

# STANDARD BIDDING DOCUMENT

## Construction of Farmers Hostel at

### ARDC, Bajo

### Wangduephodrang



Royal Government of Bhutan

Ministry of Finance

2023

1<sup>st</sup> July, 2023

## **PREFACE**

One of the principal mandates and powers of the Ministry of Finance, as provided under section 104 (i) of the Public Finance (amendment) Act of Bhutan 2012 is to issue rules, manuals, directives, instructions or notifications ensuring an equitable, transparent, competitive and cost-effective procurement system in the country for which this Standard Bidding Document (SBD) for the Procurement of Works (Above Nu. 5 million) 2023 is drafted as implementing document of Procurement Rules and Regulation 2023.

This SBD is the revision of Standard Bidding Document for the Procurement of Works (Above Nu. 5 million) 2019 with the inclusion of provisions amended vide various notifications and fiscal measures proven to be effective in achieving basic principles of public procurement.

Ministry of Finance in the exercise of the power conferred by the section 104 (i) of the Public Finance (amendment) Act of Bhutan 2012 hereby adopts SBD for the Procurement of Works (Above Nu. 5 million) 2023 vide 141<sup>st</sup> Policy and Planning Coordination Meeting on 20<sup>th</sup> February, 2023 which shall come into effect from 1<sup>st</sup> July 2023.

Any queries, clarification, interpretation on this standard bidding document contact:

**Procurement Management and Development Division**  
**Department of Procurement and Properties**  
**Ministry of Finance**  
**Email – pmdd@mof.gov.bt**  
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## INVITATION FOR BIDS

### ***Notes on the Invitation for Bids (IFB)***

*Its purpose is to supply information to enable potential Bidders to decide whether to participate in the procurement process. The Invitation for Bids shall specify any important Bid evaluation criteria (for example, the application of a margin of preference in Bid evaluation) and qualification requirements (for example, a requirement for a minimum level of experience in carrying out works of a similar type and size to those for which the IFB is issued).*

*The Invitation for Bids shall not be incorporated into the Bidding Documents. However, the information contained in the Invitation for Bids should conform to the Bidding Documents and in particular to the relevant information in the Bidding Data Sheet.*

**Invitation for Bids for construction of farmers Hostel at  
ARDC, Bajo**

1. The Agriculture Research Development Centre, Bajo, Wangduephordang invites sealed Bids from eligible and qualified Bidders for “Construction of farmers hostel”. The period for execution of the assignment is 8 Months.
2. Bidding will be conducted through the National Competitive Bidding a procedure specified in the RGoB Procurement Rules, and is open to all Bidders from Countries as defined in Section III of the Bidding Documents.<sup>1</sup>
3. Interested eligible Bidders may obtain further information from Agriculture Research Development Centre, Bajo, Wangduephordang and inspect the Bidding Documents at the address given below [state address at end of this IFB] from during office hour.
4. The Bidding Documents may be downloaded free of cost from the website [www.rcbajo.gov.bt](http://www.rcbajo.gov.bt)
5. Bids must be delivered to the address below at or before 10:30 Am and 16/10/2023. Electronic Bidding shall not be permitted. Late Bids will be rejected. Bids will be opened physically at 11AM on the same day in the presence of the Bidders representatives who choose to attend in person.
6. **All Bids shall be accompanied by a Bid security of Nu. 259,399.00 in Bank Gurantee/Cash Warrant/Demand Draft in the name of Chairman, ARDC Tender Committee, Bajo.**
7. The address(es) referred to above is(are):  
Chairman,  
Agriculture Research Development Centre Tender Committee, Bajo, Wangduephordang

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<sup>1</sup>Occasionally, contracts may be financed out of special funds that would further restrict eligibility to a particular group of countries. When this is the case, it should be mentioned in this paragraph.

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## INTRODUCTION

These Standard Bidding Documents are intended as a model for ad measurement (unit prices or unit rates in a Bill of Quantities) and lump sum types of contracts, which are the most common in Works contracting. Lump sum contracts are used in particular for buildings and other forms of construction where the Works are well defined and are unlikely to change in quantity or specifications, and where encountering difficult or unforeseen site conditions (for example, hidden foundation problems) is unlikely. The main text refers to ad measurement contracts. **Alternative clauses or texts are supplied for use with lump sum contracts.**<sup>2</sup>

Care should be taken to check the relevance of the provisions of the Standard Documents against the requirements of the specific Works to be procured. The following directions should be observed when using the documents:

- (a) All the documents listed in the Table of Contents are normally required for the procurement of Works. However, they should be adapted as necessary to the circumstances of the particular Project.
- (b) Before issuing these Bidding Documents the Procuring Agency shall prepare the Bidding Data Sheet (Section II), Special Conditions of Contract (Section VI), and Sections VII, VIII and IX which deal with Specifications and Performance Requirements, Drawings, and Bill of Quantities respectively. The Procuring Agency should read and/or provide the information specified in the italicized notes inside brackets. In the few instances where the Bidder is requested to provide information, the note specifies it. **The footnotes and notes for the Procuring Agency are not part of the text; they should not be incorporated in the Bidding Documents issued to the Bidders.**
- (c) These Bidding Documents are intended to serve on a repetitive basis. Modifications for specific Project or Contract needs should be provided only in the Bidding Data Sheet and the Special Conditions of Contract, which shall not result into amendments to the Instructions to Bidders and the General Conditions of Contract as far as possible.
- (d) The notes inside un-shaded boxes, as well as others intended as guidance for the Procuring Agency, are not part of the text, but rather contain instructions for the user, as do the Preface and this Introduction section. **They should not be incorporated in the Bidding Documents.** The cover (first) page should be modified as required to identify the Bidding Documents as to the names of the Project, Contract and Procuring Agency, in addition to date of issue.
- (e) The notes inside boxes with a shaded background should be retained in the issued Bidding Documents, since these provide important guidance to Bidders.
- (f) The Standard Documents have been prepared for Bidding where post qualification applies. However, with relatively minor modifications they also can be used where prequalification applies. The process of prequalification of Bidders is not covered in these Standard Documents.

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<sup>2</sup>Lump sum contracts should be used for Works that can be defined in their full physical and qualitative characteristics before the Bids are called, or where the risks of substantial design variations are minimal—usually construction of buildings, pipe laying, power transmission towers and series of small structures, such as bus shelters or school ablution units. In lump sum contracts, the concept of priced activity schedules has been introduced, to enable payments to be made as activities are completed. Payments can be also made on the basis of percentage completion of each activity.

## SECTION I. INSTRUCTIONS TO BIDDERS (ITB)

### **Notes on the Instructions to Bidders**

This section of the Bidding Documents should provide the information necessary for Bidders to prepare responsive Bids, in accordance with the requirements of the Procuring Agency. It should also give information on Bid submission, opening and evaluation, and on the award of Contract.

Matters governing the performance of the Contractor, payments under the Contract, or matters affecting the risks, rights and obligations of the parties under the Contract are not normally included in this Section, but rather under Section V, General Conditions of Contract and/or Section VI, Special Conditions of Contract. If duplication of a subject is inevitable in the different sections of the documents, care must be exercised to avoid contradictions between clauses dealing with the same matter.

These Instructions to Bidders shall not be part of the Contract and shall cease to have effect once the Contract is signed.

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# INSTRUCTIONS TO BIDDERS (ITB)

## A. General

### 1. Scope of Bid and Source of Funds

- 1.1. The Procuring Agency as defined<sup>3</sup> in Section II, Bidding Data Sheet (BDS), invites Bids for the construction 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 the SCC.
- 1.2. The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Special Conditions of Contract.
- 1.3. The Procuring Agency as defined in section II, Bidding Data Sheet (BDS) has received a budget from RGoB and external donors towards the cost of the Project defined in the BDS and intends to apply a part of the funds to cover eligible payments under the contract for this works.

### 2. Fraud and Corruption

- 2.1. It is RGoB's policy to require that Procuring Agencies, Bidders, Suppliers, Contractors and their Subcontractors observe the highest standards of ethics during the procurement and execution of contracts.<sup>4</sup>In pursuance of this policy, the RGoB:
  - (a) defines, for the purposes of this provision, the terms set forth below as follows:
    - (i) "corrupt practice"<sup>5</sup> is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value<sup>6</sup> to influence improperly the actions of another party;
    - (ii) "fraudulent practice"<sup>7</sup> is any intentional act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
    - (iii) "collusive practice"<sup>8</sup> is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
    - (iv) "coercive practice"<sup>9</sup> 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

<sup>3</sup>See also definitions in Section V, General Conditions of Contract (GCC).

<sup>4</sup>In this context, any action taken by a Bidder, Supplier, Contractor or a Subcontractor to influence the procurement process or contract execution for undue advantage is improper.

<sup>5</sup>"another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes staff and employees of any organizations (including any institutions providing finance for the Works) taking or reviewing procurement decisions.

<sup>6</sup>"anything of value" includes, but is not limited to, any gift, loan, fee, commission, valuable security or other asset or interest in an asset; any office, employment or contract; any payment, discharge or liquidation of any loan, obligation or other liability whatsoever, whether in whole or in part; any other services, favour or advantage, including protection from any penalty or disability incurred or apprehended or from any action or proceeding of a disciplinary or penal nature, whether or not already instituted and including the exercise or the forbearance from the exercise of any right or any official power or duty.

<sup>7</sup>a "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

<sup>8</sup>"parties" refers to participants in the procurement process (including public officials) and an "improper purpose" includes attempting to establish Bid prices at artificial, noncompetitive levels.

<sup>9</sup>a "party" refers to a participant in the procurement process or contract execution.

(v) “obstructive practice” is

- (a) deliberately destroying, falsifying, altering or concealing of evidence material to the 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
- (b) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Agency or any organization or person appointed by the Procuring Agency and/or any relevant RGoB agency provided for under ITB Sub-Clause 2.1 (d) below.
- (c) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.
- (d) 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;
- (e) 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 Procuring Agency, any organization or person appointed by the Procuring Agency 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 Procuring Agency;
- (f) 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 IV, Bidding Forms. Failure to provide a duly executed Integrity Pact Statement shall result in disqualification of the Bid; and
- (g) 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.

2.2. Furthermore, Bidders shall be aware of the provision stated in GCC Sub-Clause 60.1.

### 3. Eligible Bidders

- 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. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified **in the BDS**, there is no limit on the number of members in a JV.
- 3.2. A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 3.7. A Bidder shall be deemed to have the nationality of a 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 documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services
- 3.3. A Bidder shall not have a 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 purposes of this Bid; or
  - (d) they have a 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 Procuring Agency 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 subcontractor 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 the 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 Procuring Agency as Project Manager for the Contract implementation; or
- (h) a Bidder or any of its affiliates employs or otherwise engages a close relative of a civil servant who either is employed by the Procuring Agency or has an authority over the Bidder or its affiliates or over the bid. For the purposes of this Sub-Clause a close relative is defined as immediate family which includes father, mother, brother, sister, spouse and own children.

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

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 Procuring Agency.

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

3.7. 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.

3.8. A Bidder shall also 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 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 Procuring Agency or the Bhutan Construction and transport Authority.
- (g) he has been convicted of fraud and/or corruption by a competent authority; or
- (h) he has not fulfilled his contractual obligations with the Procuring Agency in the past; or
- (i) he has been debarred from participation in public procurement by any competent authority as per law.
- (j) Any other predetermined circumstances as deemed necessary by the procuring agency.

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

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

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

5.1. The Bidder shall bear all costs associated with the preparation, submission of his Bid, and the Procuring Agency shall in no case be responsible or liable for those costs.

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

6.1. The Bidder, at the Bidder's own responsibility and risk, is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

### **B. Bidding Documents**

#### **7. Content Bidding Document**

7.1. The set of Bidding Documents comprises the documents listed in the table below and addenda issued in accordance with ITB Clause 9:

Section I: Instructions to Bidders

Section II: Bidding Data Sheet

Section III: Eligible Countries

Section IV: Evaluation and Qualification Criteria

Section V: Bidding Forms

Section VI: General Conditions of Contract

Section VII: Special Conditions of Contract  
Section VIII: Specifications and Performance Requirements  
Section IX: Drawings

**8. Clarification of Bidding Documents**

- 8.1. A prospective Bidder requiring any clarification of the Bidding Documents may notify the Procuring Agency in writing, including by cable, facsimile, telex or electronic mail, at the Procuring Agency's address indicated in the BDS. The Procuring Agency shall respond to any request for clarification received no later than eleven (11) days<sup>10</sup> for OTM and three (3) days for LTM to the deadline for submission of Bids. Copies of the Procuring Agency's response shall be forwarded to all purchasers of the Bidding Documents, including a description of the inquiry, but without identifying its source. Should the clarification result in changes to the essential elements of the Bidding Documents, the Procuring Agency shall amend the Bidding Documents, following the procedure in ITB Clause 9 and ITB Sub-Clause 20.2.
- 8.2. A pre-bid meeting shall be conducted only if necessary to clarify doubts and concerns of the Bidders prior to submission of Bids. However, for procurement of value above Nu. 50 million, pre-bid meeting is mandatory. Minutes of the pre-bid meeting shall be circulated to all Bidders that have purchased Bidding Documents.
- 8.3. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 8.4. The Bidder is requested to submit any questions in writing or by facsimile or email to reach the Procuring Agency not later than one week before the meeting.
- 8.5. Minutes of the meeting, including the text of the questions 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 listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by the Procuring Agency exclusively through the issue of an Addendum pursuant to Clause 9 and not through the minutes of the pre-bid meeting.
- 8.6. Non-attendance of the pre-bid meeting will not be a cause for disqualification of a Bidder.

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<sup>10</sup>It may be necessary to extend the deadline for submission of Bids if the Procuring Agency's response results in substantial changes to the Bidding Documents. See ITB Clause 9.

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

- 9.1. Before the deadline for submission of Bids, the Procuring Agency may modify the Bidding Documents by issuing addenda.
- 9.2. Any addendum thus issued shall be part of the Bidding Documents, shall be binding on all Bidders and shall be communicated in writing, including by cable, facsimile, telex or electronic mail, to all purchasers of the Bidding Documents.<sup>11</sup> Prospective Bidders shall acknowledge receipt of each addendum in writing, including by electronic mail, to the Procuring Agency.
- 9.3. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Procuring Agency shall extend, as necessary, the deadline for submission of Bids, in accordance with ITB Sub-Clause 20.2 below.

### **C. Preparation of Bids**

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

- 10.1. All documents relating to the Bid shall be in the language specified in the BDS.

#### **11. Documents Comprising the Bid<sup>12</sup>**

- 11.1. The Bid submitted by the Bidder shall comprise the following:

- (a) The Bid form (in the format indicated in Section V);
- (b) Bid Security in accordance with Clause 15;
- (c) Priced Bill of Quantities<sup>13</sup> - 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 Procuring Agency;
- (d) Qualifications: documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the Contract if its Bid is accepted;
- (e) Written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB sub-clause 18.2;
- (f) Alternative offers where invited; and
- (g) any other documents specified in the BDS.

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<sup>11</sup>It is therefore important that the Procuring Agency maintain a complete and accurate list of recipients of the Bidding Documents and their addresses.

<sup>12</sup>No bid will be rejected during the opening except on grounds of non-signing of bid forms and insufficient bid security. Non-submission of documents like trade license, BCTA certificate along with the bid should not become rejecting criteria. The bidder should be given an opportunity to submit such documents during evaluation within a reasonable time specified by the evaluation committee. Any rejection due to non-responsiveness should be done after preliminary examination of the bids.

<sup>13</sup>In lumpsum contracts, delete "priced Bill of Quantities" and replace with "Priced Activity Schedule".



- 11.2. In addition to the requirements under ITB 11.1, Bids submitted by a Joint Venture, Consortium or Association (JV/C/A) 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 the information listed in ITB Sub-Clause 17.2 below for each JV/C/A partner;
  - (b) the Bid shall be signed so as to be legally binding on all the partners;
  - (c) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;  
one of the partners shall be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the JV/C/A;
  - (d) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge; and
  - (e) a copy of the JV/C/A Agreement entered into by the partners shall be submitted with the Bid; or a Letter of Intent to execute a JV/C/A 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.

## **12. Bid Prices**

- 12.1. The Contract shall be for the whole Works, as described in ITB Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 12.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities.<sup>14</sup> Items for which no rate or price is entered by the Bidder shall not be paid for by the Procuring Agency when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 12.3. The Bidder shall quote its final all-inclusive net price, including all 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, as of the date twenty-one (21) days prior to the deadline for submission of Bids, shall be included in the rates, prices and total Bid price submitted by the Bidder.<sup>15</sup>
- 12.4. The rates and prices<sup>16</sup> quoted by the Bidder shall be subject to adjustment during the performance of the Contract<sup>17</sup> if provided for in the BDS and the SCC and the provisions of GCC Clause 48. The Bidder shall submit with the Bid all the information required under the SCC and GCC Clause 48.

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<sup>14</sup>In lump sum contracts, delete “described in the Bill of Quantities” and replace with “described in the drawings and specifications and listed in the Activity Schedule”.

<sup>15</sup>In lump sum contracts, delete “rates, prices, and”.

<sup>16</sup>In lump sum contracts, delete “rates and prices” and replace with “lump sum price”.

<sup>17</sup>For contracts with a duration of more than 18 months the price adjustment normally should be allowed

### **13. Currencies of Bidand Payment**

- 13.1. The unit rates and prices<sup>18</sup> shall be quoted by the Bidder entirely inNgultrum (Nu). Foreign currency requirements shall be indicated as a percentage of the Bid price (excluding provisional sums<sup>19</sup>) and shall be payable at the option of the Bidder in up to three foreign currencies.
- 13.2. The rates of exchange to be used by the Bidder in arriving at the local currency equivalent and the percentage(s) mentioned in ITB Sub-Clause 13.1 above shall be the selling rates for similar transactions established by the authority specified in the BDS prevailing on the date 30 days prior to the latest deadline for submission of Bids. These exchange rates shall apply for all payments so that no exchange risk shall be borne by the Bidder. If the Bidder uses other rates of exchange, the provisions of ITB Clause 28.1 shall apply. In any case, payments shall be computed using the rates quoted in the Bid.
- 13.3. Bidders shall indicate details of their expected foreign currency requirements in the Bid.
- 13.4. Bidders may be required by the Procuring Agency to clarify their foreign currency requirements and to substantiate that the amounts included in the rates and prices<sup>20</sup>, if required in the BDS, are reasonable and responsive to ITB Sub-Clause 13.1.
- 13.5. In case of International Procurement from countries other than India, the Procuring Agency may invite Bids in convertible currencies. The Bids shall however, be evaluated in accordance with Sub-Clause 13.2, but the payment shall be made in the currency of Bid.

