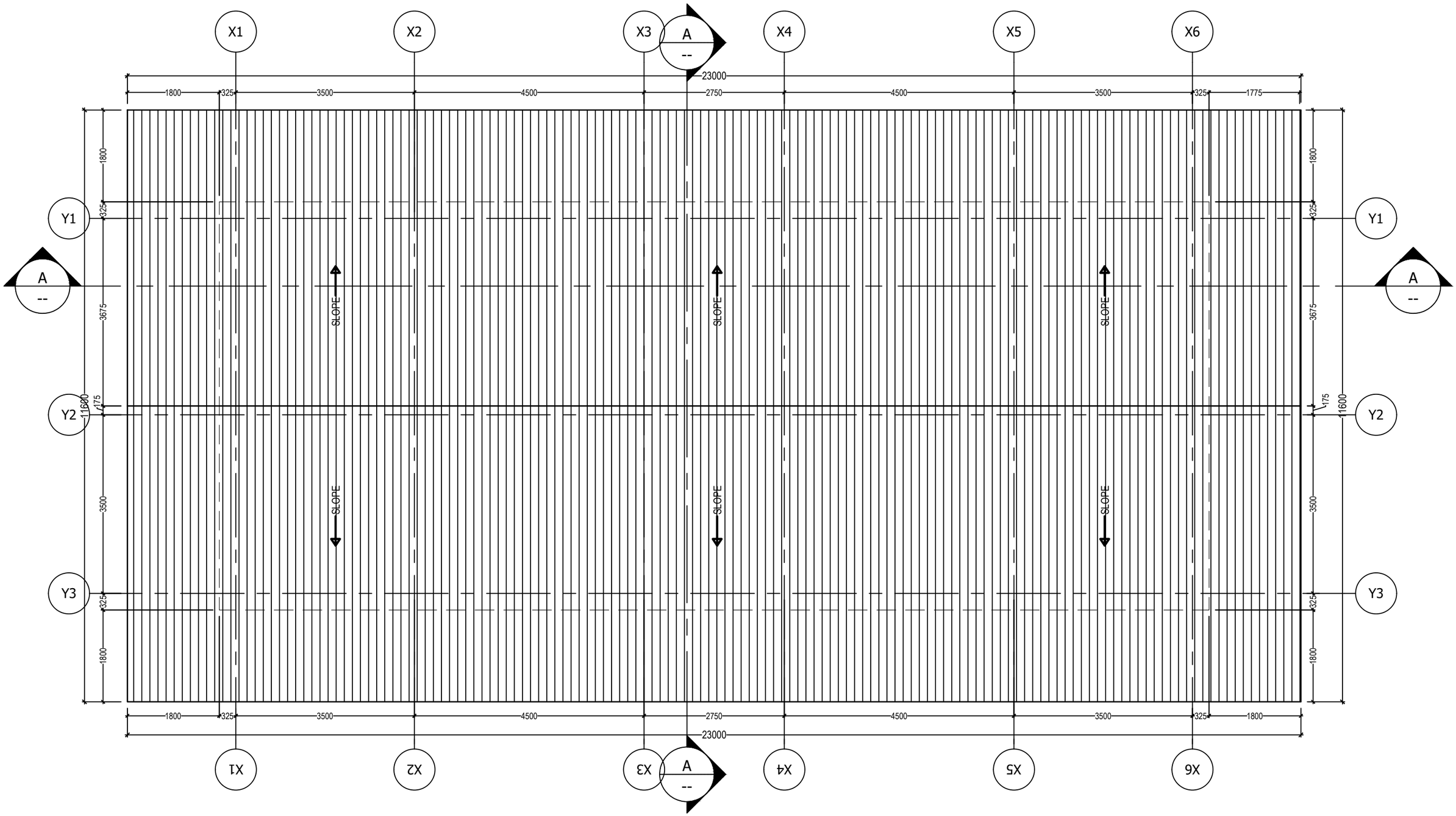
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_PLAN

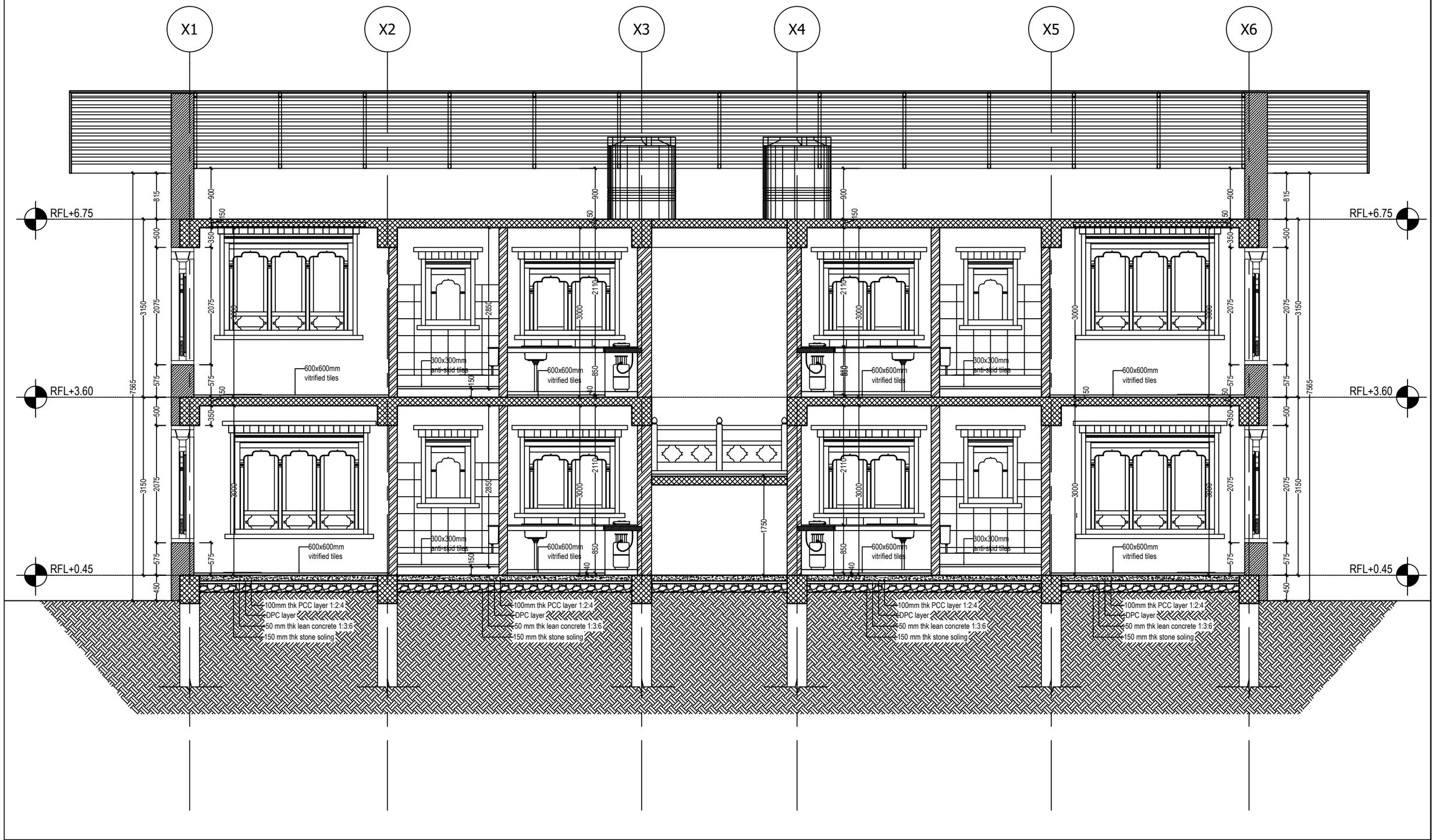
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_02
			SCALE
			NTS



Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				AR_03
	Construction of BHU Building and Auxiliary Work / ROOF_PLAN				Sep, 2026	**SCALE** NTS



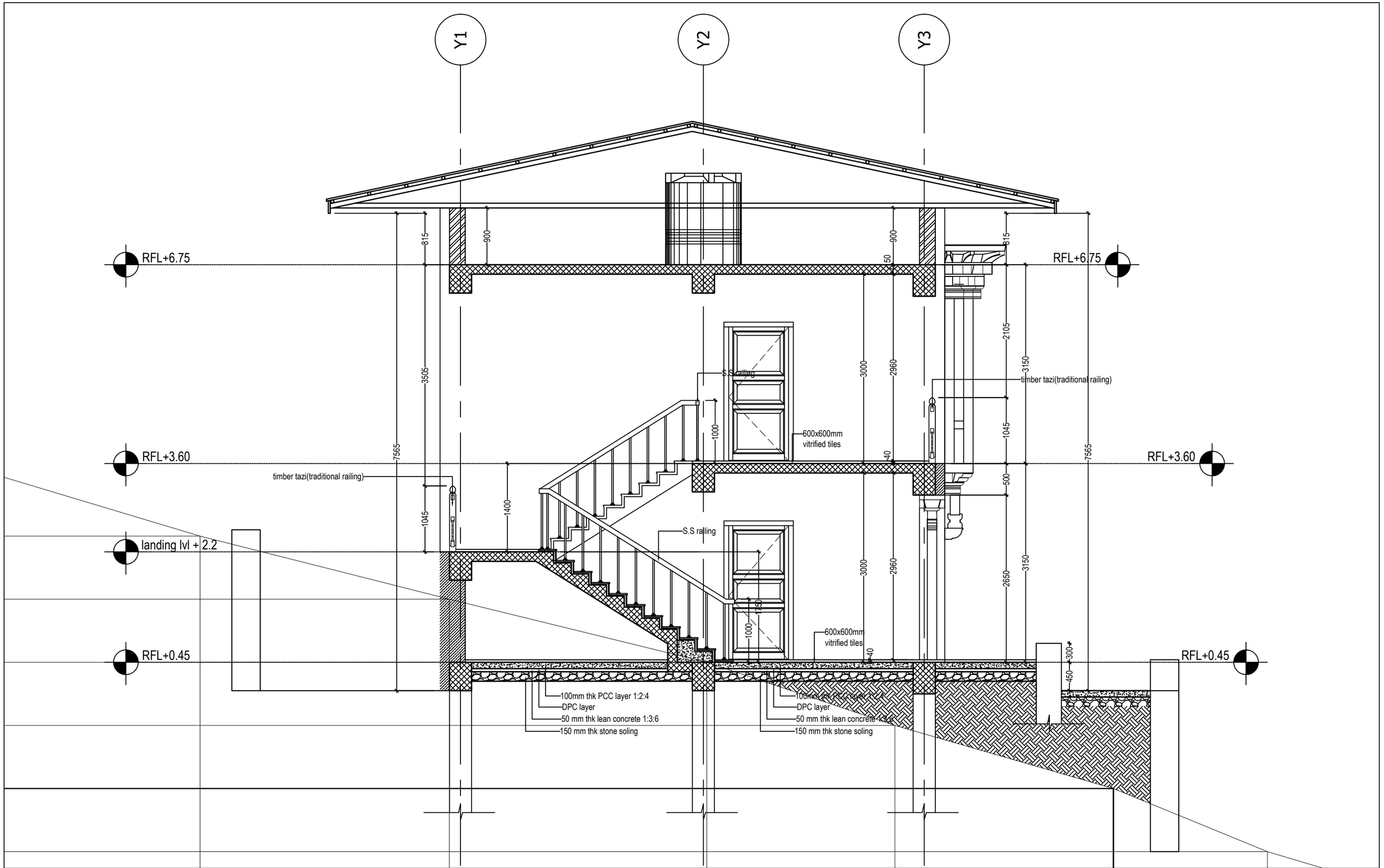
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_A-A

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_04
			SCALE
			NTS



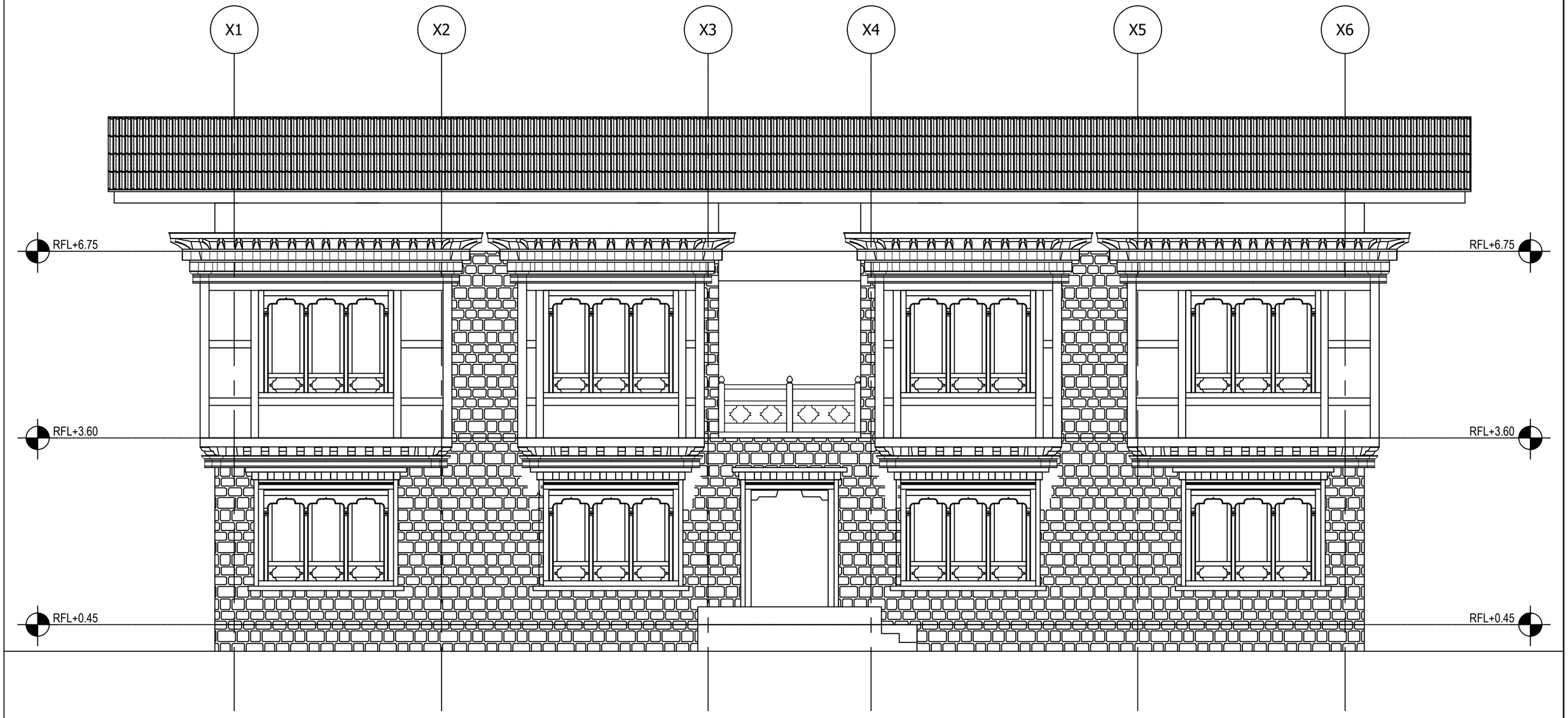
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_B-B

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_05
			SCALE
			NTS



ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_A

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_06
			SCALE
			NTS



Khorlochhu

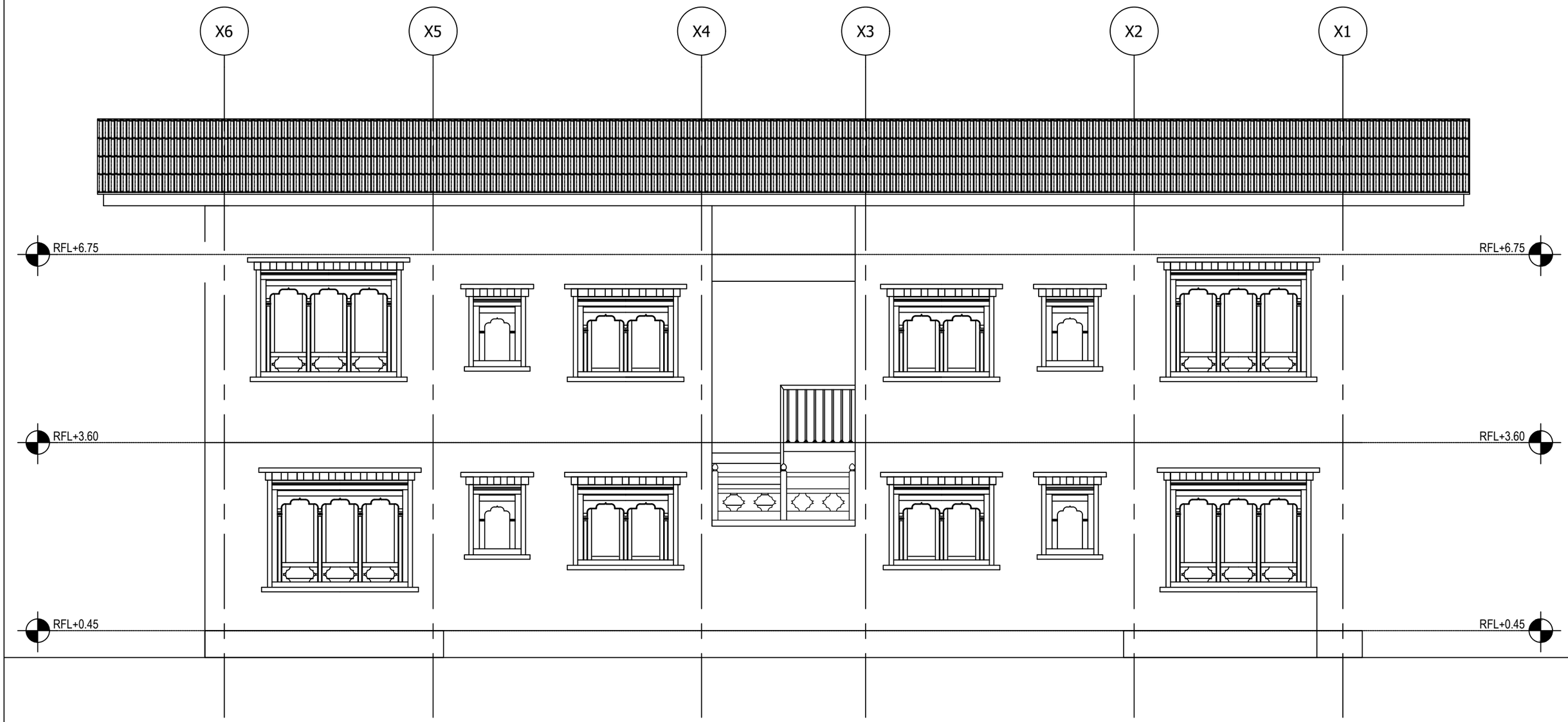
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_B

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_07
			SCALE
			NTS



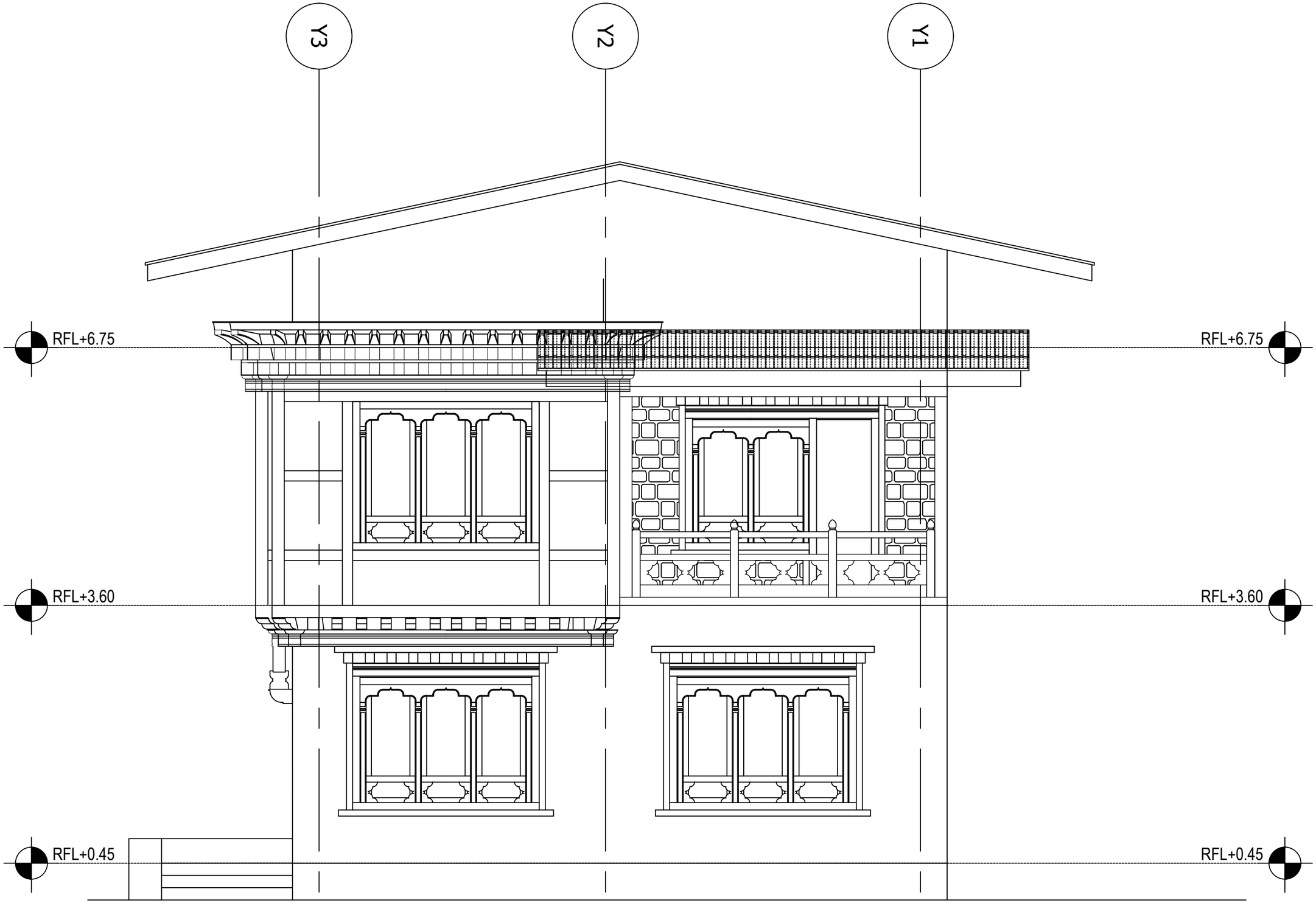
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_C

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_08
			SCALE
			NTS



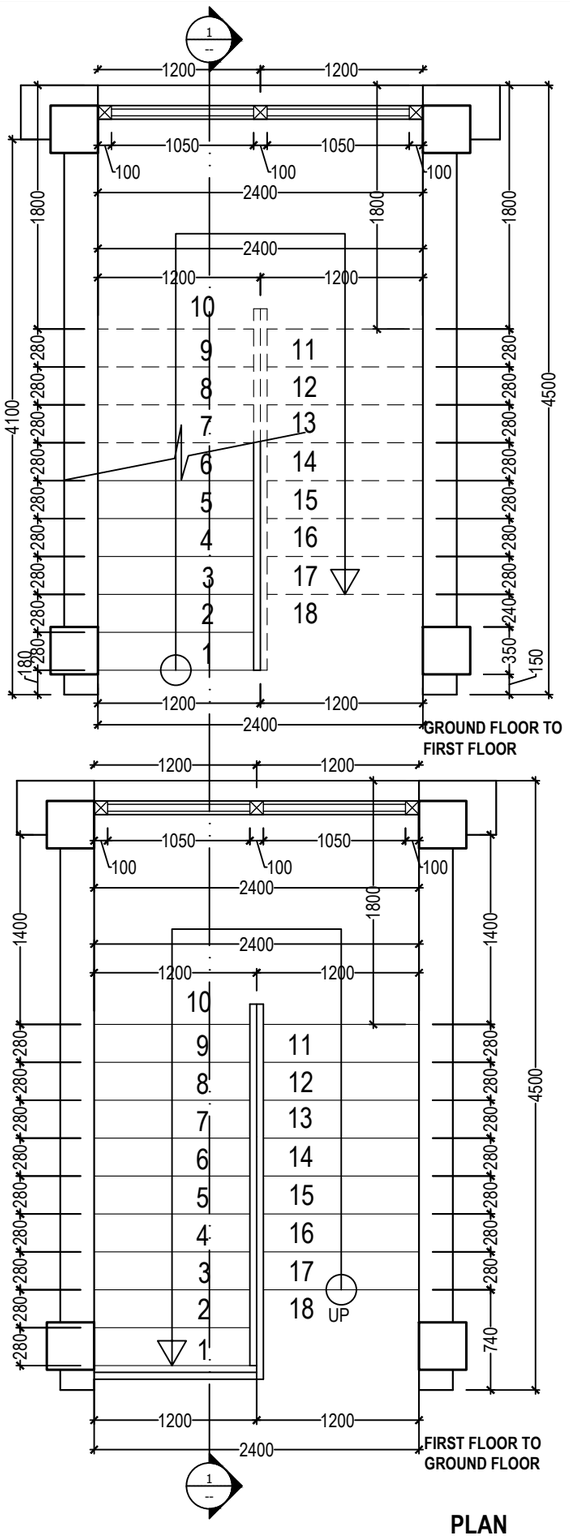
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_D

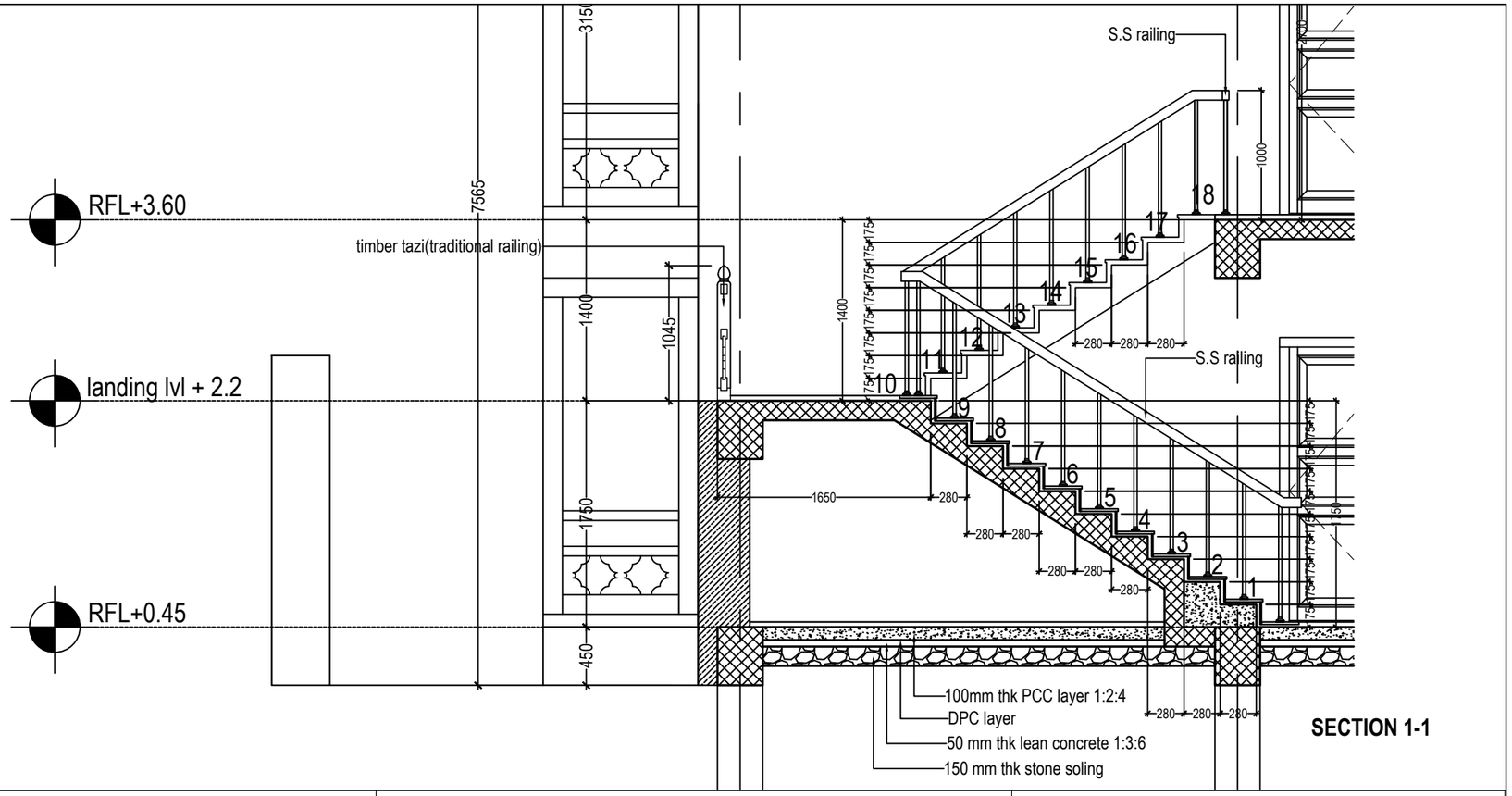
NOTES

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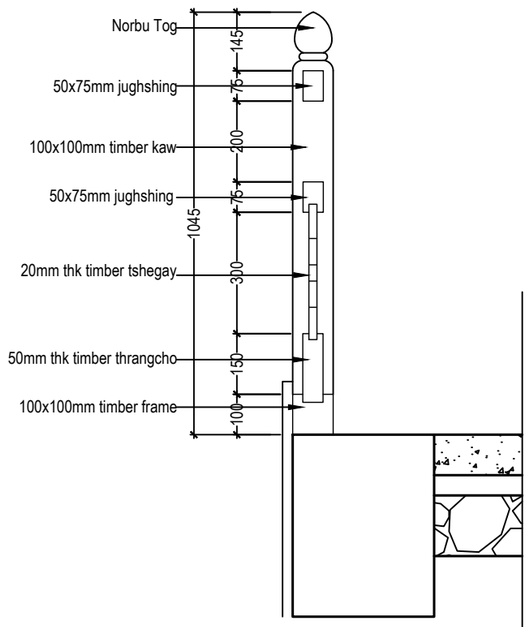
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_09
			SCALE
			NTS



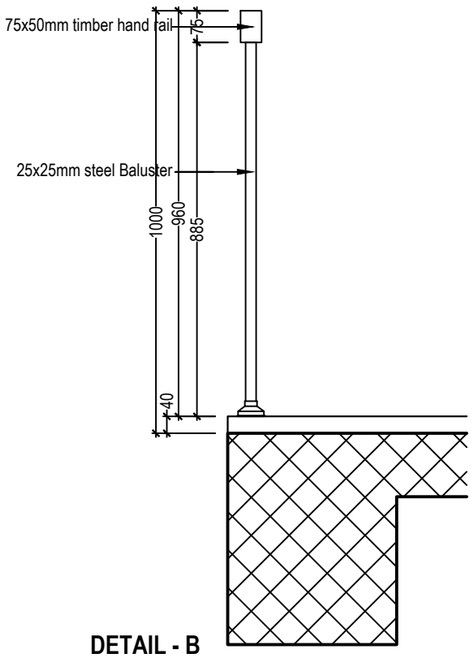
PLAN



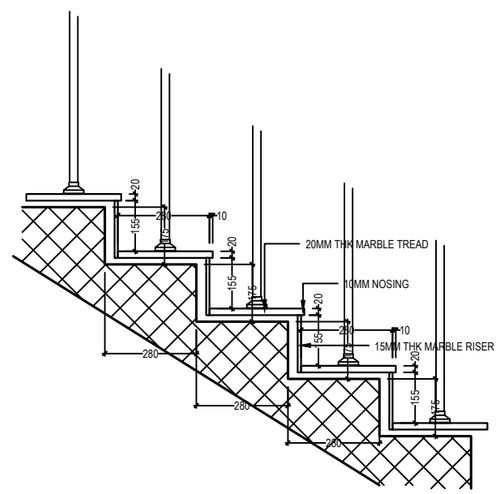
SECTION 1-1



DETAIL - A



DETAIL - B



DETAIL - C

Khorlochhu

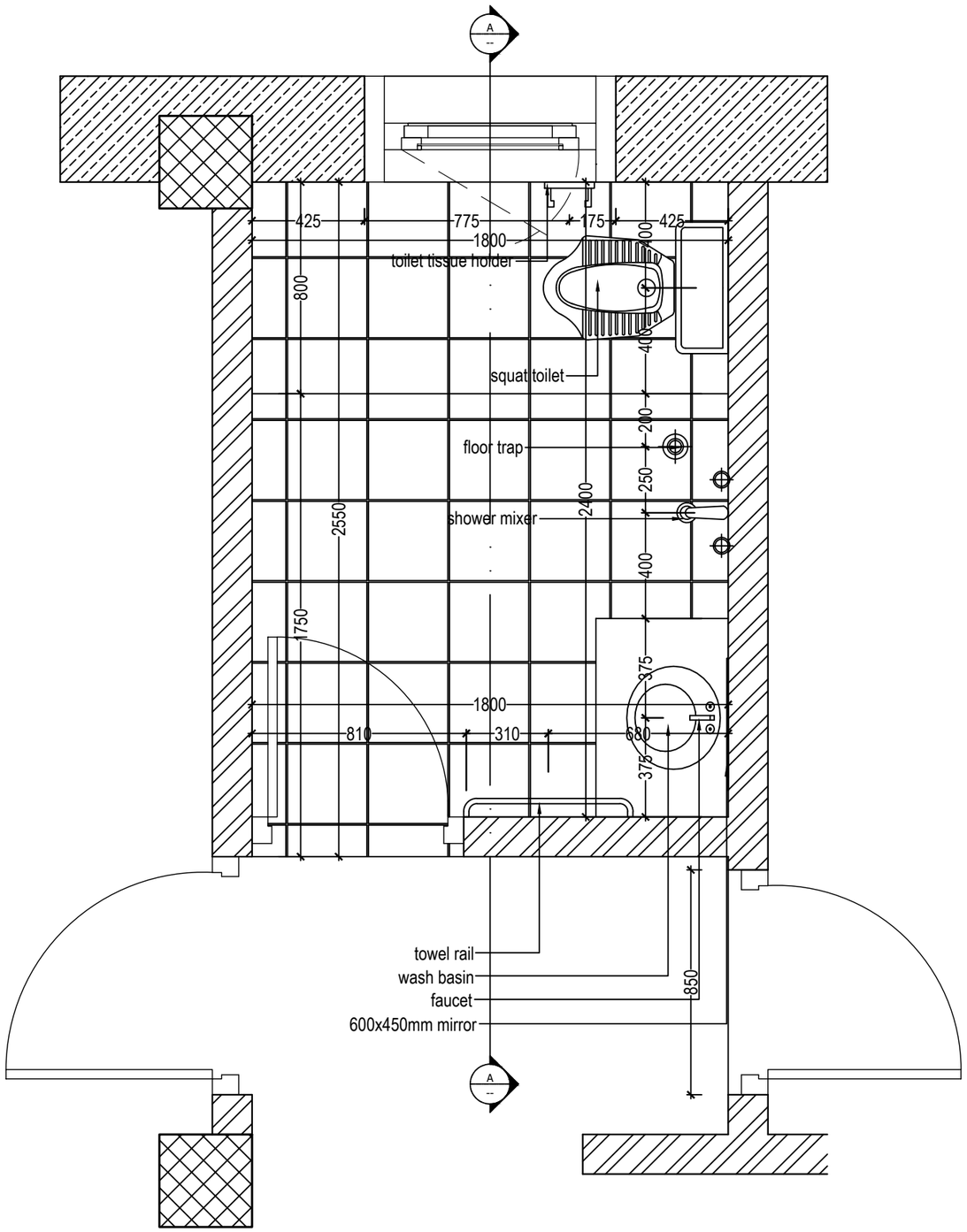
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STAIRCASE_DETAIL

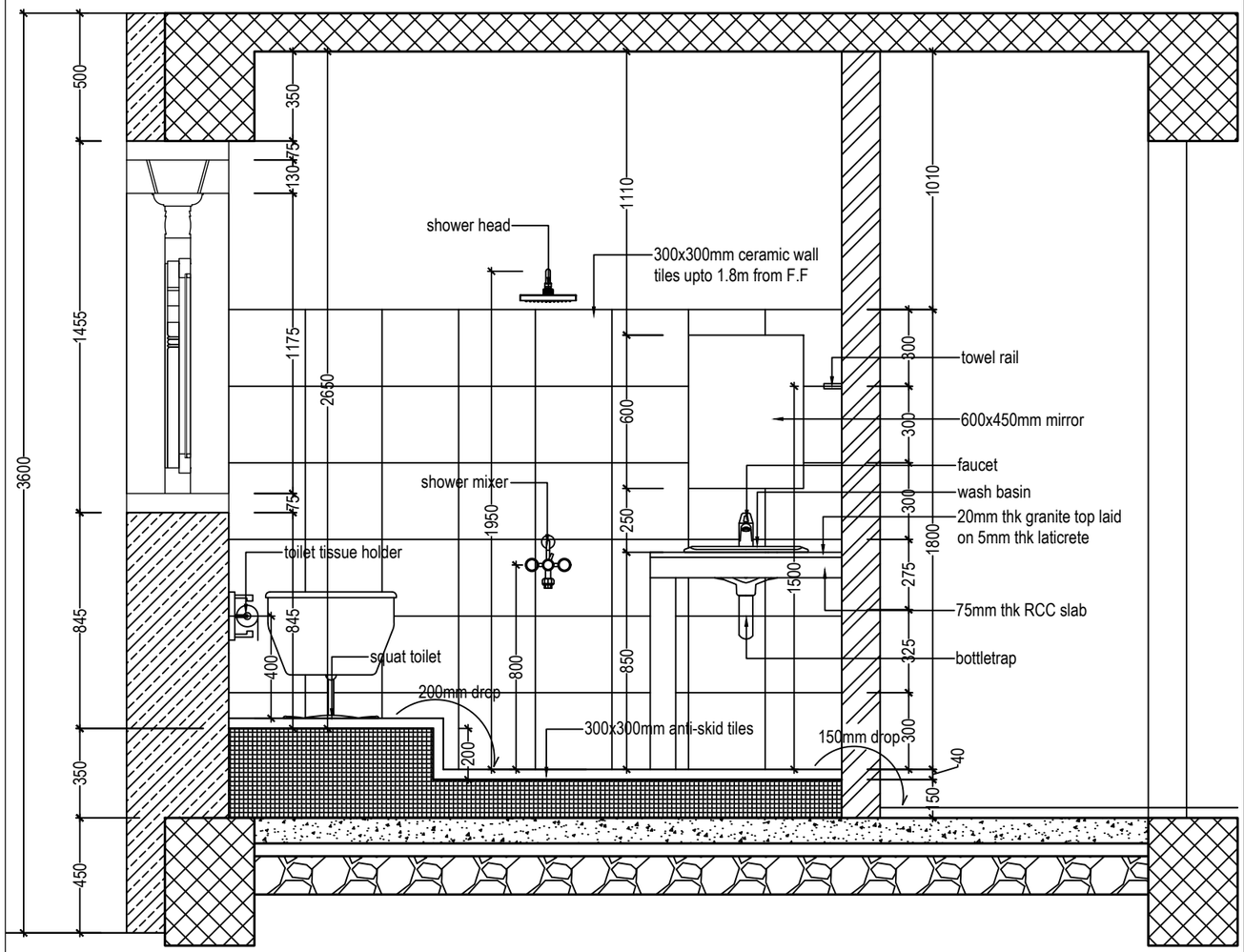
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_10
			SCALE
			NTS

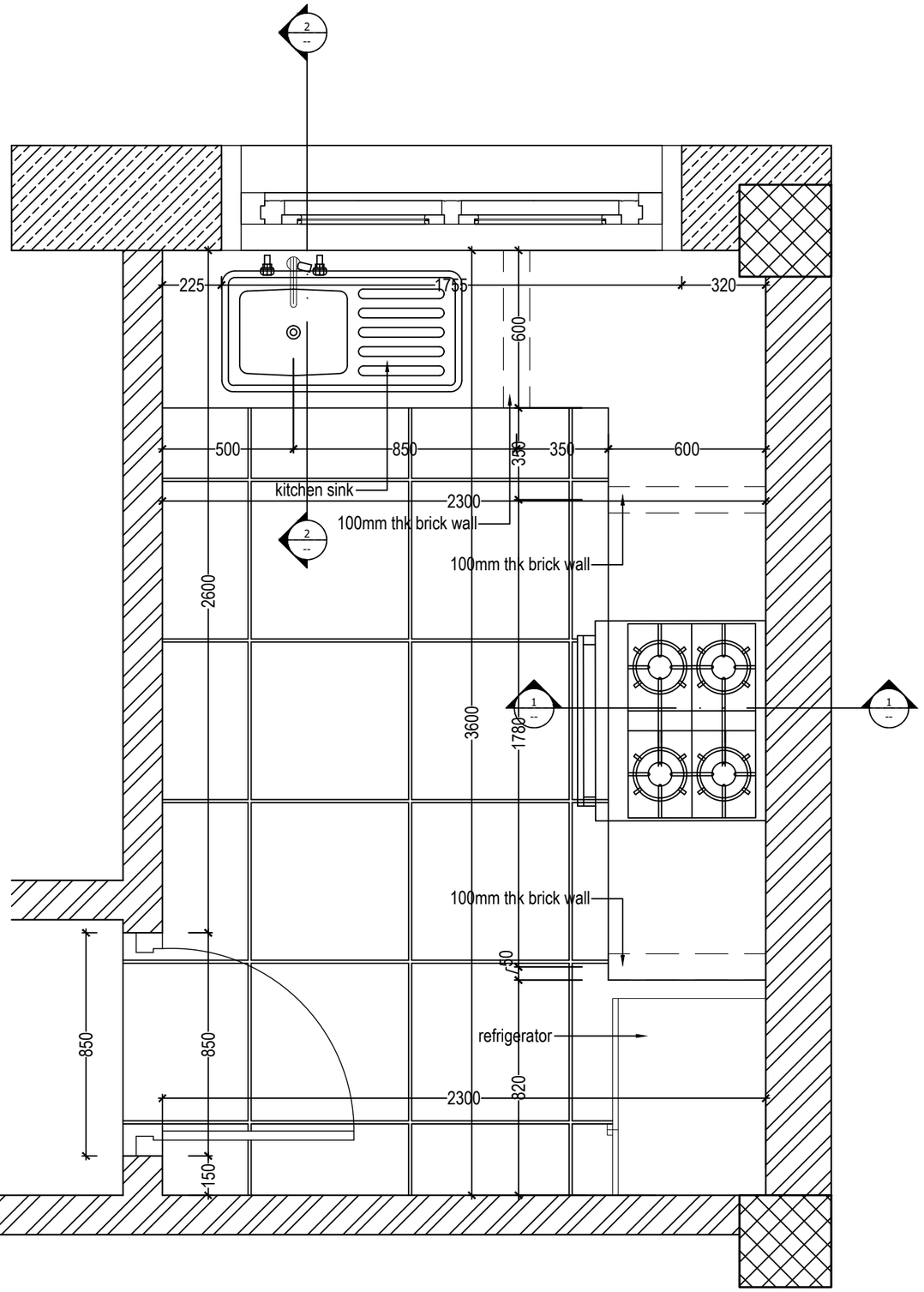


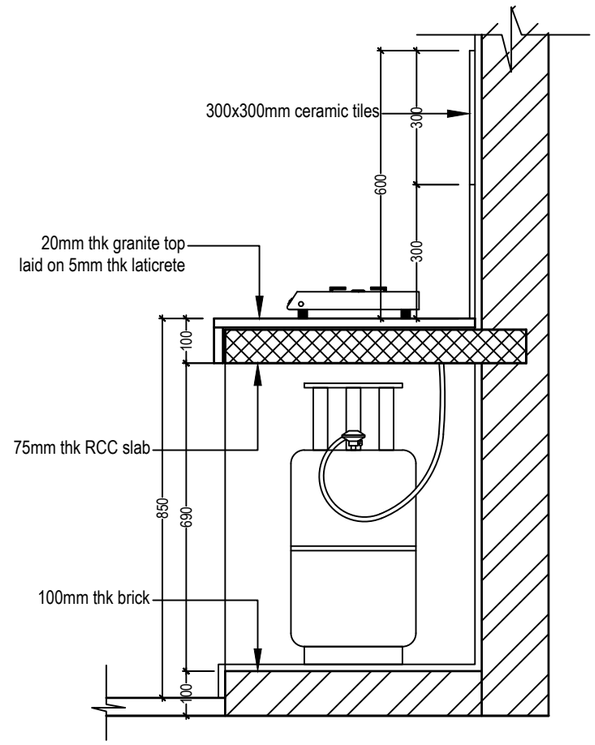
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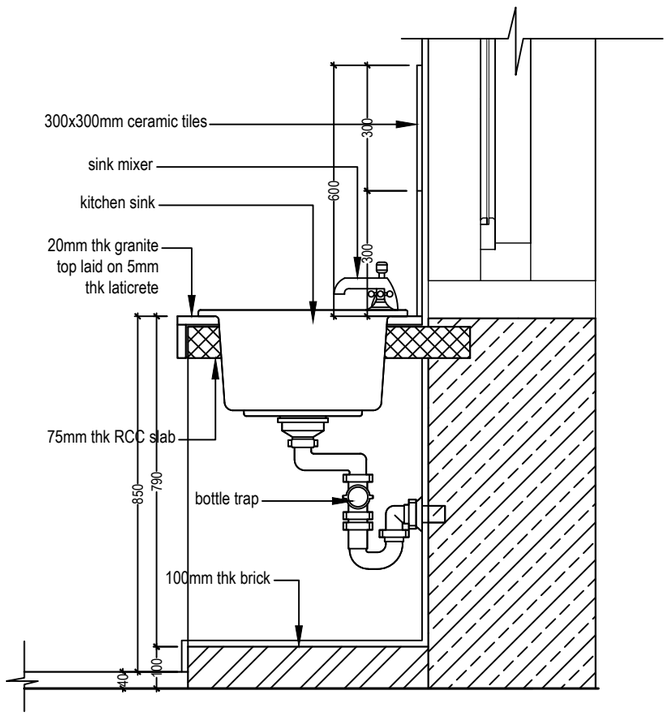


SECTION A-A

Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: TOILET_DETAIL	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026 / AR_11 / **SCALE** NTS







Khorlochhu

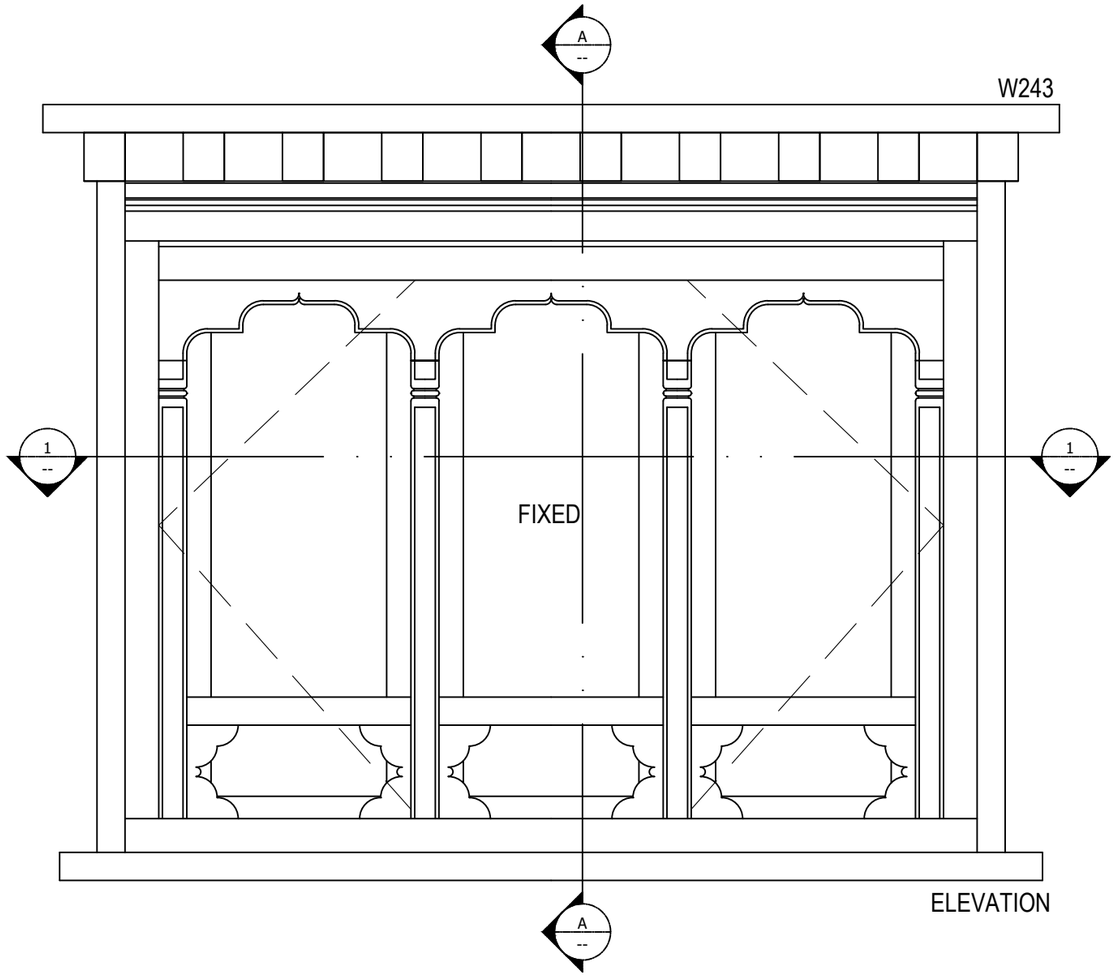
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	KITCHEN_DETAIL

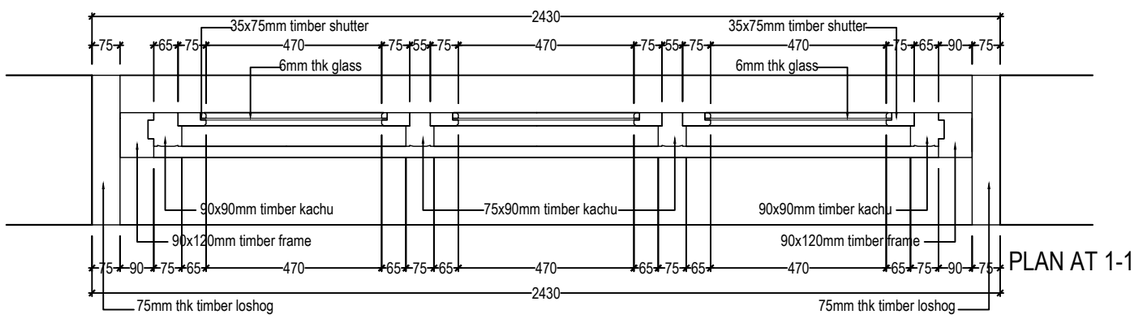
NOTES

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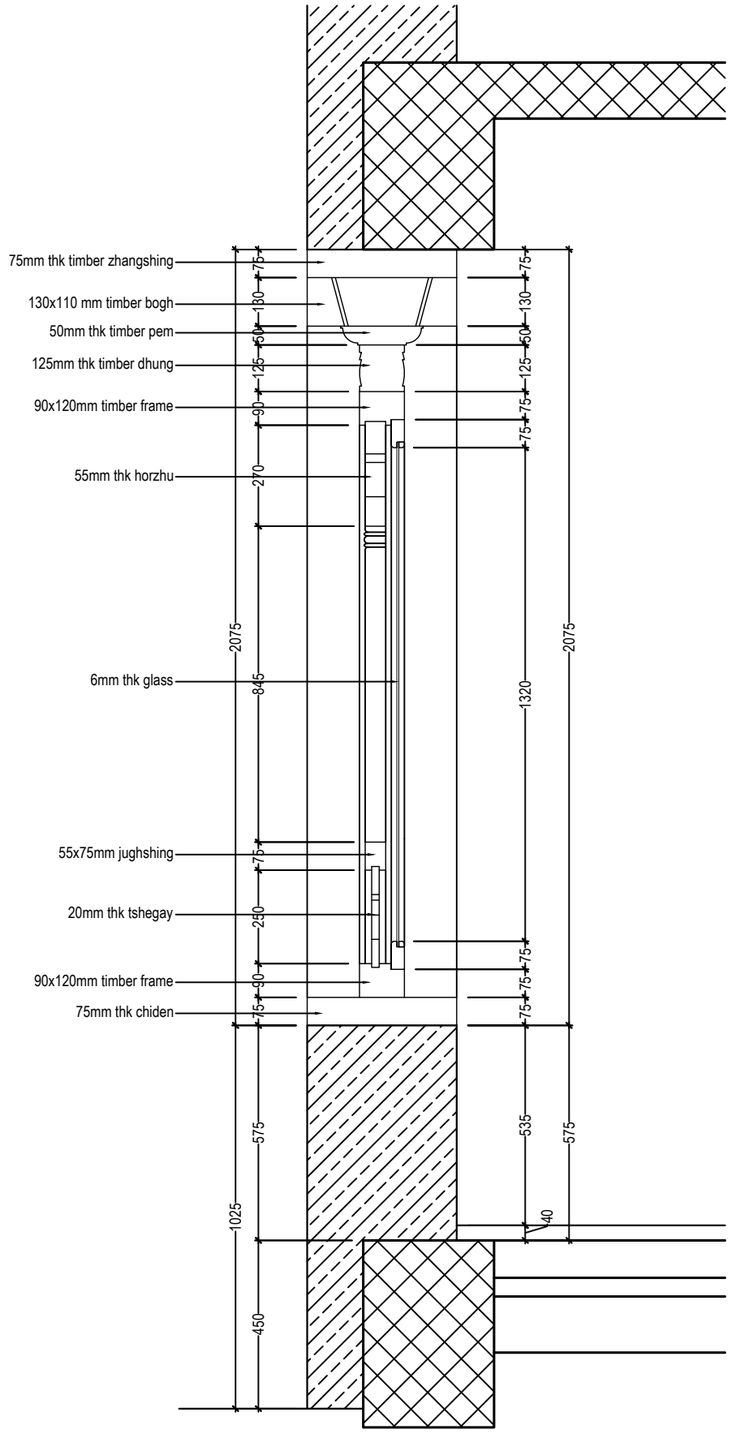
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_12
			SCALE
			NTS



ELEVATION

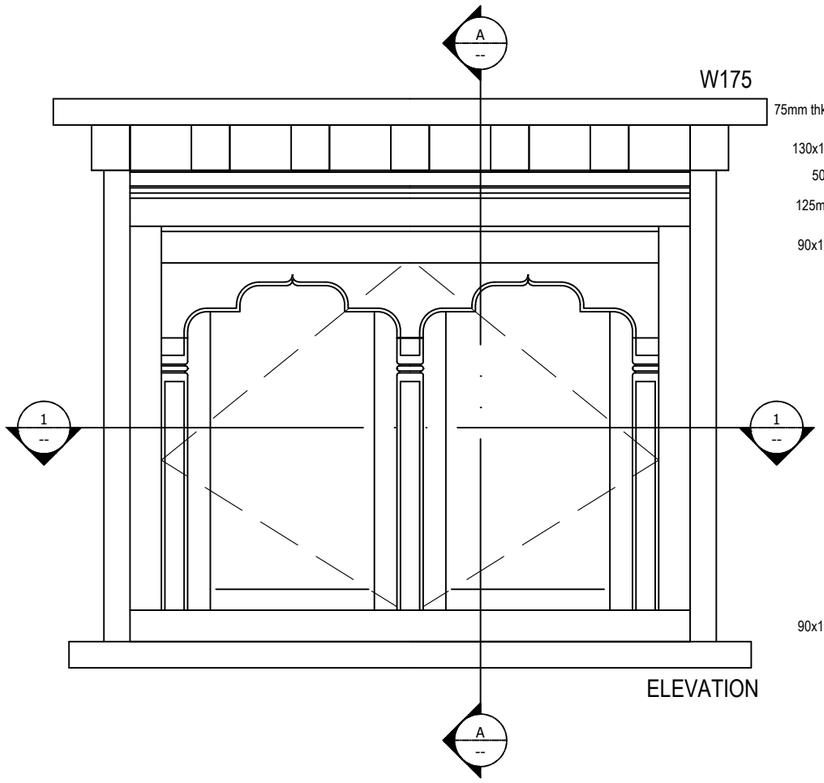


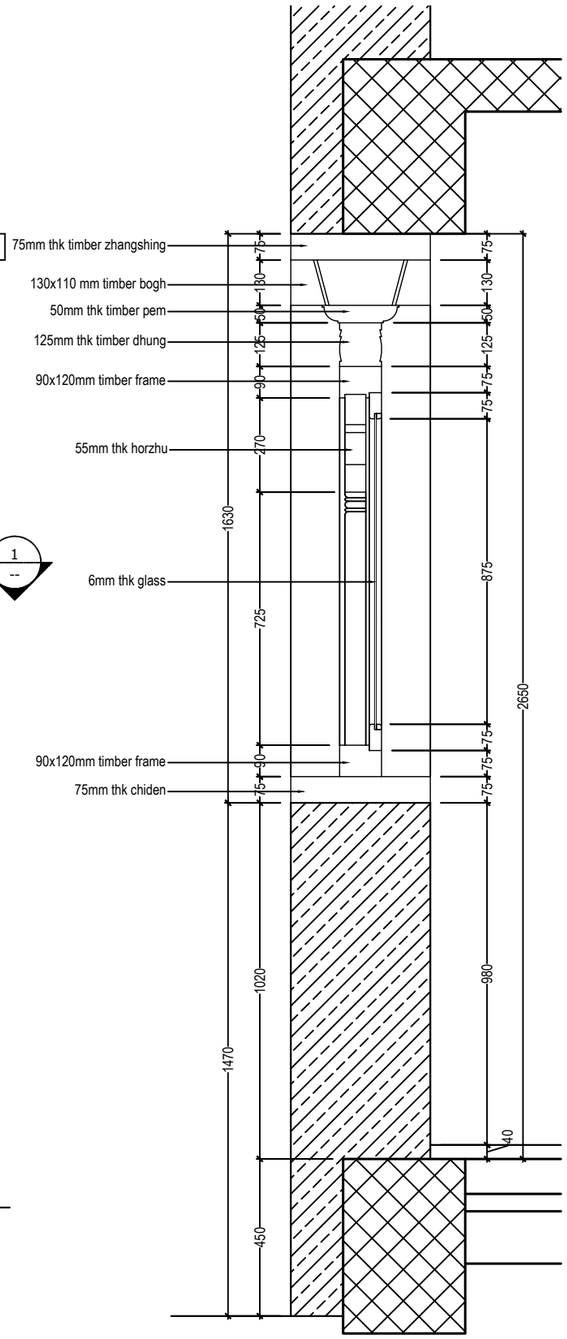
PLAN AT 1-1

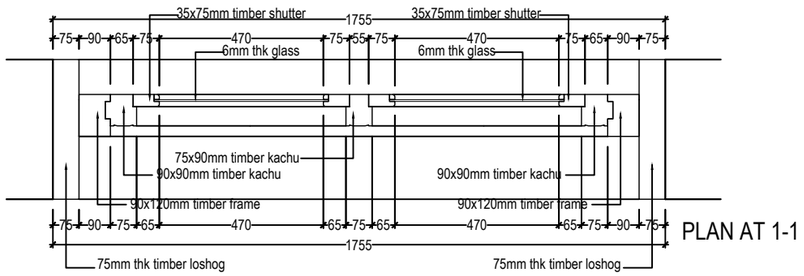


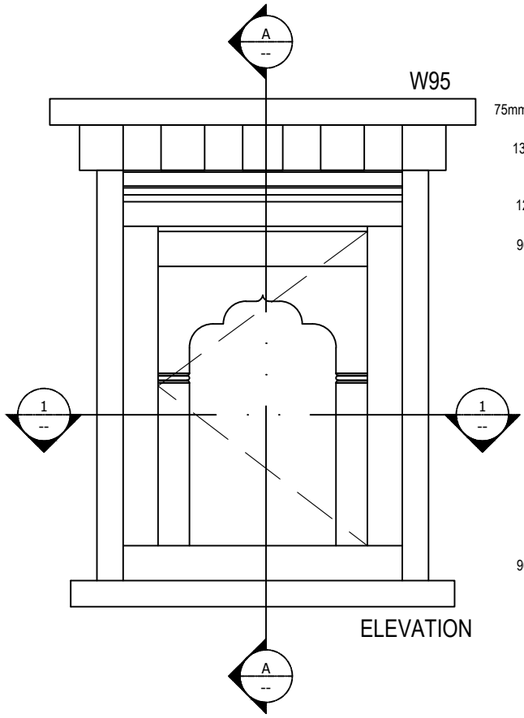
SECTION A-A

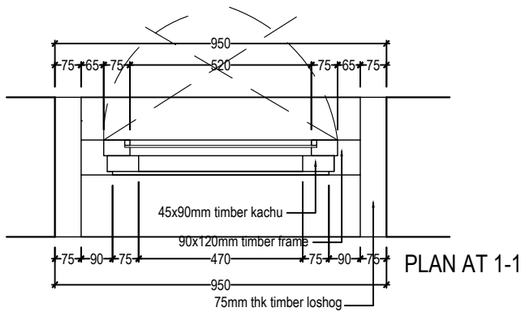
Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / WINDOW_DETAIL-W243			Sep, 2026	**SCALE** / NTS

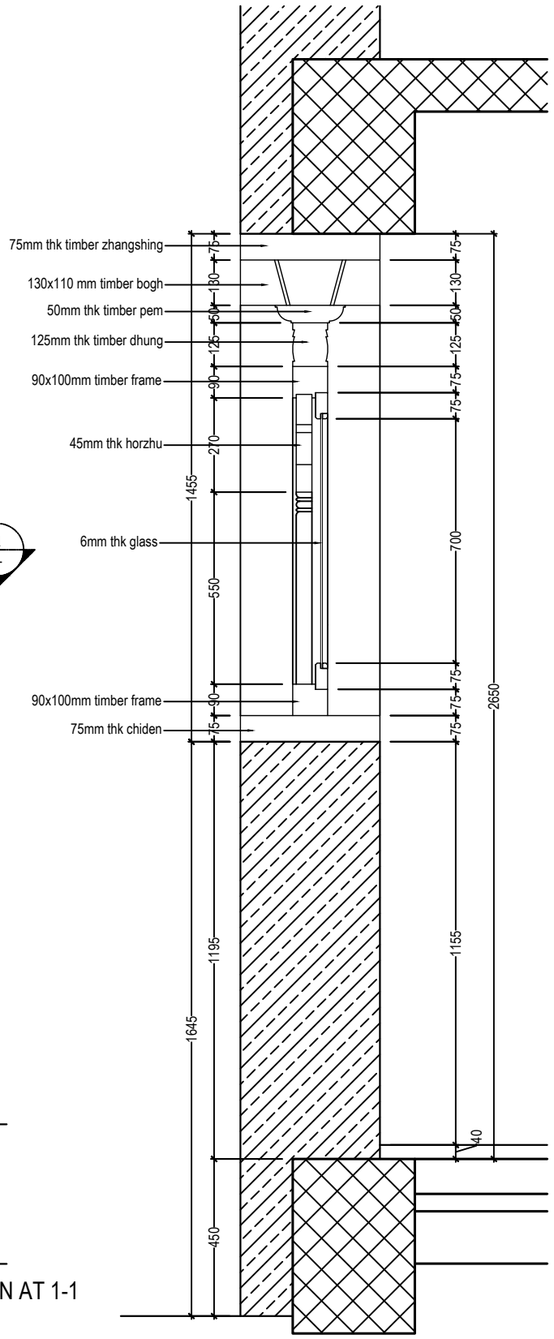












Khorlochhu

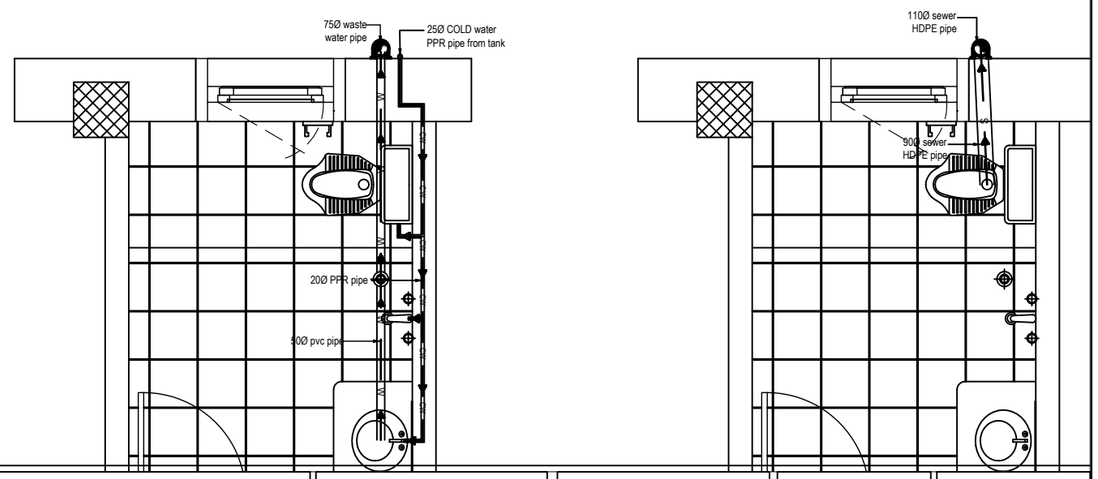
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAIL-W175_AND_W95

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_14
			SCALE
			NTS



Khorlochhu

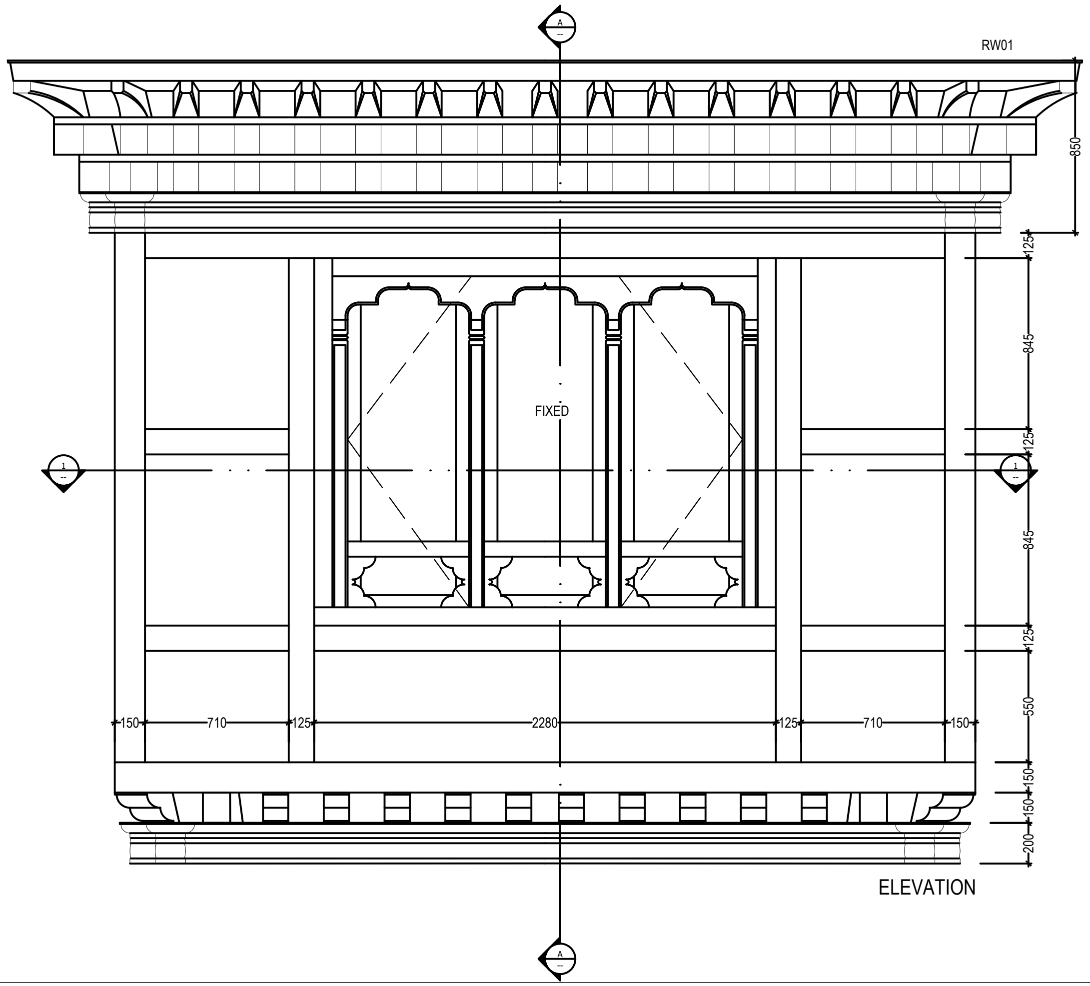
ARCHITECTURAL DRAWING

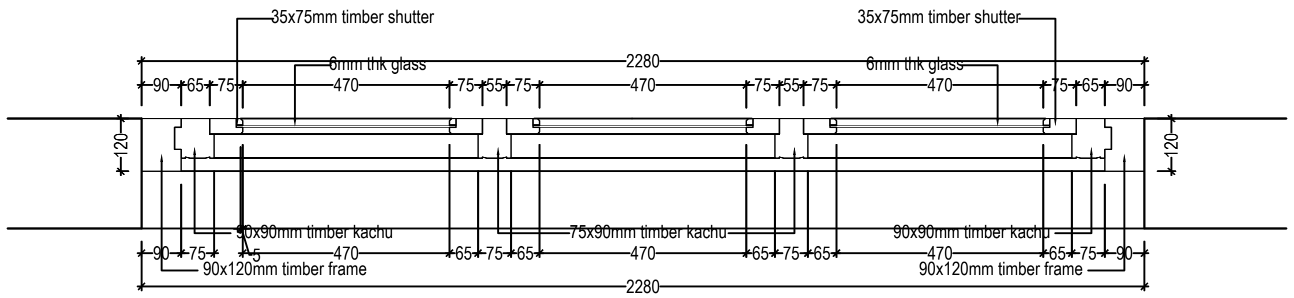
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ENTRANCE_PORCH_DETAIL-PLAN

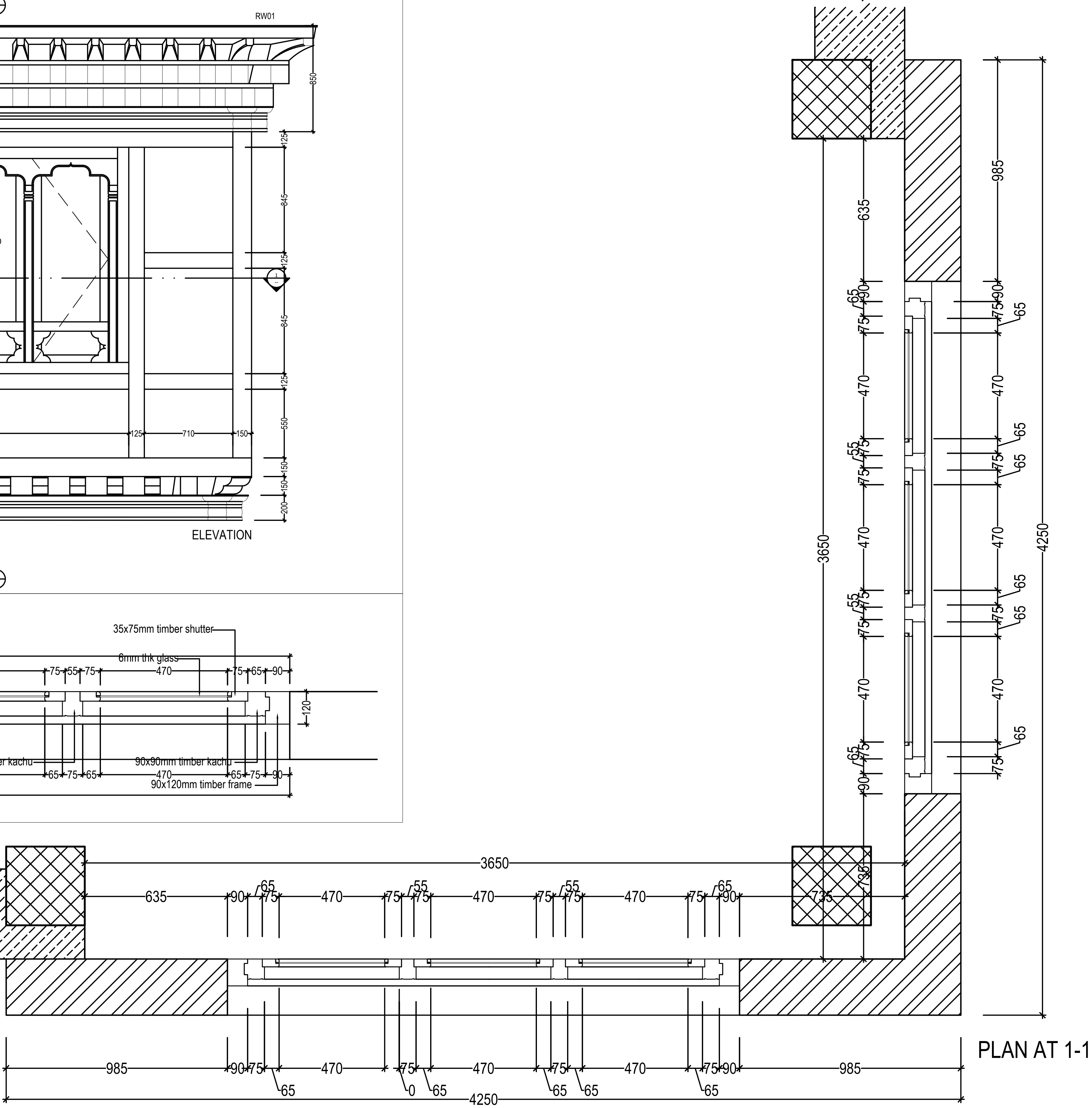
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_15
			SCALE
			NTS







Khorlochhu

ARCHITECTURAL DRAWING

PROJECT TITLE

Construction of BHU Building and Auxiliary Work

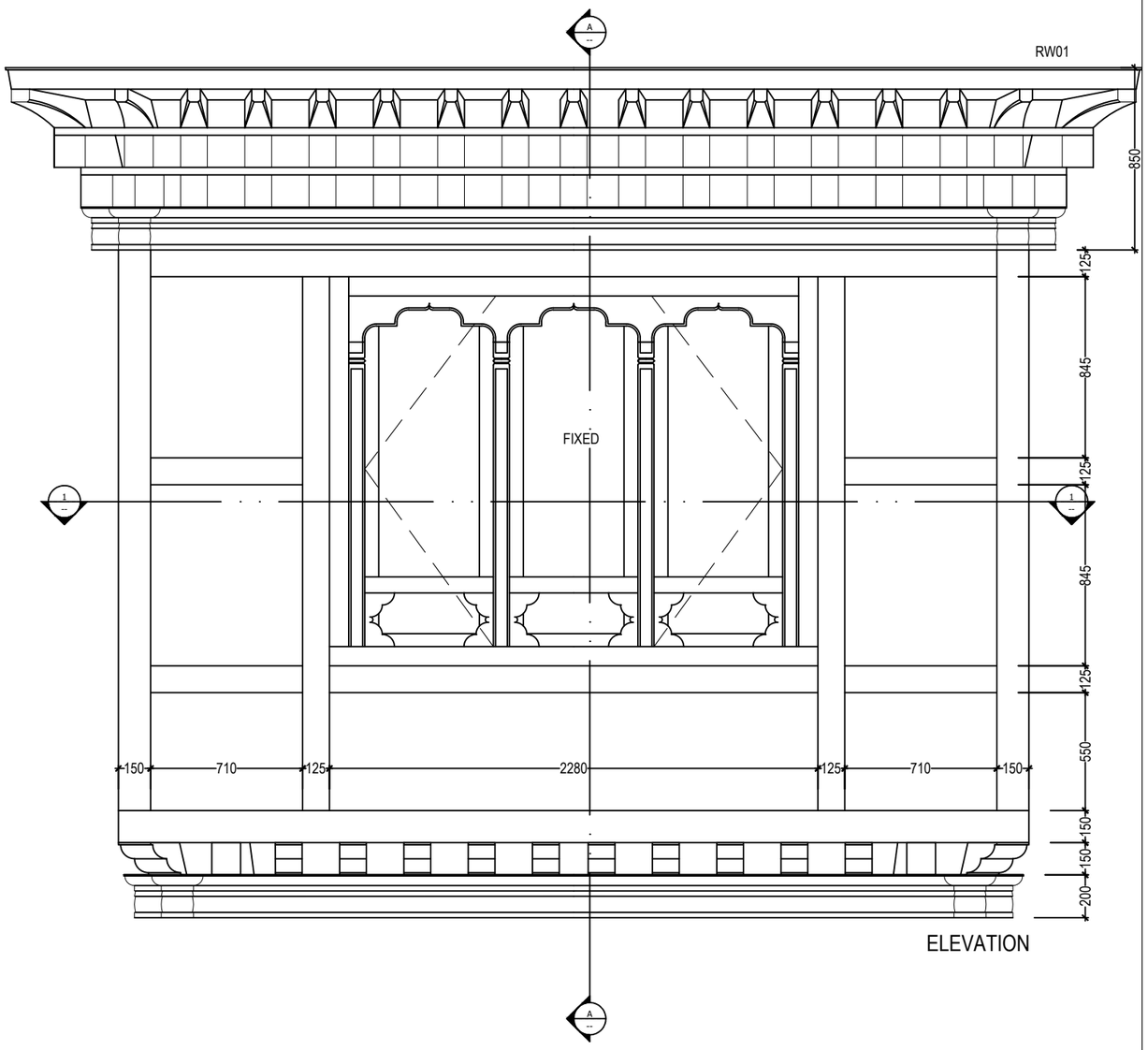
DRAWING TITLE

RABSEL_WINDOW_DETAIL-RW-01(PLAN)

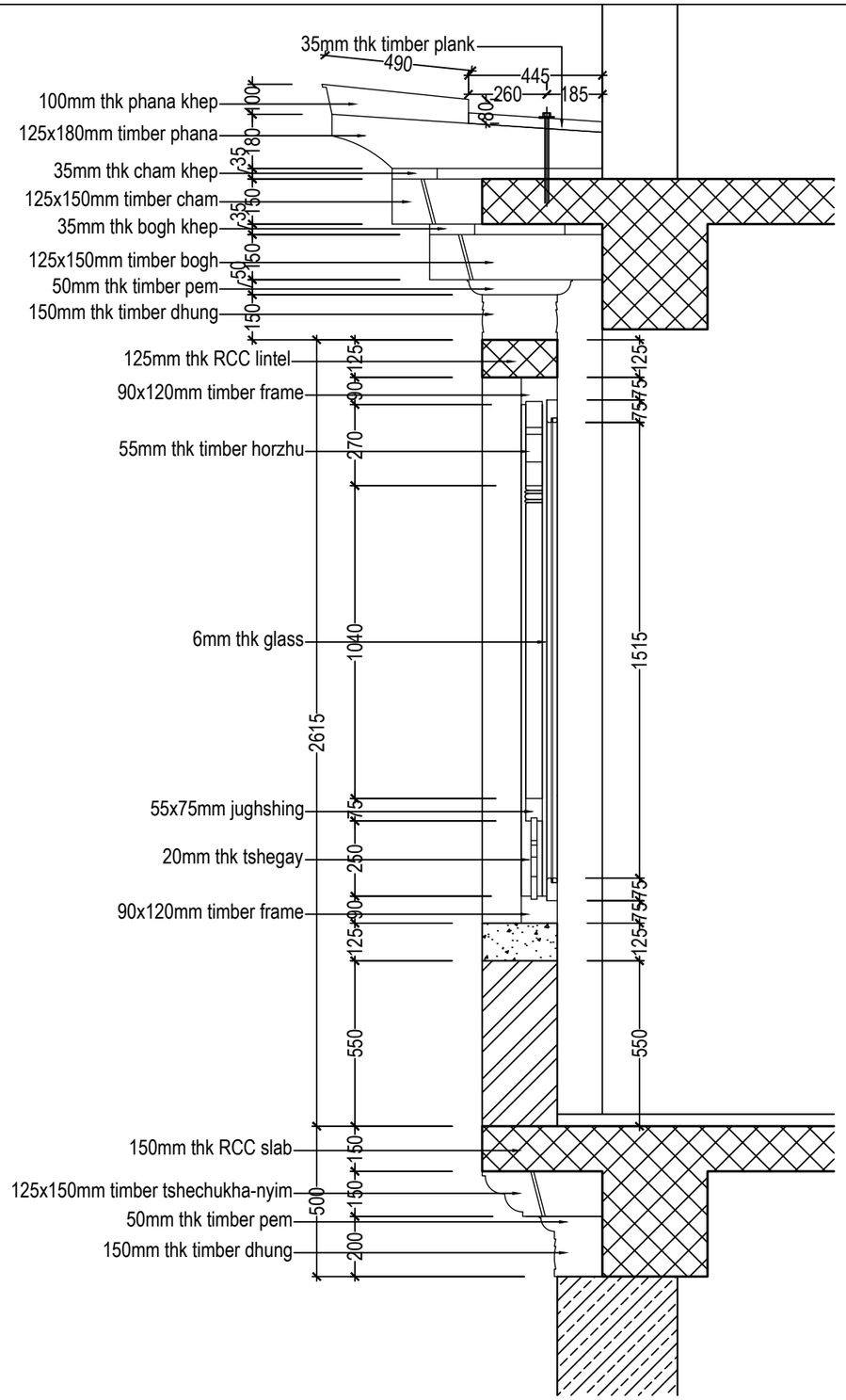
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
			AR_16
		Sep, 2026	SCALE
			NTS

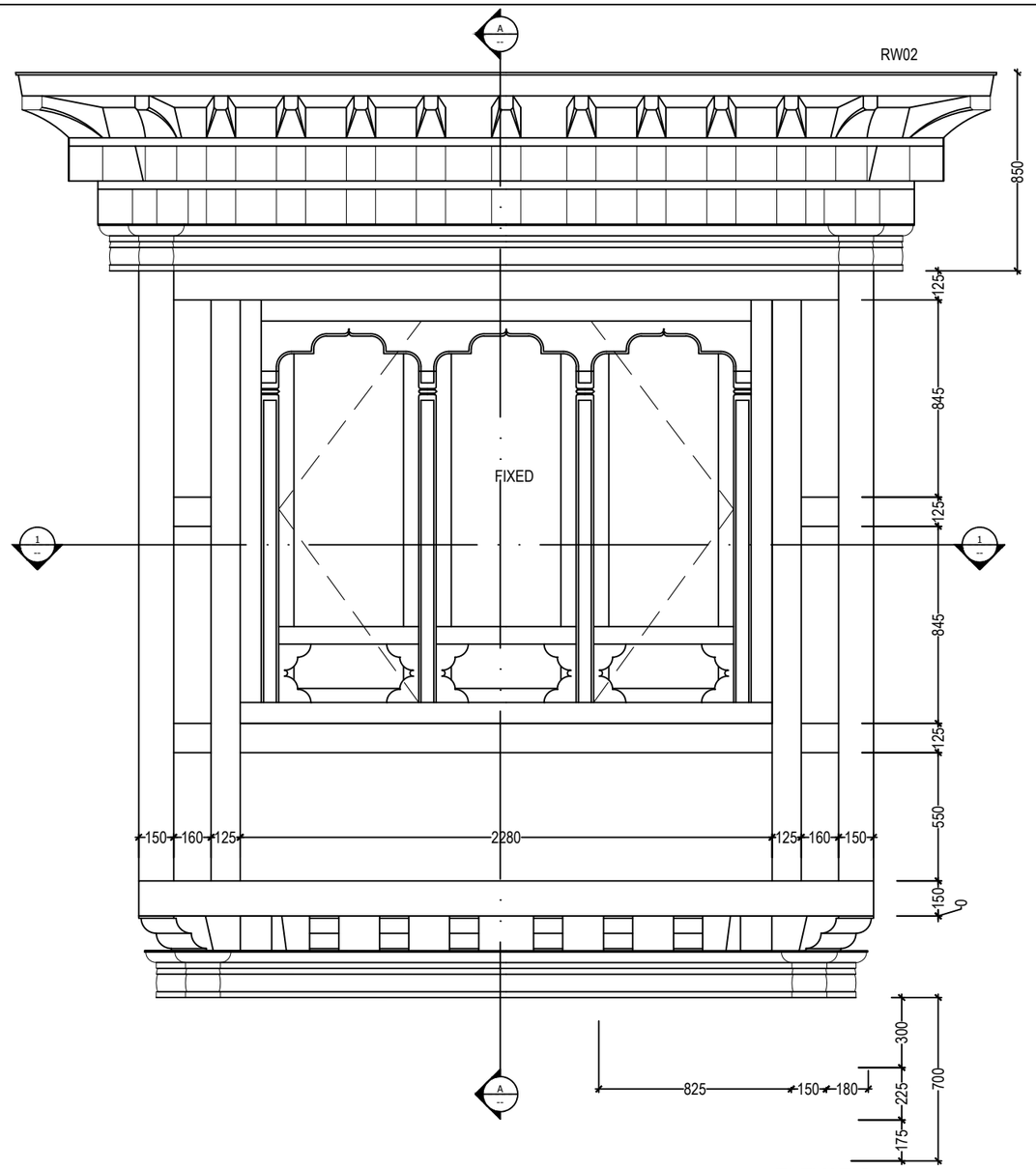


ELEVATION

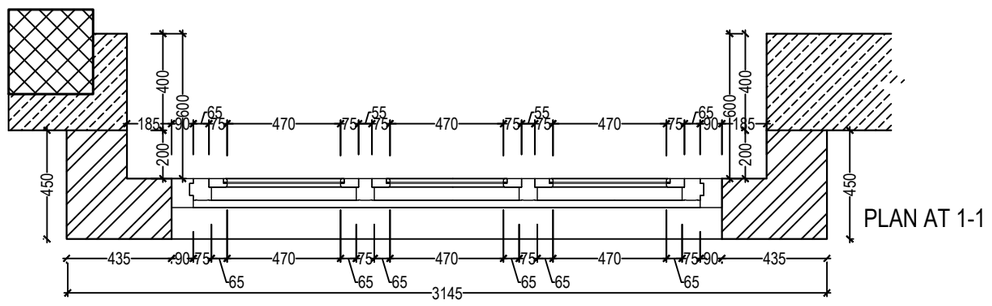


SECTION A-A

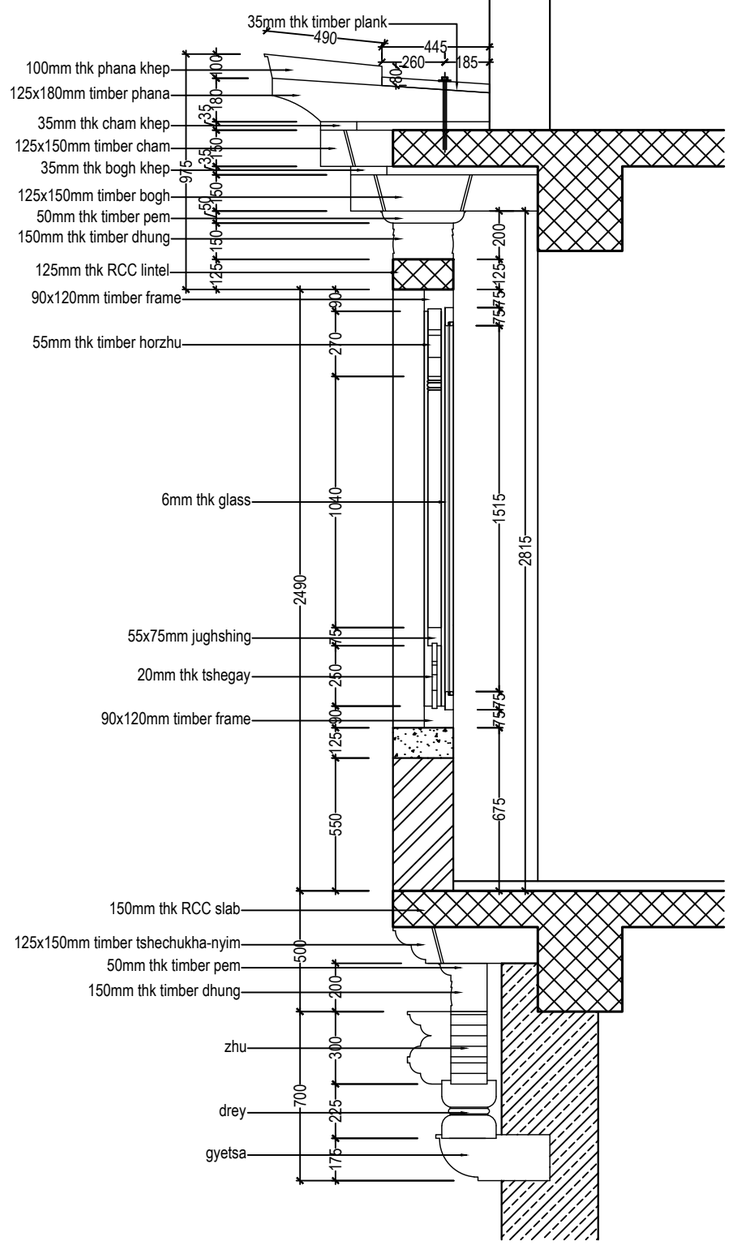
Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: RABSEL_WINDOW_DETAIL_RW-01(SECTION)			Sep, 2026 / AR_17
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS



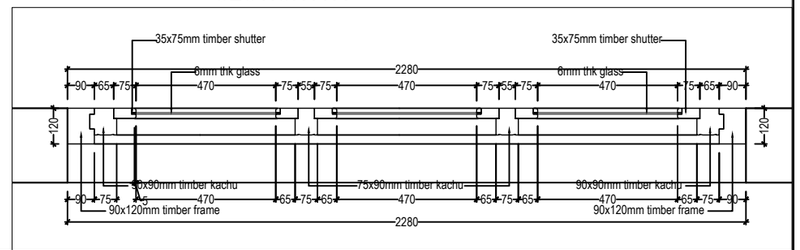
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PLAN AT 1-1



SECTION A-A



Khorlochhu

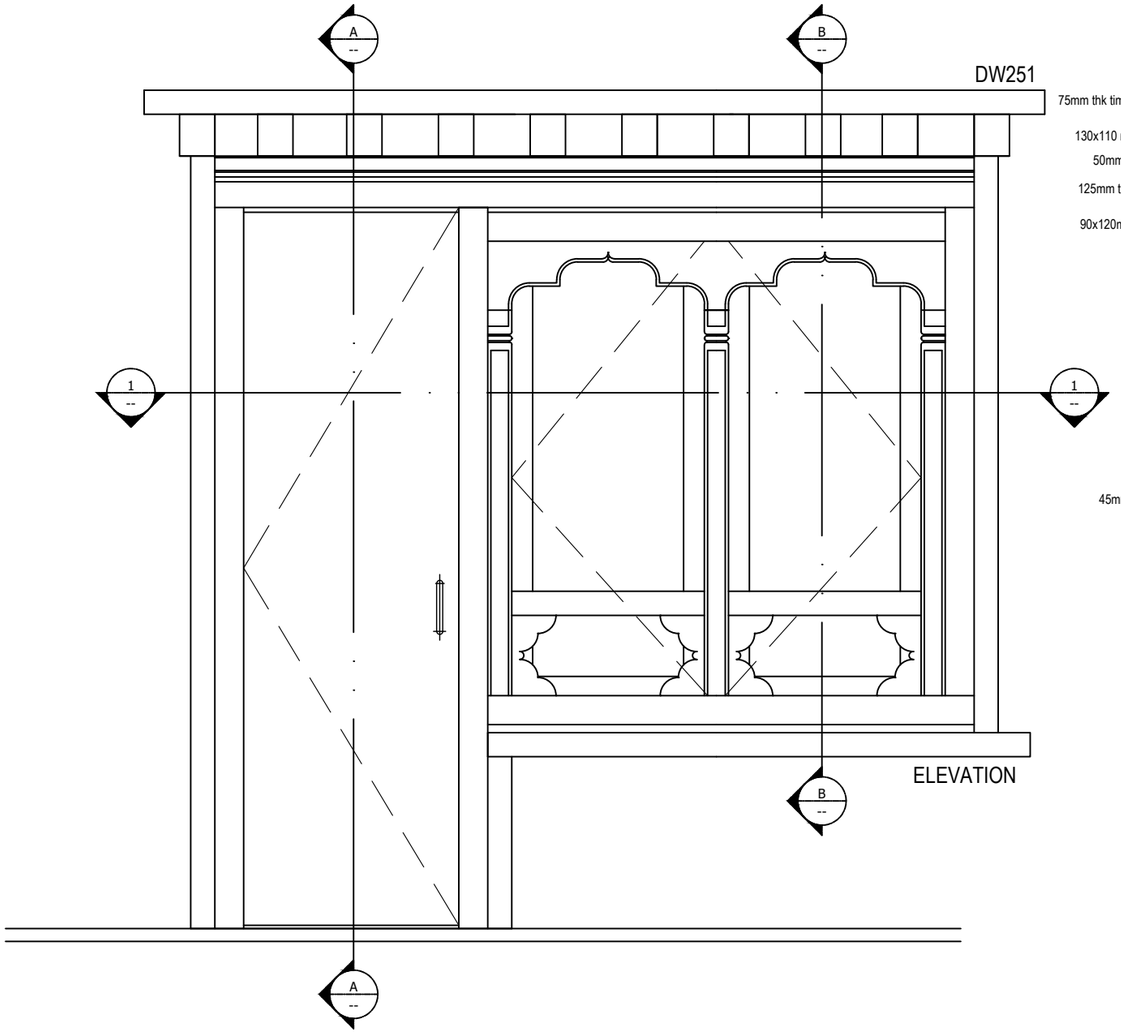
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	RABSEL_WINDW_DETAIL_RW-02

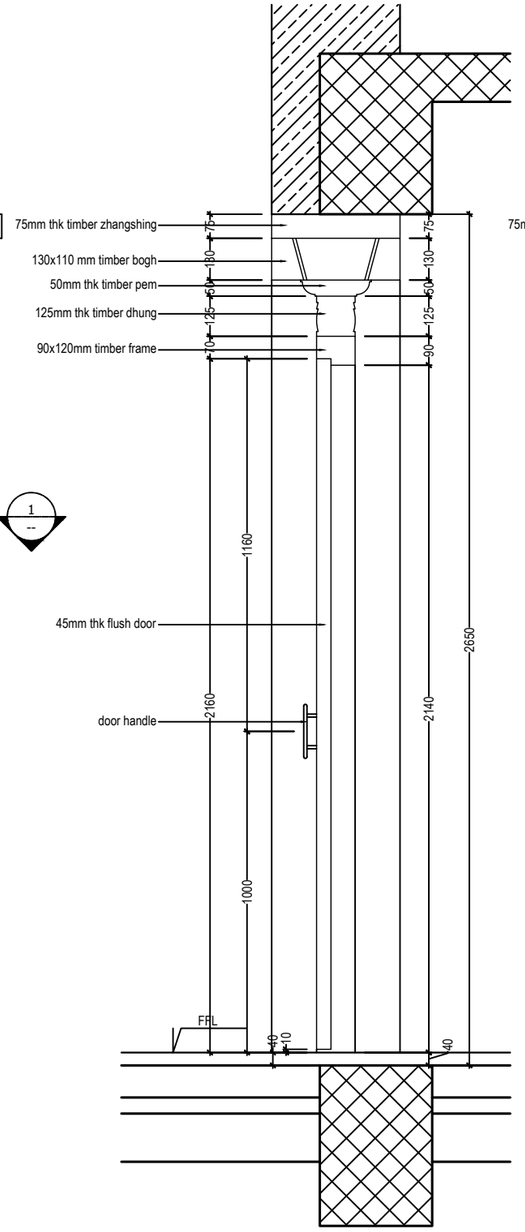
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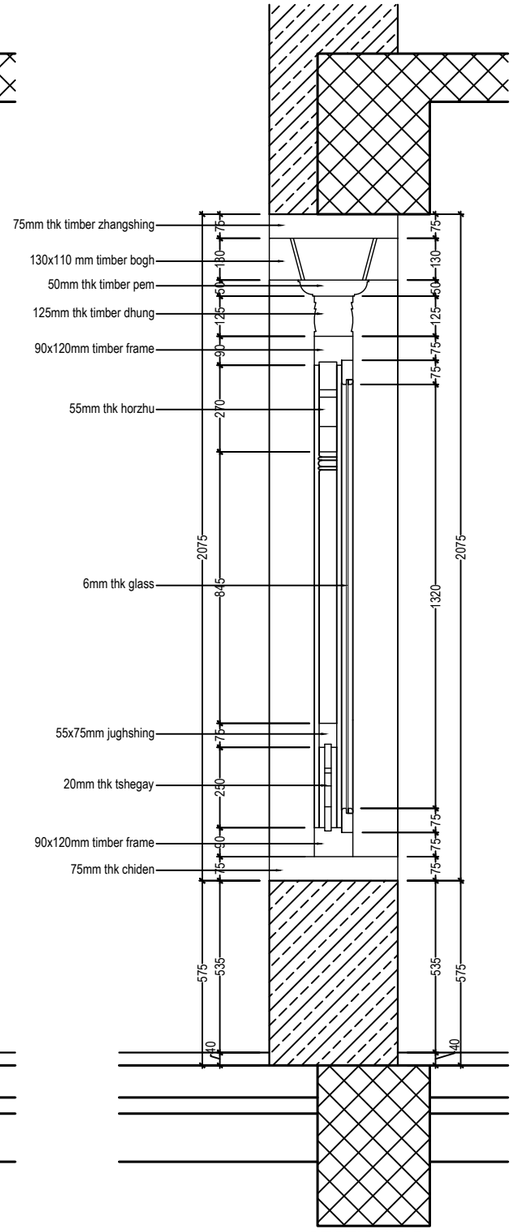
CHECKED	APPROVED	DATE	DRAWING NO.
			AR_18
		Sep, 2026	SCALE
			NTS



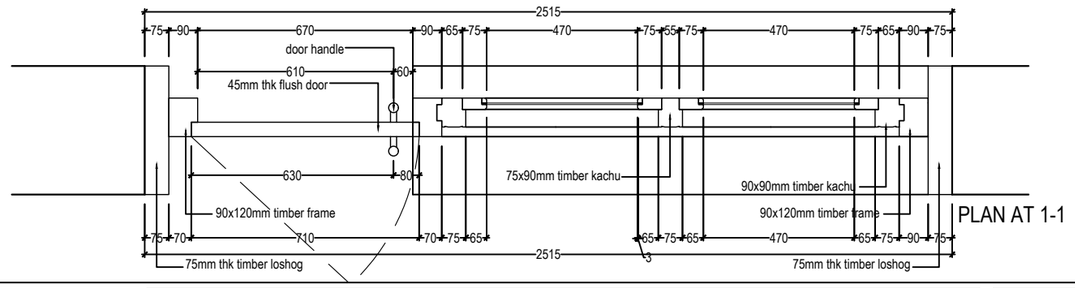
ELEVATION



SECTION A-A



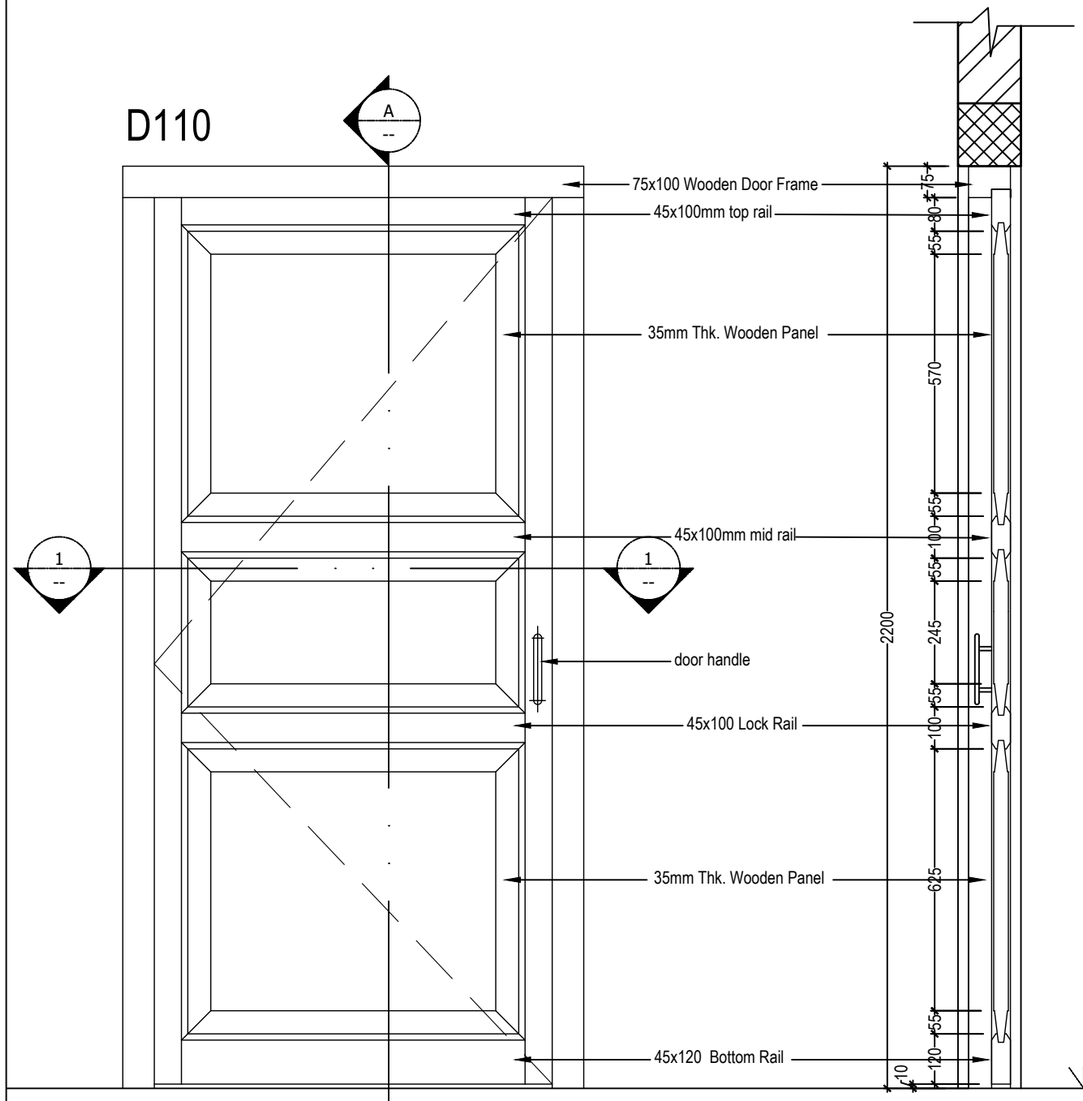
SECTION B-B



PLAN AT 1-1

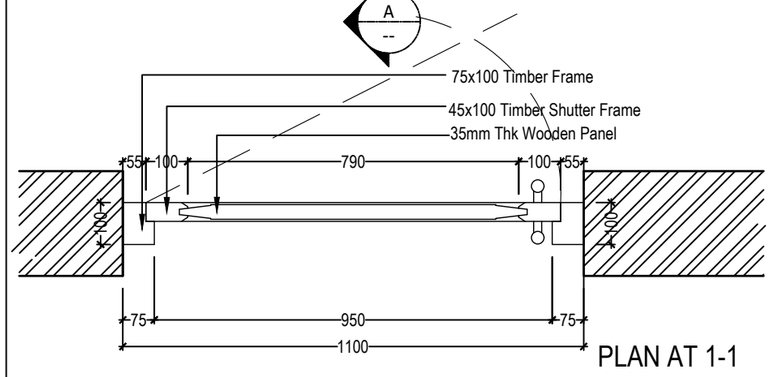
Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: DOOR_WINDOW_DETAIL_DW251			AR_19
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026 / **SCALE**: NTS