### **14. Bid Validity**

- 14.1. Bids shall remain valid for the period specified in the BDS.
- 14.2. In exceptional circumstances, the Procuring Agency may request that the Bidders extend the period of validity for a specified additional period. The request and the Bidders' responses shall be made in writing or by electronic mail. The Bid Security required pursuant to ITB Clause 15 shall be extended to 30 days after the deadline of the extended Bid validity period. A Bidder may refuse the request without forfeiting the Bid Security. The refusal to extend the bid by the Bidder 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 15.
- 14.3. In the case of contracts in which the Contract Price is fixed (not subject to price adjustment), if the period of Bid validity is extended beyond 60 days, the amounts payable in local and foreign currency to the Bidder selected for award shall be adjusted as specified in the request for extension. Bid evaluation shall be based on the bid price without taking the above correction into consideration.

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<sup>18</sup>In lump sum contracts, delete "unit rates and prices" and replace with "lump sum price".

<sup>19</sup>Provisional sums are monetary sums specified by the Procuring Agency in the Bill of Quantities, to be used at his discretion for nominated subcontractors and other specified purposes.

<sup>20</sup>For lump sum contracts, delete "rates and prices" and replace with "Lump Sum".

## **15. Bid Security**

- 15.1. In lieu of a Bid Security, the Procuring Agency may instruct bidders to sign a Bid Securing Declaration in the form provided in the bidding documents accepting that they will be required to pay bid security amount specified in the Bidding Document within five (5) days if;
- (a) they withdraw or modify their Bids during the period of validity;
  - (b) a bidder fails to accept the arithmetical corrections of its bid price; or
  - (c) they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the bidding document.
- 15.2 Failure to pay as provided in ITB 15.1 will lead to debarment of the bidder from being eligible to submit bids for contracts with all the government procuring agencies for the period prescribed in the Debarment Rules.

## **16. Alternative Proposals by Bidders**

- 16.1. Alternatives shall not be considered, unless specifically allowed in the BDS. If so allowed, ITB Sub-Clauses 16.1 and 16.2 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 the base Bid and the Procuring Agency shall only consider the alternative Bids offered by the Bidder whose Bid for the base case was determined to be the best-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 and Performance Requirements pursuant to Section VII, shall be evaluated on their own merits.
- 16.2. Alternative Bids shall provide all information necessary for a complete evaluation of the alternative by the Procuring Agency, including design calculations, technical specifications, breakdown of prices, proposed construction methods and other relevant details.

## **17. Documents establishing Eligibility & Qualifications of the Bidder**

- 17.1. To establish Bidder's eligibility in accordance with ITB 3, Bidders shall complete the Letter of Bid, included in Section V, Bidding Forms.
- 17.2. 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.
- 17.3. If a margin of preference applies as specified in accordance with ITB 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 34.

## **18. Format and Signing of Bids**

- 18.1. The Bidder shall prepare one original of the documents comprising Signing of Bid the Bid as described in ITB Clause 11, bound with the volume containing the Form of Bid, and clearly marked “ORIGINAL.” In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS, and clearly marked as “COPIES.” In the event of any discrepancy between the original and any copies, or between the original paper form of the Bill of Quantities (or Activity Schedule in the case of lump sum Contracts) and the electronic version, the original shall prevail.
- 18.2. 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 to sign on behalf of the Bidder, pursuant to ITB Sub Clause 17.1. Unsigned Form of Bid & 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 signing the Bid.
- 18.3. The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Procuring Agency, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.
- 18.4. The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.

## **D. Submission of Bids**

### **19. Sealing and Marking of Bids<sup>21</sup>**

- 19.1. Bidders may always submit their Bids by mail or by hand. When so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the procedures specified in the BDS. 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 outer envelope. All envelopes shall be sealed with adhesive or other sealant to prevent reopening.
- 19.2. The inner envelopes shall:
  - (a) be signed across their seals by the person authorized to sign the bid on behalf of the Bidder; and
  - (b) be marked “ORIGINAL”, “ALTERNATIVE” (if any) and “COPIES”.
- 19.3. The outer envelope shall:
  - (a) be sealed with adhesive or other sealant to prevent reopening;

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<sup>21</sup>Improper marking & sealing of the document cannot result in the rejection of Bids

- (b) be marked “Confidential”;
  - (c) be addressed to the Procuring Agency at the address<sup>22</sup> provided in the BDS;
  - (d) bear the name and identification number of the Contract as defined in the BDS and SCC; and
  - (e) provide a warning not to open before the specified time and date for Bid opening as defined in the BDS.
- 19.4. In addition to the identification required in ITB Sub-Clause 19.2, 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 Clause 21.
- 19.5. If the outer envelope is not sealed and marked as above, the Procuring Agency shall assume no responsibility for the misplacement or premature opening of the Bid.

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

- 20.1. Bids shall be delivered to the Procuring Agency at the address specified above no later than the time and date specified in the BDS.
- 20.2. The Procuring Agency may extend the deadline for submission of Bids by issuing an amendment in accordance with ITB Clause 9, in which case all rights and obligations of the Procuring Agency and the Bidders previously subject to the original deadline shall then be subject to the new deadline.

## **21. Late Bids**

- 21.1. Any Bid received by the Procuring Agency after the deadline prescribed in ITB Clause 20 shall be returned unopened to the Bidder.

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

- 22.1. Bidders may withdraw, substitute or modify their Bids by giving notice in writing before the deadline prescribed in ITB Clause 20.
- 22.2. Each Bidder’s withdrawal, substitution or modification notice shall be prepared, sealed, marked and delivered in accordance with ITB Clauses 18 and 19, with the outer and inner envelopes additionally marked “WITHDRAWAL”, “SUBSTITUTION” or “MODIFICATION” as appropriate.
- 22.3. No Bid may be substituted or modified after the deadline for submission of Bids.
- 22.4. Withdrawal of a Bid between the deadline for submission of Bids and the 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 Clause 15. If the

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<sup>22</sup>The receiving address shall be an office that is staffed during normal working hours by personnel authorized to certify time and date of receipt and assure safe-keeping until Bid opening. A post office address is not to be used. The address must be the same as the receiving address described in the Invitation for Bids.

lowest or the lowest evaluated Bidder withdraws his Bid between the periods specified pursuant to clause 22.4, the Bid Security of the Bidder shall be forfeited and in addition the Bidder shall pay to the Procuring Agency the positive difference of sum, if any with the next lowest Bidder within 14 days of his withdrawal. If the Bidder fails to pay the difference within the said date, the Bidder shall be debarred by a Competent Authority as per law.

- 22.5. 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 Bid submission.

## **E. Bid Opening and Evaluation**

### **23. Bid Opening**

- 23.1. The Procuring Agency shall open the Bids on the same day of bid submission deadline, including modifications made pursuant to ITB Clause 22, in the presence of the Bidders' representatives who choose to attend at the time and in the place specified in the BDS. Any specific opening procedures required if electronic Bidding is permitted in accordance with ITB Sub-Clause 20.1 shall be as specified in the BDS.
- 23.2. 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 22 shall not be opened.
- 23.3. The Original & Copies will be opened at the Bid opening. The Bidders' 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 Procuring Agency may consider appropriate) responses to any Bidding Documents addenda; fulfillment of any such other specific formal requirements as are prescribed in the Bidding Documents; and such other details as the Procuring Agency may consider appropriate, shall be announced by the Procuring Agency 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 Bid evaluation. 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 Bid Opening 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 & Copies, the Original shall prevail.

No Bid shall be rejected at Bid opening except for late Bids pursuant to ITB Clause 21. Substitution Bids and modifications submitted pursuant to ITB Clause 22 that are not opened and read out at Bid opening shall not be considered for further evaluation regardless of the circumstances. Late, withdrawn and substituted Bids shall be returned unopened to Bidders.

- 23.4. The Procuring Agency shall prepare Minutes of the Bid opening, including the information disclosed to those present in accordance with ITB Sub-Clause 23.3. The Minutes shall include, as a minimum:
- (a) the Name of the Work and invitation reference number;
  - (b) the Tender ID;
  - (c) the Bid deadline (date and time);
  - (d) the date, time and place of Bid opening;
  - (e) Bid prices, per lot if applicable, offered by the Bidders, including any discounts and alternative offers;
  - (f) name and nationality of each Bidder, and whether there is a withdrawal, substitution or modification;
  - (g) the names of attendees at the Bid opening, and of the Bidders they represent (if any);
  - (h) details of any complaints or other comments made by attendees/representatives attending the Bid opening, including the names and signatures of the attendees/representatives making the complaint(s) and/or comment(s); and
  - (i) the names, designations and signatures of the members of the Bid Opening Committee.
- 23.5. The Bidders' representatives and attendees who are present shall be requested to sign the record. The omission of a Bidder's or other attendee's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

## **24. Confidentiality**

- 24.1. 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 37. Any effort by a Bidder to influence the Procuring Agency's processing of 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 Procuring Agency on any matter related to the Bidding process, it should do so in writing, including by electronic mail during the de-briefing.

## **25. Clarification of Bids**

- 25.1. To assist in the examination, evaluation and comparison of Bids, the Procuring Agency may, at the Procuring Agency's discretion, ask any Bidder for clarification of the Bidder's

Bid, including breakdowns of unit rates.<sup>23</sup> The request for clarification and the response shall be in writing, including by electronic mail, but no change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Procuring Agency in the evaluation of the Bids in accordance with ITB Clause 27.

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

- 26.1. Prior to the detailed evaluation of Bids, the Procuring Agency shall determine whether each Bid (a) meets the eligibility criteria defined in ITB Clause 3; (b) has been properly signed; (c) is accompanied by the Bid Security; and (d) is substantially responsive to the requirements of the Bidding Documents.
- a. 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 Procuring Agency'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.
  - b. If a Bid is not substantially responsive, it will be rejected by the Procuring Agency, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

## **27. Correction of Errors**

- 27.1. Bids determined to be substantially responsive shall be checked by the Procuring Agency for any arithmetic errors. Errors shall be corrected by the Procuring Agency as follows:<sup>24</sup>
- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern; and
  - (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted shall govern, unless in the opinion of the Procuring Agency there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted shall govern, and the unit rate shall be corrected.

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<sup>23</sup>In lump sum contracts, delete "unit rates" and replace with "the prices in the Activity Schedule".

<sup>24</sup>In lump sum contracts, delete from "as follows" to the end, and replace with the following: "as follows: where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern."



- 27.2. The corrections will be notified in writing to the individual Bidder with a request for written acceptance of the corrections within the specified period as made in the notification. The amount stated in the Bid shall be adjusted by the Procuring Agency in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid shall be rejected, and the Bid Security may be forfeited in accordance with ITB Sub-Clause 15.5 (b).

## **28. Currency for Bid Evaluation**

- 28.1. Bids shall be evaluated as quoted in Ngultrum (Nu) in accordance with ITB Sub-Clause 13.1, unless a Bidder has used different exchange rates than those prescribed in ITB Sub-Clause 13.2, in which case the Bid shall be first converted into the amounts payable in different currencies using the rates quoted in the Bid and then reconverted to Ngultrum (Nu.) using the exchange rates prescribed in ITB Sub-Clause 13.2.

## **29. Evaluation and Comparison of Bids**

- 29.1. The Procuring Agency shall evaluate and compare only the Bids determined to be substantially responsive in accordance with ITB Clause 26.
- 29.2. In evaluating the Bids, the Procuring Agency shall determine for each Bid and the evaluated Bid price by adjusting the Bid price as follows:
- (a) making any correction for errors pursuant to ITB Clause 27;
  - (b) excluding provisional sums and the provision (unless no rates have been asked from the Bidders), if any, for contingencies in the Bill of Quantities,<sup>25</sup> but including Day work,<sup>26</sup> where priced competitively;
  - (c) making an appropriate adjustment for any other acceptable variations, deviations or alternative offers submitted in accordance with ITB Clause 16; and
  - (d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with ITB Sub-Clause 22.5.
- 29.3. The Bids shall be evaluated by applying the evaluation criteria, sub criteria and points system specified in Section IV, Evaluation and Qualification Criteria. Each responsive Bid will be given a technical score. Financial Bids of only those Bidders who score the minimum technical score specified in Section IV, Evaluation and Qualification Criteria will be considered for the second stage of Bid evaluation to obtain technical-financial

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<sup>25</sup>In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule".

<sup>26</sup>Day work is work carried out following instructions of the Procuring Agency and paid on the basis of time spent by workers, the use of materials and the Contractor's equipment, at the rates quoted in the Bid. For Day work to be priced competitively for Bid evaluation purposes, the Procuring Agency must list tentative quantities for individual items to be coasted against Day work (e.g., a specific number of tractor driver staff-days, or a specific tonnage of Portland cement), to be multiplied by the Bidders' quoted rates and included in the total Bid price.

score. Work will be awarded to the Bidder obtaining the highest overall price technical-financial score which will be determined using the following formula:  
 $70\% \times (\text{Lowest quoted Bid among qualifying tenders/financial Bid quoted by A}) + 30\% \times \text{Technical score for A}.$

- 29.4. In the case of Joint Venture, Consortium & Association (JV/C/A), the individual credentials of the JV/C/A partners need to be averaged using their stake for the purpose of evaluation under the parameters of similar work experience, performance score from previous work, works (any category) completed in last five (5) years, Bid capacity and credit line available. For the parameters of equipment and manpower, their sources or information committed/provided by the JV/C/A as a single entity will be considered for award of points.
- 29.5. The Procuring Agency 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 the Procuring Agency shall not be taken into account in Bid evaluation.
- 29.6. The estimated effect of any price adjustment conditions under GCC Clause 47, during the period of implementation of the Contract, shall not be taken into account in Bid evaluation.
- 29.7. Domestic Bidders and Joint Ventures, Consortia or Associations of domestic Bidders who may be eligible for a margin of preference in Bid evaluation shall supply all information to satisfy the criteria for eligibility as described in ITB Clause 3 of these Instructions to Bidders.
- 29.8. A Bid that does not fulfill the minimum experience for the Tier(s) specified for the key personnel shall be rejected before proceeding to Bid evaluation.
- 29.9. A Bid that does not fulfill the minimum number for the Tier(s) specified for the equipment shall be rejected before proceeding to Bid evaluation.

### **30. Qualifications of the Bidder**

- 30.1. The Procuring Agency shall determine to its satisfaction whether the eligible Bidder that is selected as having submitted the best evaluated cost and substantially responsive Bid meets the qualifying criteria specified in Section IV, Evaluation and Qualification Criteria.
- 30.2. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors), or any other firm(s) different from the Bidder.

### **31. Abnormally Low Bids**

- 31.1 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 price 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 Procuring Agency shall revisit their departmental estimate to ensure its realistic rates compared to the prevailing market rates.
- 31.2 After revisiting the departmental estimate as provided in clause 31.1, if the Procuring Agency determines that the Bid offered by the Bidder is 20% below or above the Agency estimate, the Procuring Agency shall eliminate the Bid(s) before proceeding towards Bid evaluation.

### **32. Seriously Unbalanced Bid**

- 32.1. If the Bid that is evaluated as the best evaluated cost, is seriously unbalanced or front loaded in Procuring Agency's opinion, the Procuring Agency 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 Document.
- 32.2. After the evaluation of the information and detailed price analyses presented by the Bidder, the Procuring Agency may as appropriate:
- (a) accept the Bid and increase the performance security from ten percent (10%) up to maximum of 30% of the initial contract price; or Alternatively, the Procuring Agency may ask the successful Bidder to deposit the difference between departmental estimate and contract amount in the form of cash warrant in addition to 10% performance security. However, the total performance security amount shall be limited to maximum of 30% of initial contract price; or
  - (b) reject the Bid.

### **33. Subcontractor**

- 33.1 The Procuring Agency:
- (a) Shall define the mechanism for sub-contracting of parts of works to Specialized firms registered with Bhutan Construction and Transport Authority or any other competent authority for specialized categories of works provided in the guidelines for registration of such firms; or
  - (b) May define the mechanism for sub-contracting of parts of works to general contractor registered with Bhutan Construction and Transport Authority or any other competent authority for categories of works for which specialized firms are not available.

- 33.2 For clause 33.1 (a), the principal contractor shall commit the specialized firms with their names during the Bidding and deploy the same or equivalent once selected as winning Bidder with a notification to the Procuring Agency of such deployment.
- 33.3 For clause 33.1 (b), the principal contractor shall seek approval of the Procuring Agency for sub-contracting of works to the contractor registered with Bhutan Construction and Transport Authority or any other competent authority. In the event an approval is accorded by the Procuring Agency, such approval does not relieve the principal contractor of his obligations under the contract.
- 33.4 Payments shall be made directly to the principal contractor, not to the specialized firms or sub-contractor unless explicitly agreed otherwise between the Procuring Agency and the principal contractor with the specific mechanism to do so.
- 33.5 The principal contractor shall execute a contract with the specialized firm or a general subcontractor which shall bind the parties throughout the contract including the defect liability period.

#### **34. Preference for Domestic Bidders**

- 34.1. As indicated in the BDS, domestic contractors may receive a margin of preference in Bid evaluation, for which this clause shall apply.
- 34.2. 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 of 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; and
  - (b) have majority ownership by nationals of Bhutan.
- 34.3. 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 Sub-Clauses 34.2 (a) and (b); and
  - (b) the JV/C/A is registered in Bhutan;
  - (c) the JV/C/A satisfies any other criteria specified for the purpose of domestic preference eligibility, as specified in the BDS.
- 34.4. The procedure used to apply the margin of preference shall be as stipulated in the BDS.

## **F. Award of Contract**

### **35. Award Criteria**

35.1. Subject to ITB Clause 36, the Procuring Agency shall award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding Documents and who has scored the highest in the Technical-financial score of 100, provided that such Bidder has been determined to be:

- (a) eligible in accordance with the provisions of ITB Clause 3;
- (b) qualified in accordance with the provisions of ITB Clause 30 (Qualification of Bidder);  
and
- (c) Fulfillment of works in-hand ceiling prescribed by Bhutan Construction and Transport Authority or any other competent authority.

### **36. Procuring Agency's Right to Accept any Bid and to Reject any or all Bids**

36.1. Notwithstanding ITB Clause 35, the Procuring Agency 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, without thereby incurring any liability to the affected Bidder(s) but the Bidder(s) should be informed with the justified reason(s) for cancellation or rejection.

### **37. Letter of Intent to Award and Signing of Contract**

37.1. The Procuring Agency shall notify the concerned Bidder whose Bid has been selected in accordance with ITB 35.1 in writing (using the format in section V-hereafter called the "Letter of Intent to Award") that the Procuring Agency has intention to accept its Bid and the copy of this information shall be given to all other Bidders who have submitted the Bids. Such notification should be communicated in writing, including by cable, facsimile, telex or electronic mail to all the Bidders on the same day of dispatch. The Procuring Agency shall ensure that the same information is uploaded on their website on the same day of dispatch.

37.2. If no Bidder submits complaint pursuant to ITB 42 within a period of five (5) days of the notice provided under ITB 37.1, the Bidder who's Bid has been accepted shall be notified in writing of the award by the Procuring Agency prior to expiration of the Bid validity period. This notification letter (hereinafter and in the General Conditions of Contract called the "Letter of Acceptance") shall state the sum that the Procuring Agency 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").

- 37.3. The Letter of Acceptance shall constitute the formation of the Contract, subject to the Bidder furnishing the Performance Security in accordance with ITB Clause 39 and signing the Contract in accordance with ITB Sub-Clause 37.3. It shall be accompanied by two originals of the Contract in the form provided in Section V – Forms of Bid, Qualification Information, Letter of Acceptance, and Contract.
- 37.4. The Contract shall incorporate all agreements between the Procuring Agency and the successful Bidder. It shall be signed by the Procuring Agency and sent to the successful Bidder with the Letter of Acceptance. Within 15 days of receipt, the successful Bidder shall sign the Contract and deliver it to the Procuring Agency.
- 37.5. Upon the furnishing by the successful Bidder of the Performance Security, the Procuring Agency shall notify all other Bidders of the results of the Bidding and shall publish a notification of award on the Procuring Agency’s website. The notifications to all other Bidders as well as the notification posted on the Procuring Agency’s website shall include the following information:
- (a) the Bid and lot numbers;
  - (b) name of the winning Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded; and
  - (c) the date of the award decision.

**38. Debriefing by the Procuring Agency**

- 38.1 On receipt of the Procuring Agency’s Letter of Intention to Award referred to in ITB 37.1, an unsuccessful Bidder has three (3) working days to make a written request to the Procuring Agency for a debriefing. The Procuring Agency shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.
- 38.2. Where a request for debriefing is received within the deadline, the Procuring Agency shall provide a debriefing within five (5) working days.
- 38.3. The Procuring Agency 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.
- 38.4. 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.

### **39. Performance Security**

- 39.1 Within fifteen (15) days after receipt of the Letter of Acceptance the successful Bidder shall deliver to the Procuring Agency a Performance Security in the amount stipulated in the GCC and in the form stipulated in the BDS, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the GCC.
- 39.2 If the Performance Security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued, at the Bidder's option, by a financial institution located in Bhutan.
- 39.3 Failure of the successful Bidder to comply with the requirements of ITB Sub-Clauses 37.3 and 39.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security. If the best evaluated Bidder fails to produce the Performance Guarantee & sign the contract then apart from forfeiture of Bid Security, the Bidder will also be required to bear the positive difference in contract amount between his Bid and the Bidder to whom the work has been awarded.
- 39.4 Upon the successful Bidder's signing of the Contract and furnishing of the Performance Security pursuant to ITB Sub-Clause 39.1, the Procuring Agency shall promptly notify the name of the winning Bidder to each unsuccessful Bidder in accordance with ITB Sub-Clause 37.4 and shall be discharged from the obligation under the Bid Securities of the unsuccessful Bidders pursuant to ITB Sub-Clause 15.4.

### **40. Advance Payment and Security**

- 40.1 The Procuring Agency shall provide an Advance Payment on the Contract Price as stipulated in the GCC, subject to a maximum amount, as stated in the BDS. The Advance Payment shall be guaranteed by a Security in the form provided for in Section X, Security Forms.

### **41. Complaint and Review**

- 41.1 If the Bidder has or is likely to suffer, loss or injury due to breach of a duty imposed on the Procuring Agency by the provisions of this Bidding Document, the Bidder shall submit the complaint in writing to the Procuring Agency within five (5) days from the date of Letter of Intent to Award the contract pursuant to ITB 37.1.
- 41.2 The head of Procuring Agency shall, within seven (7) days after the submission of the complaint, issue a written decision.

- 41.3 The Bidder may appeal to the Independent Review Body within 5 days of the decision of the Head of the Procuring Agency or, where no such decision has been taken, within ten (10) days of the original complaint and the copy of the appeal shall be given to Procuring Agency on the same day.
- 41.4 Once the appeal copy is received by the Procuring Agency, it shall not proceed further with the procurement process until receipt of notification from the Independent Review Body Secretariat.



## SECTION II. BIDDING DATA SHEET

<b>A. General</b>	
ITB 1.1	The Procuring Agency is <i>Agriculture Research Development Centre, Bajo, Wangduephordang</i> The name and identification of the contract are “ <i>Construction of farmers hostel</i> ”  The Works are <i>G+1 RCC framed structure with brick in filled, steel roof truss as per drawing.</i>
ITB 1.2	The Intended Completion Date is <i>8 Months which stars after 10 days of issuance of work order</i>
ITB 3.8 (j)	Any additional predetermined circumstances [“ <i>none</i> ”]
<b>B. Bidding Documents</b>	
ITB 8.1	The Procuring Agency’s address for clarification is: <i>Chairman, Agriculture Research Development Centre, Bajo, Wangduephordang</i>
ITB 8.2	Pre-Bid Meeting <i>shall not</i> be held
<b>C. Preparation of Bids</b>	
ITB 10.1	The language of the Bid is: <i>English</i>
ITB 11.1 (g)	Any additional materials required to be completed and submitted by the Bidders are “ <i>none</i> ”
ITB 12.4	The Contract “ <i>is not</i> ” subject to price adjustment in accordance with GCC Clause 48.
ITB 13.2	The authority for establishing the rates of exchange shall be the Royal Monetary Authority of Bhutan.
ITB 13.4	Bidders “ <i>are not</i> ” required to substantiate the rates and prices.
ITB 14.1	The Bid shall be valid for [ <i>90 days</i> ] from the deadline for submission of Bids stipulated in ITB Clause 20.1
ITB 15.1	The Bid Security amount is <i>Nu. 259,399.00</i>
ITB 16.1	Alternative Bids “ <i>shall not be</i> ” considered.
ITB 18.1	In addition to the original Bid, the number of copies is <i>One</i>
<b>D. Submission of Bids</b>	
ITB 19.1	Bidders may submit their Bids electronically: “ <i>No</i> ”
ITB 19.3 (d)	The name and Identification number of the contract as given in ITB 1.1 above in this sheet.
ITB 19.3 (e)	The warning shall read “ <i>DO NOT OPEN BEFORE 11 AM on 16/10/2023</i> ”
ITB 20.1	The deadline for submission of Bids shall be <i>10:30 AM On 16/10/2023</i>

<b>E. Bid Opening and Evaluation</b>	
<b>ITB 23.1</b>	The Bid opening shall take place on the same day as the closing day of the Bid submission at:  Date: 16/10/2023 Time: 11 AM
<b>ITB 33.1</b>	The parts of works which the Procuring Agency permits Bidders to propose specialized subcontractor or General subcontractor are designated as follows:  Not applicable
<b>ITB 34.1</b>	Margin of domestic preference of twenty percent (20%) “ <i>shall not</i> ” apply
<b>ITB 34.3 (d)</b>	Other criteria to be used for the purpose of assessing domestic preference eligibility are:  <i>None</i>
<b>ITB 34.4</b>	The procedure used to apply the margin of preference shall be: In the case of procurements in which any Bids are received from foreign (i.e. non-Bhutanese) Bidders:  (i) if two or more Bids are evaluated as equivalent in accordance with the evaluation methods and factors laid down in the Bidding Documents, and  (ii) one or more of the Bids is from a domestic Bidder, as defined in ITB Sub- Clause 34.2, and  (iii) the total price of the domestic Bid does not exceed by more than ten percent (10%) the total price of the lowest priced foreign Bid evaluated as equivalent, then the Contract shall be awarded to the domestic Bid.
<b>F. Award of Contract</b>	
<b>ITB 39.1</b>	The Performance Security shall be provided in any one of the following forms:  (a) Demand guarantee in the form provided for in Section X, Security Forms;  (b) Banker’s certified cheque/cash warrant; or  (c) Demand draft.
<b>ITB 40</b>	The Advance Payment shall be limited to ten percent (10%) of the Contract Price

### SECTION III. ELIGIBLE COUNTRIES

#### Eligibility for the Provision of Goods, Works and Services in RGoB-financed Procurement

1. The RGoB permits firms and individuals from all countries to offer goods, works and services for RGoB-financed projects and external funded projects. As an exception, firms of a Country, goods manufactured in a Country or services provided from or by a Country may be excluded if:
  - 1.1. As a matter of law or official regulation, the RGoB prohibits commercial relations with that Country; or
  - 1.2. By an Act of Compliance with a Decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the RGoB prohibits any import of goods from that Country or any payments to persons or entities in that Country.
2. For the information of Bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:
  - (a) (With reference to Paragraph 1.1 above:  
*[insert list of countries prohibited under the law or official regulations of Bhutan]*
  - (b) With reference to Paragraph 1.2 above:  
*[insert list of countries which are barred under UN Security Council Chapter VII]*

## SECTION IV. EVALUATION AND QUALIFICATION CRITERIA

This section contains all the criteria that the Procuring Agency shall use to evaluate Bids and qualify Bidders through post-qualification. No other factors, methods or criteria shall be used other than specified in this Bidding Document. The Bidder shall provide all the information requested in the forms included in Section V, Bidding Forms. Both the Procuring agency and Bidders shall comply with Evaluation Guidelines for Procurement of Works (Above Nu. 5 million) 2023.

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## **1. Margin of Preference**

If BDS specifies, the Procuring Agency will grant a margin of preference of twenty percent (20%) to domestic contractors, in accordance with, and subject to the following provisions:

- (a) Contractors applying for such preference shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Bhutan Construction and Transport Authority (BCTA) and accepted by the Procuring Agency, a particular contractor or group of contractors qualifies for a domestic preference. The Bidding Document shall clearly indicate the preference and the method that will be followed in the evaluation and comparison of Bids to give effect to such preference.
- (b) After Bids have been received and reviewed by the Procuring Agency, responsive Bids shall be classified into the following groups:
  - (i) Group A: Bids offered by domestic contractors eligible for the preference.
  - (ii) Group B: Bids offered by other contractors.

All evaluated Bids in each group shall, as a first evaluation step, be compared to determine the Bid with lowest evaluated cost, and the Bid with the lowest evaluated cost in each group shall be further compared with each other. If a result of this comparison, a Bid from Group A is the lowest, it shall be selected for the award as the Best Evaluated Bid, if the Bidder is qualified. If a Bid from Group B is the lowest, as a second evaluation step, all Bids from Group B shall then be further compared with the lowest evaluated cost from Group A. For the purpose of this further comparison only, an amount equal to twenty percent (20) of the respective Bid price corrected for arithmetical errors, including unconditional discounts but excluding provisional sums and the cost of day works, if any, shall be added to the evaluated cost offered in each Bid from Group B. If the Bid from Group A is the lowest, it shall be selected for award. If not, the lowest evaluated cost from Group B based on the first evaluation step shall be selected.

The Procuring Agency shall use the criteria and methodologies listed in this Section to evaluate Bids. By applying these criteria and methodologies, the Procuring Agency shall determine the Best Evaluated Bid. This is the Bid that has been determined to be:

- (a) substantially responsive to the Bidding Document and (b) the lowest evaluated cost.

## **2. Evaluation**

In addition to the criteria listed in ITB 29.2 (a) – (d) the following criteria shall apply:

## **3. Qualification**

### **3.1. Eligibility**

*Assess the eligibility as per the ITB clause 3 requirements*

### 3.2. CAPABILITY (70 points)

#### 3.2.1. Similar Work Experience (0-10 points):

The Procuring Agency shall consider the aggregate size of similar works (maximum three) or size of the largest similar work in the last five (5) calendar years.

The evaluation score for this parameter shall be auto-generated from e-tool based on the following scoring criteria and similar work experience information updated in the e-Tool/ CiNET.

Parameter	Levels of Achievement	Score
Aggregate size of similar contracts (max 3) in the last 5 calendar years	<input type="checkbox"/> > 175% of current project size	<input type="checkbox"/> 10
	<input type="checkbox"/> 125-175% of the current project size	<input type="checkbox"/> 8
	<input type="checkbox"/> 75-125% of the current project size	<input type="checkbox"/> 4
	<input type="checkbox"/> <75% of the current project size	<input type="checkbox"/> 0
Size of the largest similar contract executed in the last 5 calendar years	<input type="checkbox"/> > 100% of current project size	<input type="checkbox"/> 10
	<input type="checkbox"/> 70-100% of the current project size	<input type="checkbox"/> 8
	<input type="checkbox"/> 50-70% of the current project size	<input type="checkbox"/> 4
	<input type="checkbox"/> <50% of the current project size	<input type="checkbox"/> 0

The Bidder shall be responsible for updating the similar work experience information in the e-Tool/ CiNET to secure accurate score on this parameter.

#### 3.2.2. Access to adequate equipment (0-20 points):

The Bidder should demonstrate that it will have access to the key Contractor's equipment listed below:

*[Procuring Agency to specify requirements for each Tier as applicable]*

Tier	Equipment	Number Required	Max. Marks
Tier I	Mixture Machine and vibrator	1 Set	50
Tier II	Tripper	1 Nos	30
Tier III	Backhoe	1 Nos	20
Total			100

Following are illustration on scoring of equipment:

- The 100 points shall be allocated as follows:  
 Tier I importance: 50 points  
 Tier II importance: 30 points  
 Tier III importance: 20 points  
 Total marks out of 100 will be scaled down to 20 points
- The Bidder shall commit and deploy the minimum number of equipment for each Tiers specified by the Procuring Agency.

The Bidder shall provide following details of proposed items of equipment using the relevant Form in Section V:

1. Copy of the registration certificate of each equipment committed;
2. Copy of Insurance policy for each equipment where applicable;

3. In case of hiring, copy of the lease agreement (specific to the project) in addition to 1 & 2 above; and
4. In case of equipment (Non-Registered Equipment) that do not require registration with BCTA, copy of cash memos/invoice stamped by RRCO if newly imported (within 1 year from the date of purchase) or copy of Sale Deed or verification letter issued by a Government Engineer or any other competent authority as deemed appropriate to the Procuring Agency.

### 3.2.3. Access to skilled manpower (0-20 points):

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 as specified below:

Tier	Position	Qualification & Experience	Score
Tier I	Site Engineer	Diploma with 5 Years of experience	40
Tier I	Site Engineer	Diploma with 3 Years of experience	30
Tier I	Site Engineer	Diploma with 1 Years of experience	20
Tier I	Site Engineer	Any other qualification	0
Tier II	Site supervisor	VTI (Mason) with 5 Years of experience	30
Tier II	Site supervisor	VTI (Mason) with 3 Years of experience	20
Tier II	Site supervisor	VTI (Mason) with 1 Years of experience	10
Tier II	Site supervisor	Any other qualification	0
Tier III	Electrician	VTI (Electrical) with 5 Years of experience	20
Tier III	Electrician	VTI (Electrical) with 3 Years of experience	15
Tier III	Electrician	VTI (Electrical) with 1 Years of experience	10
Tier III	Electrician	Any other qualification	0
Tier IV	Fresh Diploma/Graduate Engineer	Trained and certified (Ref. note given below)	10
Total			

**Note:** Tier IV- Fresh Diploma/Graduate Engineer trained and certified for 'Employability Skills for Construction Engineers' (CMS, OHS, e-GP & CDB/BCTA refresher course). If any Tier except the Tier IV is not required, the points for that Tier may be reallocated to other Tiers except Tier IV.

Following are illustration on scoring of skilled manpower:

- The 100 points shall be allocated as follows:  
 Tier I importance: 40 points  
 Tier II importance: 30 points  
 Tier III importance: 20 points  
 Tier IV importance: 10 points
- Total marks out of 100 will be scaled down to 20

- The Bidder shall commit and deploy the minimum experienced personnel for the Tier(s) specified by the Procuring Agency.  
The Bidder shall provide following details of the proposed manpower and their experience records in the relevant Forms included in Section V, Bidding Forms:
  1. Original signed CVs of technical manpower committed. The number of years in field shall be taken into consideration and not the year of graduation.
  2. Copies of Citizenship ID Cards or work permit/Passport/ Election/Voter ID cards (for foreign workers) of all manpower committed.
  3. Copies of contract agreements with all personnel if they have been hired on contract by the contractor.
  4. Copies of Provident Fund Account Documents for all regular personnel or payrolls or Copies of monthly remittance schedule of Health Contribution and Tax Deducted at Source for all regular personnel committed for this project.
  5. Copy of Certificate for ‘Employability Skills for Construction Engineers’ for Tier-IV in addition to the above applicable documents.

**3.2.4. Average performance score from previous works (0-10 points):**

The Procuring Agency shall consider the performance of contractor in the last 5 calendar years. The evaluation score for this parameter is auto-generated from e-tool based on the following scoring criteria and performance score information updated with e-Tool/CiNET.

Parameter	Levels of achievement	Score
Average performance score from previous works (past 5 calendar years)	<input type="checkbox"/> 100%	<input type="checkbox"/> 10
	<input type="checkbox"/> 1 mark lesser for every 5% point decrease in score rounded off to lower 5%	<input type="checkbox"/> 0
	<input type="checkbox"/> <55%	

The Bidder shall be responsible to update the performance score information in e-tool/CiNET.

**3.2.5 Works (any category) completed on time in the last 5 calendar years (0-10 point):**

The Procuring Agency shall consider the works (any category) completed on time in last 5 calendar years.