D110



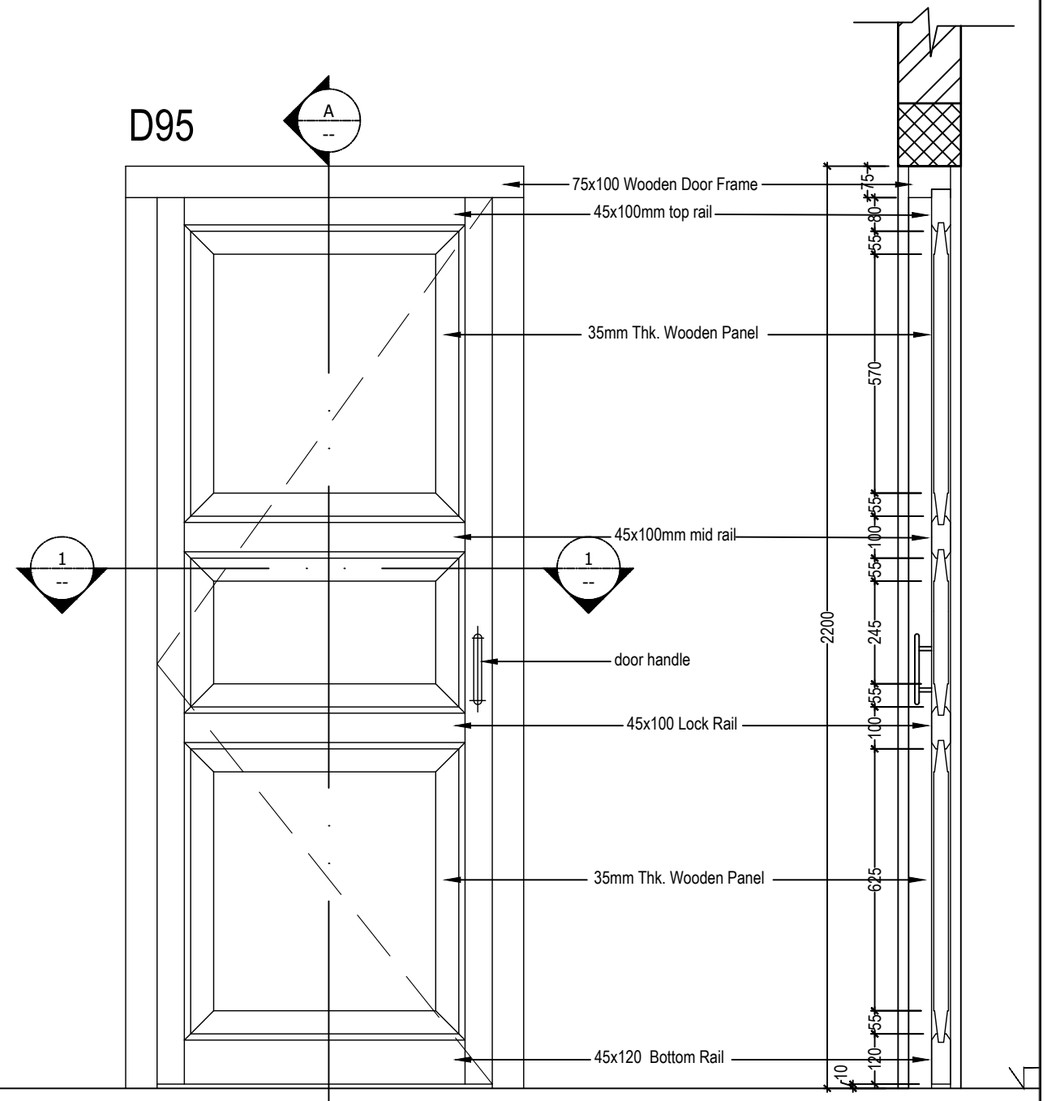
ELEVATION

SECTION A-A



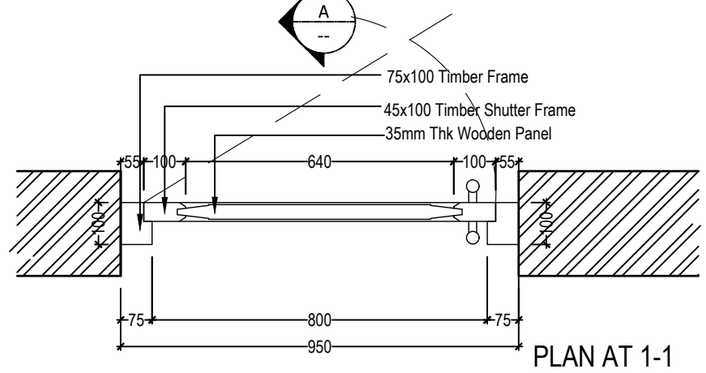
PLAN AT 1-1

D95



ELEVATION

SECTION A-A



PLAN AT 1-1

Khorlochhu

ARCHITECTURAL DRAWING

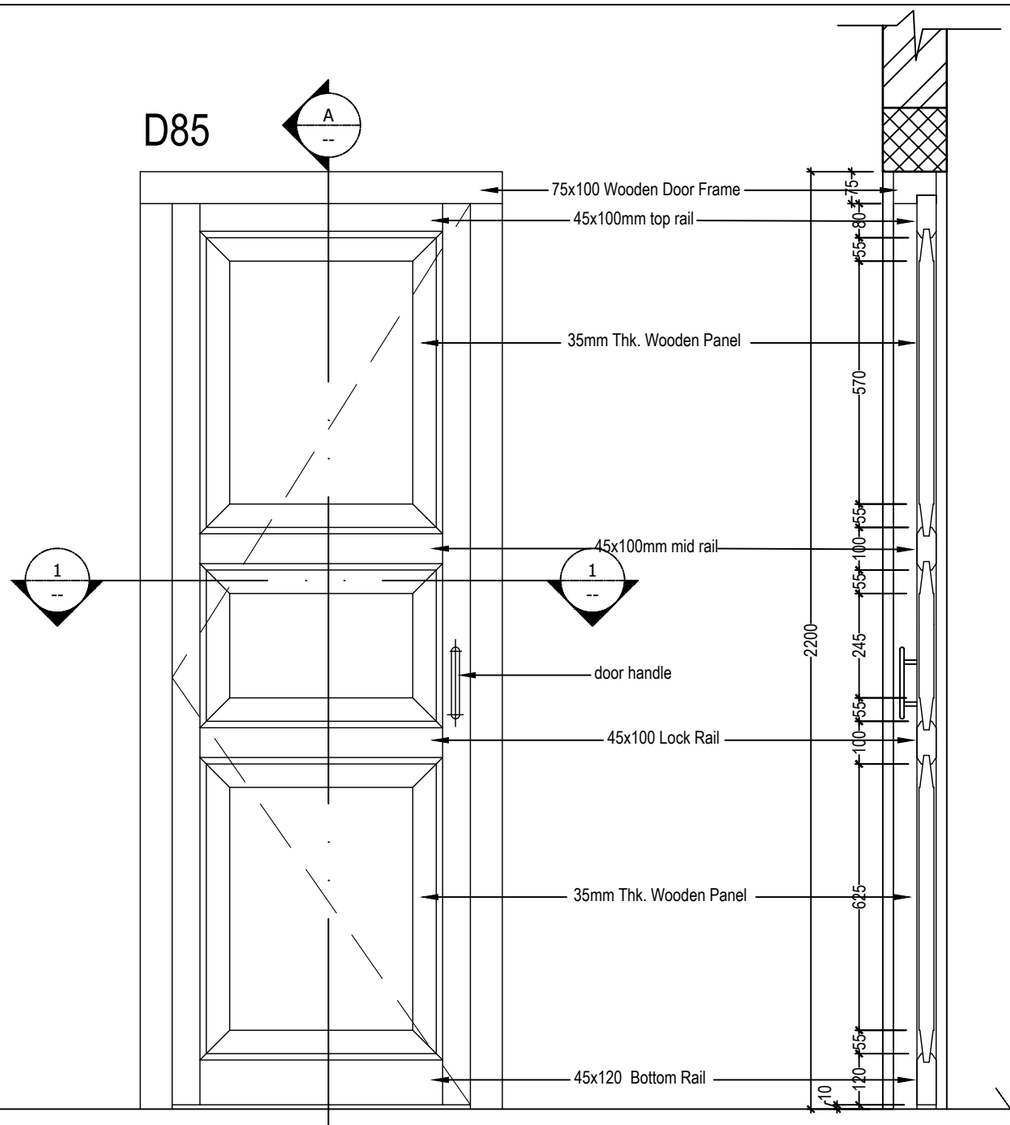
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DOOR_DETAIL_D110_AND_D95

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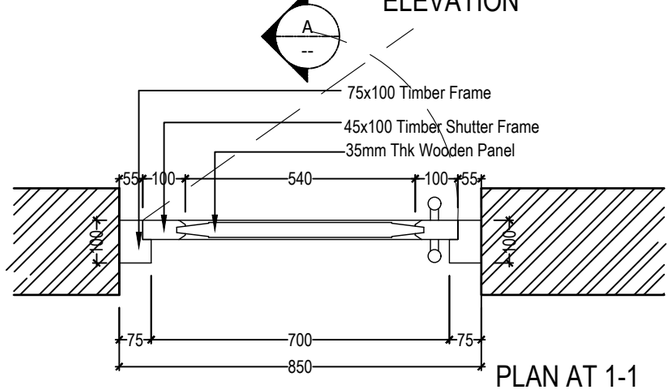
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_20
			SCALE
			NTS

D85



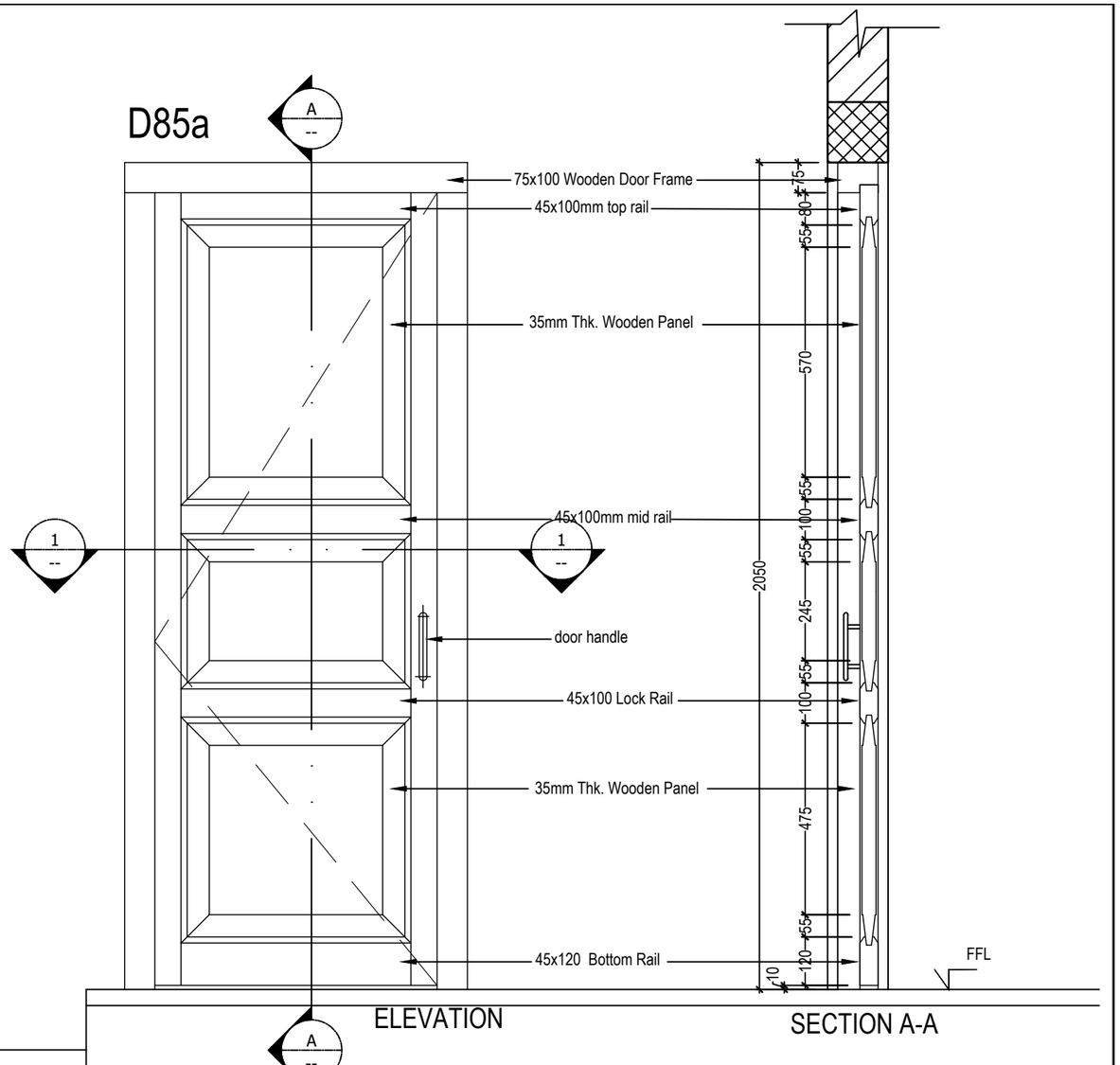
ELEVATION

SECTION A-A



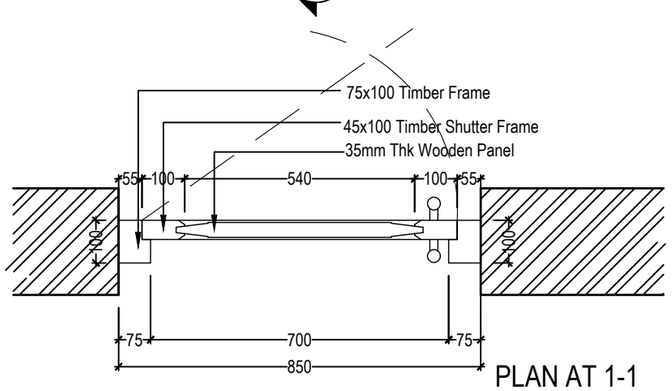
PLAN AT 1-1

D85a



ELEVATION

SECTION A-A



PLAN AT 1-1

Khorlochhu

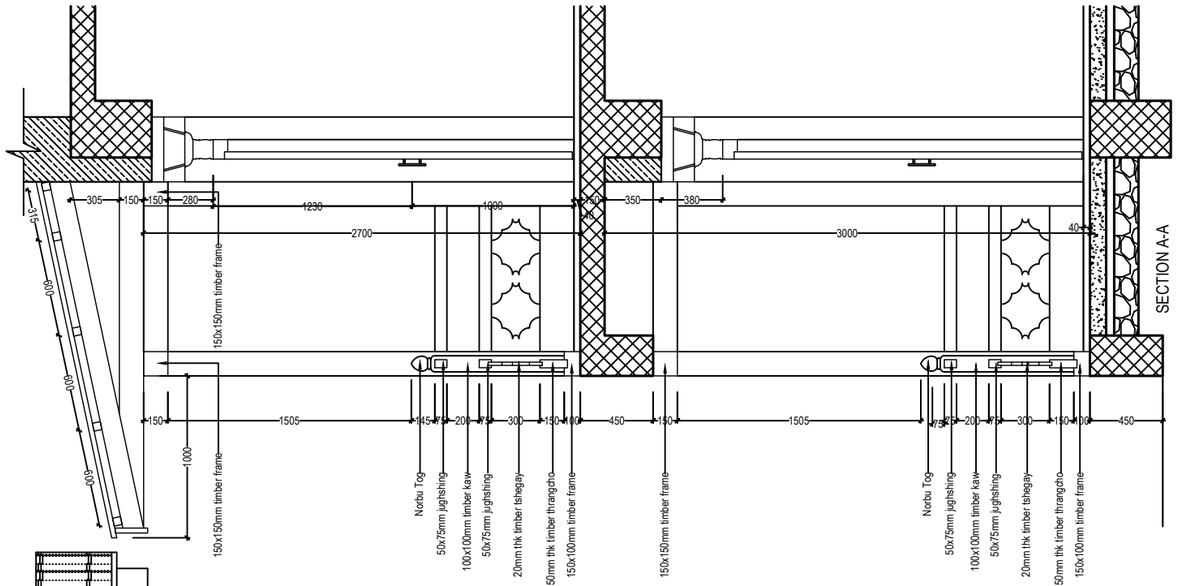
ARCHITECTURAL DRAWING

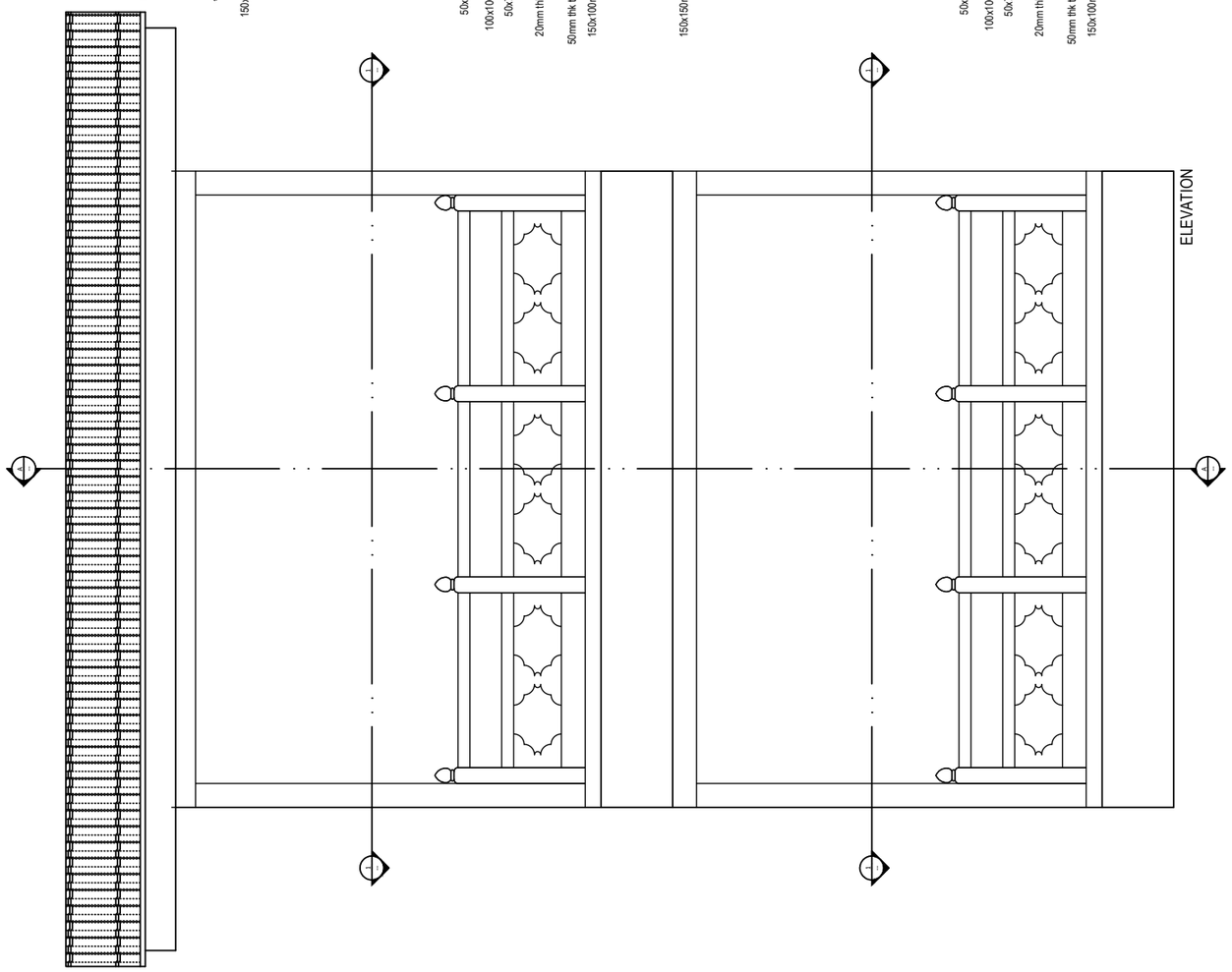
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DOOR_DETAIL-D85_AND_D85A

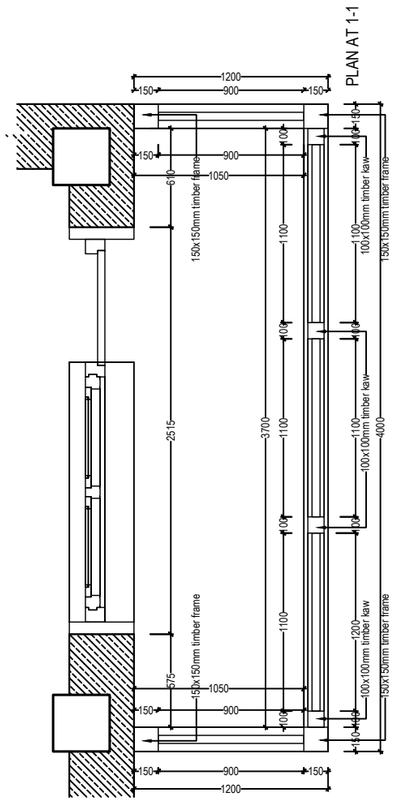
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_21
			SCALE
			NTS







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ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BALCONY_DETAIL

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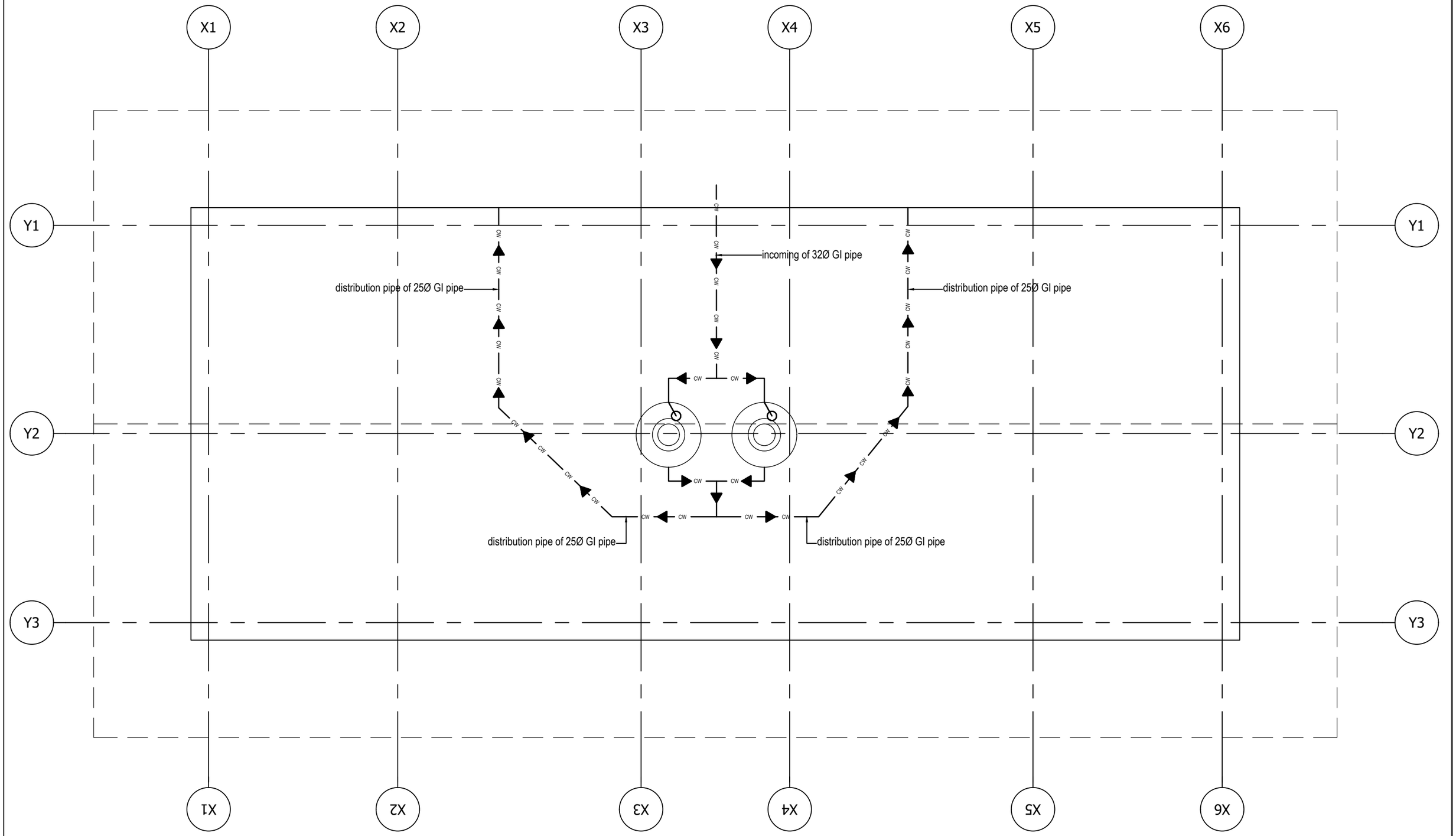
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_22
			SCALE
			NTS

PLUMBING DRAWINGS

STAFF QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

ཁོར་ལོ་ཆུ་གླིང་མེ་ཚད་འཛིན།
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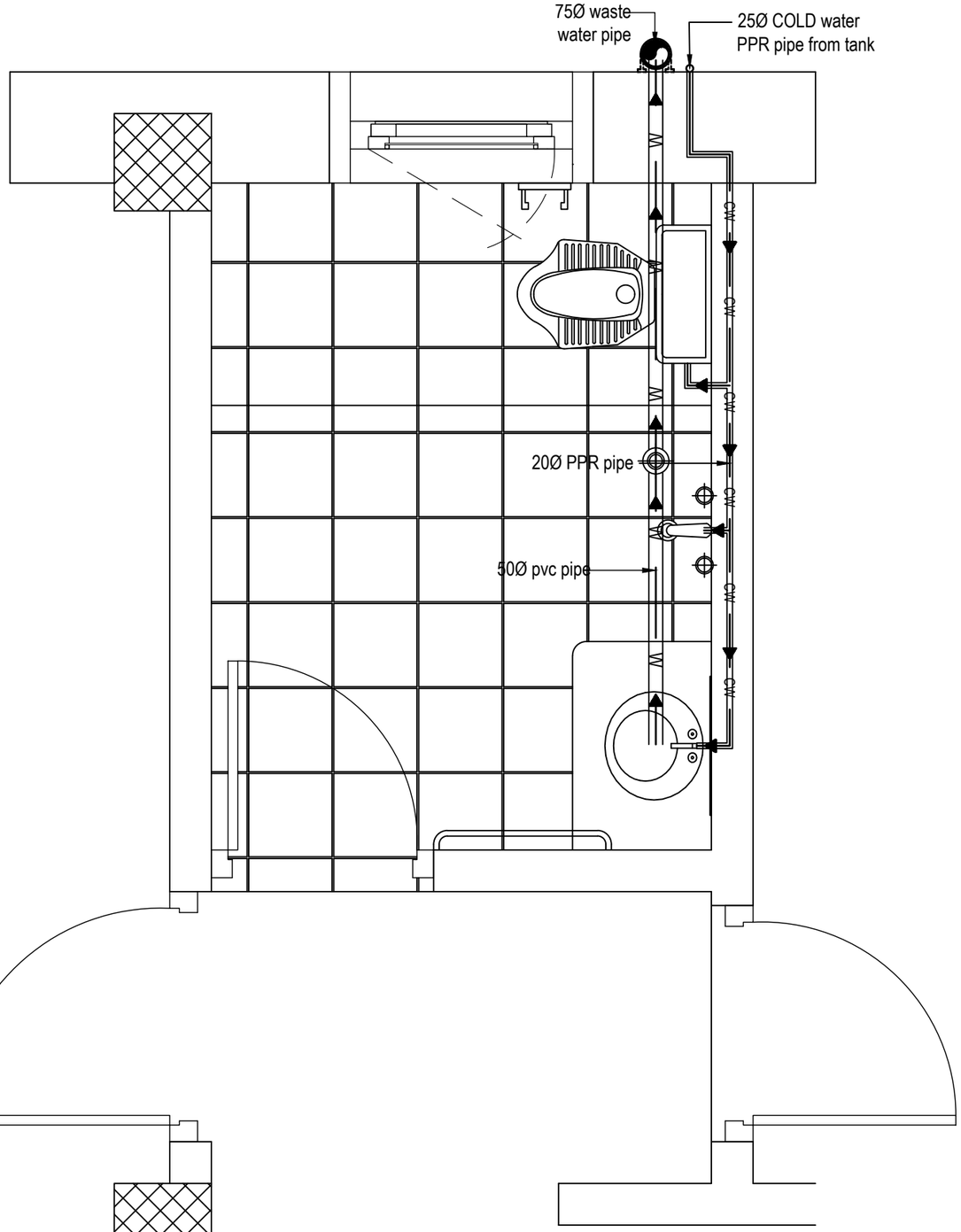
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_LAYOUT

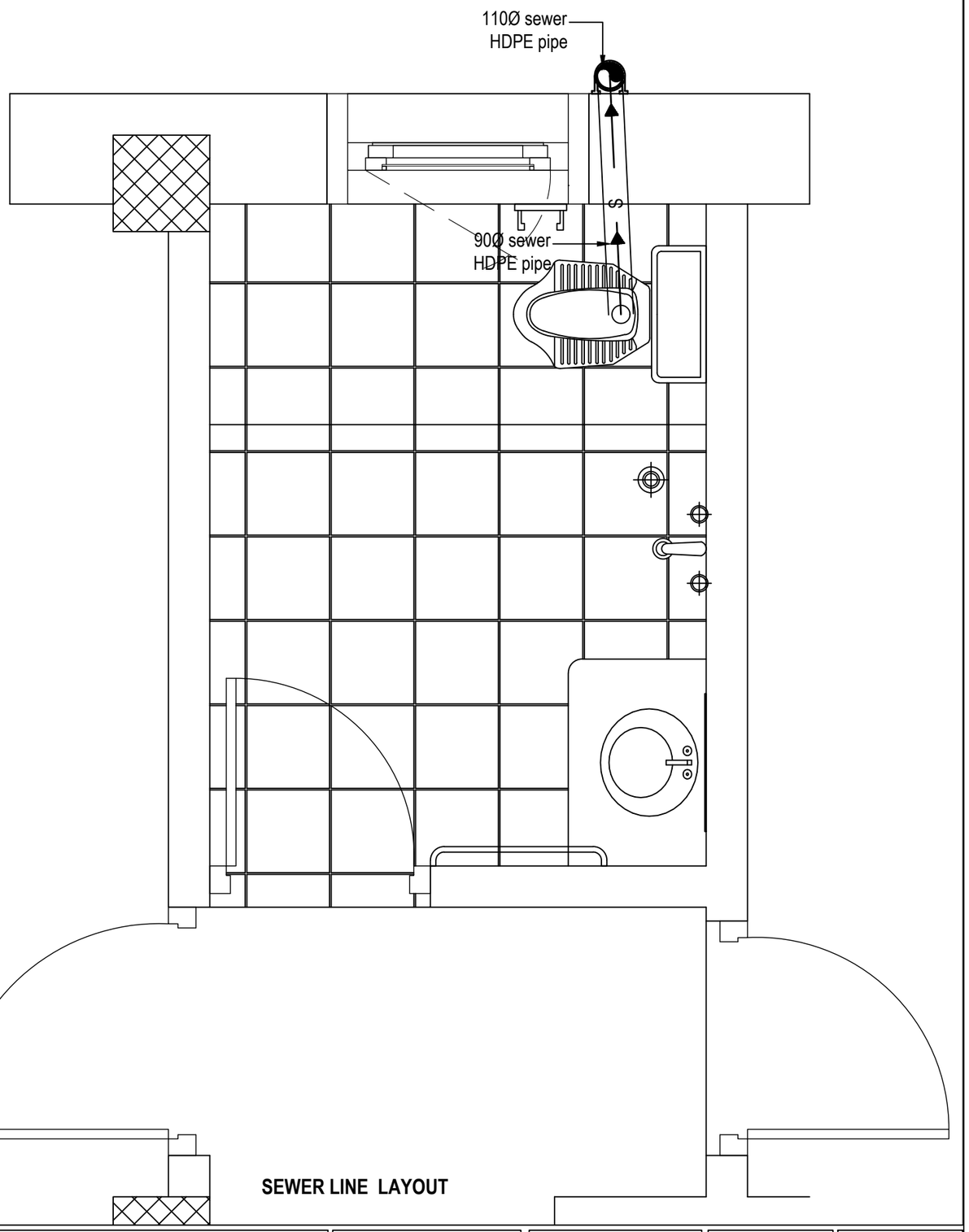
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_01
			SCALE
			NTS



WATER SUPPLY AND WASTE WATER LAYOUT



SEWER LINE LAYOUT

Khorlochhu

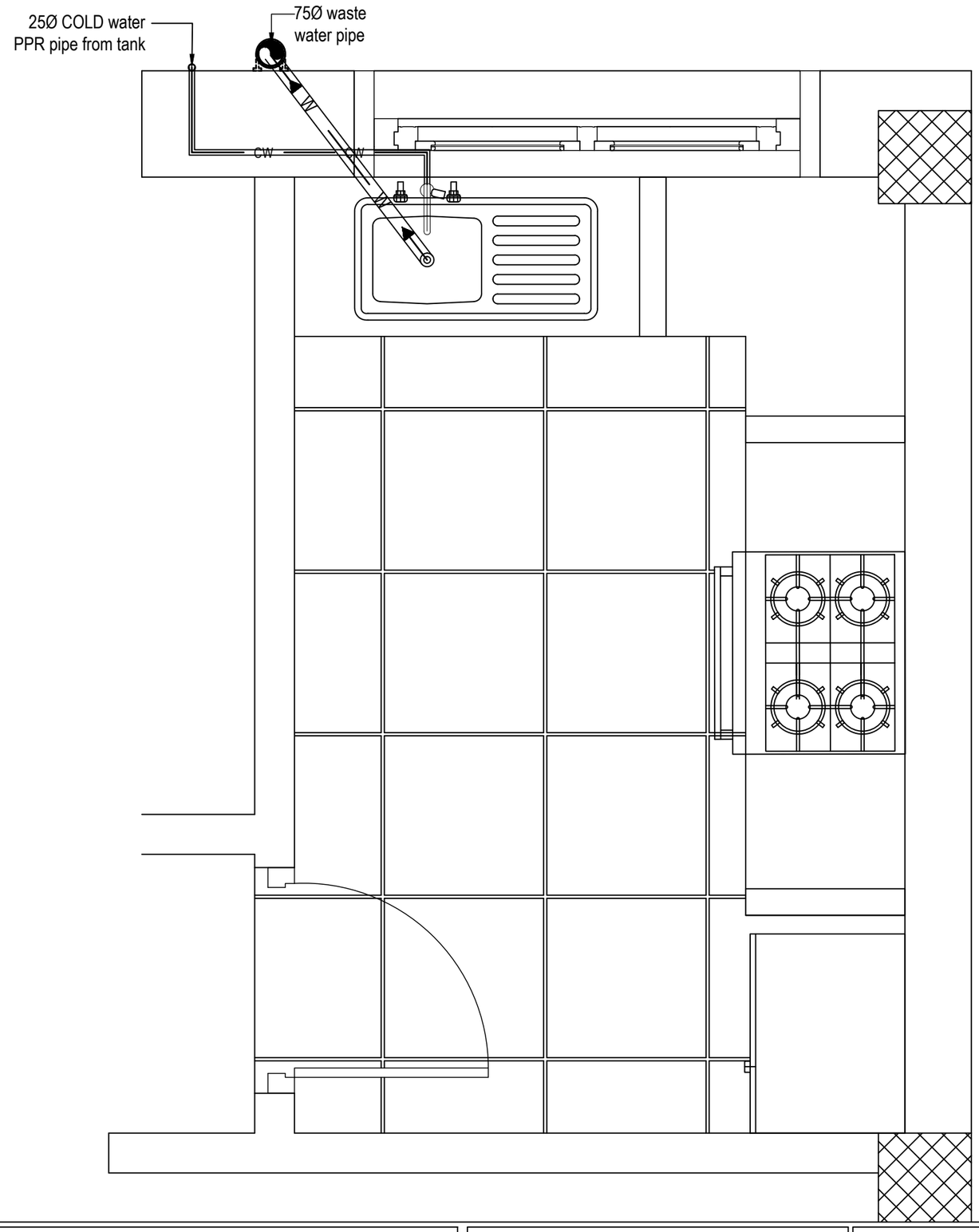
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WASTE_WATER_AND_SEWER_LINE_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_02
			SCALE
			NTS



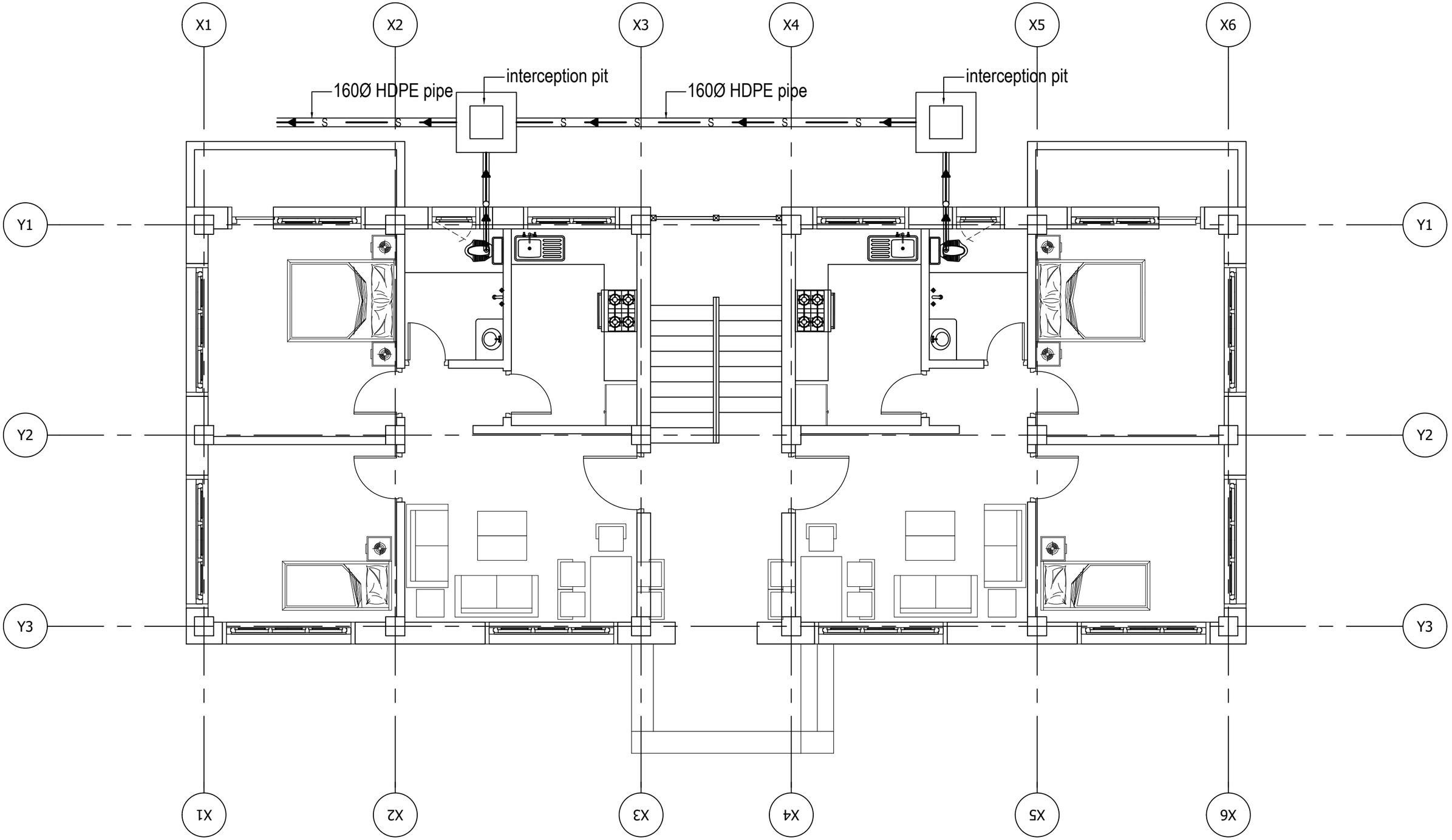
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WASTE_WATER_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_03
			SCALE
			NTS



ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	OVERALL_SEWER_LINE_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_04
			SCALE
			NTS

STRUCTURE DRAWINGS

STAFF QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu

GENERAL NOTES FOR STRUCTURAL DRAWINGS.

A. GENERAL

1. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND OTHER ENGINEERS' DRAWINGS AND SPECIFICATIONS AND SUCH OTHER WRITTEN INSTRUCTIONS MAY BE ISSUED.
2. ALL DIMENSIONS ARE IN MM AND RELATIVE LEVEL IN M UNLESS STATED OTHERWISE.
3. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
4. DESIGN CONFORMS TO:
   (a). IS 4326:1993 EARTHQUAKE RESISTANT DESIGN AND CONSTRUCTION OF BUILDINGS.
   (b). IS 456:2000 CODE OF PRACTICE FOR PLAIN & REINFORCED CONCRETE.
   (c). IS13930:1993 DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORES.
   (d).BUILDING CODE OF BHUTAN 2003
   (e). IS1893:2002 SEISMIC RESISTANT DESIGN OF STRUCTURES.
   (f). IS 800, SP 38 (S&T)-1987
5. VERIFY ALL SETTING OUT DIMENSIONS WITH ENGINEER/ARCHITECT.
6. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING THE WORK.
7. ALL CONSTRUCTION MATERIALSANDWORKMANSHIP SHALL COMPLY WITH THE SPECIFICATIONS FOR BUILDING AND ROAD WORKS TOGETHER WITH THE REQUIREMENTS OF ALL RELEVANT CODES OF PRACTICE REFERRED TO HEREIN AND THE REQUIREMENTS OF ALL STATUTORY AUTHORITIES.
8. ALWAYS REFER ADDITIONAL NOTES PROVIDED IN THE DRAWINGS.

B. FOUNDATIONS AND FOOTINGS.

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 180 KN/Sq M. VERIFY THE SOIL STRENGTH AND OBTAIN APPROVAL FROM THE ENGINEER BEFORE PLACING THE CONCRETE.
2. WALLS SHALL BE PROVIDED BELOW THE EXTERIOR PLINTH BEAM. IT IS RECOMMENDED TO PROVIDE THE SAME BELOW THE INTERNAL PLINTH BEAM.
3. FOOTINGS ARE DESIGNED CONSIDERING THE MINIMUM DEPTH OF 1500MM BELOW THE ORIGINAL GROUND LEVEL. NOTIFY ENGINEER SHOULD THE DEPTH OF FOOTINGS REQUIRED TO BE PROVIDED IS MORE THAN THE DEPTH SPECIFIED ABOVE.
4. ALL CONCRETE SHALL BE PLACED 'IN THE DRY'FOR FOUNDATIONS.
5. COMPACTION OF FOUNDATION SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

C. LOADING

1. THIS STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LOADS.
   (a). DEAD LOADS;

UNIT WEIGHT OF CONCRETE BLOCKS	16.79KN/M3
UNIT WEIGHT OF RCC	25KN/M3
UNIT WEIGHT OF PCC	24KN/M3
UNIT WEIGHT OF STONE	28KN/M3

   (b). SUPERIMPOSED (LIVELOADS)

GROUND FLOOR , 1st FLOOR	3KN/M2
LIVELOAD FOR ROOF FLOORS	.75KN/M2
LIVELOAD FOR STAIRCASE	4KN/M2

   (c). WIND LOAD
   WIND PRESSURE 45.6M/S (AS CALCULATED)
   (d). OTHER LOADS:
   EARTHQUAKE LOAD IN ACCORDANCE WITH IS 1893:2002 ASSUMING ZONE V
   SUPERIMPOSED DEAD LOAD 1KN/M2
2. MAINTAIN STRUCTURE IN STABLE CONDITION DURING CONSTRUCTION.
3. DONOT PLACE OR STORE BUILDING MATERIALS ON CONCRETE MEMBERS WITHOUT ENGINEER'S APPROVAL.

D. CONCRETE.

1. CONCRETE QUALITY SHALL COMPLY WITH IS 456:2000
2. PROJECT ASSESSMENT OF CONCRETE STRENGTH IS REQUIRED.
3. GRADE OF CONCRETE IS M20 FOR ALL RCC WORKS. (1:1.5:3=1 cement:1.5 Sand: 3 Aggregates)
4. FOR THE ABOVE GRADE TO BE ACHIEVED, MAXIMUM FREE WATER-CEMENT RATIO SHALL BE 0.55, MINIMUM CEMENT CONTENT SHALL BE 300KG/M3 AND MAXIMUM AMOUNT OF WATER SHALL BE 180L.
5. WATER USED FOR MIXING AND CURING SHALL COMPLY WITH CLAUSE 5.4 OF IS 456:2000.

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SRUCTURE_NOTE

NOTES

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		Sep, 2026	STR_01
			SCALE
			NTS

6. MECHANICALLY VIBRATE CONCRETE IN THE FORM TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.
7. CURE CONCRETE AS REQUIRED BY THE CLAUSE 13.5 OF IS456:2000 AND WORK SPECIFICATIONS.
8. CONCRETE SIZES AS DRAWN ARE MINIMUM AND DONOT INCLUDE APPLIED FINISHES.
9. DONOT MAKE UNSPECIFIED HOLES OR CHASES WITHOUT ENGINEER'S APPROVAL.
10. DONOT PLACE CONDUITS, PIPES AND THE LIKEWITHIN COVER CONCRETE.
11. AGGREGATES SHALL COMPLY WITH CLAUSE 5.3 OF IS456:2000. NOMINAL SIZE OF COARSE AGGREGATES SHALL BE 20MM.
12. THE CHARACTERISTICS STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 20MPA. NOTE THAT THE MEAN COMPRESSIVE STRENGTH OBTAINED FROM THE LABORATORY HAS TO BE WELL ABOVE THIS VALUE.
13. ALL FORMWORKS FOR BEAMS AND SLABS ARE TO REMOVED BEFORE CONSTRUCTION OF WALLS OR OTHER PERMANENT LOADINGS. ALL FORMWORK AND ITS REMOVAL MUST BE IN ACCORDANCE TO IS 456:2000.

E. REINFORCEMENT.

1. GRADE OF STEEL USED FOR RCC WORKS SHALL BE FE500.
2. BAR NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER: NUMBER OF BARS BAR SIZE(MM),SPACING(MM, IF REQUIRED).
3. REINFORCEMENT IS REPRESENTED DIAGRAMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
4. LAP REINFORCEMET ONLYAT LOCATIONS SHOWN IN THE DRAWINGS. LAP LENGTH SHALL COMPLY WITH IS456:2000. LAP SPLICES SHALL NOT BE LESS THAN THE DEVELOPMENT LENGTH IN TENSION(GENERALLY 57Ø).
5. REINFORCEMENT SHALL NOT BE CUT, BENT OR HEATED ON SITE WITHOUT ENGINEER'S APPROVAL.
6. THE DEVIATION OF REINFORCEMENT FROM ITS SPECIFIED POSITION SHALL NOT EXCEED THE FOLLOWING(MM)
   (a). TOLERANCE FOR COVER -0,+10MM. WHERE A NEGATIVE VALUE INDICATE A DECREASE IN SPECIFED COVER, AND POSITIVE VALUE INDICATES AN INCREASE IN COVER.
   (b). TOLERANCE ON PLACEMENT OF REINFORCEMENT.
   FOR SLABS AND STAIRCASE -10,+10MM.
   FOR BEAMS, COLUMNS AND FOUNDATION -15,+15MM.
7. SPACERS AND SUPPORTS SHALL BE LOCATED AT CENTRES CLOSE ENOUGH (PREFERABLY NOT EXCEEDING 750MM C/C FOR COLUMN AND BEAM REINFORCEMENT AND 450MM FOR SLAB REINFORCEMENT). TO PREVENT DISPLACMENT OF REINFORCEMENT BY WORKMEN OR EQUIPMENT DURING FIXING AND SUBSEQUENT CONCRTE PLACEMENT WITHIN TOLERANCE GIVEN ABOVE.
8. THE COVER TO THE REINFORCEMENT NEAREST THE CONCRETE SURFACE SHALL NOT LESS THAN THE FOLLOWING EXCEPT WHERE SPECIFIED OTHERWISE:

BEAMS	30MM
COLUMNS	40MM
FLOOR SLABS AND STAIRCASE	20MM
FOUNDATION	50MM

9. BENDING OF REINFORCEMENT IN BEAMS AND COLUMNS SHALL COMPLY WITH TH REQUIREMENTS OF IS 456:2000
10. FORMWORK SHALL COMPLY WITH CLAUSE 11 OF IS 456:2000
11. STRIPPING OF FORMWORK SHALL COMPLY WITH CLAUSE 11.3 OF IS:456:2000

F. WELDING AND BOLTING.

1. WELDING TO BE CARRIED OUT IN ACCORDANCE WITH IS 816:1969, IS 819:1957, IS 1024:1979, IS 1261:1959, IS 1323:1982 AND IS: 9595: 1980 AS APPROPRIATE.
2. THE STRENGTH OF ELECTRODE USED FOR WELDING SHALL BE EQUAL TO OR GREATER THAN THE STRENGTH OF MEMBER THAT IS BEING WELDED.
3. ALL WELD SHALL BE COMPLETE PENETRATION BUTT WELD.
4. ALL BOLTS SHALL BE HIGH STRENGTH FRICTION GRIP GALVANIZED M16 AND M20 IN ACCORDANCE WITH IS 3757:1967 AND IS 800: 1984.
5. ALL MEMBERS OF STEEL TRUSS SHALL BE DRY AND THROUGHLY CLEANED FROM ALL LOOSESCALE AND RUST PRIOR TO PAINTING.
6. THE MEMBERS SHALL BE PROVIDED WITH COAT OF ZINC COATING.

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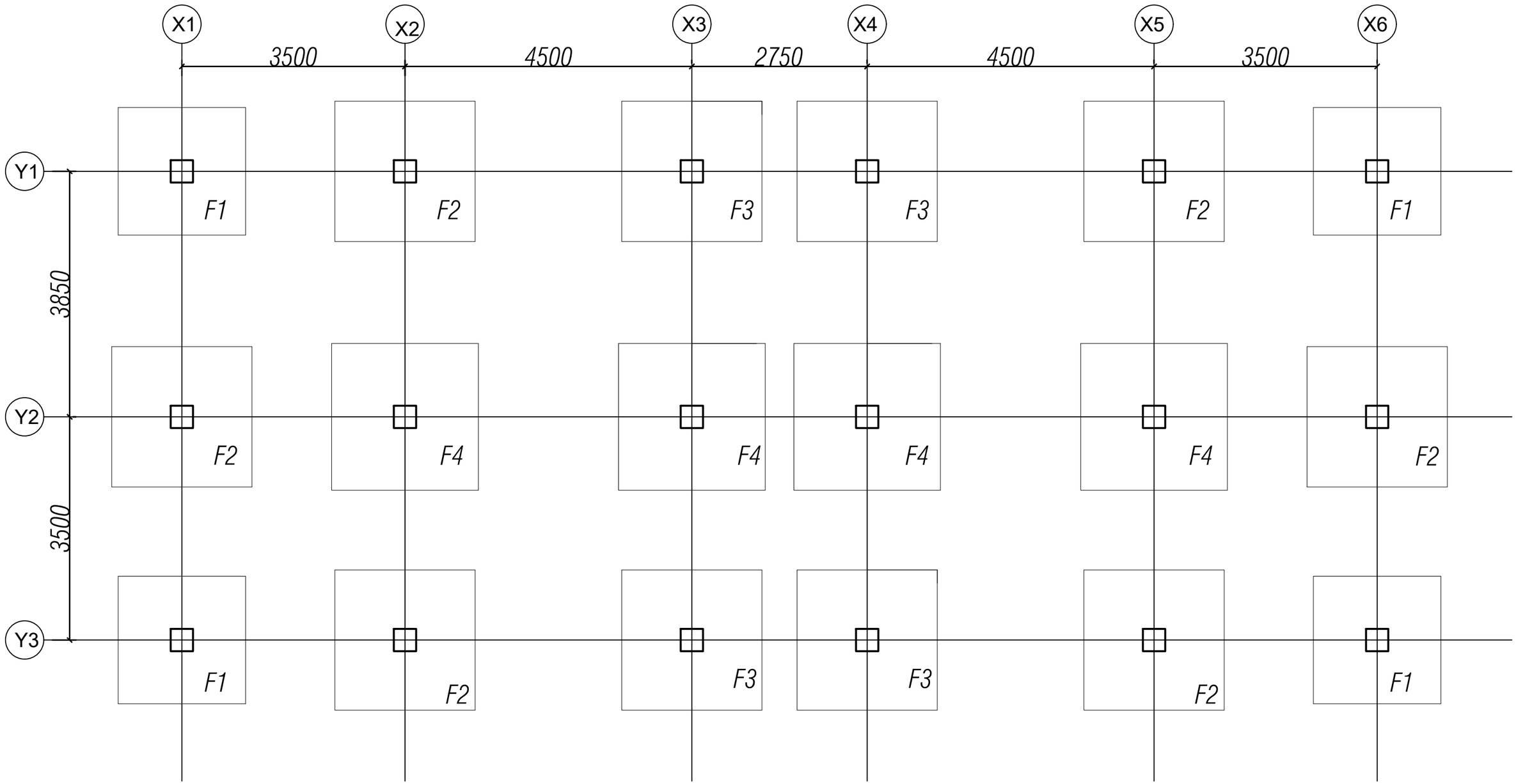
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STRUTURE_NOTES

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_02
			SCALE
			NTS



Footing layout plan

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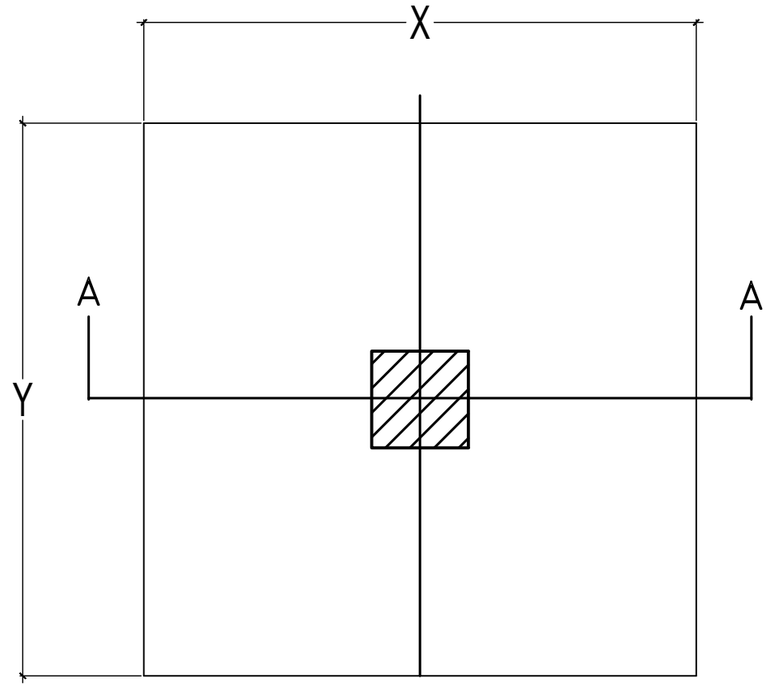
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_LAYOUT

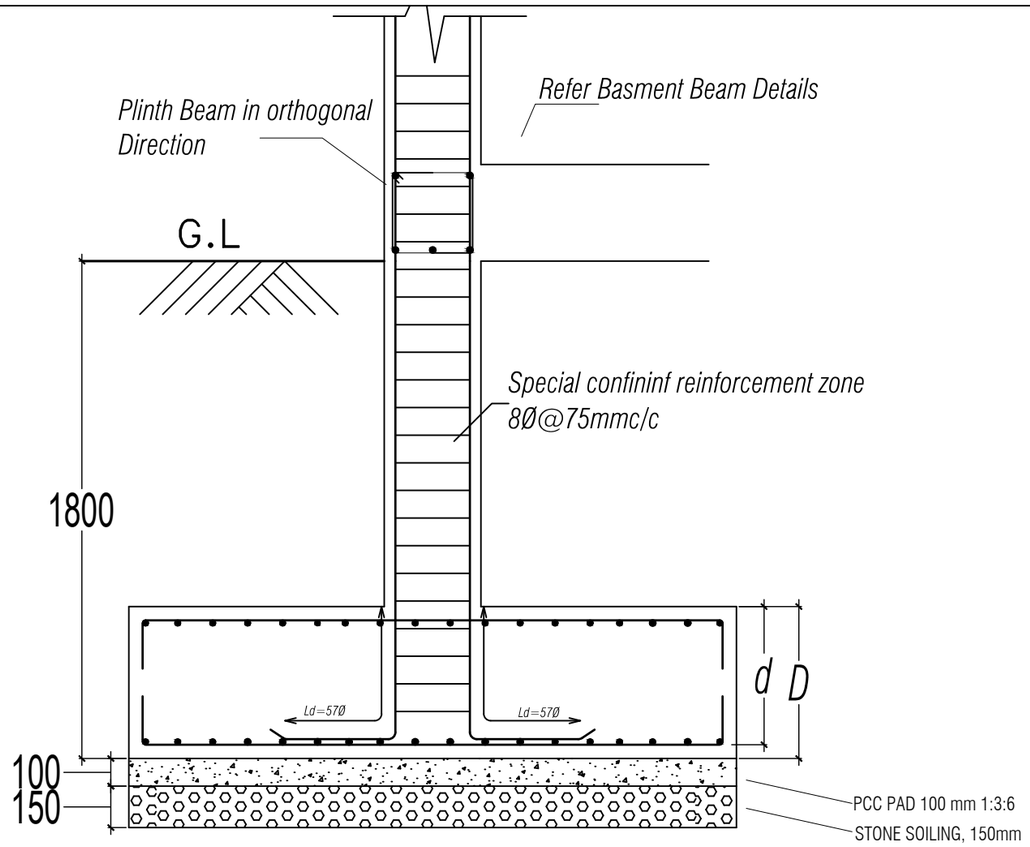
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_03
			SCALE
			NTS



Typical Footing Plan



Typical Isolated Footing Details (Section A-A)

FOOTING SCHEDULE					
Footing Type	Size (X x Y)	Column Size (X x Y)	D	RFT BAR IN Bottom (Bothways)	RFT BAR IN Top (Bothways)
F1	2000 x 2000	350 x 350	350	12Ø@155 c/c	12Ø@175 c/c
F2	2200 x 2200	350 x 350	400	12Ø@155 c/c	12Ø@175 c/c
F3	2200 x 2200	350 x 350	450	12Ø@150 c/c	12Ø@170 c/c
F4	2300 x 2300	350 x 350	400	12Ø@155 c/c	12Ø@175 c/c

FOOTINGS SCHEDULE/TYPICAL DETAILS

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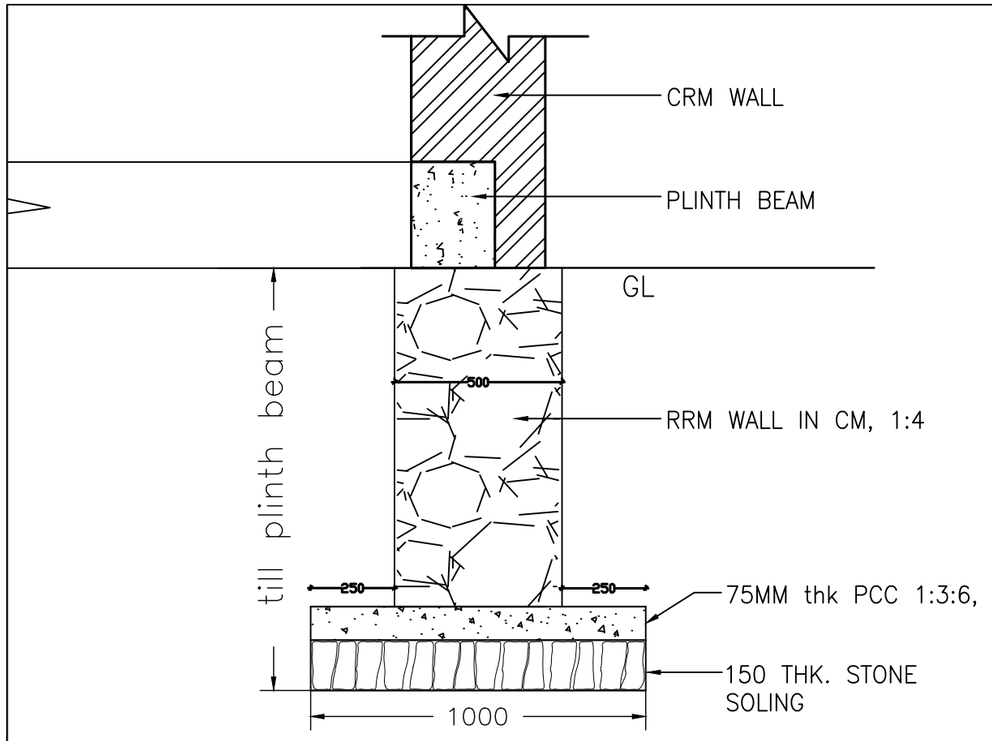
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_DETAILS

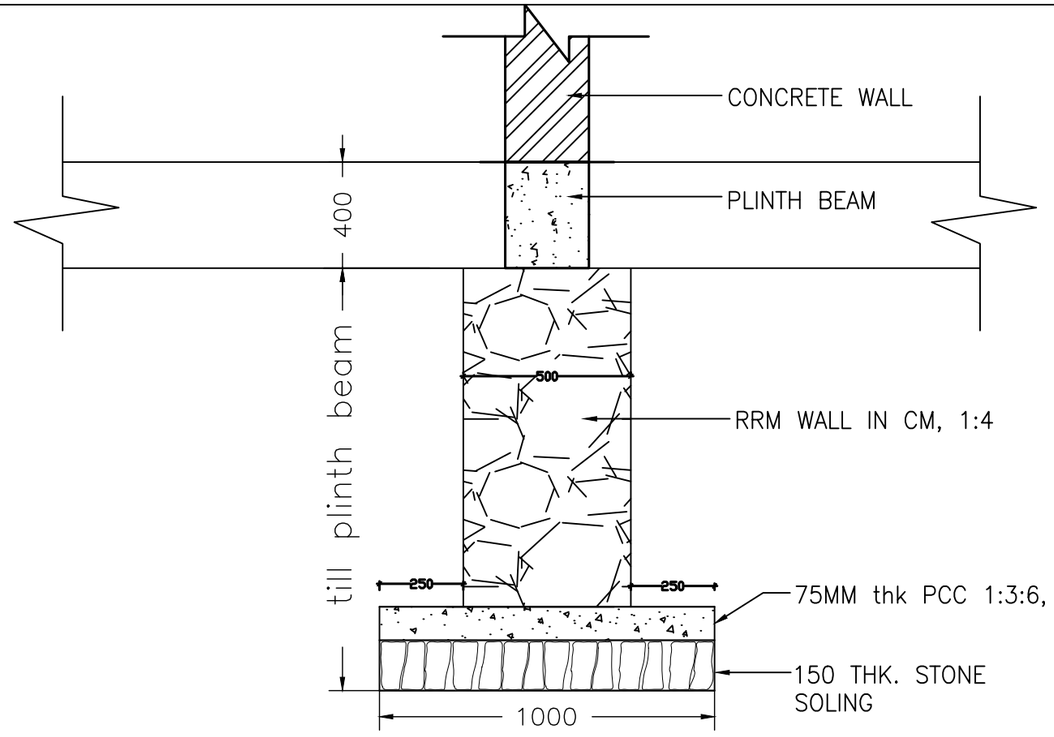
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_04
			SCALE
			NTS

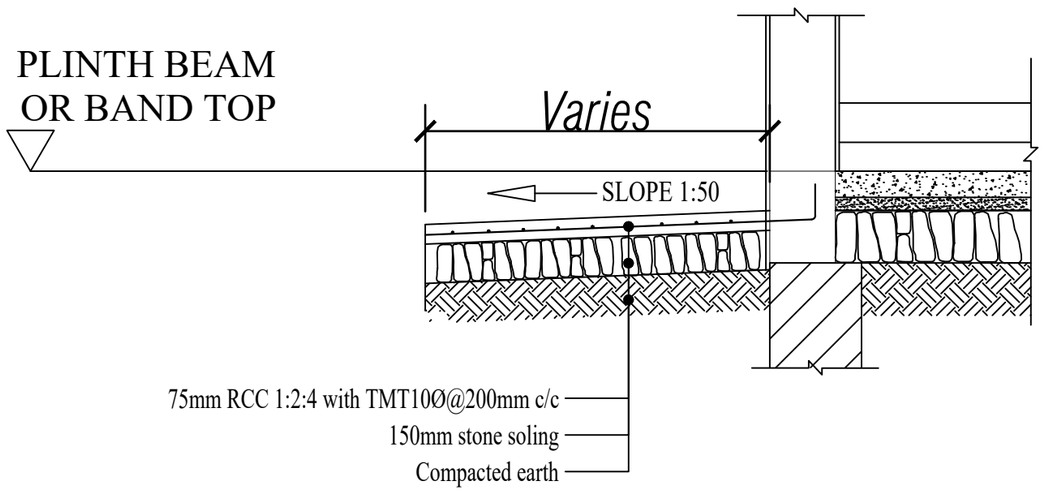


RRM WALL BELOW EXTERNAL PLINTH BEAM

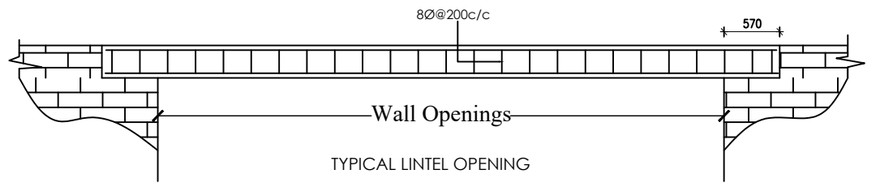


RRM WALL BELOW INTERNAL PLINTH BEAM

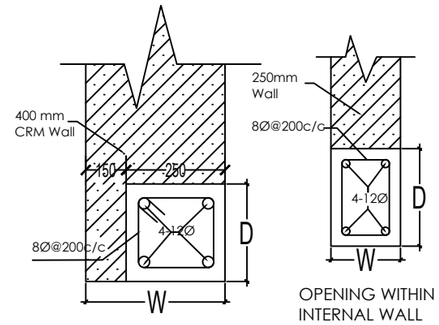
TYPICAL FOUNDATION WALL DETAILS



RCC IN PLINTH PROTECTION



TYPICAL LINTEL OPENING



OPENING WITHIN EXTERNAL WALL

OPENING WITHIN INTERNAL WALL

NOTE :

1. Depth (D) of Lintels is to be taken as shown in Architectural drawings, especially for main windows and should be taken as 150mm for all other Lintels.
2. Width (W) of Lintels is to be taken equal to the wall thickness.

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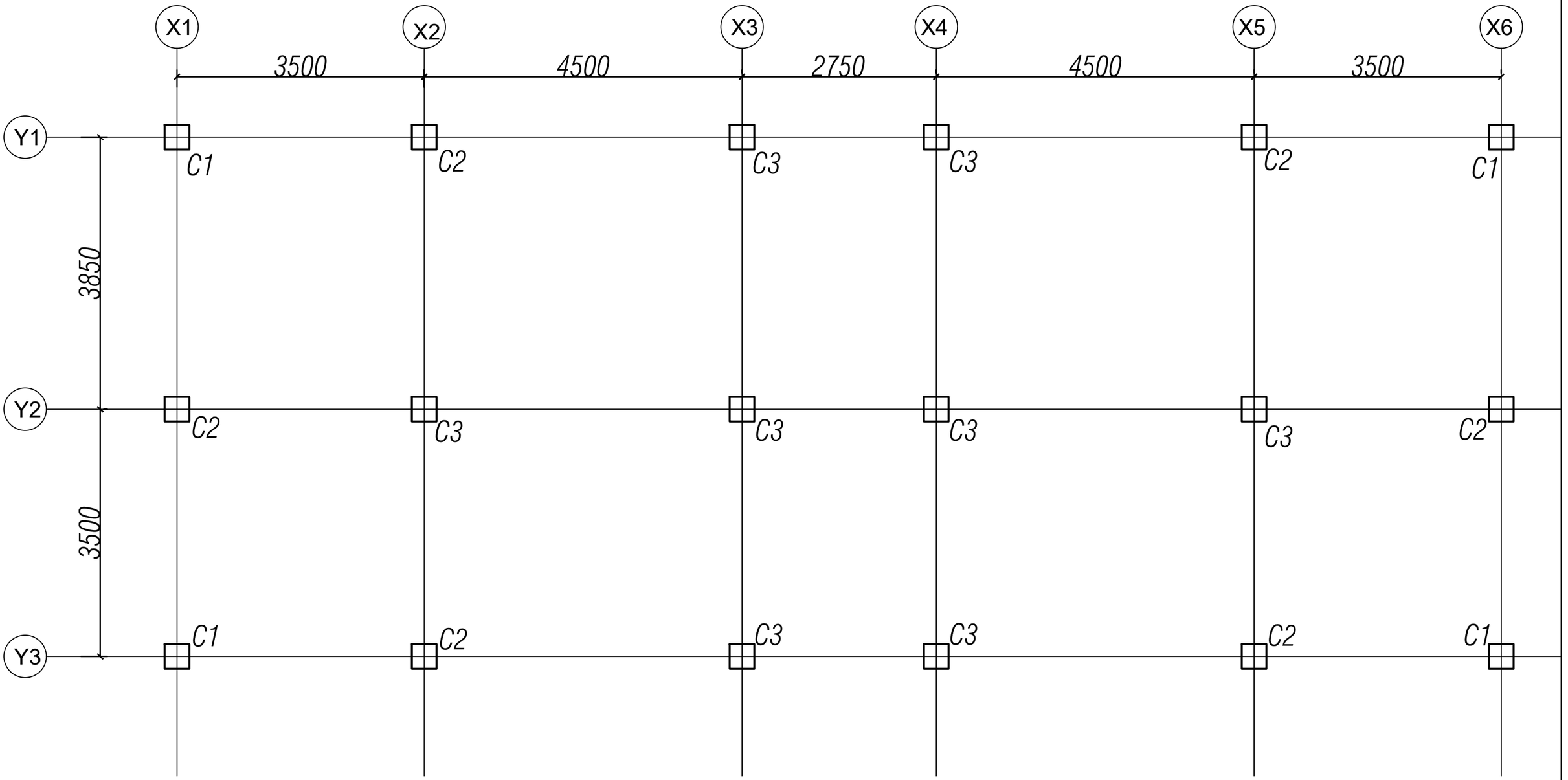
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DETAILS

NOTES

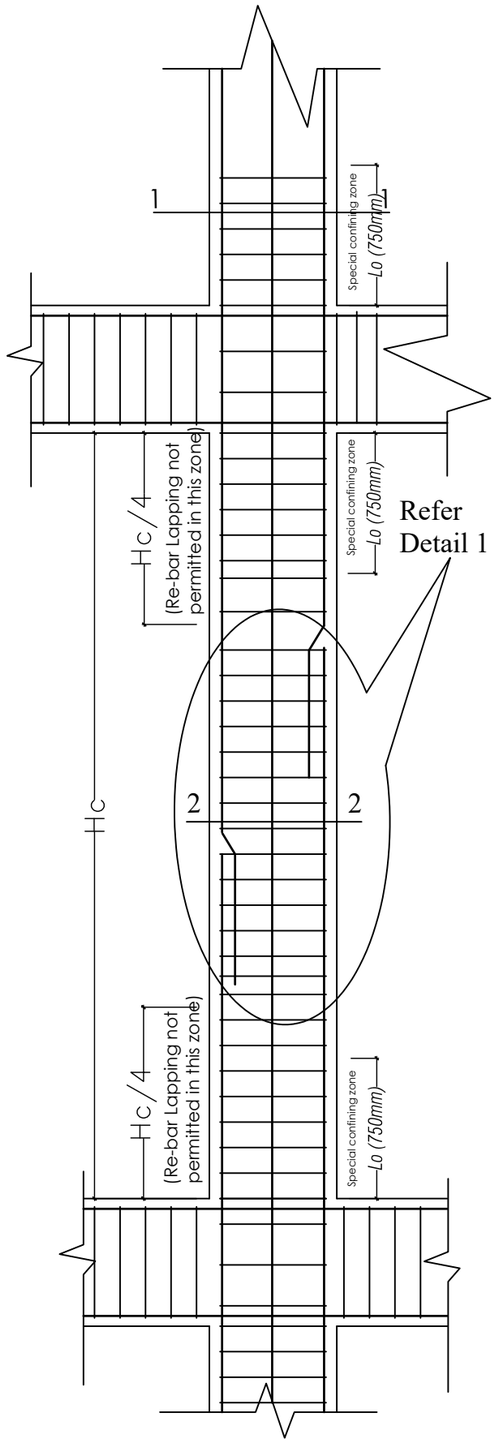
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_05
			SCALE
			NTS

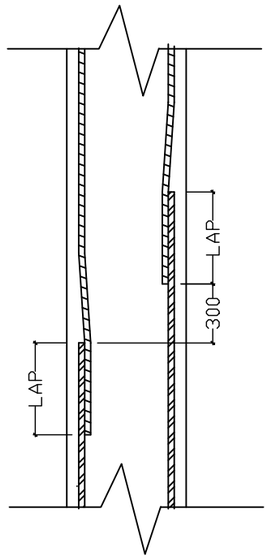


Column layout plan

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_06
	Construction of BHU Building and Auxiliary Work / COLUMN_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS



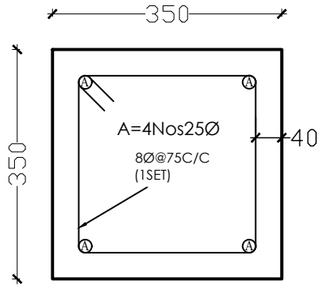
TYPICAL SECTION (showing Typical arrangment of Rebar and Ties in columns)



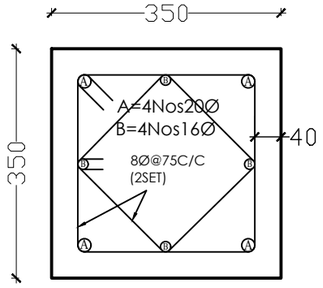
DETAIL1(showing staggering of laps in columns)

Bar Dia	Splice Length
16ø	912
20ø	1140
25ø	1425

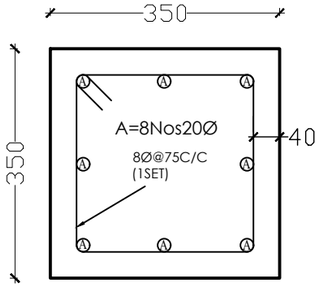
SPECIAL CONFINING



SECTION 1-1
(All columns shown as C1)

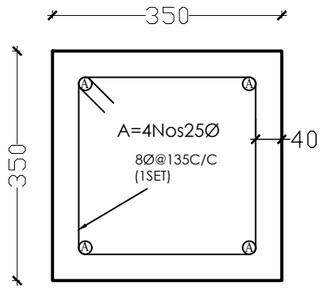


SECTION 1-1
(All columns shown as C2)

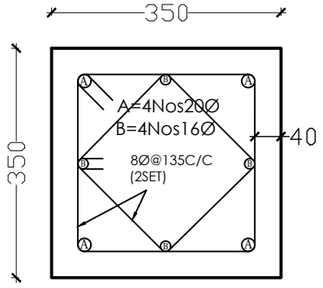


SECTION 1-1
(All columns shown as C3)

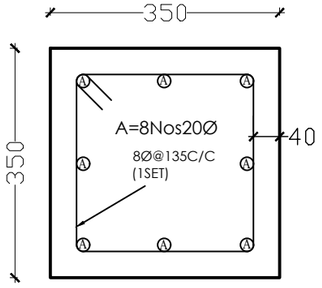
NORMAL CONFINING



SECTION 2-2
(All columns shown as C1)



SECTION 2-2
(All columns shown as C2)



SECTION 2-2
(All columns shown as C3)

Khorlochhu

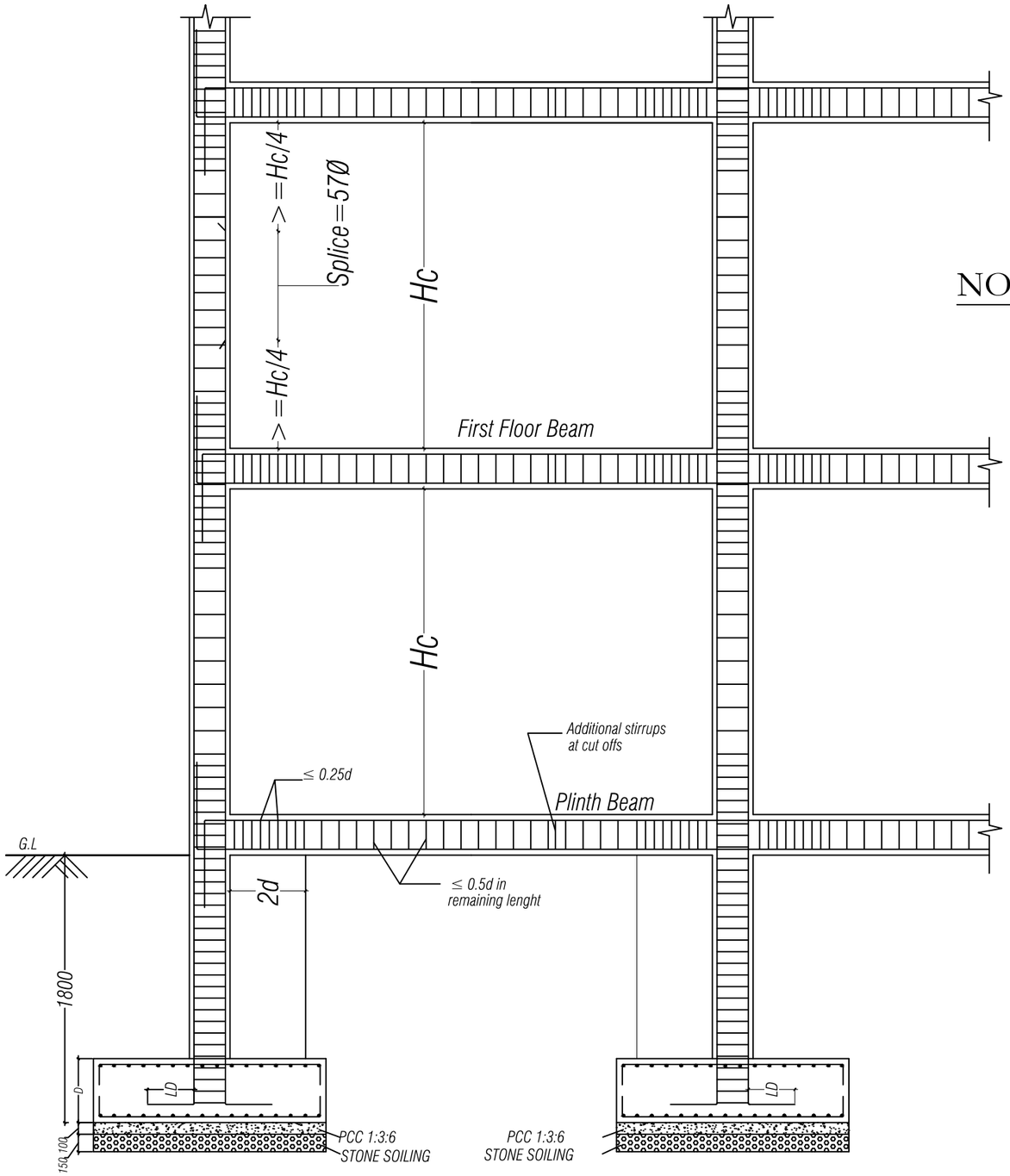
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COLUMN_DETAILS

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_07
			SCALE
			NTS



BEAM-COLUMN JUNCTION DETAILING

NOTE:

Clear Cover Details:

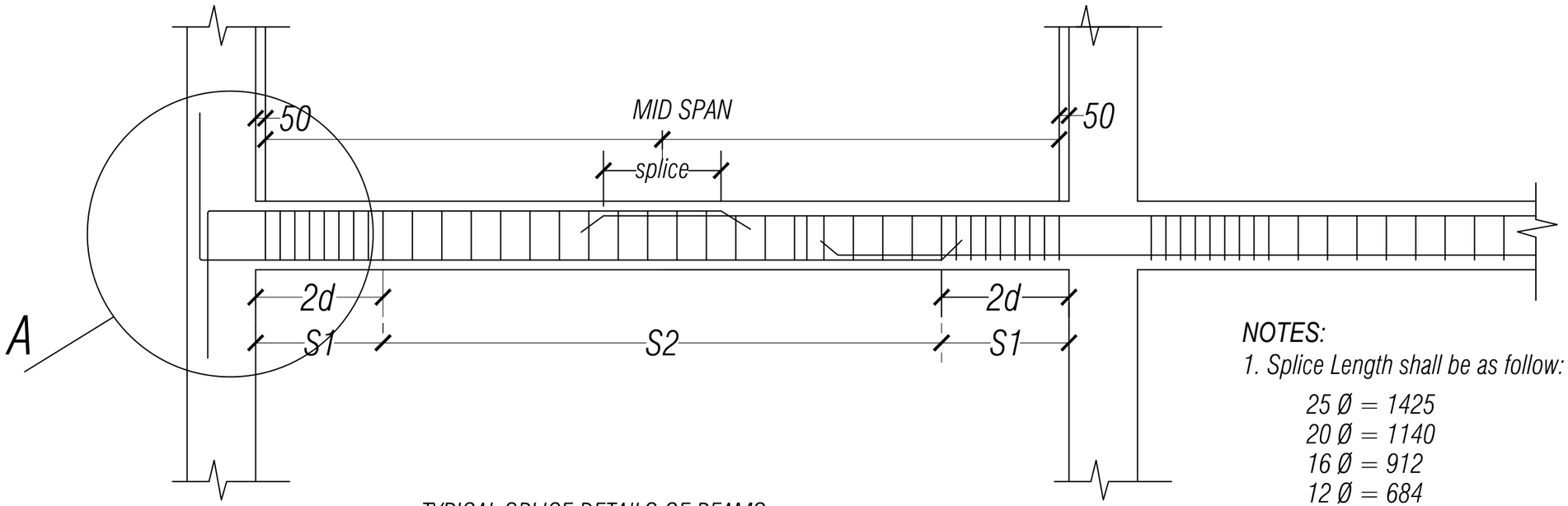
1. The clear cover to all footings should be 50 mm
2. The clear cover to all columns should be 40 mm
3. The clear cover to all beams should be 30 mm
4. The clear cover to all slabs should be 25 mm

Reinforcement Details

1. Not more than 50% of bars shall be spliced at one section both in beams and cloumns.
2. Column bars shall be spliced at a distance of Hc/4 from the face of support
3. No lap splice in columns are provided in first storey
4. Top bars in the beam shall splice at midspan while bottom bars shall be spliced at a distance of 2d from the face of the column but not at mid span
5. Full lenght of splice stirrups in ties in column shall be 8Ø @ 100mm c/c
6. The column encasing the stair case shall be provide with special confining reinforcement 8Ø @ 75mm c/c throughout the height of column

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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_08
Construction of BHU Building and Auxiliary Work	COLUMN_BEAM_JUNCTION_DETAILS				Sep, 2026	SCALE: NTS

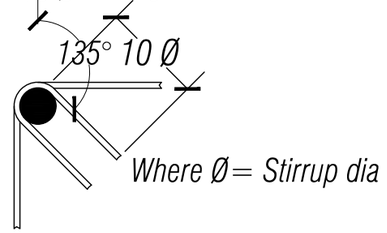


TYPICAL SPLICE DETAILS OF BEAMS

NOTES:

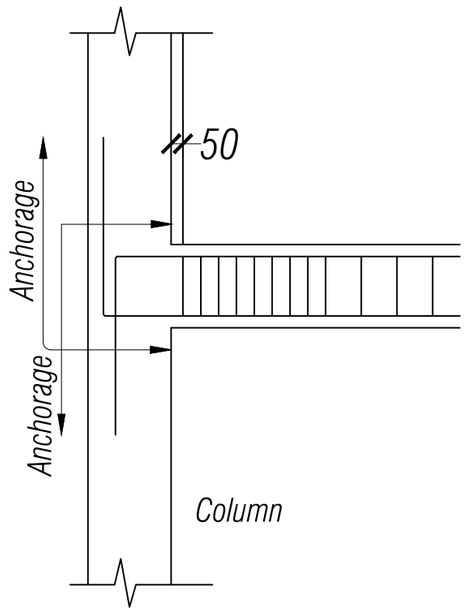
1. Splice Length shall be as follow:

25 Ø = 1425
20 Ø = 1140
16 Ø = 912
12 Ø = 684
10 Ø = 570



Where Ø= Stirrup dia

DEATAILS AT -B

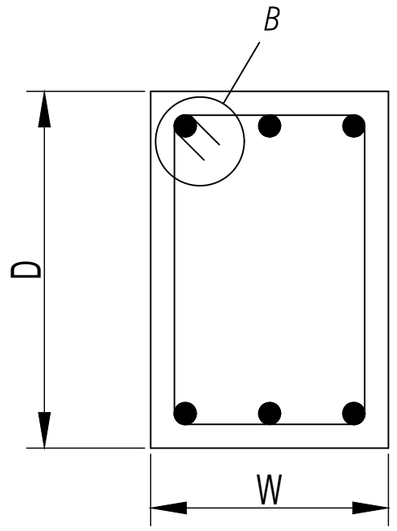


ANCHORAGE
DEATAILS AT -A

Bar Anchrage Lenght

(Minimum Lenght = 67Ø)

10 Ø = 670
12 Ø = 804
16 Ø = 1072
20 Ø = 1340
25 Ø = 1675



BEAM STIRRUPS DETAILS

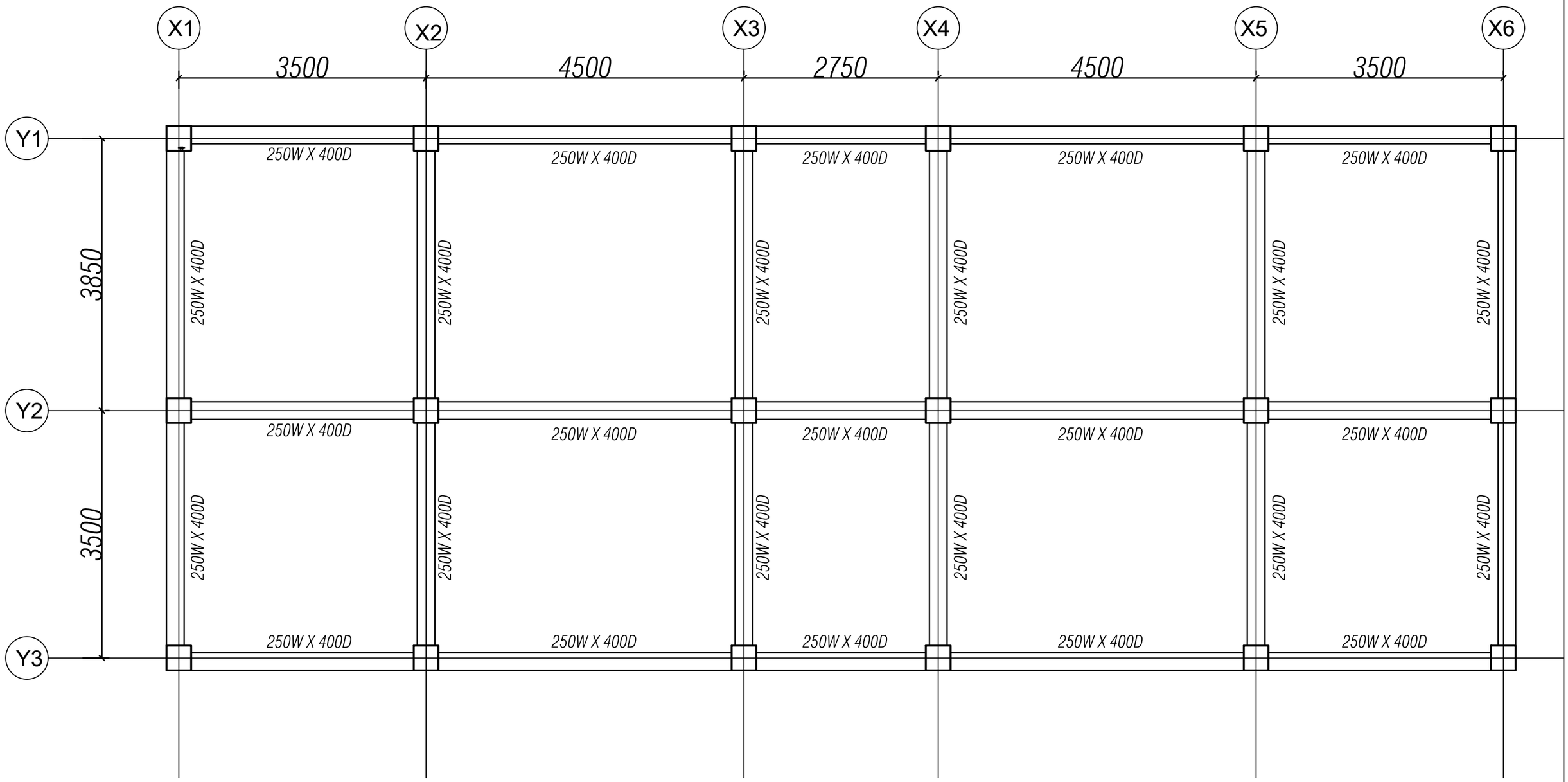
Stirrups in the Beams

Location	: Stirrups provided
2d	: 8Ø@100c/c
S1	: 8Ø@150c/c
Splice	: 8Ø@100c/c

Typical Floor Beam Details

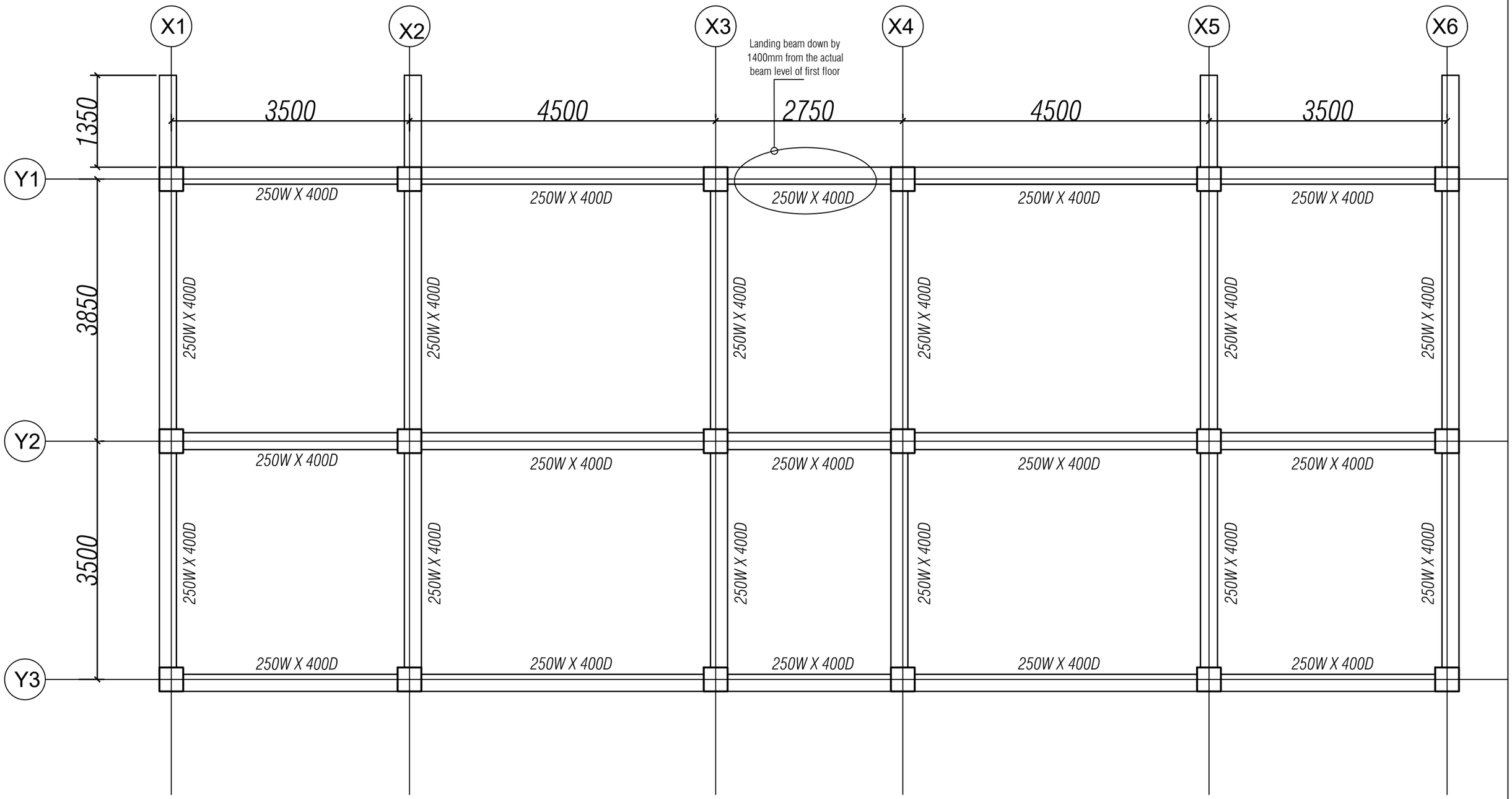
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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
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Construction of BHU Building and Auxiliary Work	TYPICAL_FLOOR_BEAM_DETAILS				Sep, 2026	SCALE
						NTS



Plinth beam layout plan

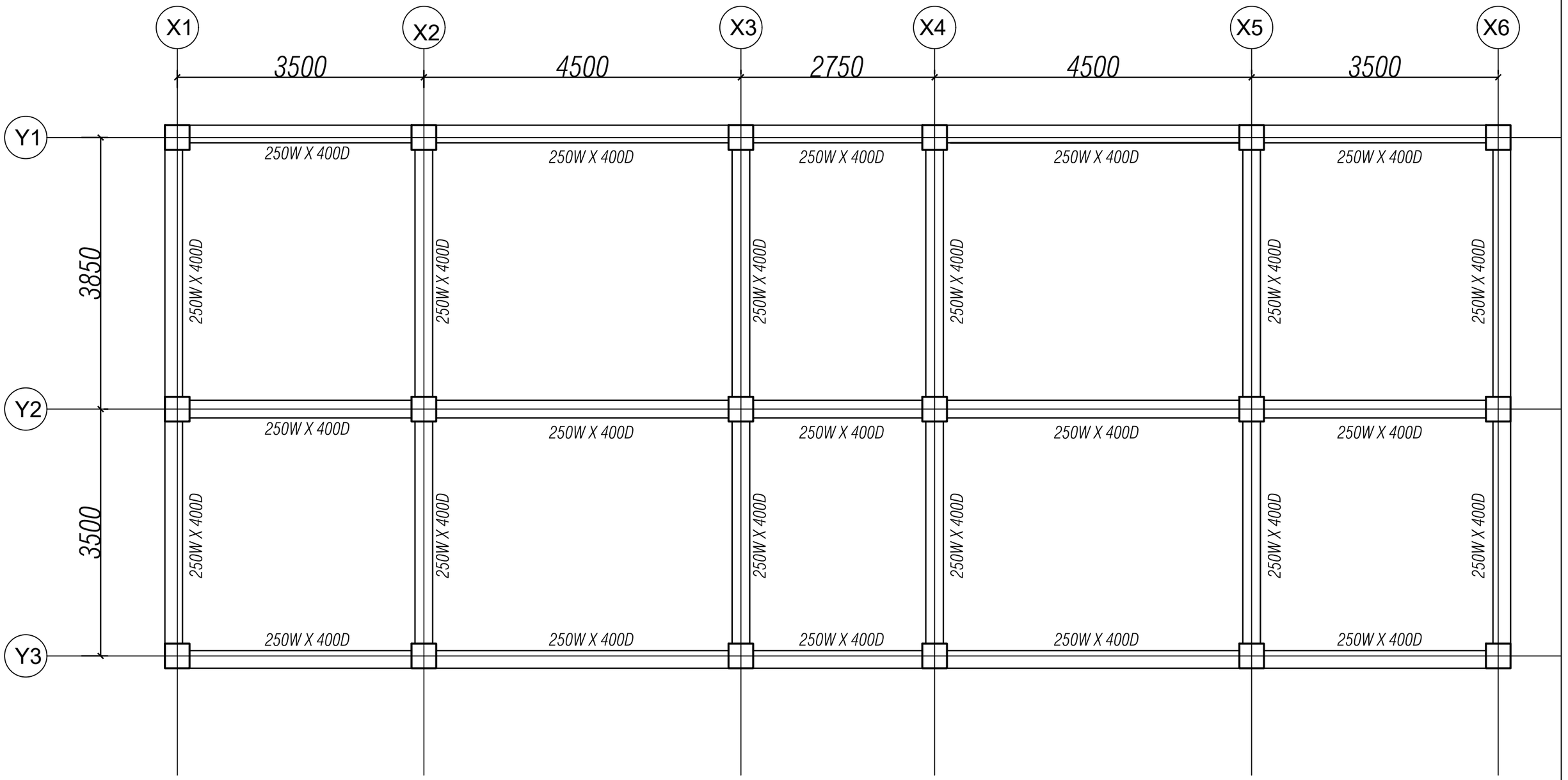
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_10
	Construction of BHU Building and Auxiliary Work / PLINTH_BEAM_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS



First floor beam layout plan

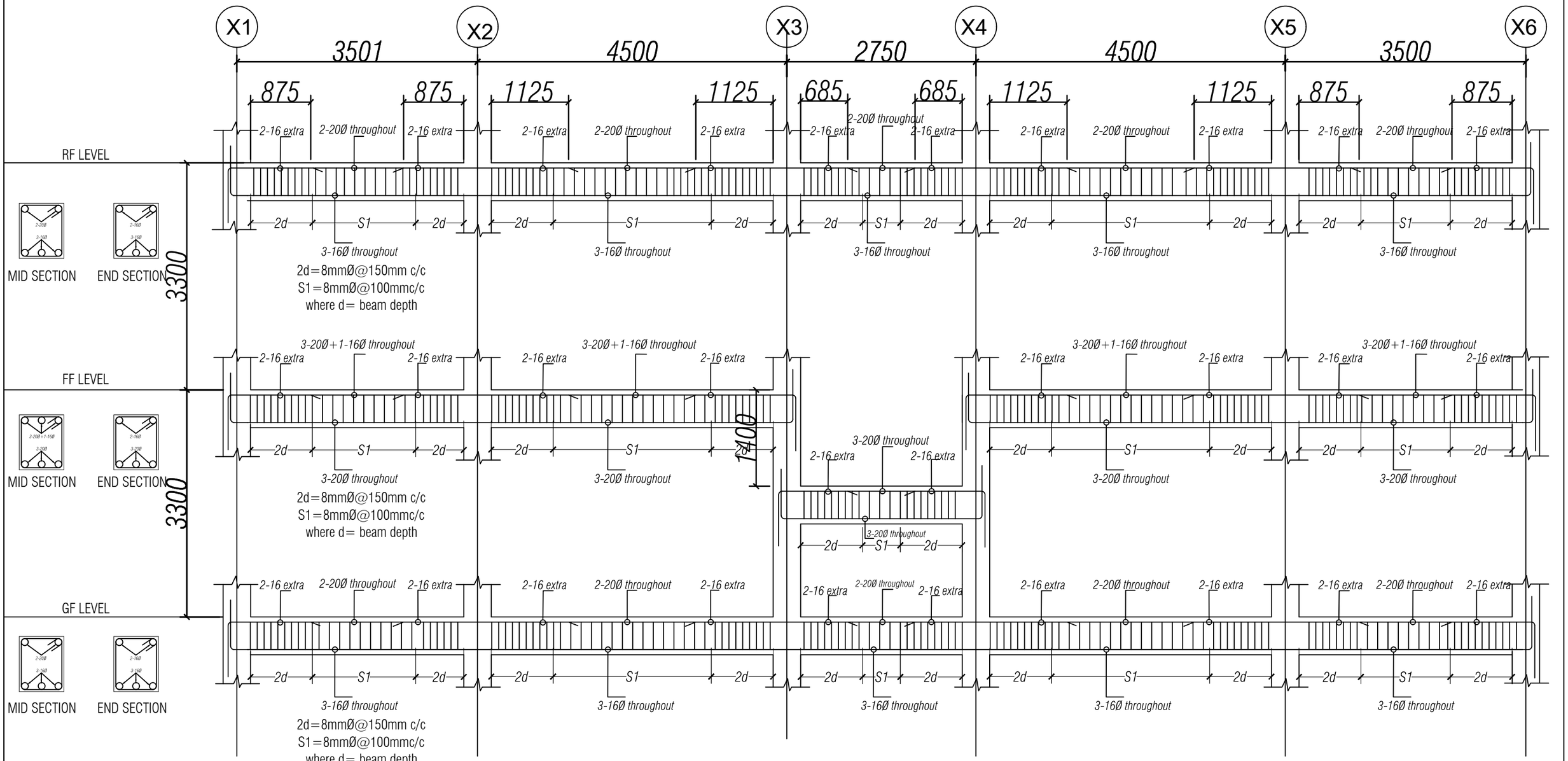
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_11
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_BEAM_LAYOUT_PLAN				Sep, 2026	SCALE
						NTS