Each work completed by % for last 5 calendar years. The score for this parameter shall be auto generated from e-Tool based on the information updated by the Bidder with e-tool/ CiNET:

Parameter	Levels of achievement	Score
Works (any category) completed on time in the last 5 calendar Years	<input type="checkbox"/> 75-100%	10
	<input type="checkbox"/> 50-74%	5
	<input type="checkbox"/> <49%	0



The Bidder shall be responsible for updating the above information in e-Tool/CiNET.

**3.3. CAPACITY (30 points):**

List all information requested below:

**3.3.1. Bid Capacity (0-25 points):**

The Bidder shall be awarded maximum of 25 points based on following criteria. The score for this parameter shall be auto-generated from e-Tool based on the information updated by Bidder with eTool/CiNET:

Parameter	Levels of achievement	Score
Bid Capacity	<input type="checkbox"/> Bid Capacity > quoted Bid	<input type="checkbox"/> 25
	<input type="checkbox"/> Bid Capacity is between 80-100% quoted Bid	<input type="checkbox"/> 20
	<input type="checkbox"/> Bid Capacity is between 60-80% quoted Bid	<input type="checkbox"/> 15
	<input type="checkbox"/> Bid Capacity is between 40-60% quoted Bid	<input type="checkbox"/> 10
	<input type="checkbox"/> Bid Capacity < 40% quoted Bid	<input type="checkbox"/> 0

The Bid Capacity is calculated using the following formula =  $2.5 * A * N - B$

Where A = Average turnover of the contractor over the last 3 calendar years N =

Estimated duration of the project to be tendered

B = Portion of other ongoing works to be completed in the period that overlaps with the current project's duration (that is, N)

The Bidder shall be responsible for updating the above information in e-Tool/CiNET.

**3.3.2. Credit Line available (unused) (0-5 points):**

The Bidder shall demonstrate that it has access to lines of credit sufficient to meet the construction cash flow requirements estimated as Nu. 4,863,725.00

The Procuring Agency shall award points based on following criteria:

Parameter	Level of achievement	Score
Credit Line Available (unused)	<input type="checkbox"/> > 100% of estimated 3 months' project cash flow	<input type="checkbox"/> 5
	<input type="checkbox"/> 80-100% of estimated 3 months' project cash flow	<input type="checkbox"/> 4
	<input type="checkbox"/> 60-80% of estimated 3 months' project cash flow	<input type="checkbox"/> 2
	<input type="checkbox"/> <60% off estimated 3 months' project cash flow	<input type="checkbox"/> 0

The Bidder shall provide following details in the relevant Forms included in Section V, Bidding Forms

- The Bidder shall submit from the bank or financial institutions in Bhutan showing evidence of access to or availability of credit line for the project using relevant form.

**4. Minimum Technical Score**

A Bidder should obtain a score of at least 70 points out of 100 on these parameters (Capability & Capacity combined) in order to qualify for the award stage.

**5. Award:**

The Bids scoring minimum qualifying score of 70 points out of 100 will then be considered for the second stage of Bid evaluation. 30% of Technical evaluation score shall be carried forward to the 2nd stage of evaluation. This score will be combined with their financial bid to obtain the overall technical-financial score. The following shall be the score bearing:

- (a) Financial score =70%
- (b) Technical score 30%

**5.1 Award of Work:**

The overall technical and financial score is obtained by using the following formula for any qualified contractor (A):-

$$70\% X \dots\dots\dots + 30\% \text{ of technical score of } A$$

*Financial Bid quoted by A*

The contractor getting the highest overall technical & financial score shall be recommended for the award of the work.

## **SECTION V. BIDDING FORMS**

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**1. Contractor’s Bid**

**Notes on Form of Contractor’s Bid**  
*The Bidder shall fill in and submit this Bid form with the Bid.*

Identification No. and Title of Contract: *Construction of farmers hostel at ARDC, Bajo vide NIT No. ADDC-B/Accts-13/23-24/90*

Having examined the all the Bidding Documents (with reference ITB 7), including addenda ..... , we offer to execute the *Construction of farmers hostel at ARDC, Bajo* in accordance with the Conditions of Contract accompanying this Bid for the Contract Price of Nu (Figure).....(In Words).....  
.....  
.....[insert amount in words]

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.

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.

We, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB Sub-Clause 3.1;

We have no conflict of interest in accordance with ITB Sub-Clause 3.3;

Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the Contract—has not been declared ineligible under the laws or official regulations of Bhutan, in accordance with ITB Sub-Clause 3.4.

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 and address of agent	Amount and Currency	Purpose of Commission or gratuity
_____	_____	_____
_____	_____	_____
_____	_____	_____

(if none, state “none”).”

In case if I withdraw my Bid after opening for whatsoever reasons, I agree to the forfeiture of the EMD/Bid Security and also I shall be bound to pay the cost difference (positive) between my Bid with that of the next lowest evaluated Bidder and failure on my part, will authorize the competent authority to debar my firm for a period prescribed in Debarment Rules as per ITB 22.4.



Our duly executed Integrity Pact Statement is attached herewith as Appendix A.

Section V. Bidding Forms

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

(Affix Legal Stamp)

Name and Title of Signatory: \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

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

## 2. Bill of Quantities

### (a) Bill of Quantities<sup>27</sup>

#### *Notes on the Bill of Quantities*

##### **Objectives**

*The objectives of the Bill of Quantities are:*

- (a) to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and*
- (b) when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.*

*In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.*

##### **Day work Schedule**

*A Day work Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Procuring Agency of the realism of rates quoted by the Bidders, the Day work Schedule should normally comprise the following:*

- (a) A list of the various classes of labor, materials and Constructional Plant for which basic Day work rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a Day work basis.*
- (b) Nominal quantities for each item of Day work, to be priced by each Bidder at Day work rates as Bid. The rate to be entered by the Bidder against each basic Day work item should include the Contractor's profit, overheads, supervision and other charges.*

---

<sup>27</sup>In lump sum contracts the Bill of Quantities is prepared for information; it is not contractual. The contractual document prepared by the Bidder shall be a Schedule of Activities



### Provisional Sums

*A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary priced Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the Special Conditions of Contract should state the manner in which they will be used, and under whose authority (usually the Project Manager's).*

*The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors (refer to Clause 8 of the General Conditions of Contract) should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Agency to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.*

*These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Agency or the person drafting the Bidding Documents. They should not be included in the final documents.*

### 2. (b) Bill of Quantities

Item no	Item Code (if any)	Description of Item	Measurement Unit	Quantity	Unit Price		Total Price	
					In figures	In words	In figures	In words
1	2	3	4	5	6	7=6	8=5x6	9=8
<i>to be filled in by the Procuring Agency</i>					<i>to be quoted and filled in by the Bidder</i>			
<b>Sub-total of 500 for Misc. Items</b>								
<b>GRAND TOTAL</b>								

### Schedule of Dayworks

Item no.	Item Code  (if any)	Description  of Item	Measurement  Unit	Nominal  Quantity	Unit Price		Total Price	
	In figures				In words	In figures	In words	
1	2	3	4	5	6	7=6	8=5x6	9=8
<i>to be filled in by the Procuring Agency</i>					<i>to be quoted and filled in by the Bidder</i>			
<b>GRAND TOTAL OF DAYWORKS</b>								

Note:

Nominal quantities in the schedule shall remain invariable and shall also require prior ap-proval of the authority sanctioning the official estimate.

### Summary of Provisional Sums

Item No	Description of Specific Provisional Sums	Amount
TOTAL FOR PROVISIONAL SUMS		

Note:

Appointment of Nominated Subcontractor(s) shall follow due procedures and shall require prior approval of the Competent Authority.

**3. Bid Securing Declaration**

*Form of Bid-Securing Declaration*

Date: \_\_\_\_\_

IFB No.: \_\_\_\_\_

To Chairman  
ARDC Tender Committee  
Bajo

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a BidSecuring Declaration.

We accept that we are required to pay the Bid Security amount specified in the Bidding Data Sheet within 5 days of your instruction and failure to do so will debar us from being eligible for Bidding in any contract with all the government procuring agencies for the period prescribed in the Debarment Rules if we are in breach of our obligation(s) under the Bid conditions, because we:

- (a) Have withdrawn our Bid during the period of Bid validity specified by the Bidder in the Form of Bid; or
- (b) having not accepted the correction of errors in accordance with the Instructions to Bidders ITB; or
- (c) Having been notified of the acceptance of our Bid by the Procuring Agency during the period of Bid validity, (i) fail or refuse to furnish the performance security in accordance with the ITB, or (ii) fail or refuse to execute the Contract in accordance with the ITB.

The procuring agency has the authority to immediately go to the next bidder, once the notice is served to the defaulting bidder.

Signed: \_\_\_\_\_

In the capacity of \_\_\_\_\_

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

Duly authorized to sign the Bid for and on behalf of:

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Corporate Seal (where appropriate)

Affix Legal Stamp



#### 4. Bidder Information Form

Date: \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's actual or intended country of registration: [indicate country of Constitution]
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Mobile/Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <ul style="list-style-type: none"><li>• Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 3</li><li>• In case of State-Owned Enterprise or institution, in accordance with ITB 3.5, documents establishing:<ul style="list-style-type: none"><li><input type="checkbox"/> Legal and financial autonomy;</li><li><input type="checkbox"/> Operation under commercial law; and</li><li><input type="checkbox"/> That the Bidder are not dependent agency of the Procuring Agency.</li></ul></li></ul>
2. 2.Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.
3. Power of attorney authorizing the signatory of the Bid to sign on behalf of the Bidder

**5. Bidder's JV Information Form**

*(to be completed for each member of Bidder's JV)*

Date: \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Bidder's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of: <ul style="list-style-type: none"><li>• Registration documents of the legal entity named above, in accordance with ITB 3.</li><li>• Letter of intent to form the JV/C/A, or the JV/C/A agreement, in accordance with ITB Sub-Clause 24.1 (c) (v).</li><li>• Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.</li></ul>

**6. Access to adequate equipment**

<b>Tier</b>	<b>Equipment Type</b>	<b>Registration No</b>
I		
II		
III		

**7. Availability of skilled manpower**

<b>Tier</b>	<b>Name</b>	<b>CID No</b>	<b>Qualification</b>	<b>Year of experience</b>
<b>I</b>				
<b>II</b>				
<b>III</b>				
<b>IV</b>				

**NOTE:** Tier IV- Fresh Graduate/Diploma Engineer trained and certified in CMS, OHS, e-GP & CDB/BCTA refresher courses.

**8. Access to or Availability of Credit Line**

*[The **Bank/Bidder** shall fill in this Bank Certificate form in accordance with the instructions indicated in brackets.]*

*(Bank Letter Head)*

**(a) BANK CERTIFICATE**

This is to certify that Mr./Mrs.....Promoter of M/s.....is one of our valued Clients and Maintaining account with..... Branch Office .....their dealing with bank has been satisfactory as on date.

This certificate is issued at the request of M/s..... for the purpose of participating in Bidding for tender works (insert name of works).The Client can be considered good for line of credit to the extent of Nu.....to meet their working capital requirements for executing the work namely ..... subject to fulfillment of lending norms.

[insert signature(s) of authorized representative(s) of bank] Address of the Bank

*[The **Bank/Bidder** shall fill in this Bank Certificate form in accordance with the instructions indicated in brackets.]*

**◆For Joint Venture change the text as follows**

*(Bank Letter Head)*



**(b) BANK CERTIFICATE**

This is to certify that Mr./Mrs.....  
Promoter of M/s..... who has formed a Joint  
Venture with M/s..... for participating in this  
Bid is one of our valued Clients and Maintaining account with .....  
.....Branch Office,..... their dealing  
with bank has been satisfactory as on date.

This certificate is issued at the request of M/s..... for the purpose of  
participating in Bidding for tender works (insert name of works).  
The Client can be considered good for line of credit to the extent of Nu.....  
.....to meet their working capital requirements for executing the work  
namely..... subject to fulfillment of lending norms

[insert signature(s) of authorized representative(s) of bank] Address of the Bank [*This*

*should be given by each JV members]*

## 9. INTEGRITY PACT

### 1. General:

Whereas *Mr. Pema Chofil* representing the *Agriculture Research Development Centre*, Royal Government of Bhutan, hereinafter referred to as the “Procuring Agency” on one part, and *Mr/Mrs*..... representing *M/s*....., herein after referred to as the “Bidder” on the other part hereby execute this agreement as follows:

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.

### 2. Objectives:

Whereas, the Procuring Agency 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<sup>28</sup> and Contract administration<sup>29</sup> with a view to:

- 2.1. Enabling the Procuring Agency 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 Procuring Agency:

The Procuring Agency Commits itself to the following:-

- 4.1. The Procuring Agency hereby undertakes that no officials of the Procuring Agency, 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 Procuring Agency 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.

<sup>28</sup>Bidding process, for the purpose of this IP, shall mean that the procedures covering tendering process starting from Bid preparation, Bid submission, Bid processing, and Bid evaluation.

<sup>29</sup>Contract administration, for the purpose of this IP, shall mean contract award, contract implementation, un-authorized sub- contracting and contract handing/taking over.

4.3. Officials of the Procuring Agency, 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 Procuring Agency 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:

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 Procuring Agency, 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 Debarment 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/setting aside 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)*\_\_\_\_\_



PROCURING AGENCY

CID :

Witness:

Name:

CID :



BIDDER/REPRESENTATIVE

CID:

Witness:

Name:

CID:

**10. Letter of Intent**

*(Letterhead paper of the Procuring Agency)*

**Notes on standard form of letter of Intent**

*This issuance of Letter of Intent (always before Letter of Acceptance) is the information of the selection of the Bid of the successful Bidder by the Procuring Agency and for providing information to other unsuccessful Bidders who participated in the Bid as regards the outcome of the procurement process*

*The Procuring Agency shall allow 10 days as described in ITB 37 between this Letter of Intent and Letter of Acceptance to allow aggrieved Bidders to complain the decision if they feel they have treated unfairly.*

*(Insert date)*

To: ----- *[Name and address of the Contractor]*

This is to notify you that, it is our intention to award the contract for your Bid dated [Insert date] for execution of the..... *[Insert name of the contract and identification number, as given in the BDS/SCC]* for the Contract Price of..... *[Insert amount in figure and words & name of the currency]* as corrected and modified *[if any corrections]* in accordance with the Instructions to Bidders.

Authorized Signature: -----

Name and Title of Signatory: -----

Name of Agency: -----

CC: *[Insert name and address of all other Bidders who submitted the Bids]*

## SECTION VI. GENERAL CONDITIONS OF CONTRACT

### ***Notes on General Conditions of Contract***

*The General Conditions of Contract (GCC), read in conjunction with the Special Conditions of Contract and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.*

*The form of General Conditions of Contract that follows has been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straight forward language.*

*The form can be used directly for smaller ad measurement (unit prices or unit rates in a Bill of Quantities) contracts and, with the modifications noted in the footnotes, it can be adapted for lump sum contracts.*

*The use of standard General Conditions of Contract for building and civil works will promote comprehensiveness of coverage, general acceptability of its provisions, savings in cost and time in Bid preparation and review, and the development of a solid background of legal case histories.*

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## GENERAL CONDITIONS OF CONTRACT (GCC)

### A. General

#### 1. Definitions

- 1.1. Bold face type is used to identify defined terms.
- (a) **Bill of Quantities** summary of the units and unit prices of the items proposed under the contract.
  - (b) **Compensation Events** are those defined in GCC Clause 45 here under.
  - (c) **The Completion Date** is the date of completion of the Works as certified by the Procuring Agency, in accordance with GCC Sub- Clause 55.1.
  - (d) The Contract is a formal agreement in writing entered into between the Procuring Agency and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
  - (e) The **Contractor** is an individual or legal entity entering into a contract after its Bid to carry out the Works has been accepted by the Procuring Agency.
  - (f) The **Contractor's Bid** is the completed Bidding Document submitted by the Contractor to the Procuring Agency.
  - (g) The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.
  - (h) **Days** are calendar days; months are calendar months.
  - (i) **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.
  - (j) A **Defect** is any part of the Works not completed in accordance with the Contract.
  - (k) The **Defects Liability Certificate** is the certificate issued by the Procuring Agency upon correction of defects by the Contractor.
  - (l) The **Defects Liability Period** is the period named in SCC Sub Clause 36.1 and calculated from the Completion Date.
  - (m) **Drawings** include calculations and other information provided or approved by the Procuring Agency for the execution of the Contract.
  - (n) The **Procuring Agency** is the Government Agency which enters into a Contract with a Contractor to carry out the Works, as specified in the SCC.

- (o) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (p) The **Initial Contract Price** is the Contract Price listed in the Procuring Agency's Letter of Acceptance.
- (q) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the SCC. The Intended Completion Date may be revised only by the Procuring Agency by issuing an extension of time or an acceleration order.
- (r) **In writing** is in any written form, including electronic mail.
- (s) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (t) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical or biological function.
- (u) The **Project Manager** is the person named in the SCC (or any other competent person appointed by the Procuring Agency and notified to the Contractor, to act in replacement of the Procuring Agency) who is responsible for supervising the execution of the Works and administering the Contract.
- (v) **SCC** is the Special Conditions of Contract.
- (w) **Secured Advance:** Secured Advance can be given for non-perishable materials only. Materials such as cement/bamboo cannot be eligible for the Secured Advance. No secured advance shall be given on account of plants & machineries.
- (x) The **Site** is the area defined as such in the SCC.
- (y) **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
  - (aa) **Specifications** mean the Specifications of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
  - (bb) **The Start Date** is given in the SCC. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
  - (cc) A **Subcontractor** is a person or corporate body who has a Contract with

the Principal contractor to carry out a part of the work in the Contract, which includes work on the Site.

- (dd) **Temporary Works** are works designed, constructed, installed and removed by the Contractor that are needed for construction or installation of the Works.
- (ee) A **Variation** is an instruction given by the Project Manager which varies the Works.
- (ff) The **Works** are what the Contract requires the Contractor to construct, install and turn over to the Procuring Agency, as defined in the SCC.

## 2. Interpretation

- 2.1. In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2. If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The documents forming the Contract shall be interpreted in the following order of priority:
  - (a) Contract;
  - (b) Letter of Acceptance;
  - (c) Contractor's Bid;
  - (d) Special Conditions of Contract;
  - (e) General Conditions of Contract;
  - (f) Specifications;
  - (g) Drawings;
  - (h) Bill of Quantities;<sup>30</sup> and
  - (i) Any other document listed in the SCC as forming part of the Contract.

## 3. Language and Law

- 3.1. The language of the Contract and the law governing the Contract are stated in the SCC.

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<sup>30</sup>In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule".

#### **4. Project Manager's decision**

- 4.1. Except where otherwise specifically stated, the Project Manager's shall decide contractual matters between the Procuring Agency and the Contractor in the role representing the Procuring Agency.

#### **5. Delegation**

- 5.1. The Project Manager may delegate any of his duties and responsibilities to other people after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

#### **6. Communications**

- 6.1. Communications between parties that are referred to in the Conditions shall be effective only when in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission. A notice shall be effective only when it is delivered.

#### **7. Subcontracting**

- 7.1. The Procuring Agency:
  - (a) Shall define the mechanism for sub-contracting of parts of works to Specialized firms registered with Bhutan Construction and Transport Authority or any other competent authority for specialized categories of works provided in the guidelines for registration of such firms; or
  - (b) May define the mechanism for sub-contracting of parts of works to general contractor registered with Bhutan Construction and Transport Authority or any other competent authority for categories of works for which specialized firms are not available.
- 7.2. For clause 7.1 (a), the principal contractor shall commit the Specialized firms with their names during the Bidding and deploy the same once selected as winning Bidder with a notification to the procuring of such deployment.
- 7.3. For clause 7.1 (b), the principal contractor shall seek approval of the Procuring Agency for sub-contracting of works to the contractor registered with Bhutan Construction and Transport Authority or any other competent authority. In the event an approval is accorded by the Procuring Agency, such approval does not relieve the principal contractor of his obligations under the contract.
- 7.4. Payments shall be made directly to the successful Bidder, not to the specialized firms or sub-contractor unless explicitly agreed otherwise between the Procuring Agency and the contractor with the specific mechanism to do so.
- 7.5. The principal contractor shall execute a contract with the specialized firm or a general subcontractor which shall bind the parties throughout the contract including the defect liability period.

## **8. Setting Out**

- 8.1 The Contractor shall be responsible for setting out the Works and for ensuring the correctness of the positions, levels, dimensions and alignment of the Works. At any time during the execution of the Works, he shall correct any error at his own expense when required to do so by the Procuring Agency. Boreholes, exploratory excavations or soil testing may be done if instructed by the Procuring Agency. In case, cost of boreholes or exploratory excavations or soil testing is not included in the Contract Price, the cost shall be borne by the Procuring Agency. The contractor shall provide all facilities like labor and instruments, and shall co-operate with the Project manager to check all alignments, grades, levels and dimensions. Such checking shall not relieve the contractor of his own responsibility of maintaining the accuracy of the work.

## **9. Other Contractors**

- 9.1 The Contractor shall cooperate and share the Site with other contractors, sub-contractors, public authorities, utilities and the Procuring Agency between the dates given in the Schedule of Other Contractors, as referred to in the SCC. The Contractor shall also provide facilities and services for them as described in the Schedule. The Procuring Agency may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

## **10. Personnel & Equipment**

- 10.1. 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 Bid document, the Procuring Agency 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 Special Condition of Contract 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 Procuring Agency. If the Contractor fails to deploy such key personnel within one to four months<sup>31</sup>, the deductions shall be discontinued and the contractor's failure to deploy such personnel shall be treated a fundamental breach of contract. Similarly, if the committed equipment are not available at site, 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 of one 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.
- 10.2. The Contractor shall pay rates of wages and observer conditions of labor which are not lower than the general level of wages and conditions in Bhutan. The Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's personnel. The Contractor shall comply with all relevant labor laws applicable to the Contractor's personnel, including their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The

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<sup>31</sup>The duration should be based on the Contract duration.

Contractor is required, to the extent practicable and reasonable, to employ national staff and labor with appropriate qualifications and experience.

- 10.3. The Contractor shall not engage child labor and shall conform to the labor laws/acts, rules and regulations of Bhutan in the execution of Contract work. A child who has not attained the age of 18 years shall not be employed in any work as a laborer. During the continuance of the Contract, the Contractor and his Sub-contractors shall abide at all times with the labor laws/acts, rules and regulations, including child labor, related enactment and rules made there under.
- 10.4. A Bid that does not fulfill the minimum experience for the Tier(s) specified for the key personnel shall be rejected before proceeding to Bid evaluation.
- 10.5. A Bid that does not fulfill the minimum number for the Tier(s) specified for the equipment shall be rejected before proceeding to Bid evaluation.

## **11. Procuring Agencies and Contractor's Risks**

- 11.1. The Procuring Agency carries the risks which this Contract states are Procuring Agency's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

## **12. Procuring Agency's Risks**

- 12.1. From the Start Date until the Defects Liability Certificate has been issued, the following are Procuring Agency's risks:
  - (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials and Equipment), which are due to:
    - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works; or
    - (ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Agency or by any person employed by or contracted to him except the Contractor.
  - (b) The risk of damage to the Works, Plant, Materials and Equipment to the extent that it is due to a fault of the Procuring Agency or in the Procuring Agency's design, or due to war or radioactive contamination directly affecting Bhutan.

## **13. Contractor's Risks**

- 13.1 From the Start Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials and Equipment) which are not Procuring Agency's risks are Contractor's risks.

## **14. Insurance**

- 14.1 The Contractor shall provide, in the joint names of the Procuring Agency and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the SCC for the following events which are due to the Contractor's risks:
- (a) loss of or damage to the Works, Plant and Materials to be built into the works.
- 14.2 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.
- 14.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Agency may affect the insurance which the Contractor should have provided and recover the premiums the Procuring Agency 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 Procuring Agency.
- 14.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.
- 14.5 Both parties shall comply with any conditions of the insurance policies.

## **15. Queries about the Special Conditions of Contract**

- 15.1. The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

## **16. Contractor to Construct the Works**

- 16.1 The Project Manager shall clarify queries on the SCC.

## **17. The Works to Be Completed by the Intended Completion Date**

- 17.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

## **18. Approval by the Manager**

- 18.1. The Contractor shall submit Specifications and Drawings showing Project Manager the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings.
- 18.2. The Contractor shall be responsible for design of Temporary Works.
- 18.3. The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 18.4. The Contractor shall obtain approval of third parties to design the Temporary Works, where required.
- 18.5. All Drawings prepared by the Contractor for the execution of the temporary or permanent Works are subject to prior approval by the Project Manager before use.

## **19. Safety**

- 19.1. The Contractor and the procuring agency shall comply with Occupational Health and Safety related regulations for the safety of all activities on the Site.
- 19.2. The Contractor shall comply with all applicable safety regulations for the adequacy and safety of site operations and methods of construction and he shall adopt measures to prevent injuries to persons or damage to properties or utilities. He shall avoid undue interference with private business, public travel, or with the work of other contractors. He shall take steps to protect the environment and to minimize noise, pollution or other undesirable effects resulting from his method of operation.

## **20. Discoveries**

- 20.1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Agency. The Contractor shall notify the Project Manager of such discoveries and carry out the Procuring Agency's instructions for dealing with them.
- 20.2. All materials obtained during excavation from the site and that have not been accounted for in the Bid shall be the property of the Procuring Agency and the contractor shall take care of useful materials obtained during the execution of the Works and stack at place designated by the Procuring Agency. An arrangement shall be made between the Contractor and the Procuring Agency for the use and disposal of such materials according to the laws of the kingdom of Bhutan.



## **21. Possession of the Site**

- 21.1. The Procuring Agency shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the SCC, the Procuring Agency shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.
- 21.2. Within 14 days of possession of site the contractor shall erect an information board as specified in SCC.

## **22. Access to the Site**

- 22.1. The Contractor shall allow the Project Manager and any person authorized by the Procuring Agency 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.

## **23. Instructions, Inspections and Audits**

- 23.1. The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 23.2. The Contractor shall give notice to the Project Manager whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Project Manager shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that he does not require to do so. If the Contractor fails to give notice, he shall, if and when required by the Project Manager, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.
- 23.3. The Contractor shall permit the Procuring Agency and/or persons appointed by the Procuring Agency to inspect the Site and/or the accounts and records of the Contractor and its Subcontractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Procuring Agency if so required by the Procuring Agency. The Contractor's attention is drawn to GCC Sub-Clause 60.1 [Corrupt or Fraudulent Practices] which provides, inter alia, that acts intended materially to impede the exercise of the Procuring Agency's inspection and audit rights provided for under GCC Sub-Clause 23.3 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to ITB Sub- Clause 2.1 (c) of the Instructions to Bidders within the Bidding Documents that preceded the placement of the Contract of which these GCC form a part).

## **24. Disputes**

- 24.1. If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the head of the Procuring Agency for review.

## **25. Procedure for Disputes**

- 25.1. The head of the Procuring Agency or its authorized representative shall give a decision in writing within 10 days of receipt of a notification of a dispute provided in clause 24.
- 25.2. Either party may refer a decision of the head of the Procuring Agency or its authorized representative to an Arbitrator as prescribed in Alternative Dispute Resolution Act of Bhutan and its implementing legislations or any other law of arbitration specified in the contract.
- 25.3. The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and, in the place, specified in the SCC formulated in compliance to Alternative Dispute Resolution Act of Bhutan or any other law of arbitration specified in the contract.

## **26. Continuation of work**

- 26.1. The dispute resolution shall not prohibit continuation of execution of the work unless injunction or any such orders are issued by the court of law.

## **B. Time Control**

### **27. Resource-Based Work Plan**

- 27.1 Within the time stated in the SCC, which shall not be more than 30 days, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval of a Resource-Based Work Plan showing the general methods, arrangements, order and timing for all the activities in the Works linked with the availability of resources.
- 27.2 The Contractor shall submit to the project manager for approval at intervals no longer than the period stated in the SCC a revised Resource-Based Work Plan or if at any time:
- (a) actual progress is too slow to complete within the Time for Completion; and/or
  - (b) progress has fallen behind or ahead the current work plan under GCC 27.1.

Other than as a result of a cause listed in GCC 45 [Compensation Event], then the Project Manager may instruct the Contractor to submit, under Sub-Clause 27.2, a revised Resource-Based Work Plan and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

The contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of contractor's personnel and/or Goods, at the risk and cost of the Contractor.

Additional costs of revised methods including acceleration measures, instructed by the Project Manager to reduce delays resulting from causes listed under GCC 45 [Extension of Time for Completion] shall be paid by the Procuring Agency.

- 27.3 The Project Manager's approval of the Resource-Based Work Plan shall not alter the Contractor's obligations. The Contractor may revise the Work plan and submit it to the Procuring Agency again at any time. A revised Work plan shall show the effect of Variations.

## **28. Progress Reports**

- 28.1. Unless otherwise stated in the SCC, monthly progress reports shall be prepared by the Contractor and submitted to the Project Manager. Reports shall be submitted monthly thereafter, each within seven (7) days after the last day of the period to which it relates. Reporting shall continue until the Contractor has completed all works. The report shall include:
- (a) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays;
  - (b) copies of quality assurance documents, test results and certificates of Materials;
  - (c) charts and detailed descriptions of progress, including each stage of design (if any), delivery to Site, construction, erection and testing; and including the stages for work by subcontractor; and
  - (d) any other details specified in SCC.

## **29. Extension of the Intended Completion Date**

- 29.1. The Project Manager shall extend the Intended Completion Date if a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 29.2. The Project Manager shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Project Manager for a decision upon the effect of Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

## **30. Acceleration**

- 30.1. When the Procuring Agency wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Agency accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Procuring Agency and the Contractor.
- 30.2. If the Contractor's priced proposals for acceleration are accepted by the Procuring Agency, they are incorporated in the Contract Price and treated as a Variation.

### **31. Delays Ordered by the Project Manager**

- 31.1. The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

### **32. Management Meetings**

- 32.1. Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 32.2. The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

### **33. Early Warning**

- 33.1. The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 33.2. The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.
- 33.3. If the Contractor considers himself to be entitled to any extension of Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 33.4. If the Contractor fails to give notice of a claim within such period of 30 days, the Procuring Agency shall be discharged from all liability in connection with the claim.

## **C. Quality Control**

### **34. Identifying Defects**

34.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities to ensure the quality of works executed. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect. The Project Manager at the end of the Contract shall issue a Performance score on Quality out of a total of 70 points based on the guidelines issued by Bhutan Construction and Transport Authority or any other competent authority.

### **35. Tests**

35.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

### **36. Correction of Defects**

- 36.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 36.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

### **37. Uncorrected Defects**

37.1. 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 Procuring Agency. At the option of the Procuring Agency, payment of such costs may be made in whole or in part by the Procuring Agency deducting and keeping for itself appropriate amounts from the Retention Money and/or claiming against any Bank Guarantee provided by the Contractor pursuant to GCC Clause 49.3

## **D. Cost Control**

### **38. Bill of Quantities<sup>32</sup>**

- 38.1. The Bill of Quantities shall contain items for the construction, installation, testing and commissioning work to be done by the Contractor.
- 38.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

### **39. Changes in the Quantities<sup>33</sup>**

- 39.1. If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than twenty percent (20%), provided the cost of variation beyond twenty percent (20%) limit exceeds one percent (1%) of the Initial Contract Value the Procuring Agency shall adjust the quoted rate up or down to allow for the change. Only when both conditions are met then the quoted rate shall be changed.
- (a) If the quantity of work executed exceeds the quantity of the item in BOQ beyond the higher specified limit the Procuring Agency shall fix the market rate (which may be lower or higher than the quoted rate) to be applied for the additional quantity of the work executed; and
- (b) If the quantity of work executed is less than the quantity of the item in BOQ lesser than the lower specified limit, the Procuring Agency shall fix the market rate based on the submission of the contractor (which may be lower/higher than the quoted rate) to be applied for whole of the quantity of the work so executed for that particular item.
- 39.2 The rates shall not be adjusted from changes in quantities if thereby the Initial Contract Price is exceeded by more than five percent (5%), except with the prior approval of the Procuring Agency in consultation with the Tender Committee.

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<sup>32</sup>In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule," and replace Sub-Clauses 39.1 and 39.2, as follows:

39.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to do so by the Procuring Agency. The activities in the Activity Schedule shall be coordinated with the activities on the Program.

39.2 The Contractor shall show delivery of Materials to the Site separately on the Activity Schedule if payment for Materials on Site shall be made separately.

<sup>33</sup>In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule," and replace entire Clause 40 with new Sub- Clause 40 as follows:

40. The activity schedule shall be amended by the contractor to accommodate changes of program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the contractor makes such changes to the Activity Schedule.

- 39.3 For works up to Nu. 50 million, when quantity deviation exceeds twenty percent (20%) from the quantity in BOQ and the total cost of such deviations exceeds twenty percent (20%) of the initial contract price; prior approval shall be sought from the Competent Authority (Finance Committee constituted in respective agency).
- 39.4 For works above Nu. 50 million, when quantity deviation exceeds twenty percent (20%) from the quantity in BOQ and the total cost of such deviations exceeds twenty percent (20%) of the initial contract price; the Procuring Agency shall seek prior approval of the Competent Authority (Public Investment Board/Public Investment Coordination Committee).
- 39.5 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

#### **40. Variations**

- 40.1. The Project Manager shall order any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary. Each variation may include, but is not limited to, any of the following:
- (a) increase or decrease in the quantity of any work included in the Contract;
  - (b) omission of any item of work;
  - (c) change in the character or quality or kind of any such work;
  - (d) change in the levels, lines, position and dimensions of any part of the works;
  - (e) additional work of any kind (not exceeding twenty percent (20%) of the initial contract amount, or the maximum threshold value for the use of Limited Tender whichever is lower); or
  - (f) change in any specified sequence or timing of construction activities.
- 40.2. For works up to Nu. 50 Million, if the value of additional work exceeds twenty percent (20%) of the initial contract price, the Procuring Agency shall seek prior approval of the Competent Authority (Finance Committee constituted in respective agency).
- 40.3. For works above Nu. 50 Million, if the value of additional work exceeds twenty percent (20%) of the initial contract price, the Procuring Agency shall seek prior approval of the Competent Authority (Public Investment Board/Public Investment Coordination Committee).
- 40.4. The Project Manager shall make any such variation by issuing written instructions to the Contractor and ensure that such variations are duly noted in the Site Order Register. A variation made shall not, in any way, vitiate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with GCC Clause 41.
- 40.5. The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Project Manager stating (with supporting particulars) that

(i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence of the progress of the Works. Upon receiving this notice, the Project Manager shall cancel, confirm or vary the instruction.

40.6. All Variations shall be included in updated Programs<sup>34</sup> produced by the Contractor.

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<sup>34</sup> In lumpsum contracts, add "and Activity Schedules" after "Programs"



## **41. Payments for variations**

- 41.1. The Contractor shall provide the Project Manager analyzed rate for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the analyzed rates, which shall be given within seven days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 41.2. If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of Project Manager, the quantity of work above the limit stated in GCC Sub-Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.<sup>35</sup>
- 41.3. If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 41.4. If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 41.5. The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

## **42. Cash Flow Forecasts**

- 42.1. When the Program<sup>36</sup> is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

## **43. Payment Certificates**

- 43.1. The Contractor shall submit to the Project Manager monthly Certificates statements of the value of the work executed, based on the Contractor's records, less the cumulative amount certified previously.
- 43.2. The Project Manager shall check the Contractor's monthly statement (running account bills) and certify the amount to be paid to the Contractor latest by fifteen (15) working days from the date of receipt of contractor's monthly statement in correct and complete form.
- 43.3. The value of work executed shall be determined by the Project Manager.

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<sup>35</sup>In lump sum contracts, delete this paragraph.

<sup>36</sup>In lump sum contracts, add "or Activity Schedule" after "Program".