Roof floor beam layout plan

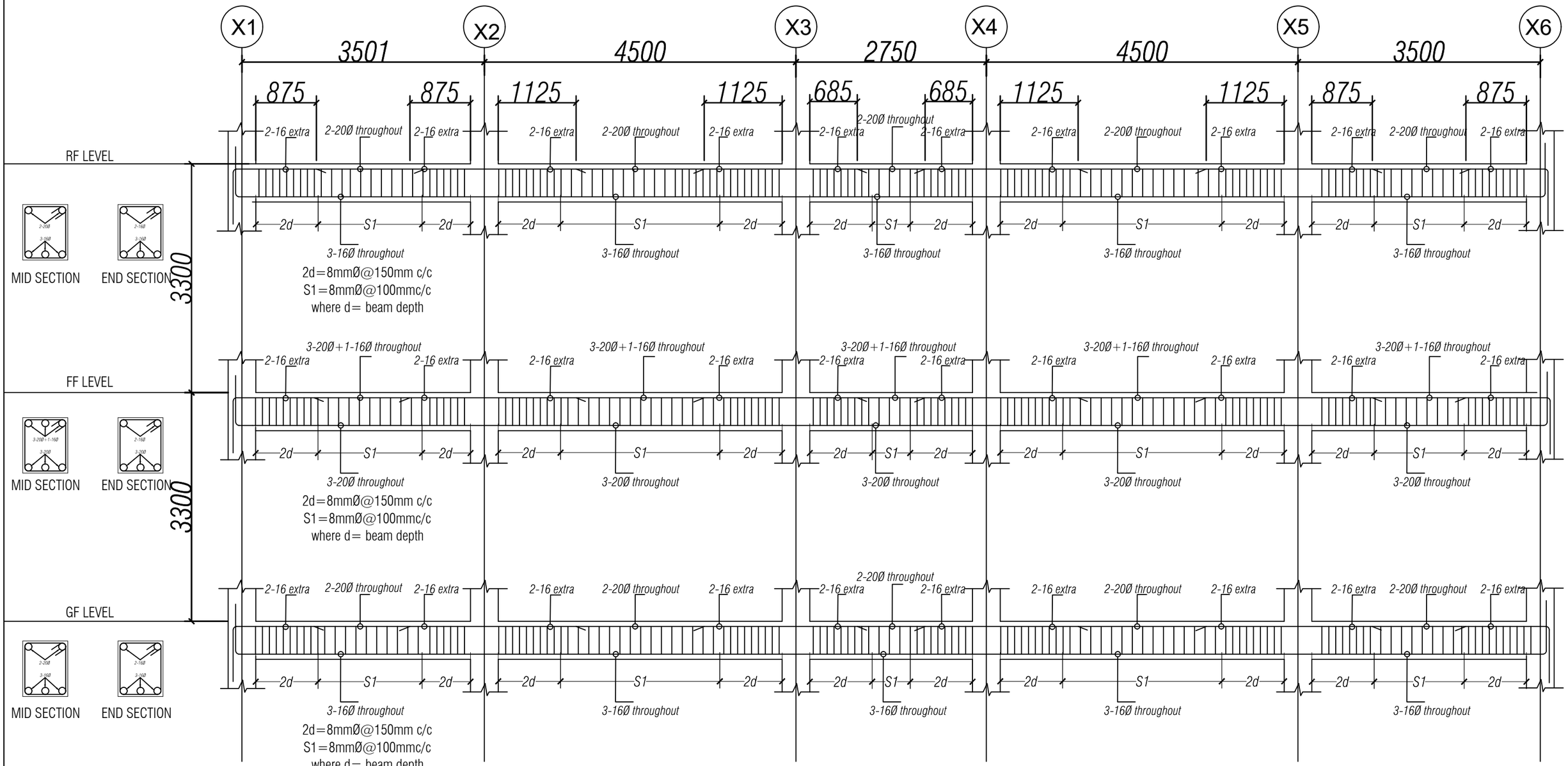
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_12
	Construction of BHU Building and Auxiliary Work / ROOF_BEAM_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS



L-section along frame Y1

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026
	Construction of BHU Building and Auxiliary Work / BEAM_SECTION_ALONG_FRAME_Y1				

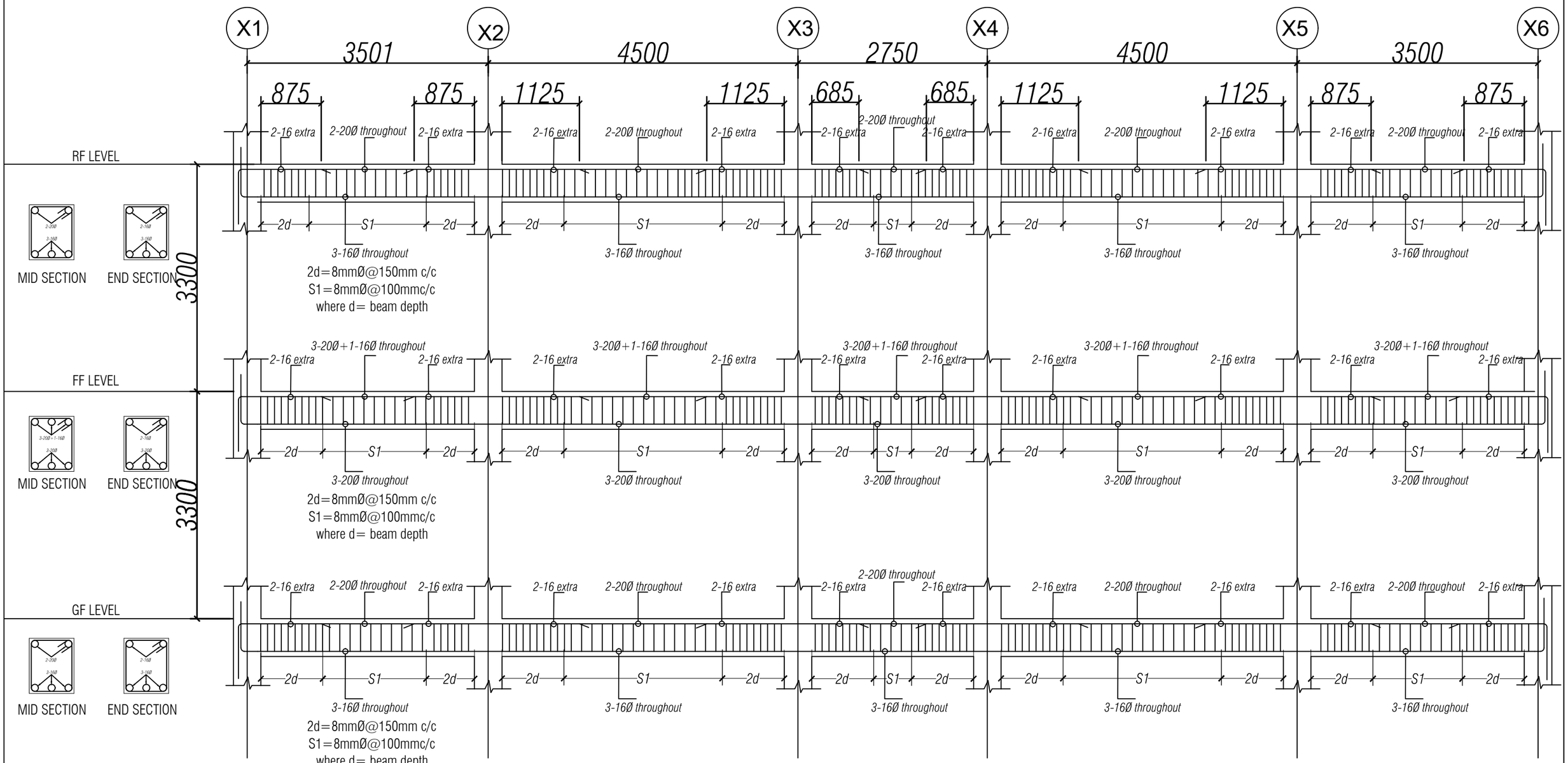
DRAWING NO.
STR_13
SCALE
NTS



L-section along frame Y2

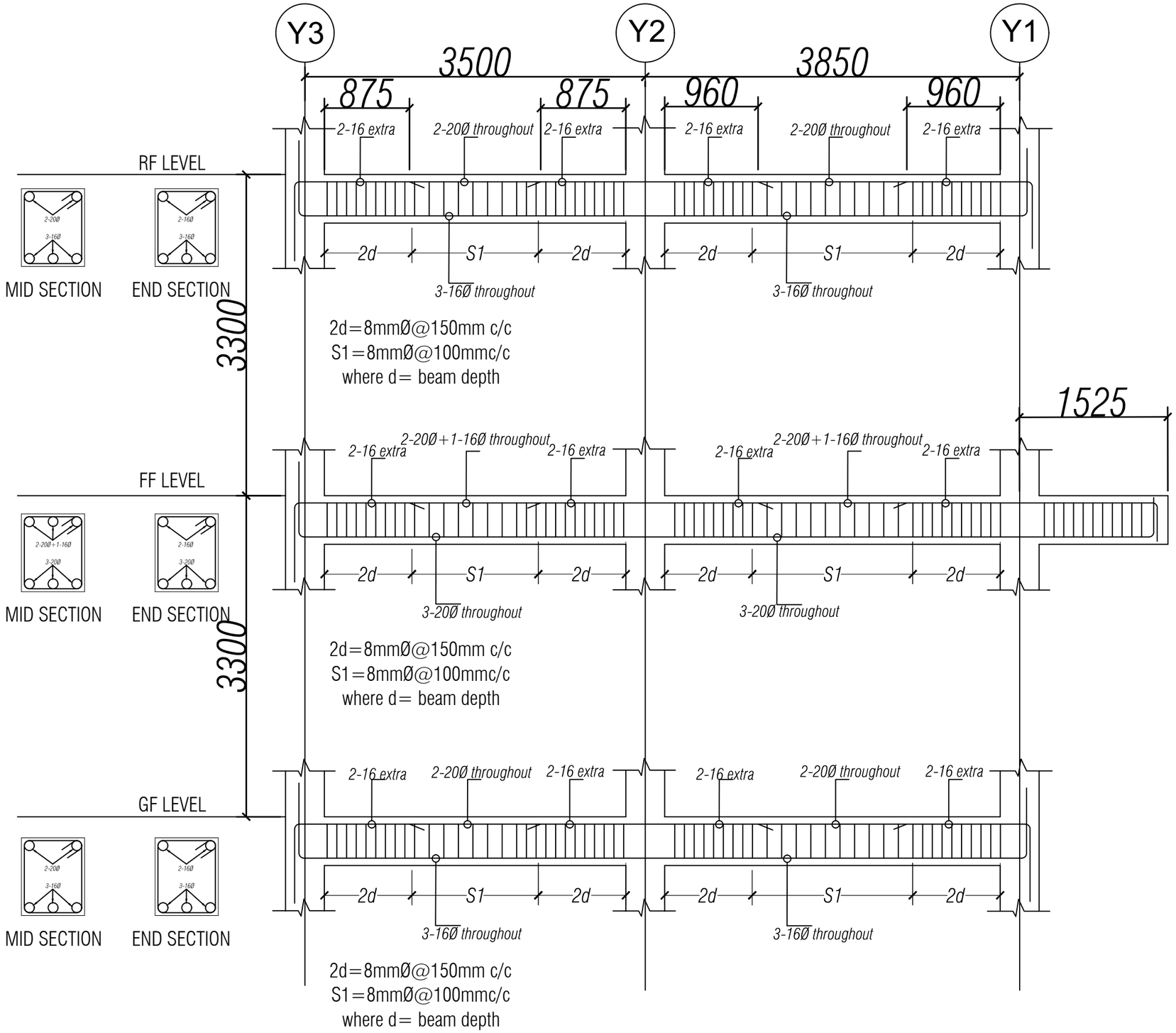
STRUCTURAL DRAWING	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026	STR_14
Construction of BHU Building and Auxiliary Work / BEAM_SECTION_ALONG_FRAME_Y2					**SCALE** NTS

Khorlochhu



L-section along frame Y3

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026	STR_15
	Construction of BHU Building and Auxiliary Work / BEAM_SECTION_ALONG_FRAME_Y3					SCALE: NTS



L-section along frameX1

Khorlochhu

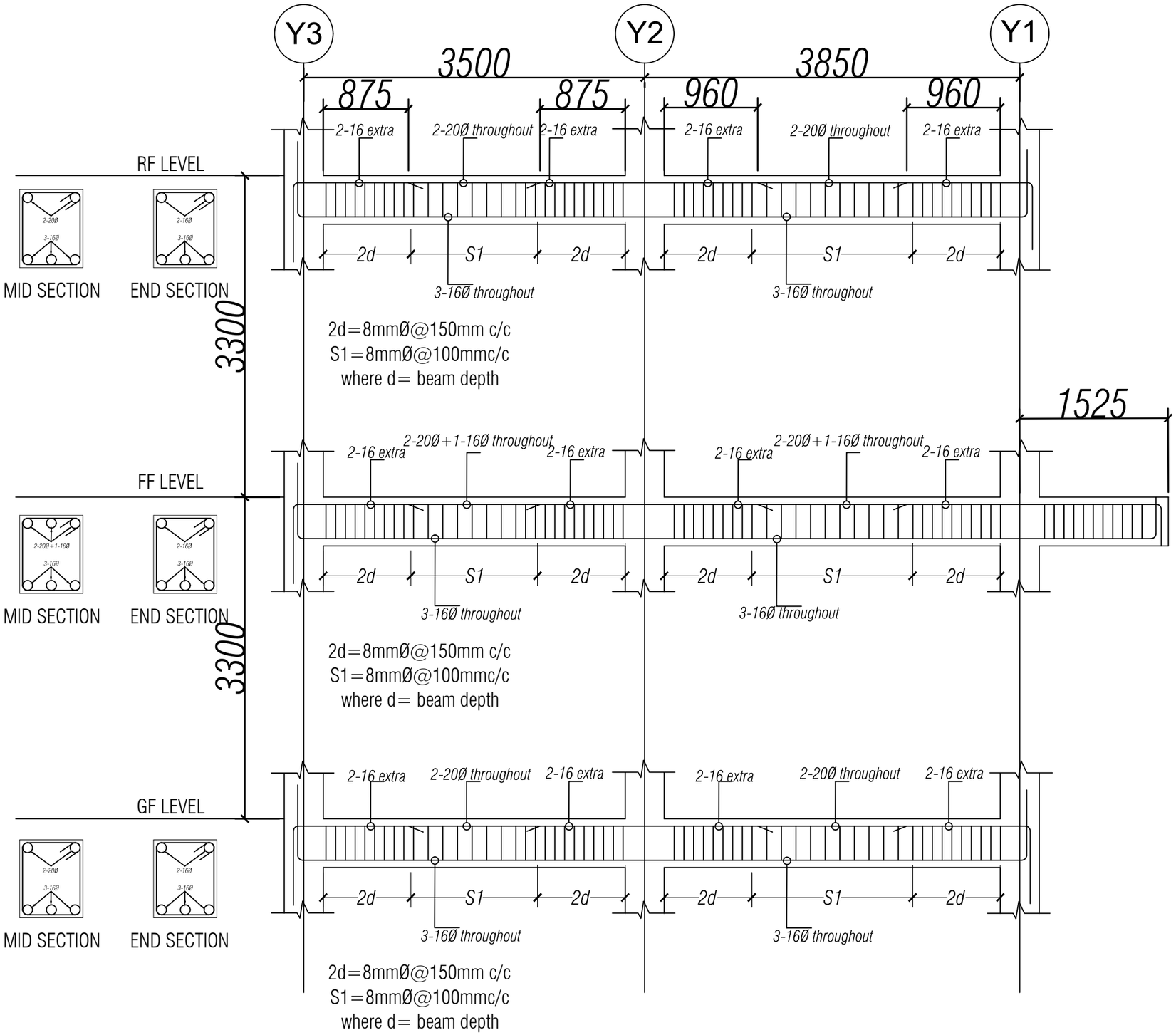
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_FRAME_X1

NOTES

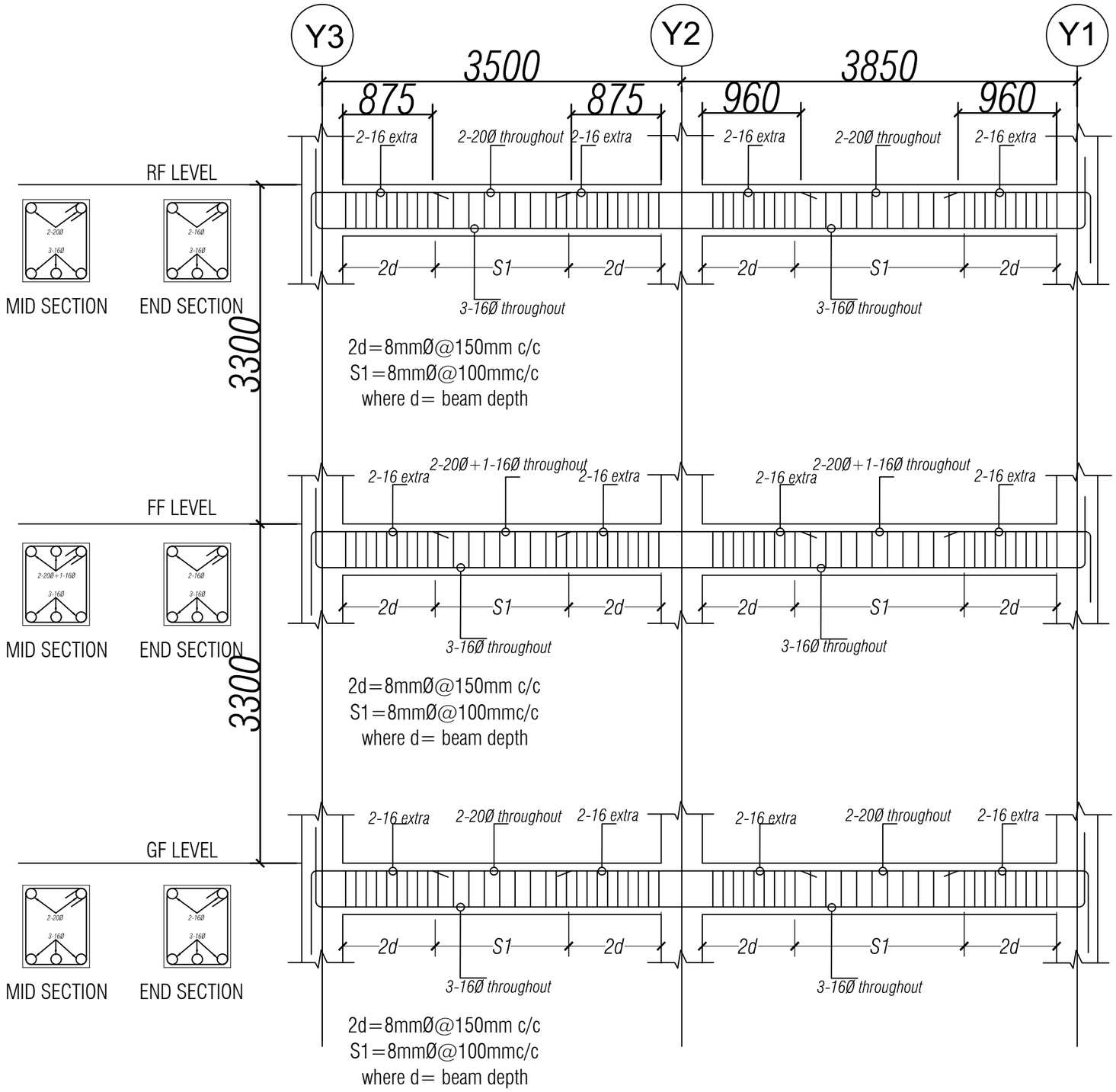
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2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_16
			SCALE
			NTS



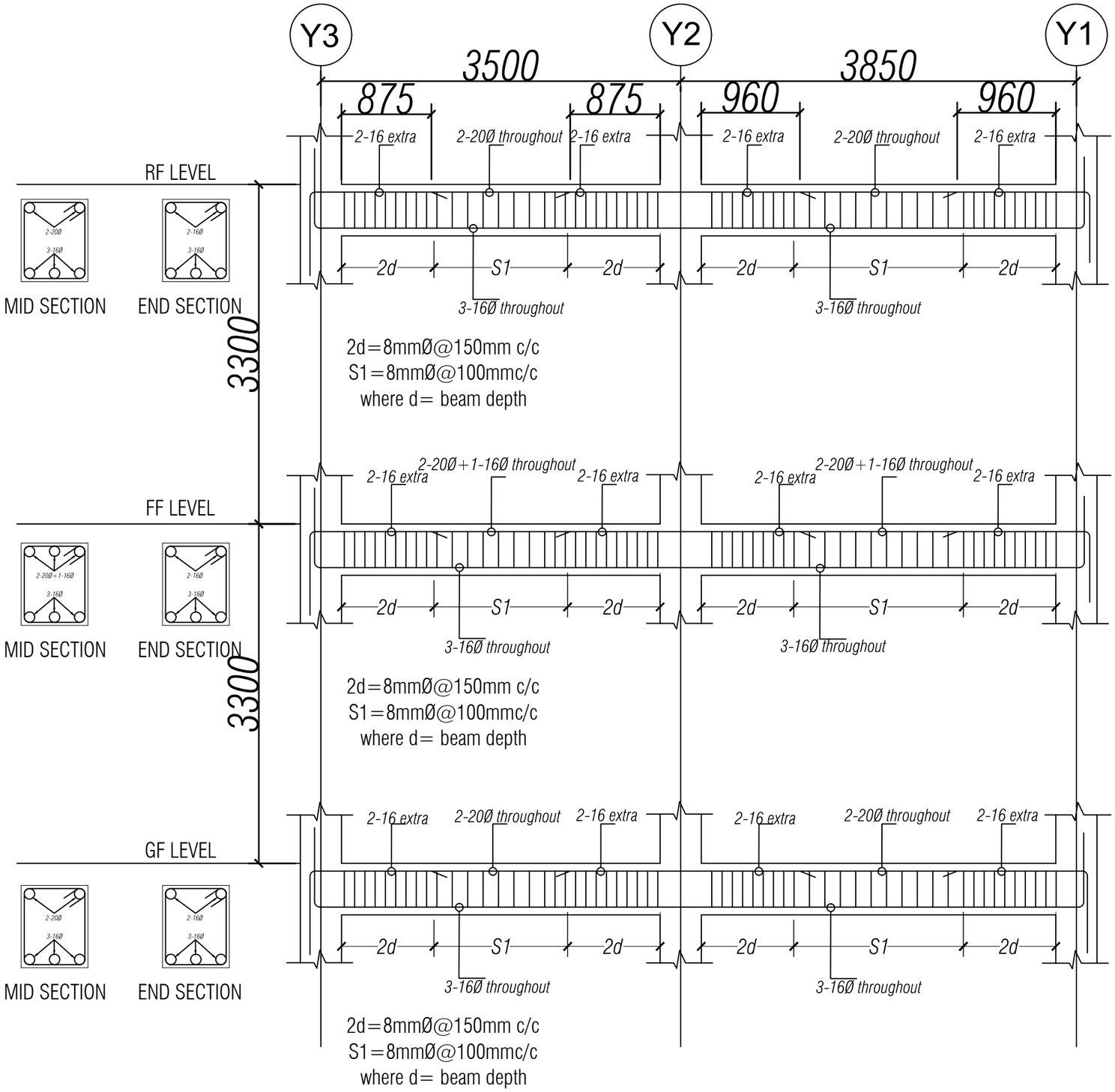
L-section along frameX 2

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: BEAM_SECTION_ALONG_GRID_X2			Sep, 2026 / STR_17
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS



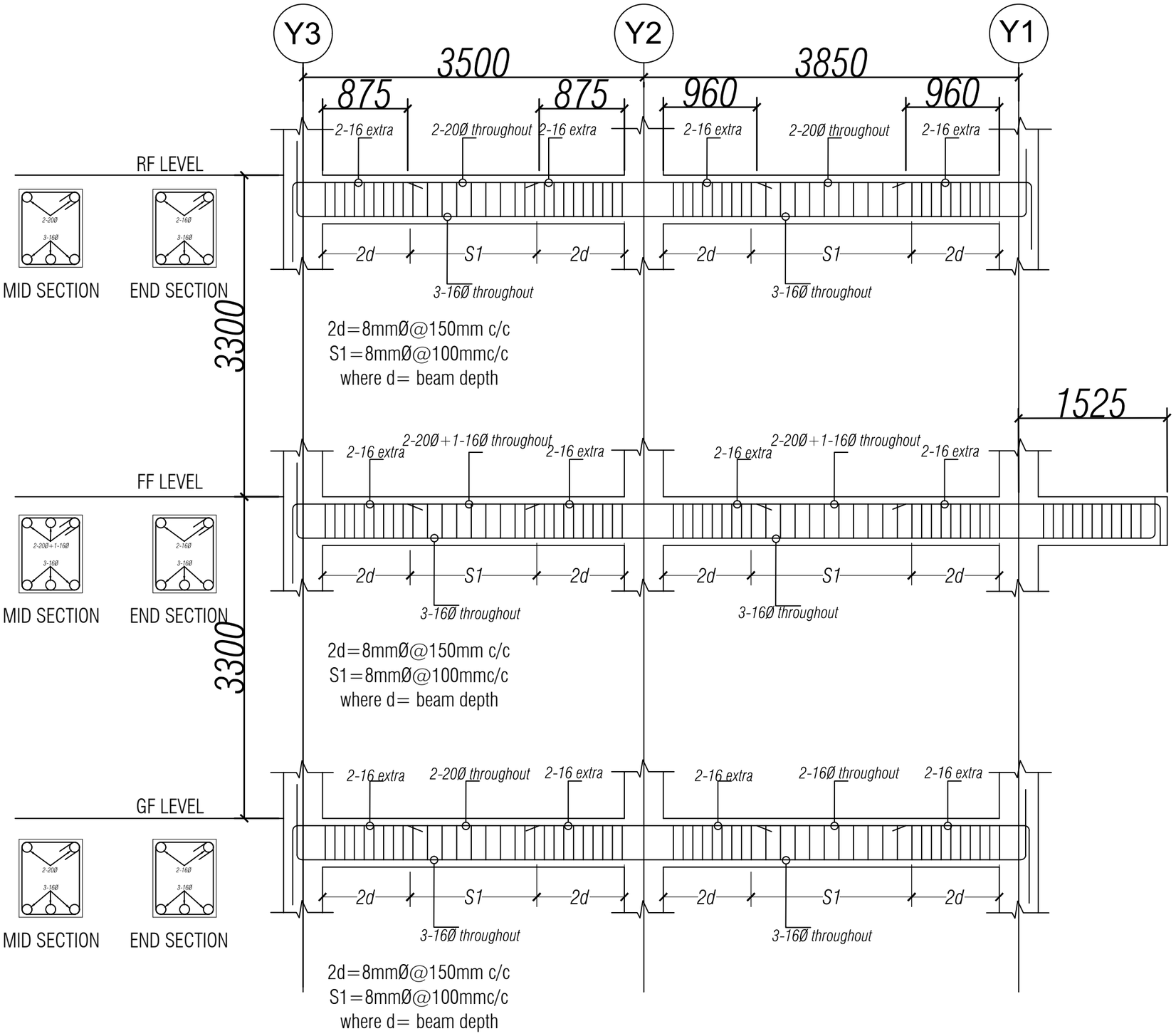
L-section along frame X3

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_18
	Construction of BHU Building and Auxiliary Work / BEAM_SECTION_ALONG_GRID_X3				Sep, 2026	**SCALE** NTS



L-section along frame X4

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026	STR_19
	Construction of BHU Building and Auxiliary Work / BEAM_SECTION_ALONG_GRID_X4					**SCALE** NTS



L-section along frame X5

Khorlochhu

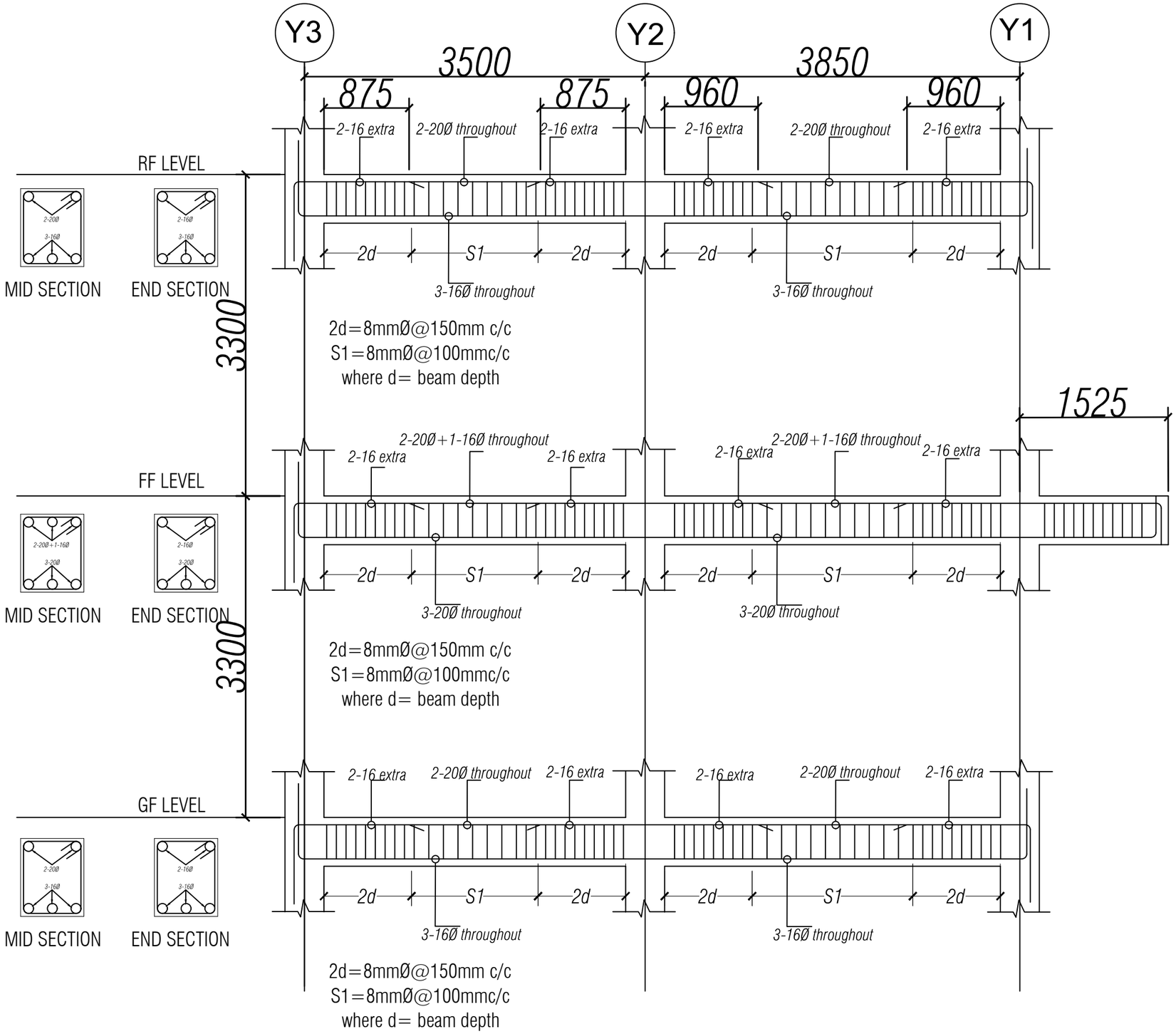
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X5

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

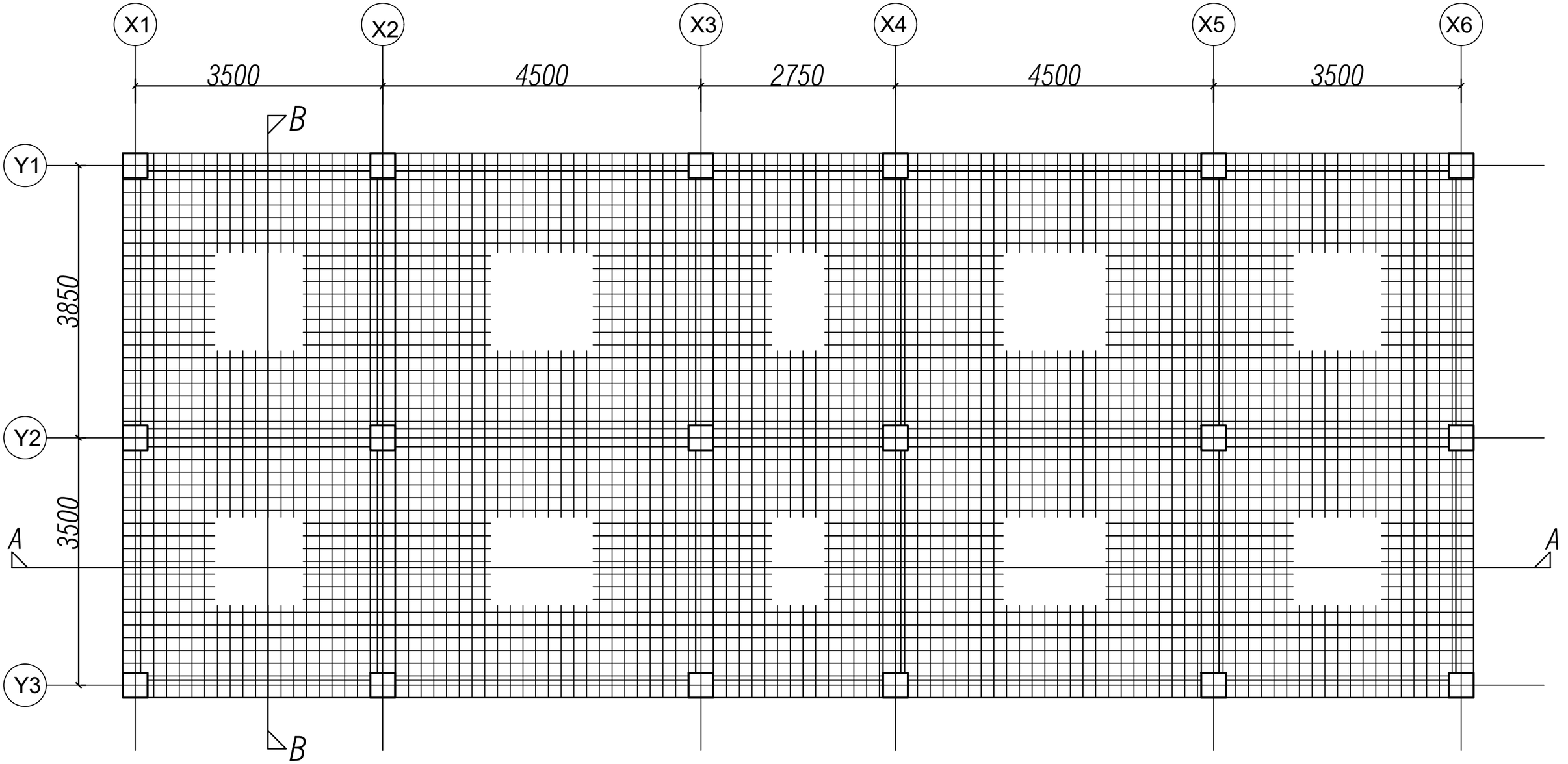
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_20
			SCALE
			NTS



L-section along frame X6

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_21
Construction of BHU Building and Auxiliary Work	BEAM_SECTION_ALONG_GRID_X6				Sep, 2026	SCALE NTS

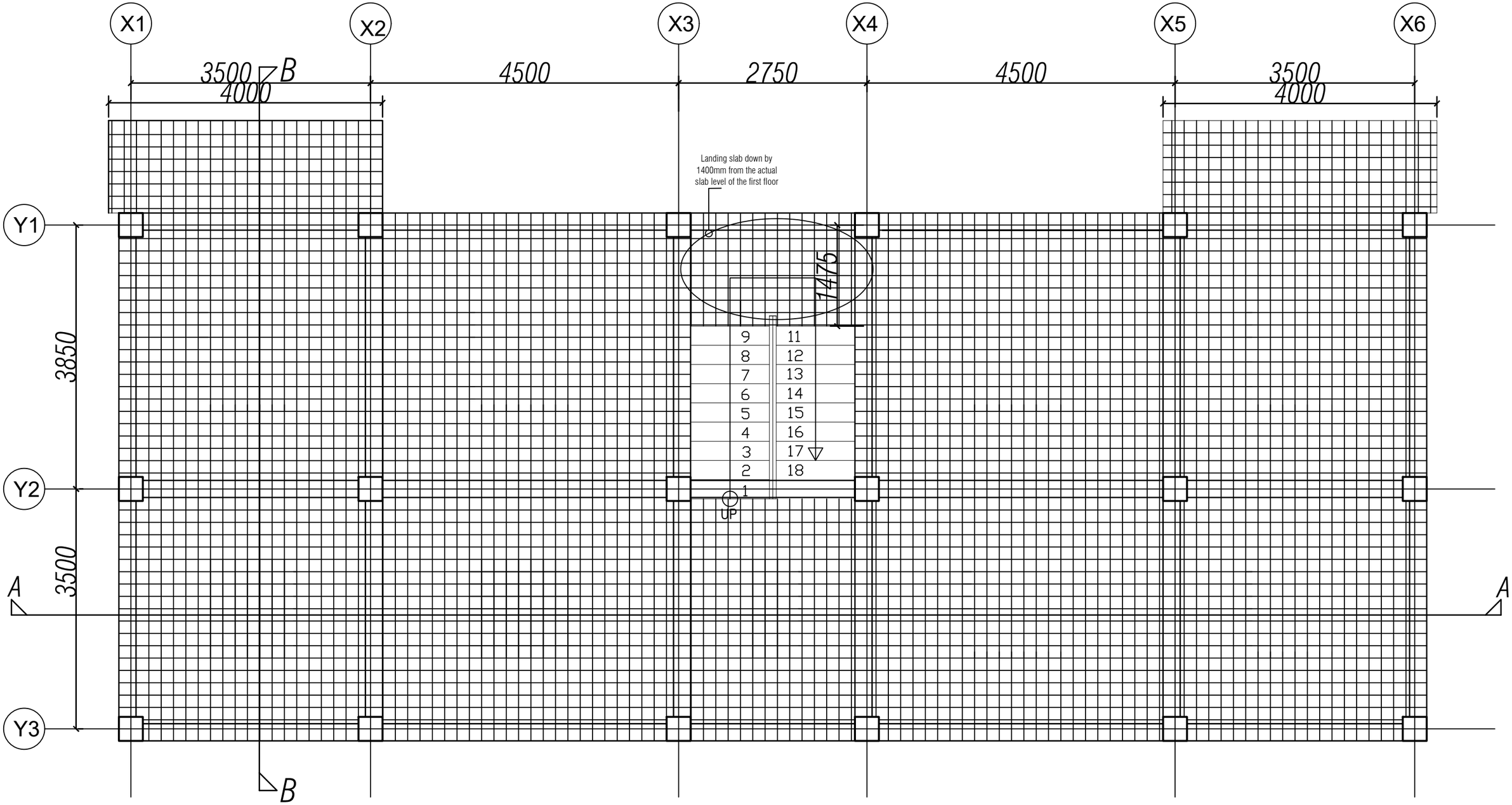


Roof floor slab reinforcement layout plan-Top

Note: Projection of Slab to be read along with Architectural Drawings
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_22
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_SLAB_LAYOUT_PLAN_TOP_REINF				Sep, 2026	SCALE NTS

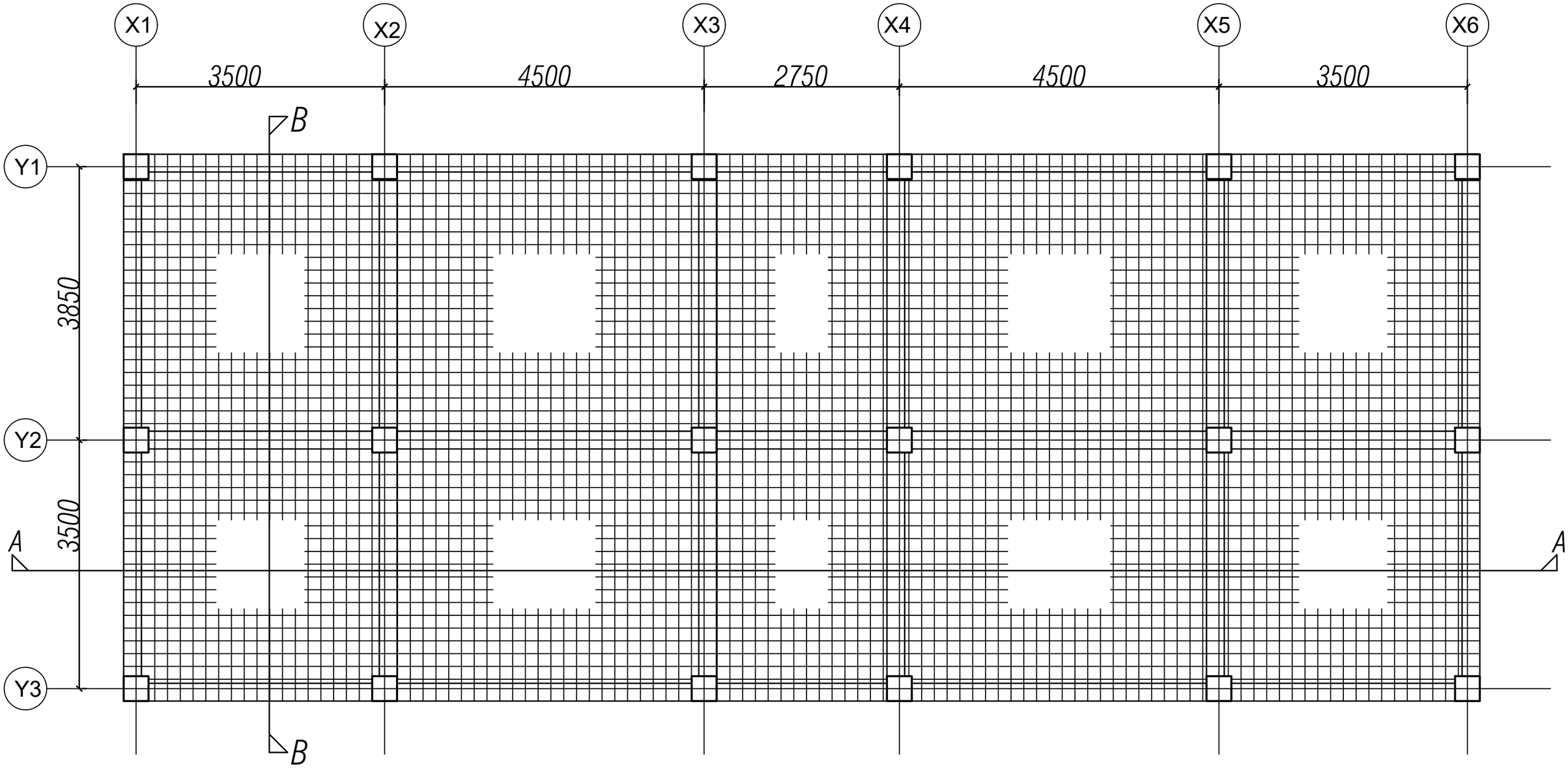


First floor slab reinforcement layout plan-Bottom

Note: Projection of Slab to be read along with Architectural Drawings
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_23
Construction of BHU Building and Auxiliary Work	FIRST_FLOOR_SLAB_LAYOUT_PLAN-BOTTOM_REINF				Sep, 2026	SCALE NTS

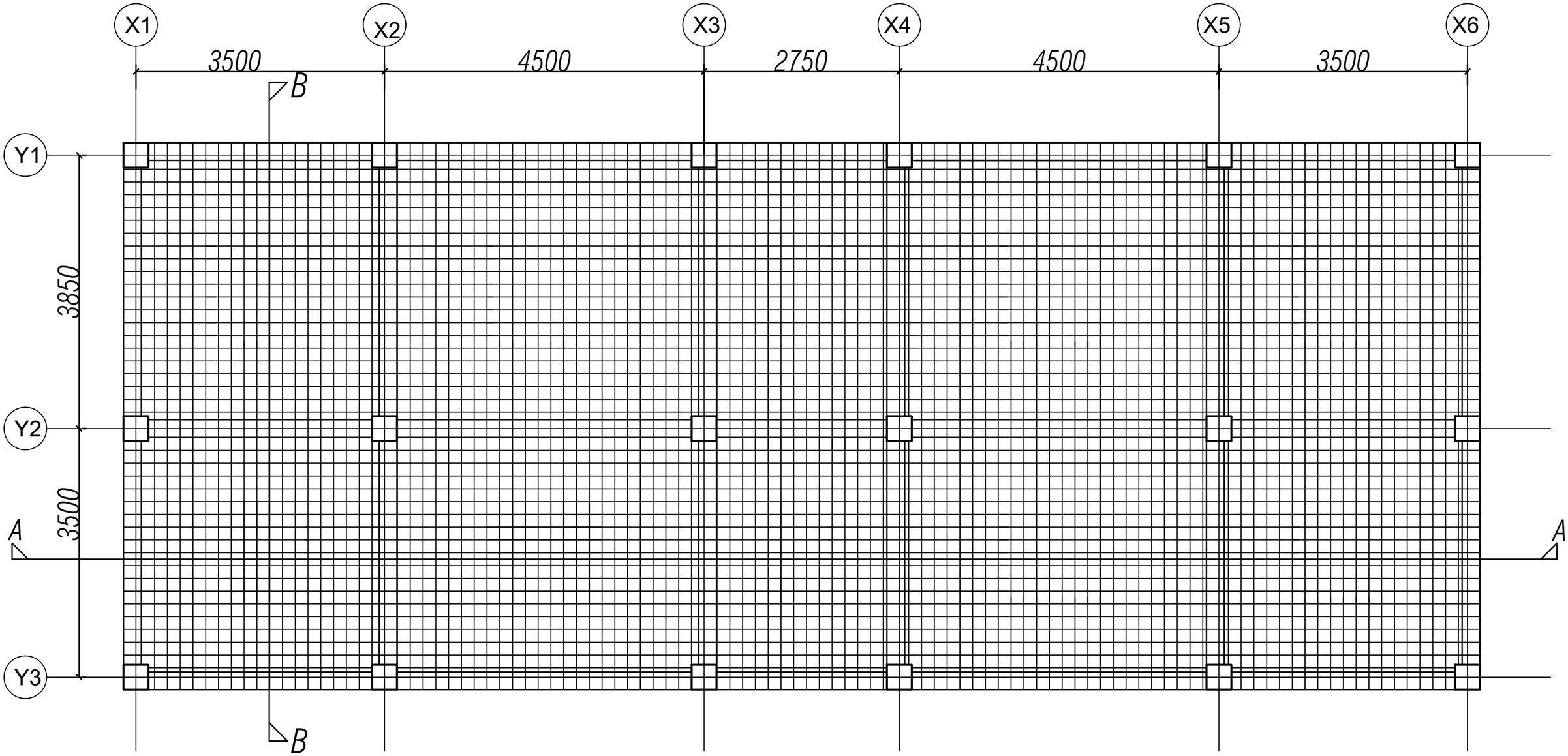


Roof floor slab reinforcement layout plan-Top

Note: Projection of Slab to be read along with Architectural Drawings
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_24
Construction of BHU Building and Auxiliary Work	ROOF_FLOOR_SLAB_LAYOUT_PLAN-TOP_REINF				Sep, 2026	SCALE
						NTS

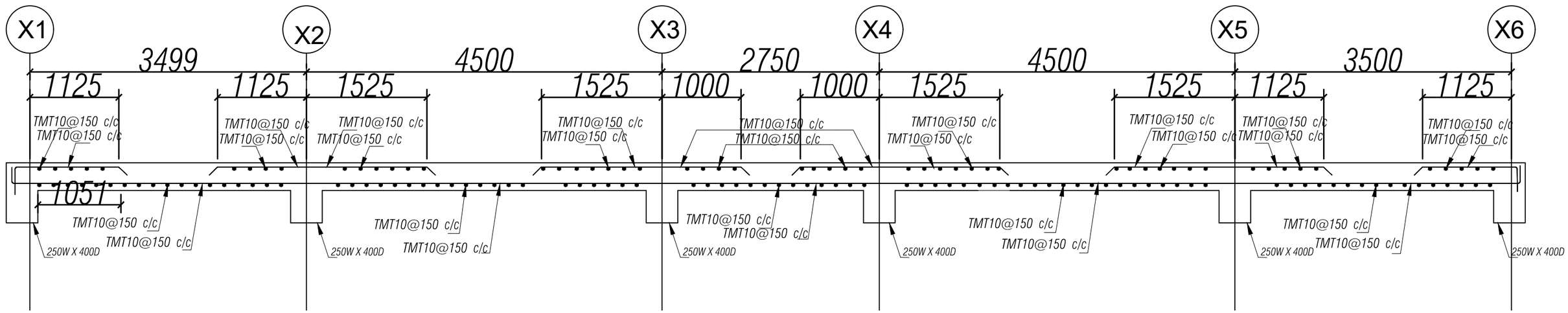


Roof floor slab reinforcement layout plan-Bottom

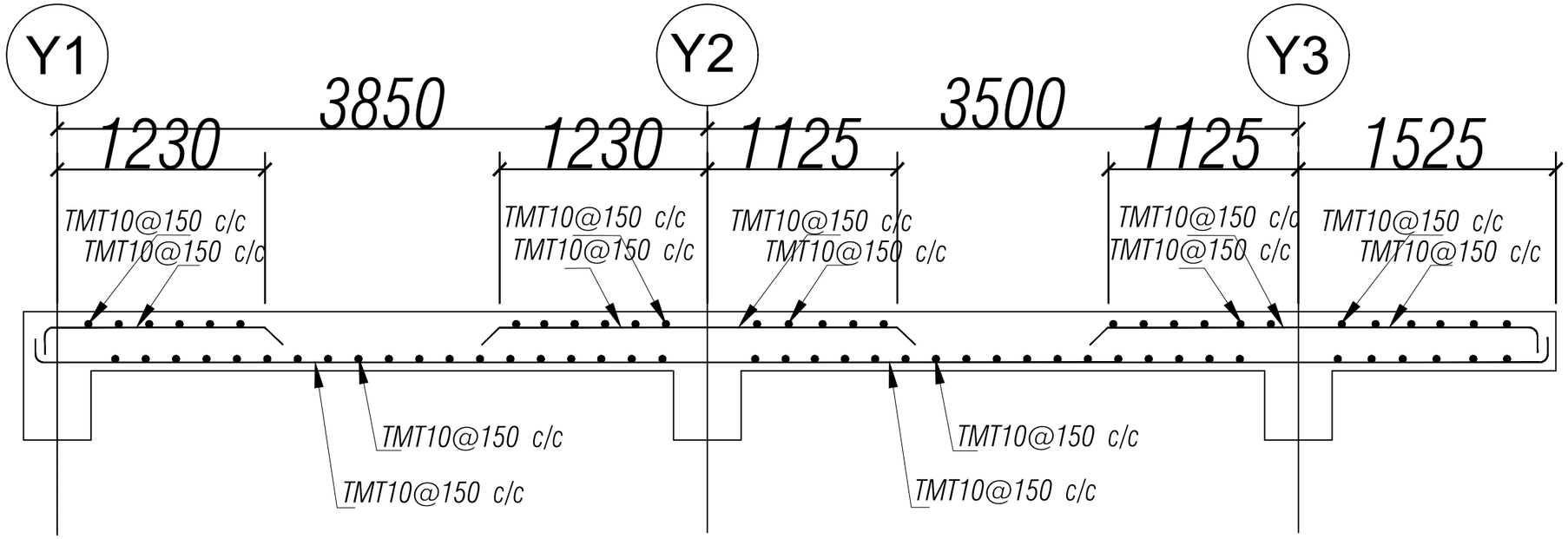
Note: Projection of Slab to be read along with Architectural Drawings
-Slab thickness- 150mm
-Reinforcement - 10Ø@150c/c both direction

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_25
Construction of BHU Building and Auxiliary Work	ROOF_SLAB_LAYOUT_PLAN_BOTTOM_REINF				Sep, 2026	SCALE
						NTS

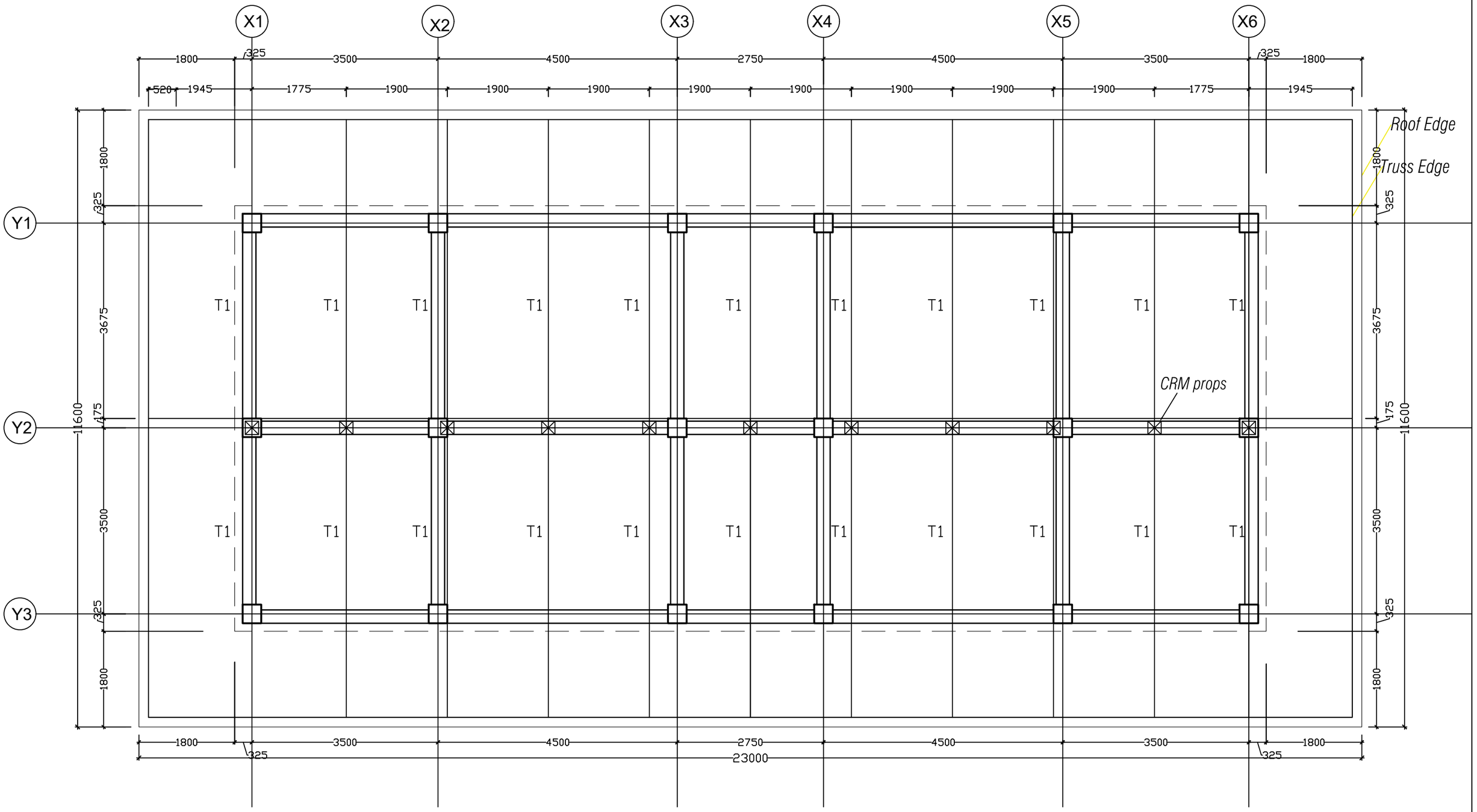


Slab Details at Section A-A



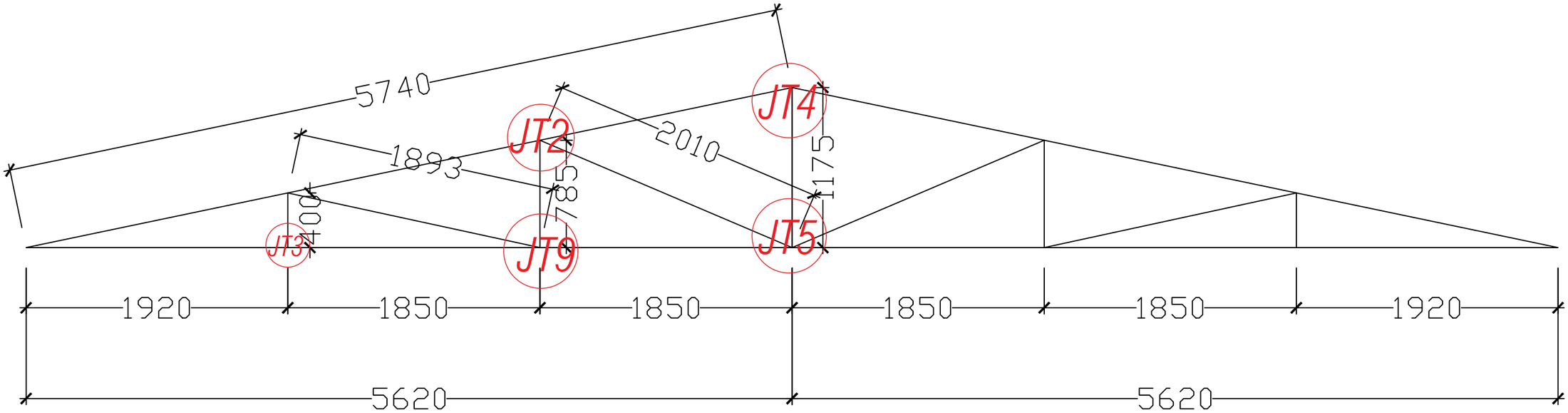
Slab Details at Section B-B

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_26
	Construction of BHU Building and Auxiliary Work / SLAB_SECTION_A-A-&_B-B				Sep, 2026	**SCALE** NTS

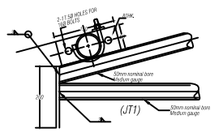


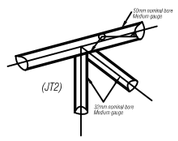
Truss layout plan

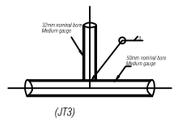
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_27
	Construction of BHU Building and Auxiliary Work / MAIN_ROOF_TRUSS_LAYOUT				Sep, 2026	**SCALE** NTS

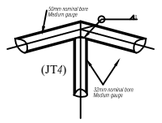


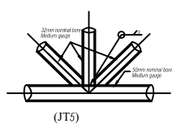
Truss T1

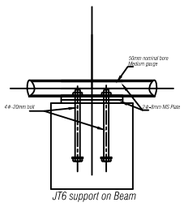


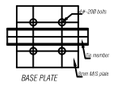


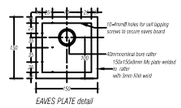




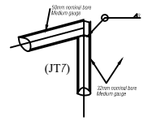


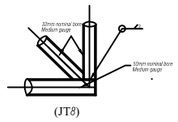


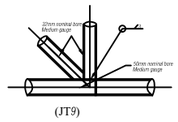




NOTES:
Tubular steel of YST22 grade to be used.
All connections to be with fillet weld of 3mm size
Purlin 32mm nominal bore, medium gauge @1200c/c

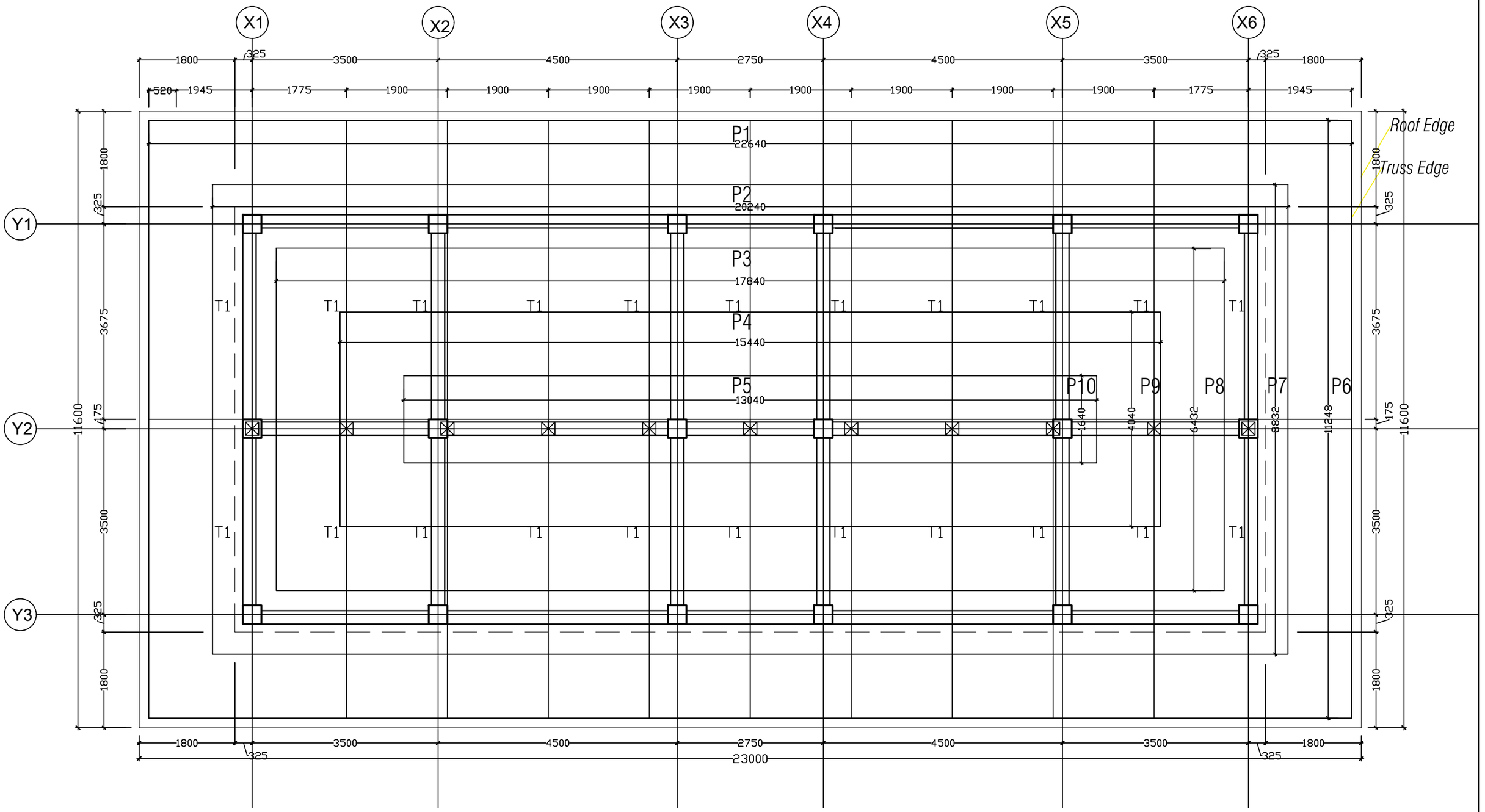






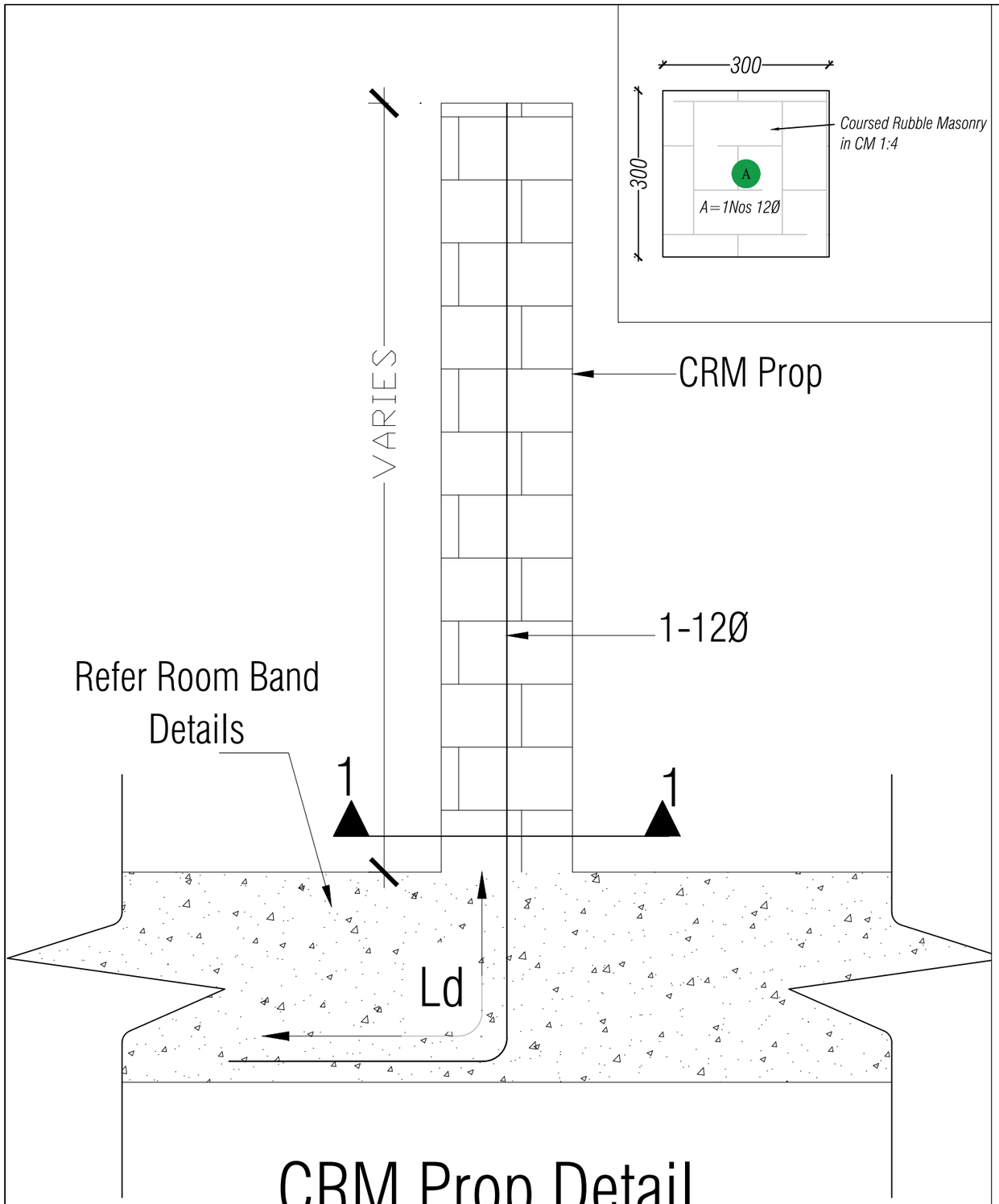
Sl.No	Particulars	Size
1.	Rafter & Bottom Chord	50 NB
2.	Vertical & Inclined Chord	32 NB
3.	Purlin	32 NB

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			Sep, 2026 / STR_28
	Construction of BHU Building and Auxiliary Work / TRUSS_DETAILS				SCALE: NTS

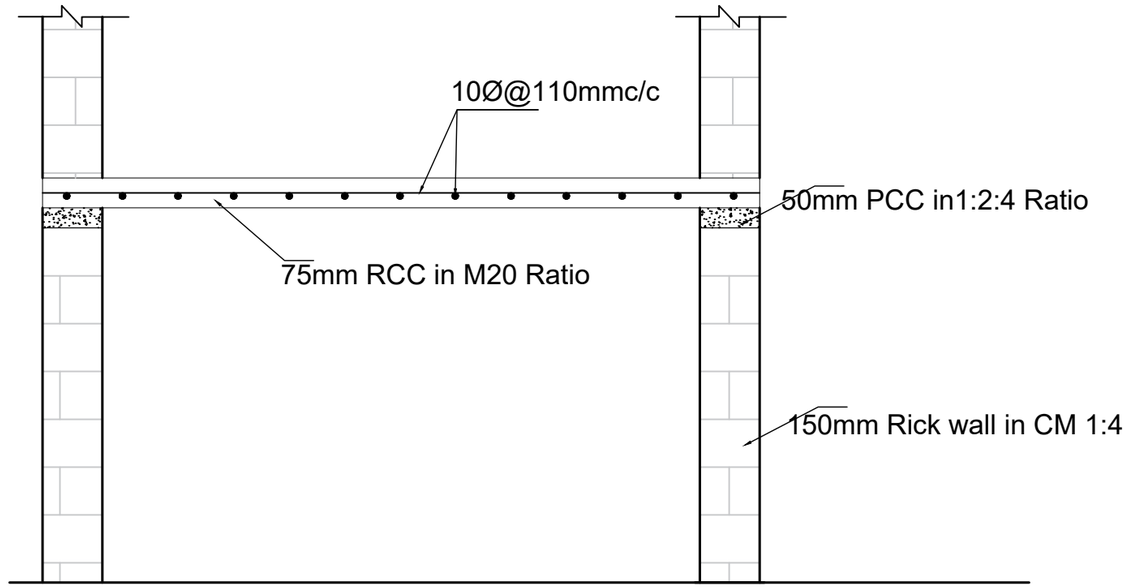


Purlin placement

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_29
	Construction of BHU Building and Auxiliary Work / PURLIN_DETAILS				Sep, 2026	**SCALE** NTS



CRM Prop Detail



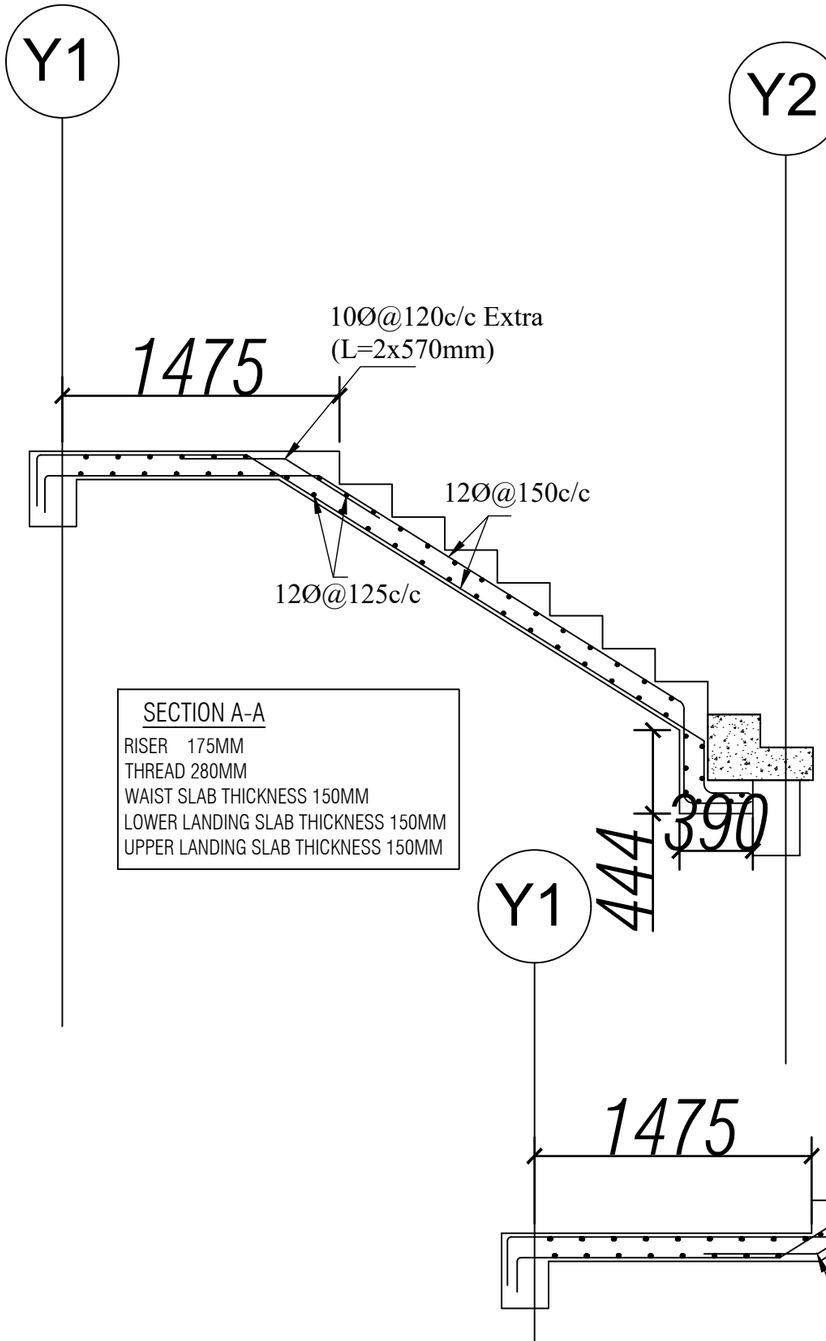
COUNTER TOP SLAB DETAILS

NOTES:
Grade of Steel - TMT500 bars
Grade of Concrete - M20
Clear cover to steel - 25mm (minimum)
Dimension of cut out varies as per the size of the basin

*** Cutout section to be referred as per architectural drawing

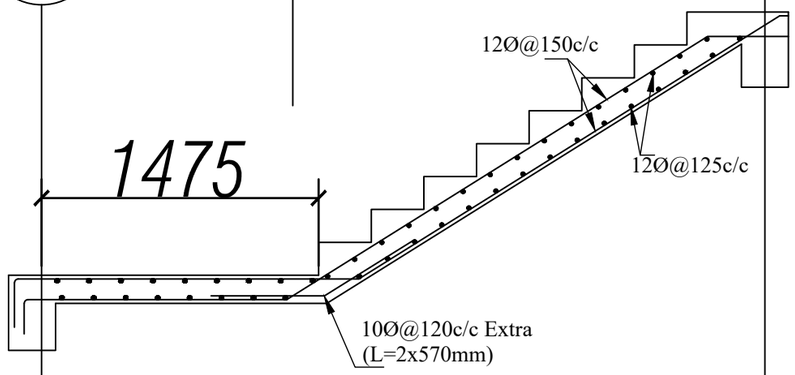
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_30
Construction of BHU Building and Auxiliary Work	PROPS_DETAILS				Sep, 2026	SCALE: NTS



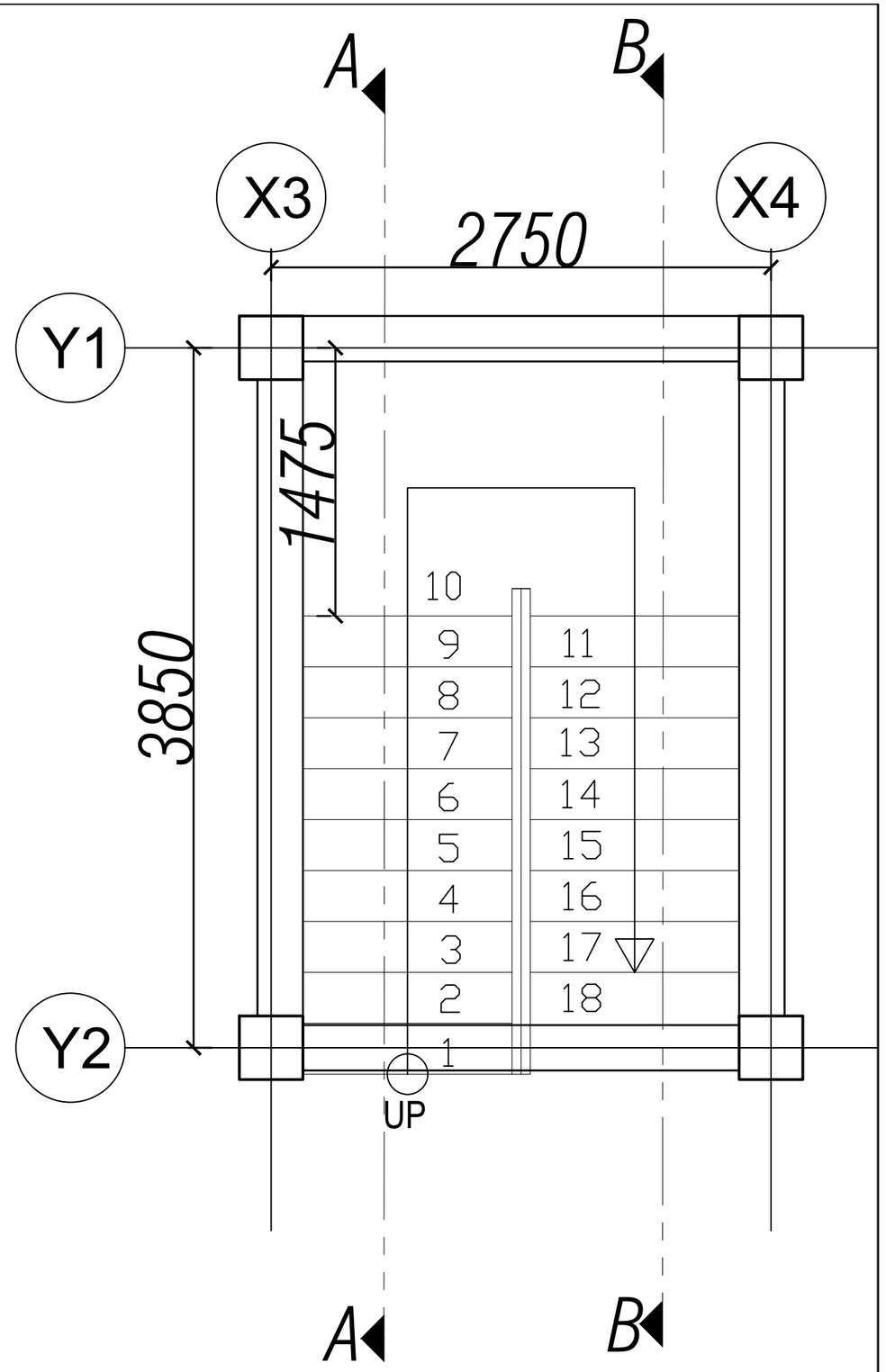
SECTION A-A

RISER 175MM
THREAD 280MM
WAIST SLAB THICKNESS 150MM
LOWER LANDING SLAB THICKNESS 150MM
UPPER LANDING SLAB THICKNESS 150MM



SECTION B-B

RISER 175MM
THREAD 280MM
WAIST SLAB THICKNESS 150MM
LOWER LANDING SLAB THICKNESS 150MM
UPPER LANDING SLAB THICKNESS 150MM



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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STAIRCASE_DETAILS

NOTES

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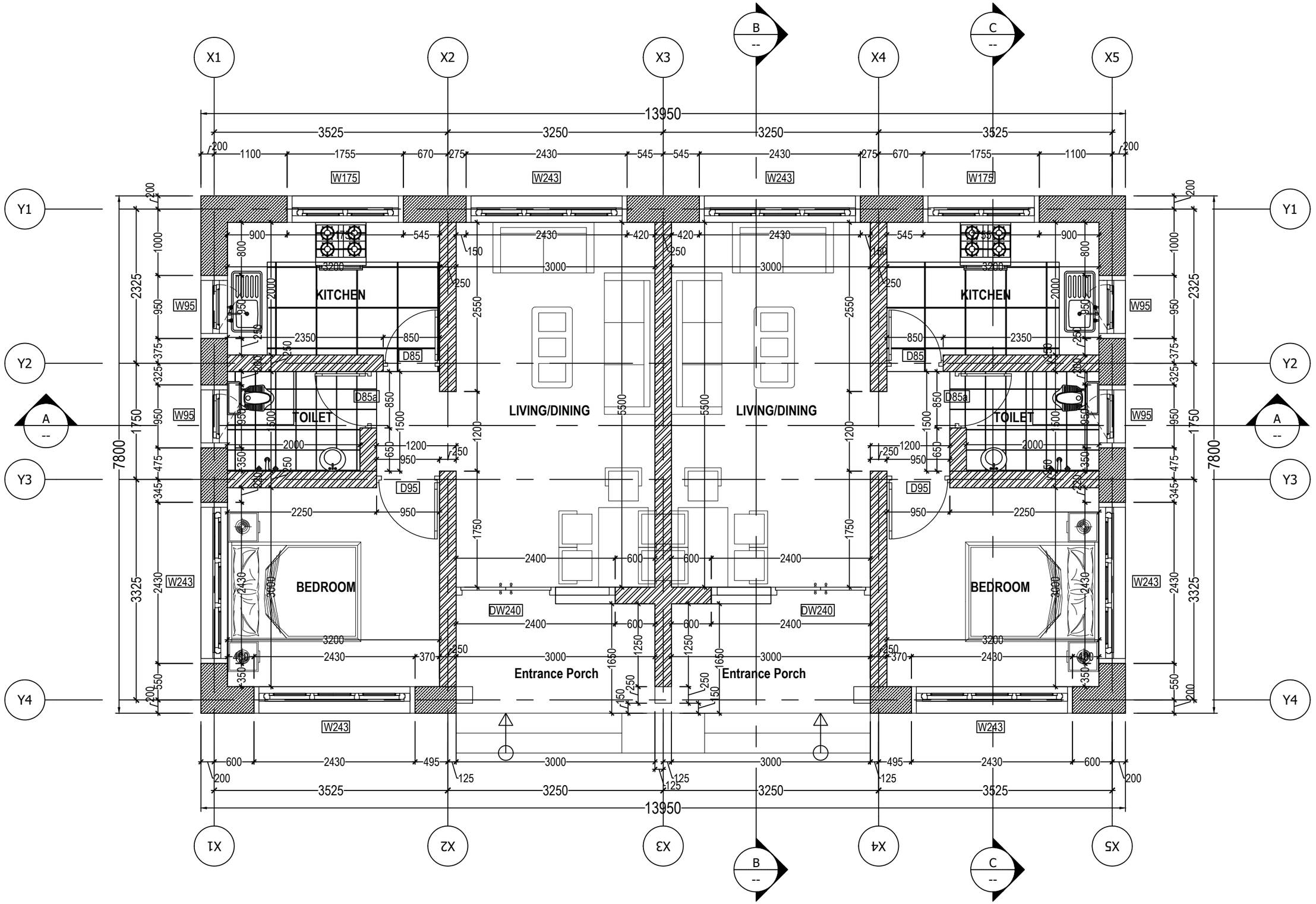
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		Sep, 2026	STR_31
			SCALE
			NTS

ARCHITECTURE DRAWINGS

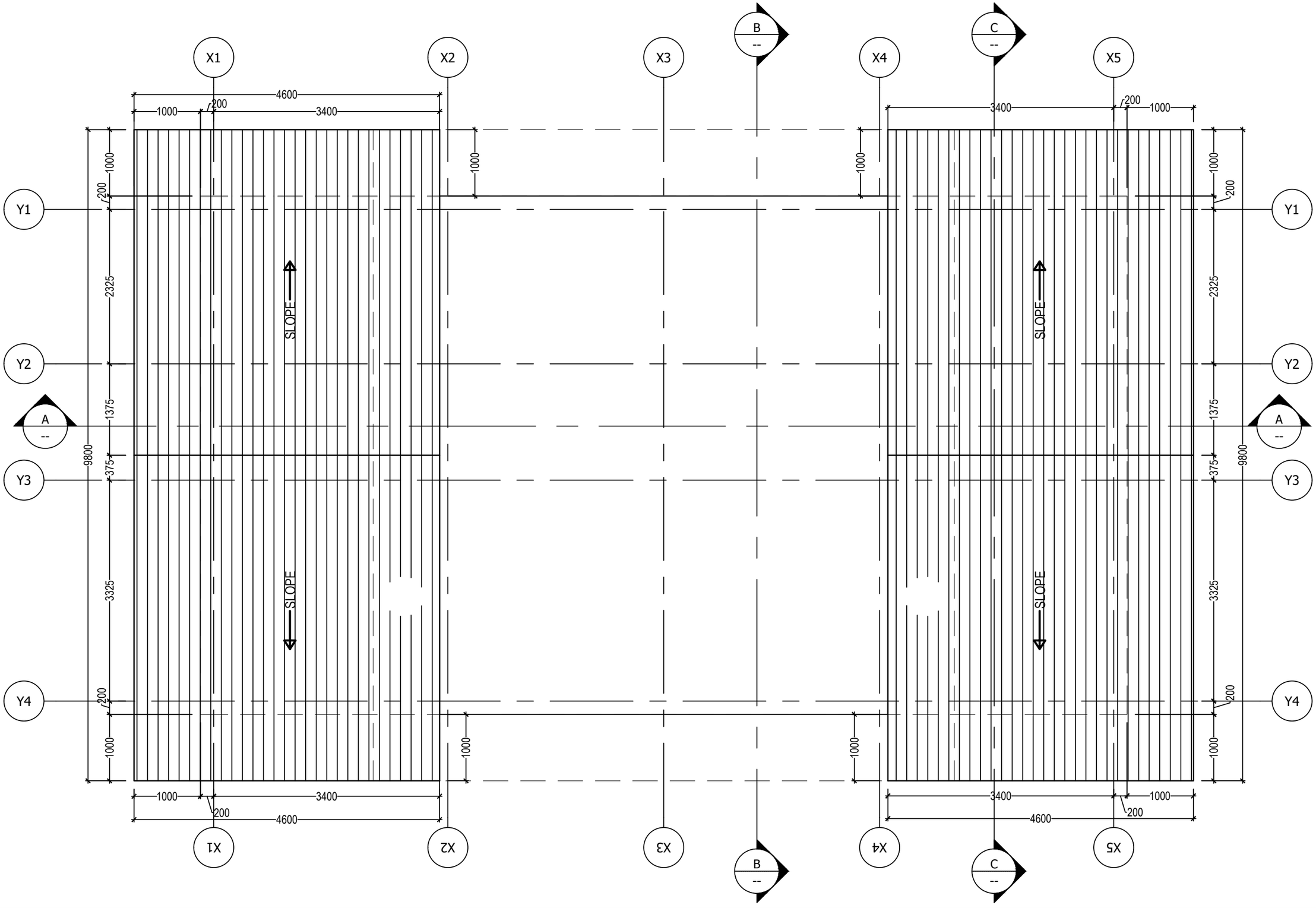
CARETAKER AND DRIVER'S QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu



Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: GROUND_FLOOR_PLAN			Sep, 2026 / AR_01
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS



Khorlochhu

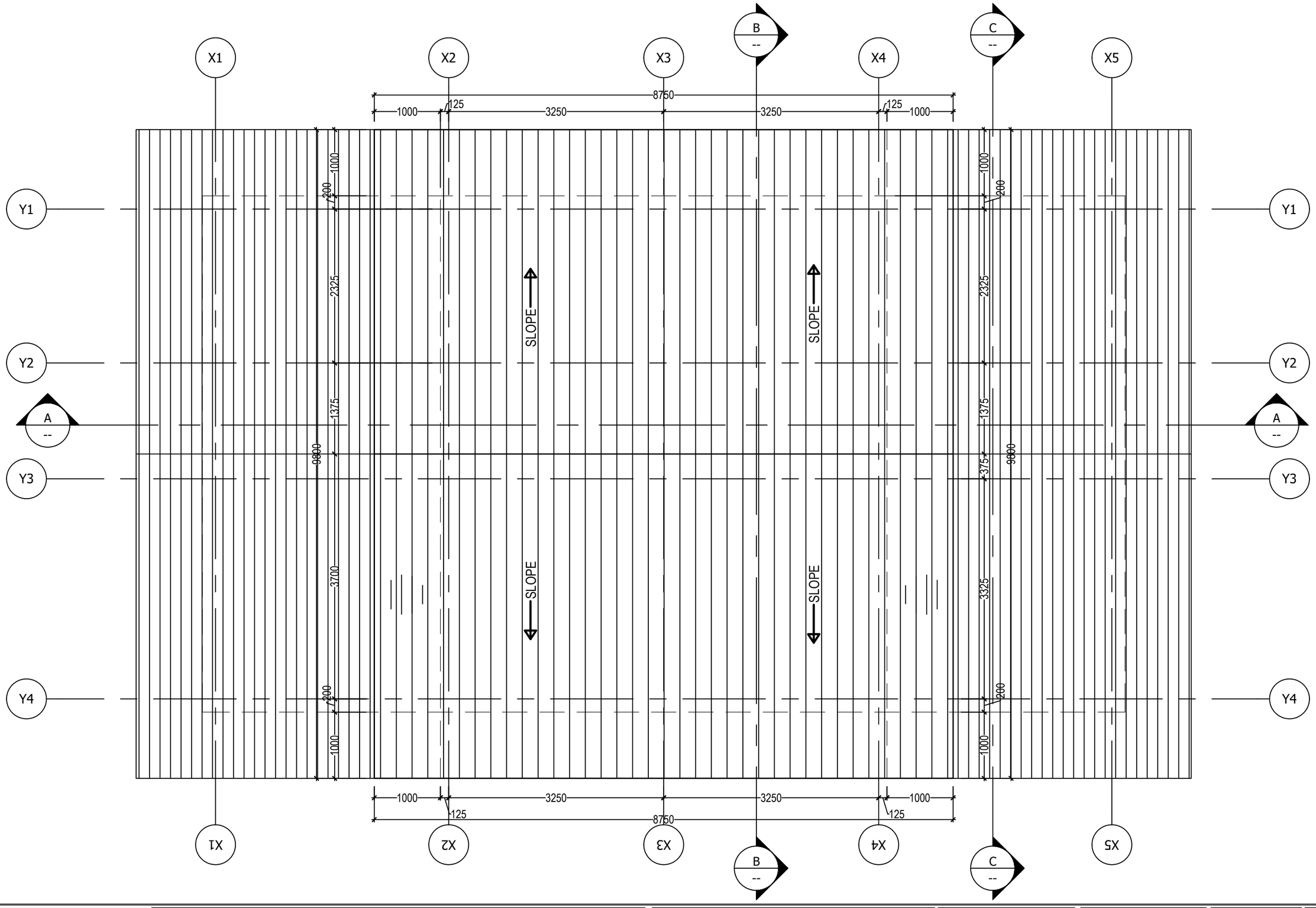
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_PLAN

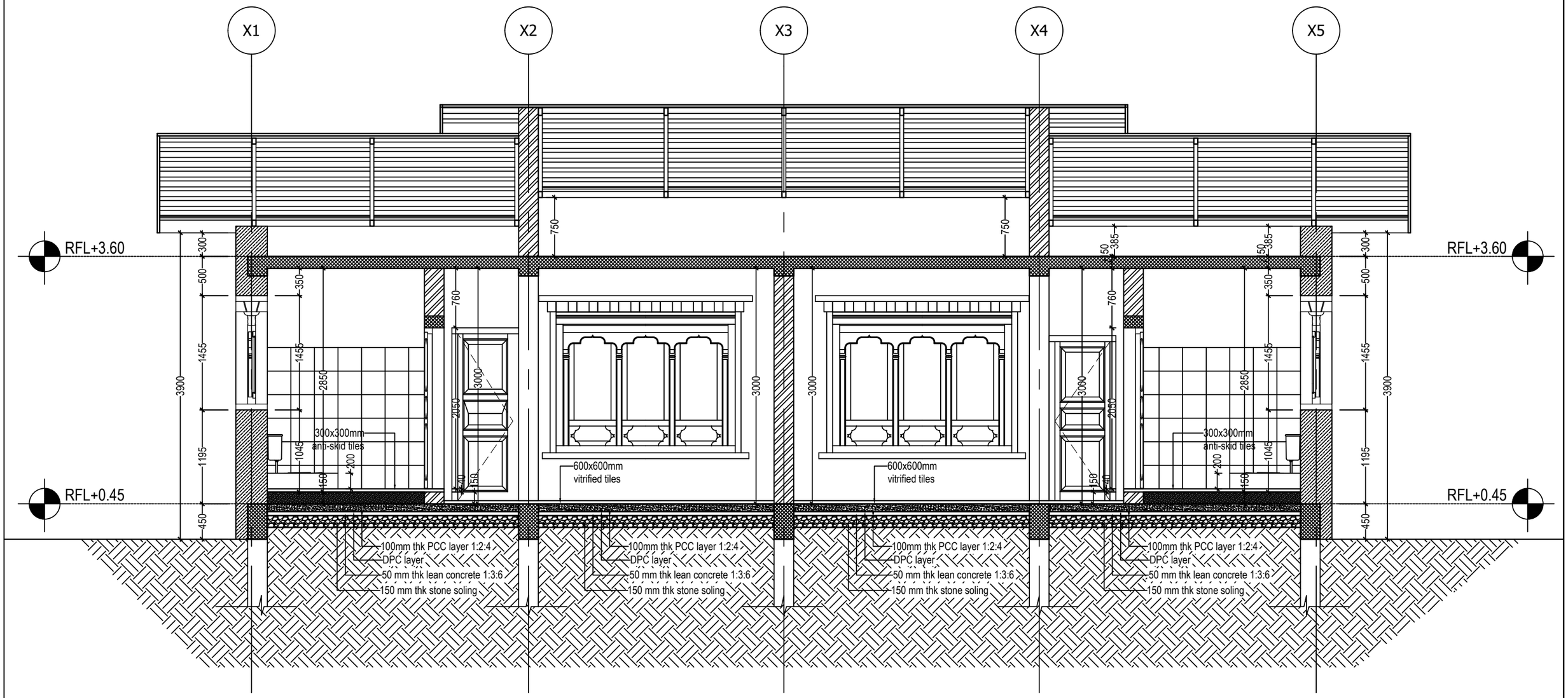
NOTES

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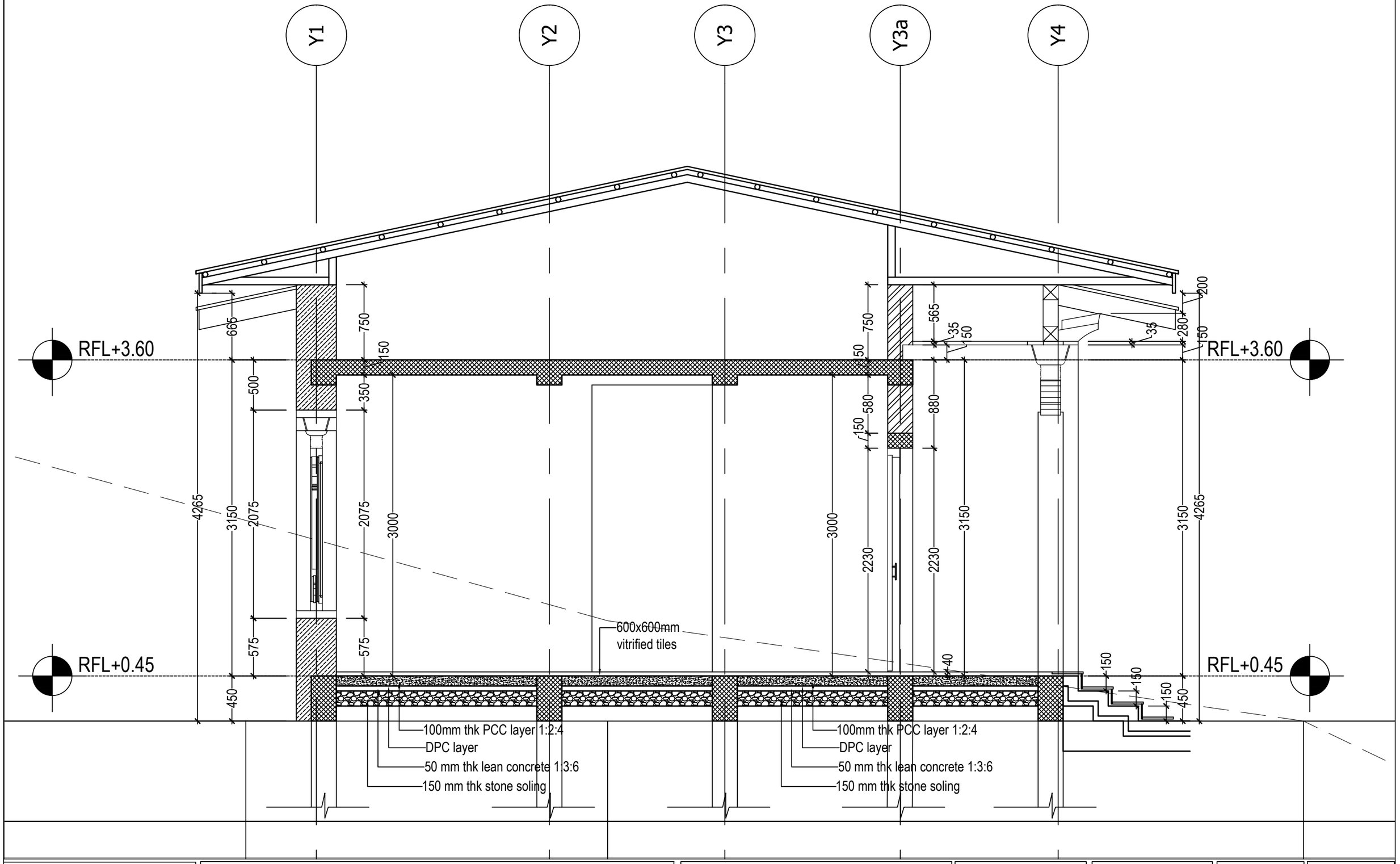
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_02
			SCALE
			NTS



Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				AR_03
	Construction of BHU Building and Auxiliary Work / MAIN_ROOF_PLAN				Sep, 2026	**SCALE** NTS



Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			AR_04
	Construction of BHU Building and Auxiliary Work / SECTION_A-A				Sep, 2026 / **SCALE** NTS



Khorlochhu

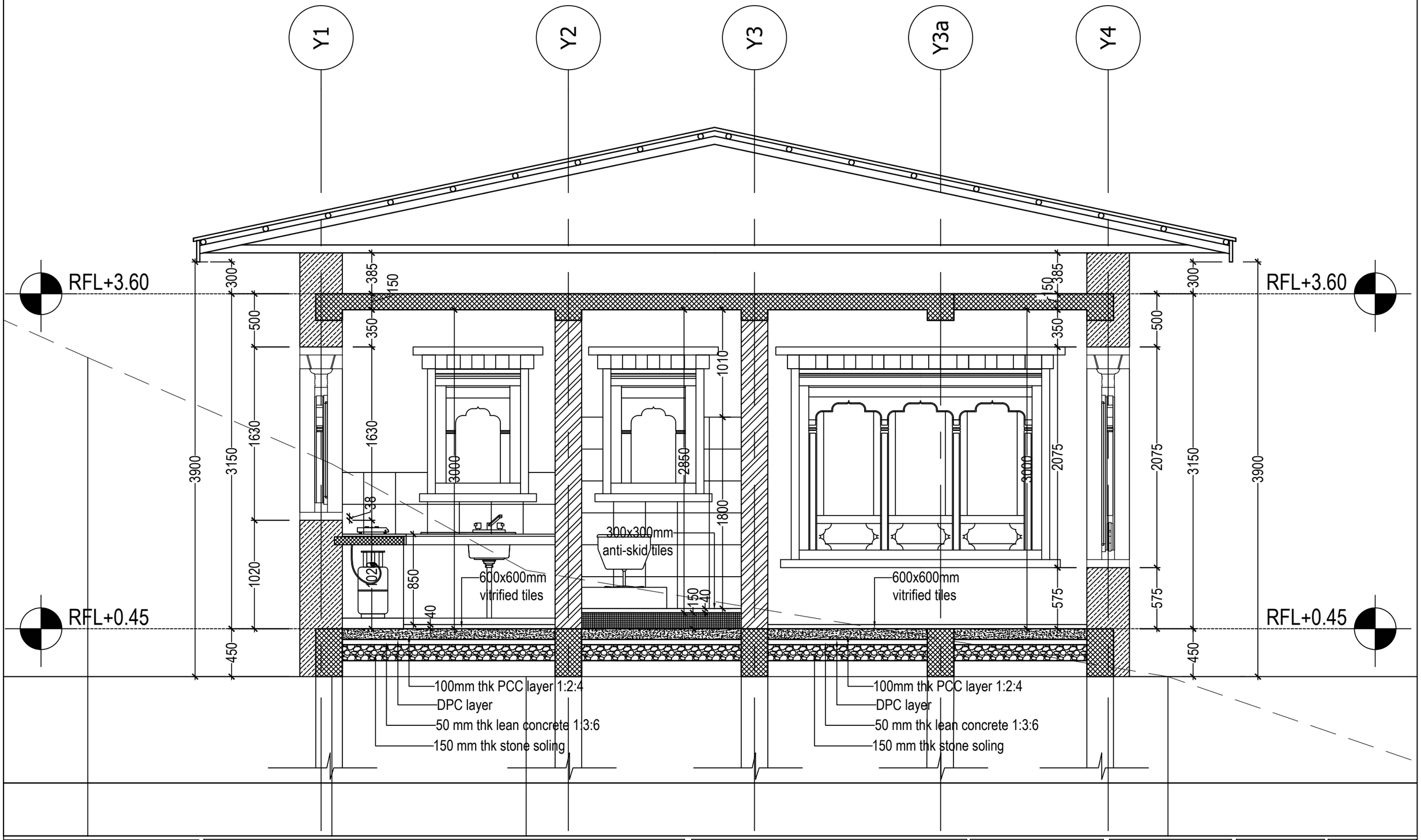
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_B-B