- 43.4. The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed<sup>37</sup> and measurement thereof shall be carried out jointly by the Project Manager, or his Representative, and the Contractor. The Project Manager, or his Representative, shall record the value of the work executed in a measurement book for the purposes of verifying the Contractor's monthly statements. The measurement book shall be signed by the Project Manager or his Representative, and countersigned by the Contractor.
- 43.5. The value of work executed shall include the valuation of Variations and Compensation Events.
- 43.6. The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

#### **44. Payments**

- 44.1. Payments shall be adjusted for deductions for advance payments, taxes, retention money and any other dues. The Procuring Agency shall pay the Contractor within twenty five (25) days from the date of receipt of correct and verified bills/invoices in complete form by the Finance Section.
- 44.2. If the Procuring Agency makes a late payment, the Contractor shall be paid interest only on the late payment amount in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for overdraft facilities availed from respective financial institutes.
- 44.3. If an amount certified is increased in a later certificate or as a result of an award by an Arbitrator, the Contractor shall not be paid interest upon the delayed payment as set out in this clause.
- 44.4. Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 44.5. Items of the Works for which no rate or price has been entered in shall not be paid for by the Procuring Agency and shall be deemed covered by other rates and prices in the Contract.

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<sup>37</sup>In lump sum contracts, replace this paragraph with the following: "The value of work executed shall comprise the value of completed activities in the Activity Schedule."

#### **45. Compensation Events allowing timeextension**

45.1. The following shall be Compensation Events allowing for time extension:

- (a) The Procuring Agency does not give access to a part of the Site by the extension Site Possession Date pursuant to GCC Sub-Clause 21.1.
- (b) The Procuring Agency modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
- (c) The Project Manager orders a delay or does not issue Drawings, Specifications or instructions required for execution of the Works on time.
- (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- (e) The Project Manager unreasonably does not approve a subcontract to be let if provided in SCC for general works.
- (f) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Agency, or additional work required for safety or other reasons.
- (g) Other contractors, public authorities, utilities or the Procuring Agency do not work within the dates and other constraints stated in the Contract, and they cause delay.
- (h) Other Compensation Events described in the SCC or determined by the Procuring Agency and Force Majeure. "Force Majeure" means an exceptional event or circumstance:
  - (i) which is beyond a Party's control;
  - (ii) which such Party could not reasonably have provided against before entering into the Contract;
  - (iii) which, having arisen, such Party could not reasonably have avoided or overcome; and
  - (iv) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (i) to (iv) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (ii) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war;
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel;
- (iv) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity; and/or
- (v) natural catastrophes such as earthquake, hurricane, typhoon. Glacial Lake Outburst Floods or volcanic activity.

However, force majeure may not include the following unless determined as exceptional event or circumstances:

- (i) rainfall;
  - (ii) snowfall;
  - (iii) strikes in other countries;
  - (iv) non-availability of laborer and materials such as timbers; boulders, sand, and other materials; and/or
  - (v) difficulty and risky terrain and remoteness of site.
- 45.2. If a Compensation Event would prevent the work being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Intended Completion Date shall be extended.
- 45.3. The Contractor shall not be entitled to compensation to the extent that the Procuring Agency's interests are adversely affected by the Contractor not having given early warning.
- 45.4. The exceptional event or circumstances provided in GCC clause 45.1 (h) which do not come within purview of Force Majeure requires approval of the Tender committee with justification for the approval of compensation.

## 46. Tax

- 46.1. 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 being as of the date twenty one (21) days prior to the closing date for submission of Bids.

## 47. Currencies

- 47.1. Where payments are made in currencies other than Ngultrum (Nu), the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

## 48. Price Adjustment

- 48.1. If during the contract, there is an increase or decrease in the cost of materials as reflected by the Material Index Numbers published by the National Statistical Bureau<sup>38</sup> (NSB), a corresponding increase or decrease in the payment to the contractor or recoverable from the Contractor shall be effected on the basis of the following formulae, such calculation being done for every successive period of 3 months after the 12th month of the Contract duration:

Adjustment for variation of material prices:

$$V = W \times 0.80 \times 0.75 \times (M - M_0) / M_0$$

where:

V= amount of variation for materials payable to/recoverable from the contractor for the period under review;

W= value of the work done during the period under review minus (amount of secured advance recovered in the same period + value of works executed under variations for which the variations are paid in the new rate);

M<sub>0</sub> = Material Index for the month in which the tender was submitted;

M = the average value of the above Index Number for the 3 months period under review;

- 48.2 Price adjustment formula for Labor shall be calculated as follows:

$$V_L = W \times 0.80 \times 0.25 \times (L - L_0) / L_0$$

V= amount of variation for labor payable to/recoverable from the contractor for the period under review;

W = value of the work done during the period under review minus (amount of secured advance recovered in the same period + value of works executed under variations for which the variations are paid in the new rate);

L<sub>0</sub>= National Wage Rate at the time of tender preparation;

L= Revised National Wage Rate for the period under review.

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<sup>38</sup>Until NSB comes up with the Material Index for the Royal Government of Bhutan, the Wholesale Price- Index (all commodities) for Materials shall be used for the purpose of this clause. Visit [www.caindustry.nic.in](http://www.caindustry.nic.in) for the Wholesale Price Index.

- 48.3 For the applications of the above formulae, the appropriate Index Numbers published by the National Statistical Bureau shall be adopted.
- 48.4 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.
- 48.5 The price adjustments shall be mandatorily applicable for contract duration of more than twelve (12) months. No price adjustments shall be allowed within first twelve (12) months of any contract.
- 48.6 Price Adjustment shall apply only for work carried out within the stipulated time or extensions granted by the Procuring Agency and shall not apply to work carried out beyond the stipulated time for reasons attributable to the Contractor.

#### **49. Retention**

- 49.1 The Procuring Agency shall retain<sup>39</sup> 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.
- 49.2. The Retention Money shall be returned to the contractor on completion of Defect Liability Period.
- 49.3. Withstanding GCC 49.2, in case of contracts of duration more than 12 months, fifty percent (50%) of the Retention Money may be returned to the contractor upon completion of work against the submission of an unconditional guarantee issued by a reputed financial institution and acceptable to the Procuring Agency. Such a guarantee shall be valid until the issue of a No Defects Liability Certificate.
- 49.4. If the contractor fails to remedy any reported defect within the Defects Liability Period, the Procuring Agency shall withhold the payment or realize claims from the guarantee, of an amount, which in the opinion of the Procuring Agency, represent the cost of the defects to be remedied.
- 49.5. Subject to GCC 49.4, the Retention Money or the balance of it shall be discharged and returned to the contractor within fourteen (14) days of the issue of the No Defects Liability Certificate.
- 49.6. Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defect liability period shall be remedied by the Contractor at the Contractor's cost, if the loss or damage arises from the Contractor's act or omission.

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<sup>39</sup>The retention amount is usually ten percent (10%).

## **50. Liquidated Damages.**

50.1. The Contractor shall pay liquidated damages to the Procuring Agency 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 Initial Contract Price. The Procuring Agency may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

## **51. Advance Payment**

51.1. The Procuring Agency shall make advance payment to the Contractor of amount stated in the SCC (mobilization) by the date stated in the SCC, against provision by the Contractor of an Unconditional Bank Guarantee in the form and by a bank acceptable to the Procuring Agency in amounts and currencies equal to the Advance Payment. The Guarantee shall remain effective until the Advance Payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

51.2. The secured advances shall be paid to the contractor as specified in SCC on the following conditions:

- (a) The materials shall be in accordance with the specifications and shall not be in excess of the requirements;
- (b) The materials shall be delivered at the site of the works, properly stored and protected against loss, damage or deterioration;
- (c) A declaration shall be given by the contractor passing on the lien on the rights of the materials to the Procuring Agency; and
- (d) The amount of the secured advance may be hundred percent (100%) of the cost of materials delivered at the site of works which shall be supported by the original invoices/bills from the suppliers. 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 (work order) and submission of supply order.

The secured advance shall be recovered from the interim progress payments in the months in which these materials are used in the works.

51.3. The Contractor is to use the advance payment only to pay for, Equipment, Plant, Materials and mobilization expenses required specifically for execution of the Contract. The contractor shall demonstrate that advance has been used in this way by supplying copies of invoices or other documents to the project manager. The Manager shall encash

the advance guarantee if the contractor is in breach of its obligation by using the advance payment for purpose other than the costs of mobilization in respect of the works.

- 51.4. The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. The Mobilization Advance shall be recovered when eighty percent (80%) of the contract is executed. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses or Liquidated Damages.

## **52. Securities**

- 52.1 The Performance Security shall be provided to the Procuring Agency no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the SCC by a bank or surety acceptable to the Procuring Agency, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until thirty (30) days from the date of issue of the Certificate of Completion.
- 52.2 Following the successful completion of the Contract, the Procuring Agency shall return the Performance Security to the Contractor within fourteen (14) days of receipt of the Certificate of Completion.
- 52.3 The Procuring Agency shall encash the Performance Security to avoid it becoming invalid in case of failure by contractor to extend the validity.
- 52.4 The Performance Security (including additional Performance Security under seriously unbalanced and/or frontloaded Bid pursuant to ITB Clause 32) shall be payable to the Procuring Agency as compensation for any loss resulting from the contractor's failure to complete its obligations under the contract.

## **53. Day works**

- 53.1 If applicable, the Day works rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
- 53.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two (2) days of the work being done.
- 53.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms and at the rate quoted for Day works.



## **54. Cost of Repairs**

- 54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

## **E. Completion of the Contract**

### **55. Completion**

- 55.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed. After completion certificate is issued by the Engineer, the contract will formally end and the work shall be updated as completed in relevant systems.

- 55.2 An on-time completion out of a total of thirty percent (30%) scoring shall be done by the Procuring agency. The contractor shall be penalized under this component if he fails to deliver the project as per the initial time-lines committed in the Program.

The Procuring agency shall penalize the contractor to an extent of thirty percent (30%). The quantum of penalty could vary as following:

- (a) Ten (10%) percent for a minor default  
(if the final completion of the project is delayed by 10 - 15% as compared to original project duration)
  - (b) Twenty percent (20%) for a medium default  
(if the final completion of the project is delayed by 15 - 25% as compared to original project duration)
  - (c) Thirty percent (30%) for a major default  
(if the final completion of the project is delayed by 25% or more as compared to original project duration)
- 55.3 The contractor shall Mandatory put up a Plaque after completion of work with the following details:
- (a) Name of Contractor;
  - (b) CDB Registration No.;
  - (c) Contract Amount;
  - (d) Contract duration; and
  - (e) Name of the Procuring agency.

## **56. Taking Over**

- 56.1 The Procuring Agency shall take over the Site and the Works and shall issue the completion Certificate within 7 days of taking over. The completion certificate shall include the following mandatory information:
- (a) Name of Contractor;
  - (b) BCTA Registration No.;
  - (c) Trade License No.;
  - (d) Contract Amount;
  - (e) Year of Completion; and
  - (f) Award order No. with Date.

## **57. Final Account**

- 57.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within fifteen (15) days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within fifteen (15) days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

## **58. Operating and Maintenance Manuals**

- 58.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall provide them by the dates stated in the SCC.
- 58.2 If the Contractor does not provide 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.

## **59. Termination**

- 59.1. The Procuring Agency or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

- 59.2. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
  - (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
  - (c) the Procuring Agency or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
  - (d) The Contractor fails to employ the personnel and equipment proposed pursuant to GCC clause 10.1;
  - (e) a payment certified by the Project Manager is not paid by the Procuring Agency to the Contractor within 84 days of the date of the Project Manager's certificate;
  - (f) the Project Manager gives notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
  - (g) the Contractor does not maintain a security, which is required;
  - (h) the Contractor subcontracts any or whole of the Works without the approval of the Procuring Agency as may be applicable;
  - (i) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of Liquidated Damages can be paid, as defined in the SCC;
  - (j) in case of Joint Venture any or all parties fail to fulfill the contractual obligations;
  - (k) Fails to execute the contract in accordance with the contract, such failure being defined in SCC; and
  - (l) refuses or is unable to execute and complete the Works and Services in the manner specified in the program furnished under GC Clause 27 at rates of progress that give reasonable assurance to the Procuring Agency that the Contractor can attain completion of the works and services by the Time for Completion as extended.

For fundamental breach of contract by contractor the Procuring Agency shall give notice of a breach of contract for causes listed under GCC sub-clause 59.2 above and requiring the contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within fifteen (15) days of its receipt of such notice, then the Procuring Agency may terminate the Contract forthwith by giving a notice of termination to the Contractor that refers to this GC Sub-Clause 59.2.

For fundamental breach of contract by Procuring Agency the Contractor shall give a notice to the Procuring Agency thereof to remedy the breach within thirty (30) days of such notice and if the Procuring Agency is still unable to carry out any of its obligations under the Contract for any reason attributable to the Procuring Agency within thirty (30) days of the said notice, the Contractor may by a further notice to the Procuring Agency referring to this GC Sub-Clause 59.2, forthwith terminate the Contract.

- 59.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 59.2 above, the Project Manager shall decide whether the breach is fundamental or not.
- 59.4 Notwithstanding the above, the Procuring Agency may terminate the Contract for convenience.
- 59.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.
- 59.6 Following the termination of contract, the Procuring Agency may retender or execute the works departmentally.

## **60. Corrupt or Fraudulent Practices**

- 60.1 If the Procuring Agency determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for or in executing the Contract then the Procuring Agency may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of GCC Sub-Clause 60.4 to 60.6 shall apply.
- 60.2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with GCC Sub-Clause 10.2.
- 60.3 For the purposes of this Sub-Clause:
- (a) "corrupt practice"<sup>40</sup> is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value<sup>41</sup> to influence improperly the actions of another party;
  - (b) "fraudulent practice"<sup>42</sup> 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"<sup>43</sup> is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

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<sup>40</sup>"another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes staff and employees of other organizations (including any institutions providing finance for the Works) taking or reviewing procurement decisions.

<sup>41</sup>"anything of value" includes, but is not limited to, any gift, loan, fee, commission, valuable security or other asset or interest in an asset; any office, employment or contract; any payment, discharge or liquidation of any loan, obligation or other liability whatsoever, whether in whole or in part; any other services, favour or advantage, including protection from any penalty or disability incurred or apprehended or from any action or proceeding of a disciplinary or penal nature, whether or not already instituted and including the exercise or the forbearance from the exercise of any right or any official power or duty.

<sup>42</sup>"party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution

- (d) “coercive practice”<sup>44</sup> 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 to the investigation or making false statements to investigators in order materially to 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 and audit rights of the Procuring Agency and/or any other relevant RGoB agency provided for under GCC Clause 23.
- 60.4. will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded an RGoB-financed 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, an RGoB-financed contract;
- 60.5. Will have the right to require that a provision be included in Bidding Documents and in contracts financed by the RGoB, requiring Bidders, Suppliers, Contractors and their Subcontractors to permit the Purchaser, any organization or person appointed by the Purchaser and/or any relevant RGoB agency to inspect their accounts and records and other documents relating to their Bid submission and contract performance and to have them audited by auditors appointed by the Purchaser; and
- 60.6. 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.

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<sup>43</sup>“parties” refers to participants in the procurement process (including public officials) and an “improper purpose” includes attempting to establish bid prices at artificial, non-competitive levels.

<sup>44</sup>“party” refers to a participant in the procurement process or contract execution.

## **61. Payment upon Termination**

- 61.1 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, representing the Procuring Agency's additional cost for completing the remaining Works is 20% up to a maximum of 10% of the Initial Contract Price or as indicated in the SCC. If the total amount due to the Procuring Agency exceeds any payment due to the Contractor, the difference shall be a debt payable by the Contractor to the Procuring Agency.
- 61.2 If the Contract is terminated for the Procuring Agency's convenience or because of a fundamental breach of Contract by the Procuring Agency, 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.
- 61.3 In pursuant to GCC clause 61.2, after notice of termination, the Procuring Agency shall promptly pay to the contractor the amount of any loss of profit or others loss or damage sustained by the contractor as a result of this termination.

## **62. Property**

- 62.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Procuring Agency if the contract is terminated because of a Contractor's default:
- (a) Plants and equipment will be released after due payment of compensations prescribed in GCC clause 61.1.