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_05
			SCALE
			NTS



Khorlochhu

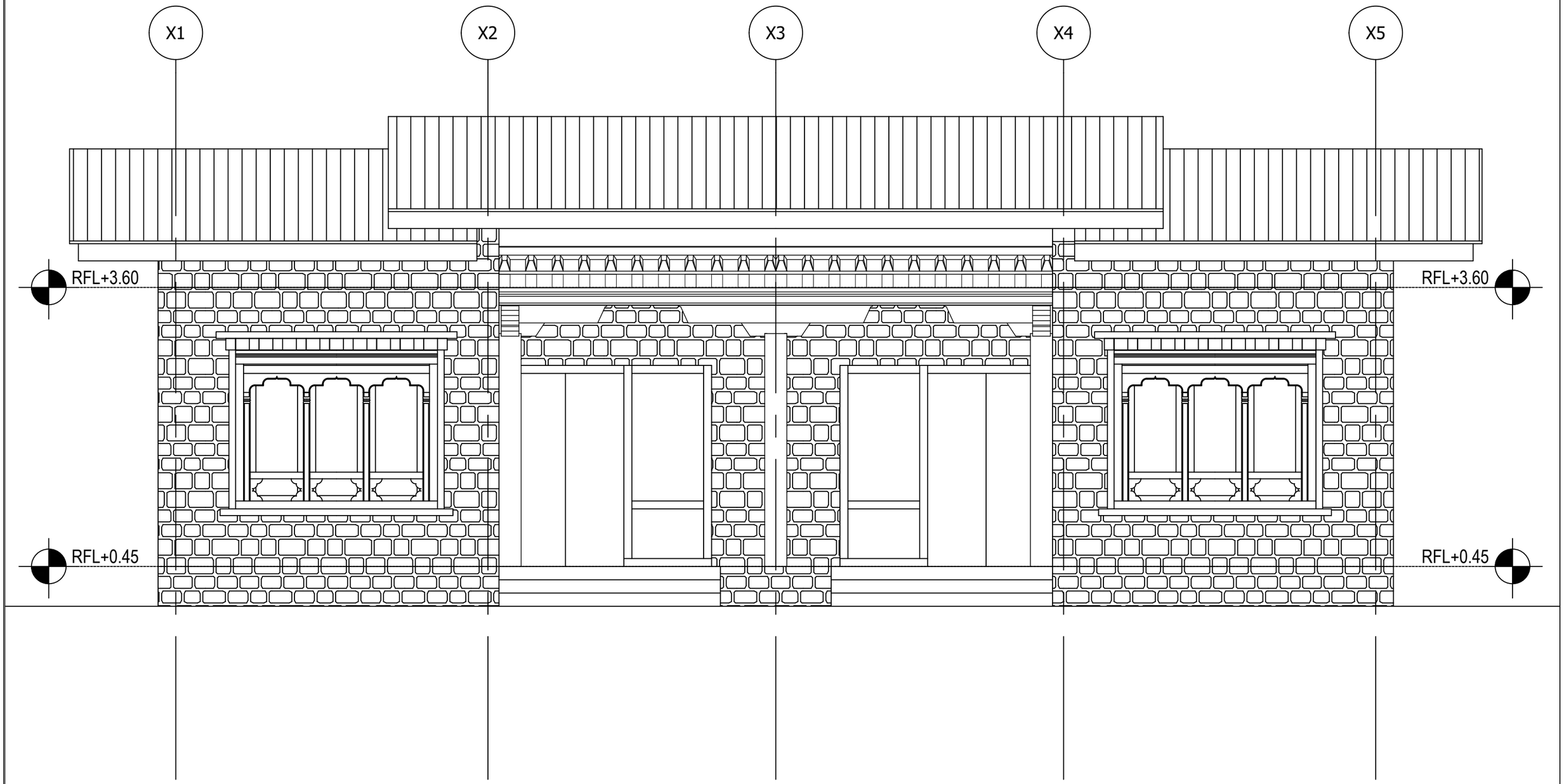
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_C-C

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



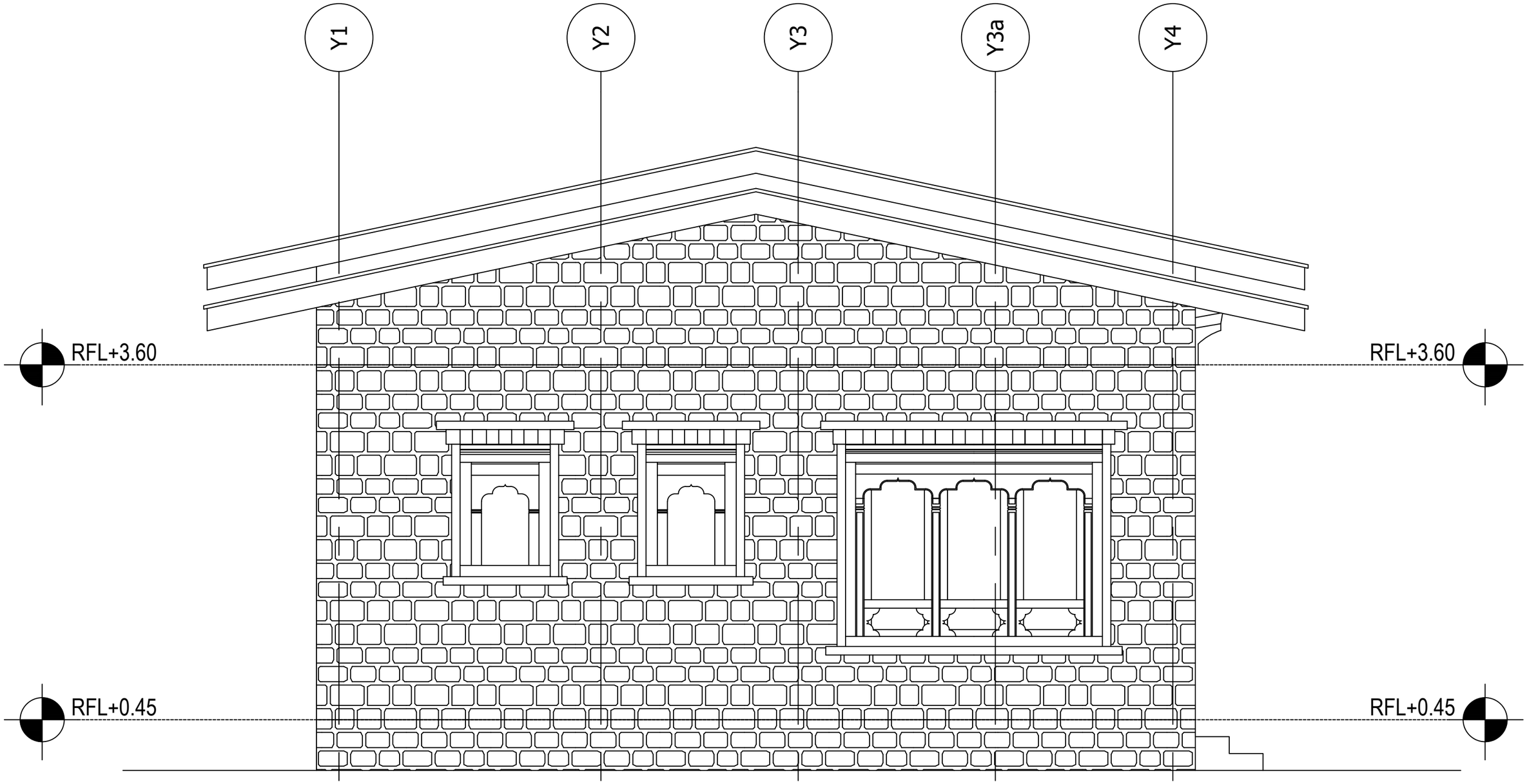
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_A

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



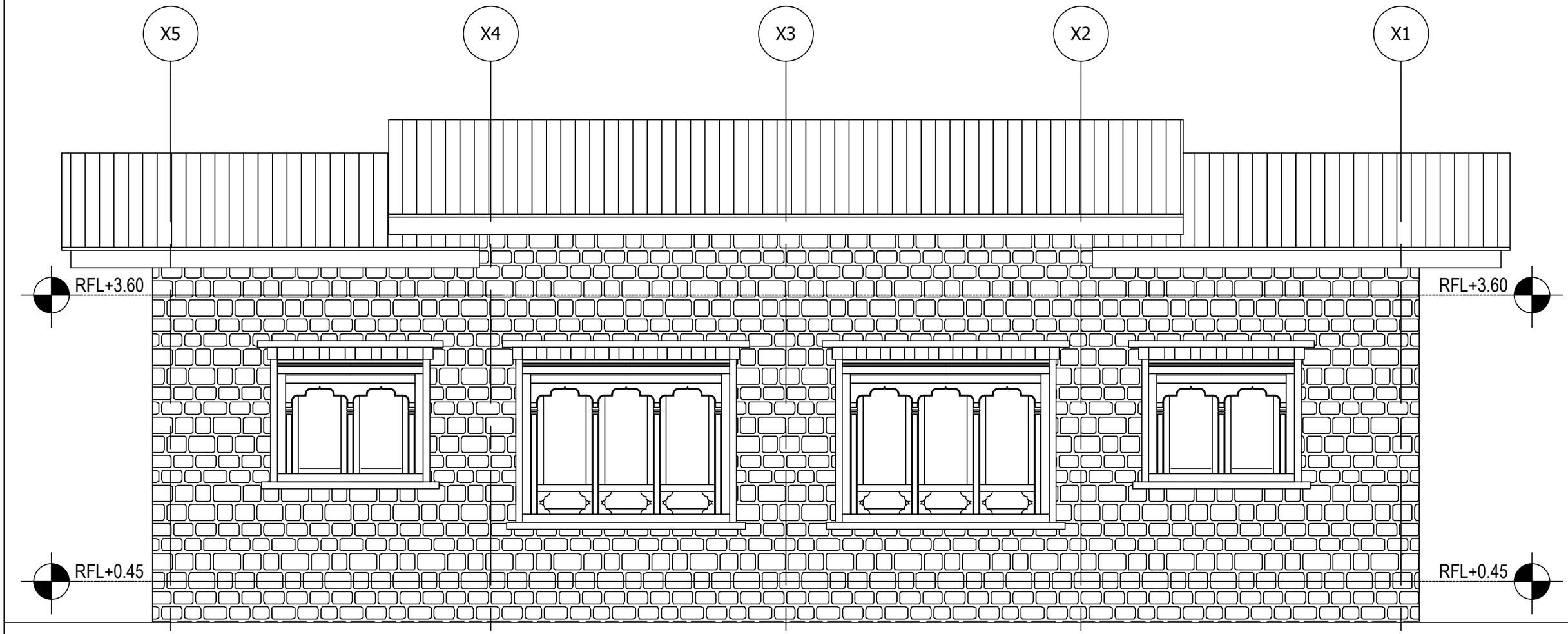
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_B

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



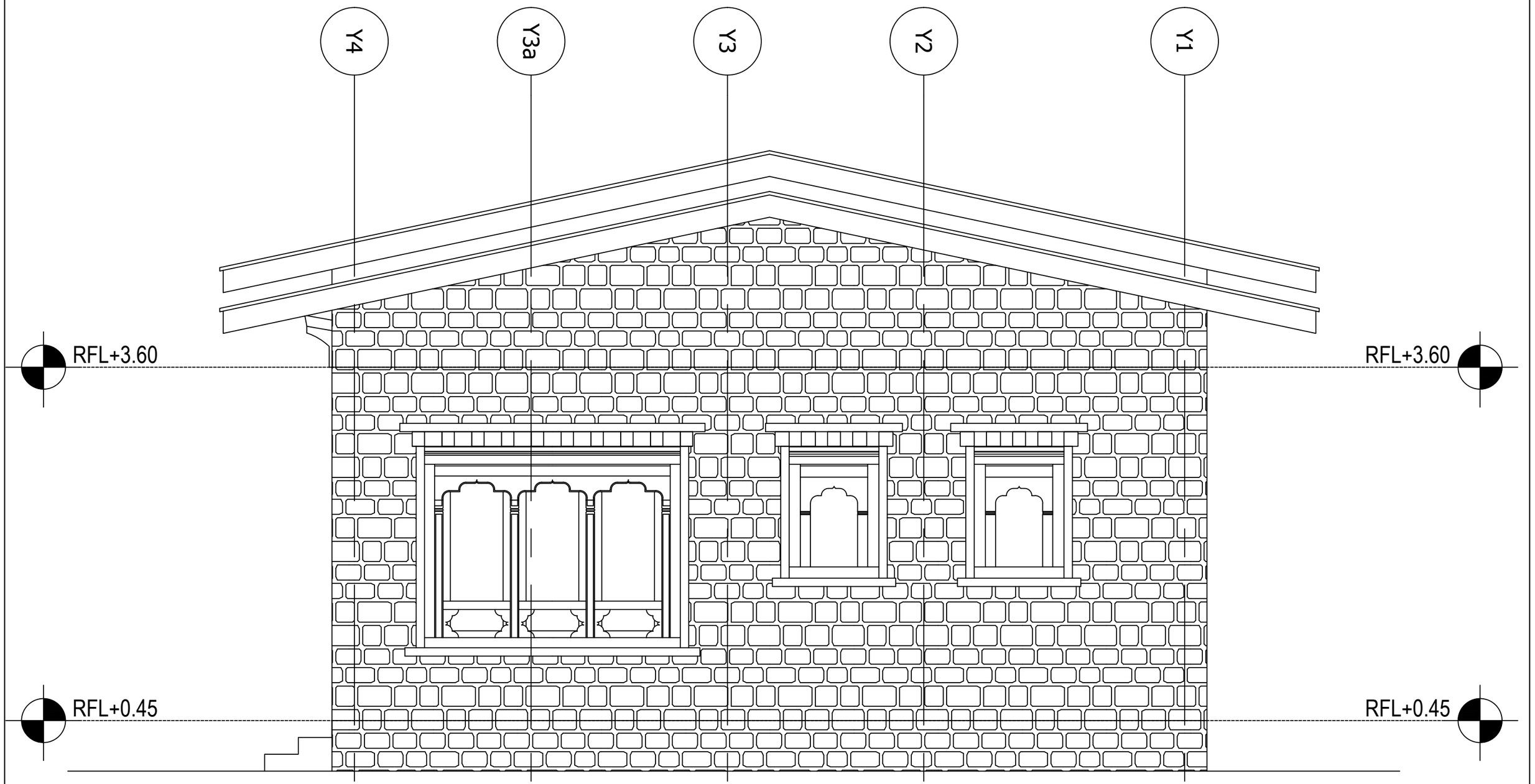
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_C

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



ARCHITECTURAL DRAWING

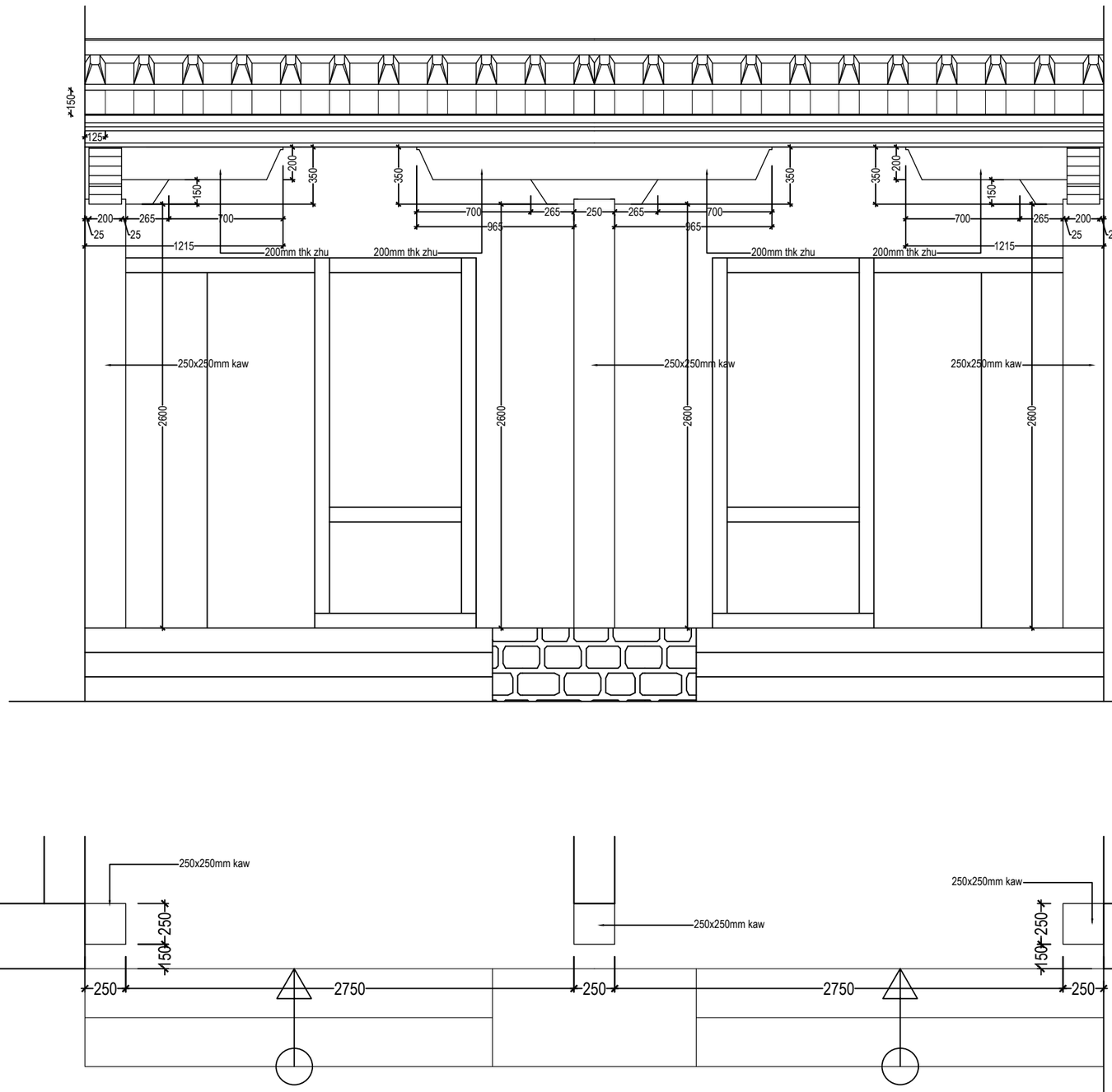
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_D

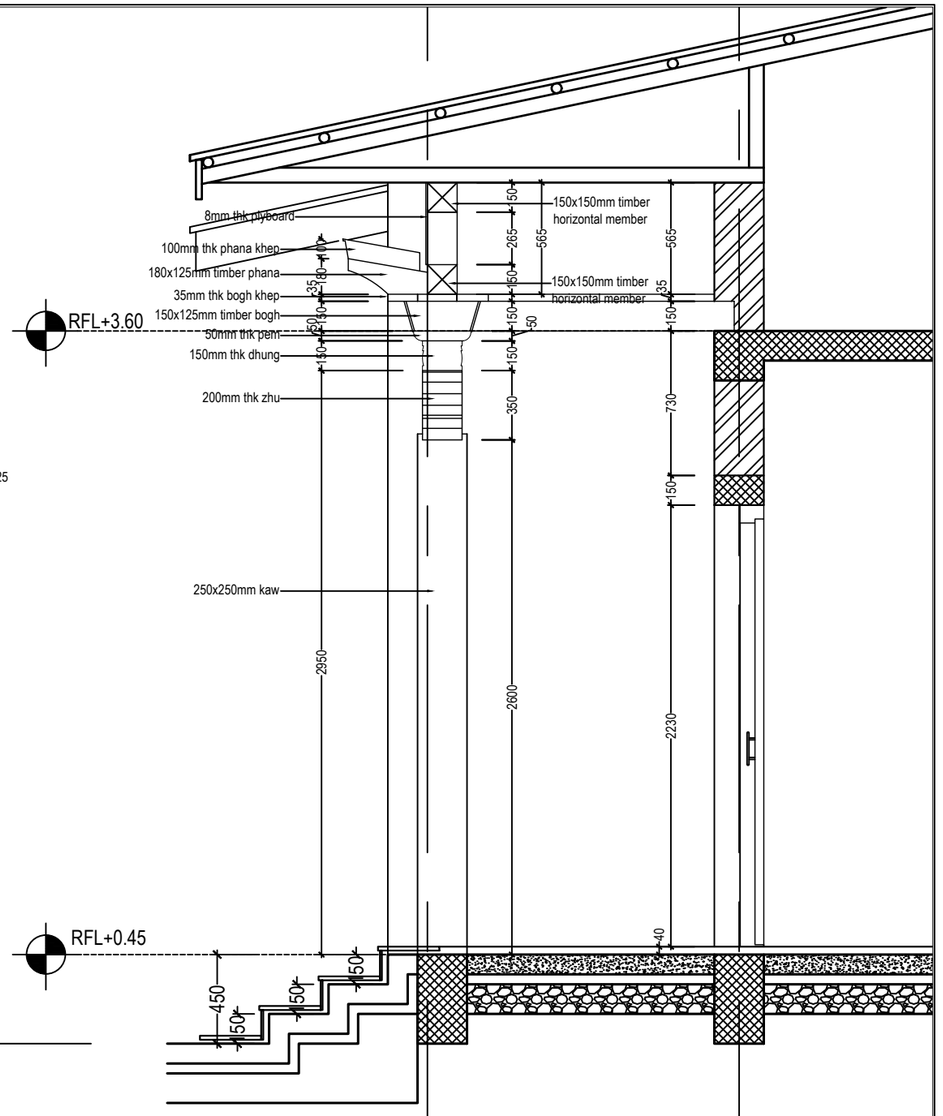
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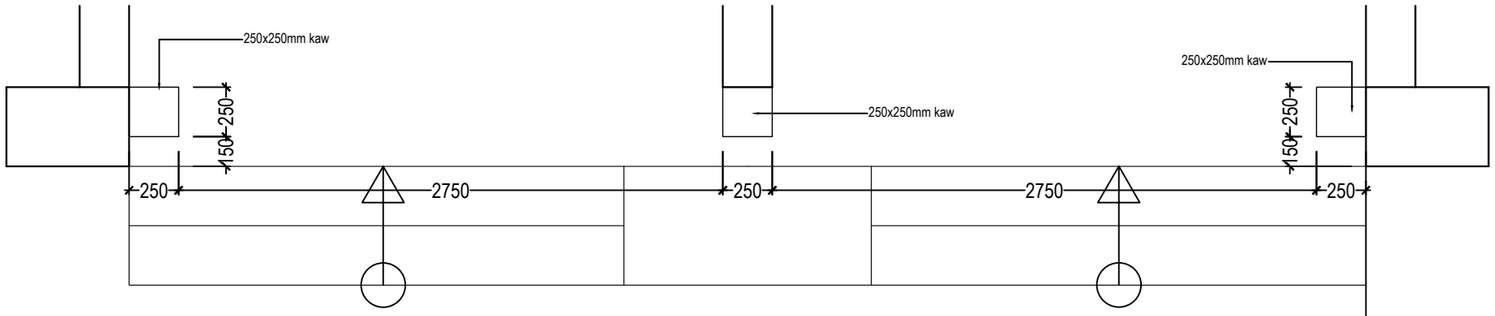
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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS

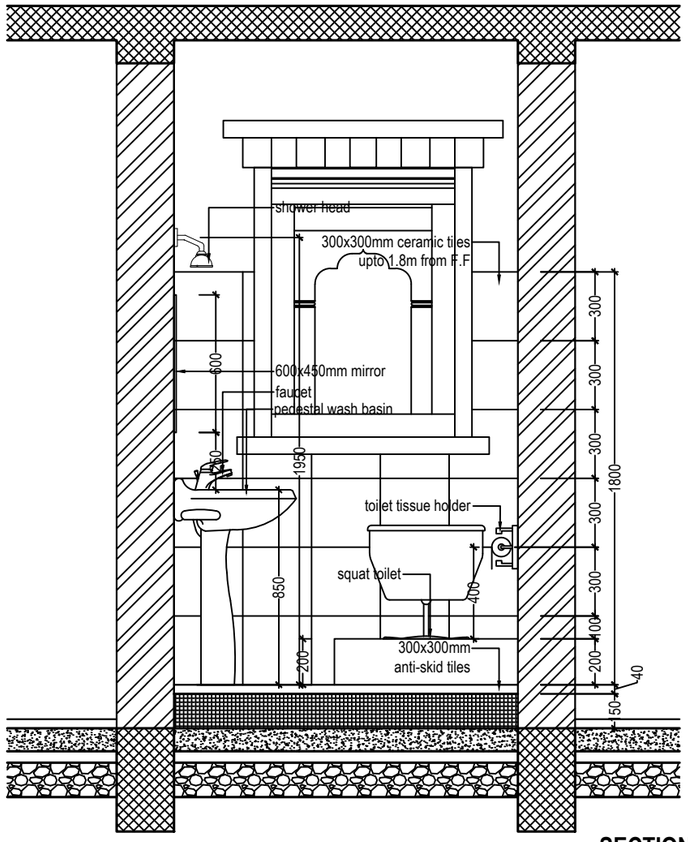
Entrance Porch detail



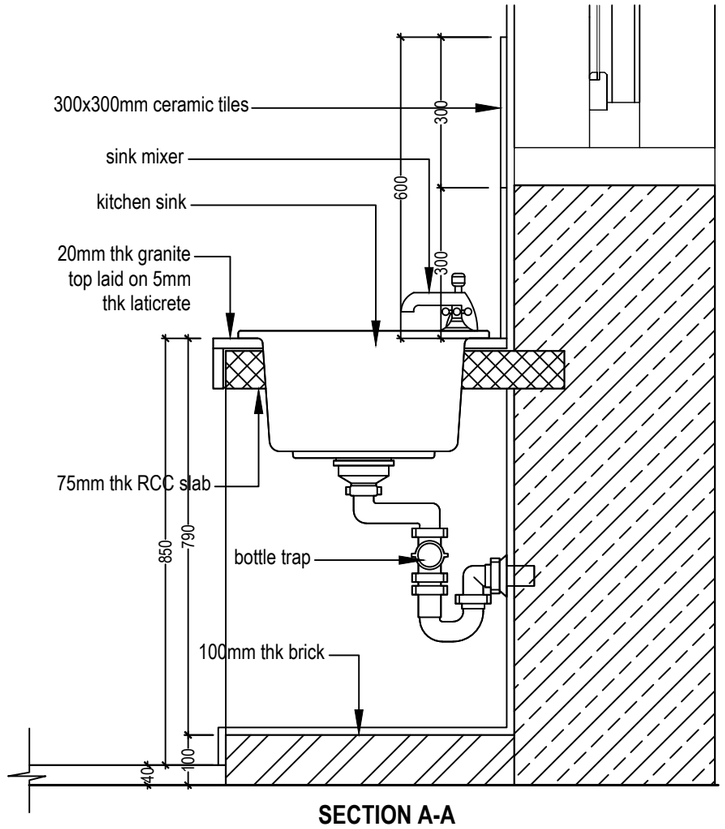




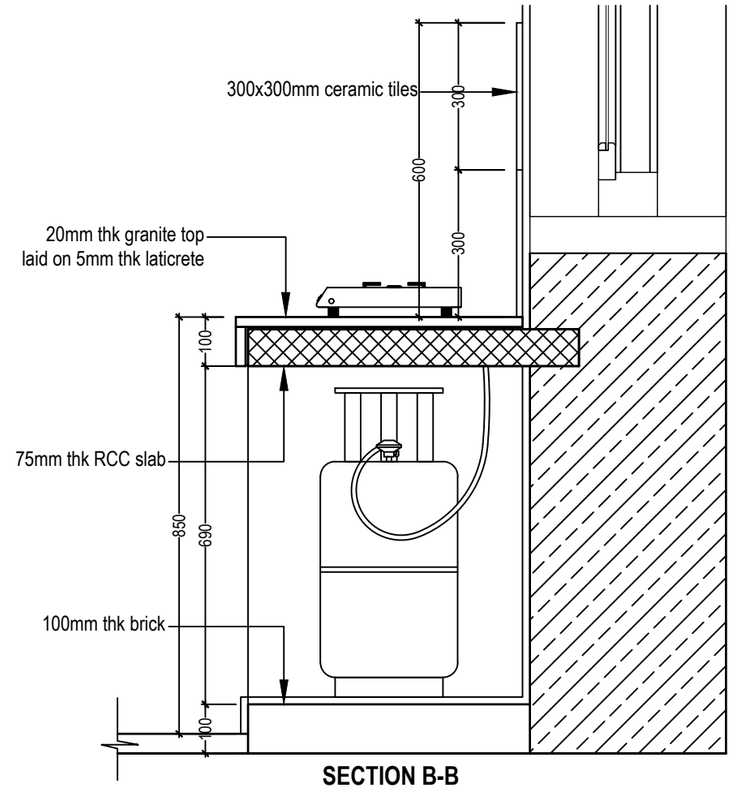
Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
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		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS



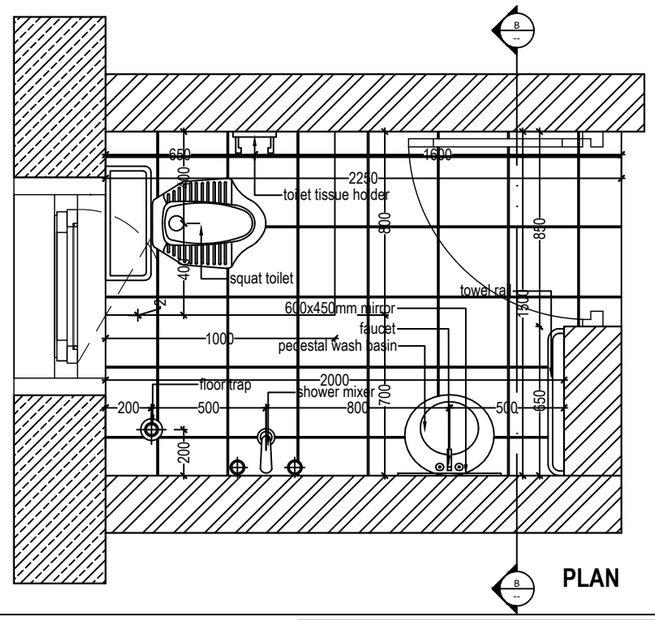
SECTION B-B



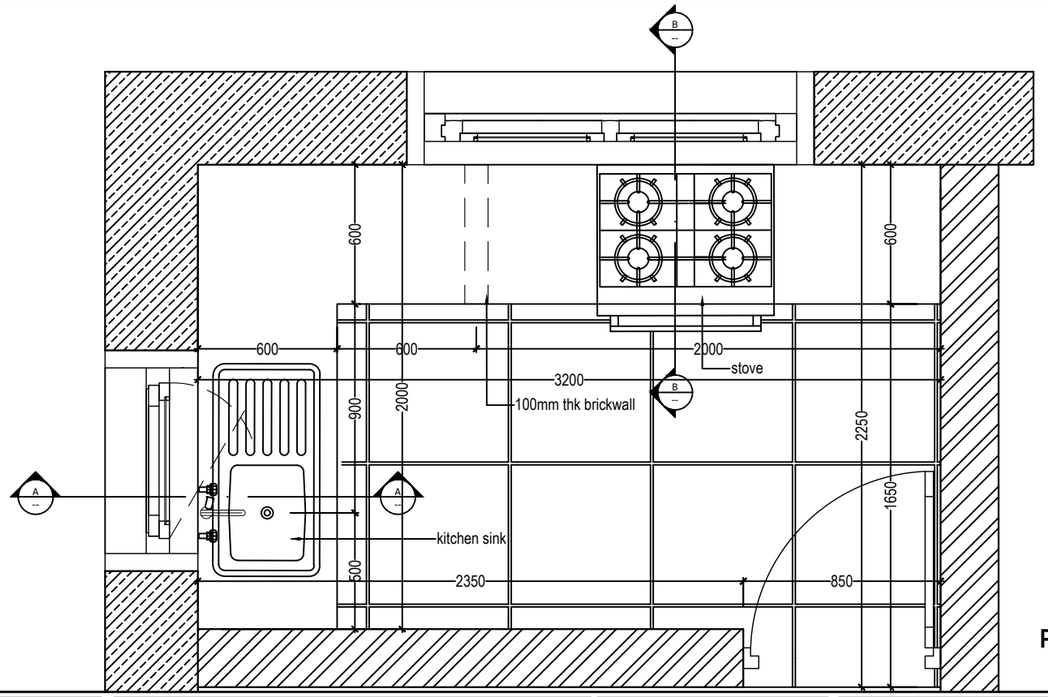
SECTION A-A



SECTION B-B



PLAN



PLAN

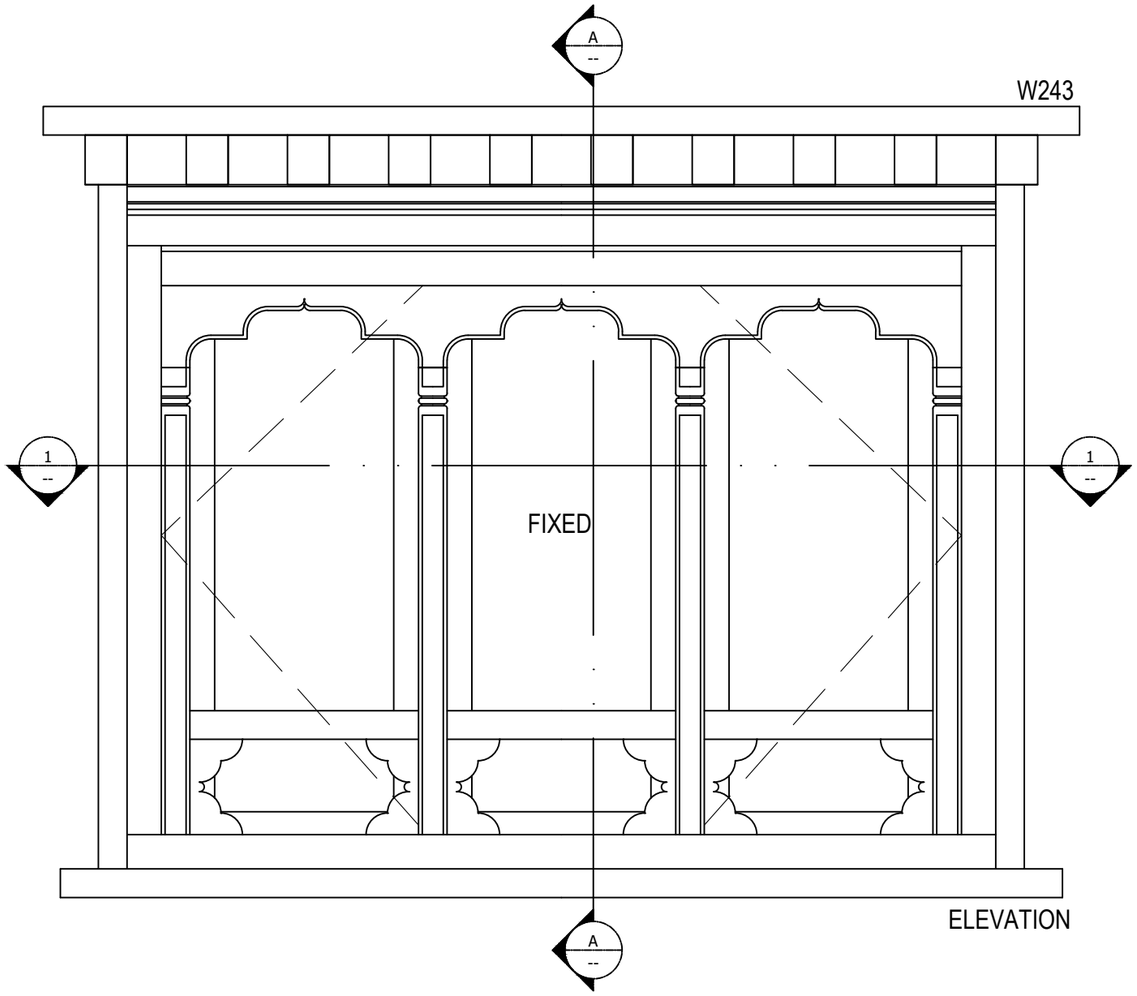
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TOILET_AND_KITCHEN_DETAIL

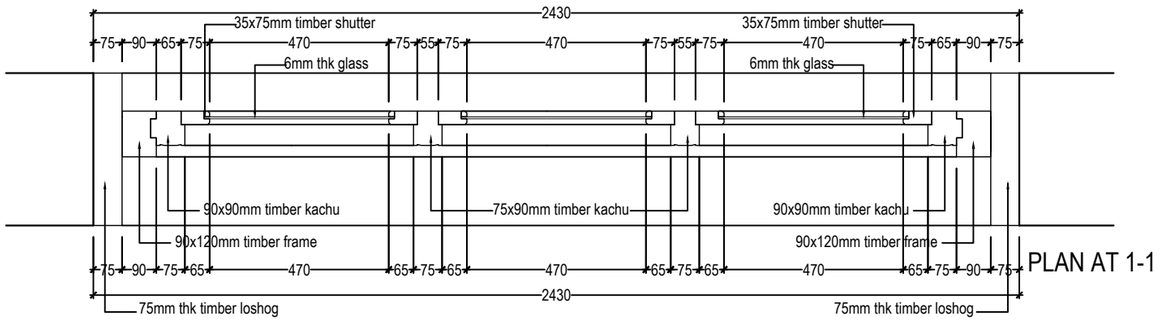
NOTES

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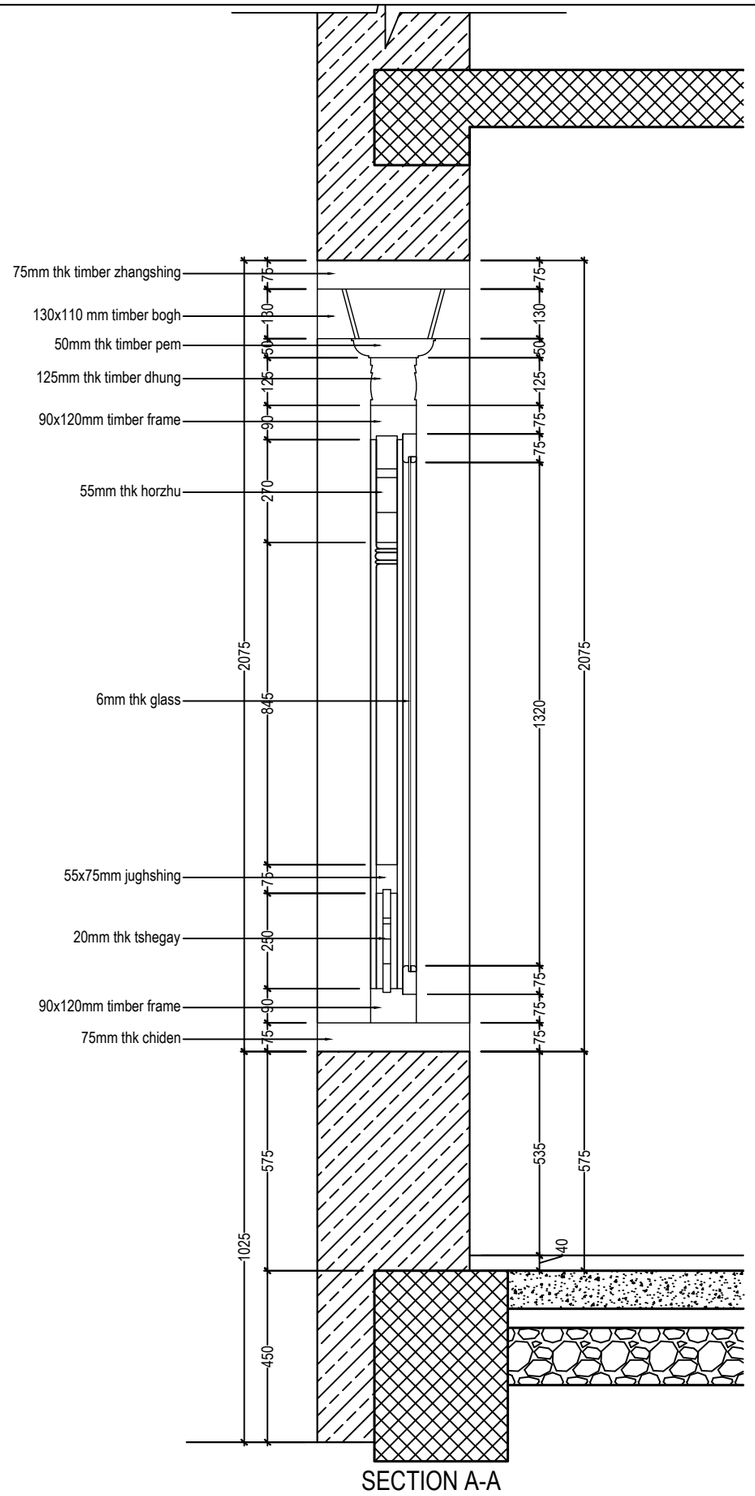
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_12
			SCALE
			NTS



ELEVATION



PLAN AT 1-1



SECTION A-A

Khorlochhu

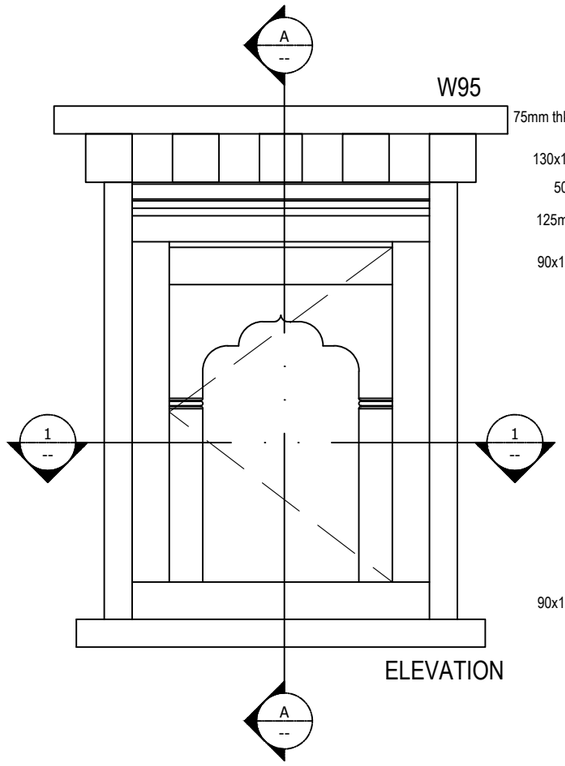
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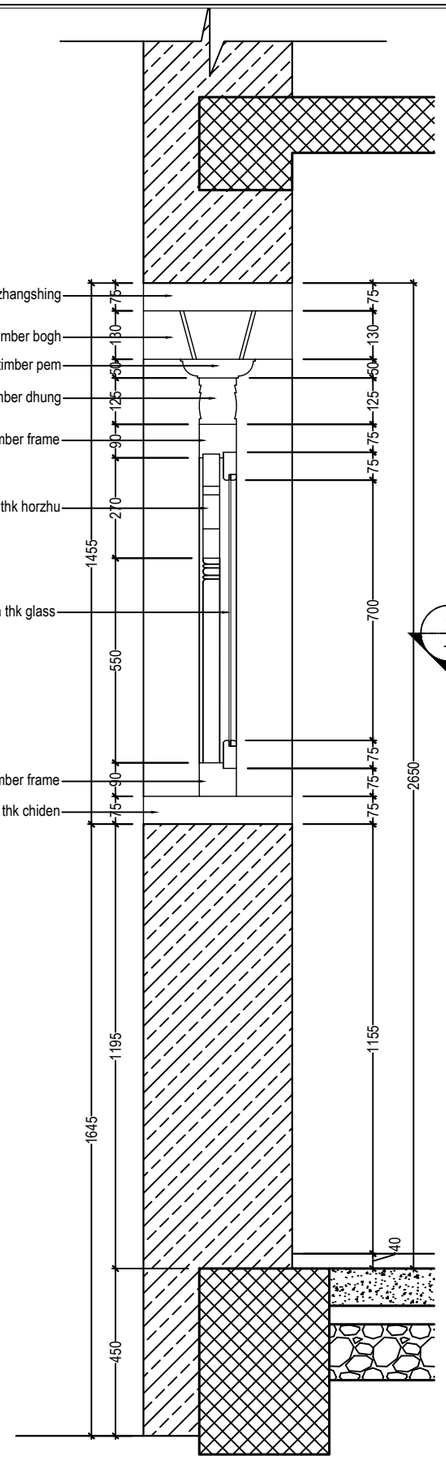
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAILS-W243

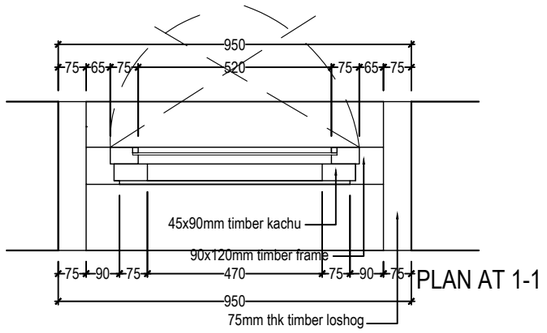
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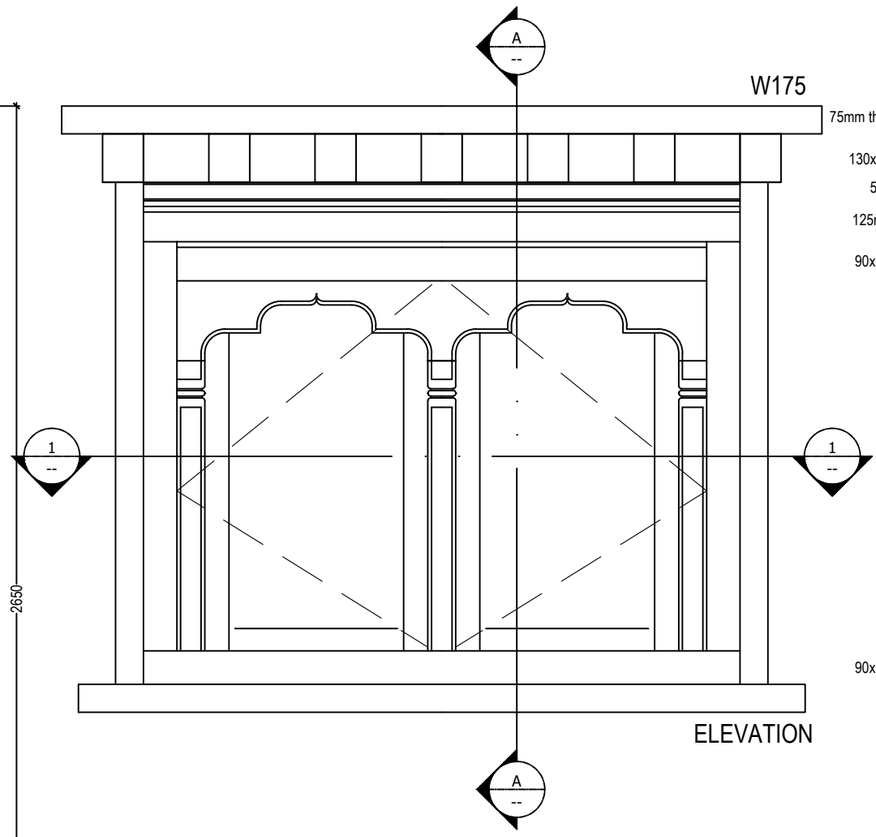
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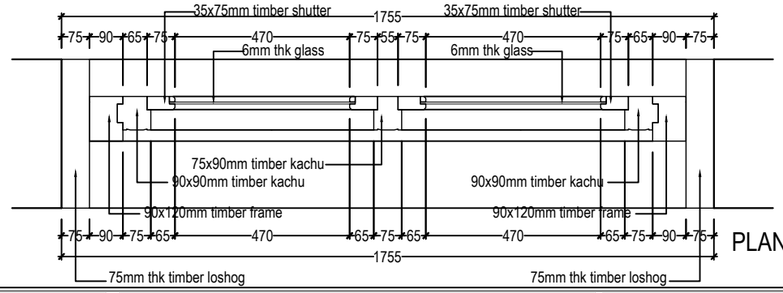
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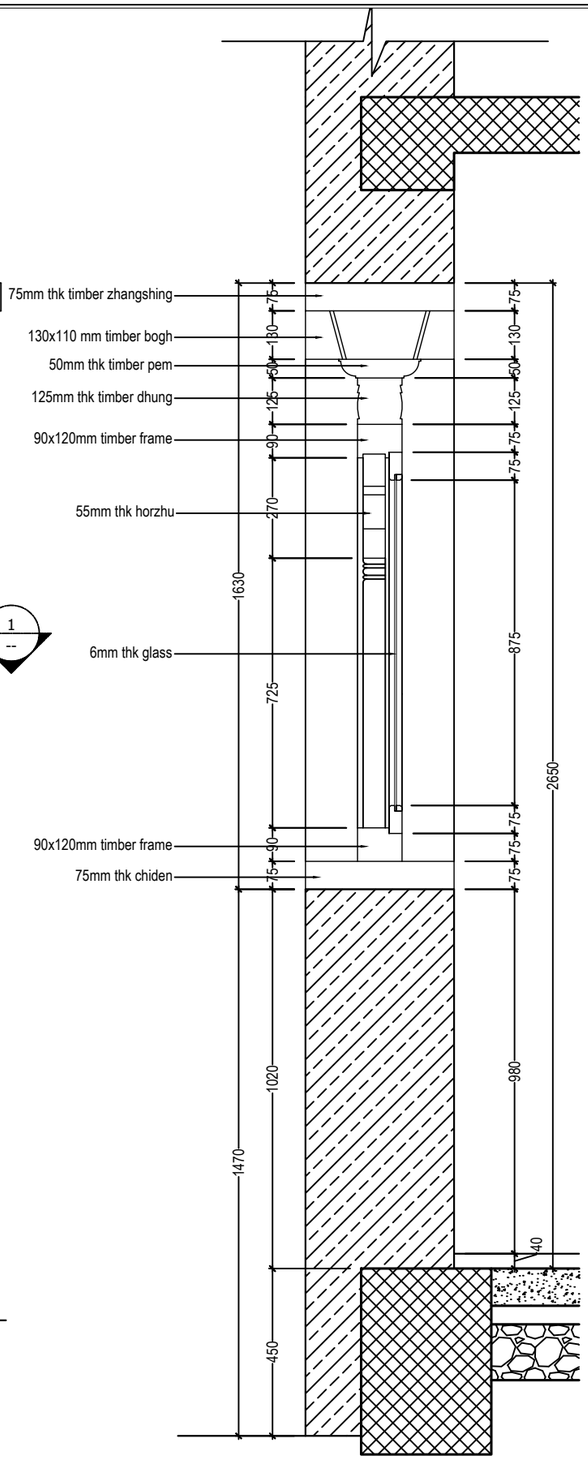












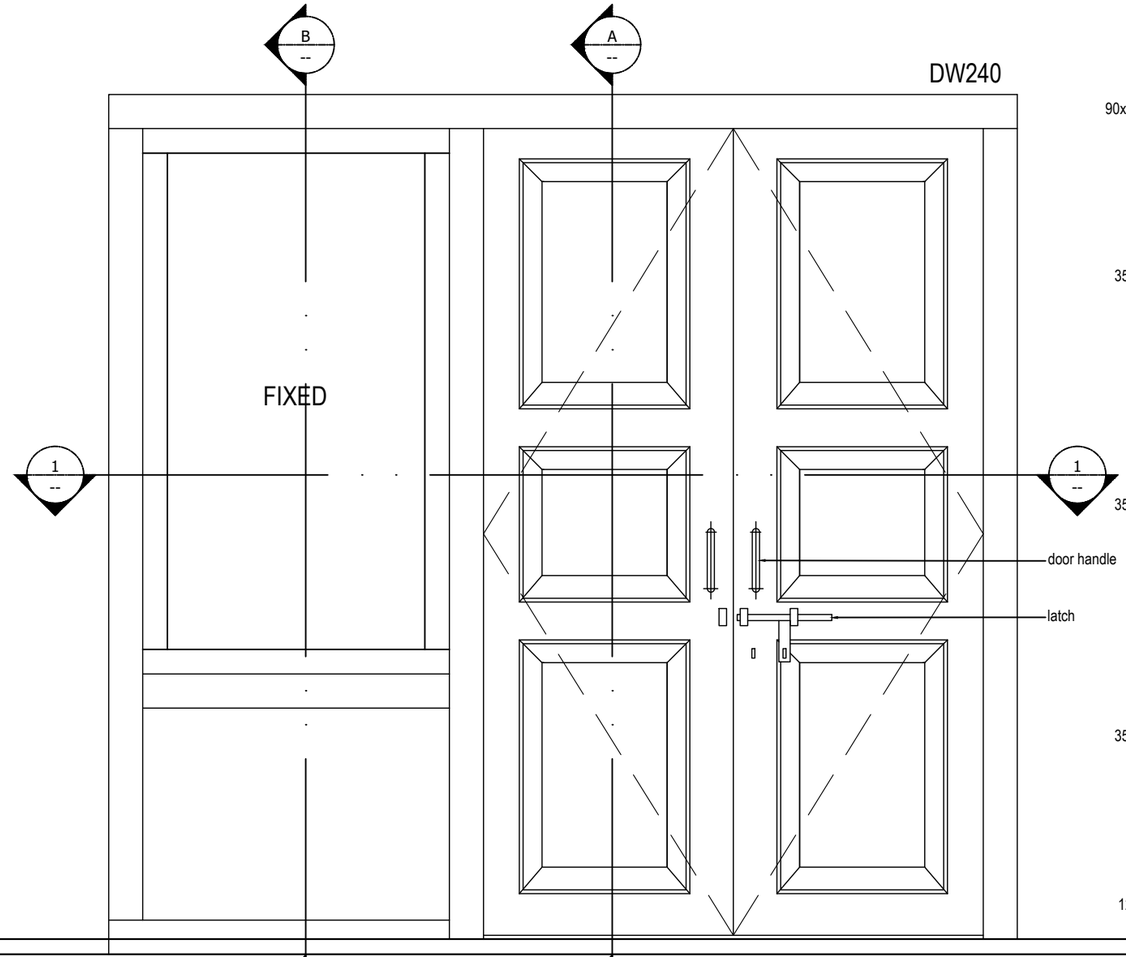
ARCHITECTURAL DRAWING

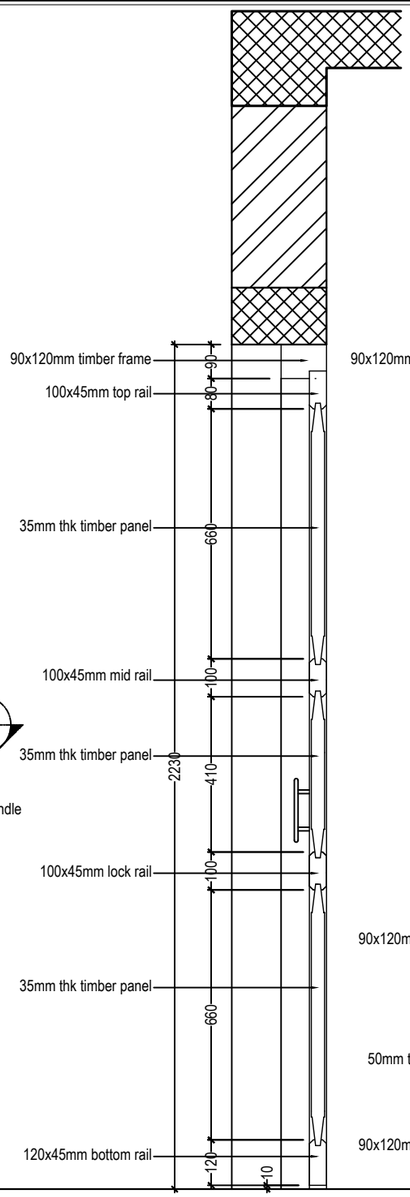
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAILS-W95_AND_W175

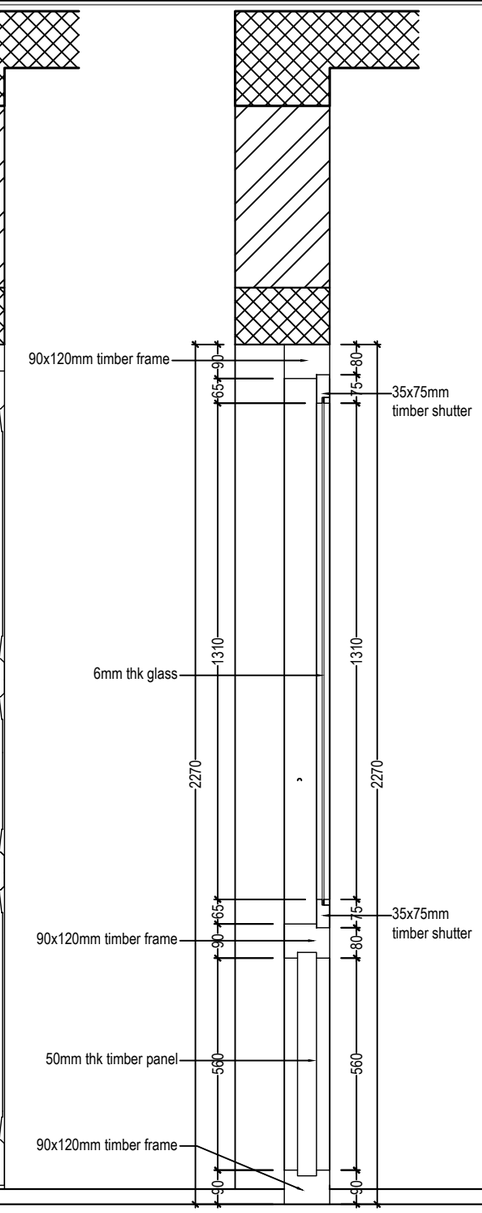
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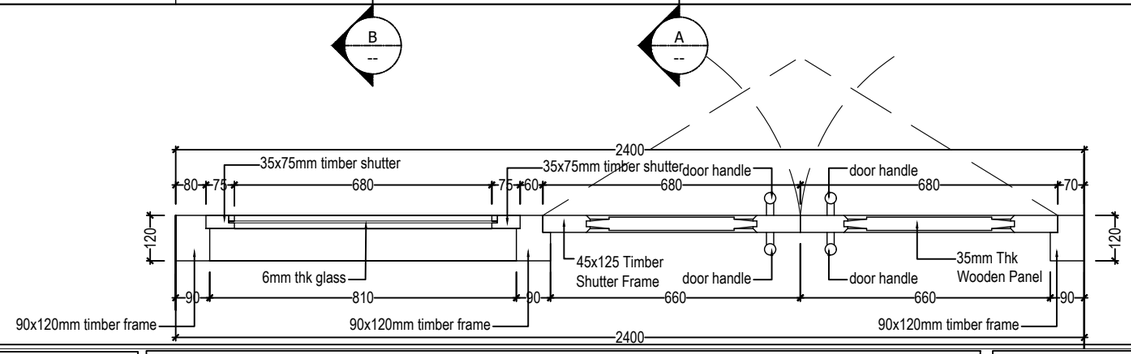
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_14
			SCALE
			NTS









ARCHITECTURAL DRAWING

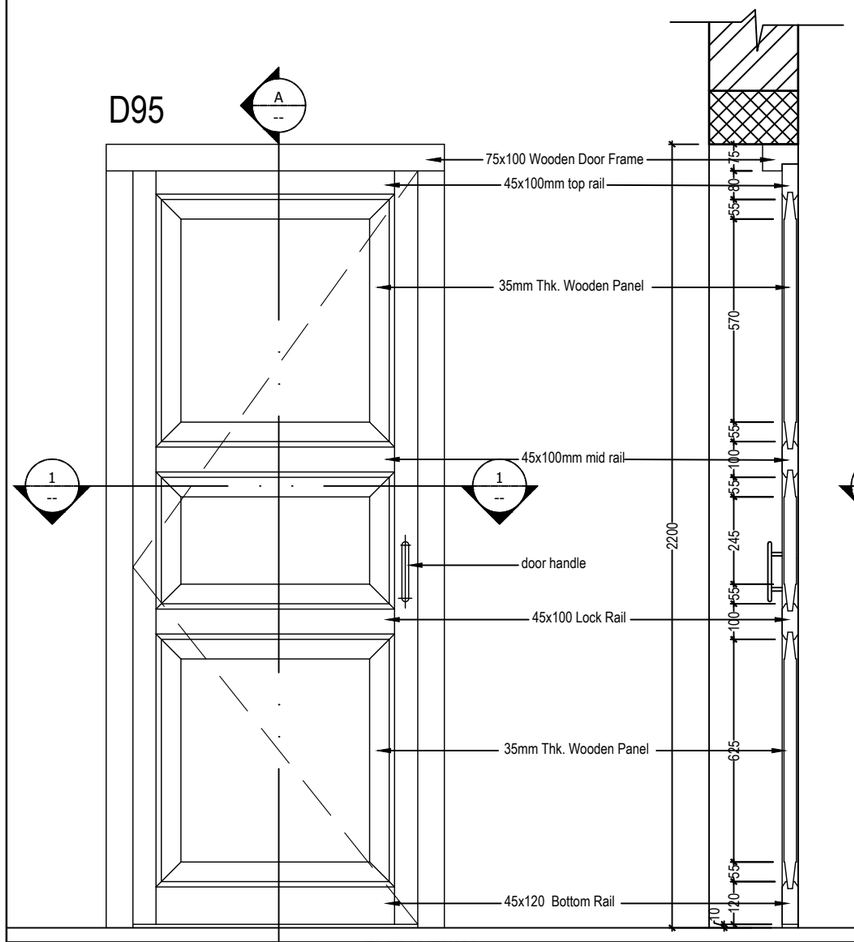
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAILS-DW240

NOTES

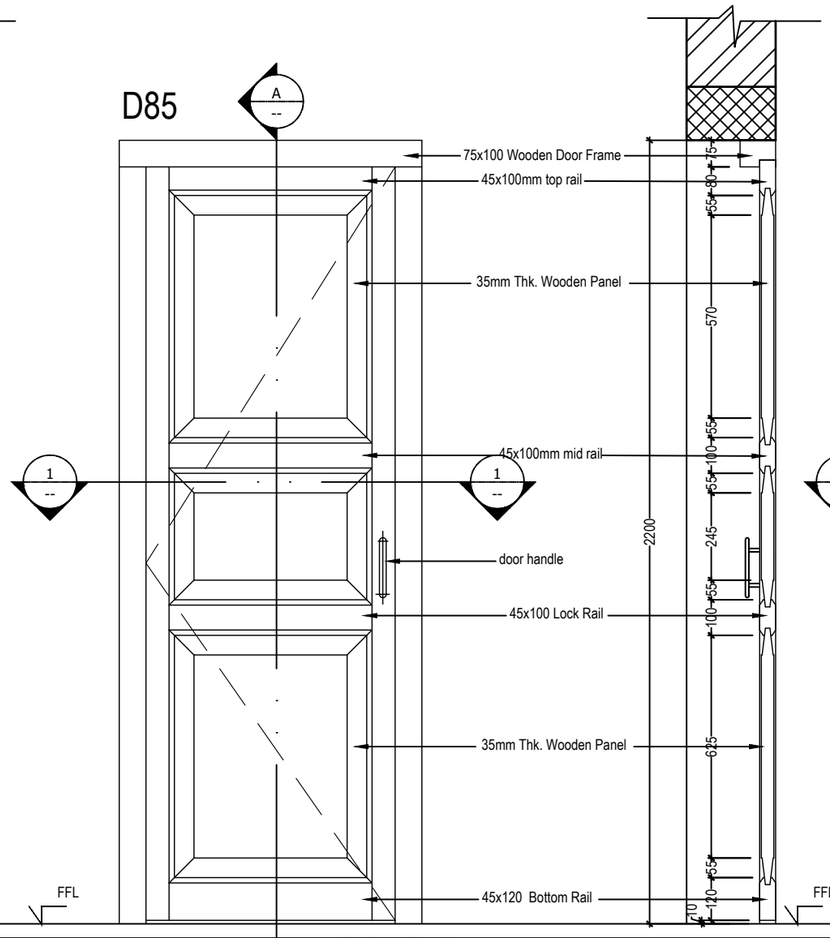
1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_15
			SCALE
			NTS

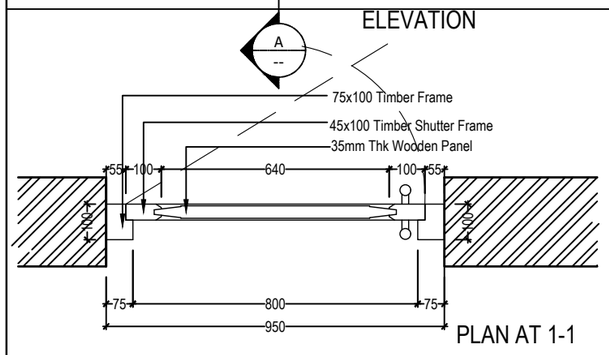
D95



ELEVATION



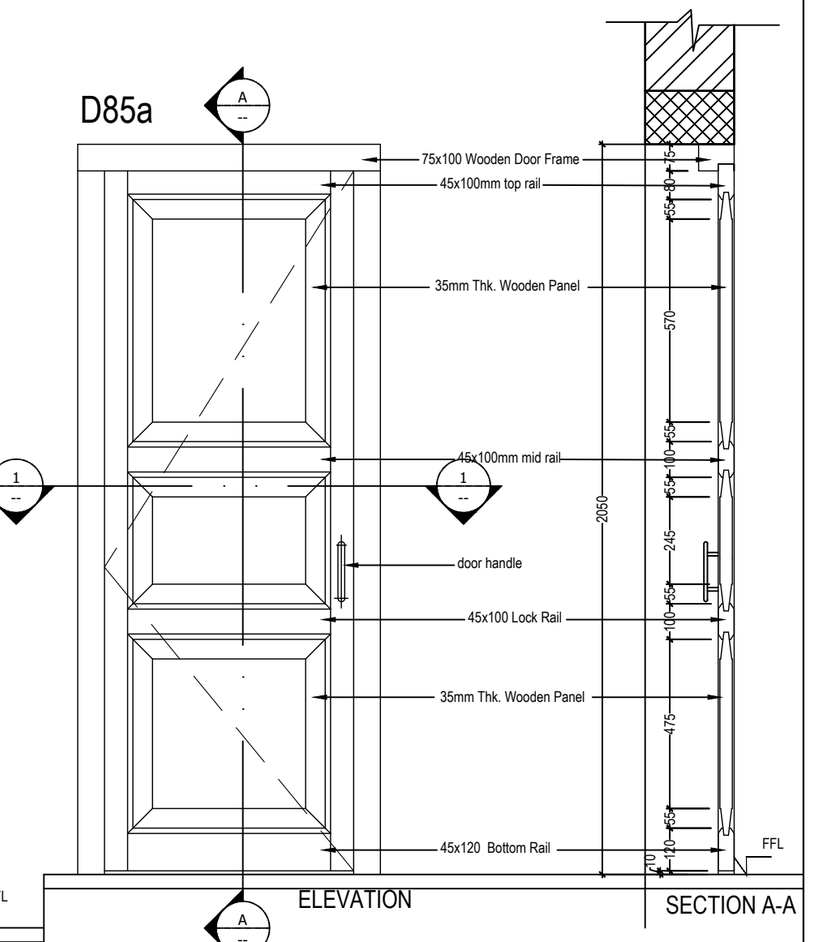
SECTION A-A



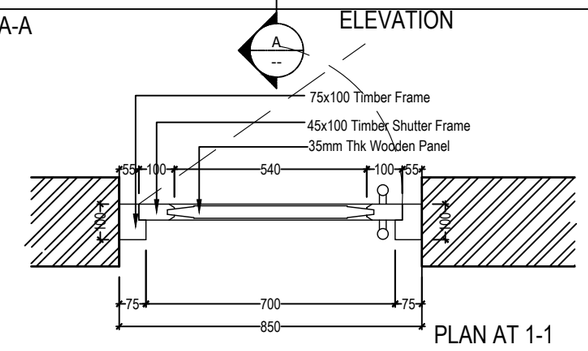
PLAN AT 1-1

D85

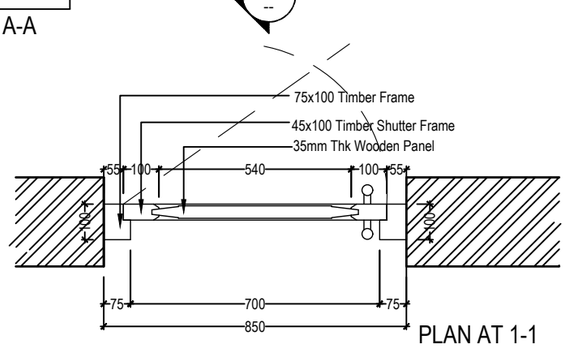
ELEVATION



SECTION A-A



PLAN AT 1-1



PLAN AT 1-1

D85a

ELEVATION

SECTION A-A

PLAN AT 1-1

Khorlochhu

ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WINDOW_DETAILS-D95,D85_AND_D85A

NOTES

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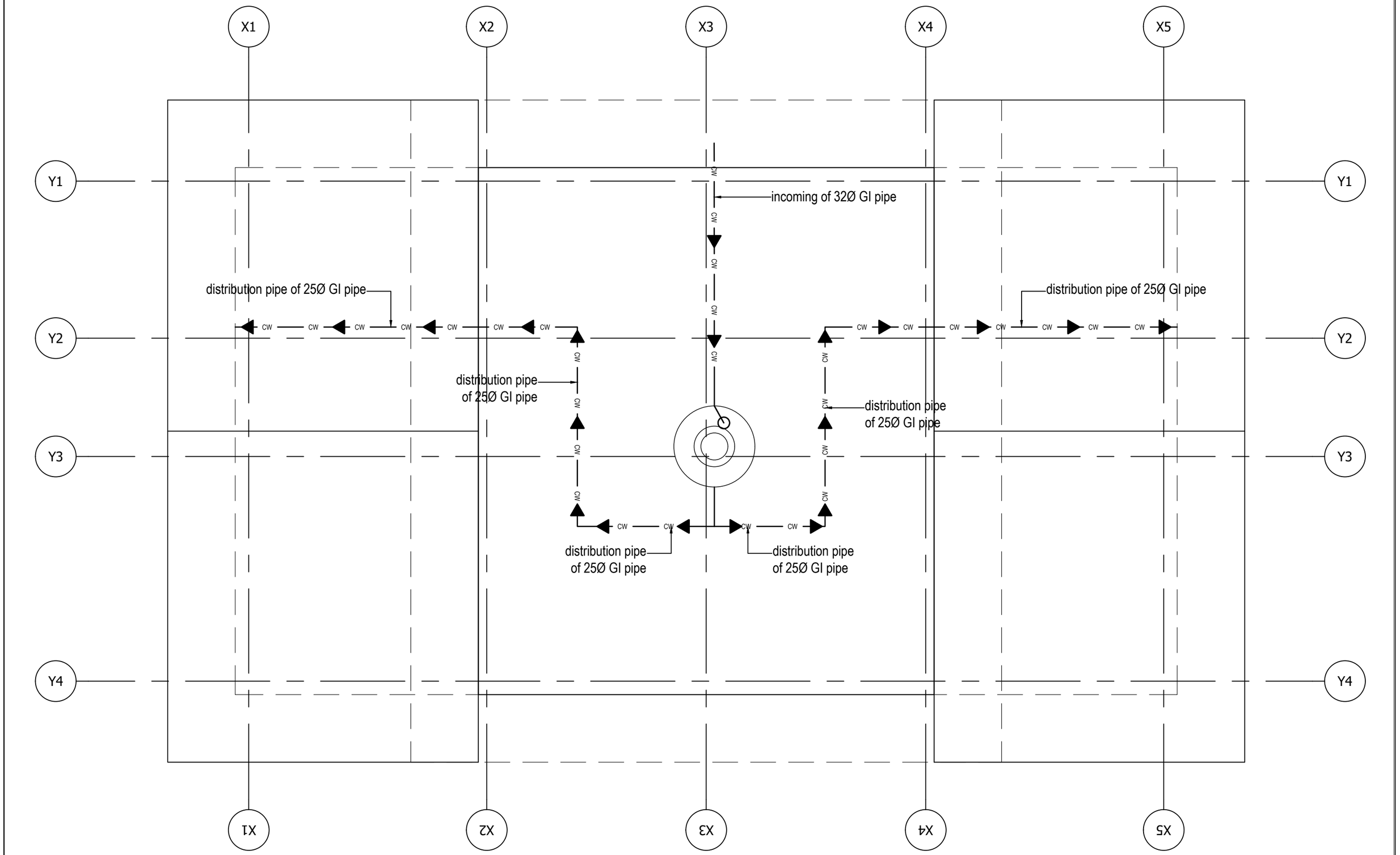
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_16
			SCALE
			NTS

PLUMBING DRAWINGS

CARETAKER AND DRIVER'S QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

..\..\..\..\..\..\..\Attachments\Outlook-byzjopxk.png



Khorlochhu

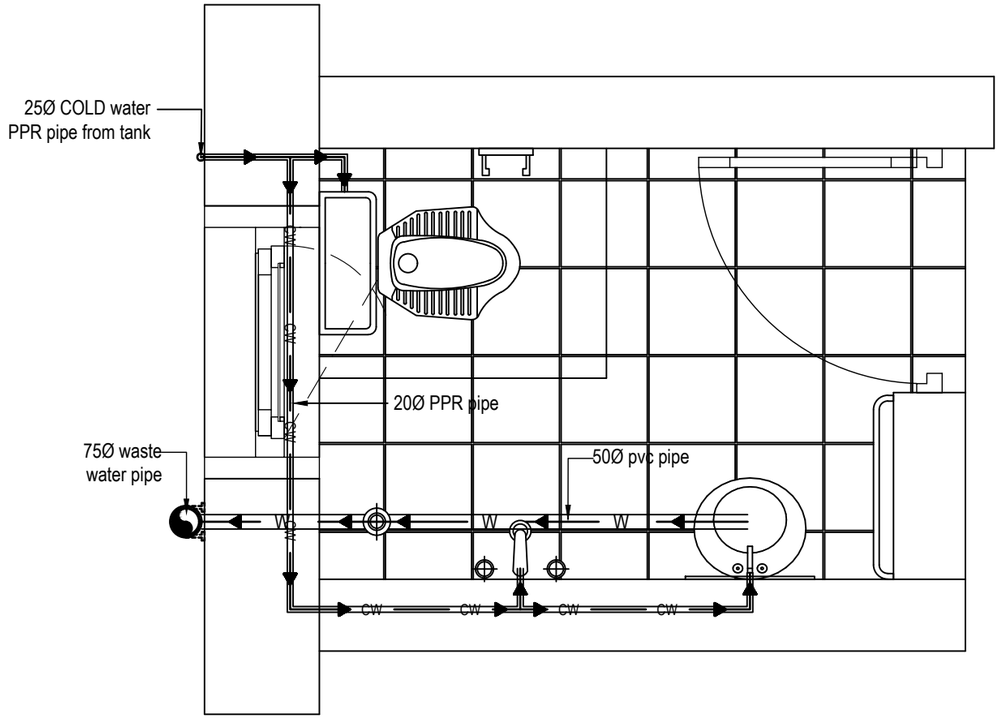
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_LAYOUT

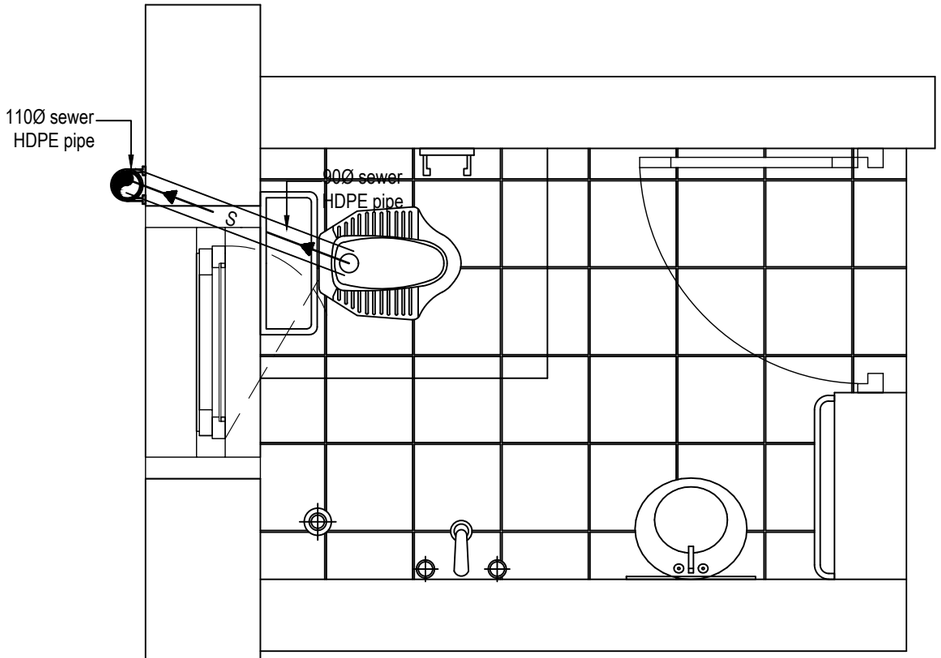
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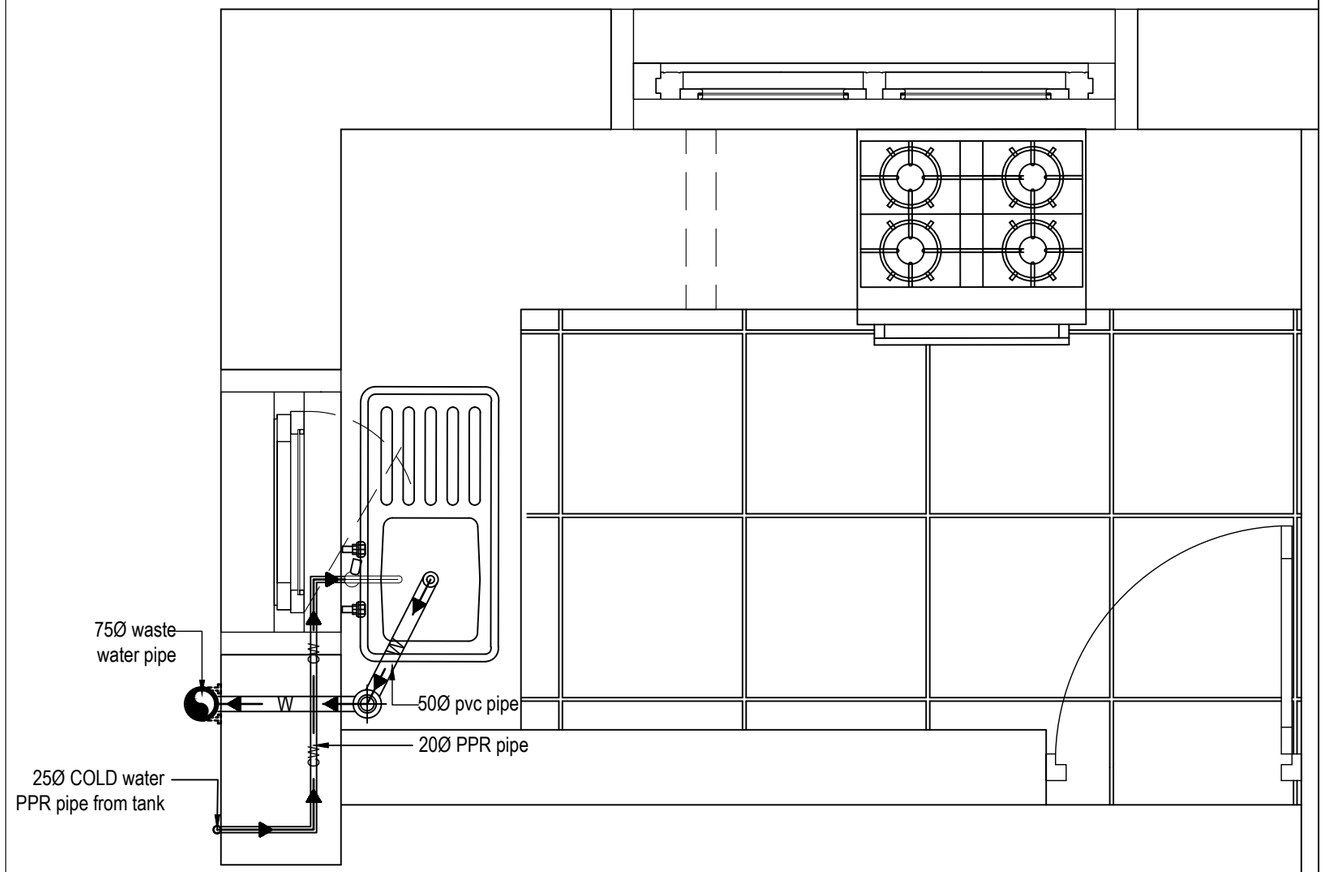
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_01
			SCALE
			NTS



TOILET





KITCHEN

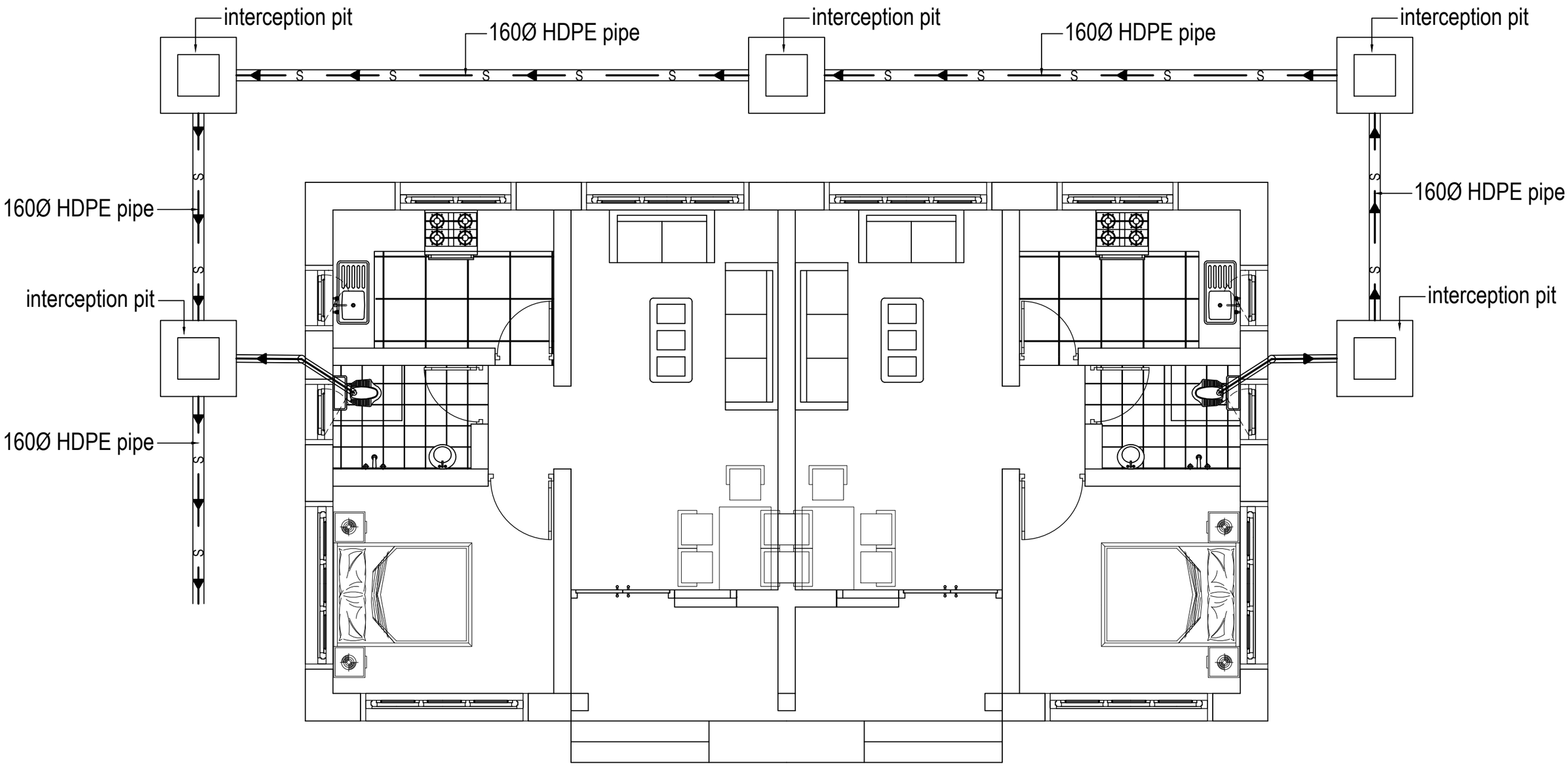
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_WASTE_WATER_AND_SEWER_LINE_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_02
			SCALE
			NTS



ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	OVERALL_SEWER_LINE_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_03
			SCALE
			NTS

STRUCTURE DRAWINGS

CARETAKER AND DRIVER'S QUARTER

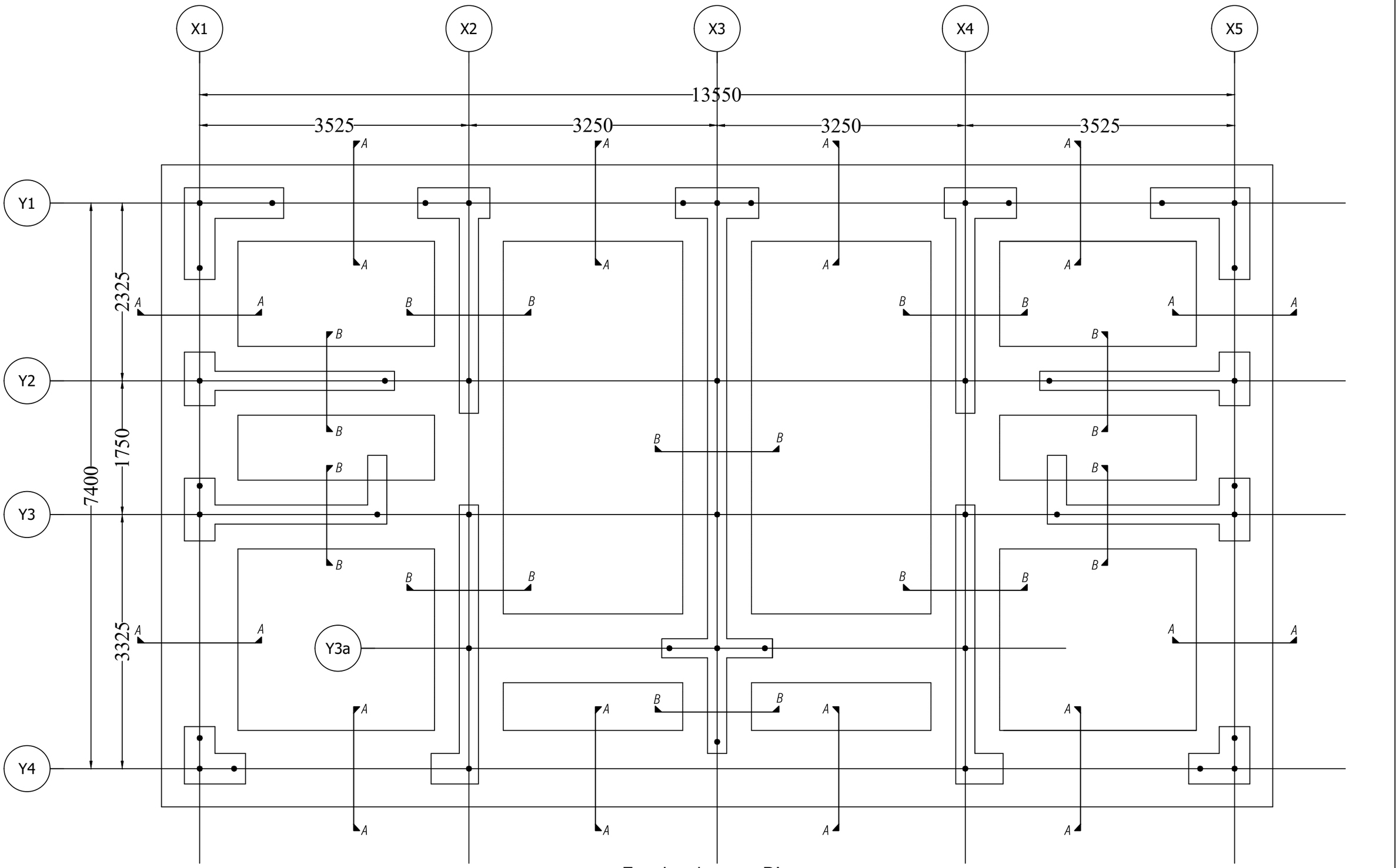
Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu

GENERAL STRUCTURAL DESIGN NOTES

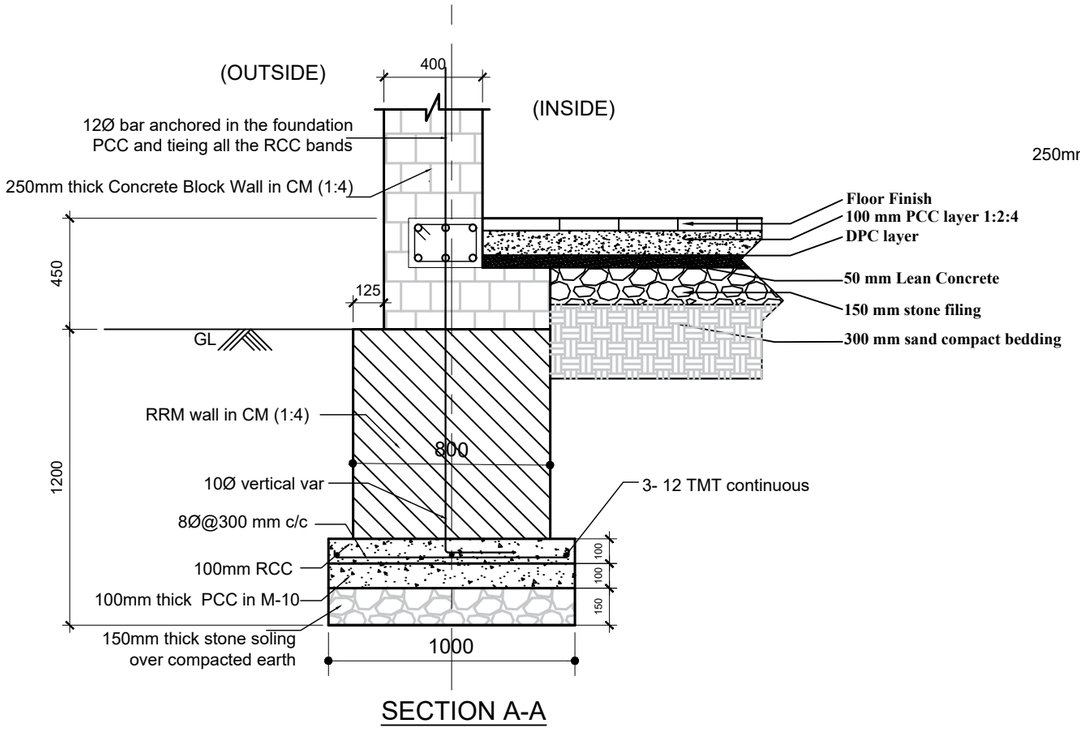
1. All dimension in mm unless otherwise mentioned
2. Structural drawing shall be read in conjunction with the Architectural drawing
3. Code of practice referred
    - IS 456-2000, code of practice for plain and RCC
    - IS 13920-1993, Ductile detailing for RCC
    - IS 4326-1993, Earthquake resistant design and construction of Building - Code of practice
4. Parameters assumed during the design
    - Bearing capacity of soil 150KN/Sq.m
    - Grade of concrete - M20
    - Grade of steel - Fe 500 TMT steel
    - Density of RCC - 25KN/Sq.m
    - Density of Brick - 19KN/Sq.m
    - Density of Stone Boulder (CRM) - 23KN/Sq.m
    - Live Load on floor - 2KN/Sq.m
    - Live Load on roof- 0.75KN/Sq.m
5. Check all dimensions before commencing work
6. Additional information given on the drawing in the form of notes shall always be referred
7. Refer any discrepancy to the engineer before proceeding with the work
8. No duct/conduit shall pass through Bands
9. One storey load bearing structure with Brick in wall and Brick in partitions, Tubular Trusses, CGI Roofing
10. The cover to the reinforcement shall not be less than the following
    - Beams - 25mm
    - Columns - 40mm
    - Floor slabs - 20mm
    - Foundations - 50mm

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_01
	Construction of BHU Building and Auxiliary Work / SRUCTURE_NOTE				Sep, 2026	**SCALE** NTS

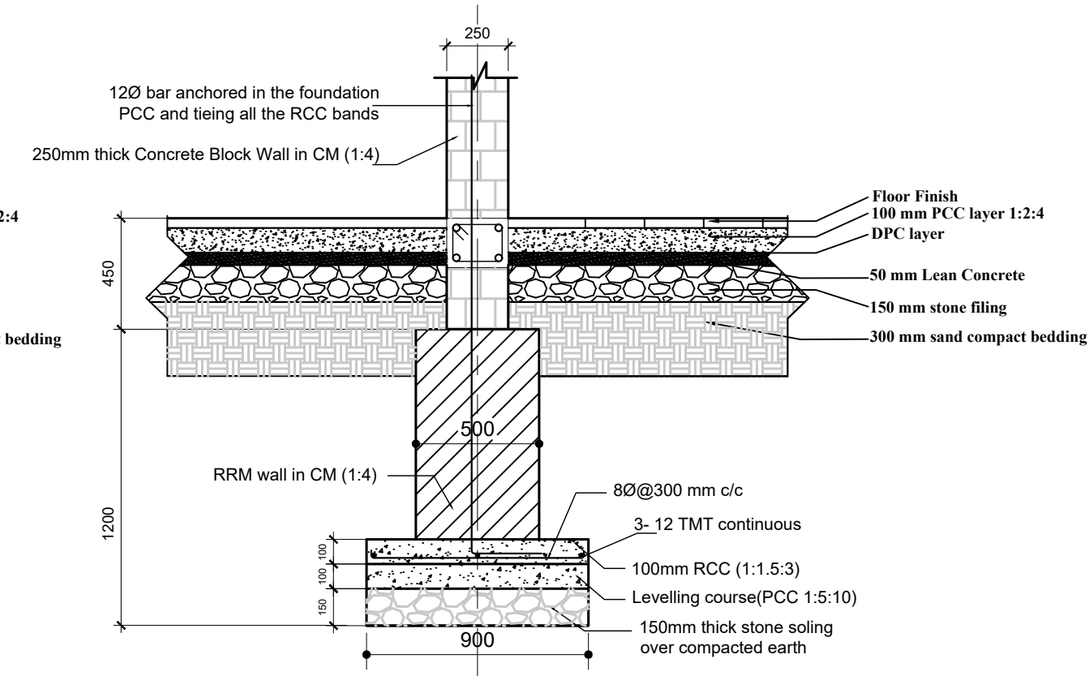


Footing Layout Plan

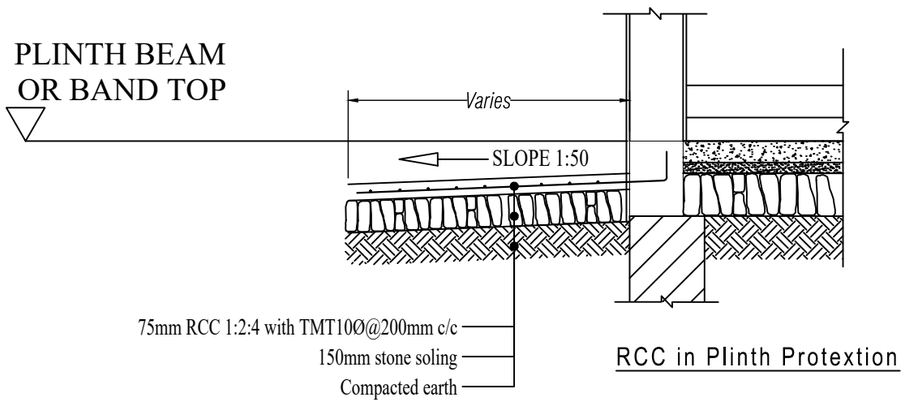
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_02
	Construction of BHU Building and Auxiliary Work / FOOTING_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS



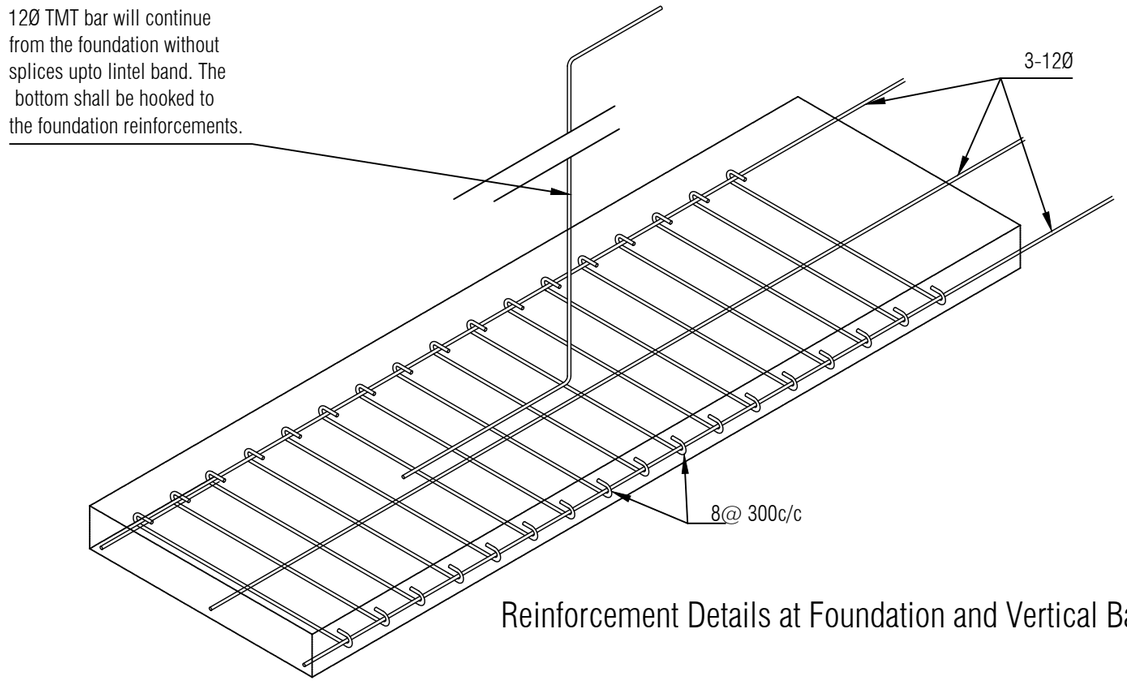
SECTION A-A



SECTION B-B



RCC in Plinth Protextion



Reinforcement Details at Foundation and Vertical Bar

Khorlochhu

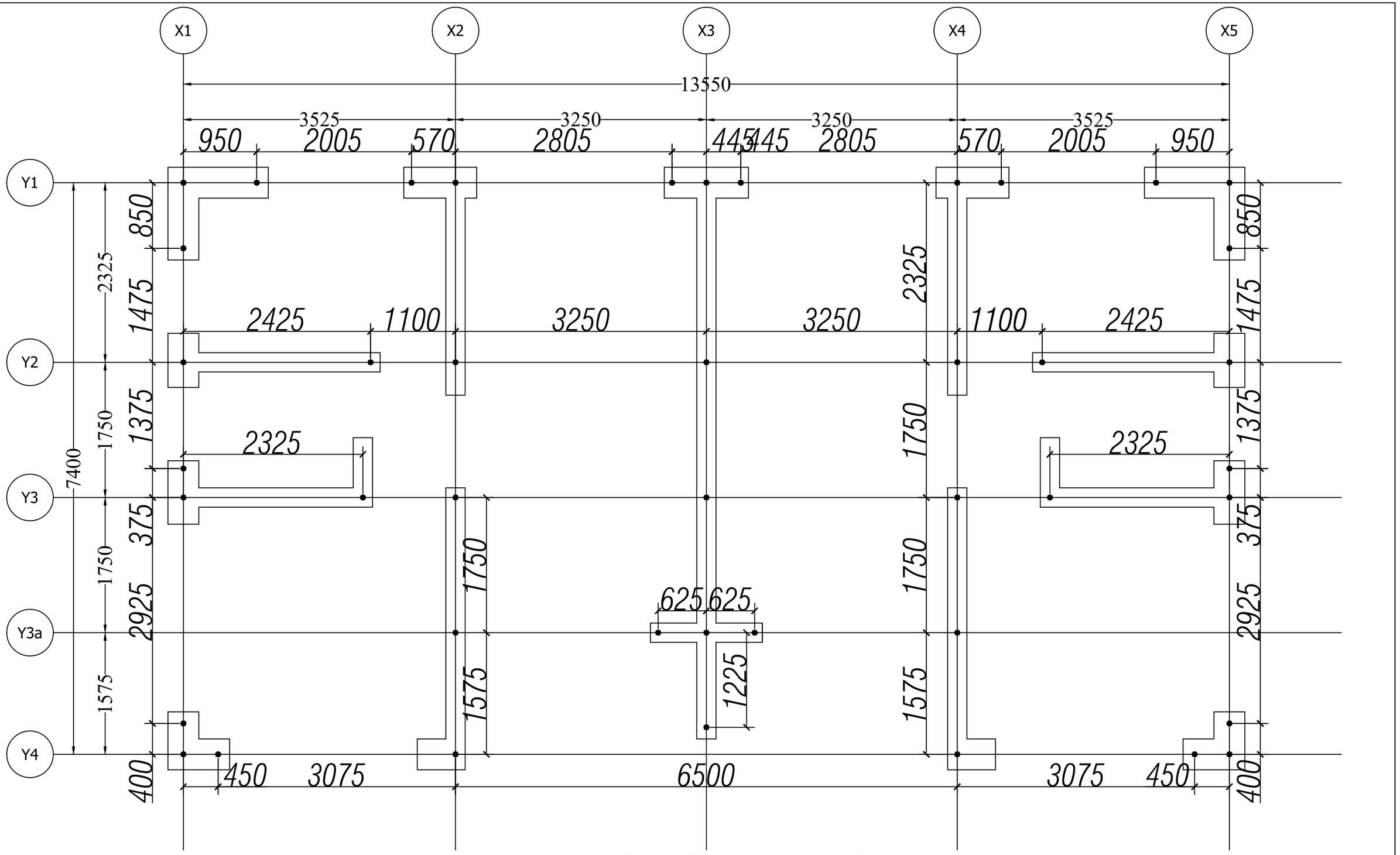
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTING_DETAILS

NOTES

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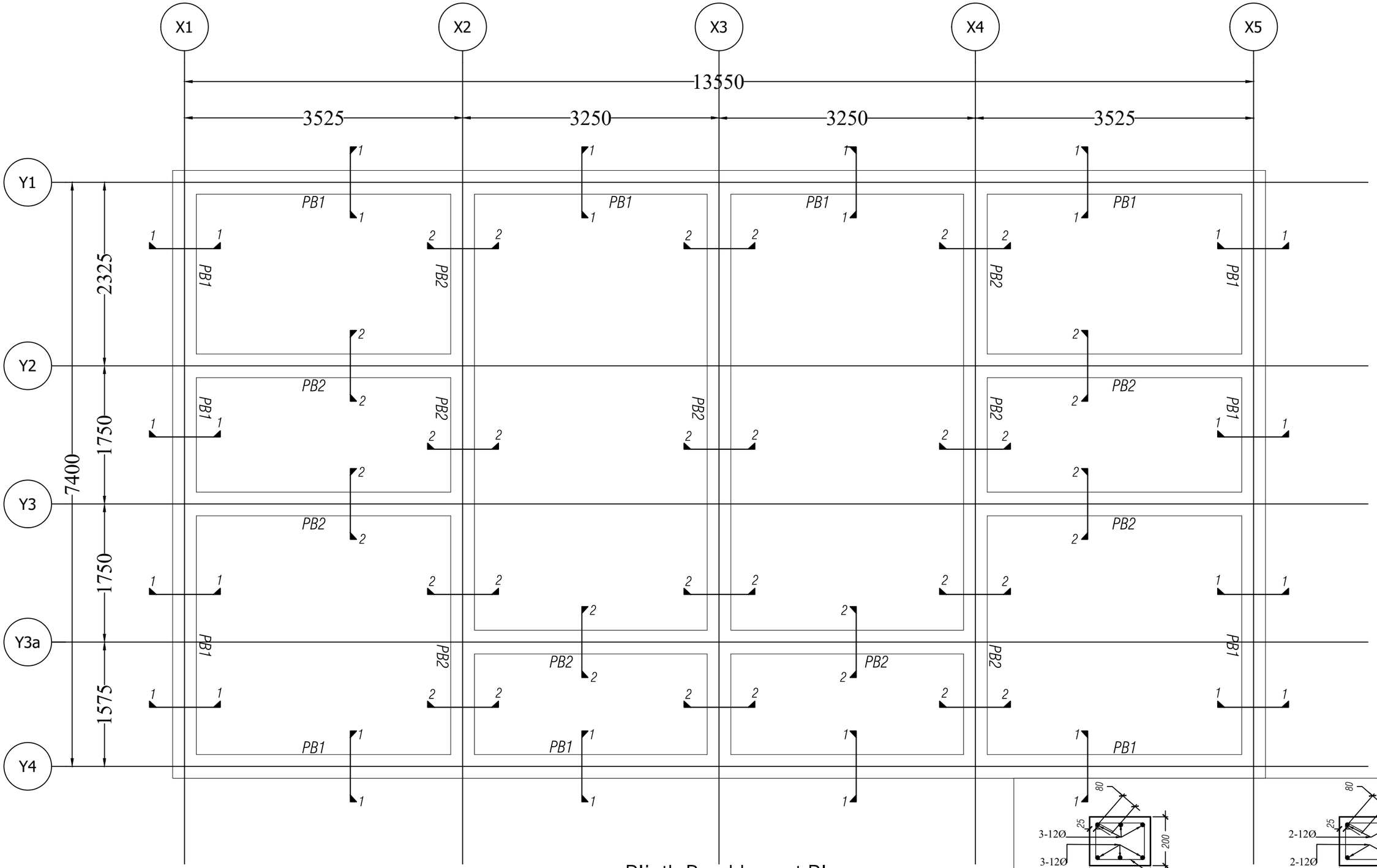
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_03
			SCALE
			NTS



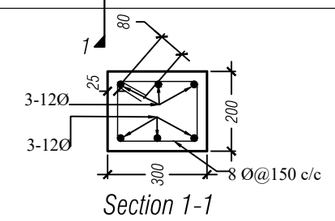
Vertical Bar Placement Layout Plan

Note : All vertical bars are 12Ø TMT

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_04
	Construction of BHU Building and Auxiliary Work / VERTICAL_BAR_PLACEMENT_DETAILS				Sep, 2026	**SCALE** NTS

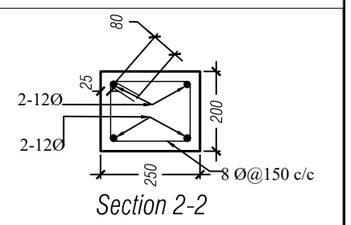


Plinth Band Layout Plan



Section 1-1

PB1 - Plinth Band 1



Section 2-2

PB2 - Plinth Band 2

Khorlochhu

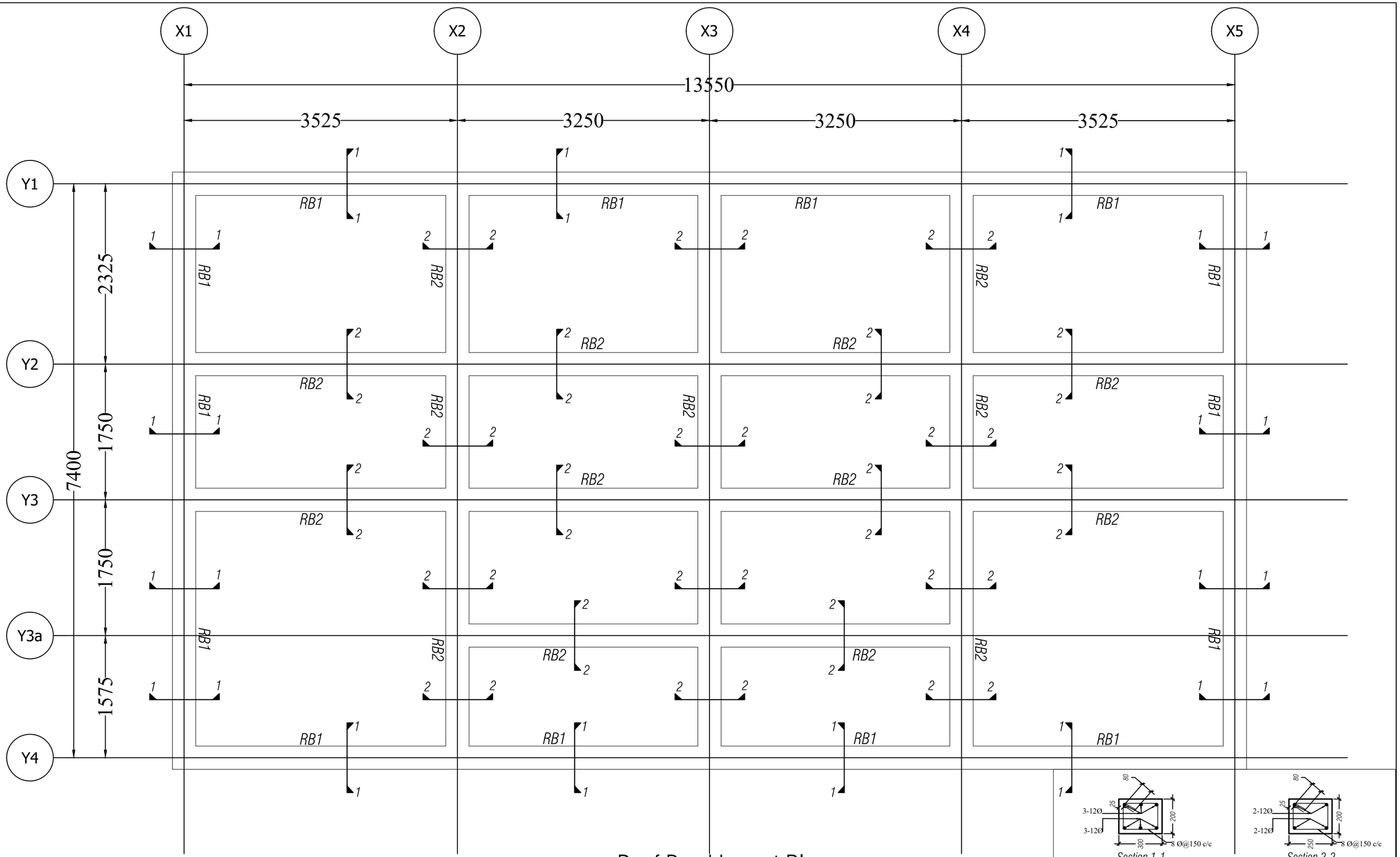
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	PLINTH_BAND_LAYOUT_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_05
			SCALE
			NTS



Roof Band Layout Plan

Section 1-1

RB1 - Roof Band 1

Section 2-2

RB2 - Roof Band 2

Khorlochhu

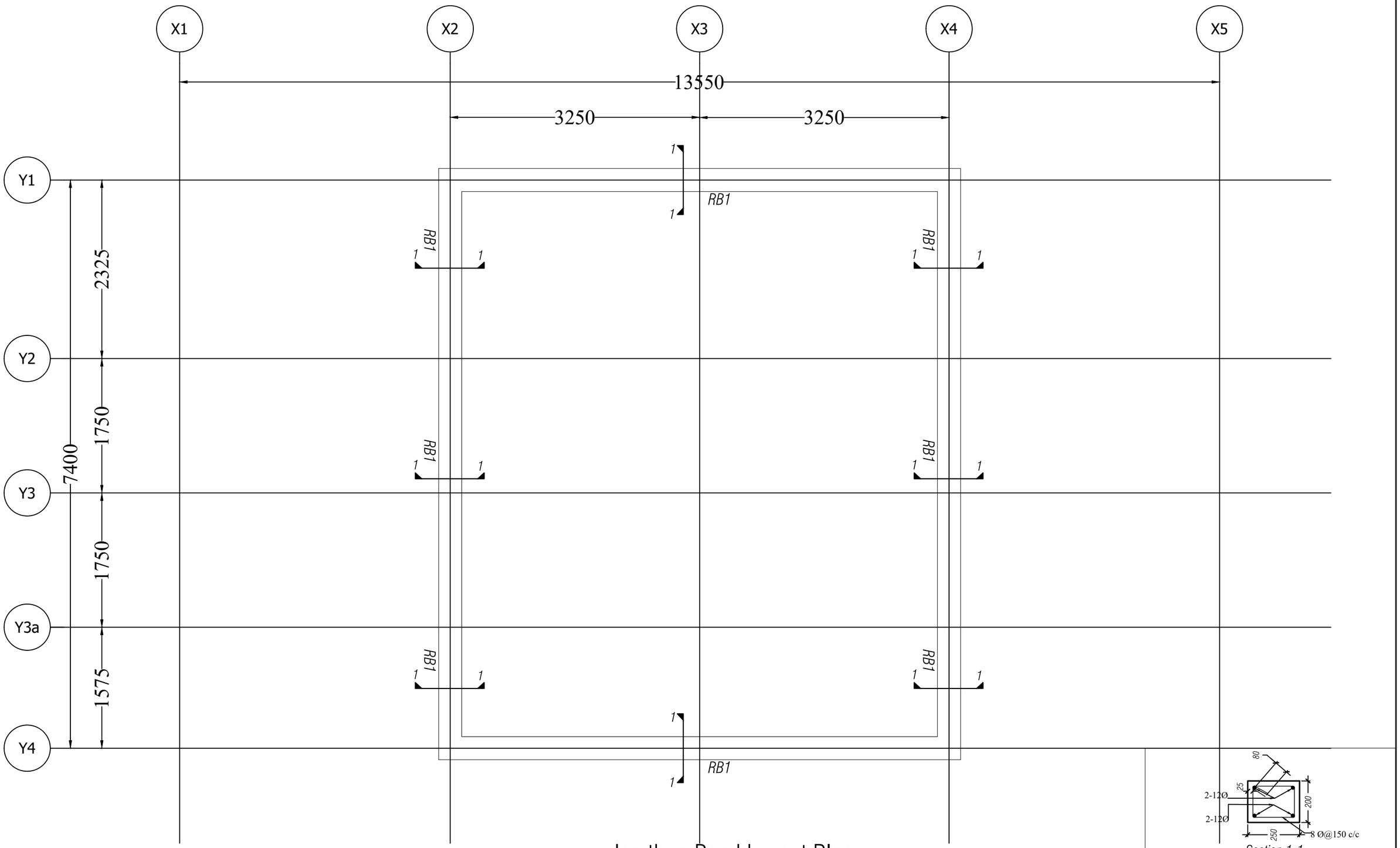
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_BAND_LAYOUT_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_06
			SCALE
			NTS



Jamthog Band Layout Plan

Section 1-1

RB1 - Roof Band 1

Khorlochhu

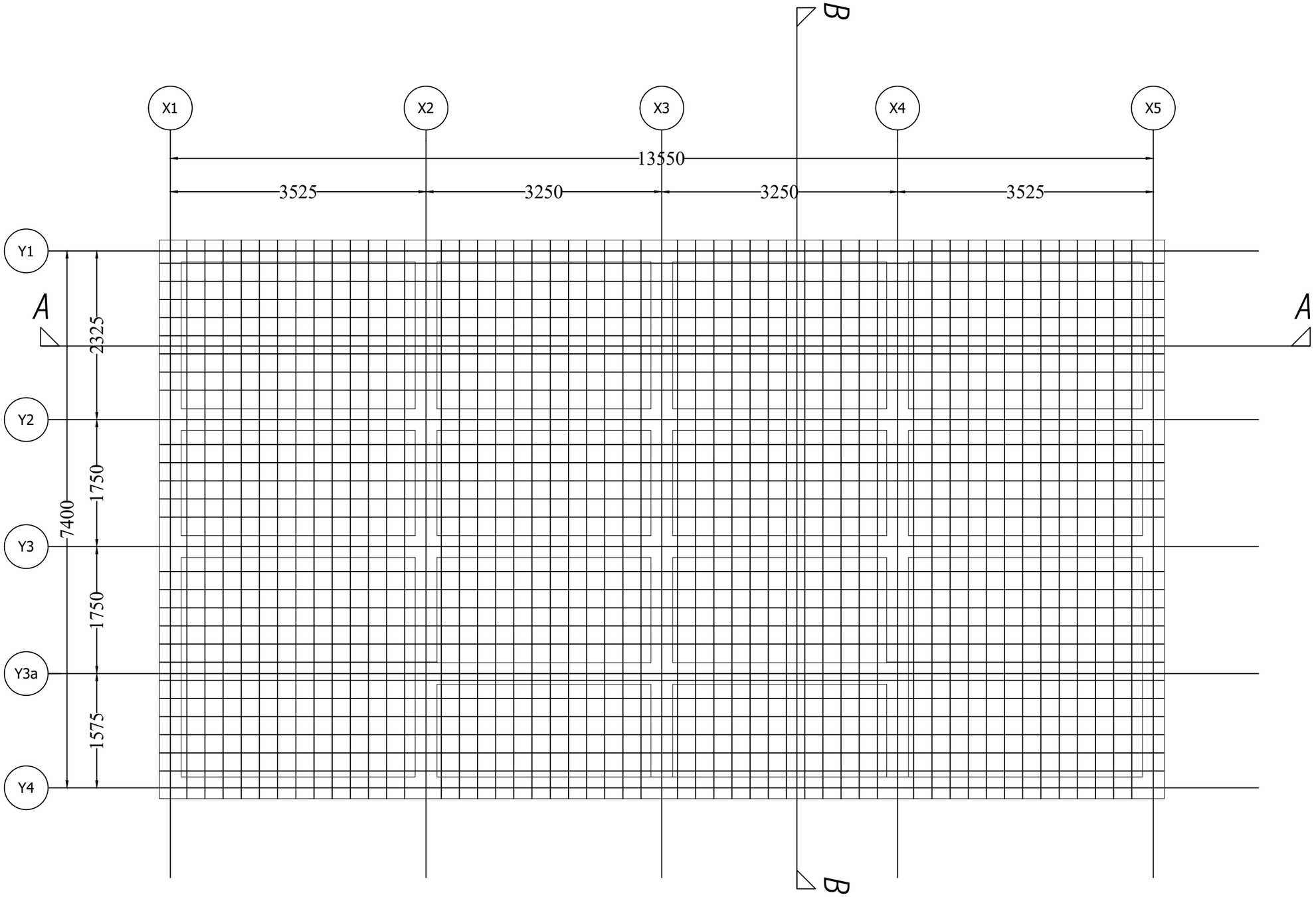
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	JAMTHOG_BAND_LAYOUT_PLAN

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_07
			SCALE
			NTS



Roof Slab Layout Plan-Bottom Reinforcement

Note : 150mm thick slab

: 10 Ø at 160 C/C

: For Projections refer Architecture Drawings

Khorlochhu

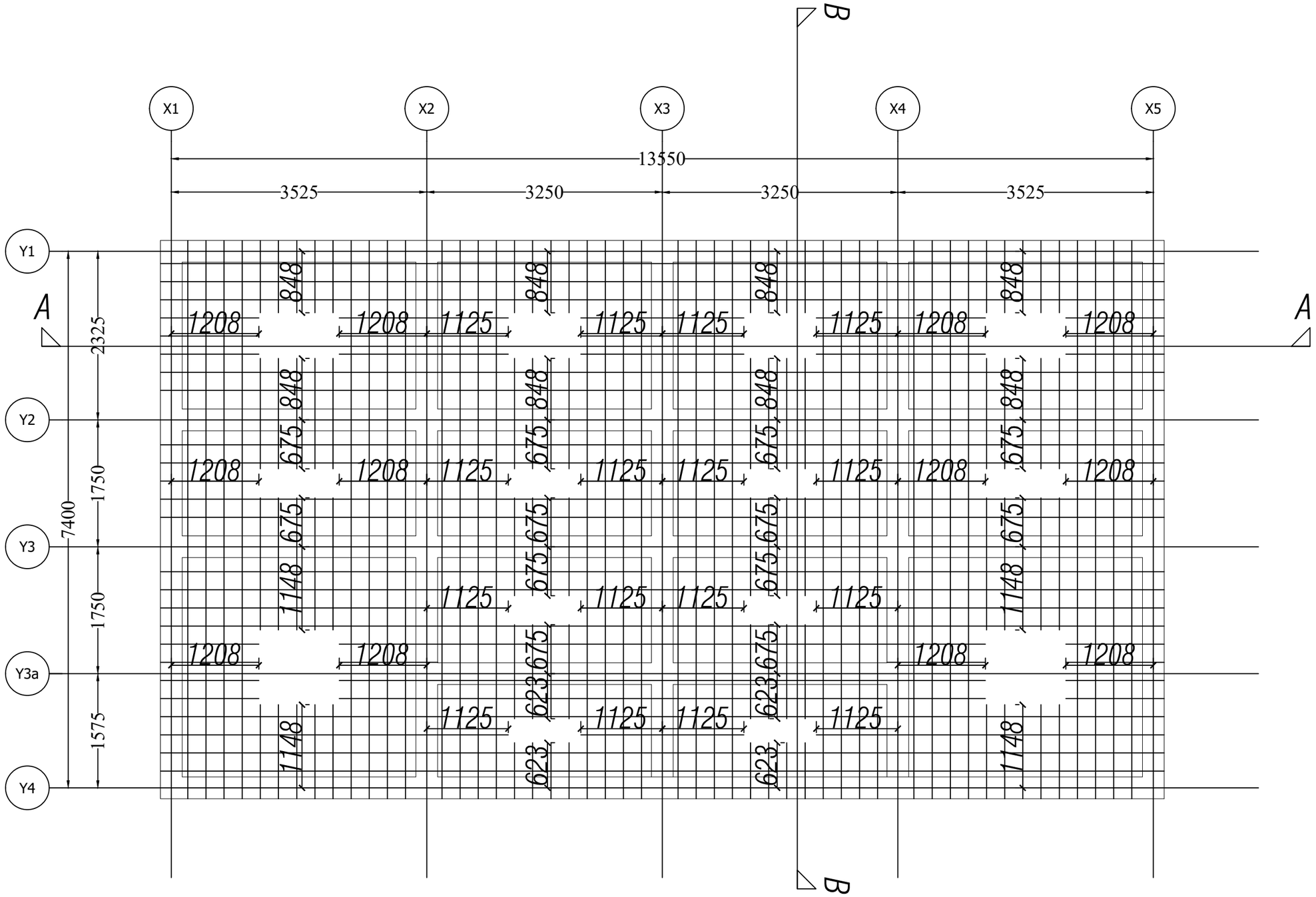
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SLAB_LAYOUT_PLAN-BOTTOM_REINF

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_08
			SCALE
			NTS



Roof Slab Layout Plan-Top Reinforcement

Note : 150mm thick slab

: 10 Ø at 160 C/C

: For Projections refer Architecture Drawings

Khorlochhu

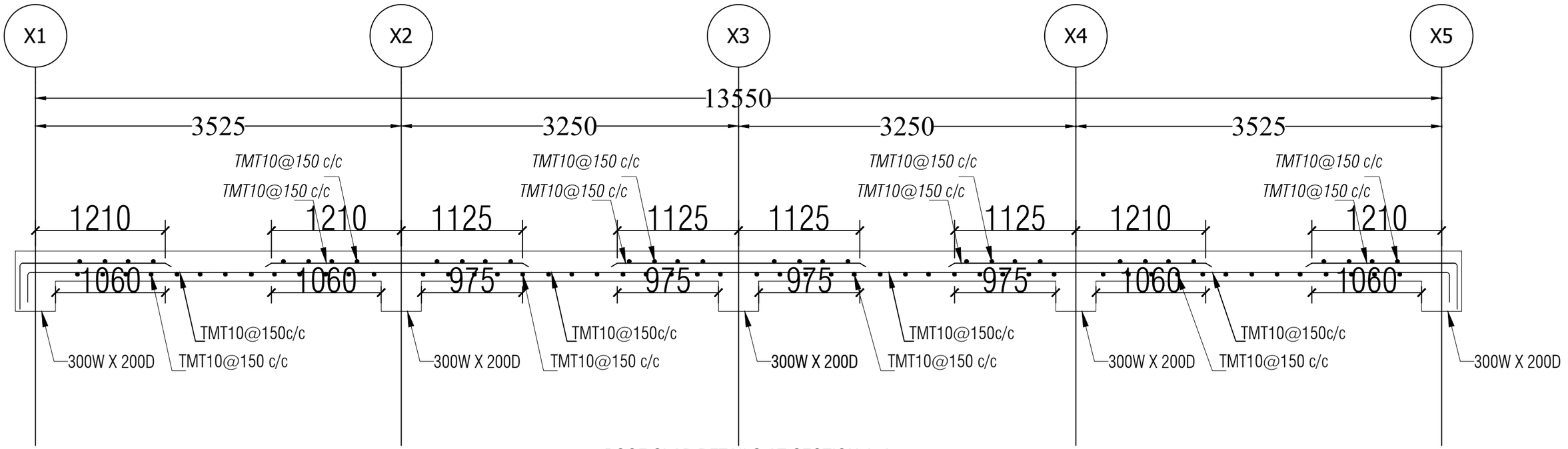
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SLAB_LAYOUT_PLAN_TOP_REINF

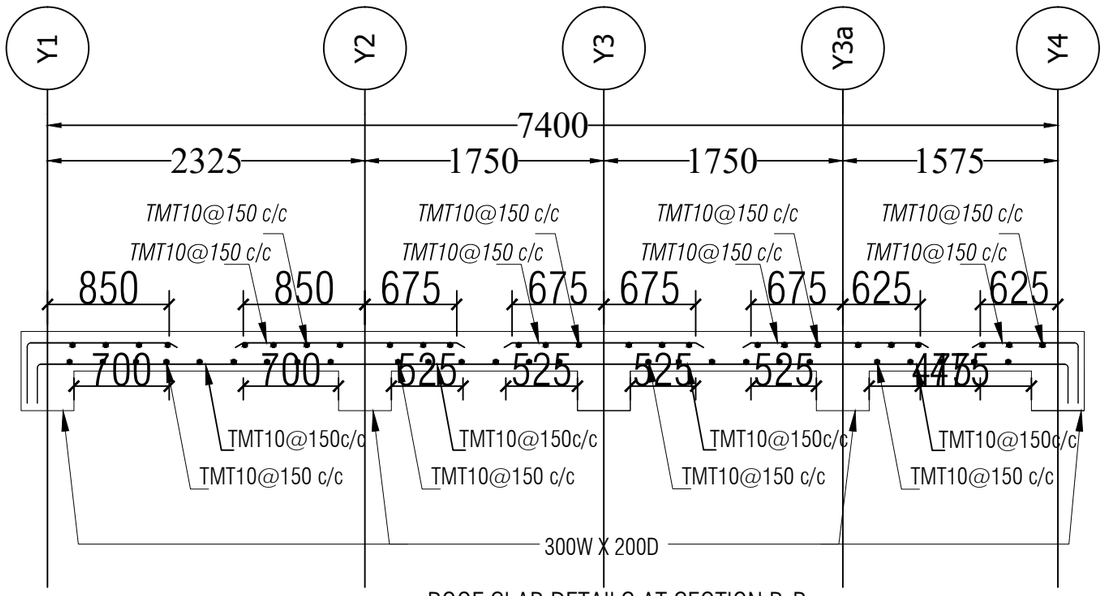
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_09
			SCALE
			NTS



ROOF SLAB DETAILS AT SECTION A-A
(NOTE: 150MM THICKNESS OF SLAB)



ROOF SLAB DETAILS AT SECTION B-B
(NOTE: 150MM THICKNESS OF SLAB)

Khorlochhu

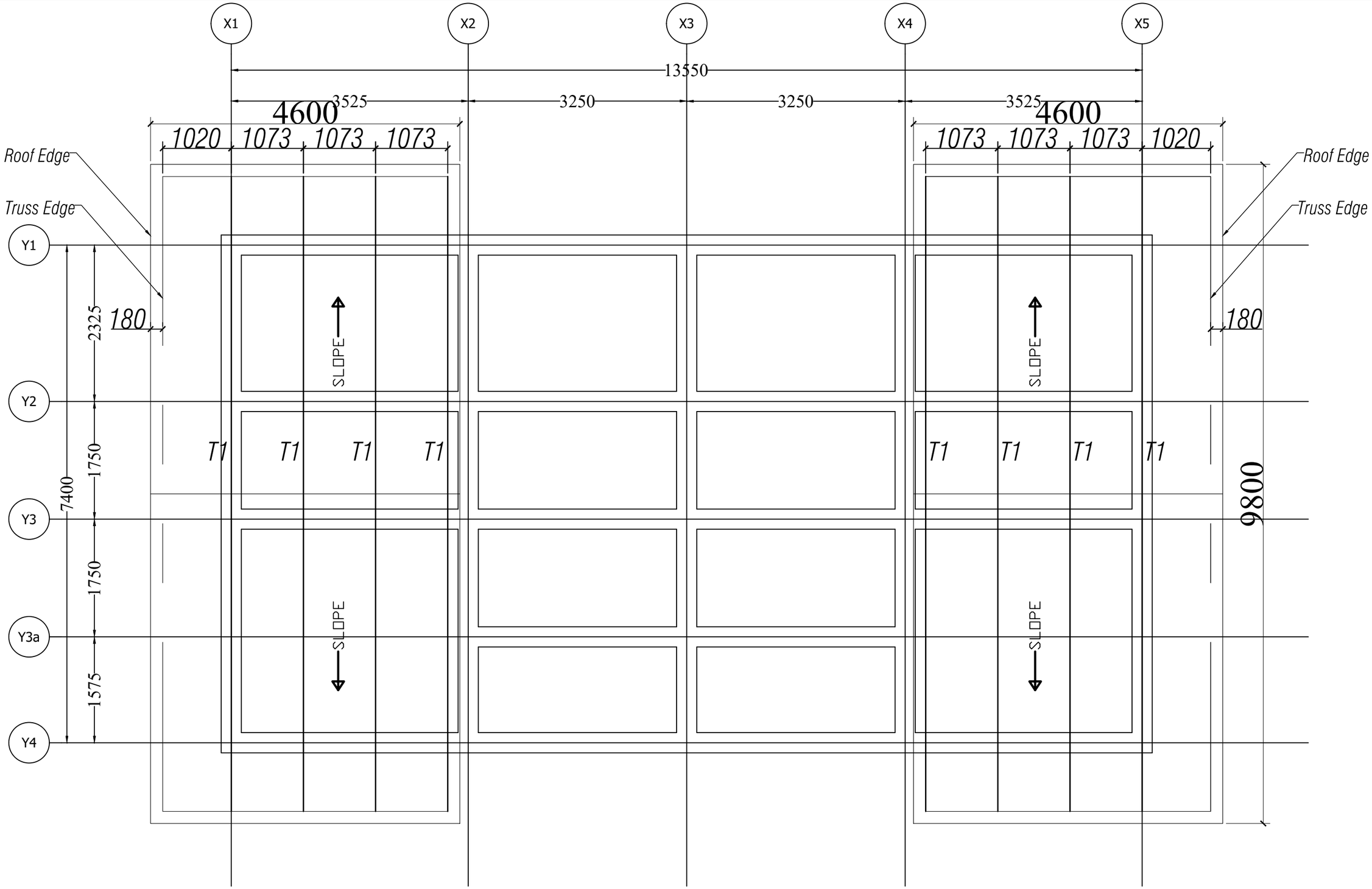
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SLAB_DETAILS

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_10
			SCALE
			NTS



Main Truss Layout Plan

Khorlochhu

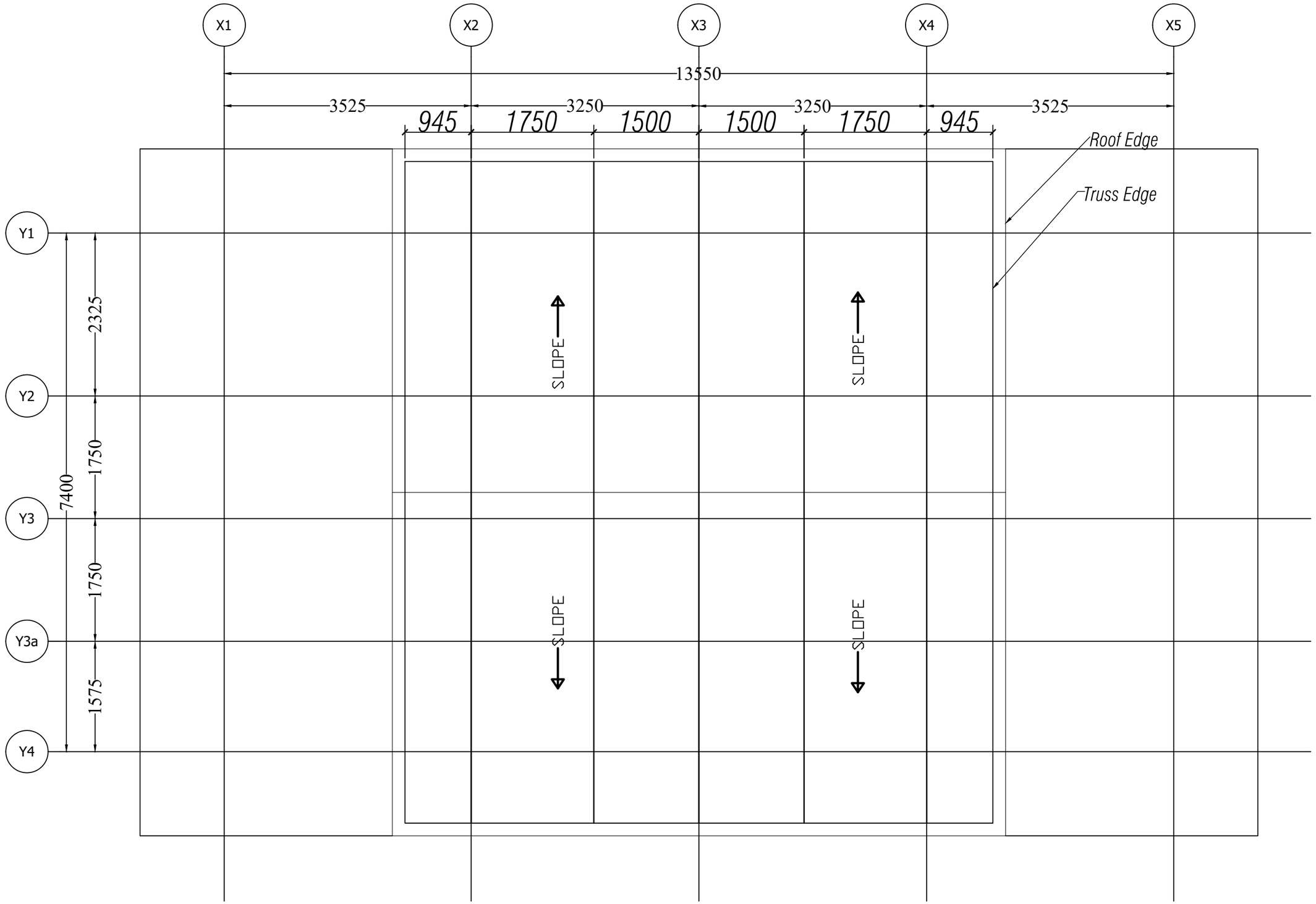
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_LAYOUT

NOTES

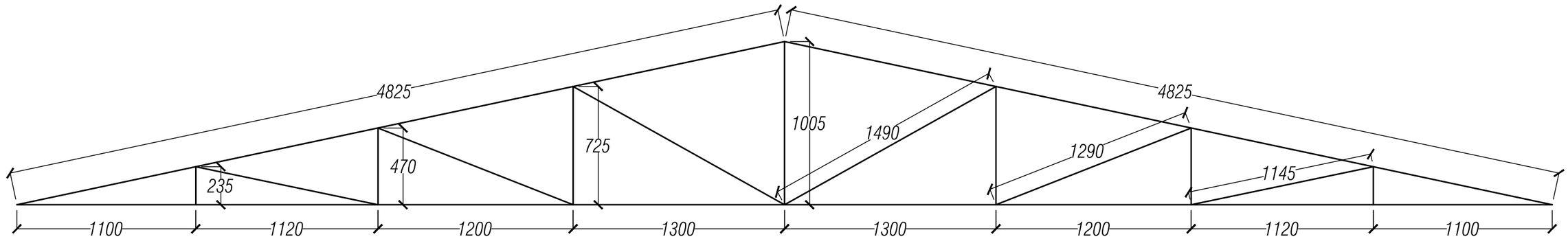
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_11
			SCALE
			NTS

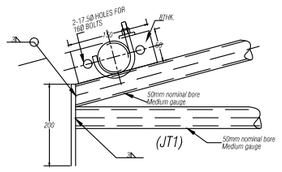


Main Truss Layout Plan

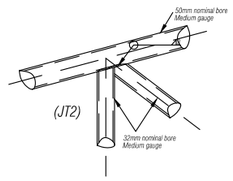
Khorlochhu	**STRUCTURAL DRAWING**		**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE	**DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			STR_12
	Construction of BHU Building and Auxiliary Work	TRUSS_LAYOUT			Sep, 2026	**SCALE** / NTS



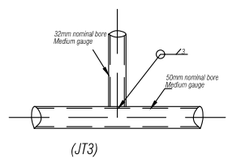
Truss 1 (T1)



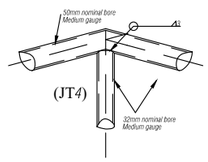
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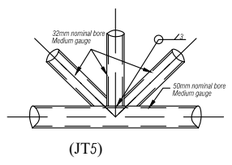
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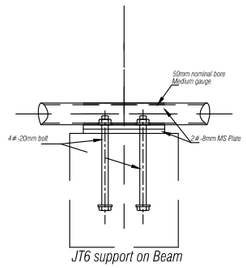
(JT3)



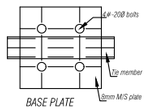
(JT4)



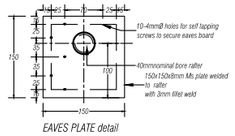
(JT5)



JT6 support on Beam

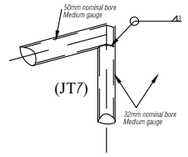


BASE PLATE

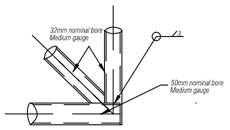


EAVES PLATE detail

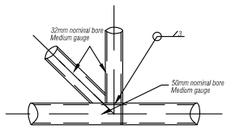
NOTES:
Tubular steel of YST22 grade to be used.
All connections to be with fillet weld of 3mm size
Purlin 40mm nominal bore, medium gauge @1200c/c



(JT7)



(JT8)



(JT9)

SCHEDULE OF TRUSS MEMBERS

Sl.No	Particulars	Size	Nominal Bore (NB)	Class
1.	Rafter & Bottom Chord	60.30 OM	50	Medium
2.	Vertical & Inclined Chord	48.30 OM	50	Medium
3.	Purlin	48.30 OM	32	light
PURLINS SHALL BE PROVIDED @ 1200 mm C/C				
NOTE: Truss Angle is 12°				

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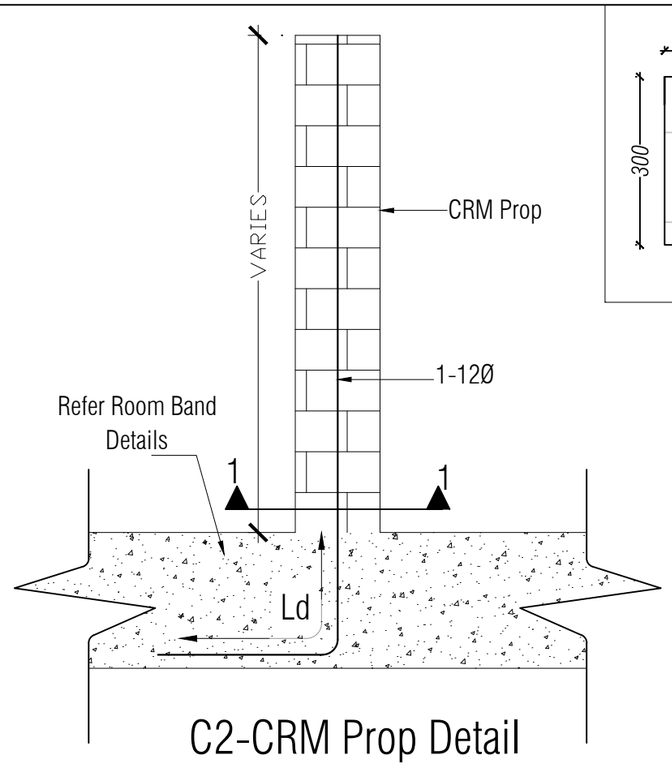
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_LAYOUT

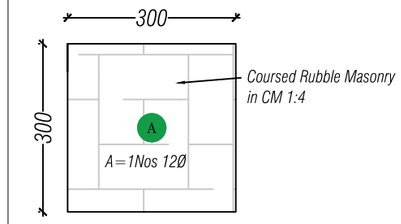
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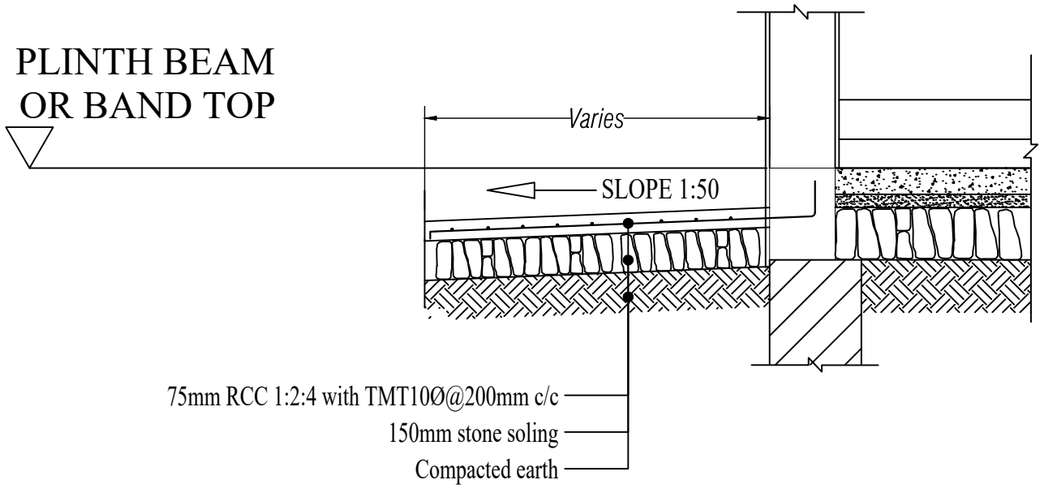
1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_13
			SCALE
			NTS

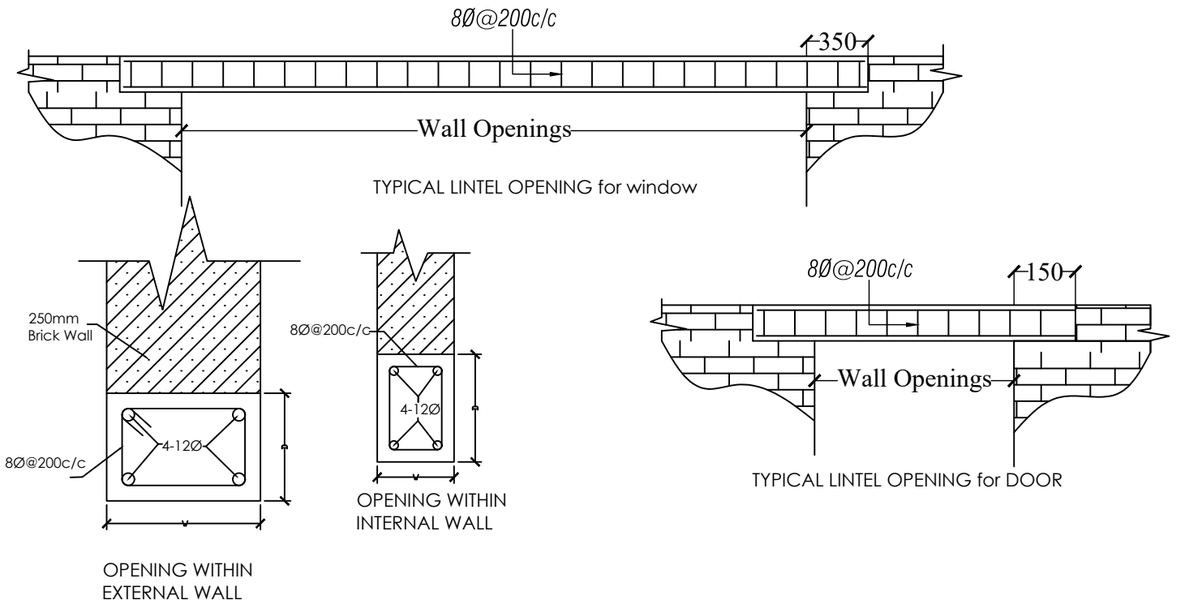


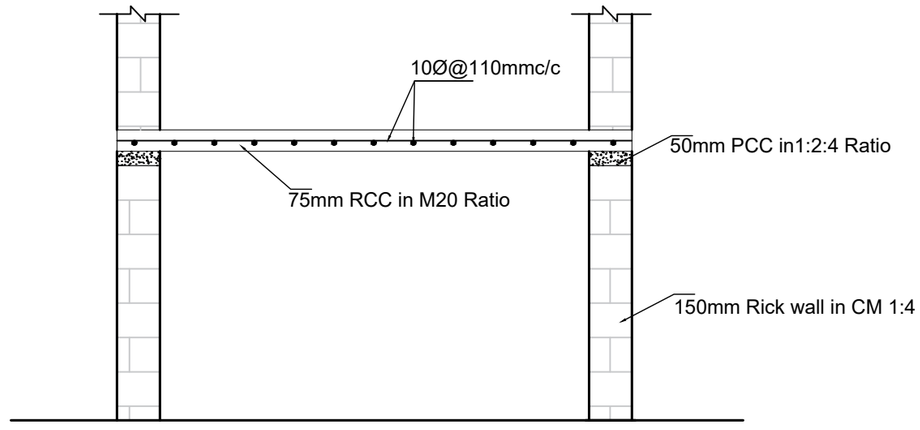
C2-CRM Prop Detail





RCC in Plinth Protextion





NOTES:
Grade of Steel - TMT500 bars
Grade of Concrete - M20
Clear cover to steel - 25mm (minimum)
Dimension of cut out varies as per the size of the basin
Cutout in slab to be referred as architectural drawing

NOTE :

1. Depth (D) of Lintels is to be taken as shown in Architectural drawings, especially for main windows and should be taken as 150mm for all other Lintels.
2. Width (W) of Lintels is to be taken equal to the wall thickness.

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	PLINTH_PROTECTION,_LINTEL,_PROPS

NOTES

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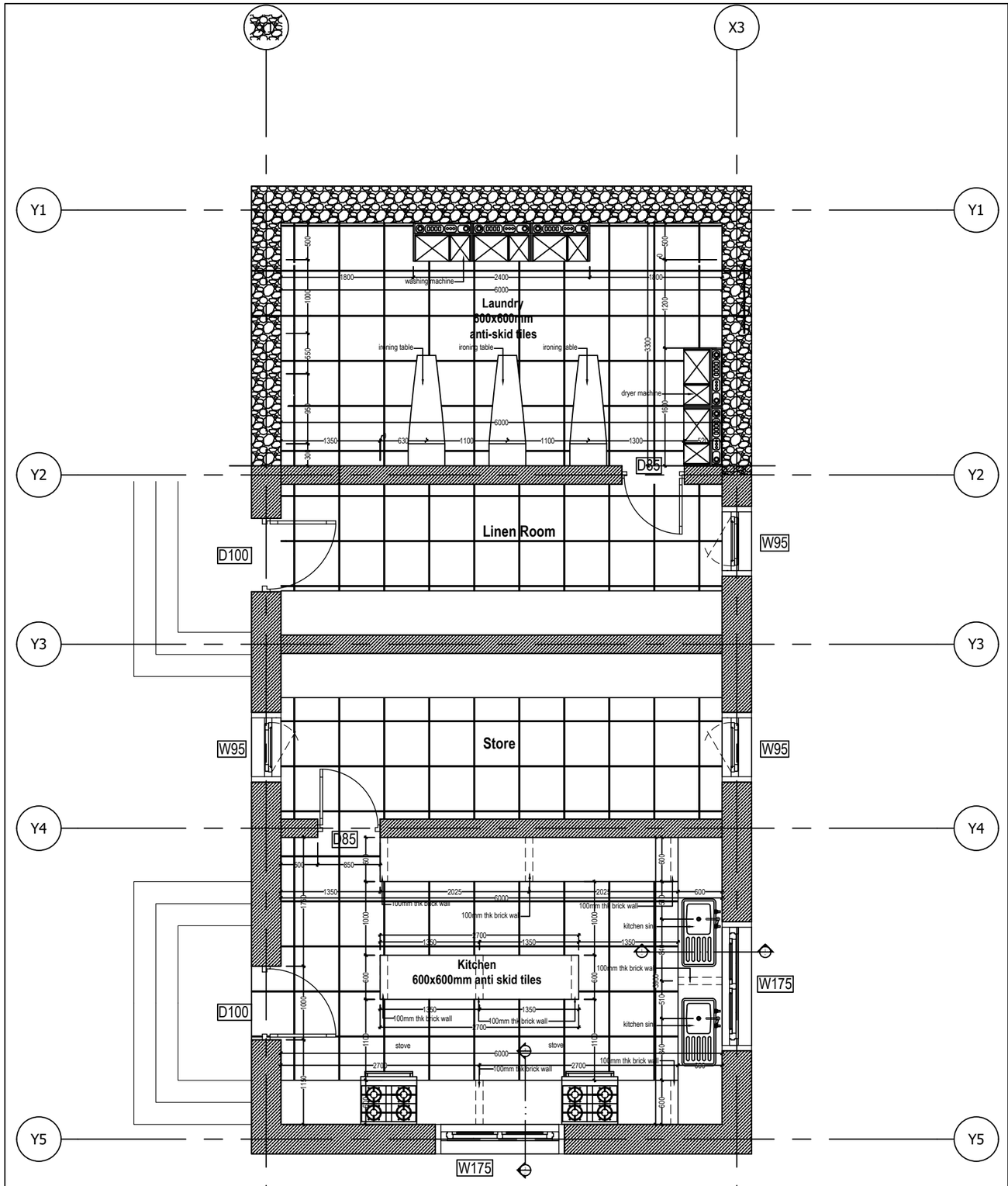
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		Sep, 2026	STR_14
			SCALE
			NTS

ARCHITECTURE DRAWINGS

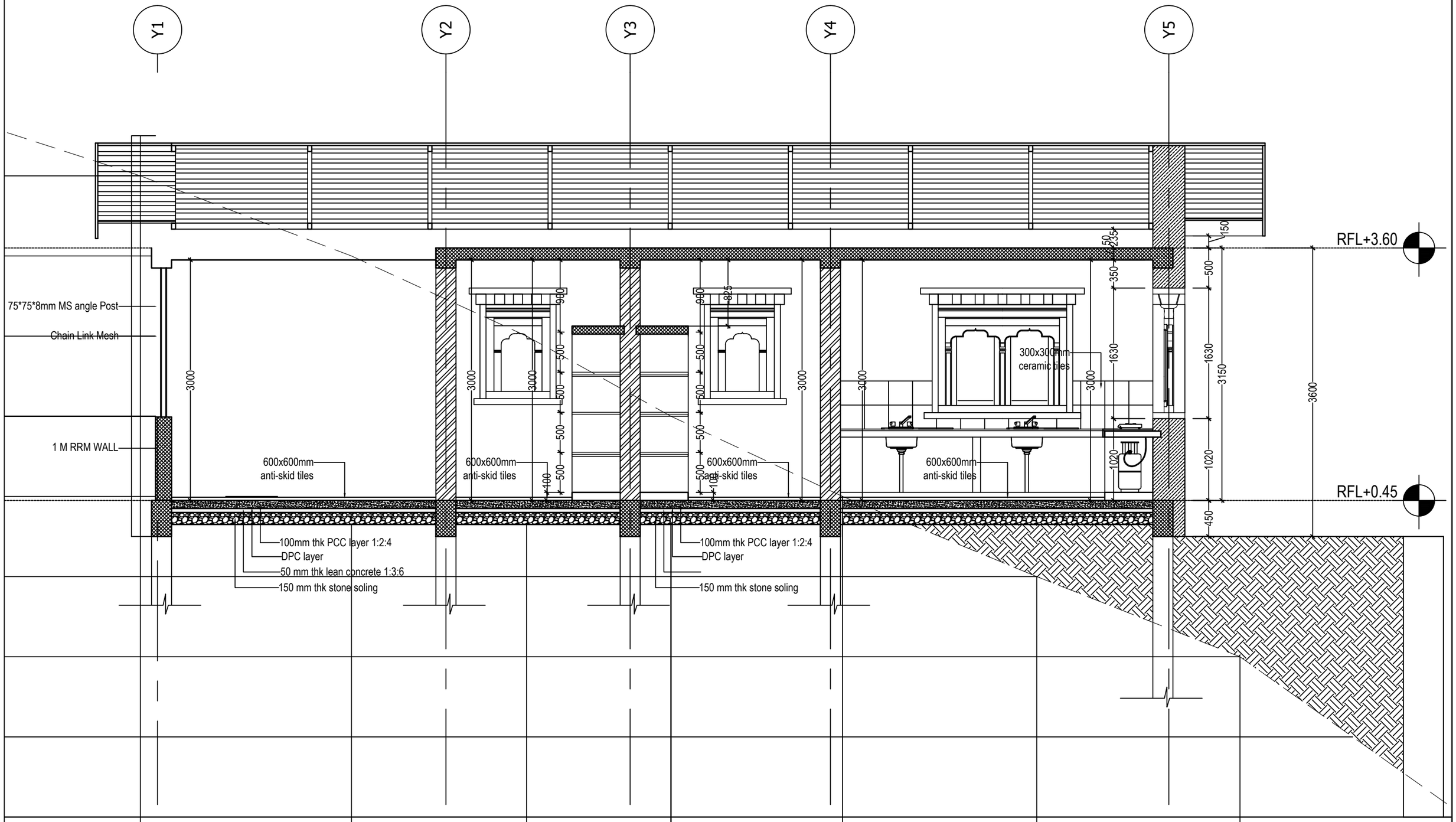
KITCHEN AND LAUNDRY

Owner - KHPL
Location - TRASHIYANGTSE

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Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE: Construction of BHU Building and Auxiliary Work	**DRAWING TITLE**: GROUND_FLOOR_AND_ROOF_PLAN			Sep, 2026 / AR_01
		1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			**SCALE**: NTS



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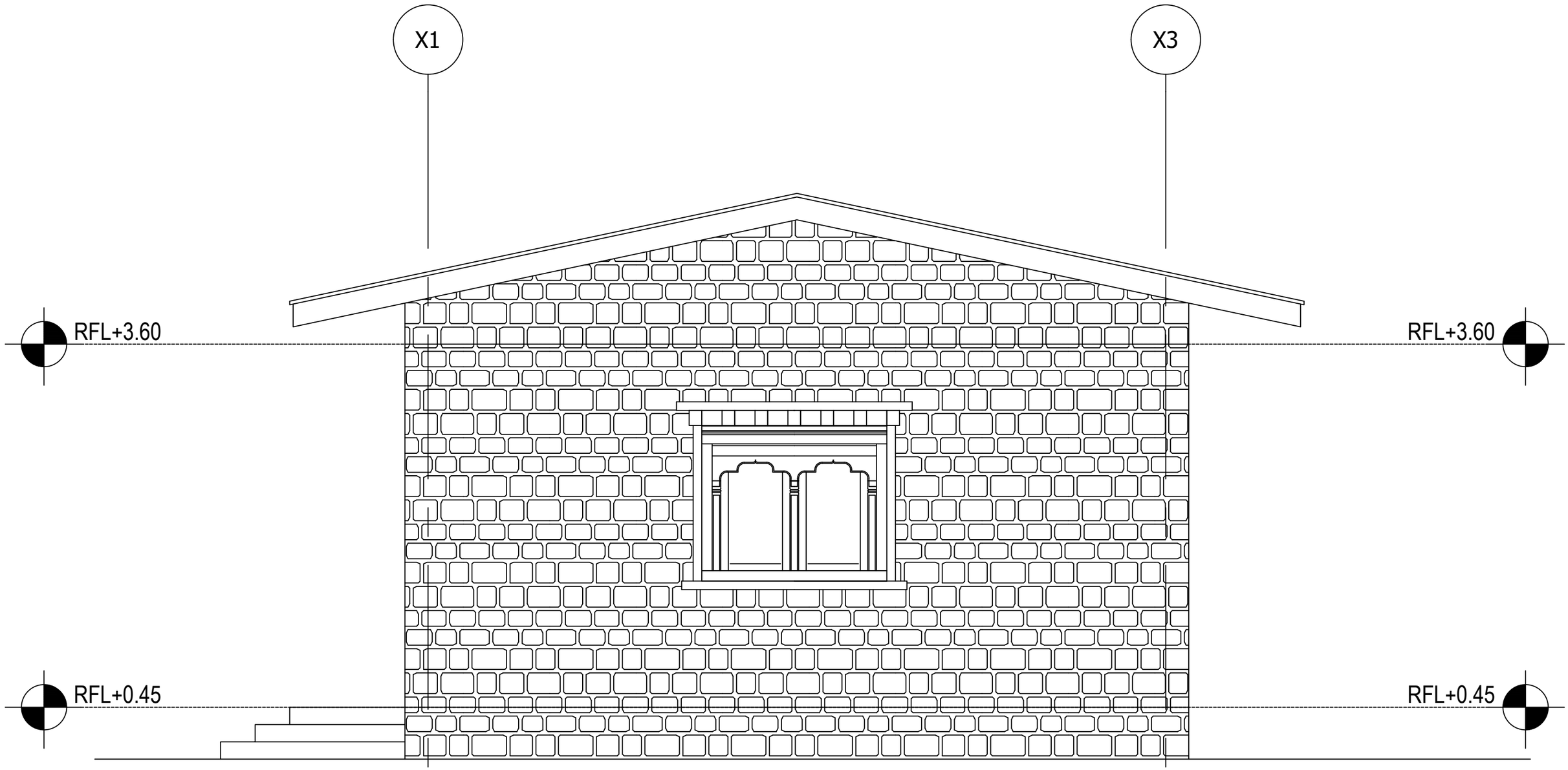
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SECTION_A-A

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_02
			SCALE
			NTS



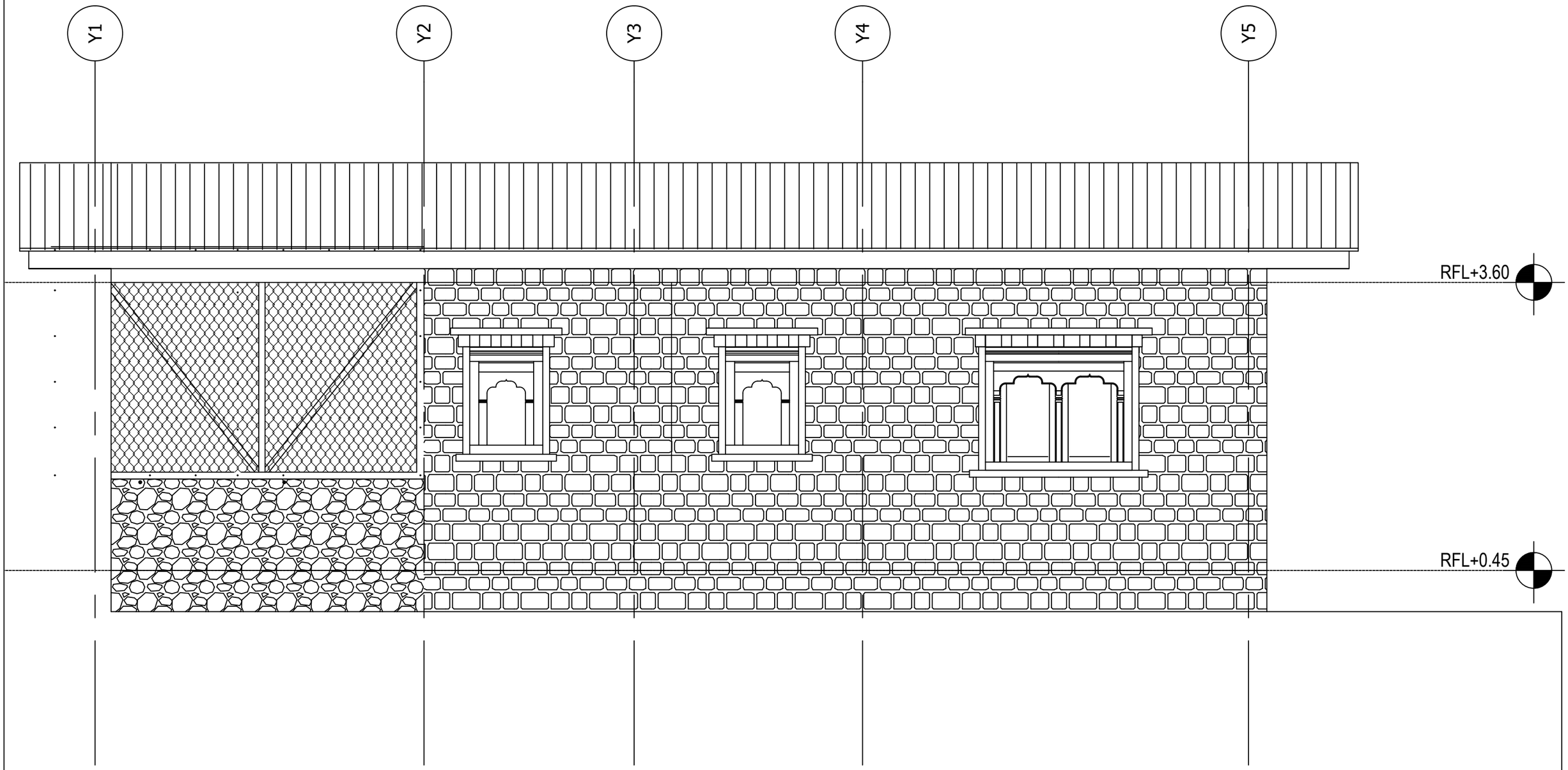
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_A

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



Khorlochhu

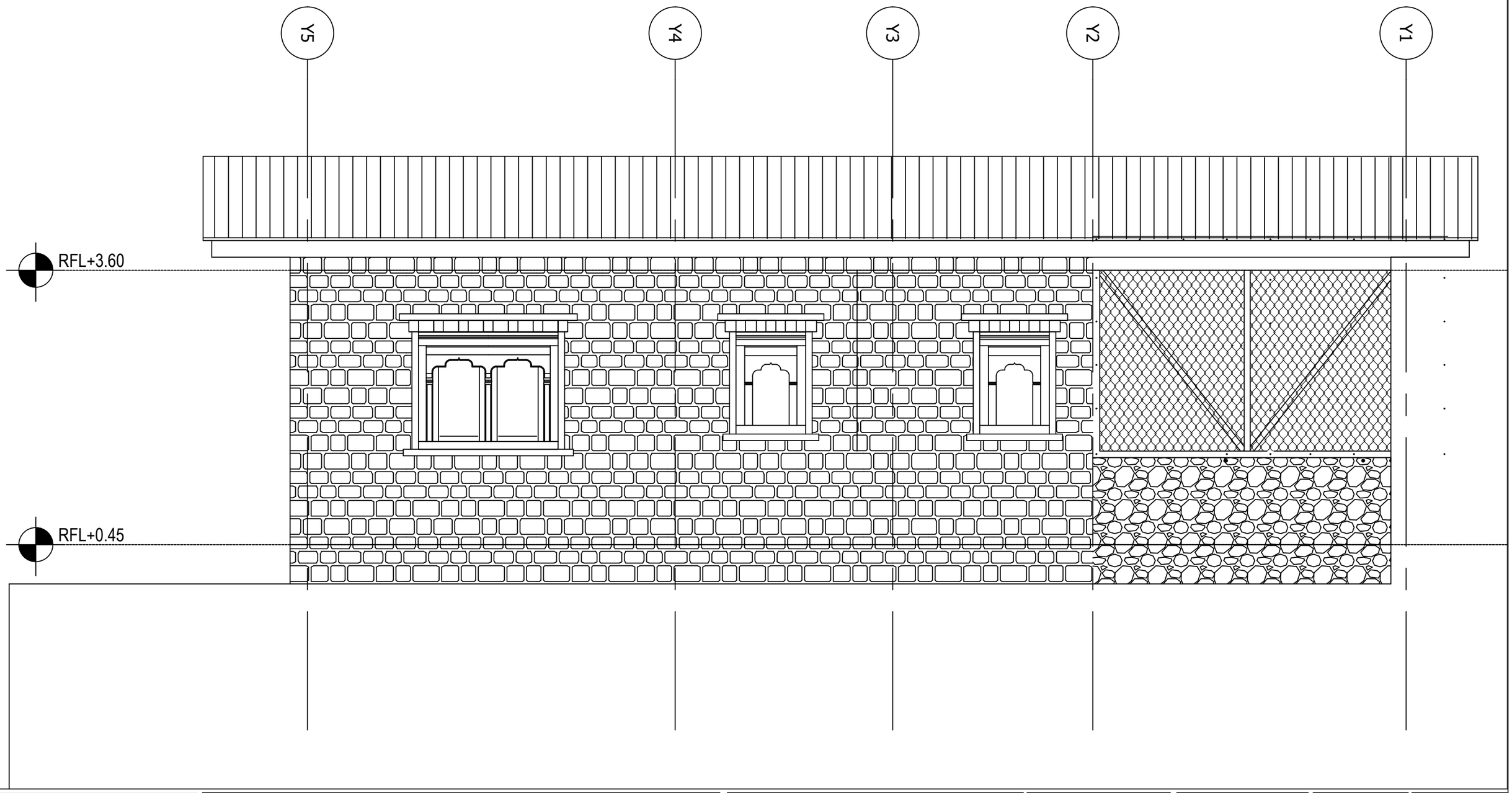
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_B

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_04
			SCALE
			NTS



ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ELEVATION_D

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	AR_05
			SCALE
			NTS

D85

W

W175

Kitchen
600x600mm anti skid tiles

500 850 600 1350 2025 6000 2025 600 1750 1000 600 1000 600 510

100mm thk brick wall

100mm thk brick wall

100mm thk brick wall

kitchen sink

2700 1350 1350 1350 840

100mm thk brick wall

3900 510

1350 1350 100mm thk brick wall

100mm thk brick wall 2700

kitchen sink

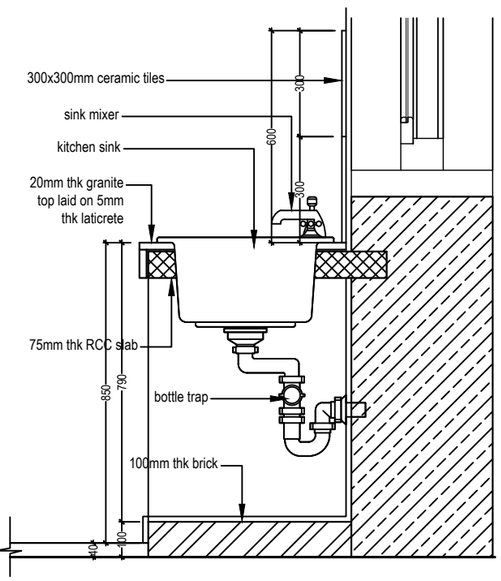
1100 stove stove 1100 840

6000

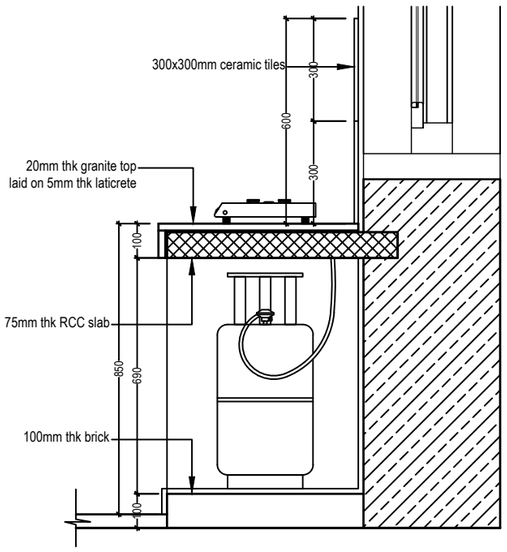
2700 100mm thk brick wall 2700 100mm thk brick wall 600

1150 600 600

PLAN



SECTION 1-1



SECTION 2-2

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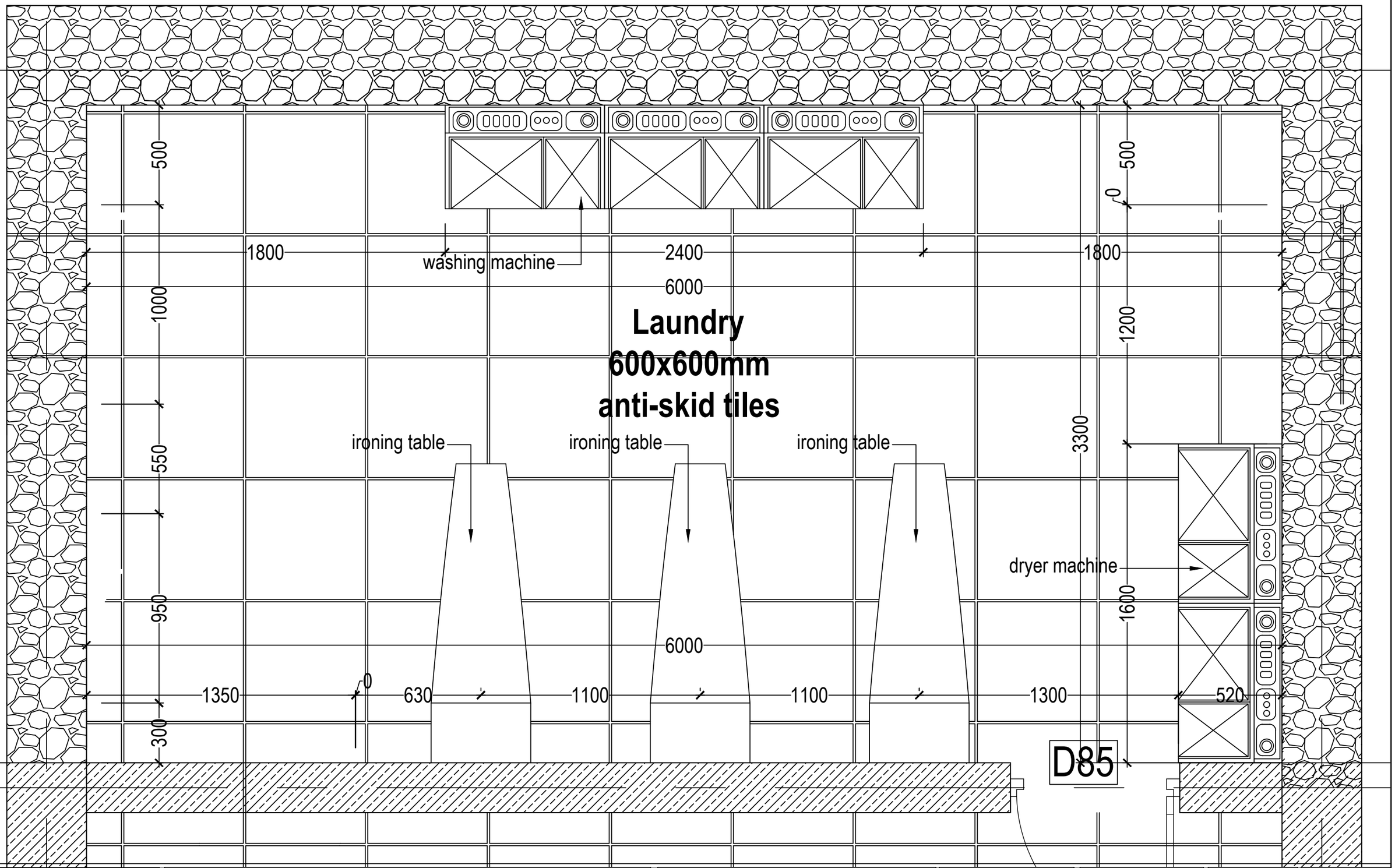
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	KITCHEN_DETAIL

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
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			SCALE
			NTS



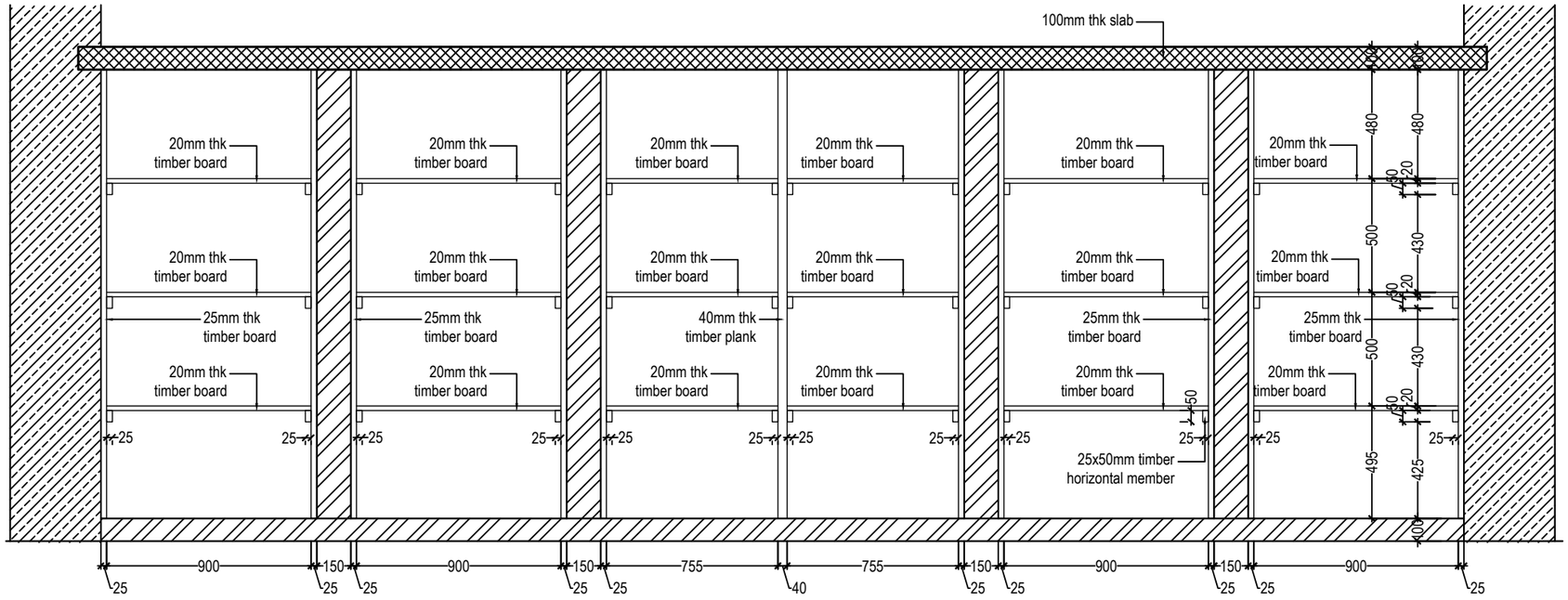
ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LAUNDRY_DETAIL

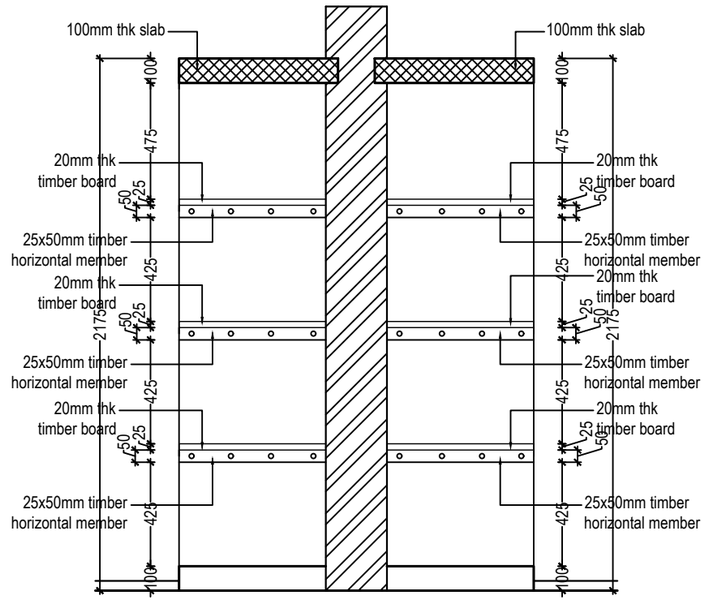
NOTES

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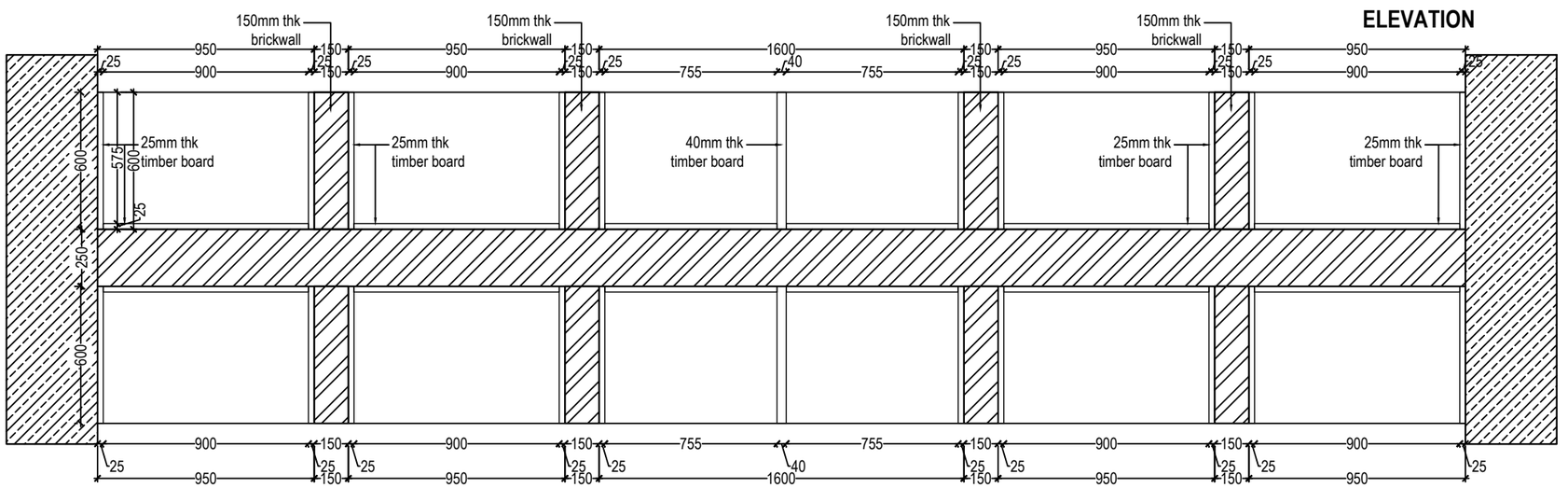
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		Sep, 2026	AR_07
			SCALE
			NTS



ELEVATION

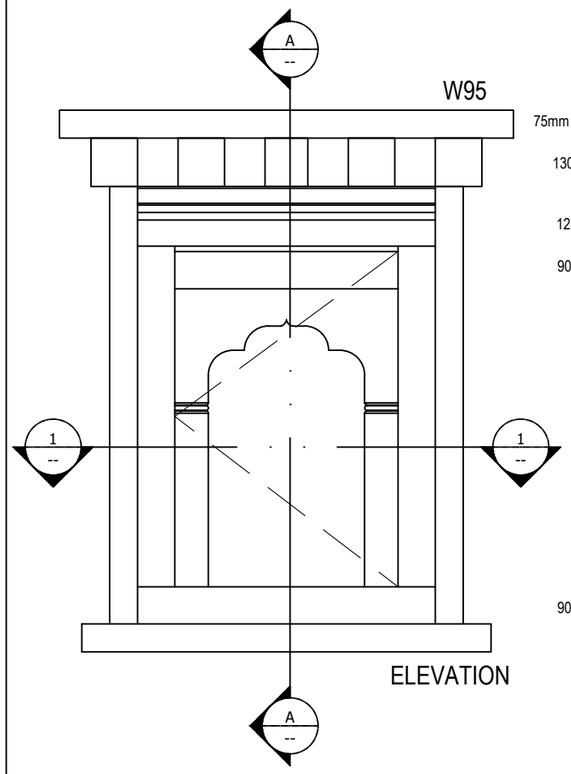


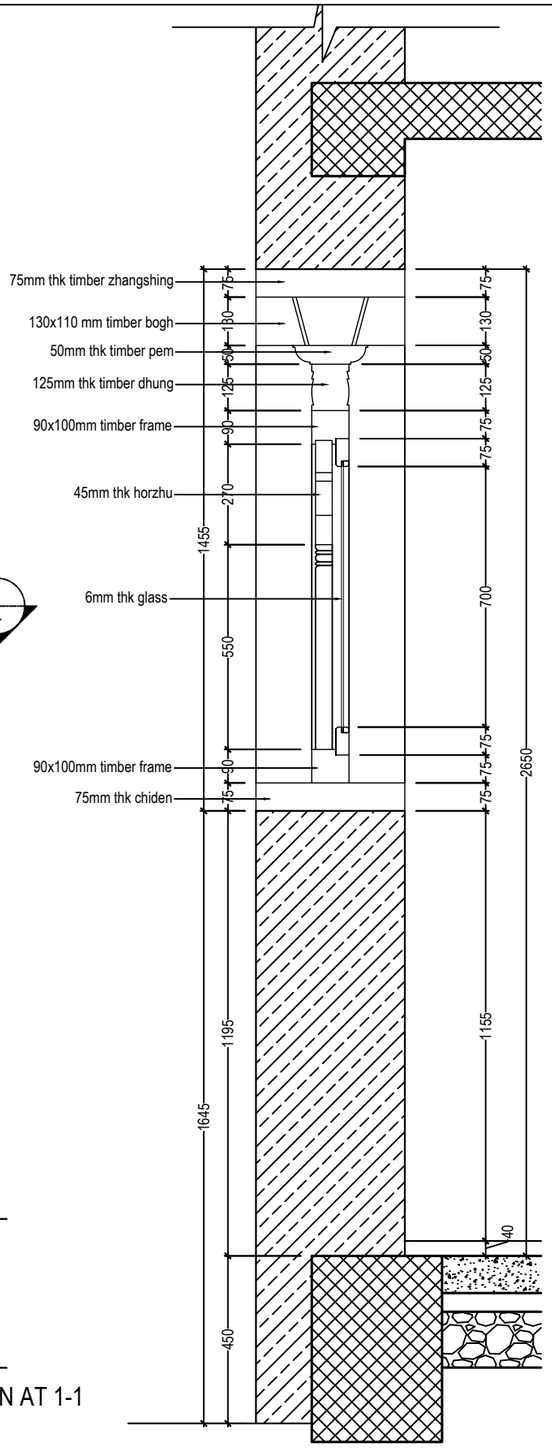
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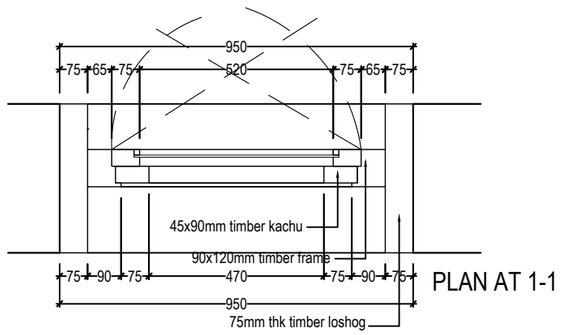


PLAN

Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / LINEN-AND_STORE_SHELF_DETAIL				Sep, 2026	**SCALE** NTS

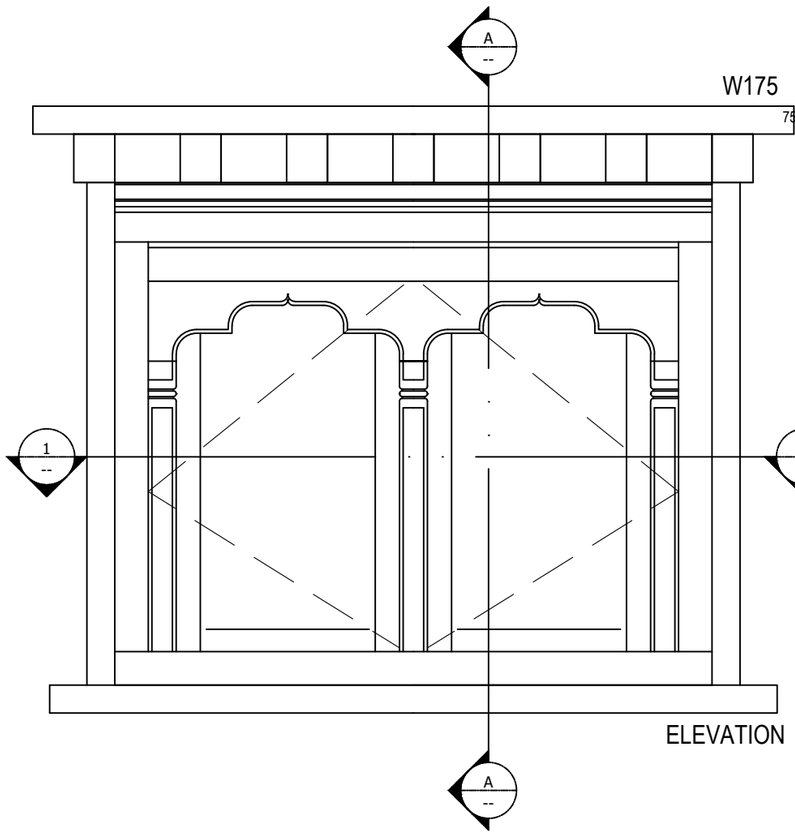


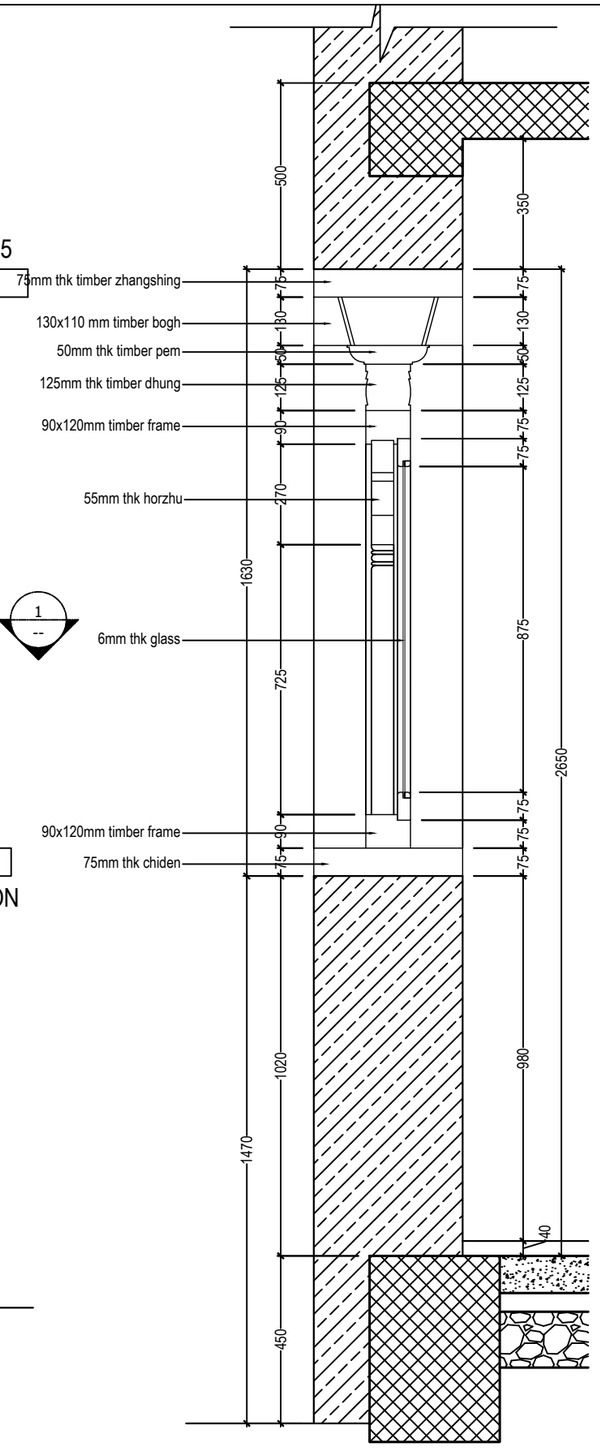


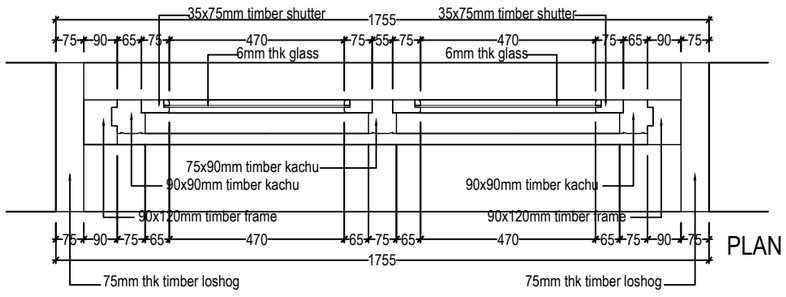


PLAN AT 1-1

SECTION A-A





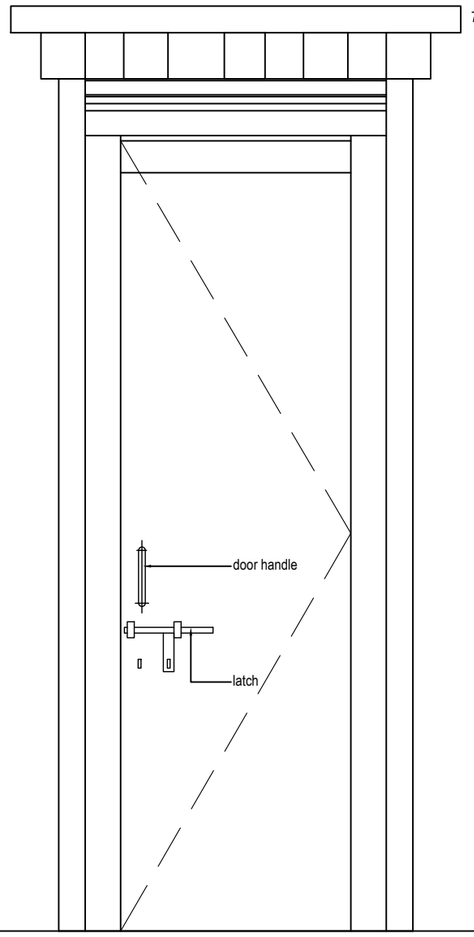


PLAN AT 1-1

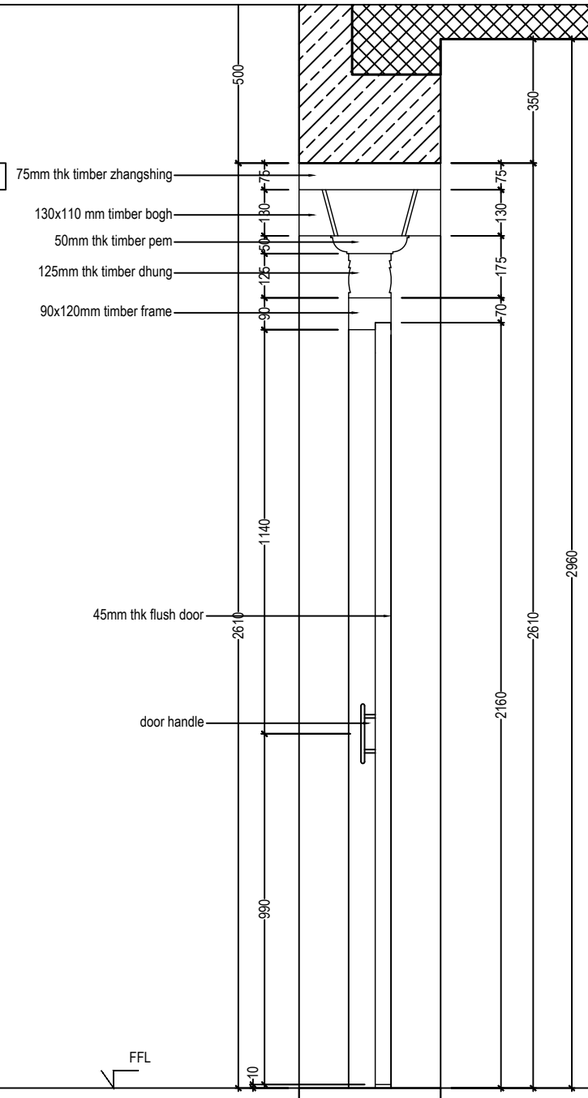
SECTION A-A

Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / WINDOW_DETAIL-W95_AND_W175			Sep, 2026	**SCALE** / NTS

D100

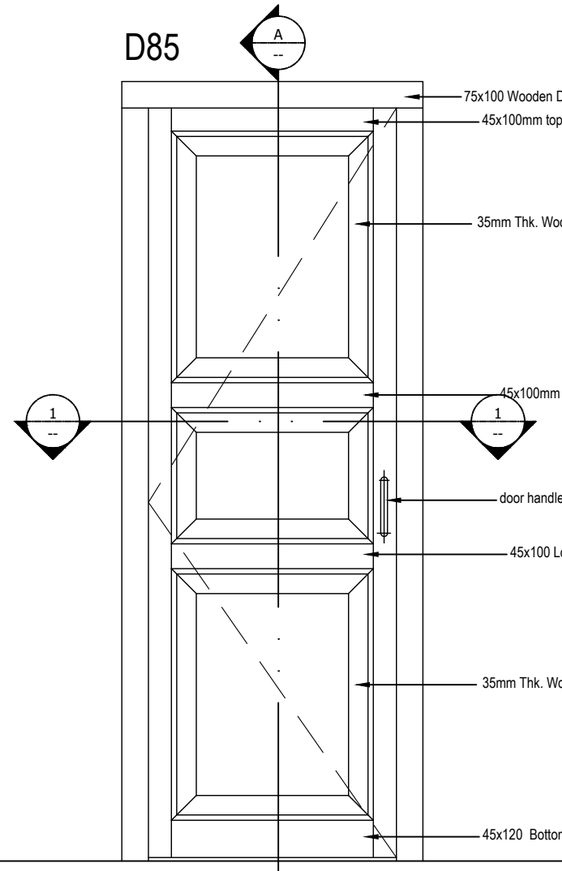


ELEVATION

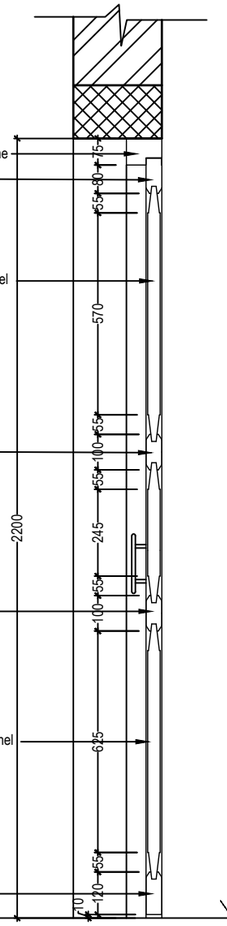


SECTION A-A

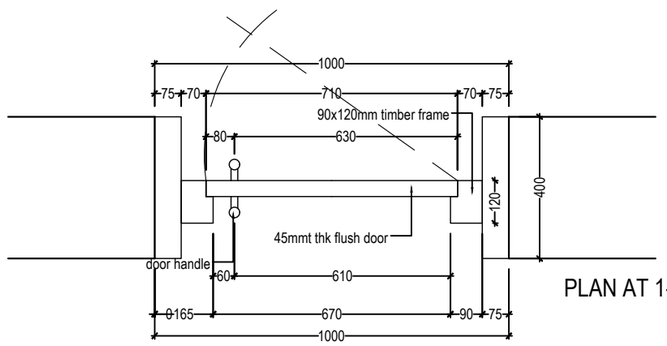
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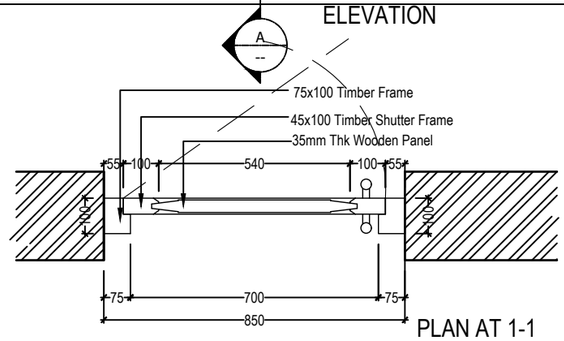
ELEVATION



SECTION A-A



PLAN AT 1-1



PLAN AT 1-1

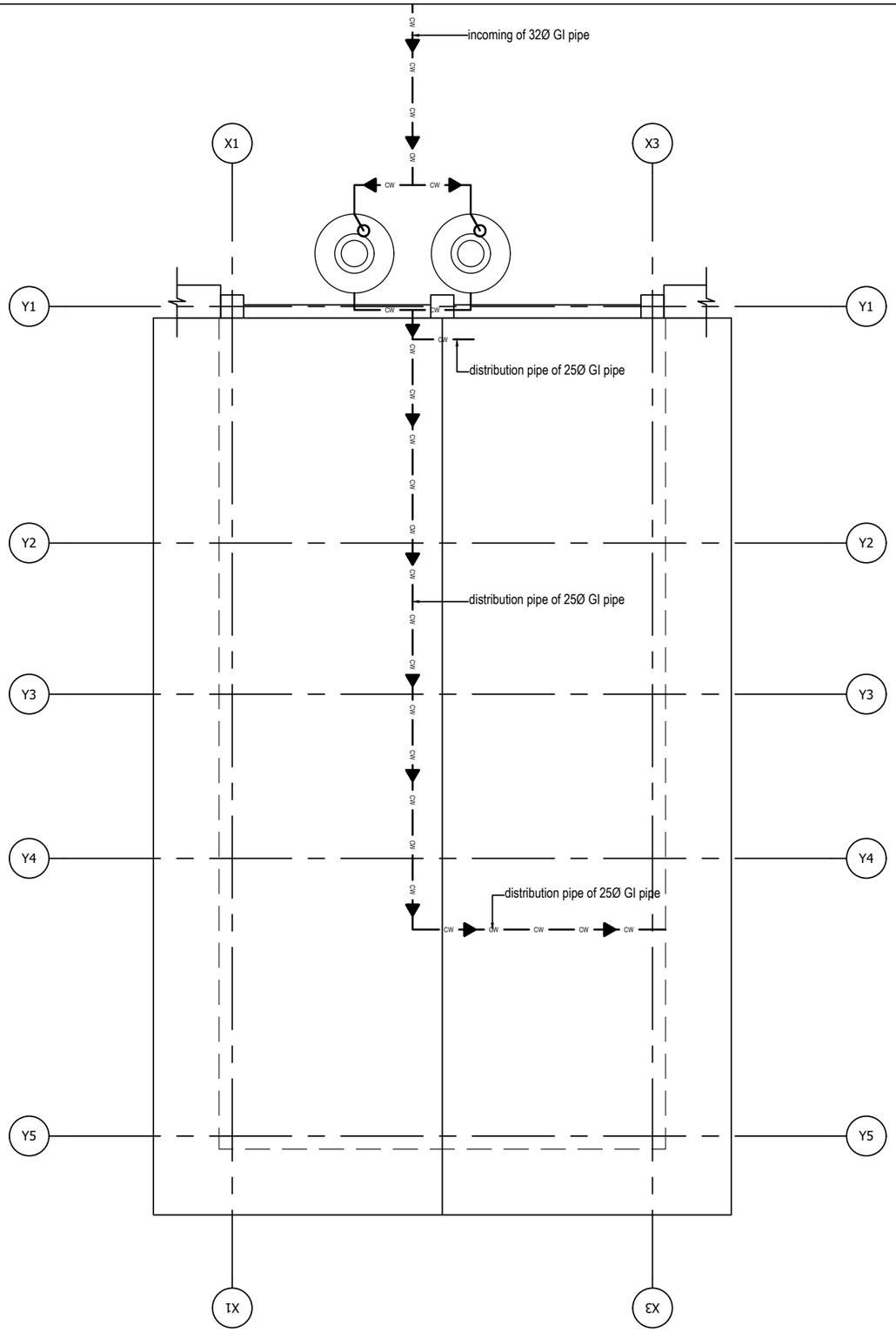
Khorlochhu	**ARCHITECTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE** / **DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.			AR_10
	Construction of BHU Building and Auxiliary Work / DOOR_DETAIL_D100_AND_D95			Sep, 2026	**SCALE** / NTS

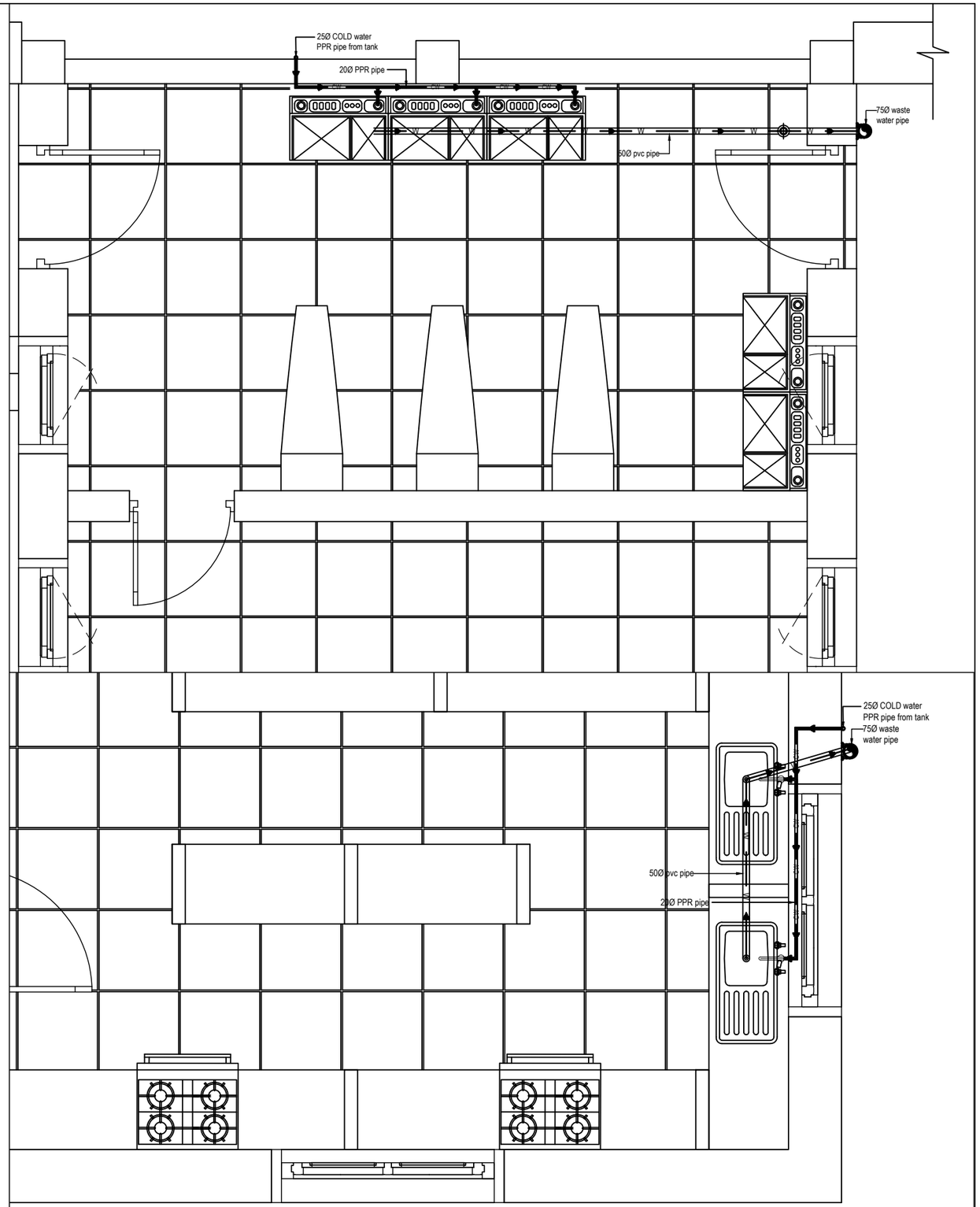
PLUMBING DRAWINGS

KITCHEN AND LAUNDRY

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu





Khorlochhu

ARCHITECTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_AND_WASTEWATER_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	PB_01
			SCALE
			NTS