## **63. Release from Performance**

- 63.1. If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Procuring Agency or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

## SECTION VII. SPECIAL CONDITIONS OF CONTRACT

*Except where otherwise indicated, all SCC should be filled in by the Procuring Agency prior to issuance of the Bidding Documents. Schedules and reports to be provided by the Procuring Agency should be annexed.*

GCC 1.1 (o) GCC 1.1 (r) GCC 1.1 (v) GCC 1.1 (y) GCC 1.1 (bb)	The Procuring Agency is Agriculture Research Development Centre, Bajo The Intended Completion Date for the whole of the Works shall be 8 Months The Project Manager is Program Director, Agriculture Research Development Centre, Bajo The Site is located at Agriculture Research Development Centre, Bajo and is defined in Drawing The Start Date shall be 10 Days after issuance of work order
GCC 1.1 (ff) GCC 2.2	The Works consist of <i>RCC framed structure as per drawing (Ref. BOQ)</i> Sectional Completions are: <i>NA</i>
GCC 2.3 (9)	The following documents also form part of the Contract: Schedule of Other Contractors (GCC 9) Schedule of Key Personnel (GCC 10) Site Investigation Reports (GCC 11) Schedule of Operating and Maintenance Manuals (GCC 57)
GCC 3.1 GCC 9.1	The language of the contract is <i>English</i> The law that applies to the Contract is the law of the Kingdom of Bhutan Schedule of other contractors: [insert Schedule of Other Contractors, if appropriate]
GCC 10.1	Key Personnel: <i>Ref. HR requirement</i> The amount to be deducted for the key personnel not employed by the contractor for each personnel is Nu. Site supervisor Nu. 25000/Month. Site supervisor and electrician Nu. 15000/Month Mixture Machine and vibrator Nu. 10000/Month Tripper Nu. 6500/Day
	Backhoe Nu. 1250/Hour

<b>GCC 14.1</b>	The minimum insurance amounts and deductibles shall be: (a) loss of or damage to the Works, Plant and Materials to be built into the works: <i>At contractors risk</i>
<b>GCC 15.1</b>	Queries. <i>NA</i>
<b>GCC 21.1</b>	The Site Possession Date(s) shall be: <i>After signing of agreement</i>

<p><b>GCC 25.3</b></p>	<p><i>[For smaller contracts, the institution is usually from Bhutan. For contracts that are awarded to international contractors it is recommended that the arbitration procedure of an international institution be used]</i></p> <p>Institution whose arbitration procedures shall be used:</p> <p><b>For Contracts with Bhutanese Contractors</b></p> <p>Bhutan Alternative Dispute Resolution Centre (BADRC);</p> <p>GCC Sub-Clause 25.3—All disputes arising in connection with the present Contract shall be for finally resolved by arbitration in accordance with the rules and procedures of the Bhutan Alternative Dispute Resolution Centre (BADRC). The arbitration award shall be final on the parties who shall be deemed to have accepted to carry out the resulting award without delay and to have waived their right to any form of appeal insofar as such waiver can validly be made.</p> <p><b>For Contracts with International Contractors</b></p> <p><i>[one institution from among those listed below; insert the corresponding wording]</i></p> <p><b>“United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules:</b></p> <p>GCC Sub-Clause 25.3—Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.” or</p> <p><b>“Rules of Conciliation and Arbitration of the International Chamber of Commerce (ICC):</b></p>
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	<p>GCC Sub-Clause 25.3—All disputes arising in connection with the present Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.” or</p> <p><b>“Rules of the Arbitration Institute of the Stockholm Chamber of Commerce:</b></p> <p>GCC Sub-Clause 25.3—Any dispute, controversy or claim arising out of or in connection with this Contract, or the breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the Rules of the Arbitration Institute of the Stockholm Chamber of Commerce.” or</p> <p><b>“Rules of the London Court of International Arbitration:</b></p> <p>GCC Sub-Clause 25.3—Any dispute arising out of or in connection with this Contract, including any question regarding its existence, validity or termination shall be referred to and finally resolved by arbitration under the Rules of the London Court of International Arbitration, which rules are deemed to be incorporated by reference to this clause.”</p> <p>The place of arbitration shall be: <i>[Insert city and country]</i></p>
<p><b>B. Time Control</b></p>	
<p><b>GCC 27.1</b></p>	<p>The Contractor shall submit for approval a Resource-Based Work Plan for the Works within 15 days from the date of the Letter of Acceptance.</p> <p>The Work Plan shall include, but not be limited to, the following elements under the conditions stipulated:</p> <p>(a) Quality Assurance Plan (QAP)</p> <p>The Quality Assurance Plan shall specify the work methodology, quality control tests and intervals for such tests in accordance with the work specifications for each item of the Works. If in the opinion of the Project Manager the QAP submitted by the Contractor does not fully represent the spirit of the General Conditions of Contract or the Specifications he may seek further clarification from the Contractor before his approval. The Contractor shall strictly follow the QAP in the execution of the Works. If the Contractor does not comply with the QAP, he shall not be allowed to proceed further with the Works. Details of all procedures and compliance documents shall be submitted to the Project Manager for information before each execution stage is commenced. Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the contract.</p>
<p><b>GCC 27.3</b></p>	<p>The period between Work Plan updates is 45 days</p> <p>The amount to be withheld for late submission of an updated Work Plan is <i>NA</i></p>

<b>C. Quality Control</b>	
<b>GCC 36.1</b>	<p>The Defects Liability Period is: <i>16 months</i></p> <p><i>[The Defects Liability Period shall be as follows:</i></p> <p style="margin-left: 40px;"><i>a. In case of works up to Nu. Five (5) million, the DLP shall be a minimum of twelve (12) months; and</i></p> <p style="margin-left: 40px;"><i>b. In case of works above Nu. Five (5) million, DLP shall be minimum of twenty-four (24) months or double the contract duration whichever is lower]</i></p>
<b>D. Cost Control</b>	
<b>GCC 45.1 (h)</b>	<p>Other Compensation Events are:</p> <p><i>[insert other Compensation Events or, if there are none, insert “none”]</i></p>
<b>GCC 46.1</b>	<p>In case of certain Tax exemptions, such as in foreign assistance projects, this specific exemption(s) should be clearly specified in this clause.</p>
<b>GCC 48.1</b>	<p>The Contract <i>is not</i> subject to Price Adjustment in accordance with GCC Clause 48. <i>[Price Adjustment is mandatorily applicable for Contracts of duration more than 12 months]</i></p> <p><i>Until NSB comes up with the Material Index for the Royal Government of Bhutan, the Wholesale Price- Index (all commodities) for Materials shall be used for the purpose of this clause. Visit <a href="http://www.eaindustry.nic.in">www.eaindustry.nic.in</a> for the Wholesale Price Index</i></p>
<b>GCC 49.1</b>	<p>The proportion of payments retained is: <i>10%</i></p> <p><i>[The retention amount is ten percent (10%)]</i></p>
<b>GCC 50.1</b>	<p>The liquidated damages for the whole of the Works are <i>0.05%</i> per day. The maximum amount of liquidated damages for the whole of the Works is <i>[10%]</i> of the initial Contract Price.</p> <p><i>[Usually liquidated damages are set between 0.05 percent and 0.10 percent per day, and the total amount is not to exceed ten percent (10%) of the Contract Price. If Sectional Completion and Damages per Section have been agreed, the latter should be specified here]</i></p>
<b>GCC 51.1</b>	<p>The Mobilization Advance Payment shall be ten percent (10%) of the Contract Price and shall be paid to the Contractor no later than 30 days after receipt by the Procuring Agency of an acceptable Advance Payment Guarantee.</p>
<b>GCC 51.2</b>	<p>The Secured Advance is 75% of materials at site</p>
<b>GCC 52.1</b>	<p>The Performance Security amount is <i>shall be ten percent (10%) of the Contract Price.</i></p>

## D. Finishing the Contract

<b>GCC 58.1</b>	The date by which operating and maintenance manuals are required is <i>NA</i> The date by which “as built” drawings are required is <i>NA</i>
<b>GCC 58.2</b>	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC Sub-Clause 58.1, or failing to obtain the Project Manager’s approval of them by the said date, is <i>NA</i>
<b>GCC 59.2 (i)</b>	The maximum number of days is: <i>Ref. SCC Sub- Clause 50.1 on liquidated damages].</i>
<b>GCC 59.2 (k)</b>	Failure to execute contract in accordance with 3 subsequent <i>milestone agreement or performance target as appropriate as a conditions for termination</i>
<b>GCC 61.1</b>	The percentage to apply to the value of the work not completed, representing the Procuring Agency’s additional cost for completing the Works, is <i>20% up to a maximum of 10% of the initial contract price</i>

## SECTION VIII. SPECIFICATIONS AND PERFORMANCE REQUIREMENTS

### **Notes on Specifications and Performance Requirements**

*A set of precise and clear Specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Agency without qualifying or conditioning their Bids. In the context of International Competitive Bidding, the Specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials and performance of the Works to be procured. Only if this is done will the objectives of economy, efficiency and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of Bid evaluation facilitated. The Specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.*

*Samples of Specifications from previous similar projects are useful in this respect. Most specifications are normally written, especially by the Procuring Agency or Project Manager to suit the Contract Works in hand. There is no standard set of Specifications for universal application in all sectors but there are established principles and practices, which are reflected in these documents.*

*There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors such as highways, ports, railways, urban housing, irrigation and water supply, especially in the same region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.*

*Care must be taken in drafting Specifications to ensure that they are not restrictive. In the specification of standards for goods, materials and workmanship recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the Specifications should state that goods, materials and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. To this effect, the following clause may be inserted in the Special Conditions or Specifications.*

#### **“Equivalency of Standards and Codes**

*Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or regional, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Project Manager’s prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Project Manager at least 30 days prior to the date when the Contractor desires the Project Manager’s consent. In the event the Project Manager determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.”*

*These Notes for Preparing Specifications are intended only as information for the Procuring Agency or the person drafting the Bidding Documents. They should not be included in the final documents.*

## SECTION IX. DRAWINGS

<b>Notes on Drawings</b>
<i>Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section or annexed in a separate folder.</i>

## SECTION X. CONTRACT FORMS

### Notes on Forms of Securities

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

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**Letter of Acceptance**

*[Letterhead paper of the Procuring Agency]*

**Notes on Standard Form of Letter of Acceptance**

*The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clauses 37 of the Instructions to Bidders. This Standard Form of Letter of Acceptance shall be filled in and sent to the successful Bidder only after evaluation of Bids has been completed.*

*[Insert date]*

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

This is to notify you that 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<sup>52</sup> of [insert amount in numbers and words] [insert name of currency], as corrected and modified<sup>53</sup> in accordance with the Instructions to Bidders is hereby accepted by our Agency.

The Contract in duplicate is attached here to. You are hereby instructed to:

- (a) confirm your acceptance of this Letter of Acceptance by signing and dating both copies of it, and returning one copy to us no later than 15 days from the date hereof;
- (b) proceed with the execution of the said Works in accordance with the Contract;
- (c) sign and date both copies of the attached Contract and return one copy to us within 15 days of the date hereof; and
- (d) forward the Performance Security pursuant to ITB Sub-Clause 39.1, i.e., within 15 days after receipt of this Letter of Acceptance, and pursuant to GCC Sub-Clause 52.1

*Authorized Signature:* \_\_\_\_\_

*Name and Title of Signatory:* \_\_\_\_\_

*Name of Agency:* \_\_\_\_\_

*Attachment: Contract*

## Contract

<b>Notes on Standard Form of Contract</b>
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The Contract should incorporate any corrections or modifications to the Bid resulting from corrections of errors (ITB Clause 27), price adjustment during the evaluation process (ITB Sub-Clause 29), selection of an alternative offer (ITB Clause 16), acceptable deviations (ITB Clause 26), or any other mutually-agreeable changes allowed for in the Special Conditions of Contract, such as changes in key personnel, subcontractors, scheduling, and the like.
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This Contract is made the [insert day] day of [insert month], [insert year] between [insert name and address of Procuring Agency] (hereinafter called “the Procuring Agency”) and [insert name and address of Contractor] (hereinafter called “the Contractor”) of the other part. Whereas the Procuring Agency is desirous that the Contractor execute [name and identification number of Contract] (hereinafter called “the Works”) and the Procuring Agency has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein. Now this Contract witnessed as follows:

1. In this Contract, words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Contract.
2. In consideration of the payments to be made by the Procuring Agency to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Procuring Agency to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Procuring Agency hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties thereto have caused this Contract to be executed the day and year first before written.

The Common Seal of [Witness entity] \_\_\_\_\_ was hereunto affixed in the presence of: Signed, Sealed, and Delivered by the said \_\_\_\_\_ in the presence of: \_\_\_\_\_

**Binding Signature of Procuring Agency [signature of an authorized representative of the Procuring Agency]**

**Binding Signature of Contractor [signature of an authorized representative of the Contractor]**



**Performance Demand Bank Guarantee**  
(Unconditional)

*[The bank/successful Bidder providing the Guarantee shall fill in this form in accordance with the instructions indicated in brackets.]*

*[Bank's name, and address of issuing branch or office]*

Beneficiary: *[name and address of Procuring Agency]*

Date: [date]

PERFORMANCE GUARANTEE No.: *[Performance Guarantee number]*

We have been informed that [name of Contractor] (hereinafter called "the Contractor") has entered into Contract No. [reference number of the Contract] dated [date of Contract] with you, for the execution of [name of Contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Contractor, we [name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [amount in figures] ([amount in words]),<sup>54</sup> such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without you needing to prove or to show grounds for your demand or the sum specified therein.

This Guarantee shall expire no later than 30 days from the date of issuance of the Certificate of Completion, calculated based on a copy of such Certificate which shall be provided to us, or on the [number] day of [month], [year], whichever occurs first. Consequently, any demand for payment under this Guarantee must be received by us at this office on or before that date. The Guarantor agrees to a one-time extension of this Guarantee for a period as required by the Procuring agency, in response to the Procuring Agency's written request for such extension, such request to be presented to the Guarantor before the expiry of the Guarantee.

*[signature(s) of an authorized representative(s) of the bank]*

## Bank Guarantee for Advance Payment

The **bank/successful Bidder** providing the Guarantee shall fill in this form in accordance with the instructions indicated in brackets.

[bank's name, and address of issuing branch or office] **Beneficiary:**[name and address of Procuring Agency] **Date:**[date]  
**ADVANCE PAYMENT GUARANTEE No.:**[number]

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

Furthermore, we understand that, according to the conditions of the Contract, an advance payment is to be made against an advance payment guarantee in the sum or sums indicated below.

At the request of the Contractor, we [name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [amount in figures] ([amount in words]<sup>45</sup>) upon receipt by us for your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the Advance Payment referred to above must have been received by the Contractor in its account number [account number] at [name and address of Bank].

The maximum amount of this guarantee shall be progressively reduced by the amount of the Advance Payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This Guarantee shall expire, at the latest, upon our receipt of a copy of the Interim Payment Certificate indicating that eighty percent (80%) of the Contract Price has been certified for payment, or on the [number] day of [month], [year],<sup>46</sup> whichever is earlier. Consequently, any demand for payment under this Guarantee must be received by us at this office on or before that date. We agree to a one-time extension of this Guarantee as required by the Procuring agency, in response to the Procuring Agency's written request for such extension, such request to be presented to us before the expiry of the Guarantee.

***[insert signature(s) of authorized representative(s) of bank]***

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<sup>45</sup>The Guarantor shall insert an amount representing the amount of the Advance Payment and denominated either in the currency (ies) of the Advance Payment as specified in the Contract, or in a freely convertible currency acceptable to the Procuring Agency.

<sup>46</sup>Insert the expected expiration date of the Time for Completion. The Procuring Agency should note that in the event of an extension of the Time For Completion of the Contract, the Procuring Agency would need to request an extension of this Guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the Guarantee

## Retention Money Security Demand Guarantee

*[Bank's name and address of issuing branch or office]* **Beneficiary:** *[Insert name and Address of Procuring Agency]*

\_\_\_\_\_

\_\_\_\_\_ *Insert date of issue*

Date:

RETENTION MONEY GUARANTEE No.: *[Insert guarantee reference number]*

We have been informed that \_\_\_\_\_ *[insert name of Contractor]* (here in after called "the Contractor")

has entered into Contract No. *[insert reference number of the contract]* dated \_\_\_\_\_ with the

Beneficiary, for the execution of \_\_\_\_\_

*[insert name of contract and brief description of Works]* (Here in after called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, payment of *[insert the second half of the Retention Money or if contract duration is beyond 12 months the amount on completion of 50% of the value of the contract and duly certified by the Project Manager]* is to be made against a Retention Money Guarantee.

The amount Guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount Guaranteed under the Performance Security] is to be made against a Retention Money Guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_\_\_\_ *[insert amount in figures]* (.....) *[amount in words]*<sup>47</sup> upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified therein.

A demand under this Guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention

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<sup>47</sup>The Guarantor shall insert an amount representing the amount of the second half of the Retention Money or if the amount Guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and denominated either in the currency (ies) of the second half of the Retention Money as specified in the Contract, or in a freely convertible currency acceptable to the Beneficiary.

Money as referred to above has been credited to the Applicant on its account number \_\_\_\_\_ at [insert name and address of Applicant's bank].

This Guarantee shall expire no later than the .... Day of ....., .....<sup>48</sup>, and any demand for payment under it must be received by us at the office indicated above on or before that date.

*[signature(s)]*

***Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.***

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<sup>48</sup>Insert the same expiry date as set forth in the Performance Security, representing the date twenty-eight days after the completion date described in GC Clause 11.9. The Procuring Agency should note that in the event of an extension of this date for completion of the Contract, the Procuring Agency would need to request an extension of this Guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Procuring Agency might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the Guarantee."

Name of work: Construction of farmers hostel

Location: Agriculture Research Development Centre, Wangduephordang

**BOQ for site developemnt**

Sl. No	BSR Code	Description of item	Quantity	Unit	Rate in Figure	Rate In Words	Amount
1	EW0046	Earth work in excavation over areas by Excavator including levelling and dressing as per the instruction of site engineer. All kinds of Soil	477.00	Cu.m			
2	RW0019	Transport of loose spoil materials in designated locations including loading/unloading, dressing of dump sites and plantation of vegetation after completion of dumping. Beyond 50	507.27	Cu.m			
Total Amount Nu.							