STRUCTURE DRAWINGS

LAUNDRY AND KITCHEN

Owner - KHPL
Location - TRASHIYANGTSE

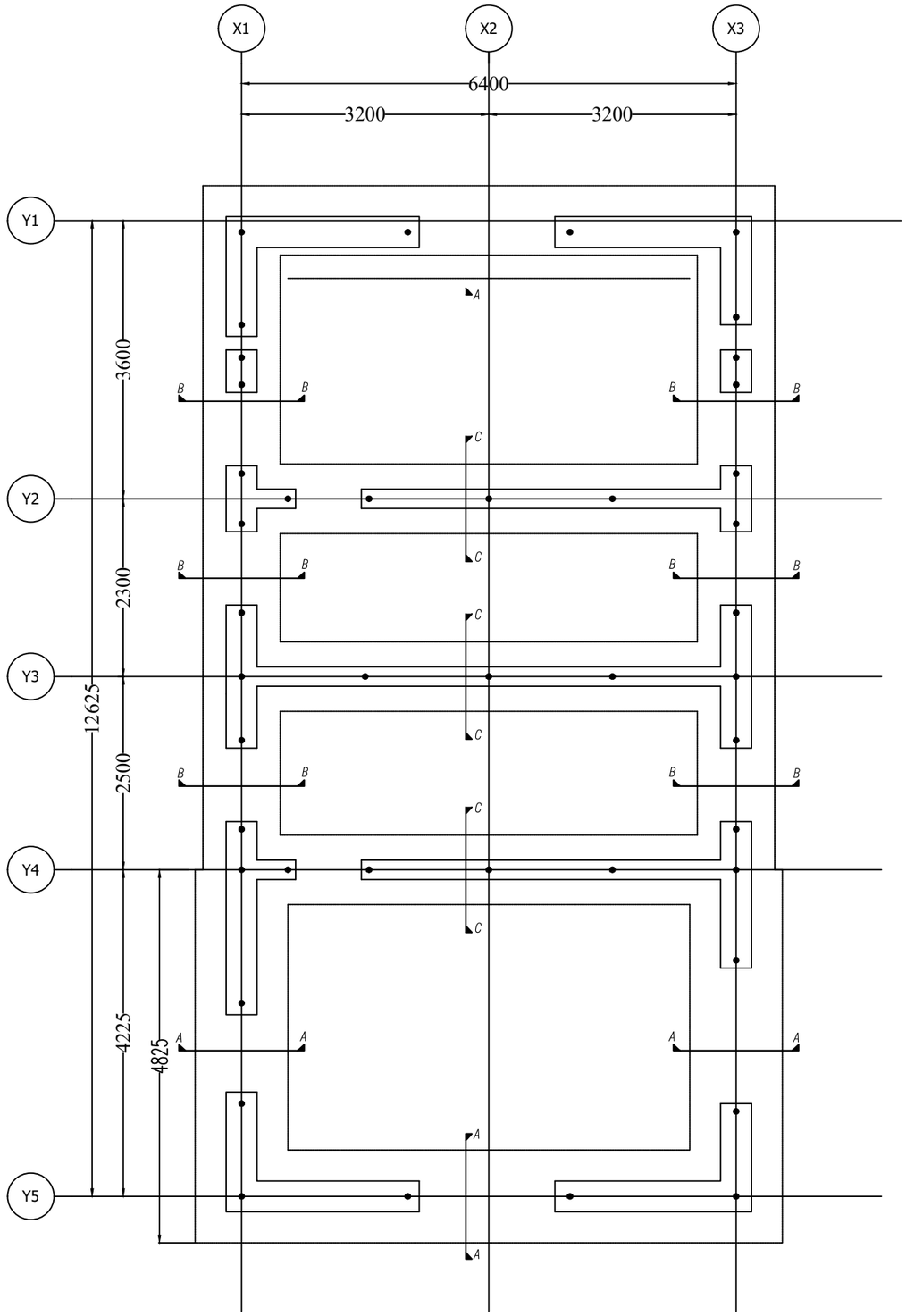
Khorlochhu

GENERAL STRUCTURAL DESIGN NOTES

1. All dimension in mm unless otherwise mentioned
2. Structural drawing shall be read in conjunction with the Architectural drawing
3. Code of practice referred
   - IS 456-2000, code of practice for plain and RCC
   - IS 13920-1993, Ductile detailing for RCC
   - IS 4326-1993, Earthquake resistant design and construction of Building - Code of practice
4. Parameters assumed during the design
   - Bearing capacity of soil 150KN/Sq.m
   - Grade of concrete - M20
   - Grade of steel - Fe 500 TMT steel
   - Density of RCC - 25KN/Sq.m
   - Density of Brick - 19KN/Sq.m
   - Density of Stone Boulder (CRM) - 23KN/Sq.m
   - Live Load on floor - 2KN/Sq.m
   - Live Load on roof- 0.75KN/Sq.m
5. Check all dimensions before commencing work
6. Additional information given on the drawing in the form of notes shall always be referred
7. Refer any discrepancy to the engineer before proceeding with the work
8. No duct/conduit shall pass through Bands
9. One storey load bearing structure with Brick in wall and Brick in partitions, Tubular Trusses, CGI Roofing
10. The cover to the reinforcement shall not be less than the following
    - Beams - 30mm
    - Columns - 40mm
    - Floor slabs - 20mm
    - Foundations - 50mm

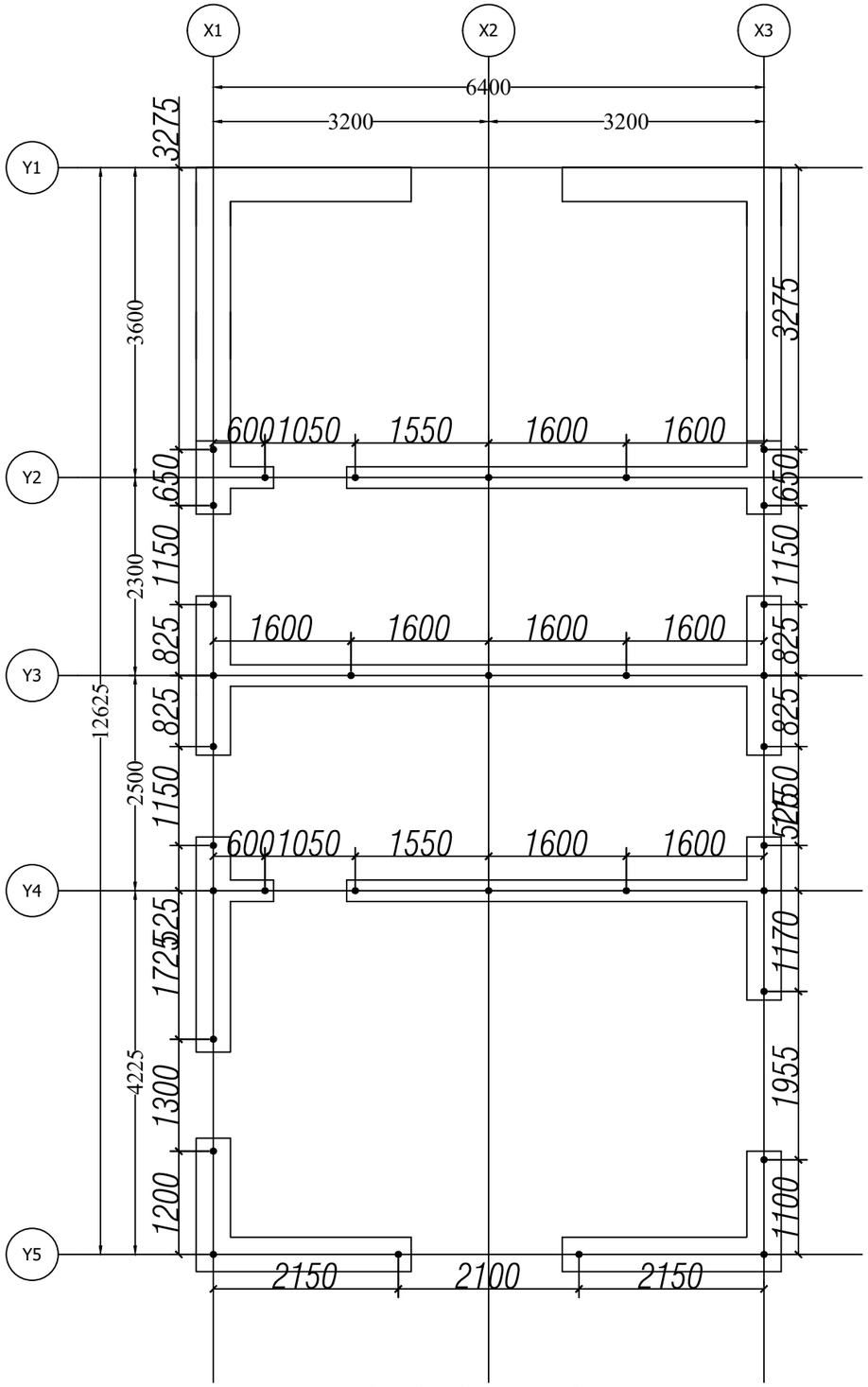
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_01
Construction of BHU Building and Auxiliary Work	SRUCTURE_NOTE				Sep, 2026	SCALE
						NTS



Footing Layout Plan

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_02
	Construction of BHU Building and Auxiliary Work / FOOTING_LAYOUT_PLAN				Sep, 2026	**SCALE** NTS



Vertical Bar Placement & Column Layout Plan

Note : All vertical bars are 12Ø TMT

Khorlochhu

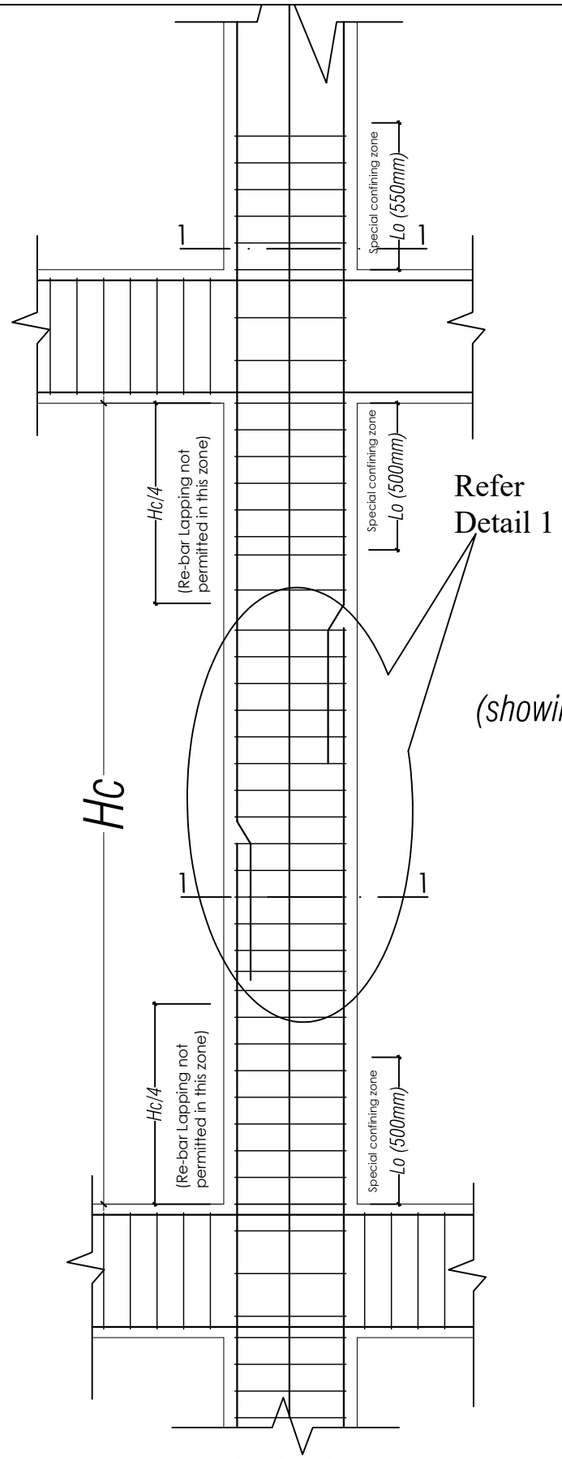
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	VERTICAL_BAR_PLACEMENT_AND_COLUMN_LAYOUT_PLAN

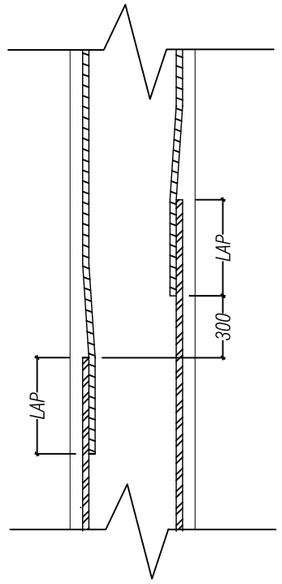
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_03
			SCALE
			NTS

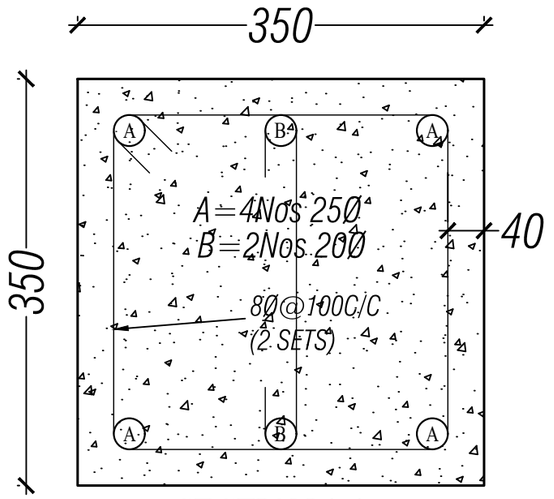


TYPICAL SECTION (showing typical arrangement of Rebar and Ties in column)



DETAIL 1
(showing staggering of laps in columns)

Bar Dia.	Splice Length
20Ø	1140
25Ø	1425



SECTION 1-1
(All columns shown as C4)

Khorlochhu

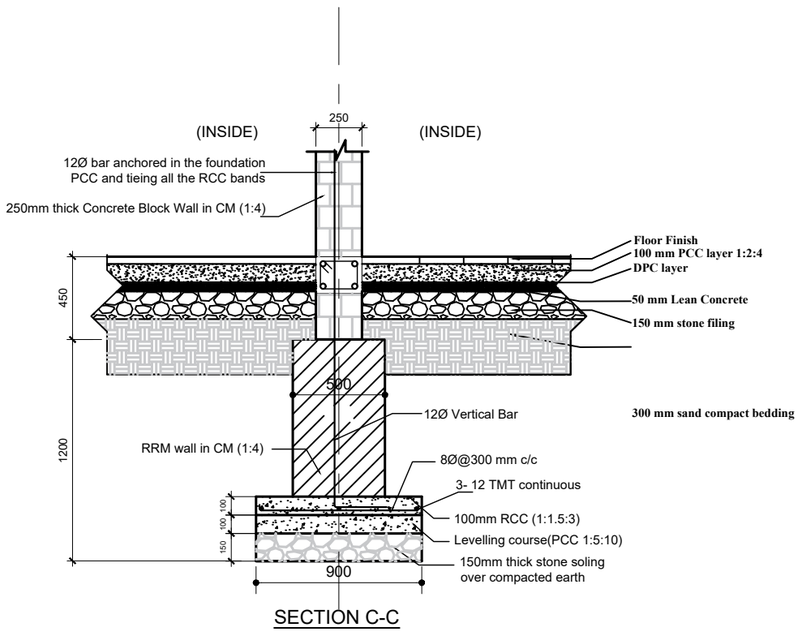
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COLUMN_DETAILS

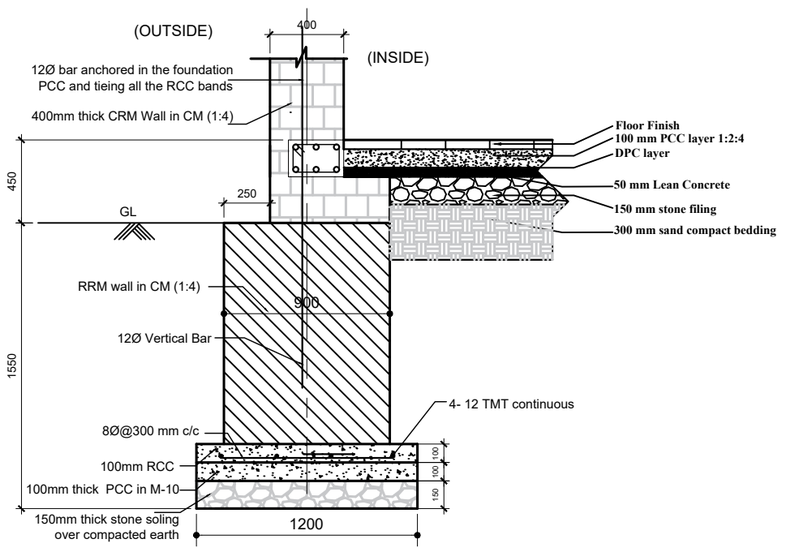
NOTES

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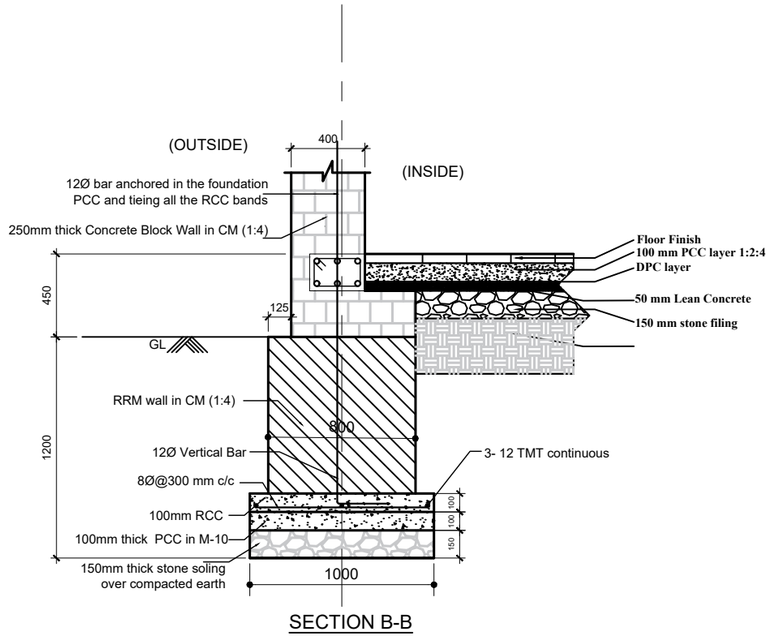
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_04
			SCALE
			NTS



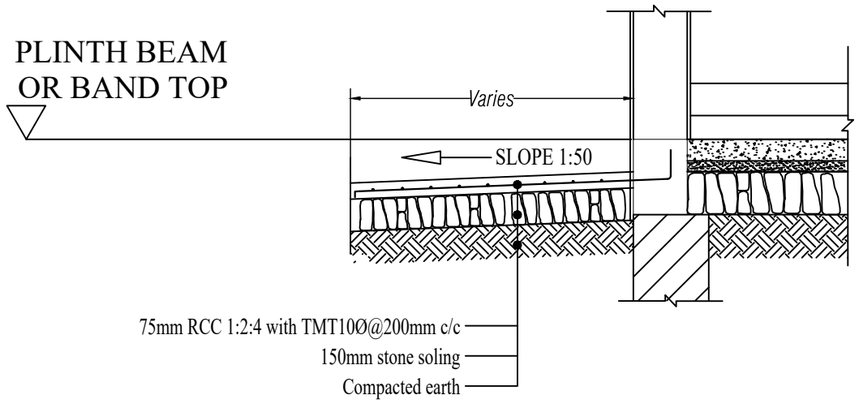
SECTION C-C



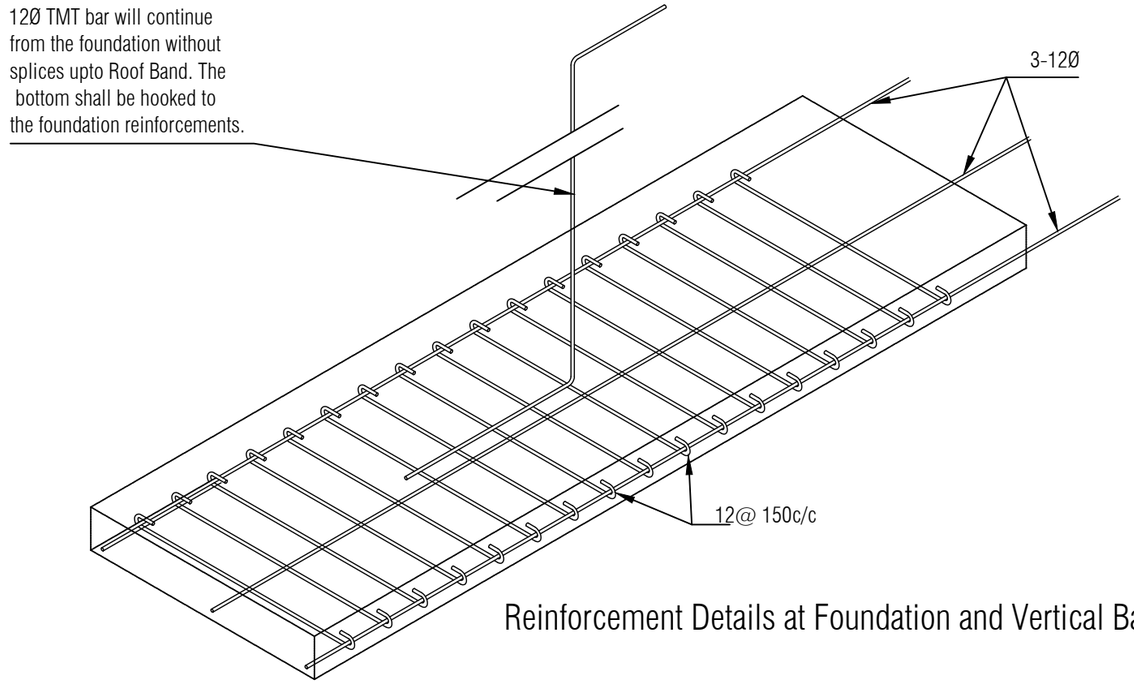
SECTION A-A



SECTION B-B



RCC in Plinth Protextion



Reinforcement Details at Foundation and Vertical Bar

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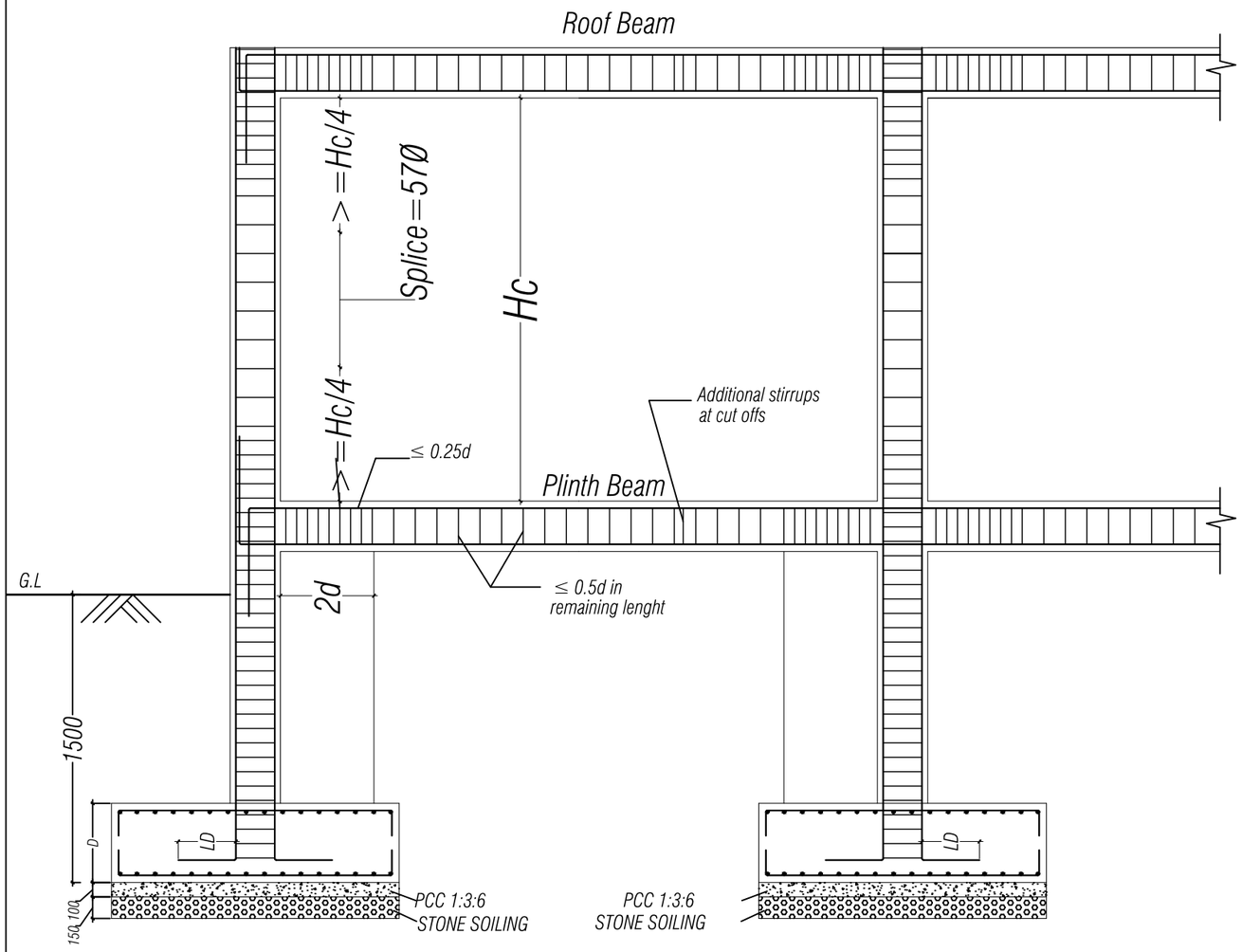
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	RRM_WALL_FOUNDATION_AND_REINFORCEMENT_DETAILS

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_05
			SCALE
			NTS



BEAM-COLUMN JUNCTION DETAILING

NOTE:

Clear Cover Details:

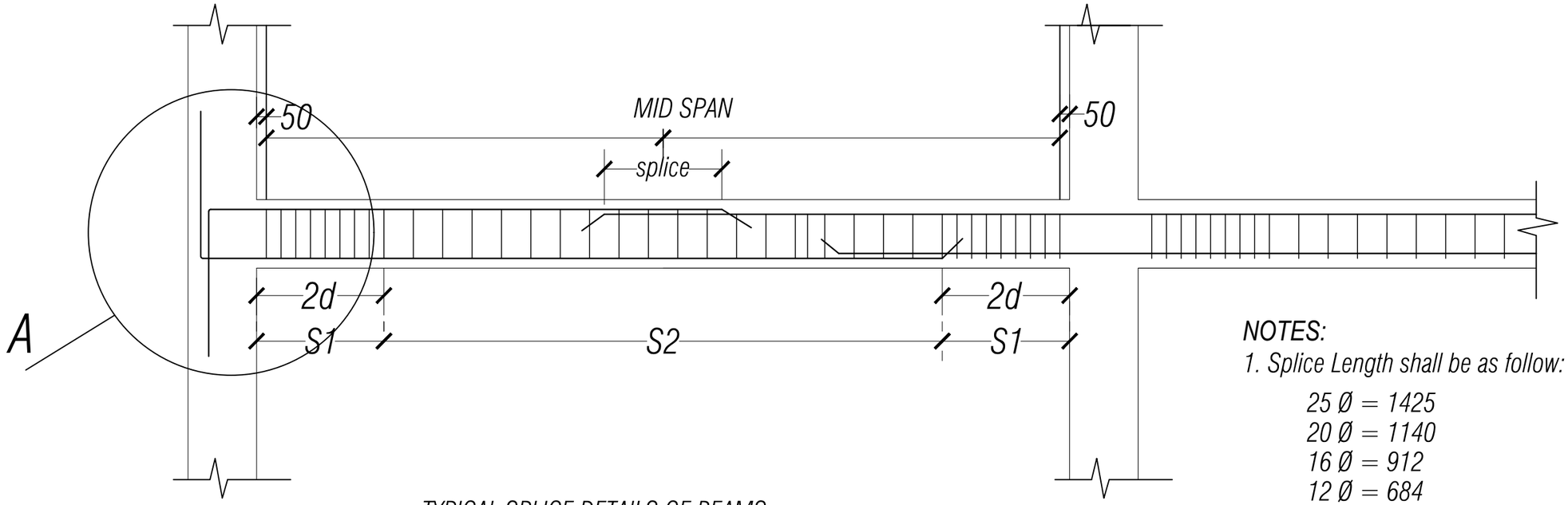
1. The clear cover to all footings should be 50 mm
2. The clear cover to all columns should be 40 mm
3. The clear cover to all beams should be 30 mm
4. The clear cover to all slabs should be 25 mm

Reinforcement Details

1. Not more than 50% of bars shall be spliced at one section both in beams and cloumns.
2. Column bars shall be spliced at a distance of Hc/4 from the face of support
3. No lap splice in columns are provided in first storey
4. Top bars in the beam shall splice at midspan while bottom bars shall be spliced at a distance of 2d from the face of the column but not at mid span
5. Full lenght of splice stirrups in ties in column shall be 8Ø @ 100mm c/c
6. The column encasing the stair case shall be provide with special confining reinforcement 8Ø @ 75mm c/c throughout the height of column

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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_06
Construction of BHU Building and Auxiliary Work	BEAM_COLUMN_JUNCTION_DETAILS				Sep, 2026	SCALE: NTS

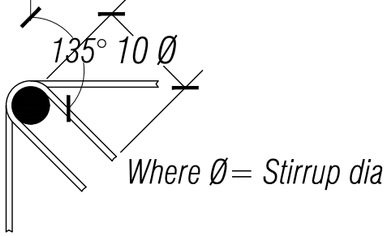


TYPICAL SPLICE DETAILS OF BEAMS

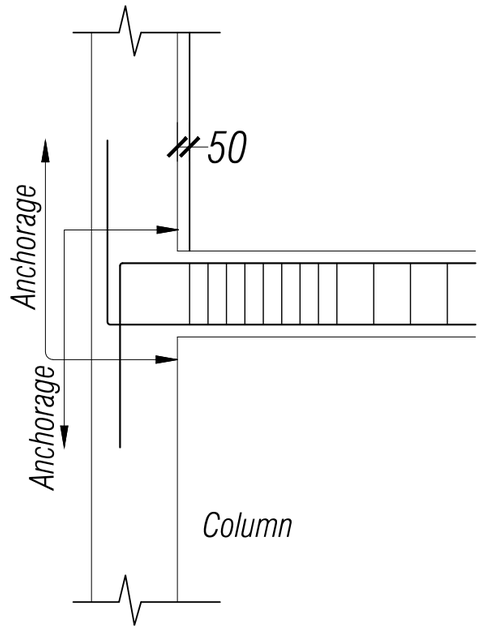
NOTES:

1. Splice Length shall be as follow:

25 Ø = 1425
20 Ø = 1140
16 Ø = 912
12 Ø = 684
10 Ø = 570



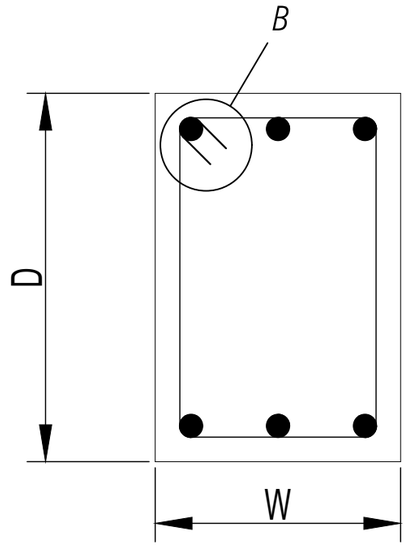
DEATAILS AT -B



ANCHORAGE
DEATAILS AT -A

Bar Anchrage Lenght
(Minimum Lenght = 67Ø)

10 Ø = 670
12 Ø = 804
16 Ø = 1072
20 Ø = 1340
25 Ø = 1675



BEAM STIRRUPS DETAILS

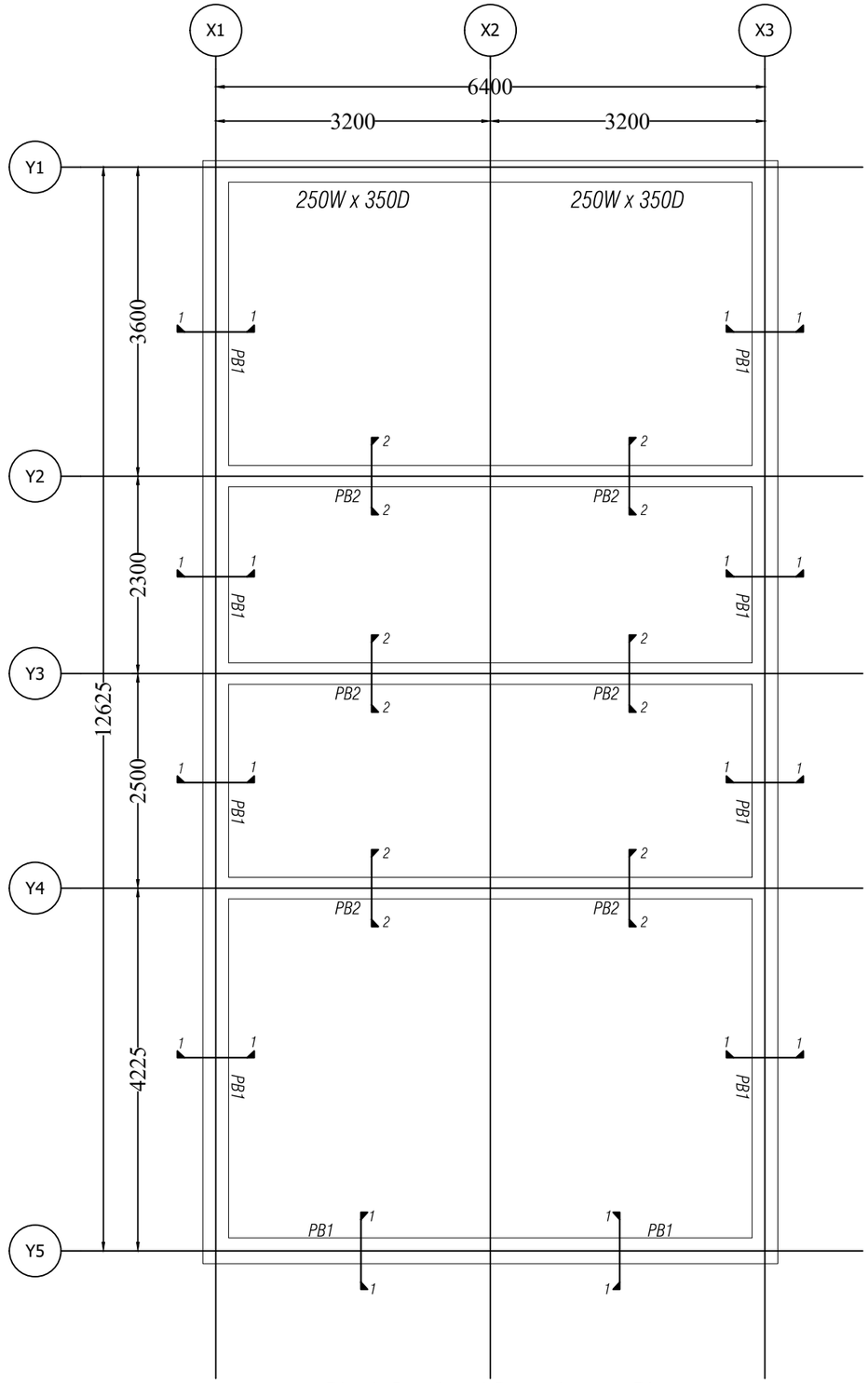
Stirrups in the Beams

Location	: Stirrups provided
2d	: 8Ø@100c/c
S1	: 8Ø@150c/c
Splice	: 8Ø@100c/c

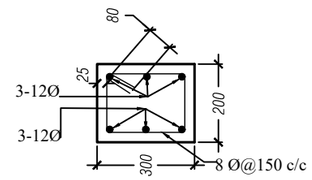
Typical Floor Beam Details

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STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_07
Construction of BHU Building and Auxiliary Work	TYPICAL_FLOOR_BEAM_DETAILS				Sep, 2026	SCALE NTS

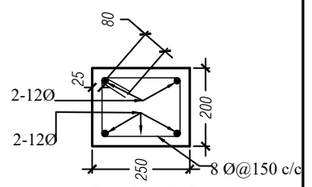


Plinth Band and Beam Layout Plan



Section 1-1

PB1 - Plinth Band 1



Section 2-2

PB2 - Plinth Band 2

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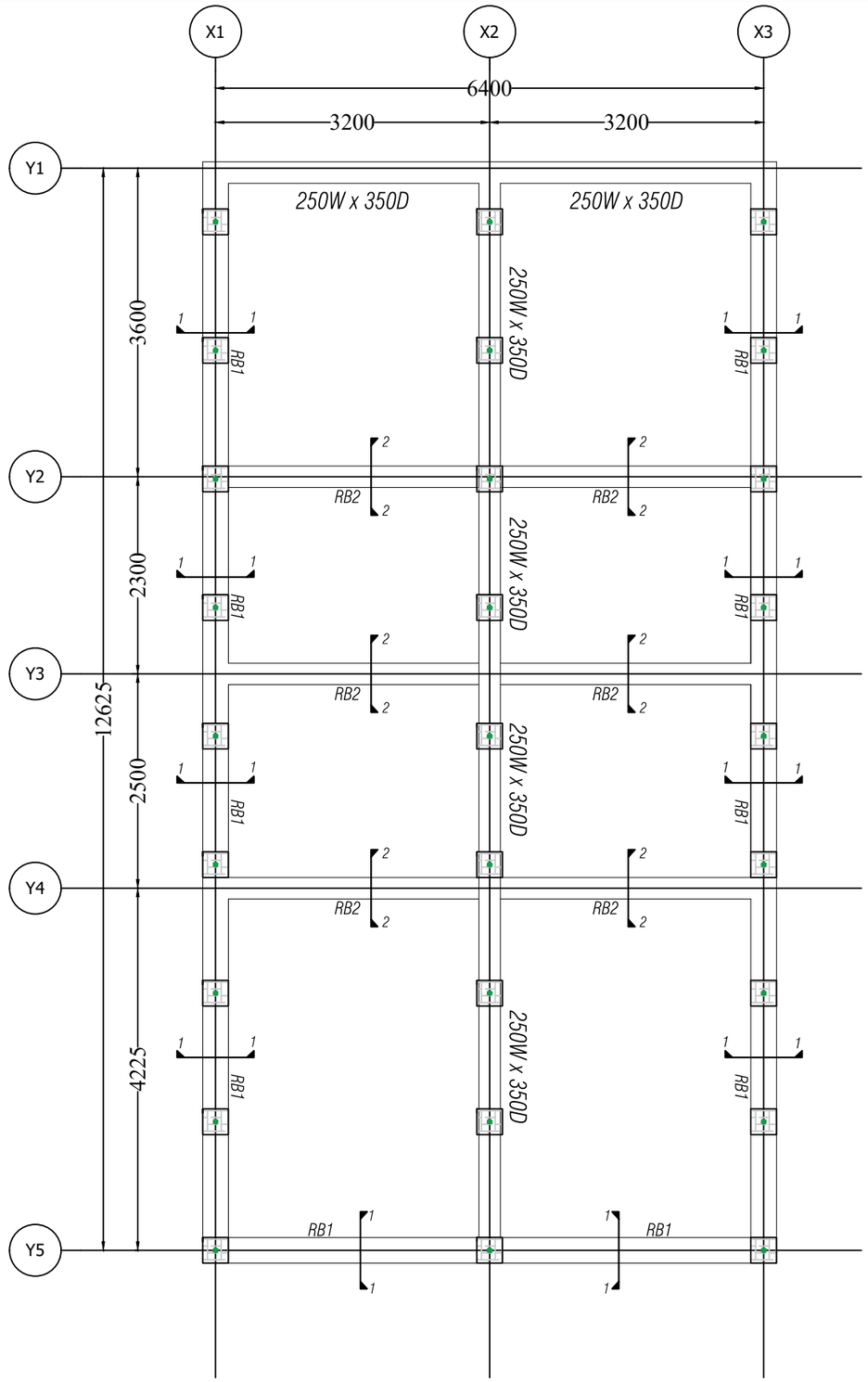
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	PLINTH_BAND_AND_BEAM_LAYOUT

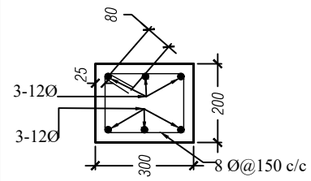
NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_08
			SCALE
			NTS

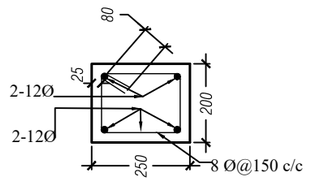


Roof Band and Beam Layout Plan



Section 1-1

RB1 - Roof Band 1



Section 2-2

RB2 - Roof Band 2

Khorlochhu

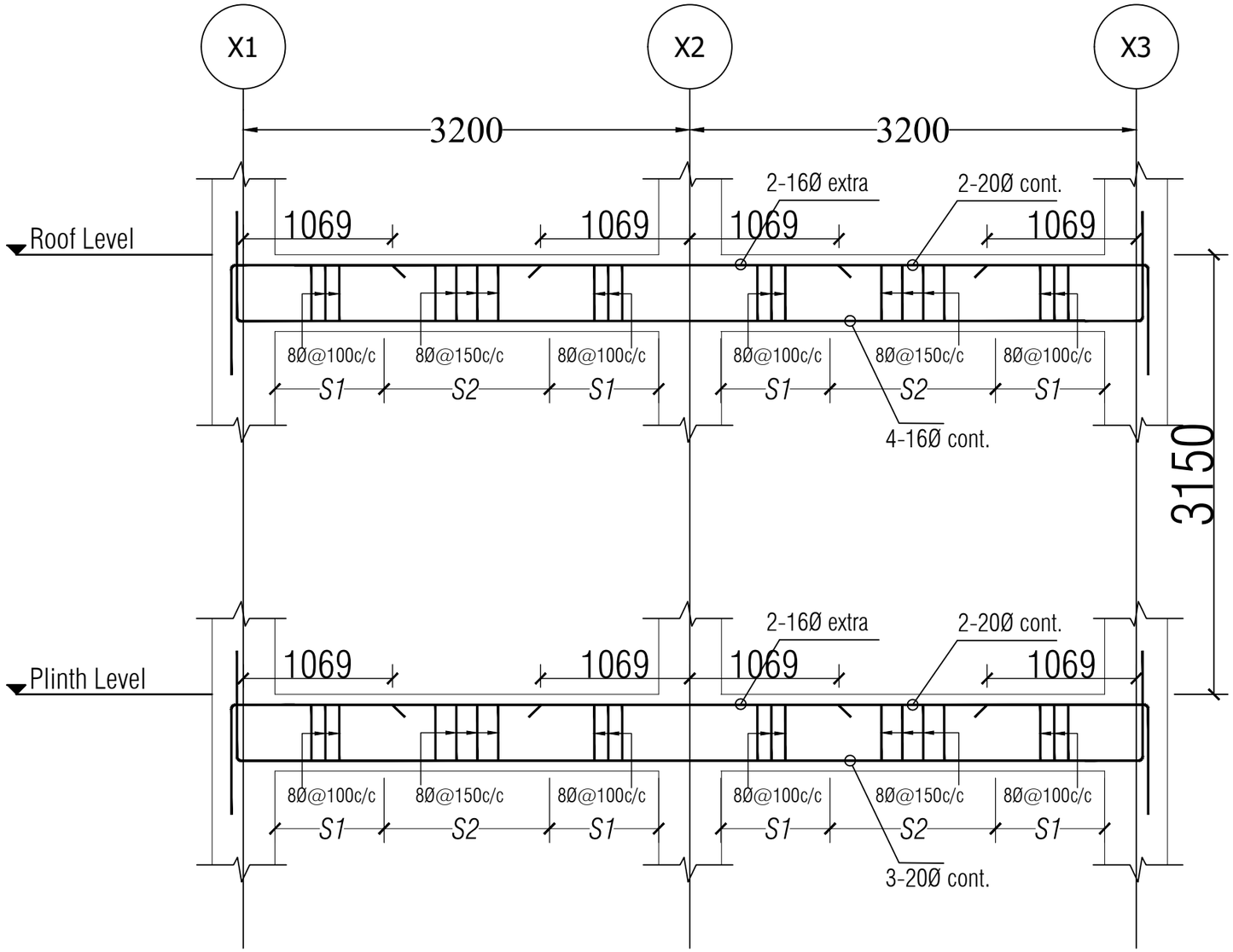
STRUCTURAL DRAWING

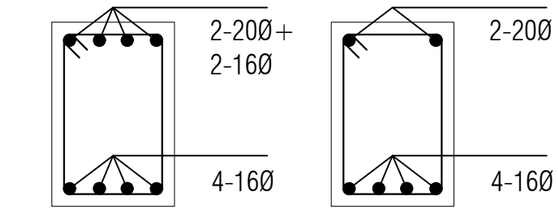
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_BAND_AND_BEAM_LAYOUT

NOTES

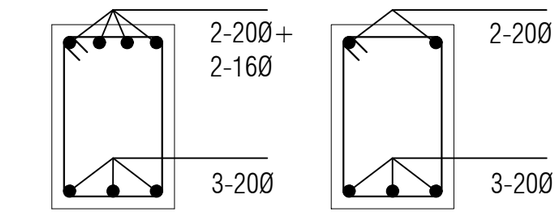
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_09
			SCALE
			NTS





C/S AT END SECTION C/S AT MID SECTION



C/S AT END SECTION C/S AT MID SECTION

L-section along grid Y1

NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN

Khorlochhu

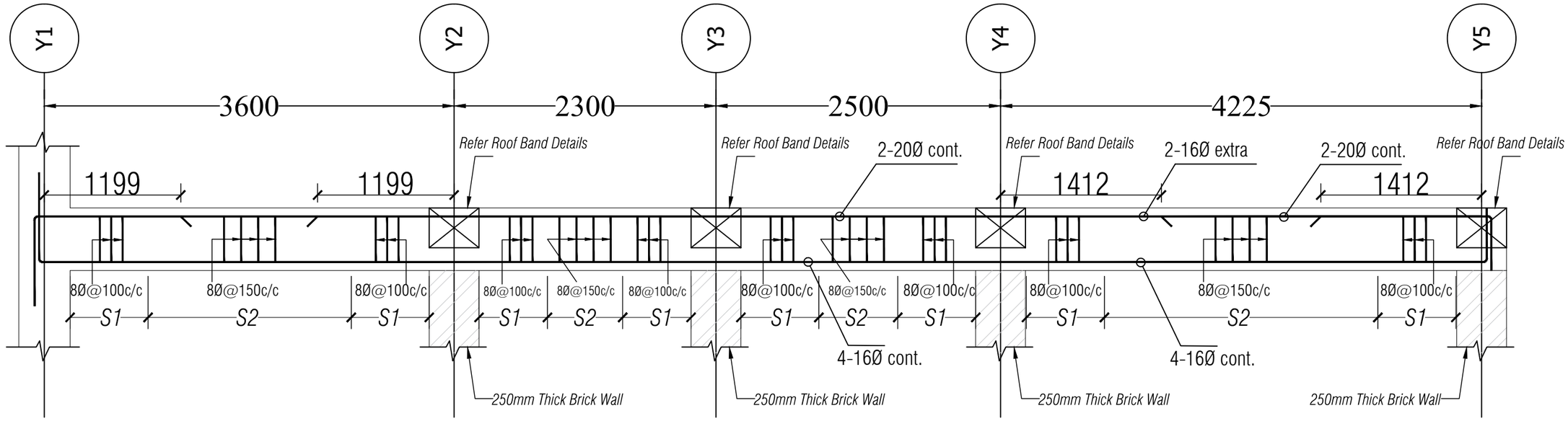
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_DETAILS_ALONG_GRID_Y1

NOTES

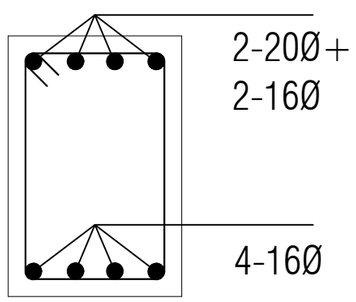
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_10
			SCALE
			NTS

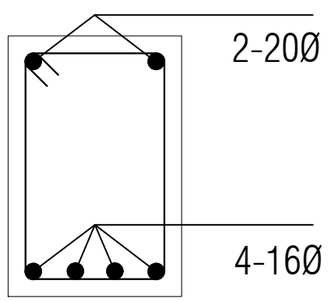


L-section along grid X2

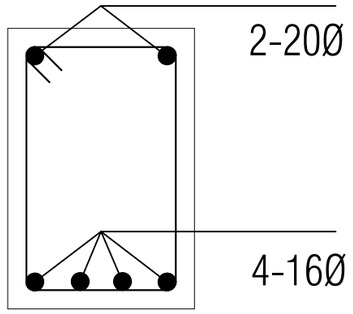
NOTE:
- S1=2D =8Ø @ 100 C/C (D=OVERALL DEPTH OF BEAM)
- S2=8Ø @ 150 C/C
- THE FIRST STIRRUPS IS PLACED MAXIMUM 50 MM FROM THE FACE OF COLUMN



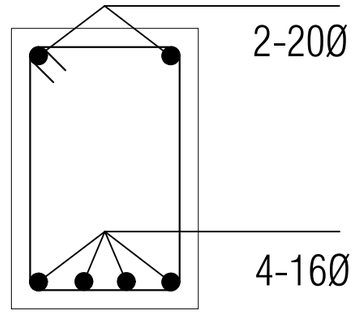
C/S AT END SECTION
(ALONG GRID Y1 TO Y2 & Y4 TO Y5)



C/S AT MID SECTION
(ALONG GRID Y1 TO Y2 & Y4 TO Y5)



C/S AT END SECTION
(ALONG GRID Y2 TO Y4)



C/S AT END SECTION
(ALONG GRID Y1 TO Y2 & Y4 TO Y5)

Khorlochhu

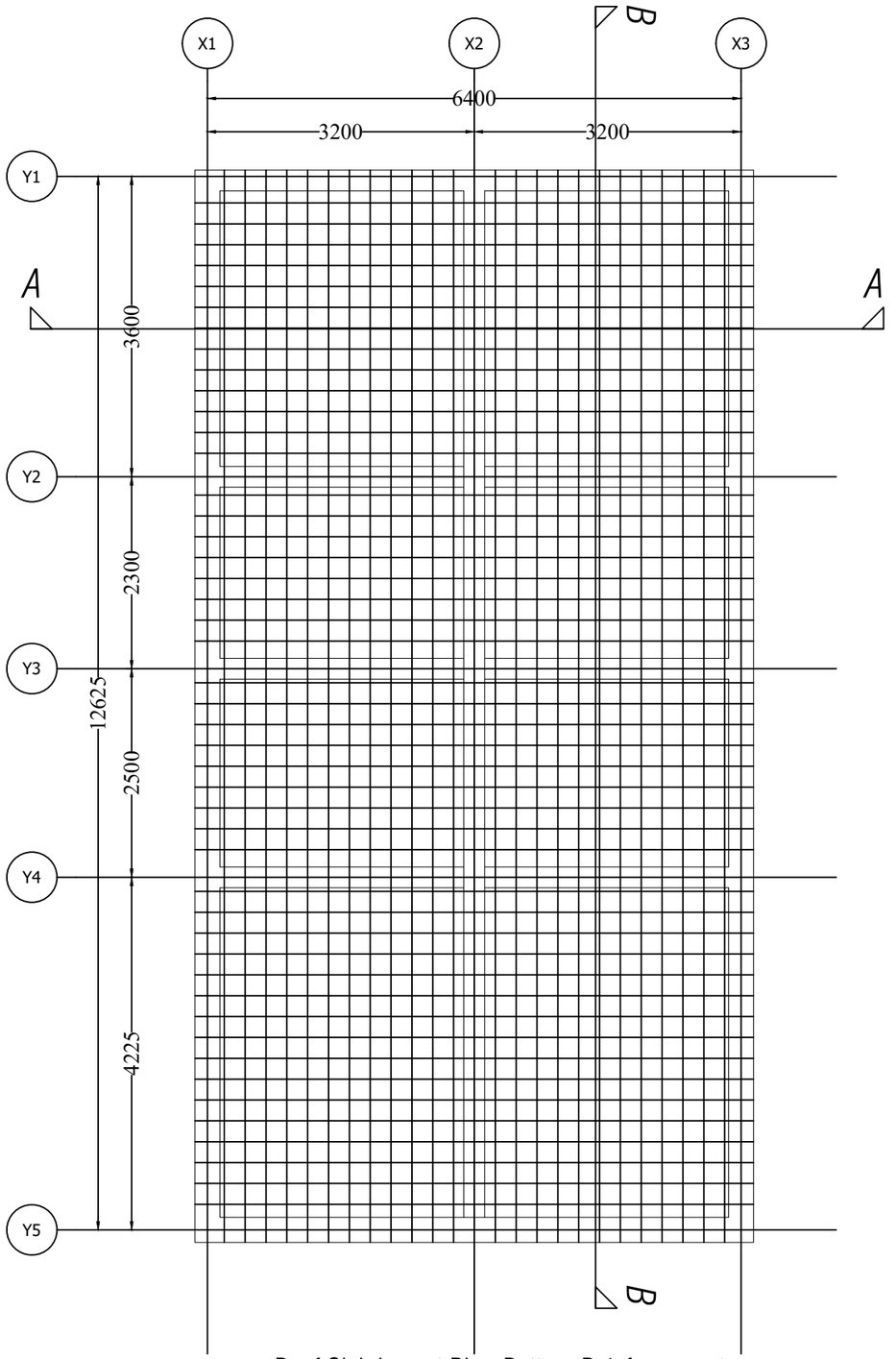
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	BEAM_DETAILS_ALONG_GRID_X2

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_11
			SCALE
			NTS



Roof Slab Layout Plan-Bottom Reinforcement

Note : 150mm thick slab

: 10 Ø at 160 C/C

: For Projections refer Architecture Drawings

Khorlochhu

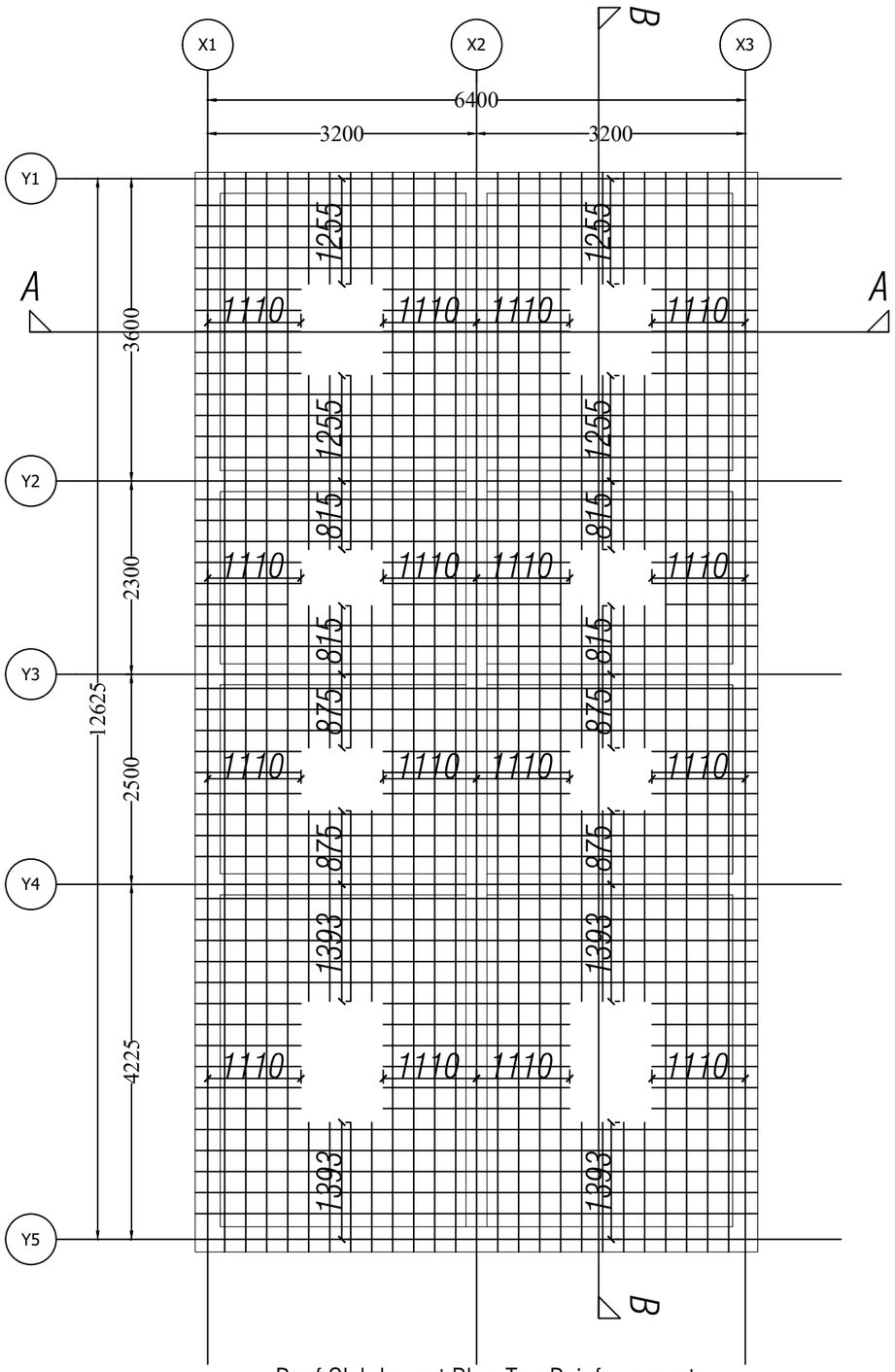
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_SLAB_REINF_LAYOUT_BOTTOM_REINF

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_12
			SCALE
			NTS



Roof Slab Layout Plan-Top Reinforcement

Note : 150mm thick slab

: 10 Ø at 160 C/C

: For Projections refer Architecture Drawings

Khorlochhu

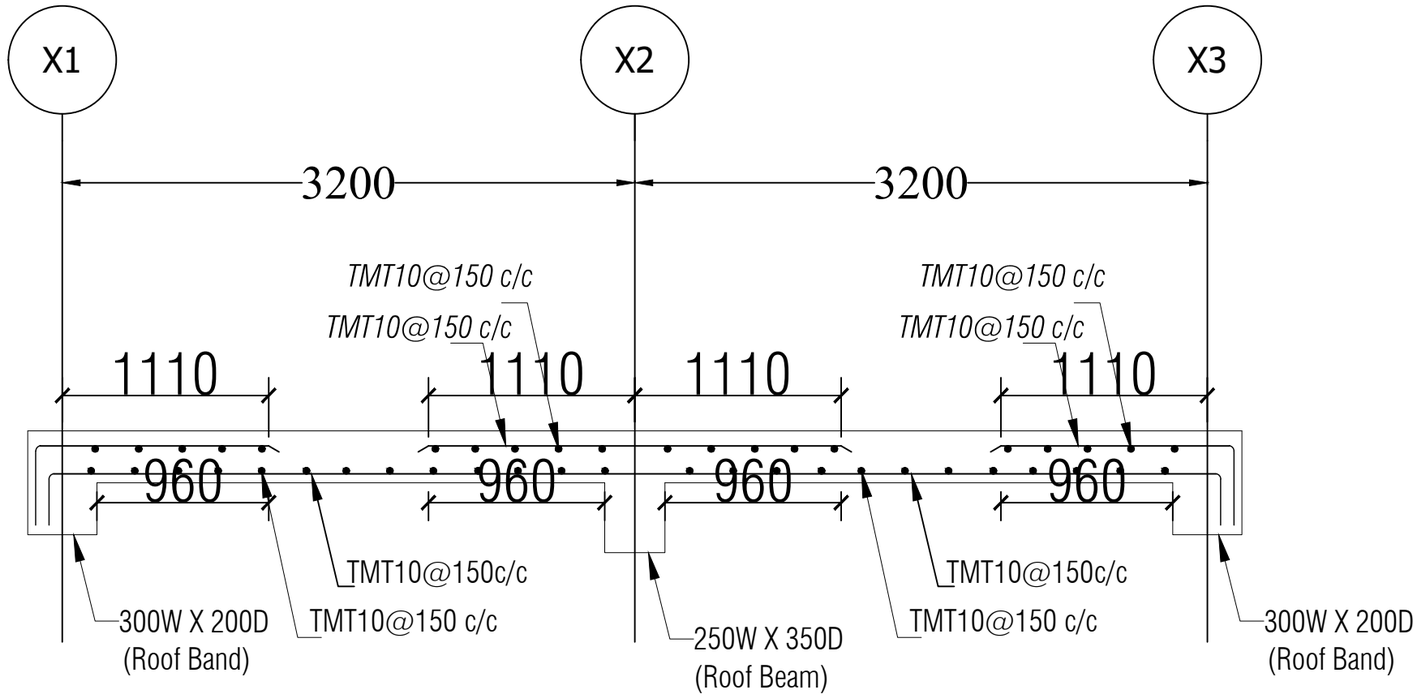
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	ROOF_SLAB_REINF_LAYOUT-TOP_REINF

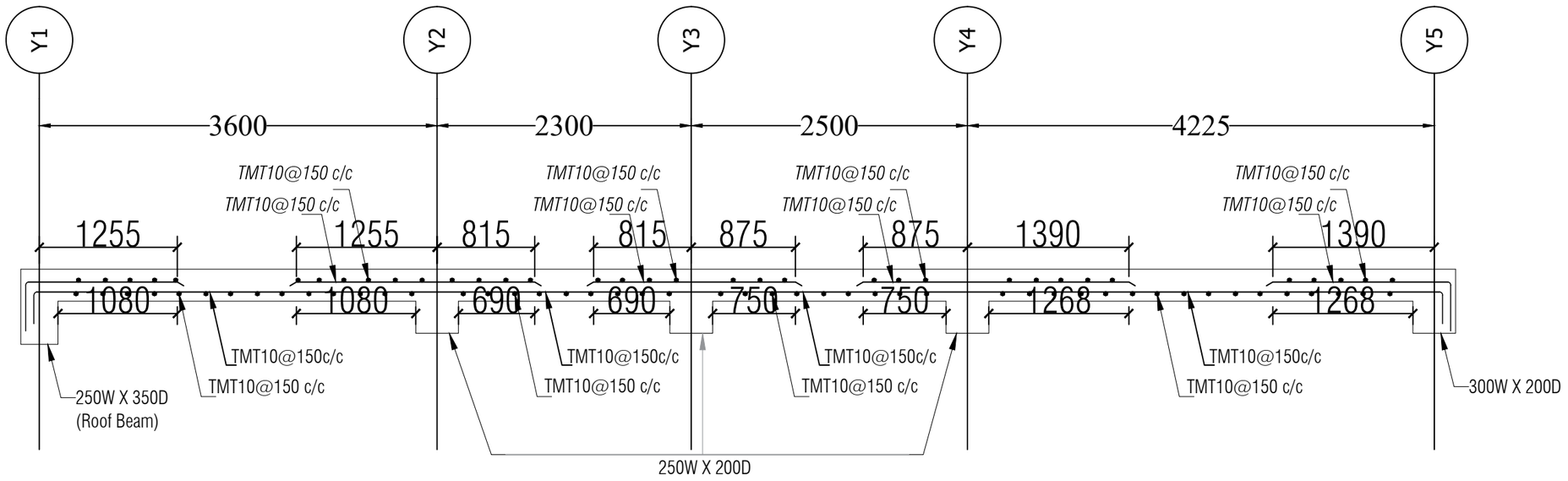
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_13
			SCALE
			NTS



ROOF SLAB DETAILS AT SECTION A-A
(NOTE: 150MM THICKNESS OF SLAB)



ROOF SLAB DETAILS AT SECTION B-B
(NOTE: 150MM THICKNESS OF SLAB)

Khorlochhu

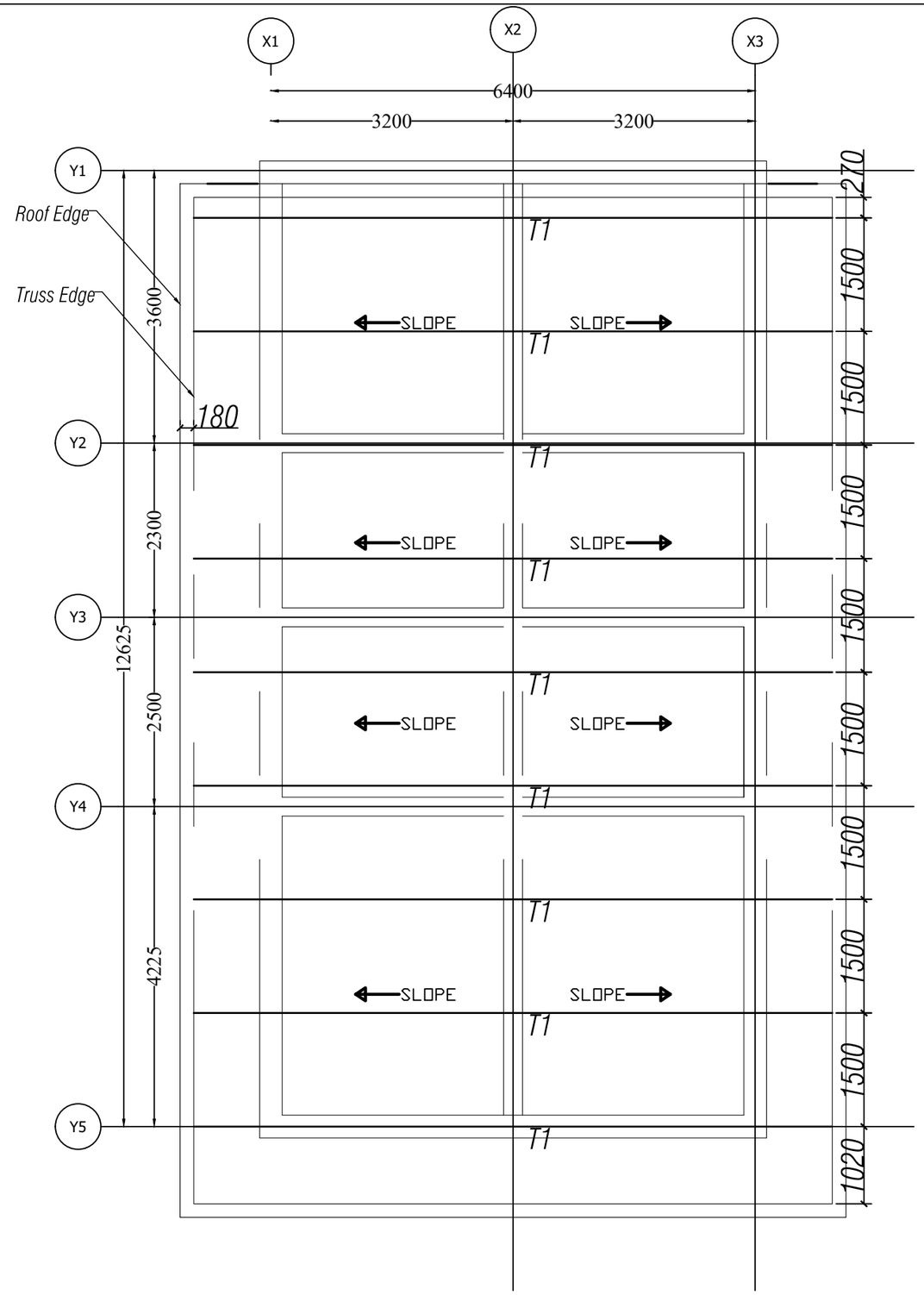
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SLAB_DETAILS

NOTES

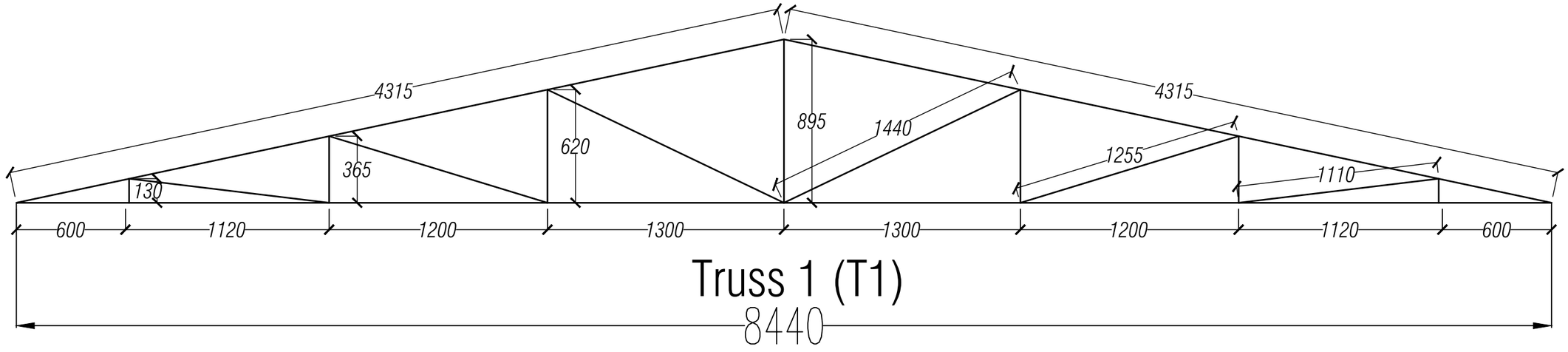
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_14
			SCALE
			NTS

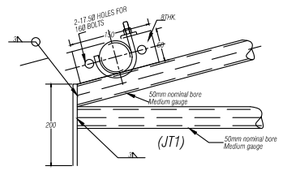


Main Truss Layout Plan

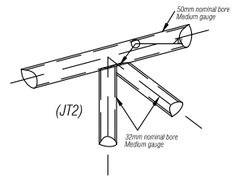
Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_15
	Construction of BHU Building and Auxiliary Work / MAIN_ROOF_TRUSS_LAYOUT				Sep, 2026	**SCALE** NTS



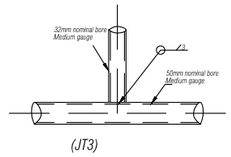
Truss 1 (T1)



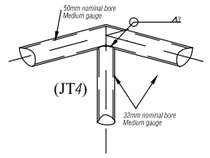
(JT1)



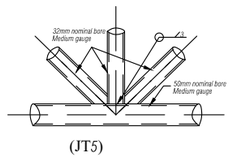
(JT2)



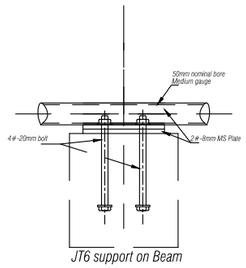
(JT3)



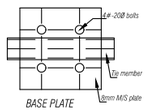
(JT4)



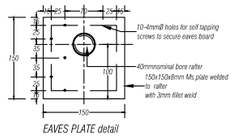
(JT5)



JT6 support on Beam

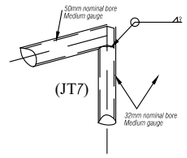


BASE PLATE

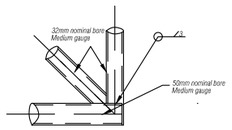


EAVES PLATE detail

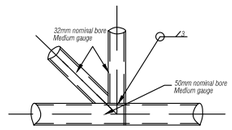
NOTES:
Tubular steel of YST22 grade to be used.
All connections to be with fillet weld of 3mm size
Purlin 40mm nominal bore, medium gauge @1200c/c



(JT7)



(JT8)



(JT9)

SCHEDULE OF TRUSS MEMBERS

Sl.No	Particulars	Size	Nominal Bore (NB)	Class
1.	Rafter & Bottom Chord	60.30 OM	50	Medium
2.	Vertical & Inclined Chord	48.30 OM	32	Medium
3.	Purlin	48.30 OM	32	Medium
PURLINS SHALL BE PROVIDED @ 1200 mm C/C				
NOTE: Truss Angle is 12°				

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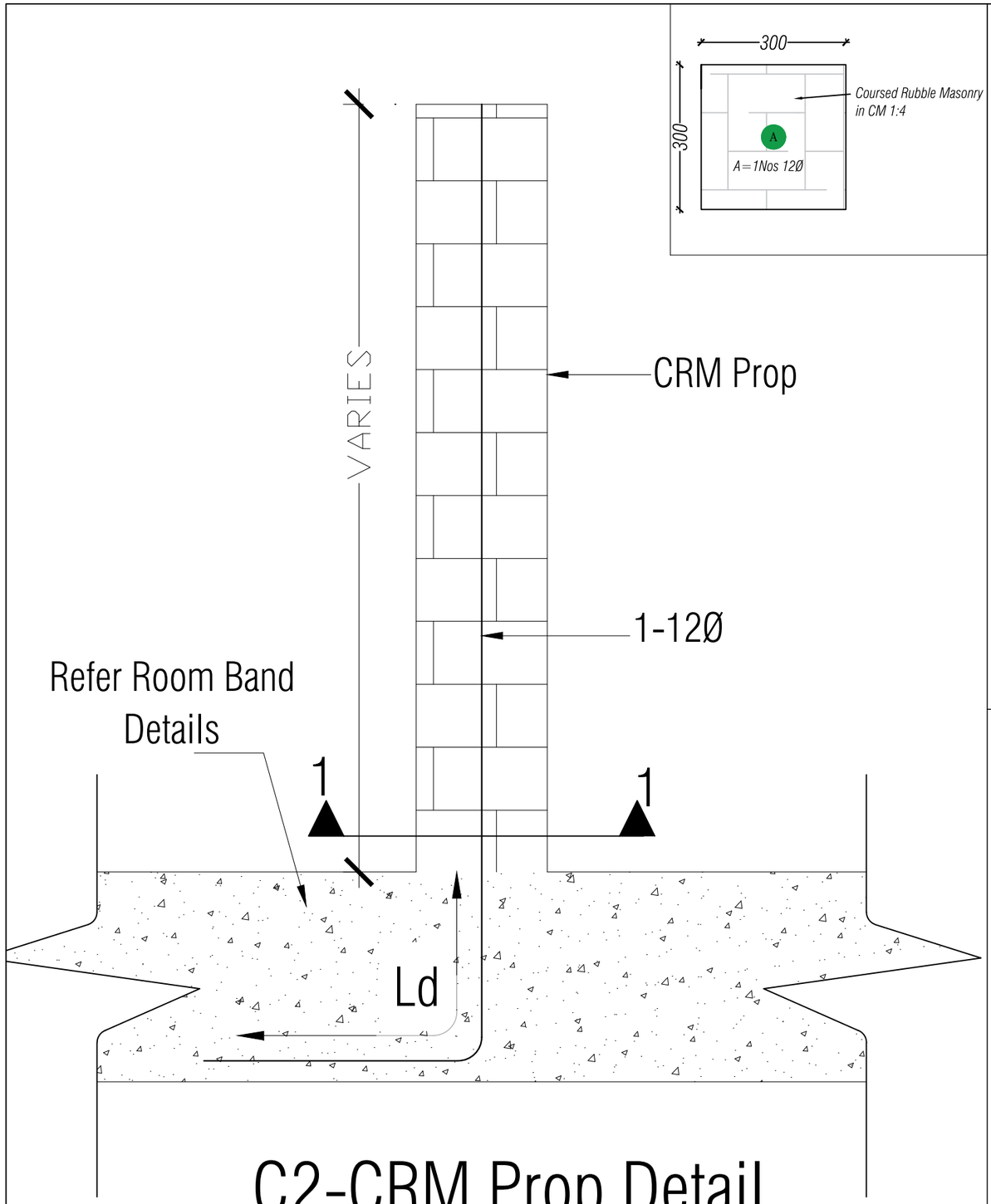
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TRUSS_DETAILS

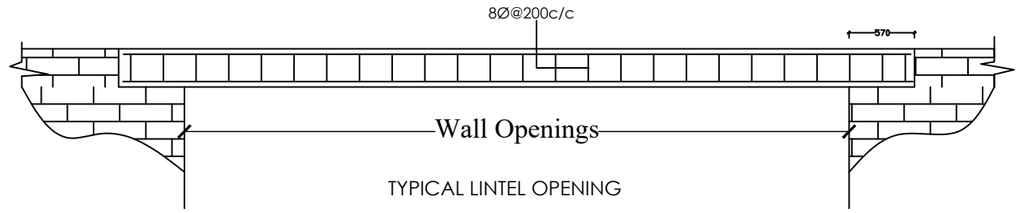
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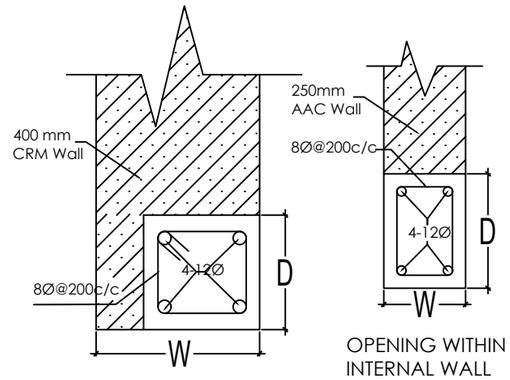
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		Sep, 2026	STR_16
			SCALE
			NTS



C2-CRM Prop Detail



TYPICAL LINTEL OPENING

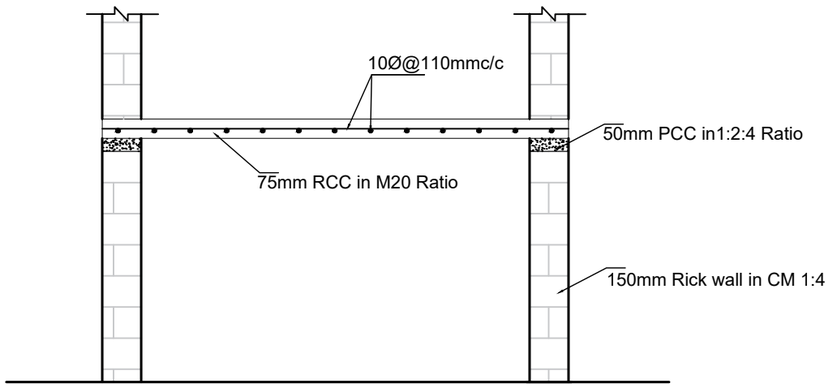


OPENING WITHIN EXTERNAL WALL

OPENING WITHIN INTERNAL WALL

NOTE :

1. Depth (D) of Lintels is to be taken as shown in Architectural drawings, especially for main windows and should be taken as 150mm for all other Lintels.
2. Width (W) of Lintels is to be taken equal to the wall thickness.



NOTES:
Grade of Steel - TMT500 bars
Grade of Concrete - M20
Clear cover to steel - 25mm (minimum)
Dimension of cut out varies as per the size of the basin
Cutout in slab to be referred as architectural drawing

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SLAB_DETAILS

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		Sep, 2026	STR_17
			SCALE
			NTS

STRUCTURE DRAWINGS

RETAINING WALL

Owner - KHPL
Location - TRASHIYANGTSE

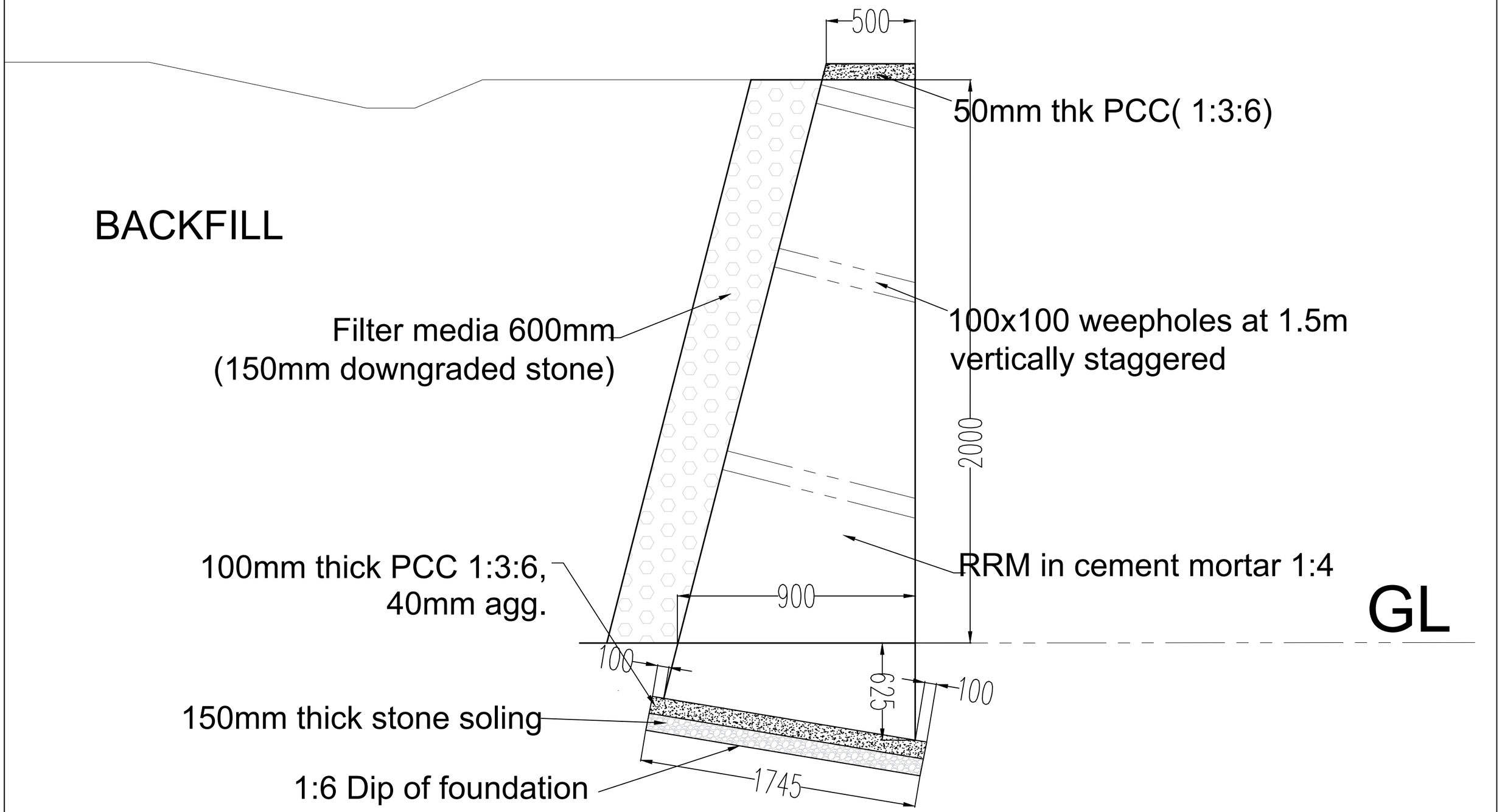


NOTE:

1. DEPTH OF FOUNDATION SHALL BE AT LEAST 500M FROM FIRM GROUND LEVEL.
2. A SEPARATION GAP OF 50-100MM SHALL BE PROVIDED AT MAXIMUM OF 10M LENGTH OF WALL.
3. THROUGH STONES & BONDING ELEMENT TO BE PROVIDED AT EVERY 1 -1.5M INTERVAL HORIZONTALLY THROUGHOUT THE LENGTH OF THE WALL.
4. TO ATTAIN GOOD BONDING STRENGTH, MINIMUM OF TWO WEEKS.

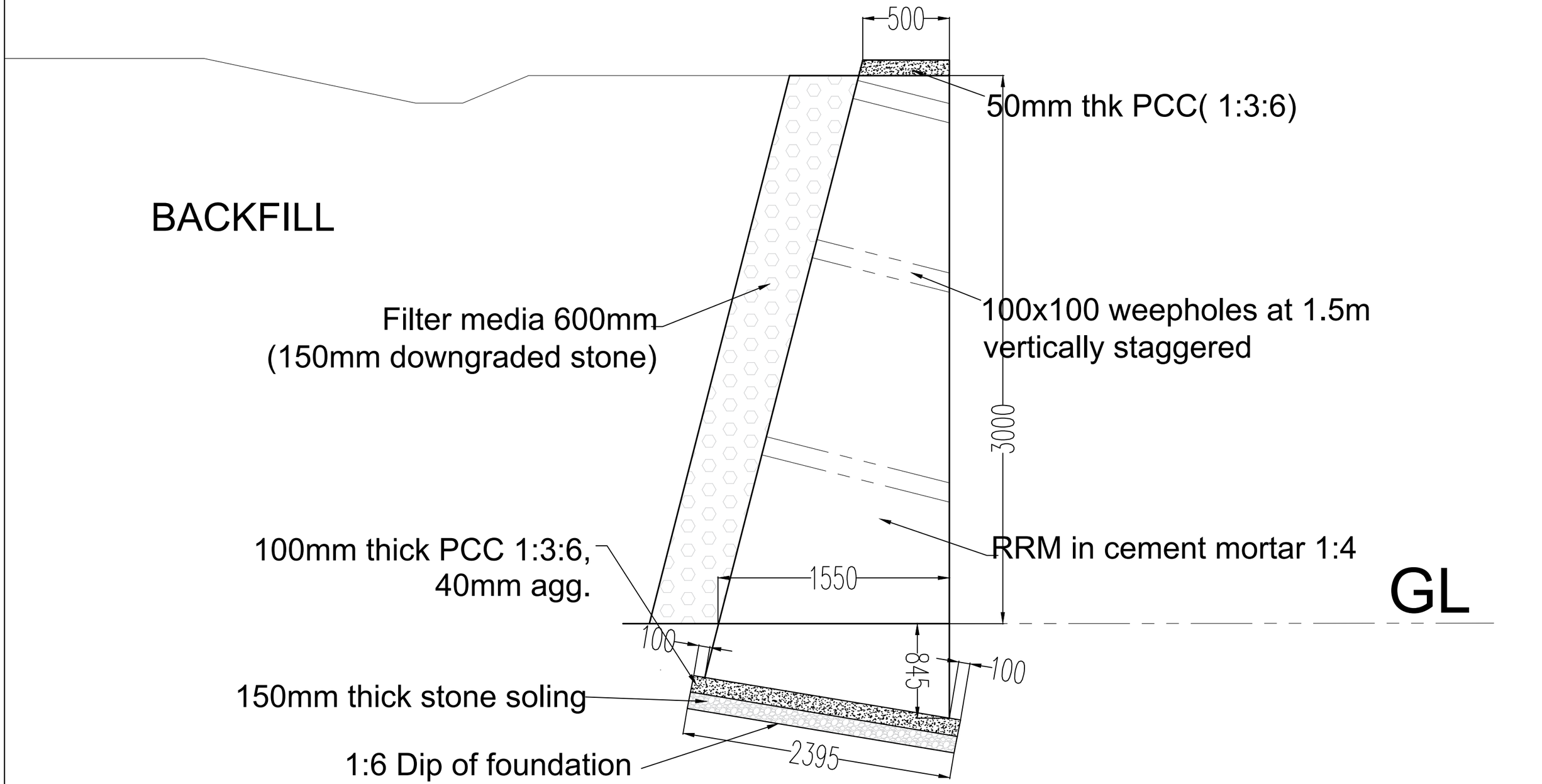
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
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Construction of BHU Building and Auxiliary Work	SRUCTURE_NOTE				Sep, 2026	SCALE
						NTS



TWO METER RETAINING WALL

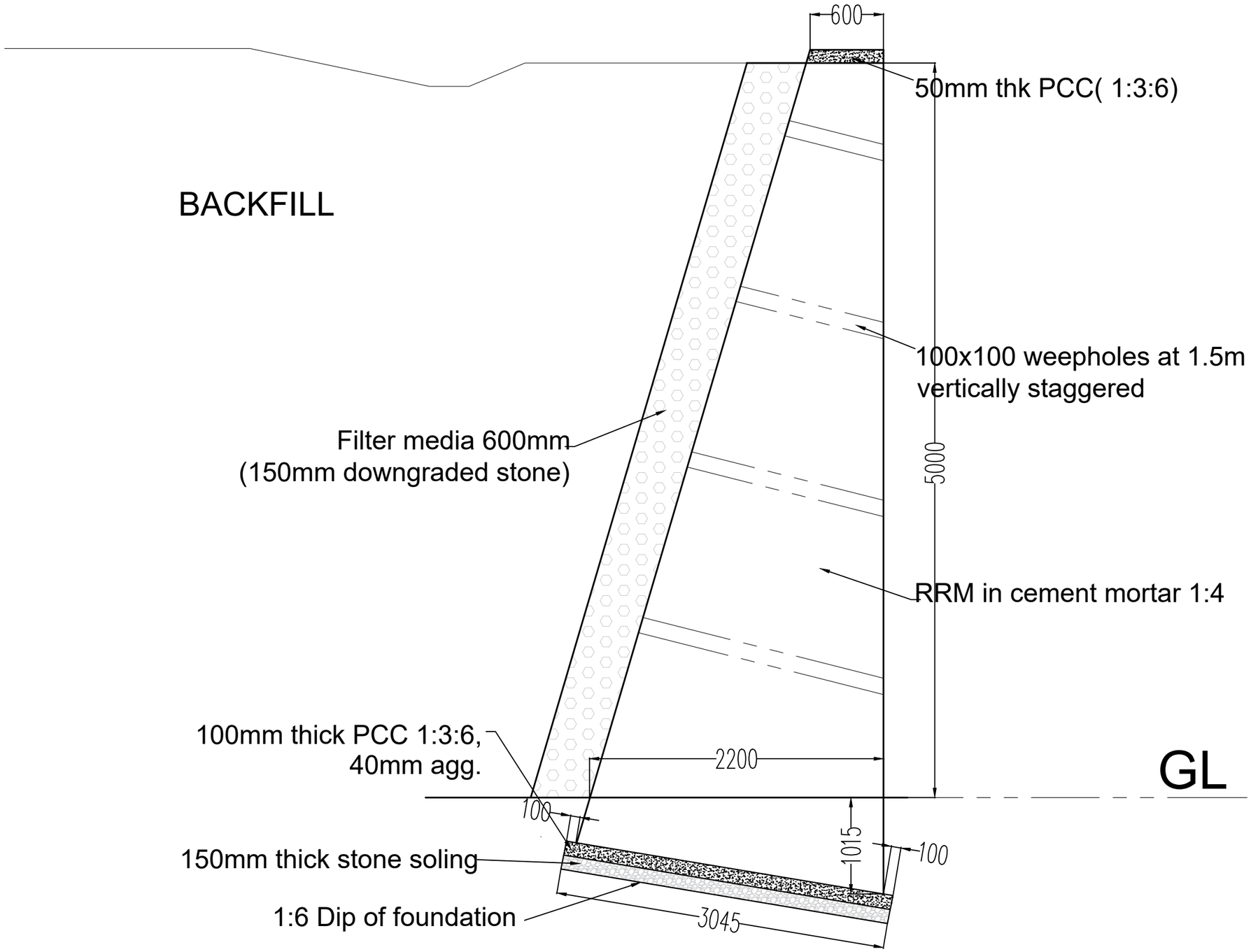
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	Construction of BHU Building and Auxiliary Work / 2M_WALL_HEIGHT_RETAINING_WALL				Sep, 2026	**SCALE** NTS



THREE METER RETAINING WALL

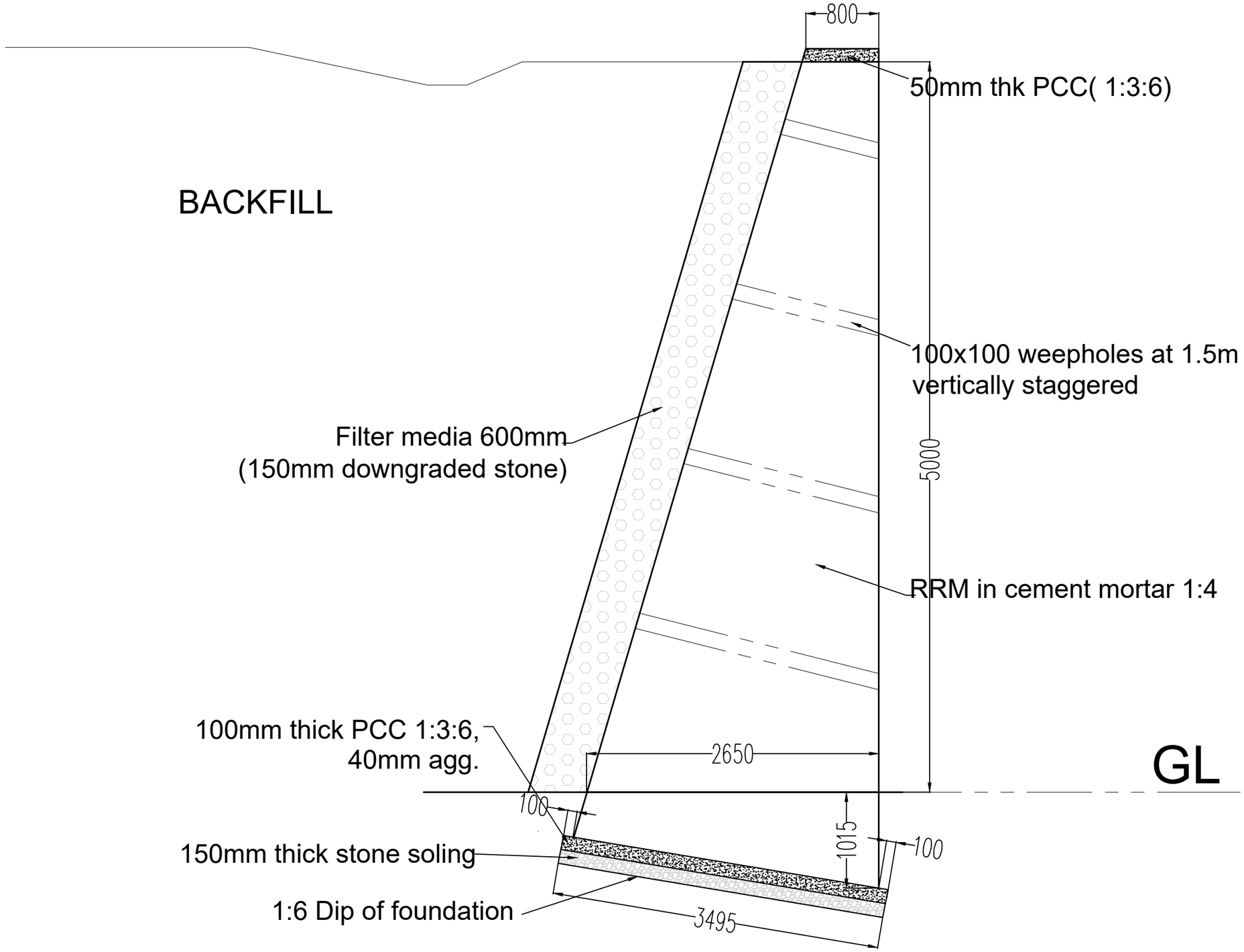
Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_03
Construction of BHU Building and Auxiliary Work	3M_WALL_HEIGHT_RETAINING_WALL				Sep, 2026	SCALE NTS



FOUR METER RETAINING WALL

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_04
	Construction of BHU Building and Auxiliary Work / 4M_WALL_HEIGHT_RETAINING_WALL				Sep, 2026	**SCALE** NTS



FIVE METER RETAINING WALL

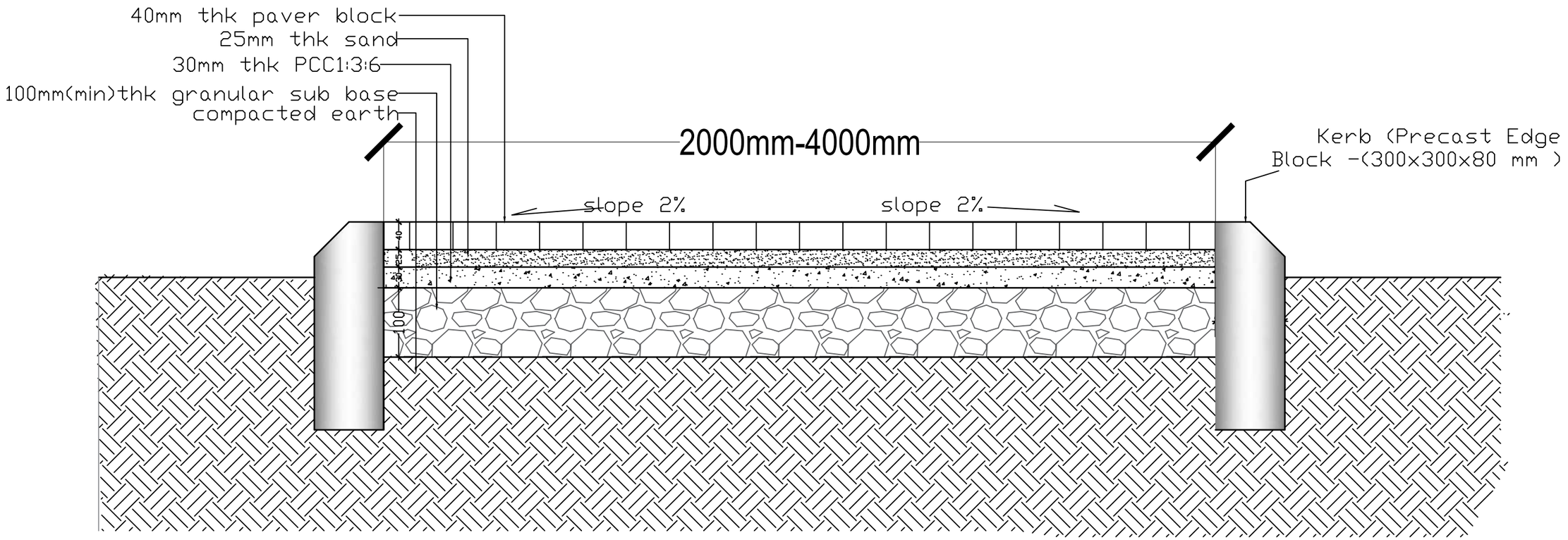
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	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				STR_05
	Construction of BHU Building and Auxiliary Work / 5M_WALL_HEIGHT_RETAINING_WALL				Sep, 2026	**SCALE** NTS

STRUCTURE DRAWINGS

FOOTPATH

Owner - KHPL
Location - TRASHIYANGTSE

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FOOTPATH

NOTES

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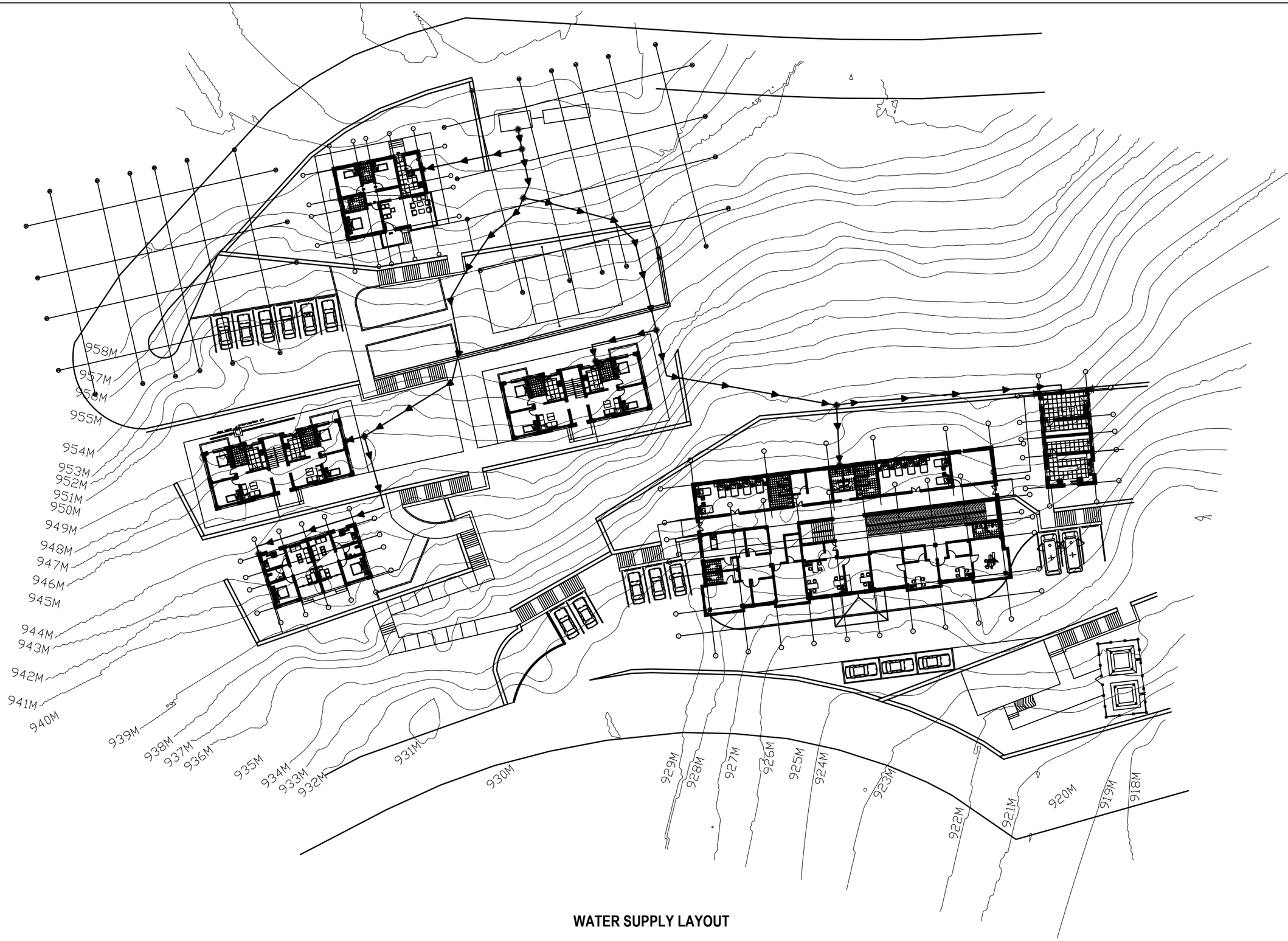
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	STR_01
			SCALE
			NTS

STRUCTURE DRAWINGS

WATER SUPPLY

Owner - KHPL
Location - TRASHIYANGTSE





WATER SUPPLY LAYOUT

Khorlochhu

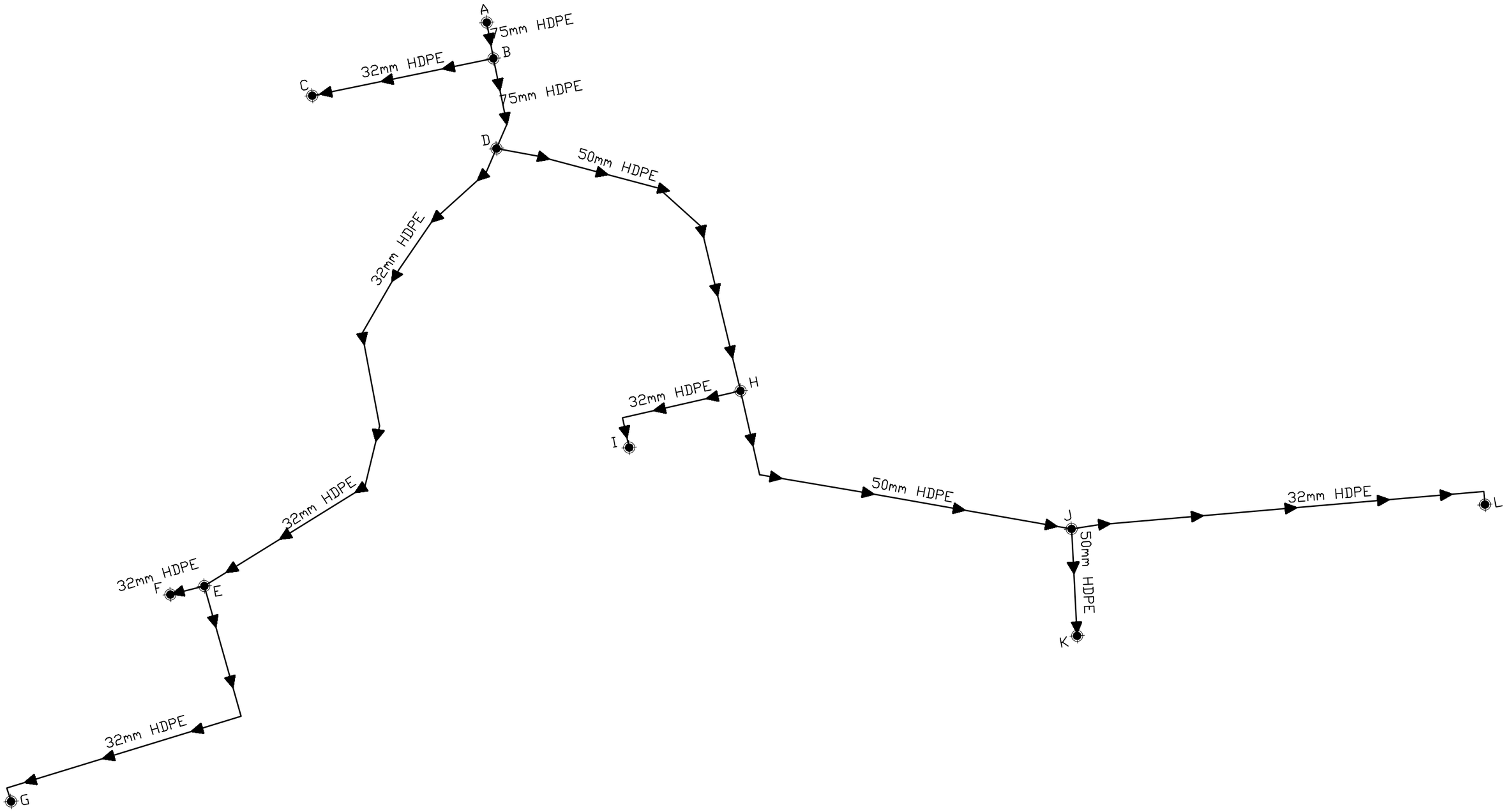
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	WATER_SUPPLY_LAYOUT

NOTES

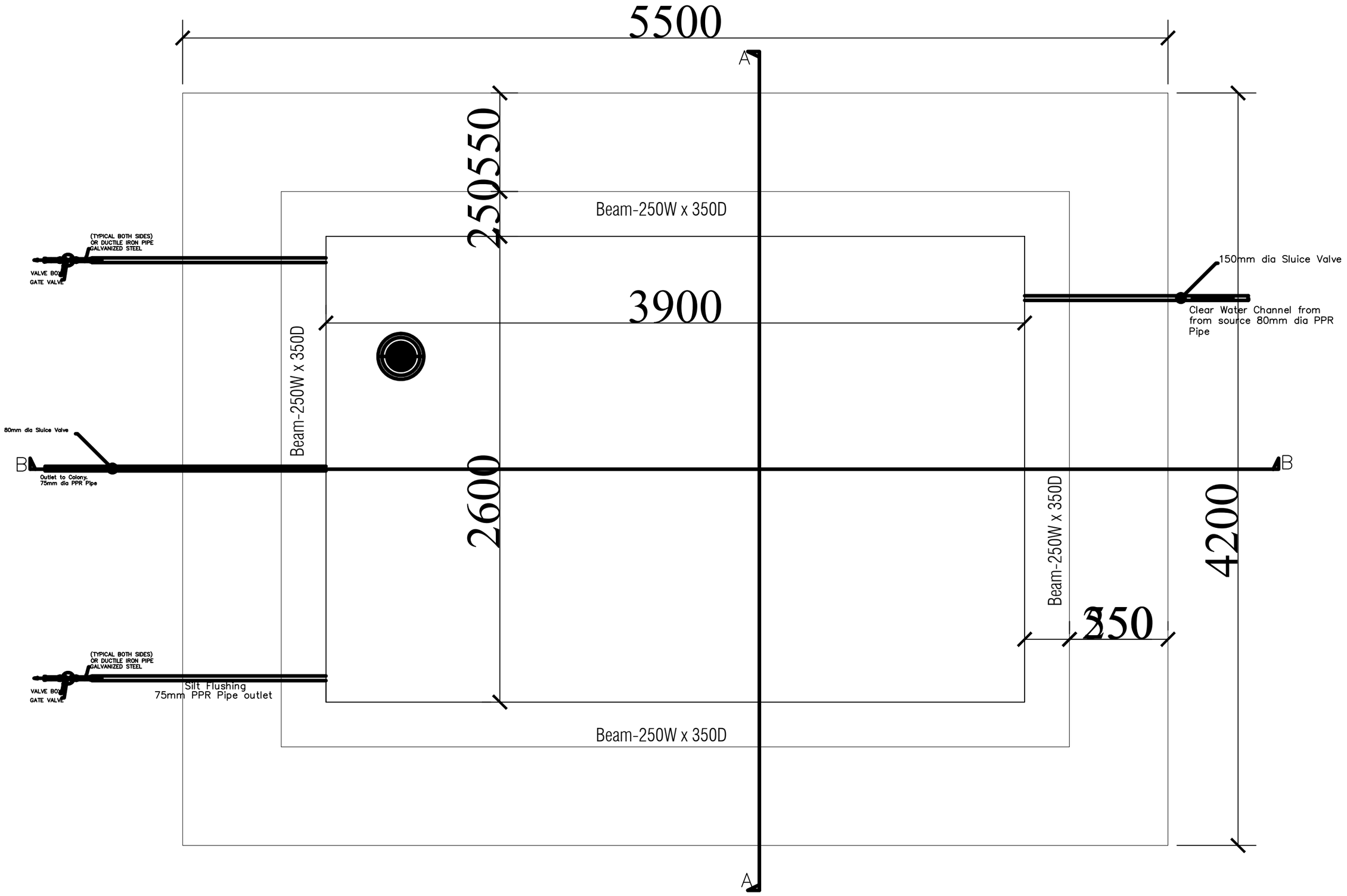
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	WS_01
			SCALE
			NTS

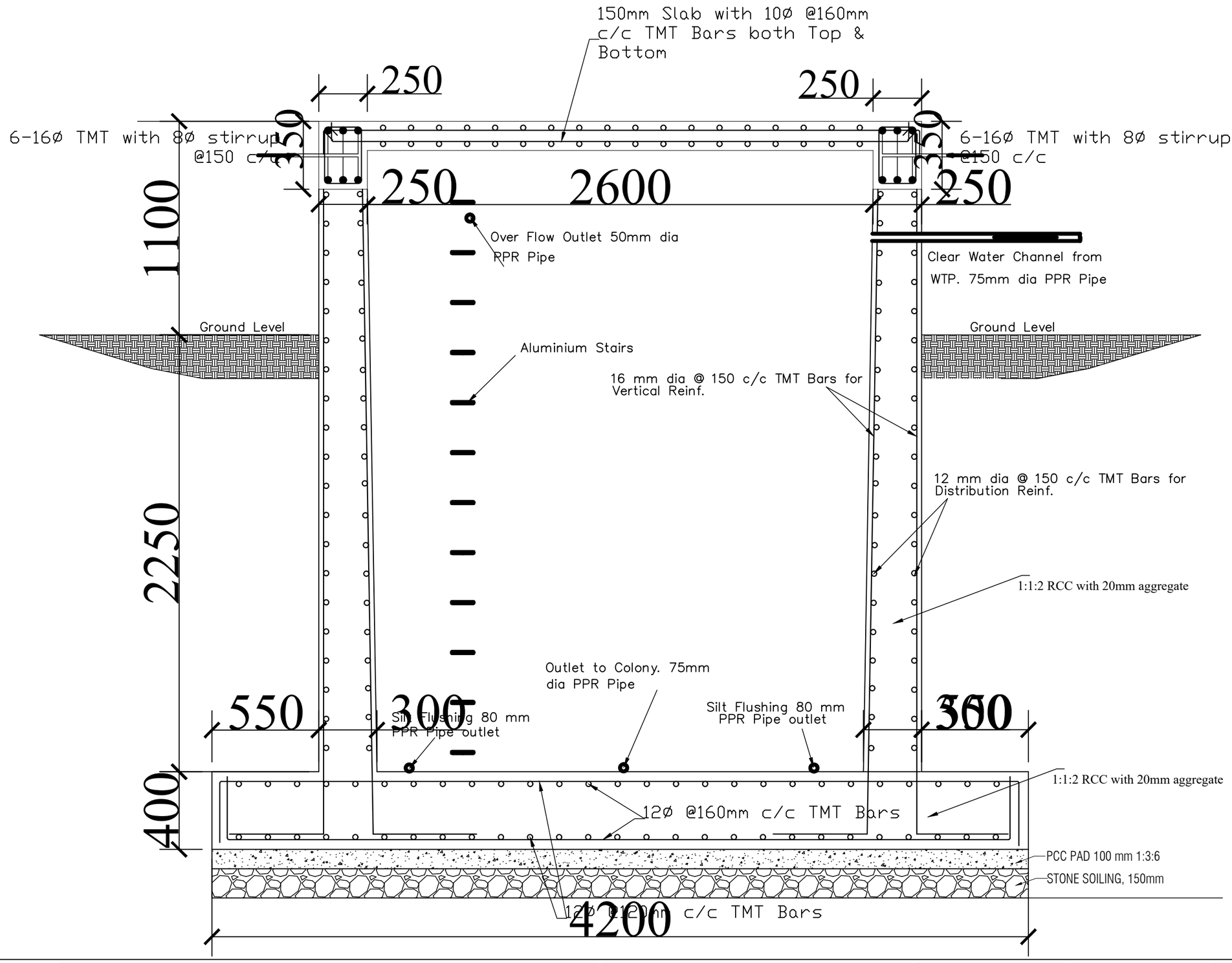


WATER SUPPLY LAYOUT (Pipe sizes)

Khorlochhu	STRUCTURAL DRAWING	NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
	PROJECT TITLE / DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				WS_02
	Construction of BHU Building and Auxiliary Work / WATER_SUPPLY_PIPE_SIZES				Sep, 2026	SCALE: NTS



Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / MAIN_STORAGE_TANK				Sep, 2026	**SCALE** NTS



Khorlochhu

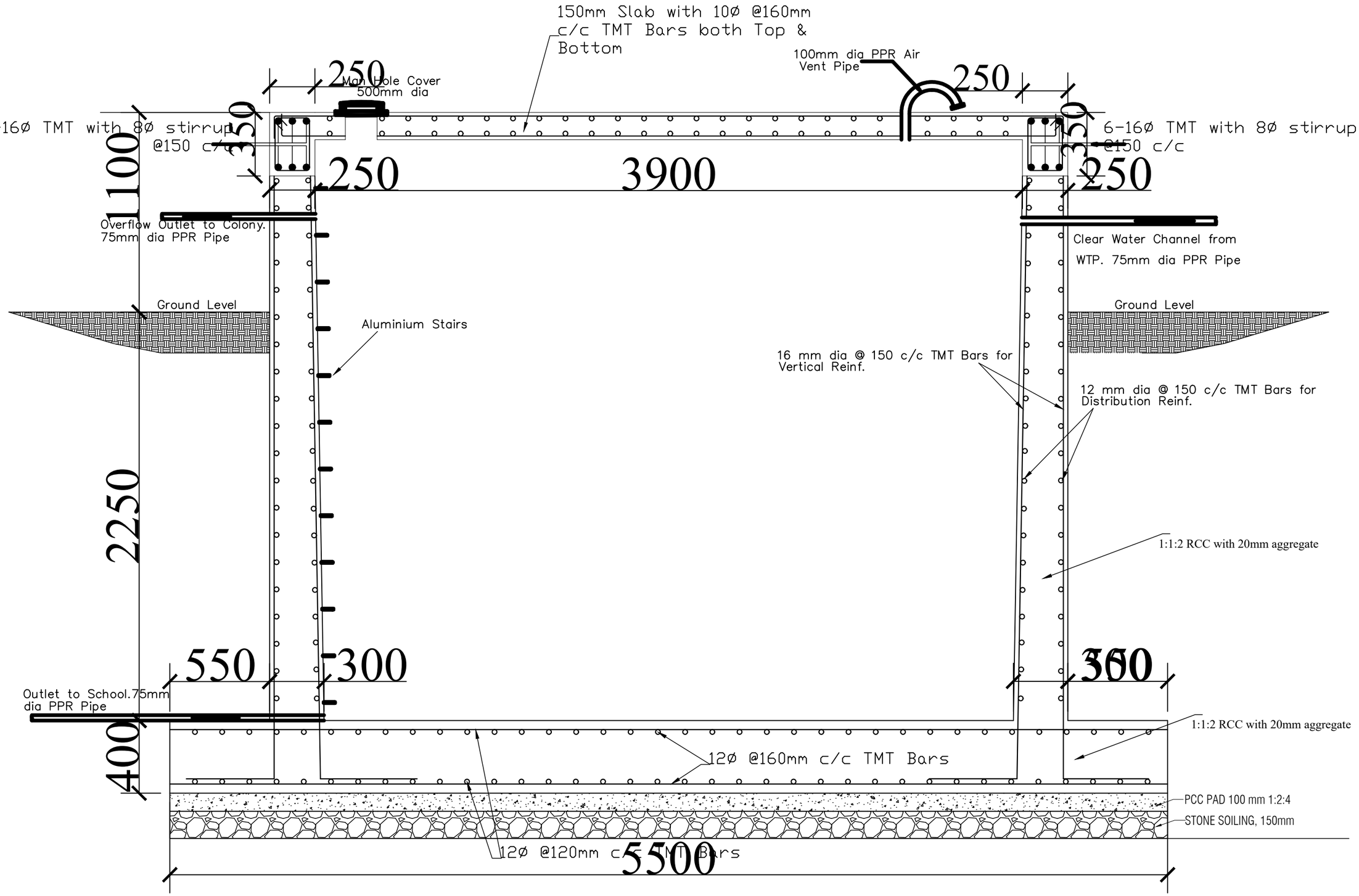
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	MAIN_STORAGE_TANK

NOTES

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		Sep, 2026	WS_04
			SCALE
			NTS



Khorlochhu

STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	MAIN_STORAGE_TANK

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	WS_05
			SCALE
			NTS

STRUCTURE DRAWINGS

SEWAGE

Owner - KHPL
Location - TRASHIYANGTSE





SEWER LINE LAYOUT

STRUCTURAL DRAWING

Khorlochhu

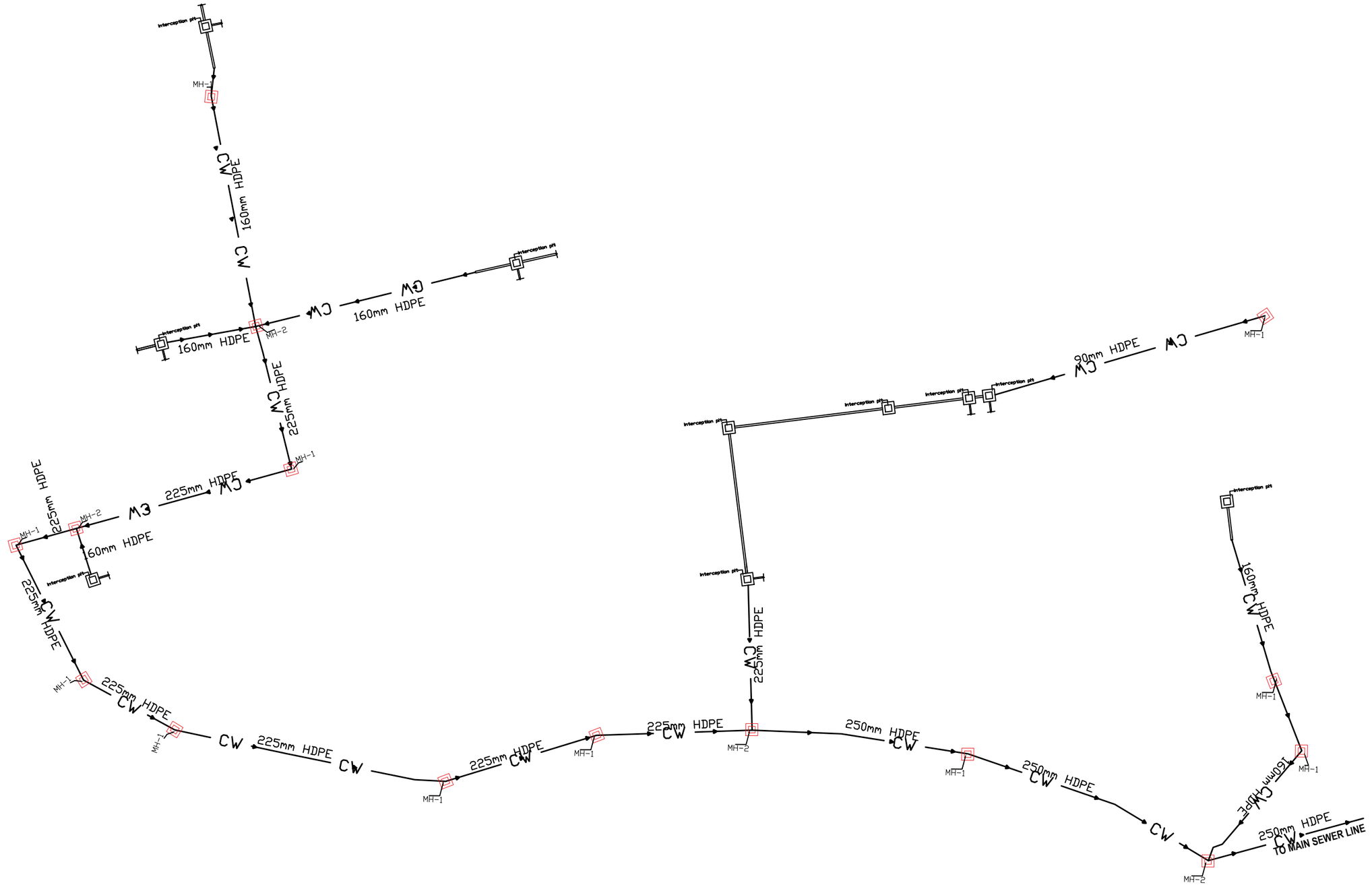
PROJECT TITLE: Construction of BHU Building and Auxiliary Work

DRAWING TITLE: SEWER_LINE_LAYOUT_AND_LOCATION_OF_MANHOLES

NOTES

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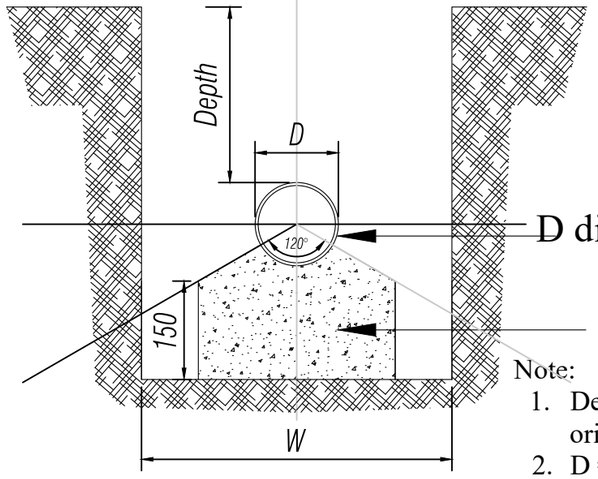
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	SW_01
			SCALE
			NTS



SEWER LINE LAYOUT(Pipe sizes)

Khorlochhu

STRUCTURAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
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Construction of BHU Building and Auxiliary Work	PIPE_SIZES				Sep, 2026	SCALE: NTS



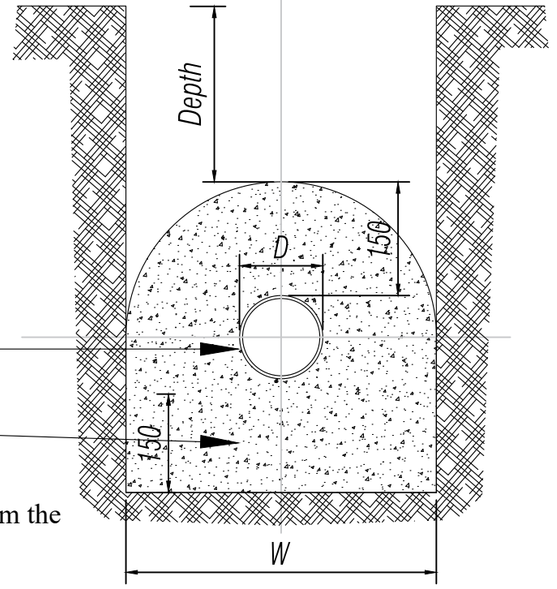
Bedding of sewer in ordinary soil

D dia HDPE Pipe for Sewer

1:2:4 PCC

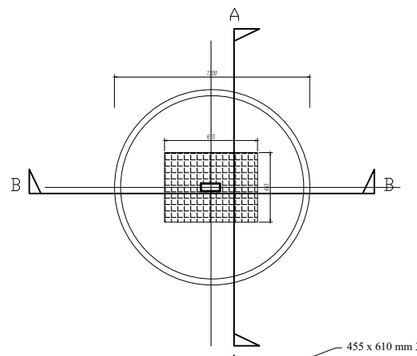
Note:

1. Depth should be minimum of 150mm from the original ground level.
2. D = Dia of Pipe
3. Depth = D + 300mm
4. W = 75mm + D + 75mm

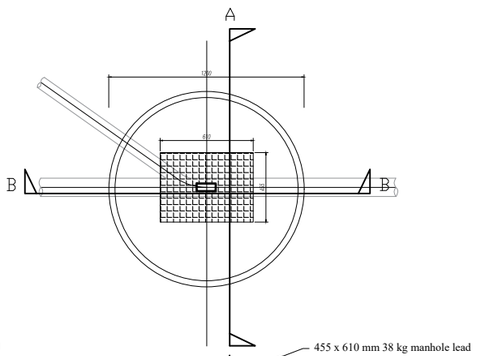


Bedding of sewer in softer/loose soil

Typical Bedding Details for D dia HDPE Pipe for Sewer

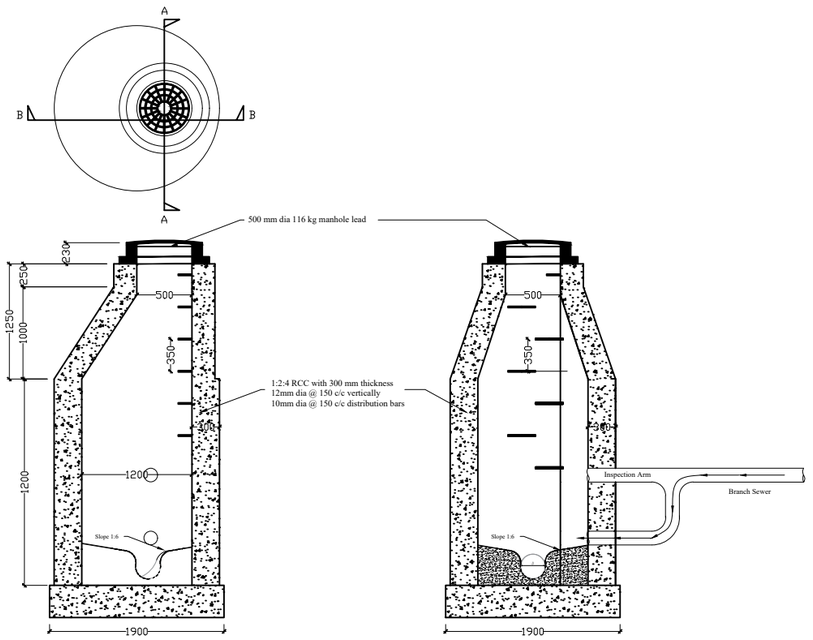


Section B - B



Section A - A

MH–1



Section B - B

MH–2

Section A - A

Khorlochhu	**STRUCTURAL DRAWING**		**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work	DETAILS				Sep, 2026	**SCALE**
							NTS

STRUCTURE DRAWINGS

STORM_WATER_DRAINAGE

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu



STORM-WATER DRAINAGE LAYOUT

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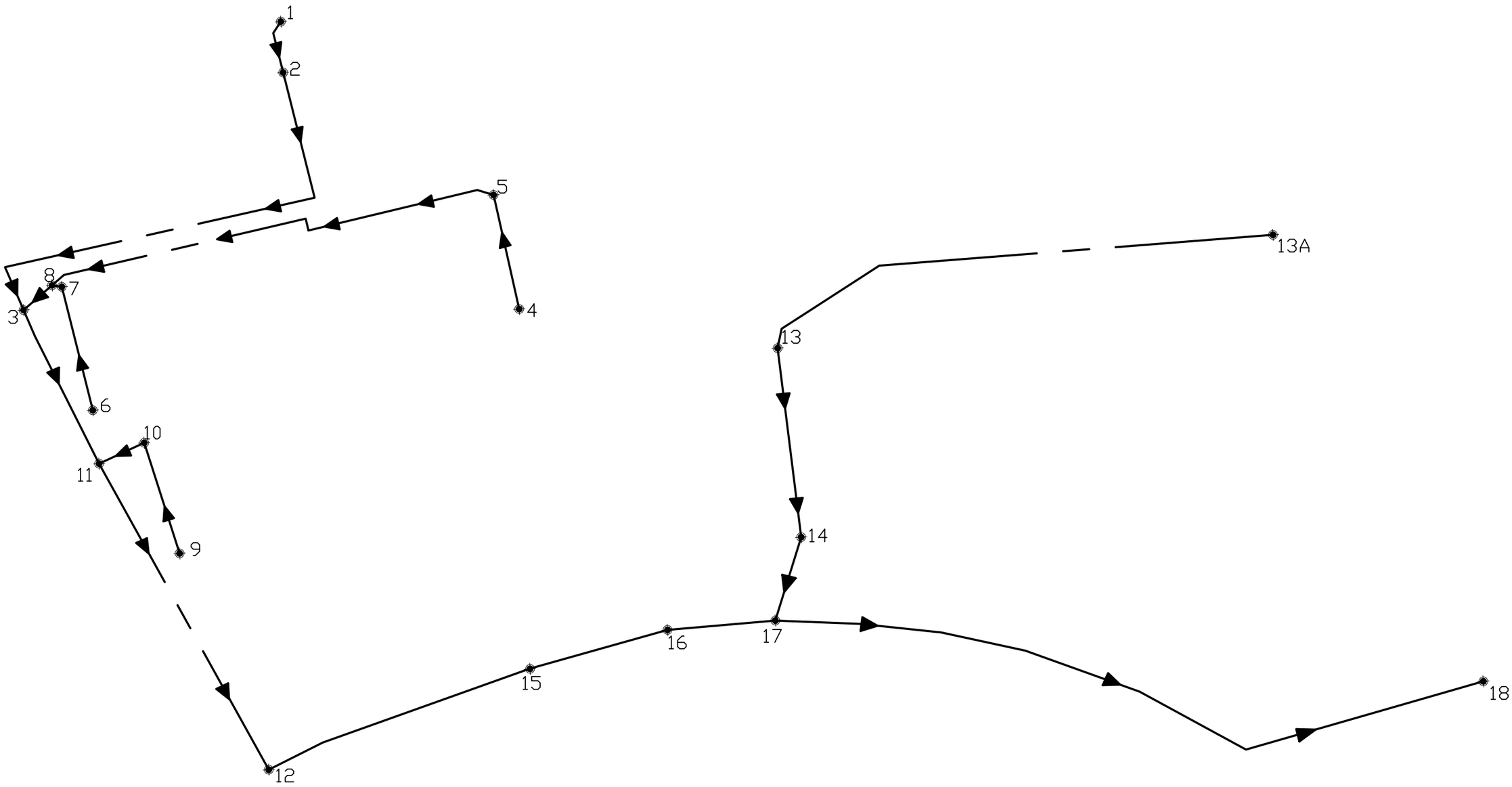
STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	STORM_WATER_DRAINAGE_LAYOUT

NOTES

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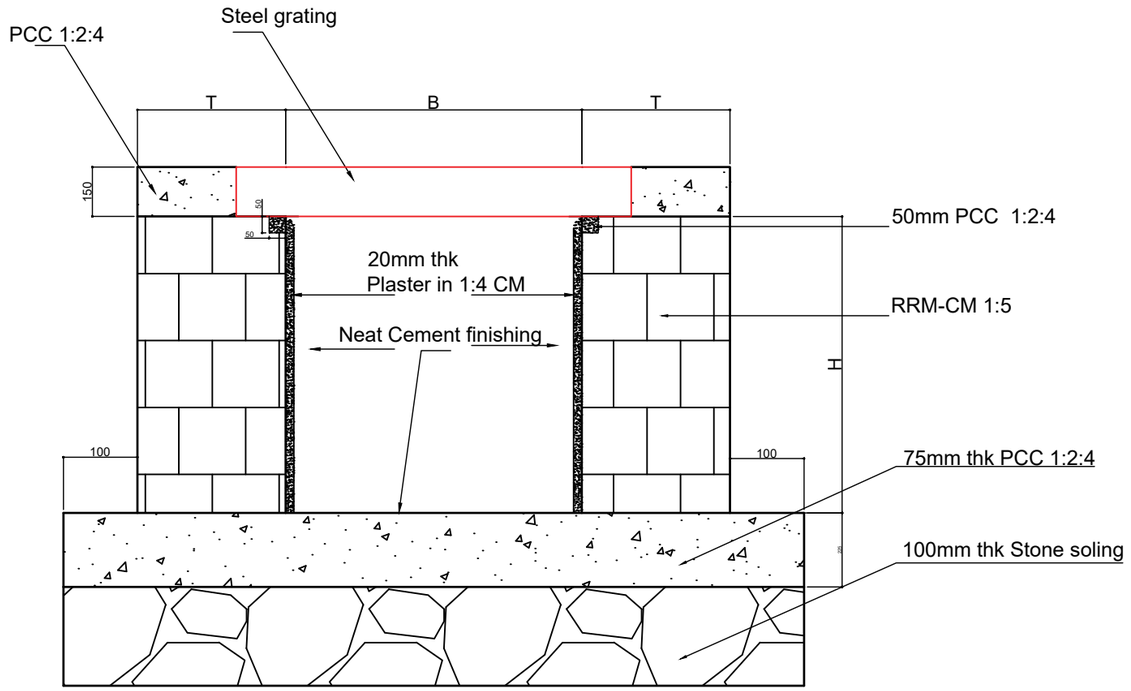
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	SD_01
			SCALE
			NTS



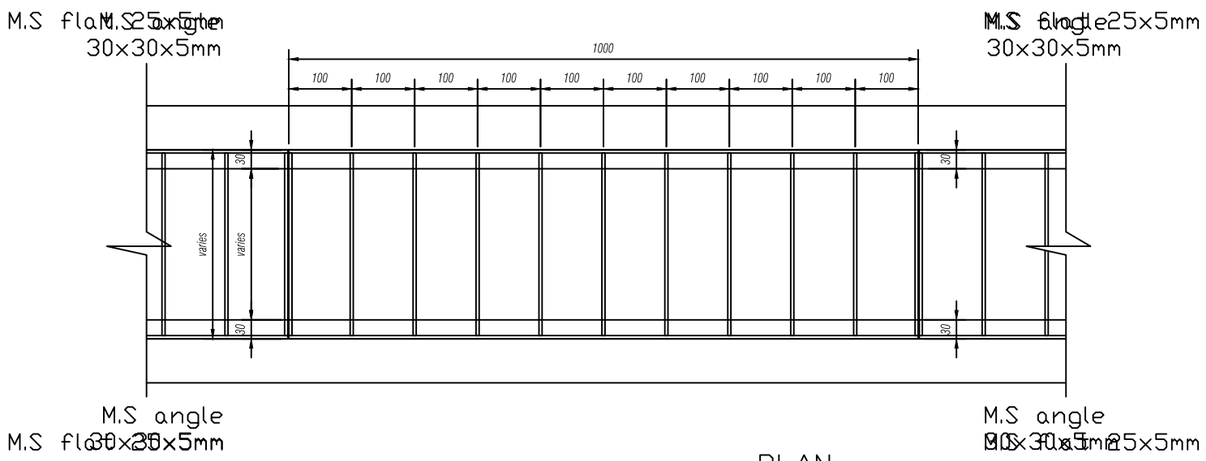
STROM-WATER DRAINAGE NODES

Khorlochhu	**STRUCTURAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / DRAINAGE_NODES					**SCALE** NTS

NODE	Drainage Dimension		
	Breadth in mm (B)	Height in mm (H)	Thickness of RRM Wall in mm (T)
1-2, 4-5,5-8, 6-7, 7-8, 9-10,10-11, 13-14, 13A-13	300	300	150
2-3, 8-3, 14-17	400	550	250
3-11, 11-12,12-15, 15-16, 16-17	500	700	250
17-18	550	800	250



Storm water Drain



PLAN

MS GRATING DETAILS (PER METER LENGTH)

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STRUCTURAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	DRAINAGE_NODES

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		Sep, 2026	SD_03
			SCALE
			NTS

ELECTRICAL DRAWINGS

COMPOUND LIGHTING

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu



Symbol	Description
Y	70W Slim LED Flood Light
◎	3x8 W Cob LED Pole Lamp
~	Trenching route for cable laying
DF	Distribution Feeder Box
S	Package Substation-500kVA

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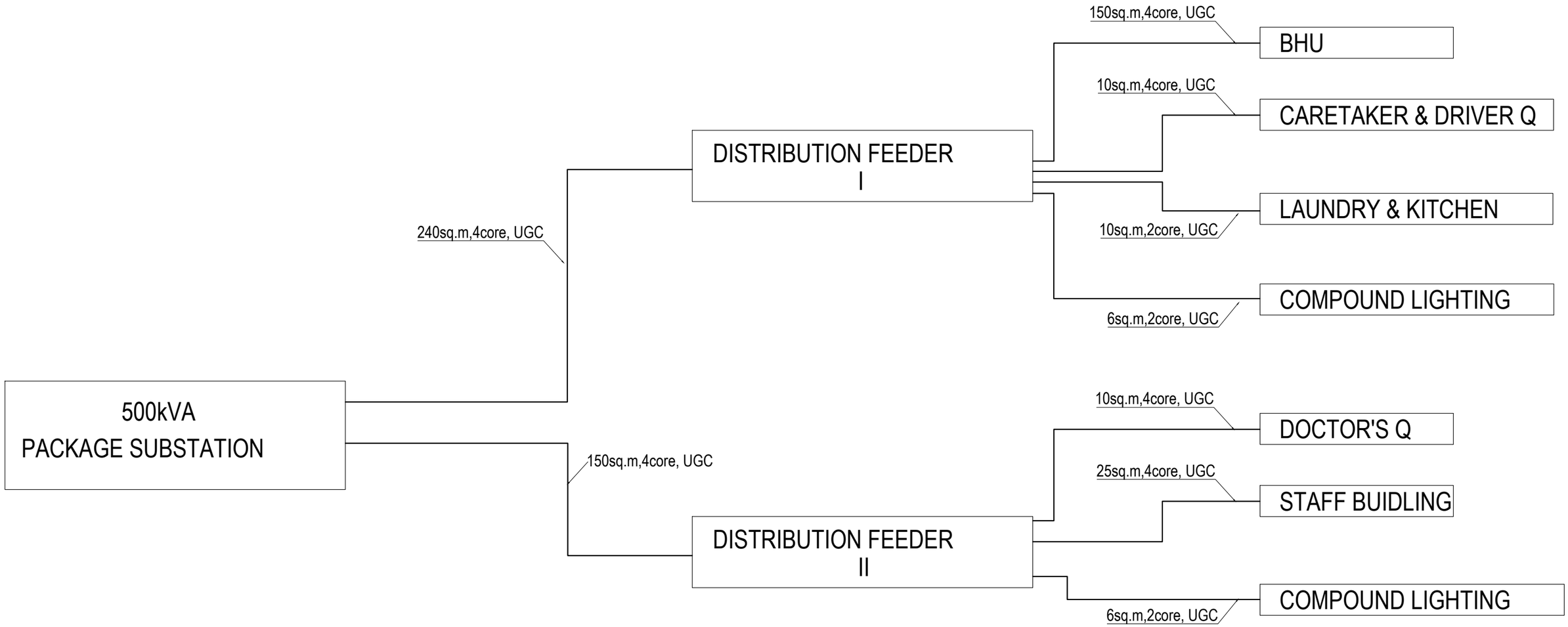
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COMPUND_LIGHTING

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		Sep, 2026	EL_1
			SCALE
			NTS



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ELECTRICAL DRAWING

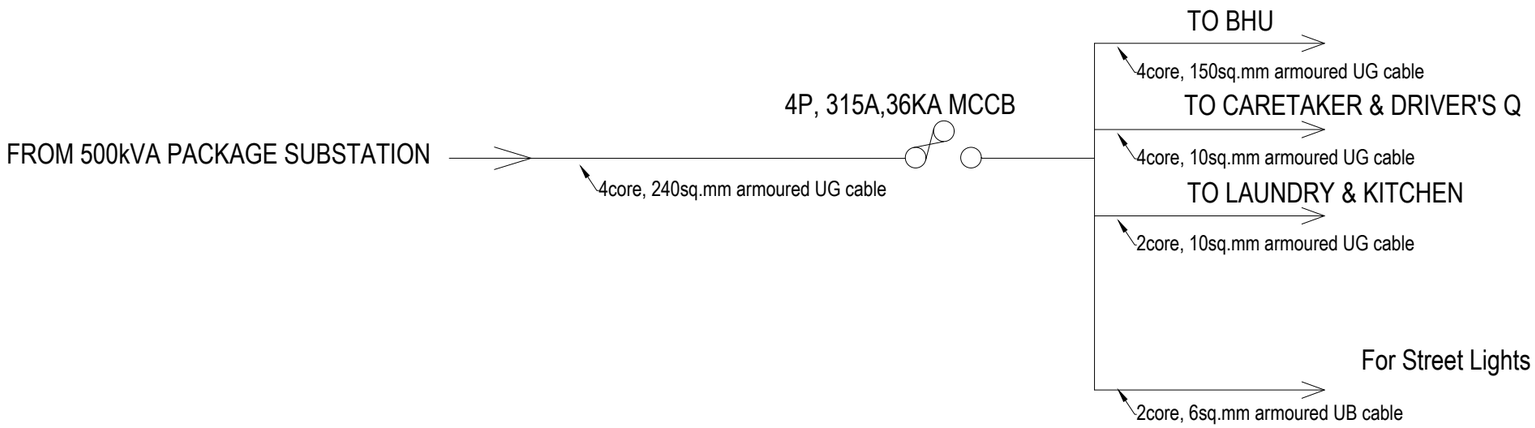
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	COMPUND_LIGHTING

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		Sep, 2026	EL_2
			SCALE
			NTS

SCHEMATIC DIAGRAM OF FEEDER PILLAR I



Demand Load in Watt

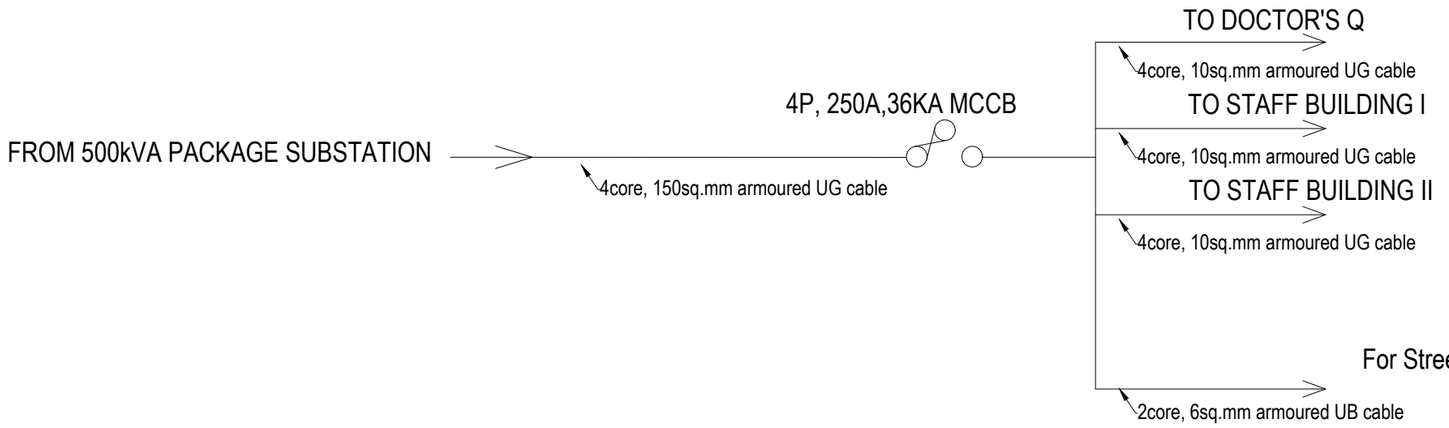
R-Phase	*Y-Phase*	*B-Phase*
44,797	44,940	44,819
10,213	10,213	
		11,204
1032W		
Total= ***56,042***	***55,153***	***56,023***

Total Demand Load=167,218W

Khorlochhu

ELECTRICAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
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Construction of BHU Building and Auxiliary Work	COMPUND_LIGHTING				Sep, 2026	SCALE NTS

SCHEMATIC DIAGRAM OF FEEDER PILLAR I I



Demand Load in Watt

R-Phase	*Y-Phase*	*B-Phase*
5,700	5,685	5,774
18,185	17,904	18,432
18,185	17,904	18,432
	788W	
Total= ***42,070***	***42,281***	***42,638***

Total Demand Load=126,989 W

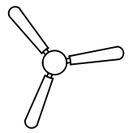
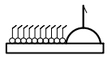
Khorlochhu	**ELECTRICAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / COMPUND_LIGHTING				Sep, 2026	**SCALE** NTS

ELECTRICAL DRAWINGS

BHU

Owner - KHPL
Location - TRASHIYANGTSE

Khorlochhu

SYMBOLS	SPECIFICATIONS
	60w,1200 sweep Ceiling fan
	18W LED Surface Ceiling Light
	12W LED Surface Ceiling Light
	5W LED Wall Mounted Out Door Light
	6A/10A Modular switches.
	5/6 Pin 16 Amps Switch/Socket Combined with indicator
	Switch Board with 6A,100W,2/3 Pin Switch Socket Outlet
	Exhaust fan, 60W for calculation.
	Telephone Outlet Socket, RJ11.
SDB	Sub Distribution Board,Double Door Type (SDB)
	Main Control Panel Board (MCPB)
JB	Telephone Terminal Cabinet (Junction Box)

Notes 1:

1. Light points wiring shall be with 1.5sq.mm PVC insulated copper conductor
2. Light supply circuit shall be done with 2.5sq.mm PVC insulated copper conductor
3. Power circuits shall be done with 4sq.mm PVC insulated copper conductor.
4. Different conduit lines shall be used for wiring with different phases.
5. Power points wiring below window shall not be dropped from above but supplied from below the window seal level.
6. Light switchboards shall be 1400mm from finished floor level to top.
7. Power sockets shall be 400mm from finished floor level to top except in Kitchen or toilets/bathrooms (wet area) where the height shall be 1400mm from floor to bottom and for air condition the height shall be 1750mm from finished floor level.
8. No power point shall be looped.
9. Main switch boards are to be flushed in the wall 230mm below the ceiling level.

Notes 2: (As recommended by service providers)

1. Telephone wiring shall be with 0.5Sq.mm PVC insulated and sheathed copper conductor.
2. Ducting to be at least 500mm away from electrical cable routes.
3. To provide bridging where telephone and electric cables cross.
4. Telephone terminal cabinet shall be 300x300x150mm with hole punches to receive 25mm dia conduit on all four sides and mounted at 2500mm above floor level.
5. Cable ducting shall be provided with 25mm dia PVC conduit and shall be common for drawing of TV cables.
6. RJ-11 sockets shall be provided for telephone points.
7. To supply direct lines for all the rooms where points are marked, from the terminal cabinet.
8. The incoming lines shall be brought and connected to incoming side of the terminal cabinet from where lines to all the rooms commence

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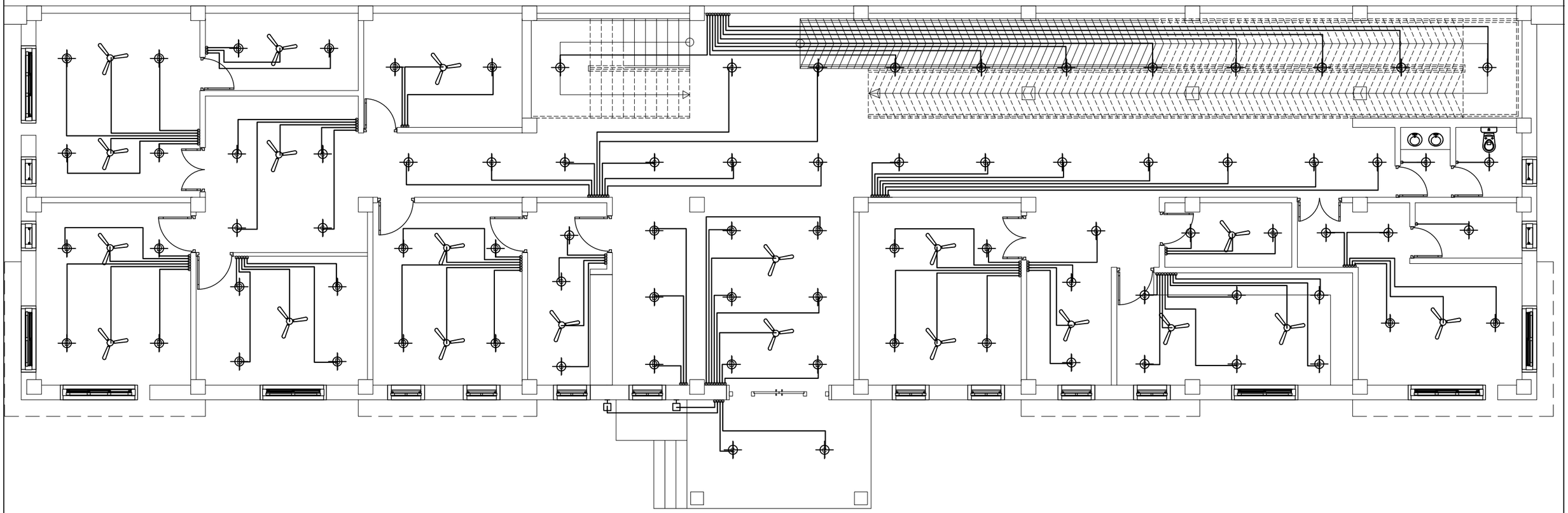
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	NOTES_AND_SPECIFICATION

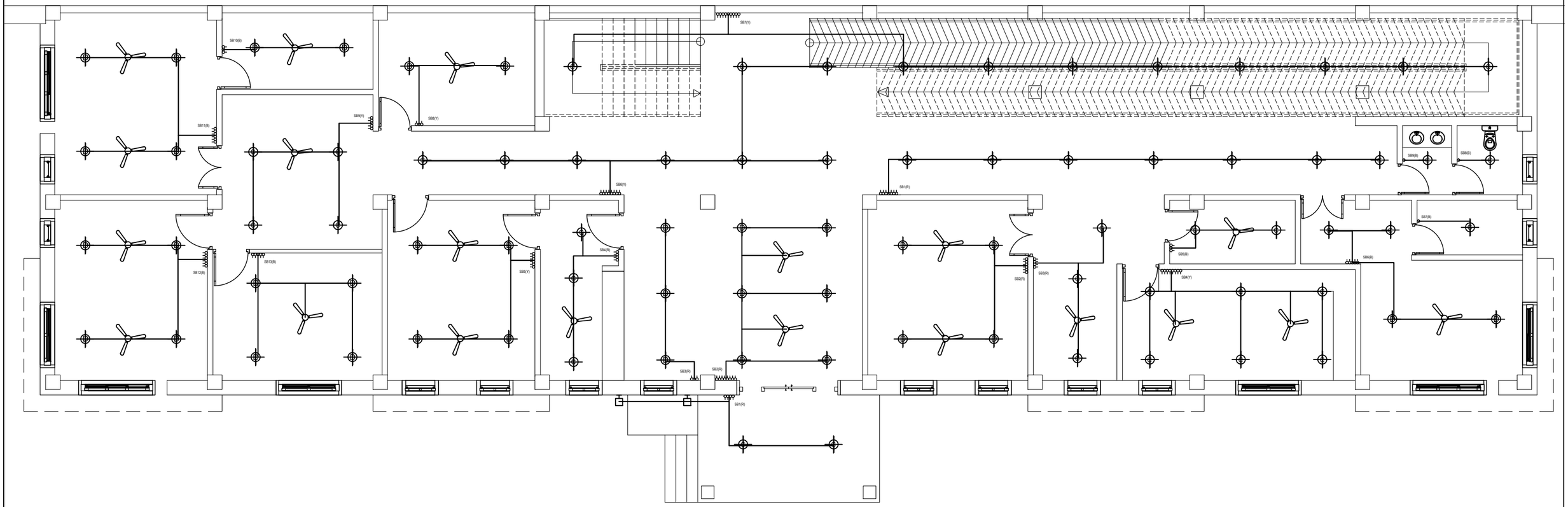
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		Sep, 2026	EL_1
			SCALE
			NTS



Khorlochhu	**ELECTRICAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / FITTING_POINTS_GROUND_F				Sep, 2026	**SCALE** NTS



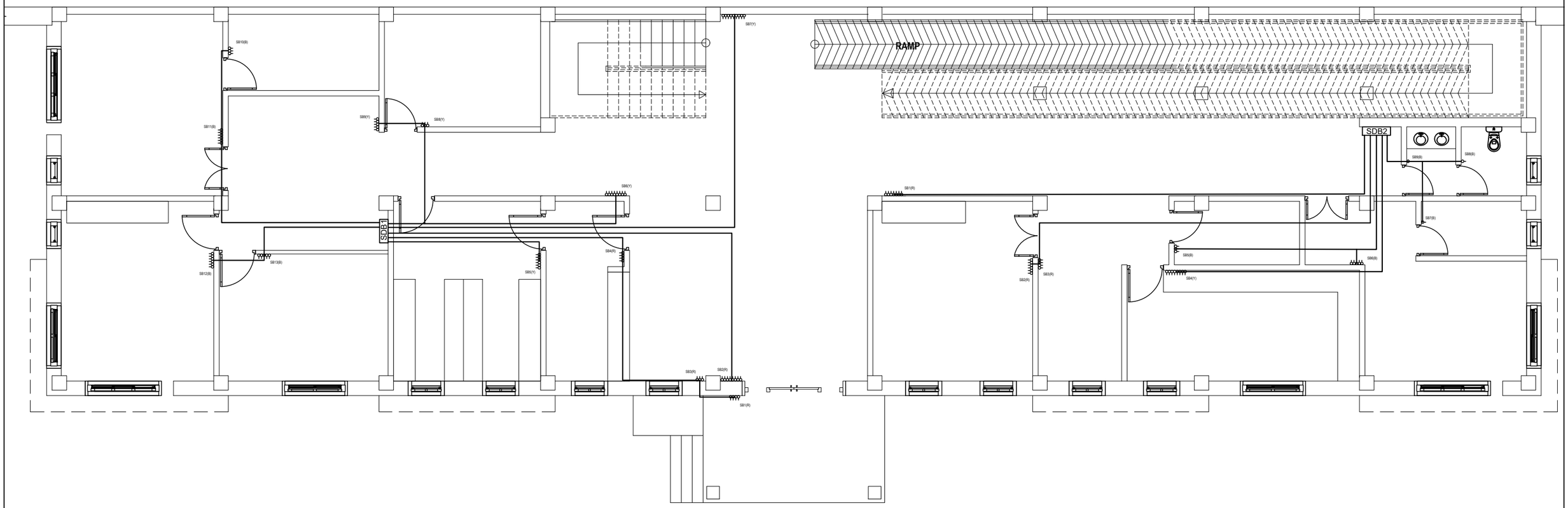
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTINGS_&_CONDUITS_LAYOUT_GROUND_F

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			SCALE
			NTS



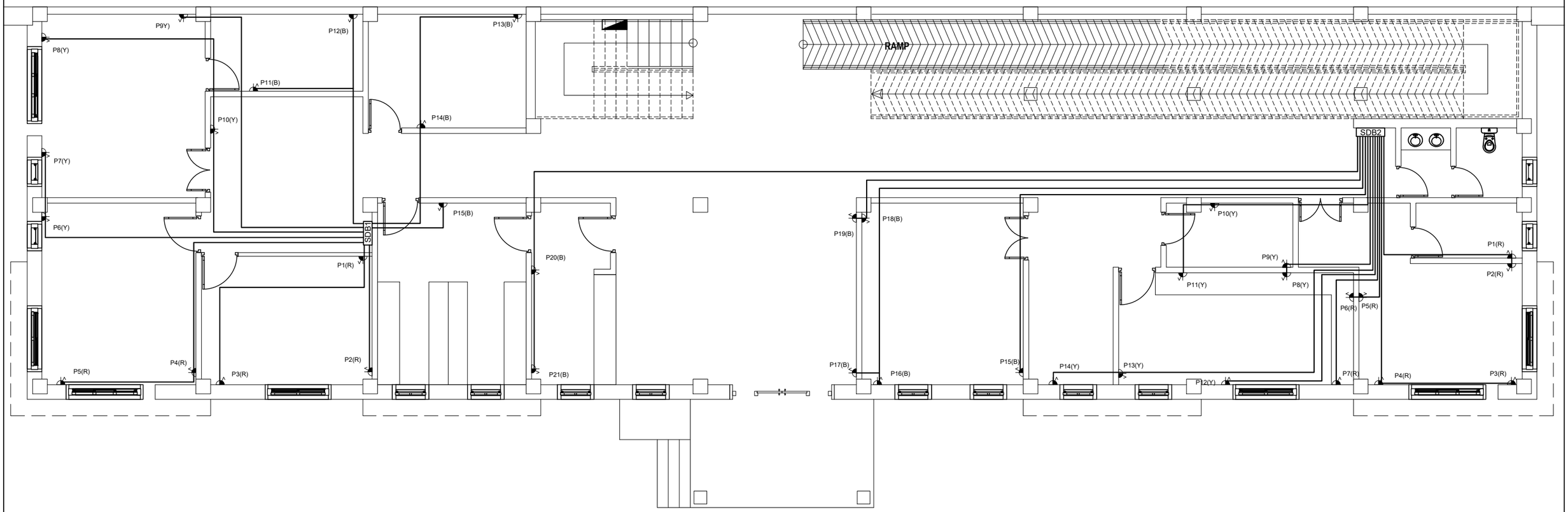
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LIGHT_CIRCUITS_&_CONDUIT_LAYOUT_GROUND_F

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_4
			SCALE
			NTS



Khorlochhu

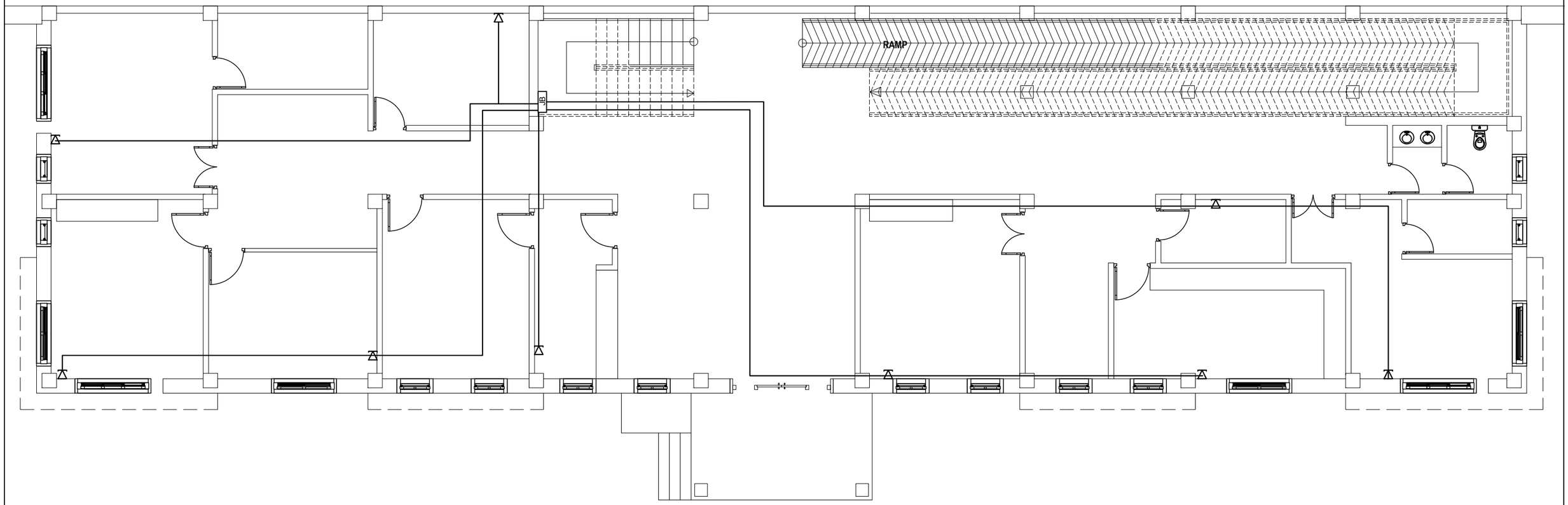
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	POWER_SOCKET_OUTLET_&_CONDUIT_LAYOUT_GROUND_F

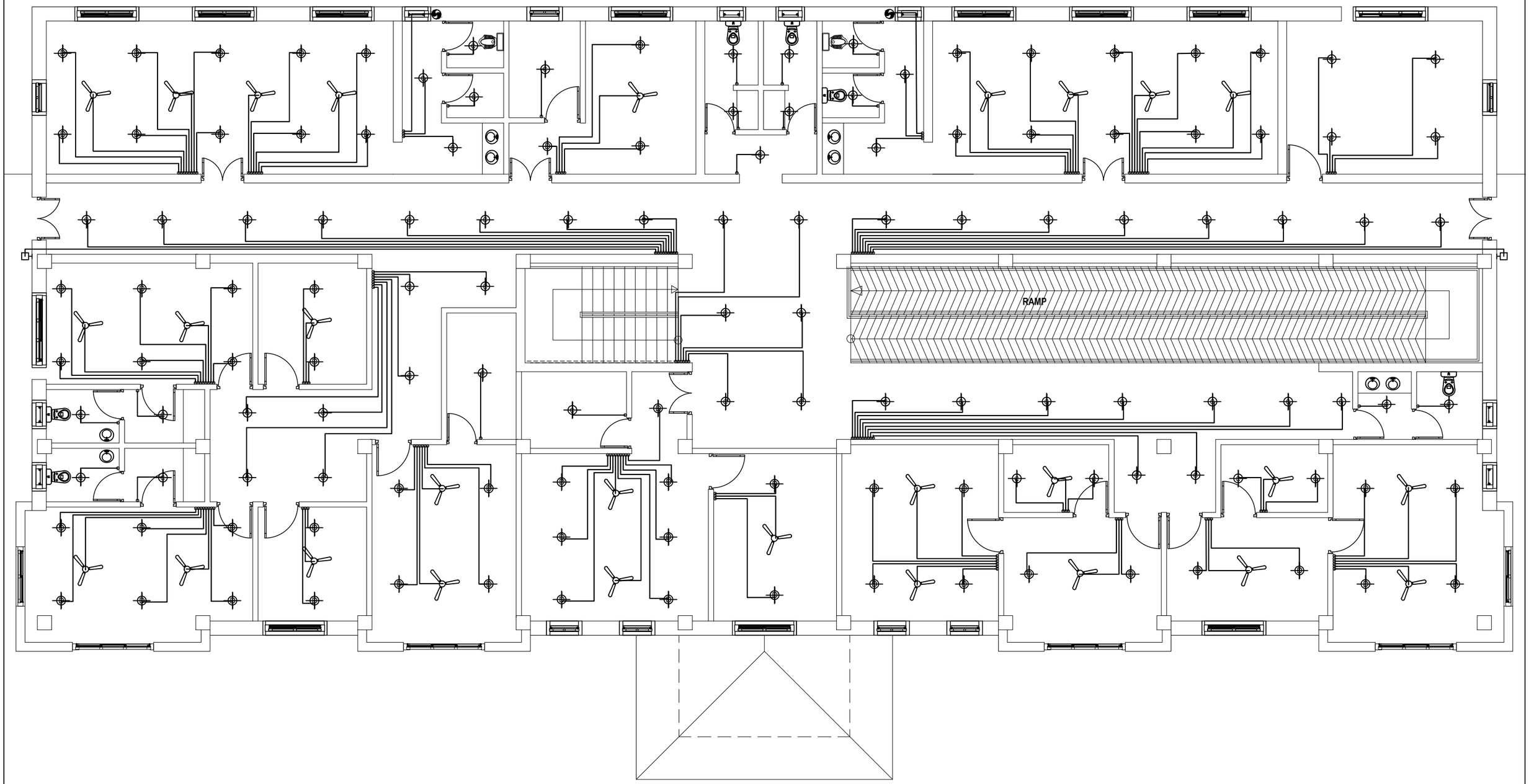
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_5
			SCALE
			NTS



Khorlochhu	**ELECTRICAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				EL_6
	Construction of BHU Building and Auxiliary Work / TELEPHONE_SOCKET_OUTLET_&_CONDUIT_LAYOUT_GROUND_F				Sep, 2026	**SCALE** NTS



Khorlochhu

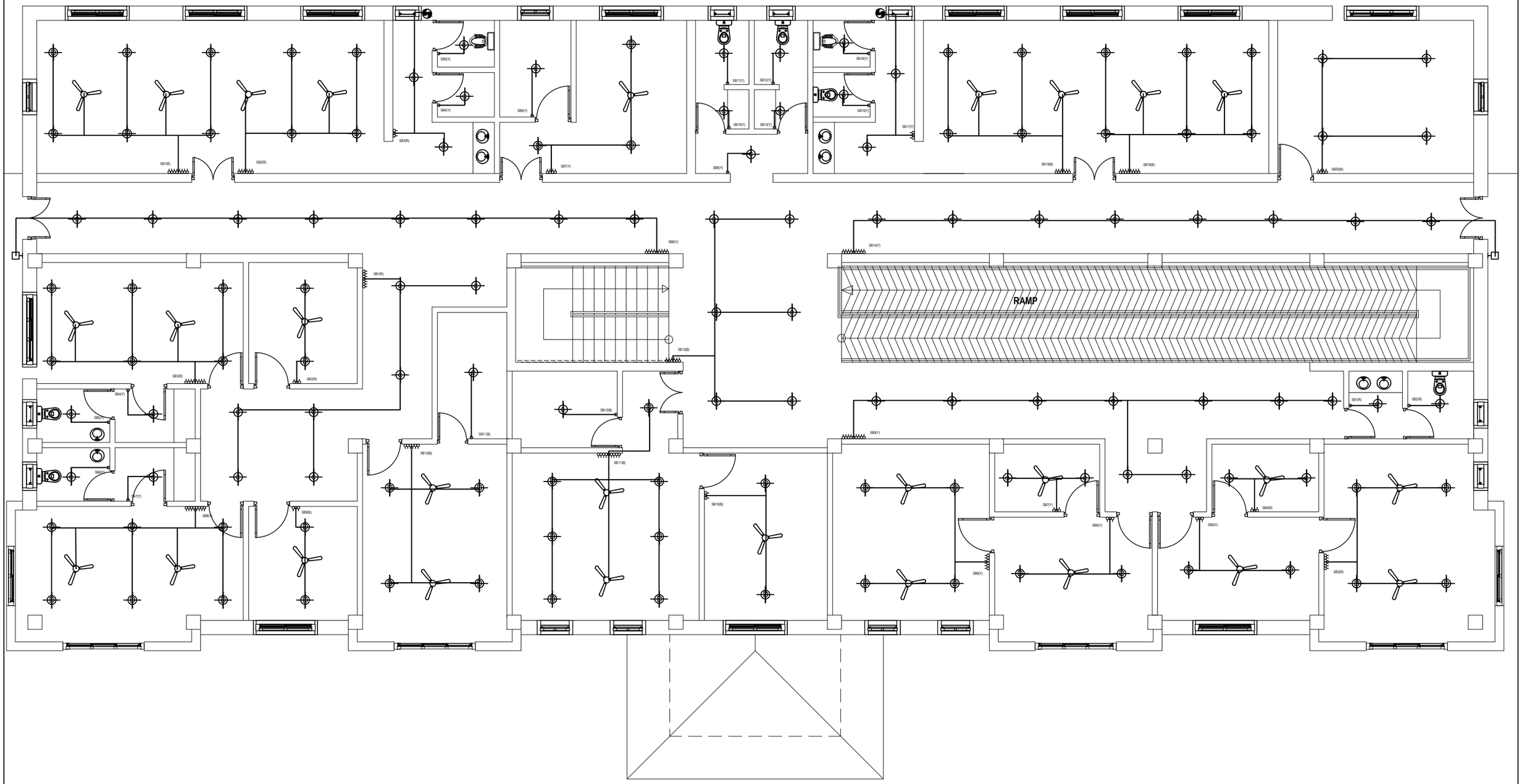
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTING_POINTS_FIRST_F

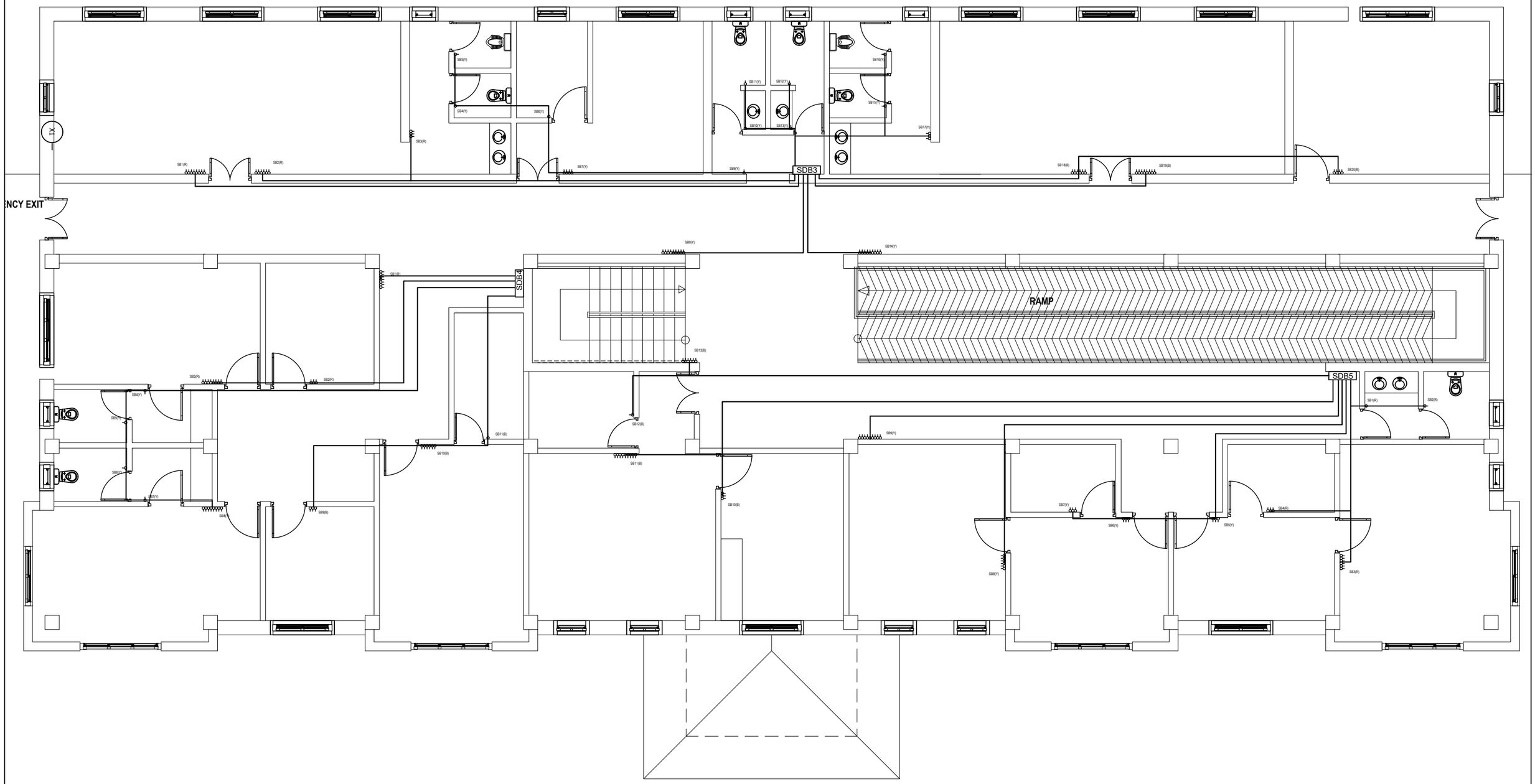
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_7
			SCALE
			NTS



Khorlochhu	**ELECTRICAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / FITTINGS_&_CONDUITS_LAYOUT_FIRST_F					**SCALE** NTS



ELECTRICAL DRAWING

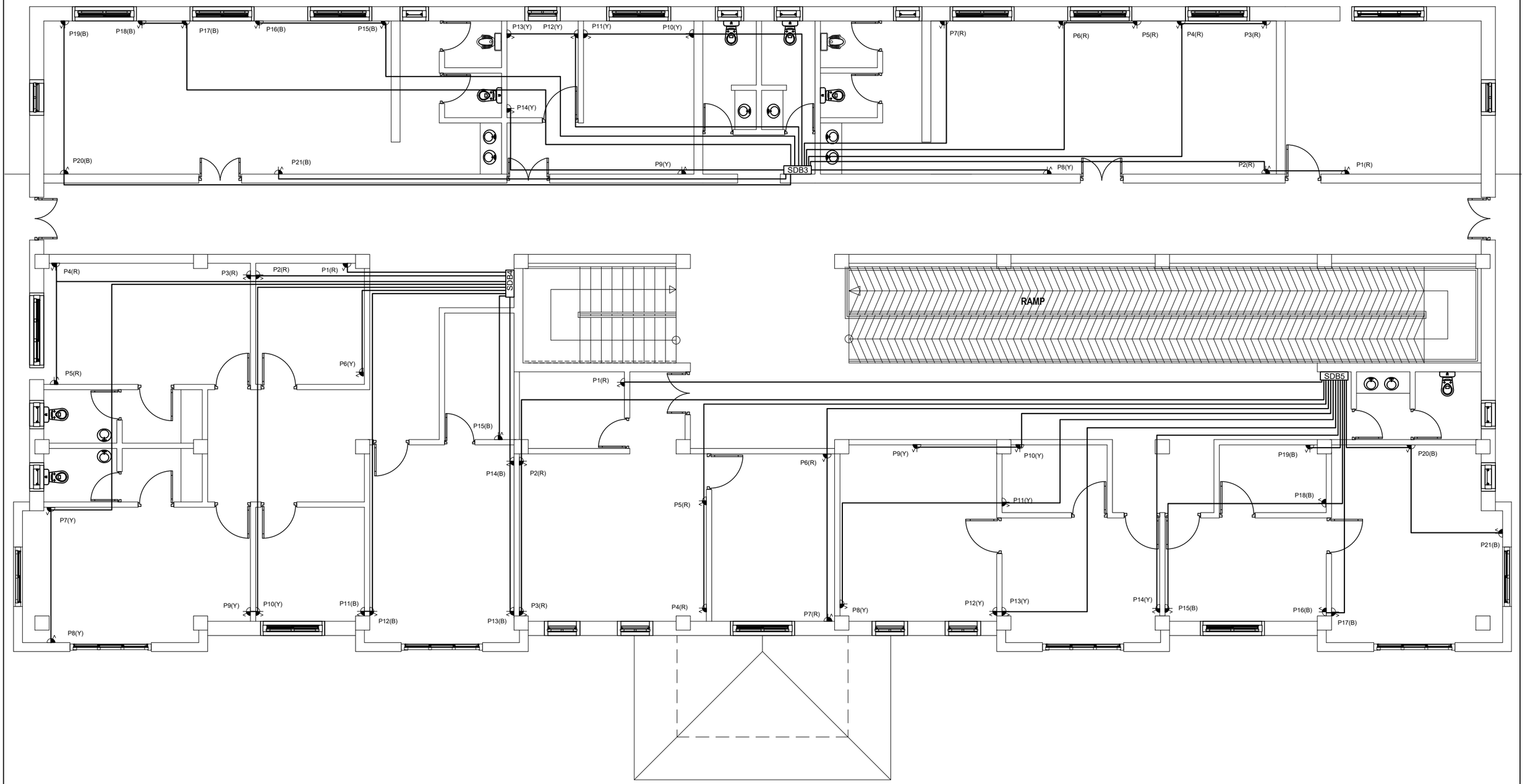
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LIGHT_CIRCUITS_&_CONDUITS_LAYOUT_FIRST_F

Khorlochhu

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_9
			SCALE
			NTS



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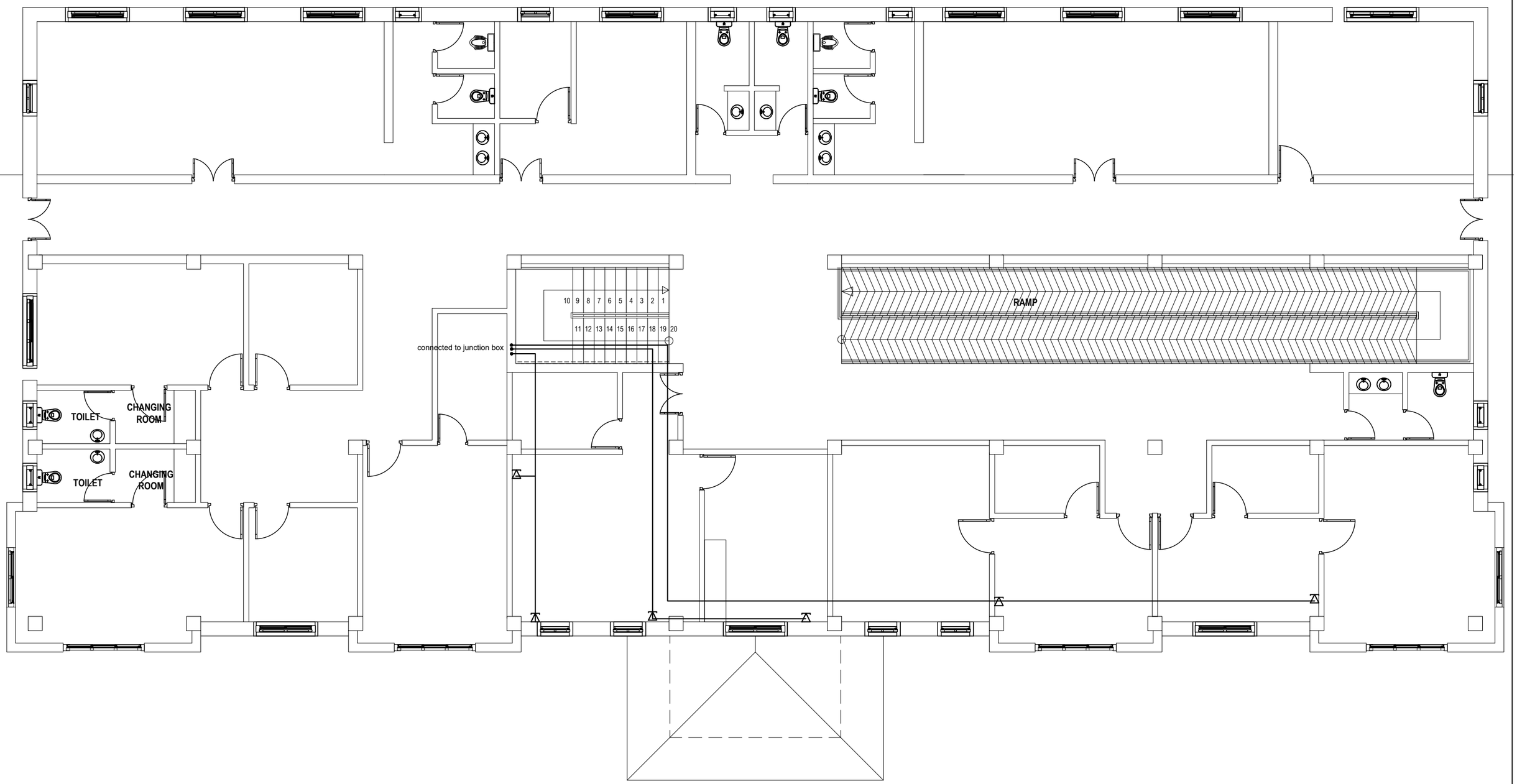
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	POWER_SOCKET_OUTLET_&_CONDUITS_LAYOUT_FIRST_F

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_10
			SCALE
			NTS



ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TELEPHONE_SOCKET_OUTLET_&_CONDUITS_LAYOUT_FIRST_F

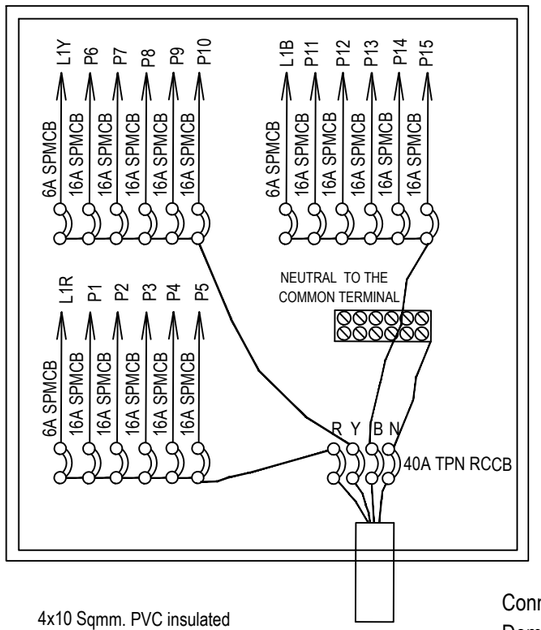
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_11
			SCALE
			NTS

Khorlochhu

SDB-1, GROUND FLOOR



4x10 Sqmm. PVC insulated
Cu. condr. cable 1.1KV grade

6 WAY TPN DB, DOUBLE DOOR TYPE, & 40A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 15 NOs.

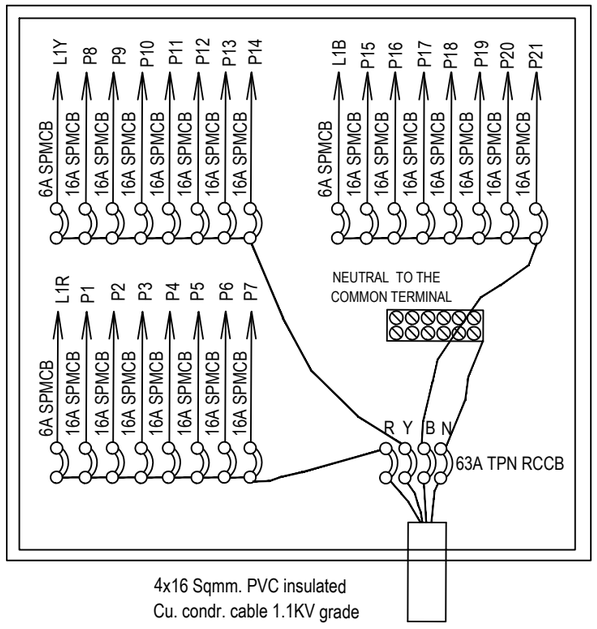
BALANCE LOAD IN WATTS

R-PHASE	Y-PHASE	B-PHASE
L1- 412	L1- 600	L1- 612
P1- 2000	P6- 2000	P11-2000
P2- 2000	P7- 2000	P12-2000
P3- 2000	P8- 2000	P13-2000
P4- 2000	P9- 2000	P14-2000
P5- 2000	P10- 2000	P15-2000
10,412	10,600	10,612

L1R=SB1,SB2,SB3,SB4
L1Y=SB5,SB6,SB7,SB8,SB9
L1B=SB10,SB11,SB12,SB13

Connected load= 31,624W
Demand load(L.F- 70%)= 22,137 W

SDB-2,GROUND FLOOR



4x16 Sqmm. PVC insulated
Cu. condr. cable 1.1KV grade

8 WAY TPN DB, DOUBLE DOOR TYPE, & 63A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 21 NOs.

BALANCE LOAD IN WATTS

R-PHASE	Y-PHASE	B-PHASE
L1- 372	L1-228	L1- 240
P1- 2000	P8- 2000	P15- 2000
P2- 2000	P9- 2000	P16- 2000
P3- 2000	P10- 2000	P17- 2000
P4- 2000	P11- 2000	P18- 2000
P5- 2000	P12- 2000	P19- 2000
P6- 2000	P13- 2000	P20- 2000
P7- 2000	P14- 2000	P21- 2000
14,372	14,228	14,240

LIR= SB1,SB2,SB3
LIY= SB4
LIB= SB5,SB6,SB7,SB8,SB9

Connected load= 42,840 W
Demand load(L.F- 70%)= 29,988 W

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ELECTRICAL DRAWING

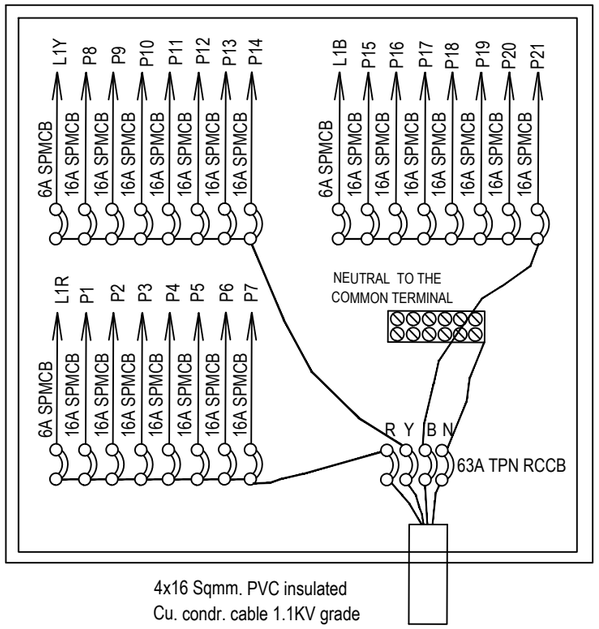
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SDB_DETAILS_S-I

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_12
			SCALE
			NTS

SDB-3,FIRST FLOOR



4x16 Sqmm. PVC insulated
Cu. condr. cable 1.1KV grade

8 WAY TPN DB, DOUBLE DOOR TYPE, & 63A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 21 NOs.

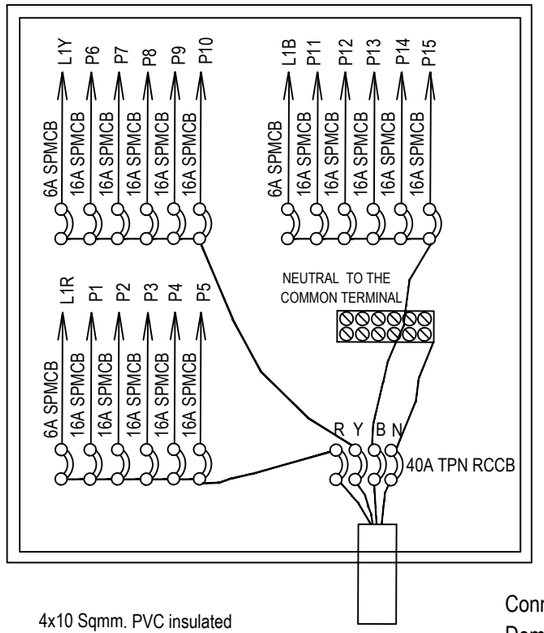
BALANCE LOAD IN WATTS

R-PHASE	Y-PHASE	B-PHASE
L1- 504	L1-520	L1- 468
P1- 2000	P8- 2000	P15- 2000
P2- 2000	P9- 2000	P16- 2000
P3- 2000	P10- 2000	P17- 2000
P4- 2000	P11- 2000	P18- 2000
P5- 2000	P12- 2000	P19- 2000
P6- 2000	P13- 2000	P20- 2000
P7- 2000	P14- 2000	P21- 2000
14,504	14,520	14,468

LIR= SB1,SB2,SB3
LIY= SB4,SB5,SB6,SB7,SB8,SB9,SB10,SB11
SB12,SB13,SB14,SB15,SB16,SB17
LIB= SB18,SB19,SB20

Connected load= 43,492 W
Demand load(L.F- 70%)= 30,444 W

SDB-4, FIRST FLOOR



4x10 Sqmm. PVC insulated
Cu. condr. cable 1.1KV grade

6 WAY TPN DB, DOUBLE DOOR TYPE, & 40A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 15 NOs.

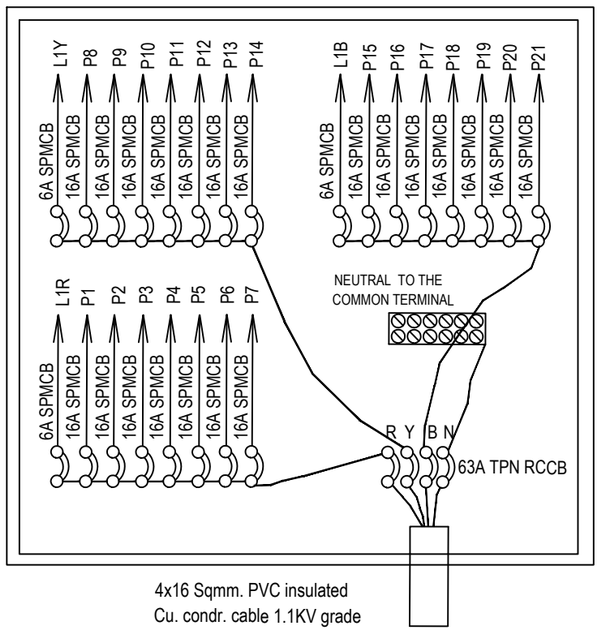
BALANCE LOAD IN WATTS

R-PHASE	Y-PHASE	B-PHASE
L1- 408	L1- 276	L1- 300
P1- 2000	P6- 2000	P11-2000
P2- 2000	P7- 2000	P12-2000
P3- 2000	P8- 2000	P13-2000
P4- 2000	P9- 2000	P14-2000
P5- 2000	P10- 2000	P15-2000
10,408	10,276	10,300

L1R=SB1,SB2,SB3
L1Y=SB4,SB5,SB6,SB7,SB8
L1B=SB9,SB10,SB11

Connected load= 30,984 W
Demand load(L.F- 70%)= 21,689 W

SDB-5,FIRST FLOOR



4x16 Sqmm. PVC insulated
Cu. condr. cable 1.1KV grade

8 WAY TPN DB, DOUBLE DOOR TYPE, & 63A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 21 NOs.

BALANCE LOAD IN WATTS

R-PHASE	Y-PHASE	B-PHASE
L1- 300	L1-576	L1- 408
P1- 2000	P8- 2000	P15- 2000
P2- 2000	P9- 2000	P16- 2000
P3- 2000	P10- 2000	P17- 2000
P4- 2000	P11- 2000	P18- 2000
P5- 2000	P12- 2000	P19- 2000
P6- 2000	P13- 2000	P20- 2000
P7- 2000	P14- 2000	P21- 2000
14,300	14,576	14,408

LIR= SB1,SB2,SB3,SB4
LIY= SB5,SB6,SB7,SB8,SB9
LIB= SB10,SB11,SB12,SB13

Connected load= 43,284 W
Demand load(L.F- 70%)= 30,299 W

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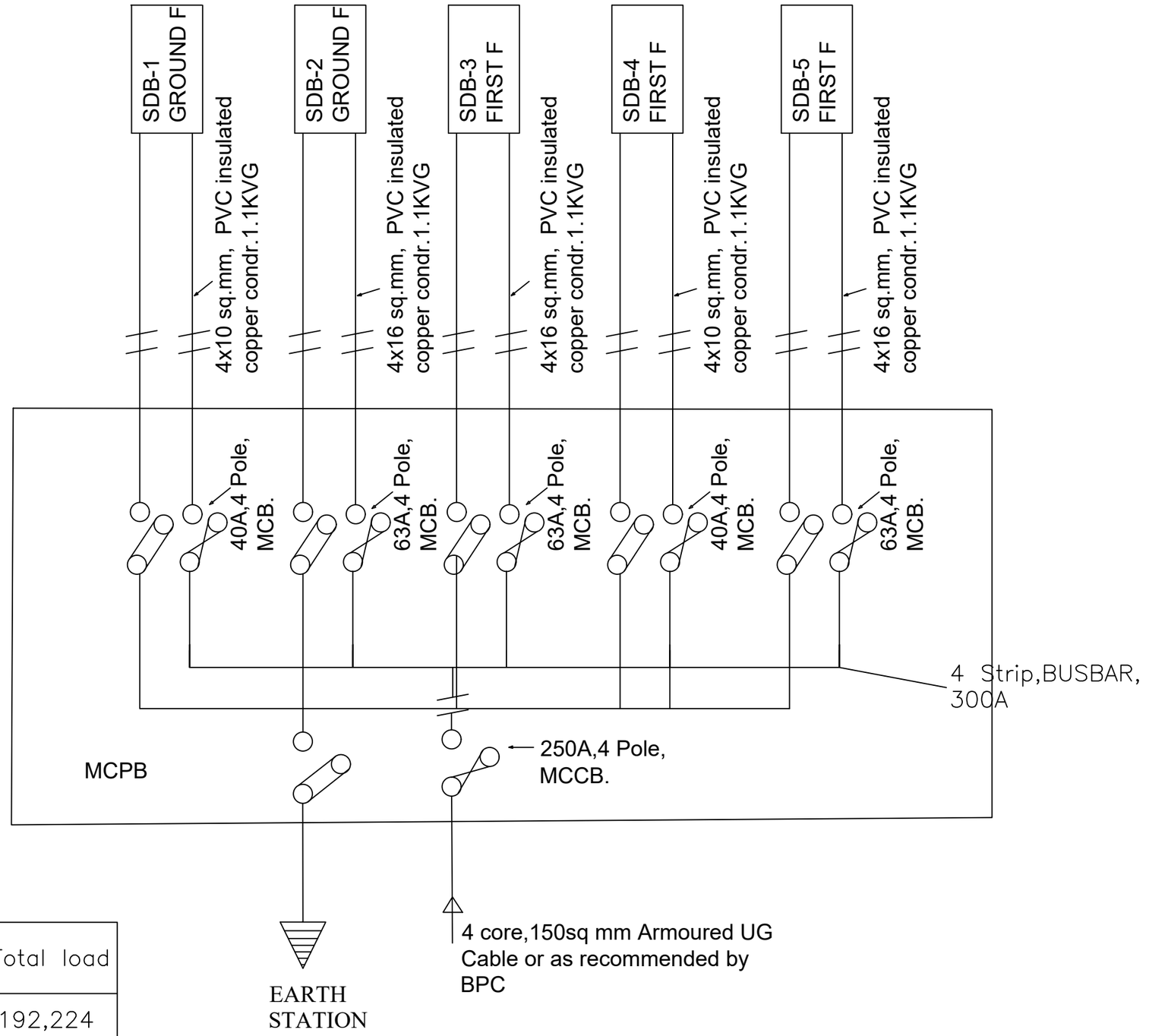
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SDB_DETAILS_S-II

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_13
			SCALE
			NTS



Connected load (watt)			Total load
R	Y	B	
63,996	64,200	64,028	192,224
Demand load (considering 0.7 load factor)= 134,557 W			

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ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	MCPB_DETAILS

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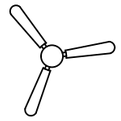
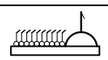
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_14
			SCALE
			NTS

ELECTRICAL DRAWINGS

DOCTOR'S RESIDENCE

Owner - KHPL
Location - TRASHIYANGTSE

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SYMBOLS	Specifications
	60W,1200 sweep Ceiling fan
	6W Led Ceiling Light
	20W Led Tube Light
	6W Wall mounted light
	6A/10A Modular switches.
	Exhaust fan, 80W for calculation.
	5/6 Pin 16 Amps Switch/Socket Combined with indicator, 1x2000W
	Switch Board with 6A Socket.
	Call Bell, 1x60W for calculation.
	Call Bell Switch (6/10A).
TV	Television point outlet Socket.
	Telephone Outlet Socket, RJ11.
SDB	Sub Distribution Board (SDB)
	Main Control Panel Board (MCPB)
JB	Television Terminal Cabinet (Junction Box)

Notes 1:

1. Light points wiring shall be with 1.5sq.mm PVC insulated copper conductor
2. Light supply circuit shall be done with 2.5sq.mm PVC insulated copper conductor
3. Power circuits shall be done with 4sq.mm PVC insulated copper conductor.
4. Different conduit lines shall be used for wiring with different phases.
5. Power points wiring below window shall not be dropped from above but supplied from below the window seal level.
6. Light switchboards shall be 1400mm from finished floor level to top.
7. Power sockets shall be 400mm from finished floor level to top except in Kitchen or toilets/bathrooms (wet area) where the height shall be 1400mm from floor to bottom and for air condition the height shall be 1750mm from finished floor level.
8. No power point shall be looped.
9. Main switch boards are to be flushed in the wall 230mm below the ceiling level.

Notes 2: (As recommended by service providers)

1. Telephone wiring shall be with 0.5Sq.mm PVC insulated and sheathed copper conductor.
2. Ducting to be at least 500mm away from electrical cable routes.
3. To provide bridging where telephone and electric cables cross.
4. Telephone terminal cabinet shall be 300x300x150mm with hole punches to receive 25mm dia conduit on all four sides and mounted at 2500mm above floor level.
5. Cable ducting shall be provided with 25mm dia PVC conduit and shall be common for drawing of TV cables.
6. RJ-11 sockets shall be provided for telephone points.
7. To supply direct lines for all the rooms where points are marked, from the terminal cabinet.
8. The incoming lines shall be brought and connected to incoming side of the terminal cabinet from where lines to all the rooms commence

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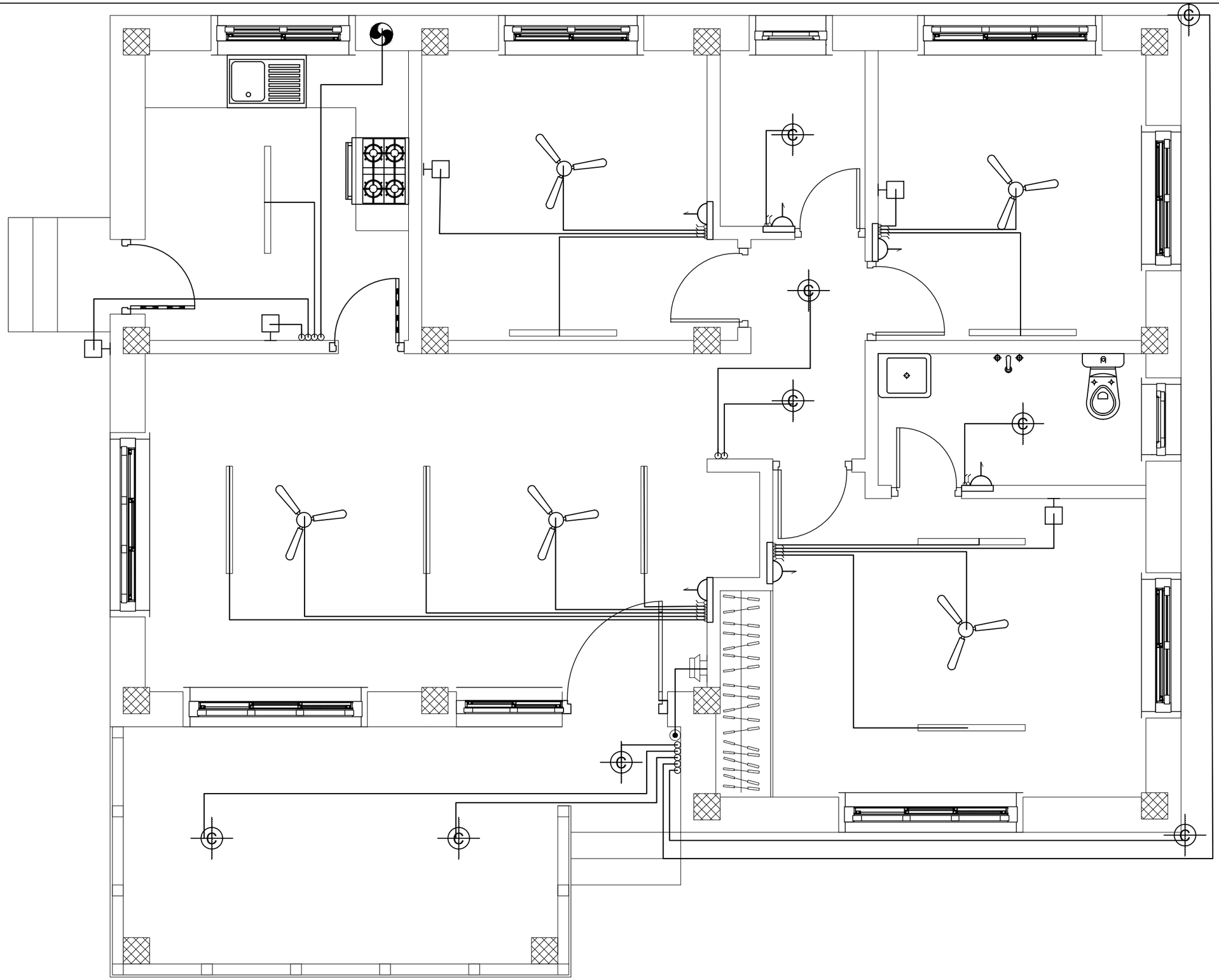
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	NOTES_AND_SPECIFICATION

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		Sep, 2026	EL_1
			SCALE
			NTS



Khorlochhu

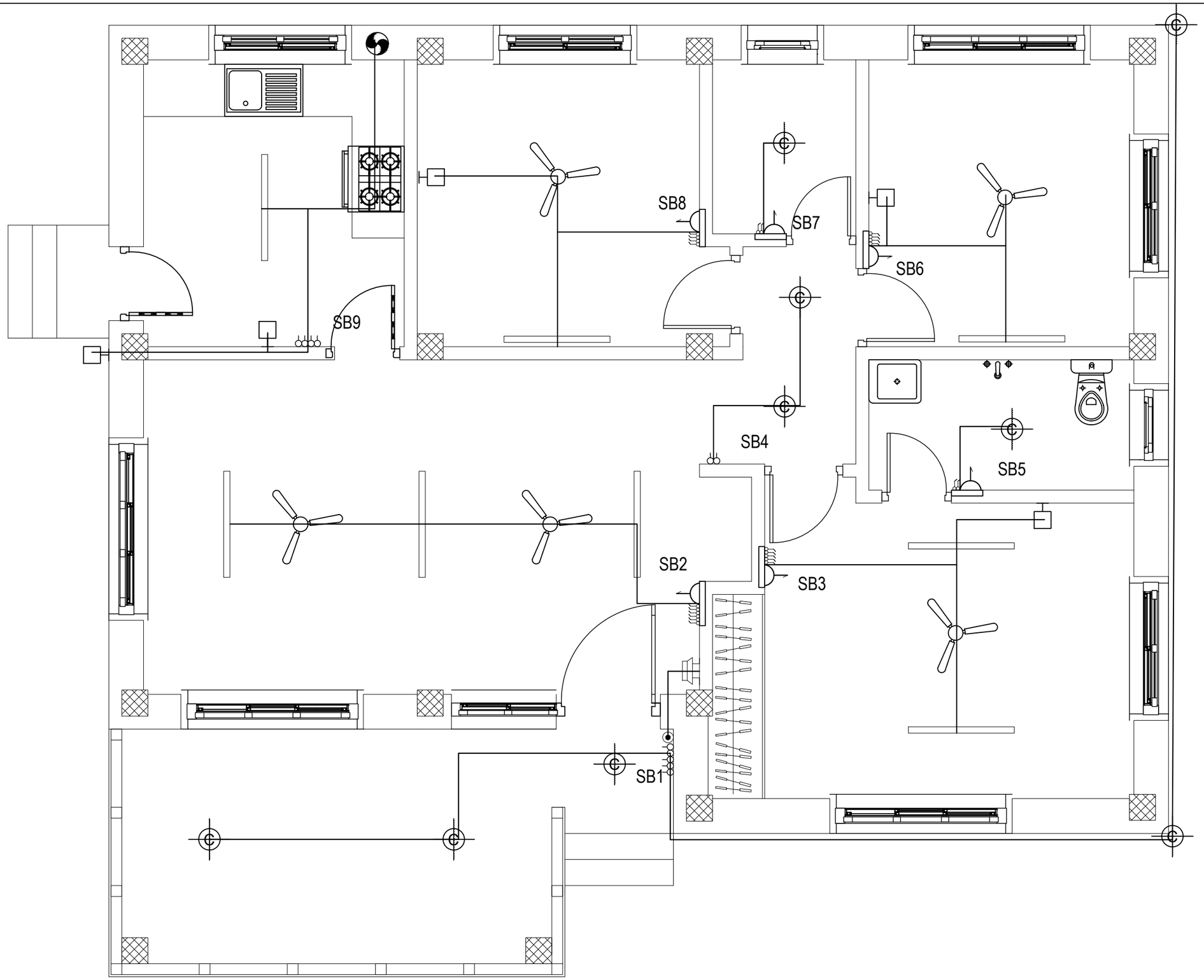
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTING_POINTS

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_2
			SCALE
			NTS



ELECTRICAL DRAWING

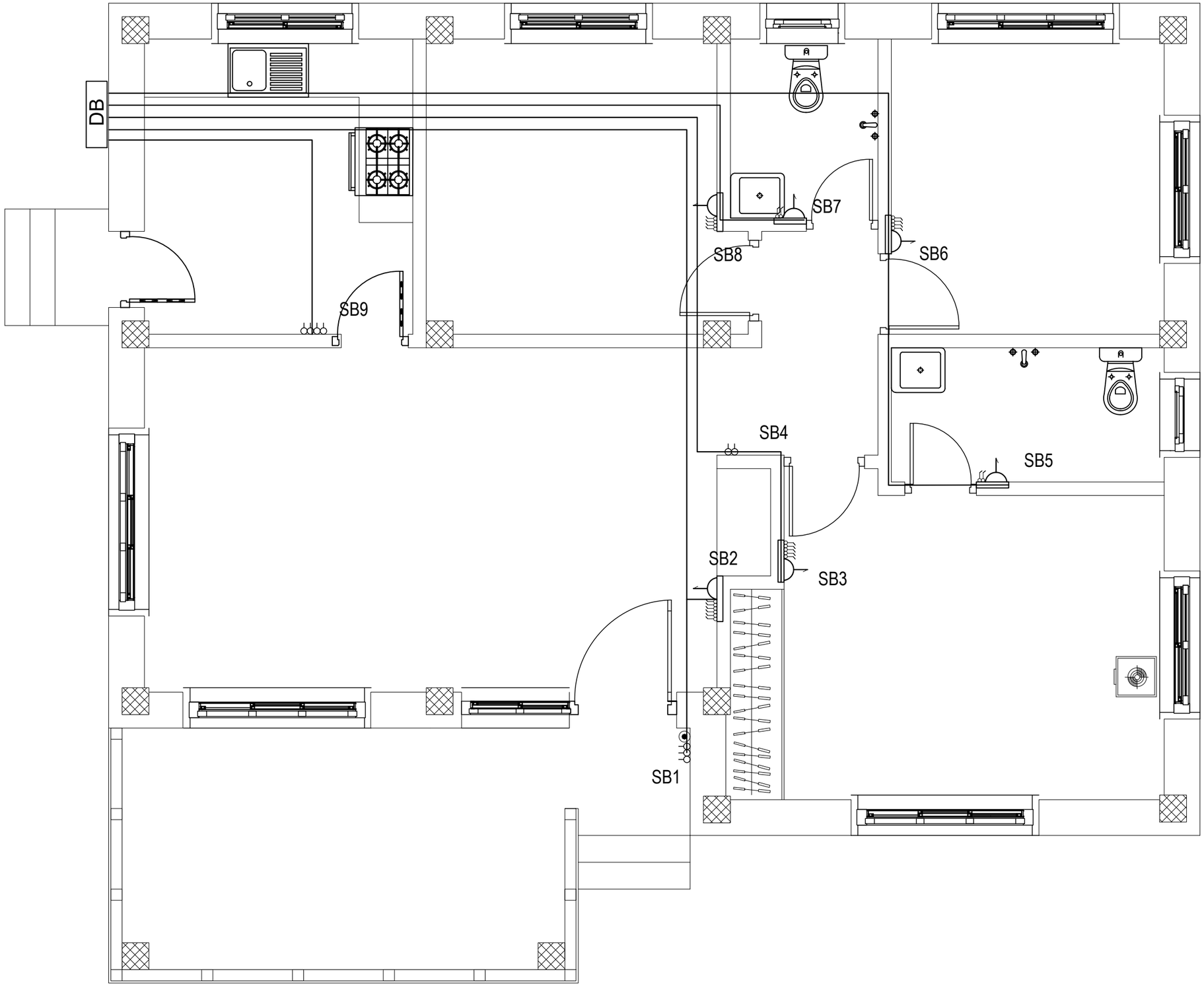
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTINGS_&_CONDUITS_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_3
			SCALE
			NTS



ELECTRICAL DRAWING

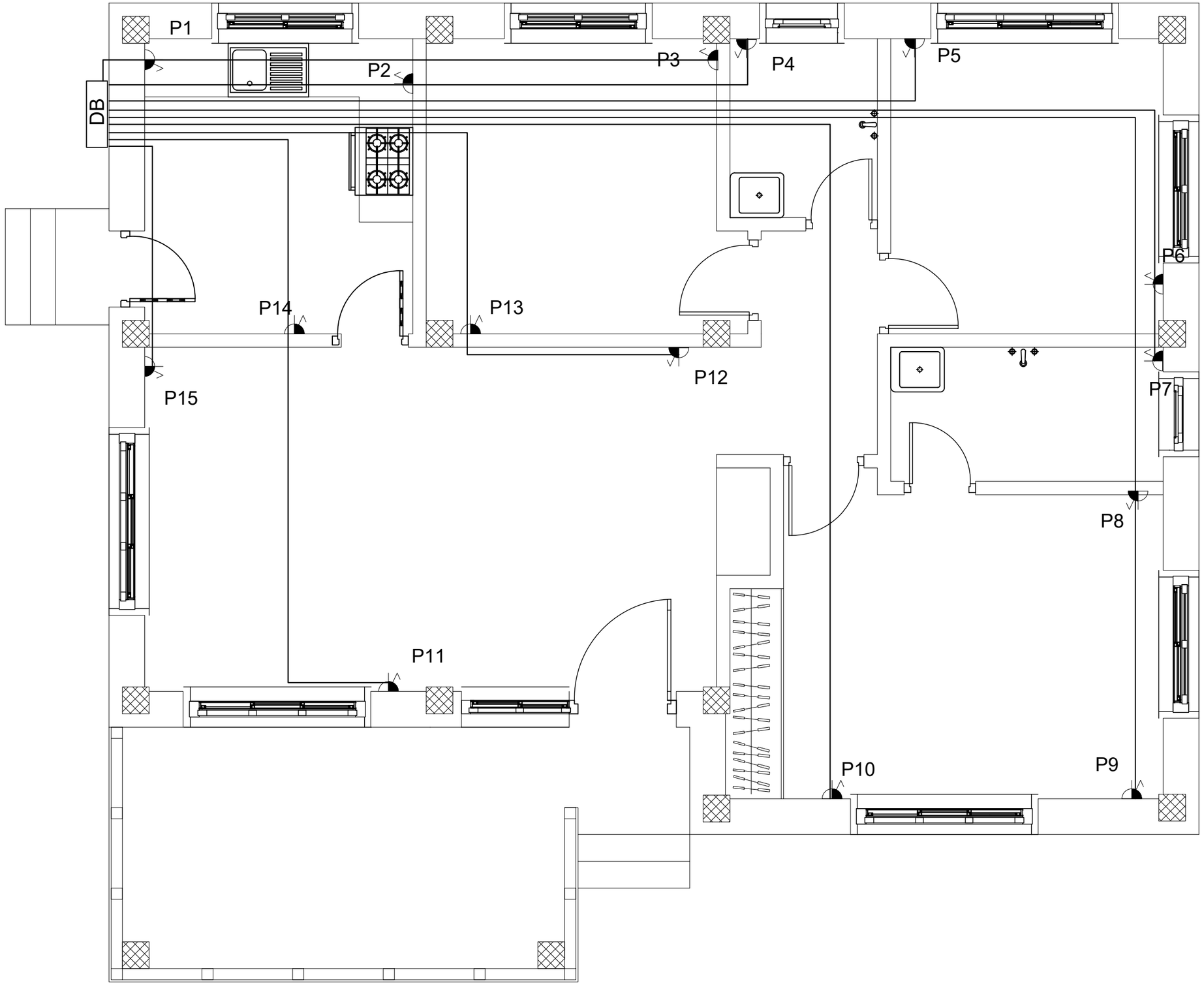
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LIGHT_CIRCUITS_&_CONDUIT_LAYOUT

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		Sep, 2026	EL_4
			SCALE
			NTS

Khorlochhu



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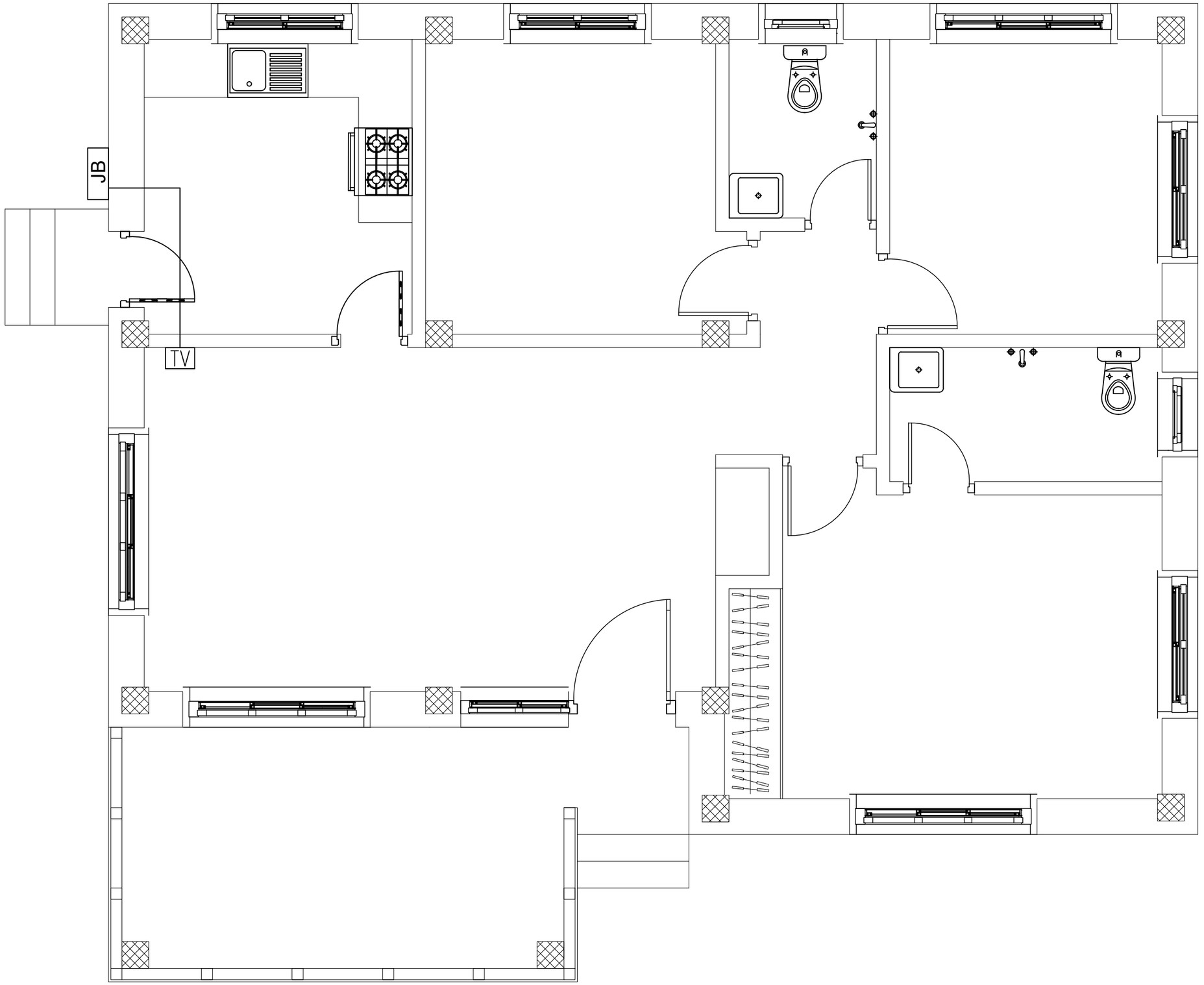
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	POWER_SOCKET_OUTLET_&_CONDUIT_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_5
			SCALE
			NTS



ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TELEPHONE_SOCKET_OUTLET_&_CONDUIT_LAYOUT

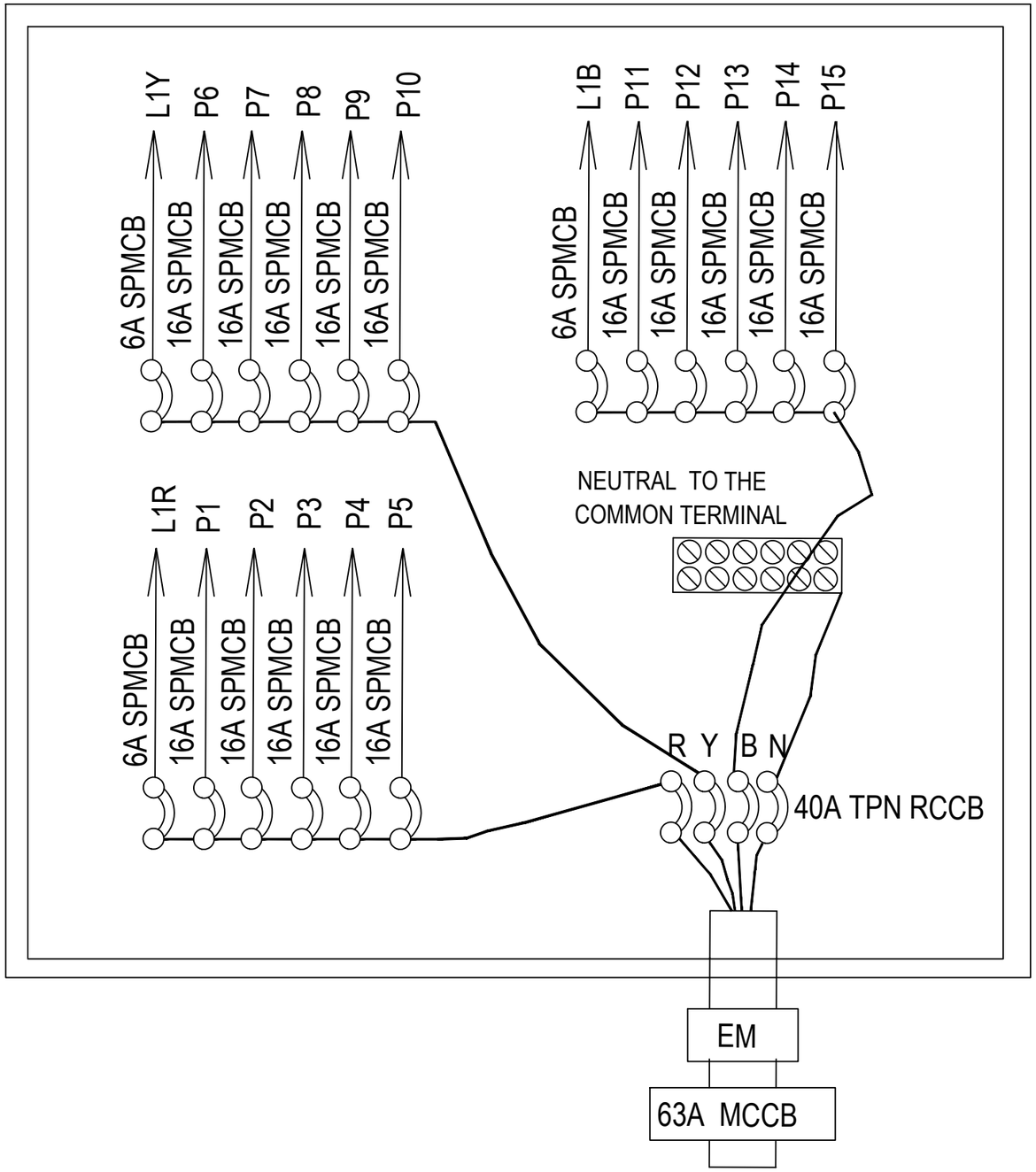
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_6
			SCALE
			NTS

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DISTRIBUTION BOARD



4 CORE,10 sq mm armoured UG cable
or as recommended by BPC

6 WAY TPN DB,DOUBLE DOOR TYPE,& 40A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 15 NOs.

BALANCE LOAD IN WATTS

R-PHASE	Y-PHASE	B-PHASE
L1- 538	L1- 296	L1- 408
P1- 2000	P6- 2000	P11-2000
P2- 2000	P7- 2000	P12-2000
P3- 2000	P8- 2000	P13-2000
P4- 2000	P9- 2000	P14-2000
P5- 2000	P10- 2000	P15-2000
10,538	10,296	10,408

L1R=SB1,SB2,SB3,SB4
L1Y=SB5,SB6
L1B=SB7,SB8,SB9

Connected load= 31,242 W
Demand load(L.F- 60%)= 18,745 W

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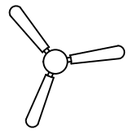
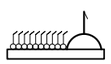
ELECTRICAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
PROJECT TITLE	DRAWING TITLE	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				EL_7
Construction of BHU Building and Auxiliary Work	MDB_DETAILS				Sep, 2026	SCALE: NTS

ELECTRICAL DRAWINGS

STAFF QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

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SYMBOLS	Specifications
	60W,1200 sweep Ceiling fan
	6W Led Ceiling Light
	20W Led Tube Light
	6W Up-Down Wall mounted light
	6A/10A Modular switches.
	5/6 Pin 16 Amps Switch/Socket Combined with indicator
	Switch Board with 6A,100W,2/3 Pin Switch Socket Outlet
	Call Bell, 60W for calculation.
	Call Bell Switch (6/10A).
TV	Television point outlet Socket.
SDB	Sub Distribution Board (SDB)
	Main Control Panel Board (MCPB)
JB	Television Terminal Cabinet (Junction Box)

Notes 1:
1. Light points wiring shall be with 1.5sq.mm PVC insulated copper conductor
2. Light supply circuit shall be done with 2.5sq.mm PVC insulated copper conductor
3. Power circuits shall be done with 4sq.mm PVC insulated copper conductor.
4. Different conduit lines shall be used for wiring with different phases.
5. Power points wiring below window shall not be dropped from above but supplied from below the window seal level.
6. Light switchboards shall be 1400mm from finished floor level to top.
7. Power sockets shall be 400mm from finished floor level to top except in Kitchen or toilets/bathrooms (wet area) where the height shall be 1400mm from floor to bottom and for air condition the height shall be 1750mm from finished floor level.
8. No power point shall be looped.
9. Main switch boards are to be flushed in the wall 230mm below the ceiling level.

Notes 2: (As recommended by service providers)
1. Telephone wiring shall be with 0.5Sq.mm PVC insulated and sheathed copper conductor.
2. Ducting to be at least 500mm away from electrical cable routes.
3. To provide bridging where telephone and electric cables cross.
4. Telephone terminal cabinet shall be 300x300x150mm with hole punches to receive 25mm dia conduit on all four sides and mounted at 2500mm above floor level.
5. Cable ducting shall be provided with 25mm dia PVC conduit and shall be common for drawing of TV cables.
6. RJ-11 sockets shall be provided for telephone points.
7. To supply direct lines for all the rooms where points are marked, from the terminal cabinet.
8. The incoming lines shall be brought and connected to incoming side of the terminal cabinet from where lines to all the rooms commence

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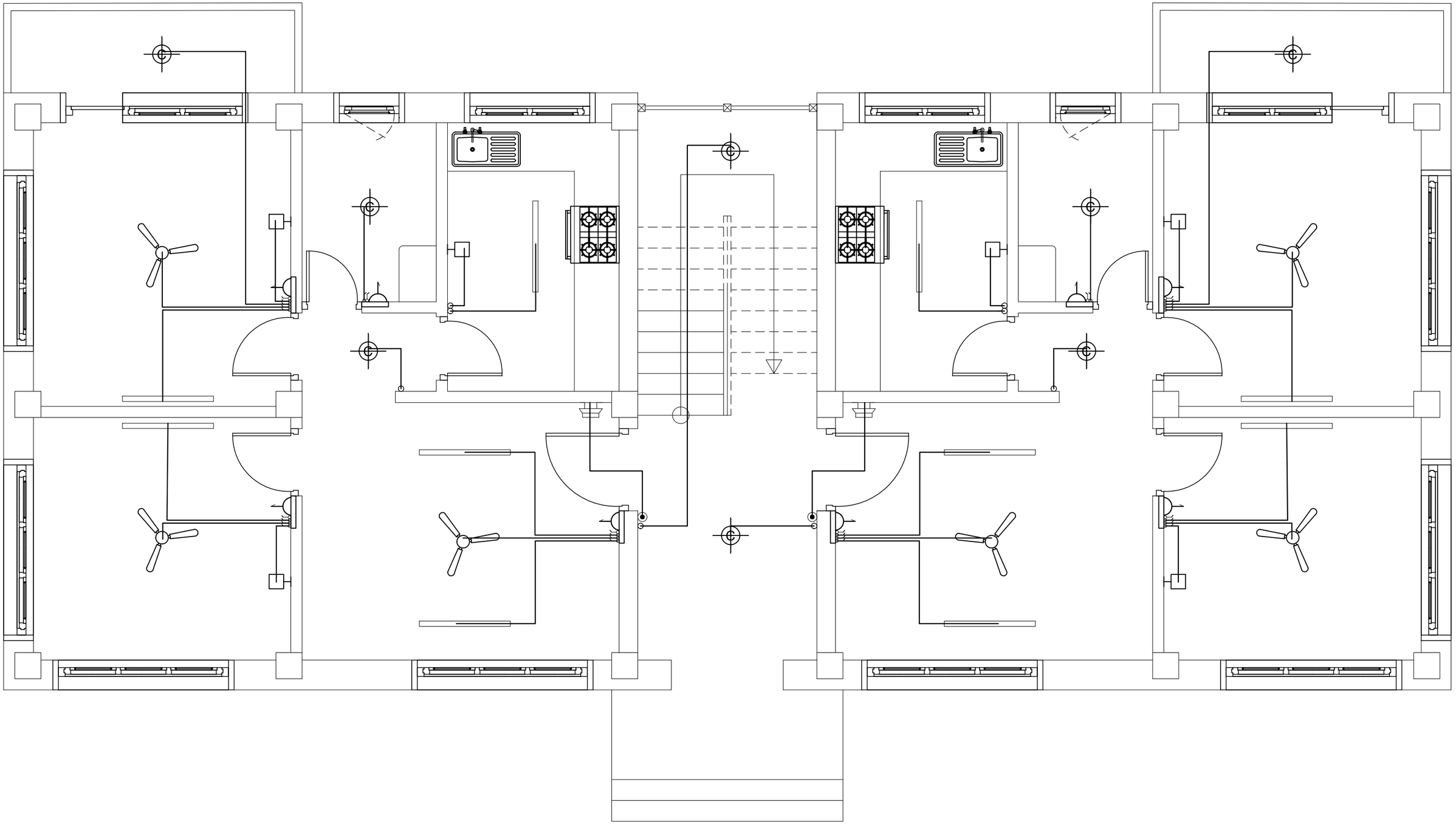
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	NOTES_AND_SPECIFICATION

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_1
			SCALE
			NTS



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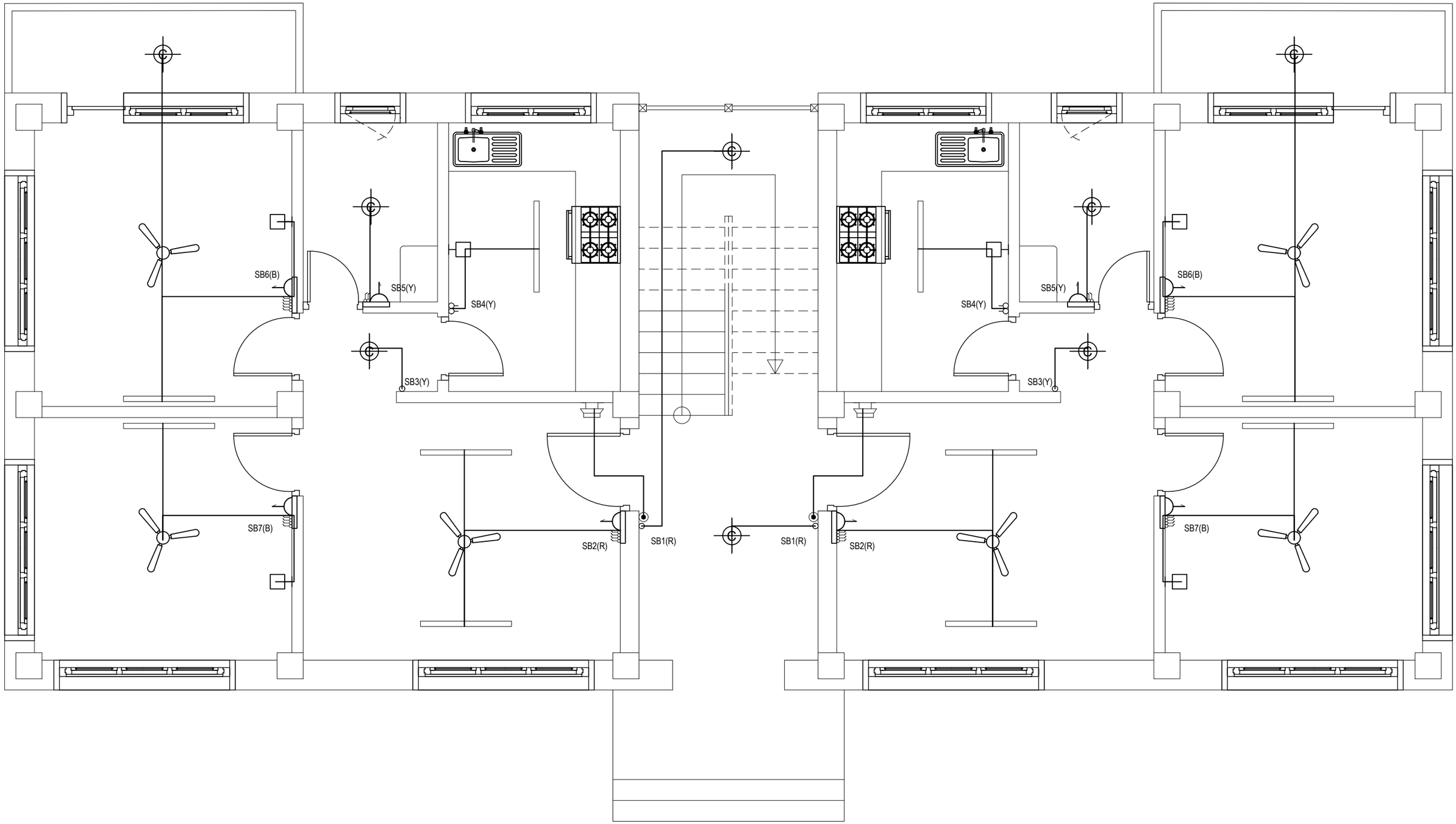
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTING_POINTS_GROUND/FIRST

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_2
			SCALE
			NTS



Khorlochhu

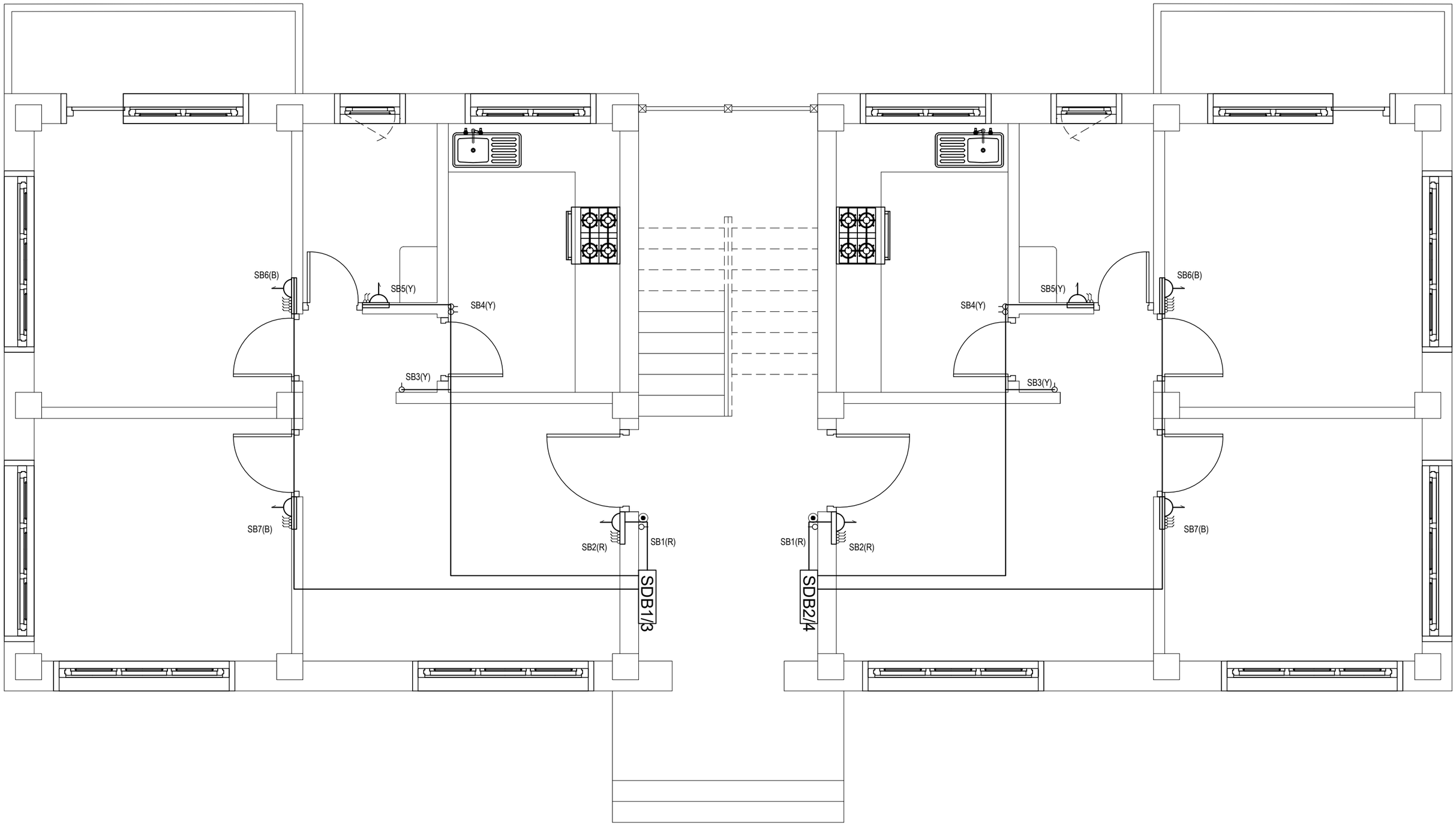
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTINGS_&_CONDUITS_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_3
			SCALE
			NTS



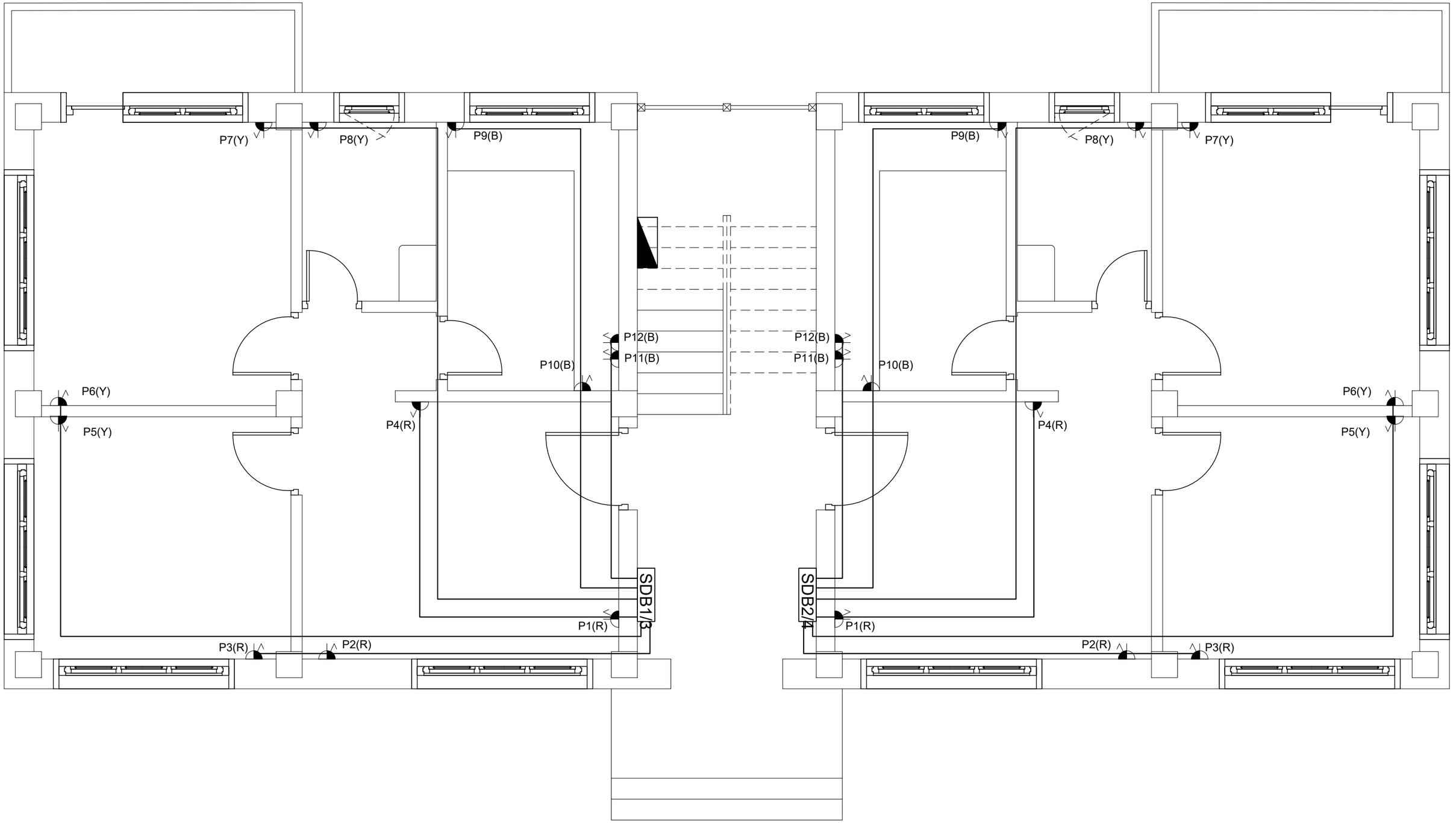
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LIGHT_CIRCUITS_&_CONDUIT_LAYOUT

NOTES

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		Sep, 2026	EL_4
			SCALE
			NTS



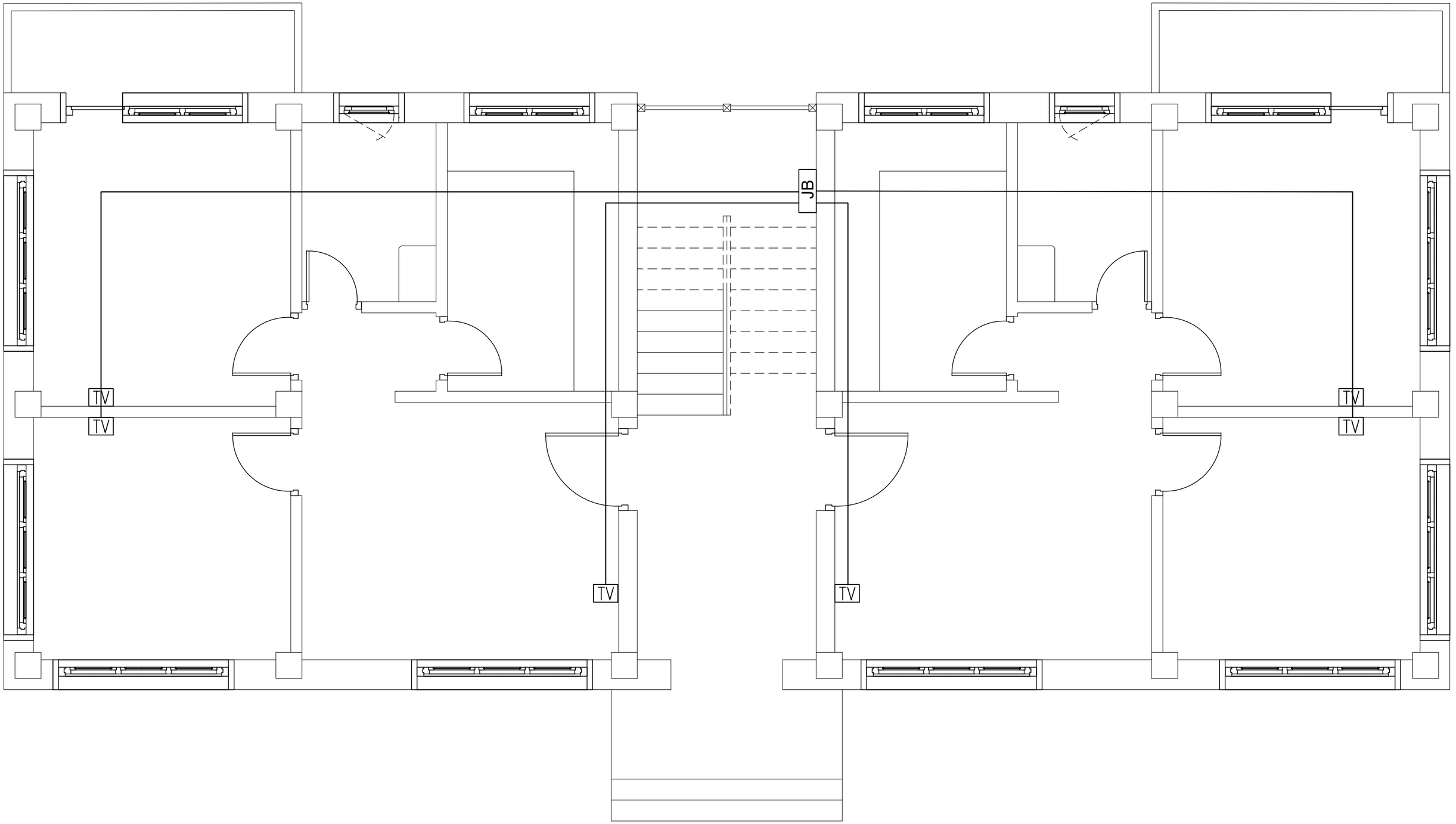
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	POWER_SOCKET_OUTLET_&_CONDUIT_LAYOUT

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		Sep, 2026	EL_5
			SCALE
			NTS



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ELECTRICAL DRAWING

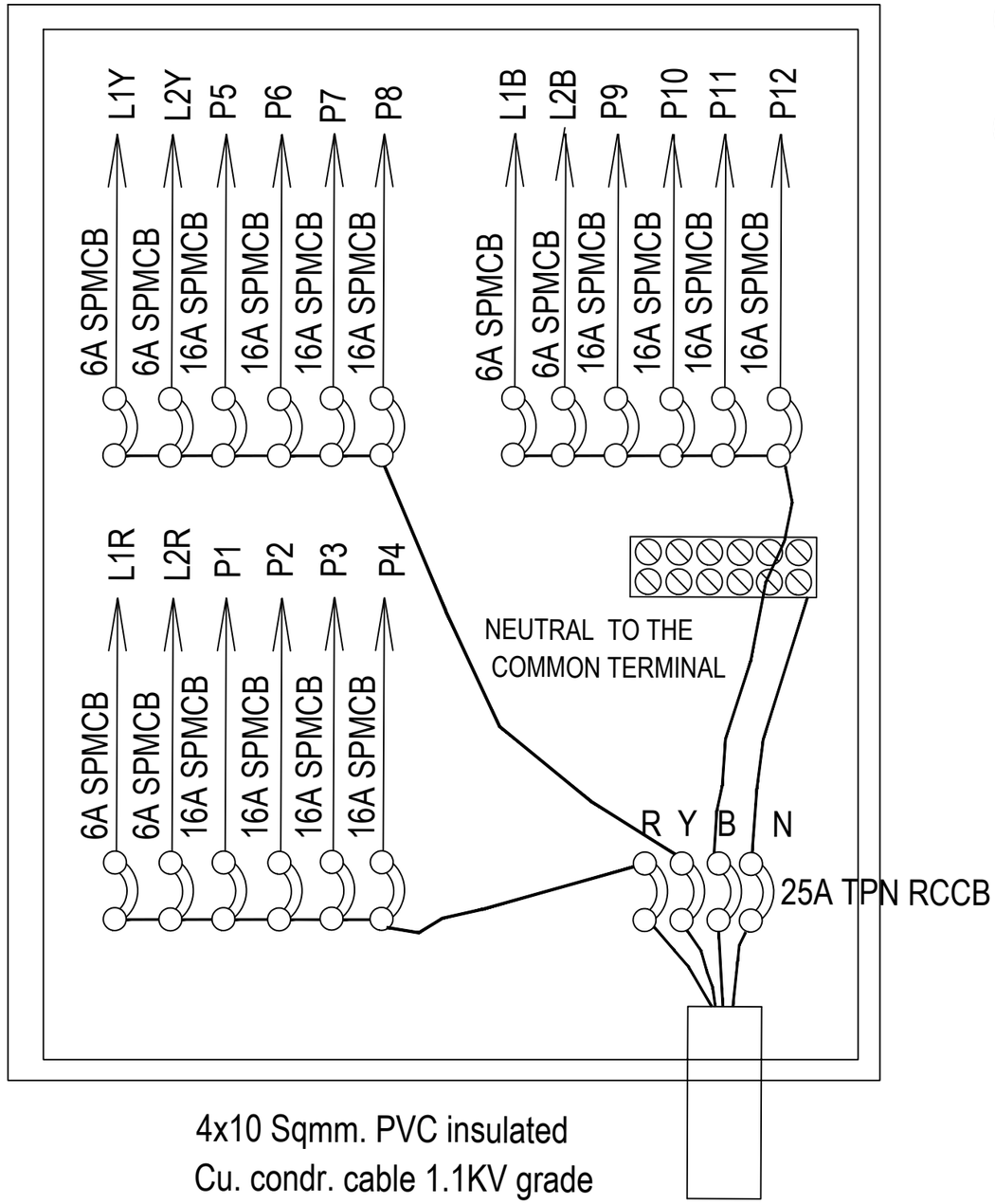
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TELEPHONE_SOCKET_OUTLET_&_CONDUIT_LAYOUT

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_6
			SCALE
			NTS

SDB-3/4, FIRST FLOOR
SDB-1/2, GROUND FLOOR



4x10 Sqmm. PVC insulated
Cu. condr. cable 1.1KV grade

6 WAY TPN DB,DOUBLE DOOR TYPE, & 25A TPN RCCB WITH FOLLOWING OUTGOING:
6A SPMCB - 3 NOs.
16A SPMCB - 12 NOs.

BALANCE LOAD IN WATTS

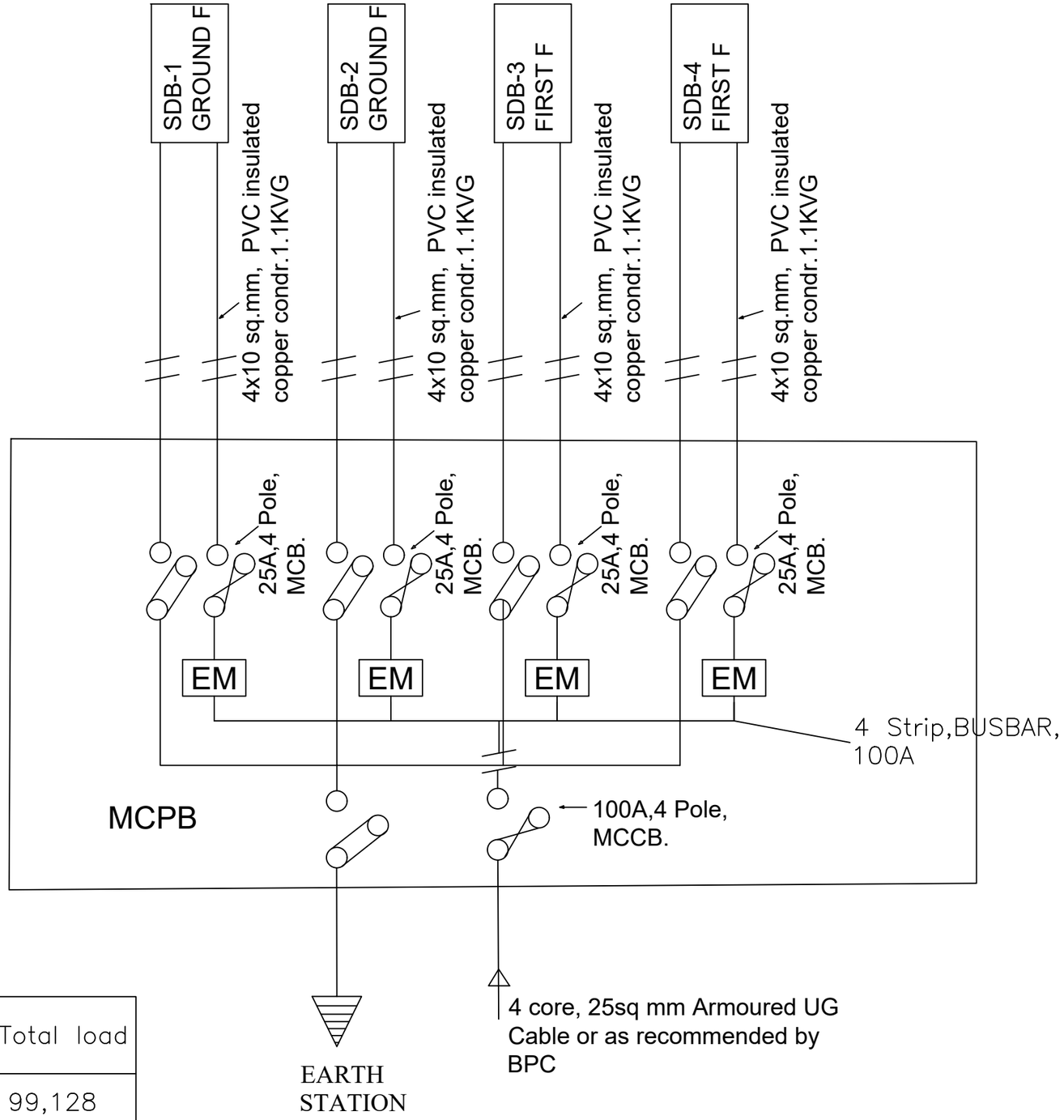
R-PHASE	Y-PHASE	B-PHASE
L1- 266	L1- 138	L1- 378
L2- SPARE	L2- SPARE	L2- SPARE
P1- 2000	P5- 2000	P9- 2000
P2- 2000	P6- 2000	P10- 2000
P3- 2000	P7- 2000	P11- 2000
P4- 2000	P8- 2000	P12- 2000
8,266	8,138	8,378

LIR= SB1,SB2
LIY= SB3,SB4,SB5
LIB= SB6,SB7

Connected load= 24,782 W
Demand load(L.F- 55%)= 13,630 W

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ELECTRICAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
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Construction of BHU Building and Auxiliary Work	SDB_DETAILS				Sep, 2026	SCALE NTS



Connected load (watt)			Total load
R	Y	B	
33,064	32,552	33,512	99,128
Demand load (considering 0.55 load factor)= 54,520 W			

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ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	MDB_DETAILS

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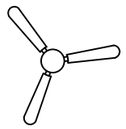
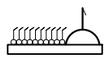
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_8
			SCALE
			NTS

ELECTRICAL DRAWINGS

CARETAKER AND DRIVER'S QUARTER

Owner - KHPL
Location - TRASHIYANGTSE

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SYMBOLS	Specifications
	60W,1200 sweep Ceiling fan
	6W Led Ceiling Light
	20W Led Tube Light
	6W Up-Down Wall mounted light
	6A/10A Modular switches.
	5/6 Pin 16 Amps Switch/Socket Combined with indicator, 1x2000W
	Switch Board with 6A,100W,2/3 Pin Switch Socket Outlet
	Call Bell, 60W for calculation.
	Call Bell Switch (6/10A).
TV	Television point outlet Socket.
SDB	Sub Distribution Board,Double Door Type (SDB)
	Main Control Panel Board (MCPB)
JB	Television Terminal Cabinet (Junction Box)

Notes 1:

1. Light points wiring shall be with 1.5sq.mm PVC insulated copper conductor
2. Light supply circuit shall be done with 2.5sq.mm PVC insulated copper conductor
3. Power circuits shall be done with 4sq.mm PVC insulated copper conductor.
4. Different conduit lines shall be used for wiring with different phases.
5. Power points wiring below window shall not be dropped from above but supplied from below the window seal level.
6. Light switchboards shall be 1400mm from finished floor level to top.
7. Power sockets shall be 400mm from finished floor level to top except in Kitchen or toilets/bathrooms (wet area) where the height shall be 1400mm from floor to bottom and for air condition the height shall be 1750mm from finished floor level.
8. No power point shall be looped.
9. Main switch boards are to be flushed in the wall 230mm below the ceiling level.

Notes 2: (As recommended by service providers)

1. Telephone wiring shall be with 0.5Sq.mm PVC insulated and sheathed copper conductor.
2. Ducting to be at least 500mm away from electrical cable routes.
3. To provide bridging where telephone and electric cables cross.
4. Telephone terminal cabinet shall be 300x300x150mm with hole punches to receive 25mm dia conduit on all four sides and mounted at 2500mm above floor level.
5. Cable ducting shall be provided with 25mm dia PVC conduit and shall be common for drawing of TV cables.
6. RJ-11 sockets shall be provided for telephone points.
7. To supply direct lines for all the rooms where points are marked, from the terminal cabinet.
8. The incoming lines shall be brought and connected to incoming side of the terminal cabinet from where lines to all the rooms commence

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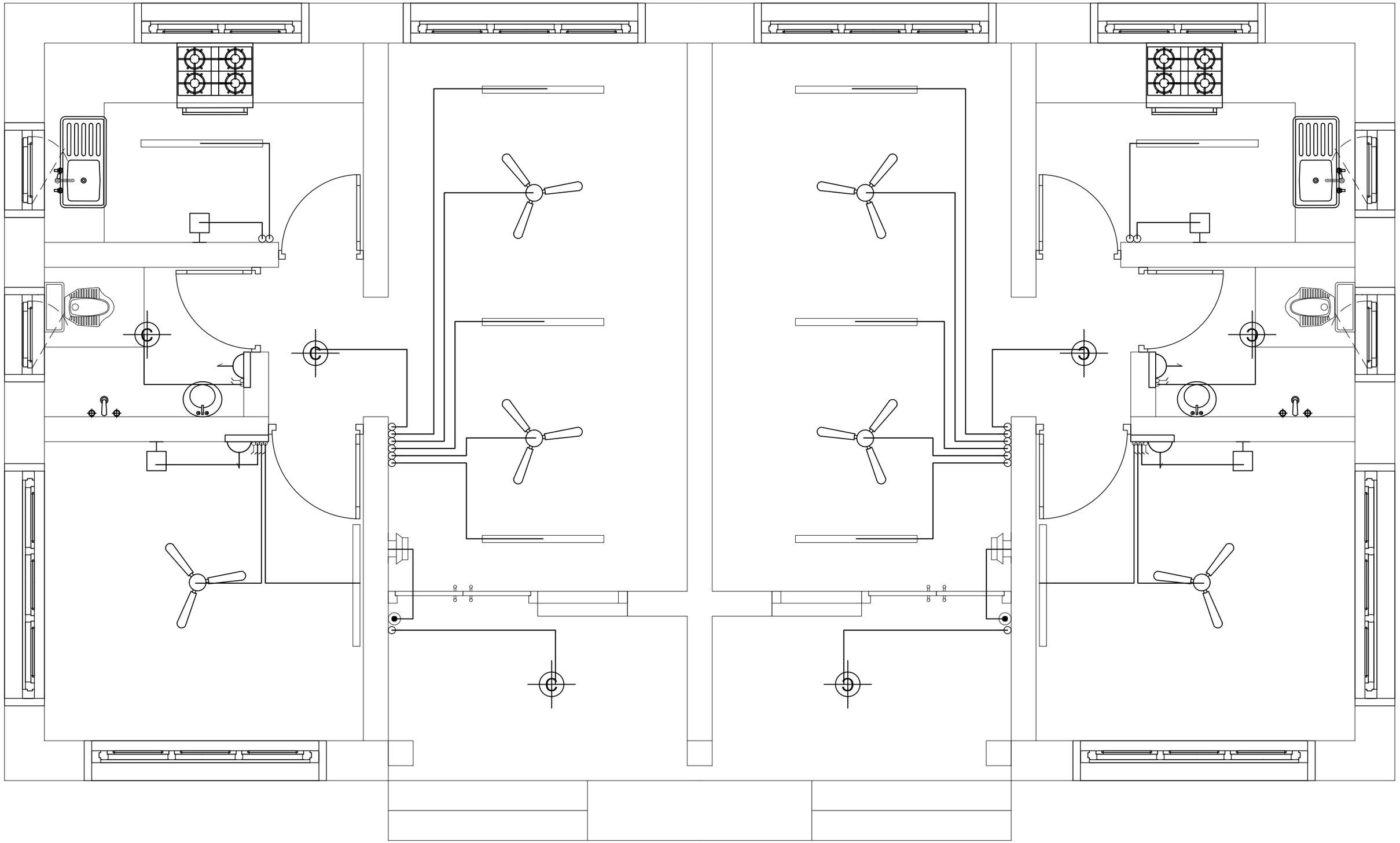
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	NOTES_AND_SPECIFICATION

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		Sep, 2026	EL_1
			SCALE
			NTS



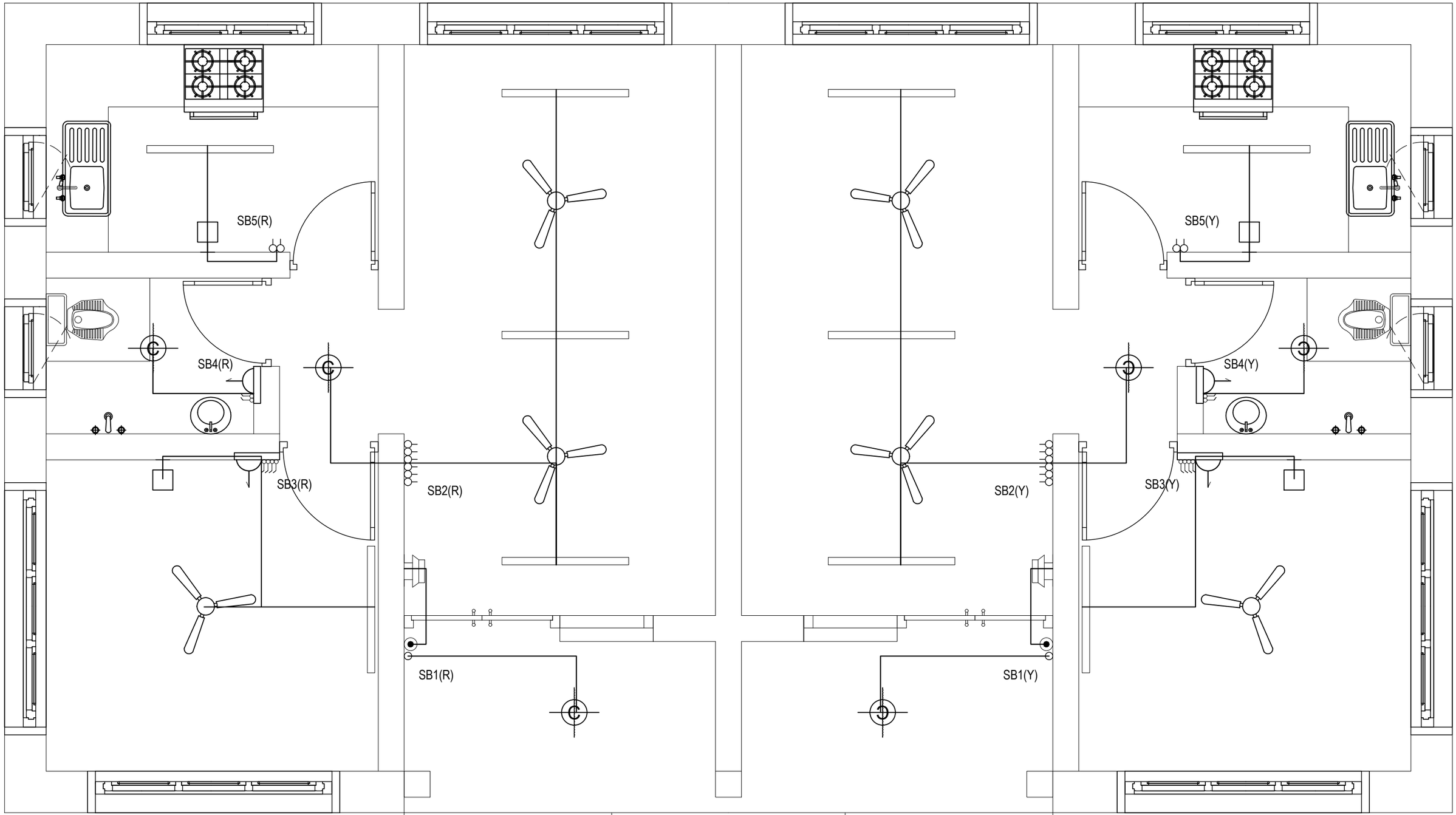
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTING_POINTS

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		Sep, 2026	EL_2
			SCALE
			NTS



ELECTRICAL DRAWING

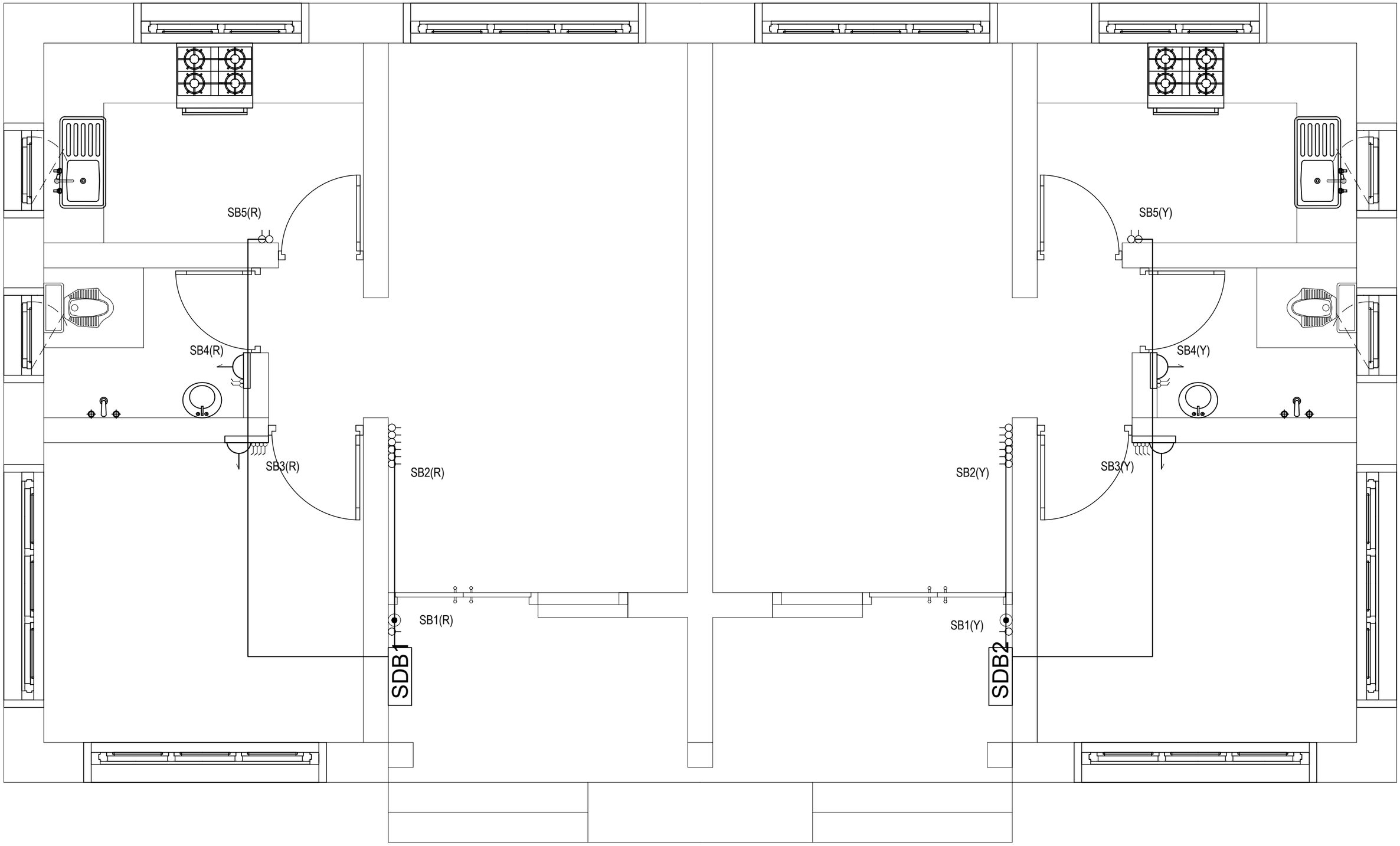
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTINGS_&_CONDUITS_LAYOUT

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		Sep, 2026	EL_3
			SCALE
			NTS

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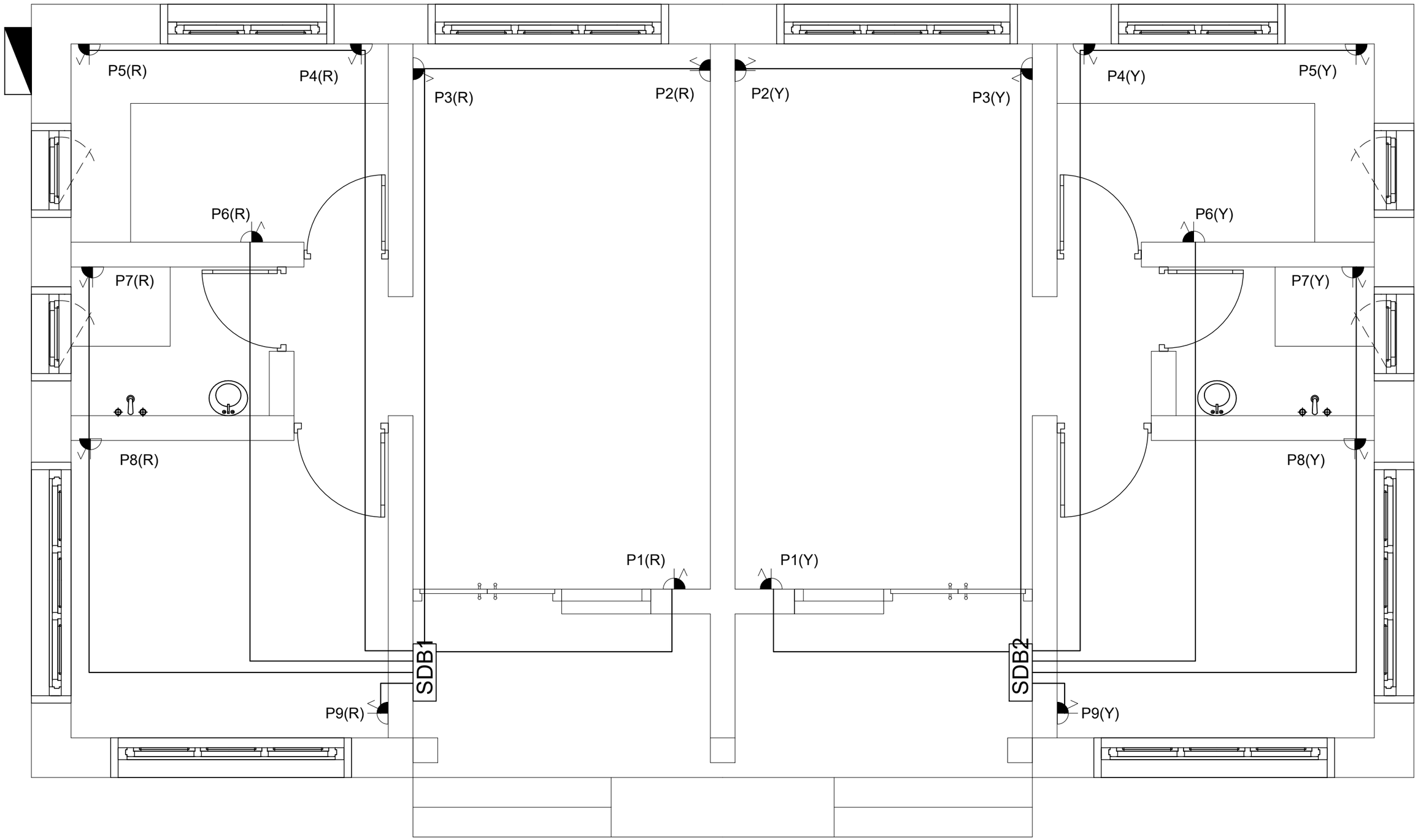
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LIGHT_CIRCUITS_&_CONDUIT_LAYOUT

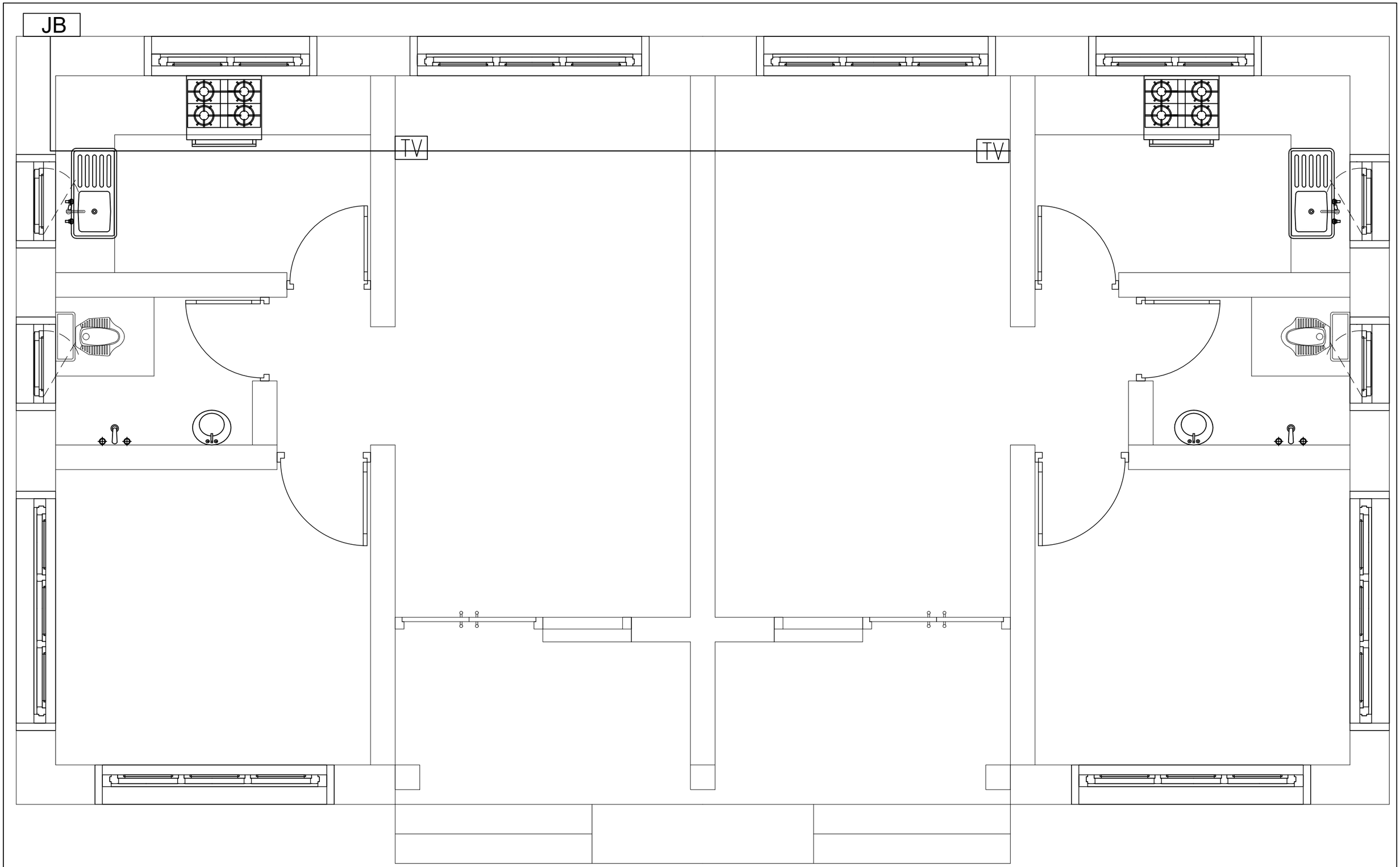
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_4
			SCALE
			NTS



Khorlochhu	**ELECTRICAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
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	Construction of BHU Building and Auxiliary Work / POWER_SOCKET_OUTLET_&_CONDUIT_LAYOUT				Sep, 2026	**SCALE** NTS



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ELECTRICAL DRAWING

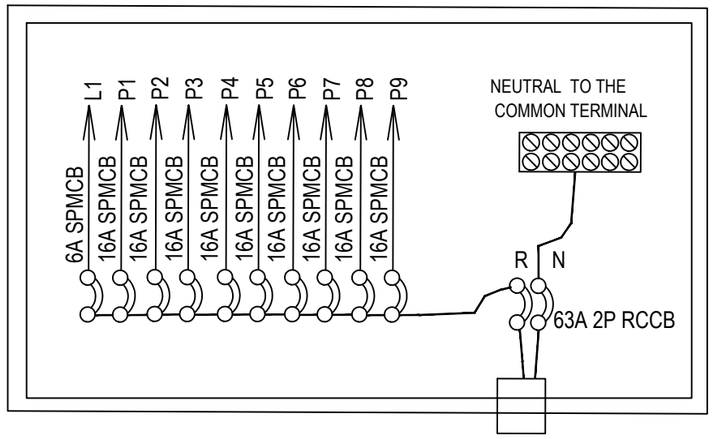
PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	TELEPHONE_SOCKET_OUTLET_&_CONDUIT_LAYOUT

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		Sep, 2026	EL_6
			SCALE
			NTS

SDB-1 GROUND F



2x16 Sqmm. PVC insulated Cu. condr.
1.1kV GRADE

10WAY SPN DB, DOUBLE DOOR TYPE, & 63A RCCB,2P, WITH FOLLOWING OUTGOING:
6A SPMCB - 1NOs.
16A SPMCB - 9NOs.

BALANCE LOAD IN WATTS

R-PHASE

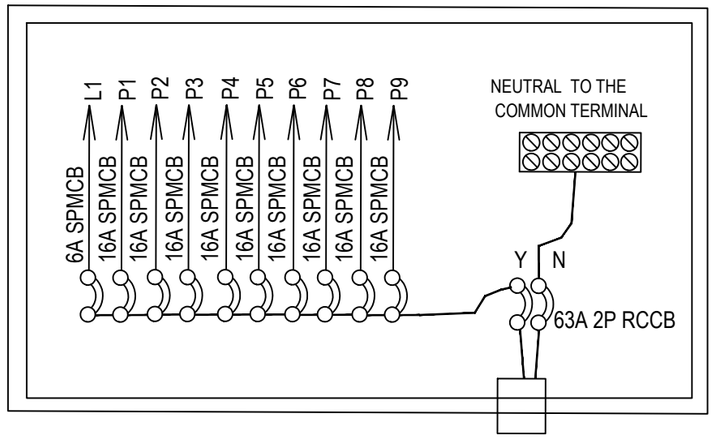
L1- 570
P1- 2000
P2- 2000
P3- 2000
P4- 2000
P5- 2000
P6- 2000
P7- 2000
P8- 2000
P9- 2000

18,570 W

L1=SB1,SB2,SB3,SB4,SB5

Connected load= 18,570 W
Demand load(L.F- 55%)= 19,214 W

SDB-2 GROUND F



2x16 Sqmm. PVC insulated Cu. condr.
1.1kV GRADE

10WAY SPN DB, DOUBLE DOOR TYPE, & 63A RCCB,2P, WITH FOLLOWING OUTGOING:
6A SPMCB - 1NOs.
16A SPMCB - 9NOs.

BALANCE LOAD IN WATTS

Y-PHASE

L1- 570
P1- 2000
P2- 2000
P3- 2000
P4- 2000
P5- 2000
P6- 2000
P7- 2000
P8- 2000
P9- 2000

18,570 W

L1=SB1,SB2,SB3,SB4,SB5

Connected load= 18,570 W
Demand load(L.F- 55%)= 19,214 W

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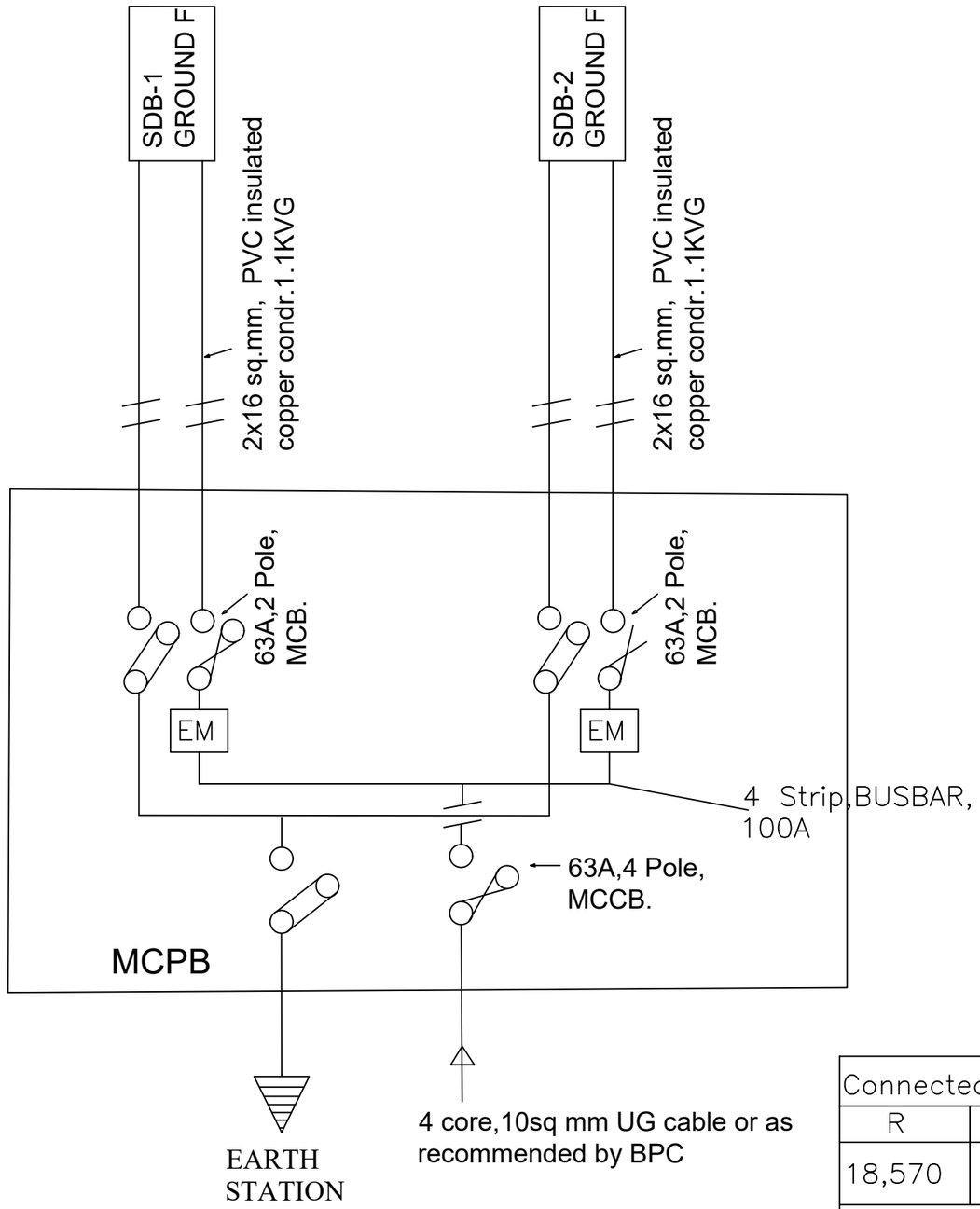
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	SDB_DETAILS

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE.
2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.
4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.

CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_7
			SCALE
			NTS



Connected load (watt)			Total load
R	Y	B	
18,570	18,570		37,140
Demand load (considering 0.55 load factor)=20,427 W			

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ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	MDB_DETAILS

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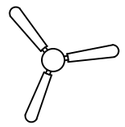
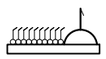
CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_8
			SCALE
			NTS

ELECTRICAL DRAWINGS

LAUNDRY AND KITCHEN

Owner - KHPL
Location - TRASHIYANGTSE

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SYMBOLS	Specifications
	60W,1200 sweep Ceiling fan
	6W Led Ceiling Light
	20W Led Tube Light
	5W Up-Down Wall mounted light(Out Door)
	6A/10A Modular switches.
	5/6 Pin 16 Amps Switch/Socket Combined with indicator, 1x2000W
	Switch Board with 6A,100W,2/3 Pin Switch Socket Outlet
	Call Bell, 60W for calculation.
	Call Bell Switch (6/10A).
TV	Television point outlet Socket.
SDB	Sub Distribution Board,Double Door Type (SDB)
	Main Control Panel Board (MCPB)
JB	Television Terminal Cabinet (Junction Box)

Notes 1:
1. Light points wiring shall be with 1.5sq.mm PVC insulated copper conductor
2. Light supply circuit shall be done with 2.5sq.mm PVC insulated copper conductor
3. Power circuits shall be done with 4sq.mm PVC insulated copper conductor.
4. Different conduit lines shall be used for wiring with different phases.
5. Power points wiring below window shall not be dropped from above but supplied from below the window seal level.
6. Light switchboards shall be 1400mm from finished floor level to top.
7. Power sockets shall be 400mm from finished floor level to top except in Kitchen or toilets/bathrooms (wet area) where the height shall be 1400mm from floor to bottom and for air condition the height shall be 1750mm from finished floor level.
8. No power point shall be looped.
9. Main switch boards are to be flushed in the wall 230mm below the ceiling level.

Notes 2: (As recommended by service providers)
1. Telephone wiring shall be with 0.5Sq.mm PVC insulated and sheathed copper conductor.
2. Ducting to be at least 500mm away from electrical cable routes.
3. To provide bridging where telephone and electric cables cross.
4. Telephone terminal cabinet shall be 300x300x150mm with hole punches to receive 25mm dia conduit on all four sides and mounted at 2500mm above floor level.
5. Cable ducting shall be provided with 25mm dia PVC conduit and shall be common for drawing of TV cables.
6. RJ-11 sockets shall be provided for telephone points.
7. To supply direct lines for all the rooms where points are marked, from the terminal cabinet.
8. The incoming lines shall be brought and connected to incoming side of the terminal cabinet from where lines to all the rooms commence

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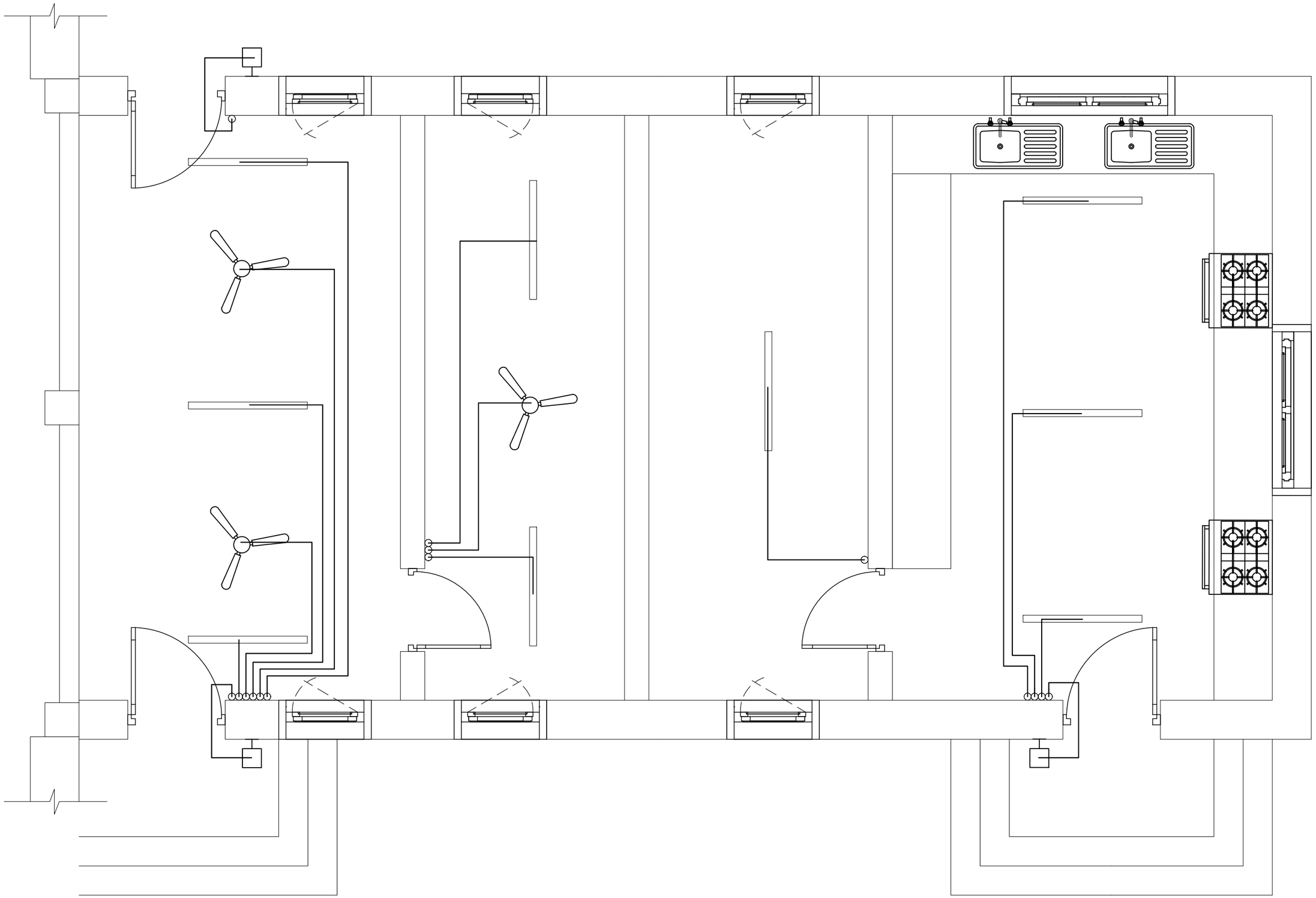
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	NOTES_AND_SPECIFICATION

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_1
			SCALE
			NTS



Khorlochhu

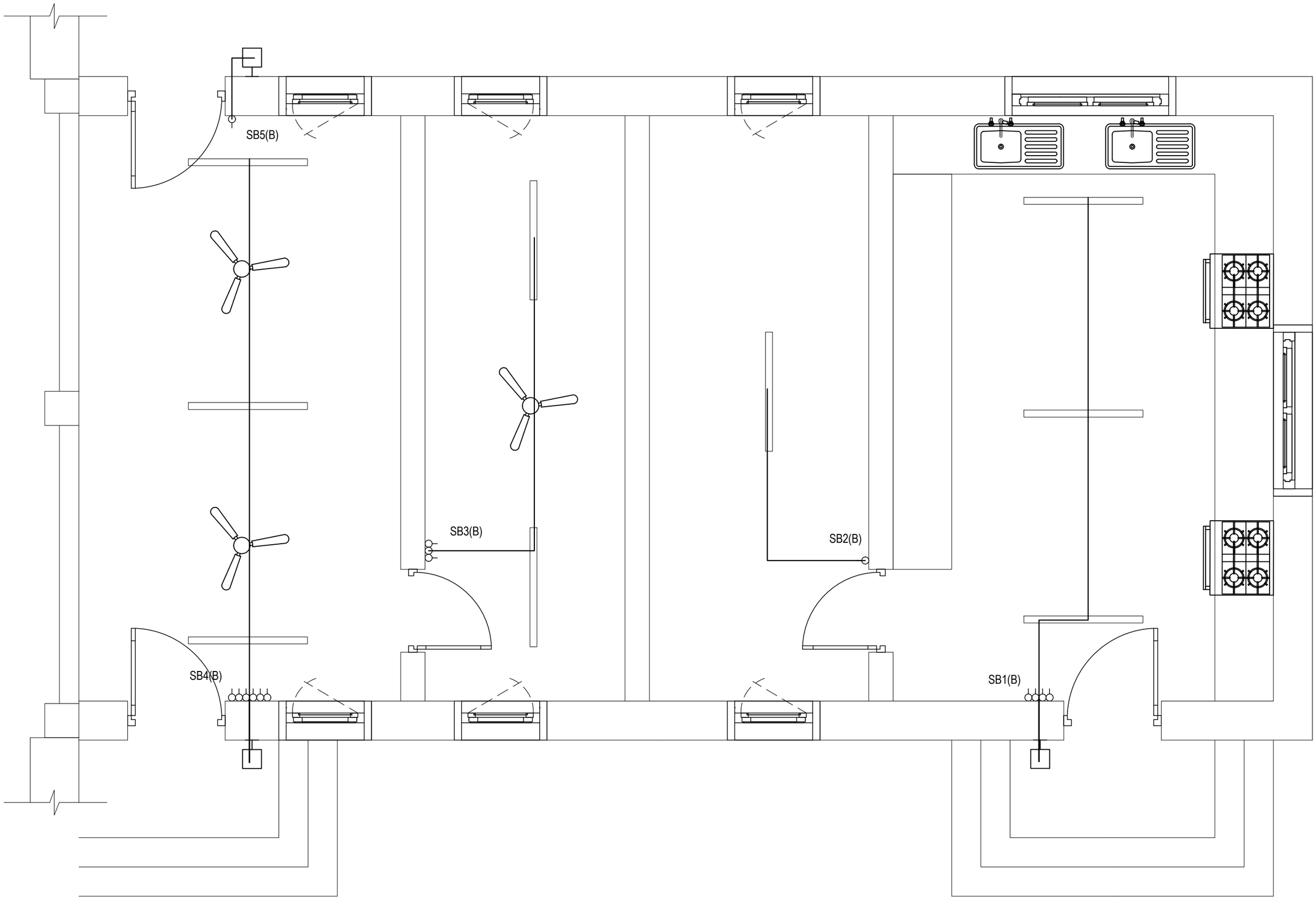
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTING_POINTS

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_2
			SCALE
			NTS



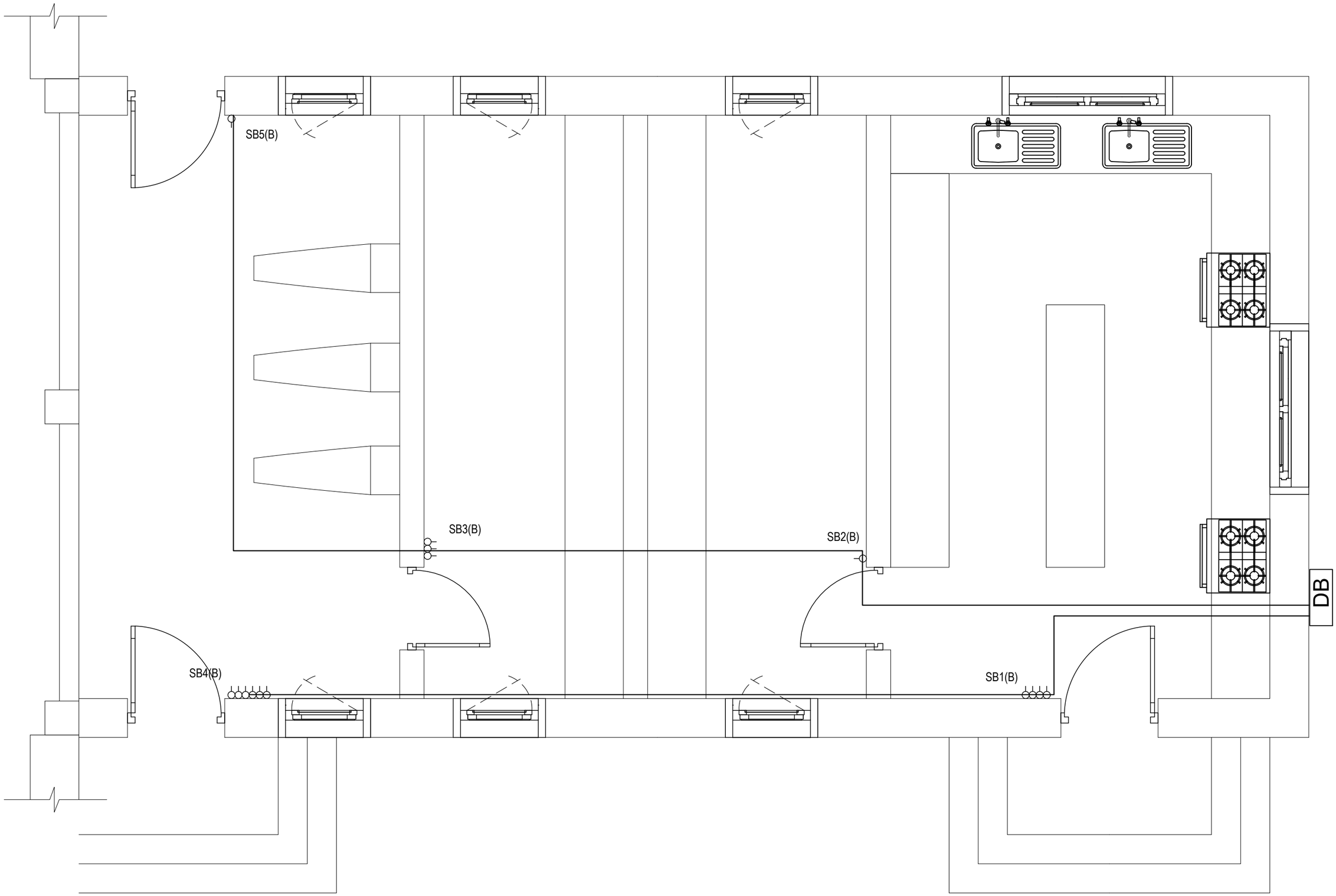
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	FITTINGS_&_CONDUITS_LAYOUT

NOTES

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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_3
			SCALE
			NTS



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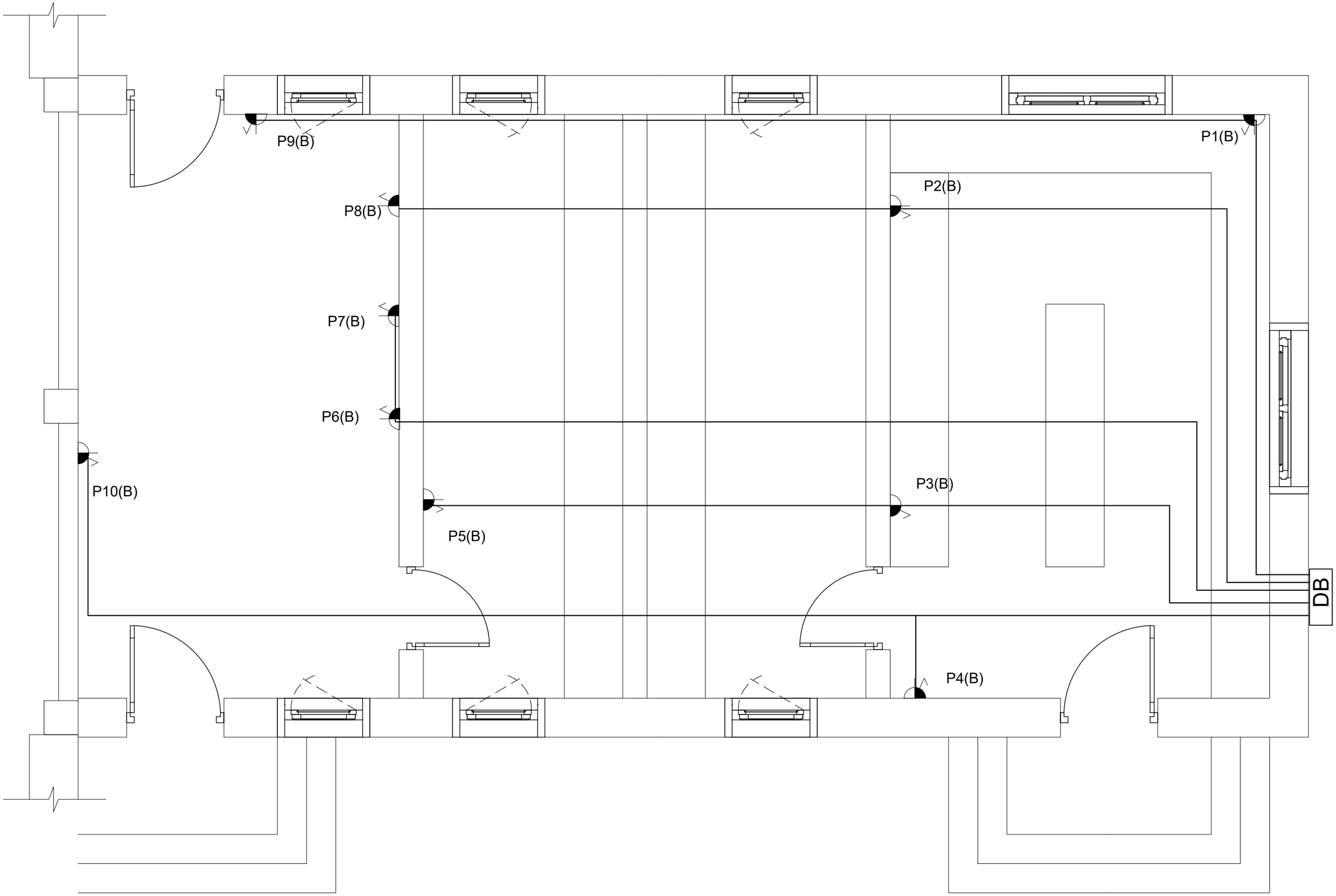
ELECTRICAL DRAWING

PROJECT TITLE	DRAWING TITLE
Construction of BHU Building and Auxiliary Work	LIGHT_CIRCUITS_&_CONDUIT_LAYOUT

NOTES

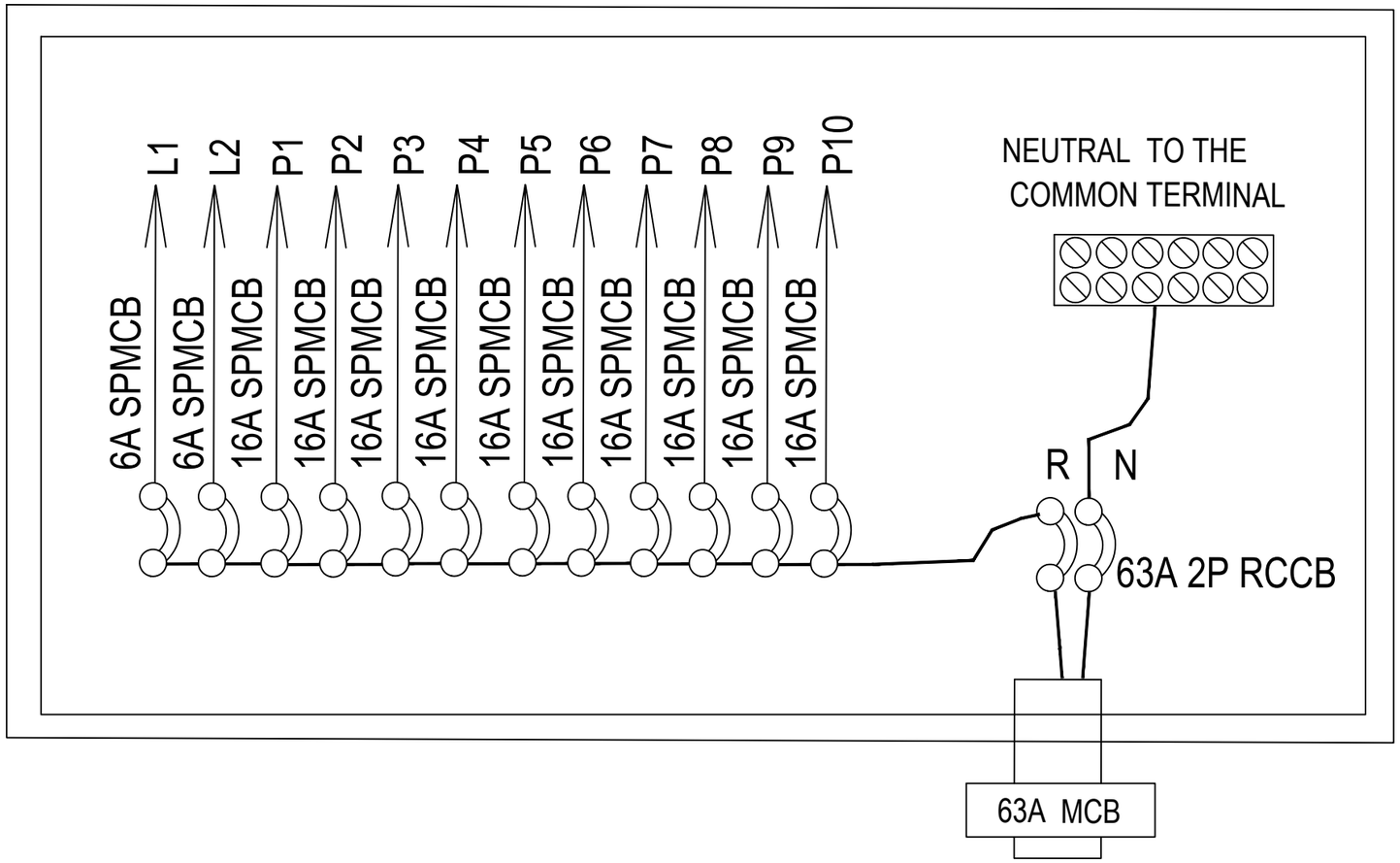
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CHECKED	APPROVED	DATE	DRAWING NO.
		Sep, 2026	EL_4
			SCALE
			NTS



Khorlochhu	**ELECTRICAL DRAWING**	**NOTES**	**CHECKED**	**APPROVED**	**DATE**	**DRAWING NO.**
	PROJECT TITLE / **DRAWING TITLE**	1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATION IN METER UNLESS SPECIFIED OTHERWISE. 2. ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 3. DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. 4. ANY DISCREPANCIES IN THE DRAWING ARE TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE SUPERVISION TEAM.				EL_5
	Construction of BHU Building and Auxiliary Work	POWER_SOCKET_OUTLET_&_CONDUIT_LAYOUT			Sep, 2026	**SCALE** NTS

DISTRIBUTION BOARD



2 core,10sq mm UG cable or as recommended by BPC

12WAY SPN DB, DOUBLE DOOR TYPE, & 63A RCCB,2P, WITH FOLLOWING OUTGOING:
6A SPMCB - 1NOs.
16A SPMCB - 10NOs.

BALANCE LOAD IN WATTS

R-PHASE

L1- 370
L2- SPARE
P1- 2000
P2- 2000
P3- 2000
P4- 2000
P5- 2000
P6- 2000
P7- 2000
P8- 2000
P9- 2000
P10- 2000

20,370 W

L1=SB1,SB2,SB3,SB4,SB5

Connected load= 20,370 W
Demand load(L.F- 55%)= 11,204 W

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ELECTRICAL DRAWING		NOTES	CHECKED	APPROVED	DATE	DRAWING NO.
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Construction of BHU Building and Auxiliary Work	DISTRIBUTION_BOARD_DETAILS				Sep, 2026	SCALE NTS