Name of work: Construction of farmers hostel

Location: Agriculture Research Development Centre, Bajo, Wangduephordang

**BOQ for main structure (Civil)**

Sl. No	BSR Code	Description of item	Quantity	Unit	Rate in Figure	Rate In Words	Amount
<b>Sub Structure</b>							
1	EW0106	Excavation in foundation trenches or drains not exceeding 1.5 min width or area 10sq.m on plan, including dressing & ramming, disposal of surplus soil within 50m lead & 1.5m lift	318.66	Cu.m			
2	EW0195	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m	230.55	Cu.m			
3	SM0070	Providing and laying Hammer dressed dry stone soling	53.28	Cu.m			
4	CW0008	Providing and laying in position plain cement concrete excluding the cost of centering and shuttering - All work upto plinth level.1:4:8 (1 cement : 4 sand : 8 graded crushed stone 40 mm nominal size)	10.63	Cu.m			
5	CW0005	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)	21.35	Cu.m			
6	RC0002	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement - all work upto plinth level. 1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size)	37.34	Cu.m			
7	RC0090	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork. Foundation and plinth etc.	129.17	Sq.m			
8	SM0005	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth. In CM 1:4	61.59	Cu.m			
<b>Super Structure</b>							
9	RC0010	Providing & laying in position reinforced cement concrete work in plinth and skirting courses, fillets, columns , pillars, posts and struts upto floor five level excluding the cost of centering, shuttering and reinforcement.1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size)	28.46	Cu.m			
10	RC0018	Providing & laying in position reinforced cement concrete work in beams, lintels, bands, plain window sills, staircases, spiral staircases upto floor five level excluding the cost of centering, shuttering and reinforcement. 1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size)	33.20	Cu.m			

13	RC0093	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork. Columns, pillars, post, struts etc.	273.42	Sq.m			
14	RC0092	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork. Lintels, beams, girders, bresummers, cantilevers etc.	259.03	Sq.m			
15	RC0095	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork. Suspended floor, roof, landing, shelves and their supports, balconies, chajjas, etc.	273.89	Sq.m			
16	RC0083	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	30997.28	Kg			
<b>Brick Works</b>							
17	BW0002 + BW0012	Providing & laying Second-Class Brick work in n superstructure above plinth level, up to floor two level	107.82	Cu.m			
18	BW0021	Providing & laying Second-Class Half-brick Masonry (125 mm) in superstructure below floor 2 level. In cement mortar 1:4	215.50	Sq.m			
<b>Timber Works</b>							
19	WW0003	Providing & fixing in position dressed wood work in frames of doors, windows, clerestory windows and other frames, wrought and framed. Mixed Conifer	7.30	Cu.m			
20	WW0211	Providing & fixing 35mm thick Panelled or glazed doors and windows Shutters etc. complete including hinges in MC	93.31	Sq.m			
21	WW0231	Providing & fixing 44mm thick Panelled or glazed doors and windows Shutters etc. complete including hinges in MC	59.74	Sq.m			
22	WW0647	Providing & fixing brass tower bolt (barrel type) with necessary screws etc. complete. 100mm	32.00	Each			
23	WW0646	Providing & fixing brass tower bolt (barrel type) with necessary screws etc. complete. 150mm	112.00	Each			
24	WW0645	Providing & fixing brass tower bolt (barrel type) with necessary screws etc. complete. 250mm	64.00	Each			
25	WW0656	Providing & fixing brass sliding door bolt with nuts necessary screws etc. complete. 250mm	32.00	Each			
26	WW0665	Providing & fixing brass handle with necessary screws etc. complete. 150mm	76.00	Each			
27	WW0666	Providing & fixing brass handle with necessary screws etc. complete. 125mm	72.00	Each			

28	WW0685	Providing & fixing bright finished brass hook-and-eye with necessary screws etc. complete. 150mm	56.00	Each			
29	WW0516	Providing & fixing 150 x 12 mm, with 25 mm dia. Wooden curtain rod and brackets including M.S flats 25 x 3 x 100 mm and plug setc. Complete	108.65	Mtr			
30	WW0630	Providing & fixing anodised aluminium kicking plate, 4mm thick with necessary aluminium screws etc. complete	59.74	Sq.m			

**Flooring and Ceiling**

31	GL0002	Providing and laying tiles in flooring, treads of steps and landings in different sizes (Sizes and thickness to be specified by the engineer/as per design) in all colours and shade, laid on 20mm thick cement mortar1:4 (1cement:4coarses and) finished with flush pointing in white cement	347.55	Sq.m			
32	GL0001	Providing and fixing tiles in skirting, step risers, dado and wall in different sizes (Sizes and thickness to be specified by the engineer/as per design) in all colours and shade, on12 mm thick cement mortar1:3 (1 cement:3 sand) finished with flush-pointing in white cement	125.81	Sq.m			
33	FL0176	Providing and laying Pre-Polished/Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M.1:4 upto 20mm 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 lead sand 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.	59.51	Sq.m			
34	FL0177	Providing and laying Pre-Polished/Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M.1:4 upto 20mm 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 lead sand lifts etc.complete as per directions of site in-charge and as per pattern required. or granite stone flooring for laying in step-tread, width<300mm	29.46	Sq.m			



35	FL0178	Providing and laying Pre-Polished/Polished Granite of approved quality and source in flooring using necessary cement bedding in C.M.1:4 upto 20mm 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 lead sand lifts etc.complete as per directions of site in-charge and as per pattern required. for granite stone flooring for nosing in step-treads	26.25	Mtr			
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**Plastering and painting**

36	PL0041	Providing & laying 20mm cement plaster in cement mortar 1:4	1652.48	Sq.m			
37	PL0011	Providing & laying 6mm cement plaster (in ceilings) in CM 1:4	407.06	Sq.m			
38	PT0042	Providing and applying finishing coats. Acrylic washable distemper, two coats on new work, including cement primer coat	2059.54	Sq.m			
39	PT0012	Providing & applying one coat of primers. Wood work - pink primer	204.84	Sq.m			
40	PT0048	Providing and applying finishing coats Synthetic enamel, for steel & wood work, two coats on new work	204.84	Sq.m			
41	PT0091	Providing, preparing and applying Sumdang painting (Not washable)	40.06	Sq.m			

**Roofing**

42	SW0080	Providing & fixing M.S. round hold-down bolts with nuts and washer plates.16 mm dia 450 mm long	193.42	Kg			
43	SW0090	Providing, making and fixing M.S. straps, flats, sole plates etc.	500.44	Kg			
44	SW0022	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red. In Tubular sections	4251.84	Kg			
45	WW0030	Providing & fixing Eaves board (225x25mm) with moulding fitted and fixed with necessary screws in MC	92.88	Mtr			
46	RF0003	Providing & fixing Pre Painted Steel Corrugated Roofing 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. 25g (0.50mm)	416.77	Sq.m			
47	RF0007	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 (0.50mm)	35.20	Mtr			

**Plumbing and sanitation**

48	PI0315	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making the goodwalls etc. 15 mm nominal outer dia Pipes	192.00	Mtr			
49	PI0316	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making the goodwalls etc. 20 mm nominal outer dia Pipes	72.00	Mtr			
50	PI0033	Providing & fixing plastic tank including all accessories complete. 2000 litre capacity	2.00	Each			
51	PI0050	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15lit white vitreous china low level cistern, fittings, brackets, repair walls	2.00	Each			
52	PI0041	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, white Orissa-model	14.00	Each			
53	PI0085	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	16.00	Each			
54	PI0123	Providing & fixing Kitchen Sinks including all connections and fittings. Stainless steel, 940 x 460 x 160 mm, single bowl & drainboard	1.00	Each			
55	PI0165	Providing & fixing Electric water heater including necessary fittings. 50 litres	2.00	Each			
56	PI0176	Providing & fixing C.P. Brass shower fittings. Adjustable shower, with locking key, 15mm	16.00	Each			
57	PI0186	Providing & fixing c.p. brass stop cock. 20mm, standard, c.p knob	6.00	Each			

58	PI0189	Providing & fixing c.p. brass stop cock. 15mm, angle, c.p knob	6.00	Each			
59	PI0205	Providing & fixing c.p. brass bibcock. 15mm, standard vertical, c.p knob	16.00	Each			
60	PI0206	Providing & fixing c.p. brass bibcock. 15mm, inclined, c.p. knob	14.00	Each			
61	PI0216	Providing & fixing c.p. brass mixers, 15mm. For wall, non-telephonic type	2.00	Each			
52	PI0250	Providing & fixing 600x450mm bevelled edge mirror (superior glass) incl.4mm A.C sheet base fixed to wooden cleats	14.00	Each			
63	PI0252	Providing & fixing c.p. towel rail 750 x 20mm with c.p brass brackets fixed to wooden cleat	14.00	Each			
64	PI0260	Providing & fixing toilet paper holder. C.P. brass	16.00	Each			
65	PO0640	Providing & laying H.D.P.E pipes, 12.5 PN, including H.D.P.E fittings (excluding trenching, refilling & thrust block) 20 mm	500.00	Mtr			
66	PO0370	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	27.00	Mtr			
67	PO0372	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	112.50	Mtr			
68	PO0405	Providing & fixing P.V.C plain bend. 75mm dia	16.00	Each			
69	PO0407	Providing & fixing P.V.C plain bend. 110mm dia	16.00	Each			
70	PO0415	Providing & fixing P.V.C door bend 75 mm dia	16.00	Each			
71	PO0417	Providing & fixing P.V.C door bend 110mm dia	16.00	Each			
72	PO0164	Constructing Septic Tanks, in R.R Masonry in cement mortar 1:6, including fittings, C.I cover with frame, 40mm thick concrete flooring (40mm aggregates) cement plaster concrete base in C.C 1:4:8 etc. complete as per standard design complete as per standard design. 100 user	1.00	Each			
73	PO0600	Constructing Soak Pit. Size 1200x1200x1200mm, filled with brick bats including 100mm SW drain pipe X 1200mm long	1.00	Each			
74	DR0105	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 complete. Inside dimension 900 x 800mm & 450mm deep including C.I. cover & frame (weight >38 kg)	12.00	Each			

**Plinth and drain**

75	DR0004	Providing and 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 gravel or shingles laid on 75mm thick layer of compacted dry brick aggregate(40mm)	150.15	Sq.m			
76	DR0011	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 x 200mm depth	102.80	Mtr			
<b>Steel work for railing and ceiling</b>							
77	SW0021	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red. In Tees, angles, flats, channels, round etc	253.35	Kg			
78	PT0055	Providing and applying finishing coats. Aluminium paint, two coats on new work	13.98	Sq.m			
Total Amount Nu.							

Name of work : Electrification of Farmers Hostel

Location :RNRC at Bajo

Electrical Boq(Bill of Quantity)

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
1		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 in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required					
	WH0300	Short Point	27.00	Point			
	WH0301	Medium Point	43.00	Point			
	WH0302	Long Point	35.00	Point			
	WH0381	2x1.5 sq.mm(Excess length)	135.00	m			
2		Wiring for 5/6 pin, 16 ampere plug point with 4 sq.mm 1.1kV grade, PVC insulated copper conductor cable in recessed HDPE pipe with providing and fixing 5/6 pin, 16 ampere socket outlet and switch including earthing the third pin, connections, painting, testing and commissioning etc. as required					

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
	WH0340	Short Point	3.00	Point			
	WH0340	Medium Point	14.00	Point			
	WR0177	Long Point	22.00	Point			
	WH0382	2x4 sq.mm(Excess length)	420.00	m			
3	WH0391	Wiring for lighting circuit with 1.1kV grade, PVC insulated copper conductor cable in recessed HDPE pipe including connections, painting, testing and commissioning etc. as required- 2x2.5 sq.mm	660.00	m			
		<b>Metal Boxes &amp; PVC Frame</b>					
7		Supplying & fixing of plates & frame for switch/socket outlet/switch socket combined/gang switches, etc as required					
	PF0011	Plate 1-module with frame	6.00	each			
	PF0012	Plate 2-module with frame	8.00	each			

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
	PF0013	Plate 3-module with frame	69.00	each			
	PF0014	Plate 4-module with frame	19.00	each			
	PF0015	Plate 6-module with frame	1.00	each			
	PF0016	Plate 8-module with frame	1.00	each			
8		Supplying & fixing of metal boxes for switch/socket outlet/switch socket combined/ gang switches, recessed in walls including painting etc as required- Modular					
	BX0050	1 module	6.00	each			
	BX0051	2 module	8.00	each			
	BX0052	3 module	69.00	each			
	BX0053	4 module	19.00	each			

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
	BX0054	6 module	1.00	each			
	BX0056	8 module	1.00	each			
		<b>SWITCH &amp; SOCKETS &amp; LUMINARIES</b>					
9	SS120	Supplying & fixing of 6A switch on existing PVC/metal / moulded tough surface box (recessed or surface) including necessary cutting, connection testing etc.as required.-	114.00	each			
10	IL0001	Supplying & fixing & testing of prewired indoor surface/ceiling mounted luminaries suitable for GLS,CFL & LED lamps, complete with all accessories such as base, holder, glass globe etc. but without lamp-Globe dia 150, projection 215mm, finish-	22.00	each			
11	IL0003	Supplying & fixing & testing of prewired indoor surface/ceiling mounted luminaries suitable for GLS,CFL & LED lamps, complete with all accessories such as base, holder, glass globe etc. but without lamp-IL0003Globe dia 250, projection 315mm, finish-painted	23.00	each			
12	IL0082	Supplying & fixing & testing of prewired indoor wall mounted wall brackets luminaries suitable for GLS, CFL & LED lamps, complete with all accessories such as base, holder, glass globe, etc etc. but without lamp-Single swivel wall bracket down lighter, projection 375mm, height 250mm finish painted with switch	3.00	each			



SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
13	FN0002	Supplying, installation, testing & 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	22.00	each			
14	SS0075	Supplying & fixing of socket/regulator on existing metal box with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc. as required.-	22.00	each			
15	FN0015	Supplying, installation, testing & commissioning of exhaust fan 240 volt A.C 900 rpm with all accessories such as frame with arm 3 Nos., sweep 3 Nos., condenser and fan body etc. complete as required- 300mm sweep	1.00	each			
16	FN0045	Supplying & fixing of Aluminium louvers for exhaust fan complete all accessories as required-300mm sweep	1.00	each			
17	IL0382	Supplying & fixing of prewired indoor surface/ceiling mounted LED Tube light luminaires of 3000/4000/6000k, complete with all accessories with necessary testing & commissioning.- 20W	45.00	each			
18	LS0208	Supplying & fixing of LED Lamp with 3000/4000/6000K-15W (BC/ES)	45.00	each			
		<b>CONTROL GEARS &amp; BUSBAR</b>					
19	GB0271	Suppling 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-10A	17.00	each			

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
20	GB0272	Suppling 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-16A	60.00	each			
21	GB0318	Supply & Installation, testing & 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-63A	3.00	each			
22	GB0525	Supply & fixing of SPN distribution board (DIN type) with metal door, 230 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required-16wav	3.00	each			
23	GB0541	Supply & fixing of TPN distribution board (DIN type, horizontal/Vertical) with metal door, 415 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required-8ways	2.00	each			
24	GB0355	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-63A	3.00	each			
25	GB0227	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-250A	1.00	each			

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
26	GB0026	Supplying, installation, testing & commissioning of Aluminium alloy/wrought aluminium busbar complete with all accessories etc. to accomodate in prefabricated MS cubical panel board as	1.00	each			
27	CD0220	Supplying and fixing of HDPE pipe on recessed/surface including all accessories such as screws, bends,elbows, Tees, corners, etc. complete as required for earthing-20mm	40.00	m			
28	A/R	P/F Wooden DB with shutter panel having locking arrangementof required size at site for MDB & SDBs	6.00	each			
29	ET0130	Providing and laying of GEE slab earthing including all accessories, connection and complete as required-GEE slab 5ft x 1ft x 5cm-8nos	1.00	Set			
30	ET0046	Providing and laying of wire at 0.5m below ground level for conductor earth electrodes including soldering etc as required-With 4.06mm dia (8SWG) copper wire	50.00	m			
31	PC0183	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables-70sq.mm	90.00	m			
32	PC0180	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables-25sq.mm	25.00	m			
33	PC0124	Supplying of 2- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables-16sq.mm	55.00	m			

SI No	BSR Code	Items with specification	Qty.	Unit	Rate in Fig.	Rate in word	Amount
34	CL0003	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 cushioning, protective covering and refilling the trenches etc. as required-Above 25sq.mm to 70sq.mm	80.00	m			
35	AR	Supplying and installation of Three phase energy meter with all accessories as per the BPC's specification and requirement complete.	1.00	each			
		<b>Total</b>					

Name of work: Construction of farmers hostel

Location: Agriculture Research Development Centre, Bajo, Wangduephordang

**Cost Abstract**

<b>Sl. No</b>	<b>Name of work</b>	<b>Amount (Nu.)</b>
1	Site Development works	
2	Main Structure works	
3	Electrical Works	
<b>Total Amount Nu.</b>		
<b>Rebate/Less/Discount (%/Lump Sum) Plz. Specify</b>		
<b>Gross Amount after rebate (if any)</b>		



དབལ་ལྷན་འབྲུག་གཞུང་།  
གཞི་རྟེན་མཐོ་ཆས་ དང་སྐྱེལ་འདྲེན་ལྷན་ཁག།  
ལྷང་ཕྱོགས་བཟོ་རིག་ཕྱོགས་ལྷེབ་ཡིག་ཚང་།  
**ROYAL GOVERNMENT OF BHUTAN**  
**MINISTRY OF INFRASTRUCTURE AND TRANSPORT**  
**DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT**  
**Regional Engineering Cluster, Punakha**

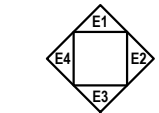
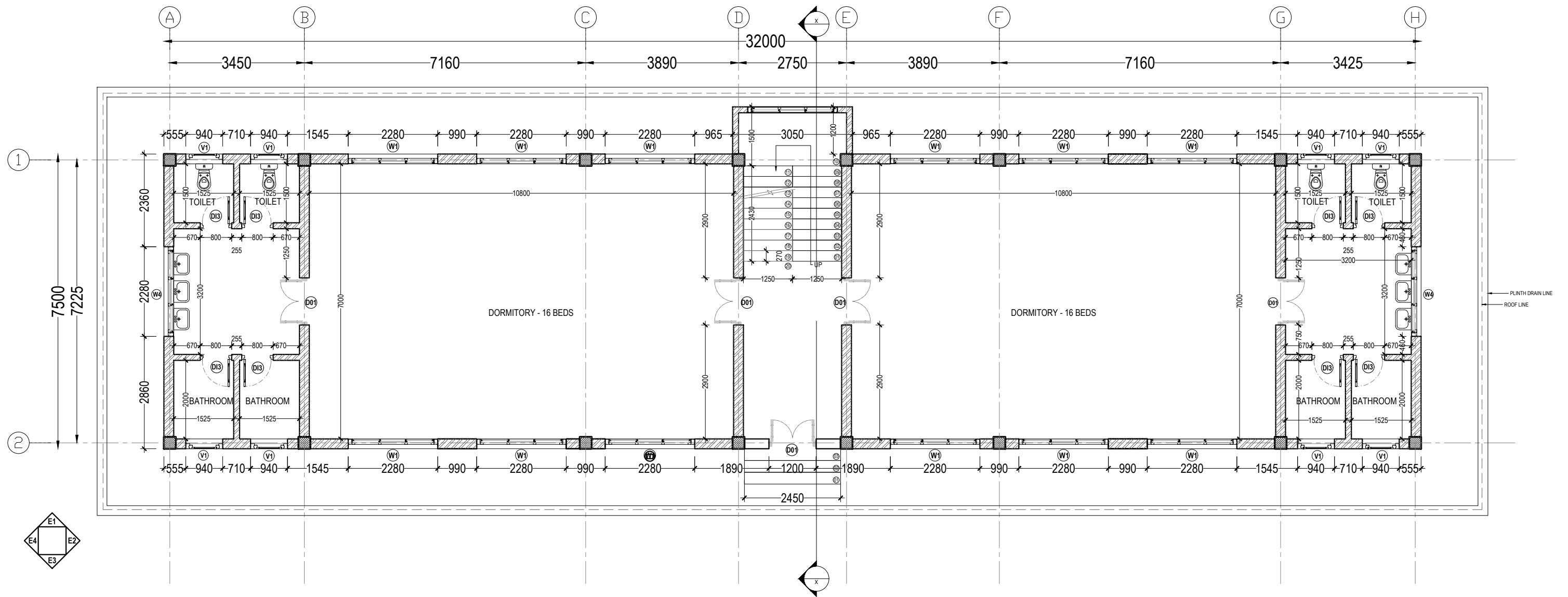



# ARCHITECTURAL DRAWING

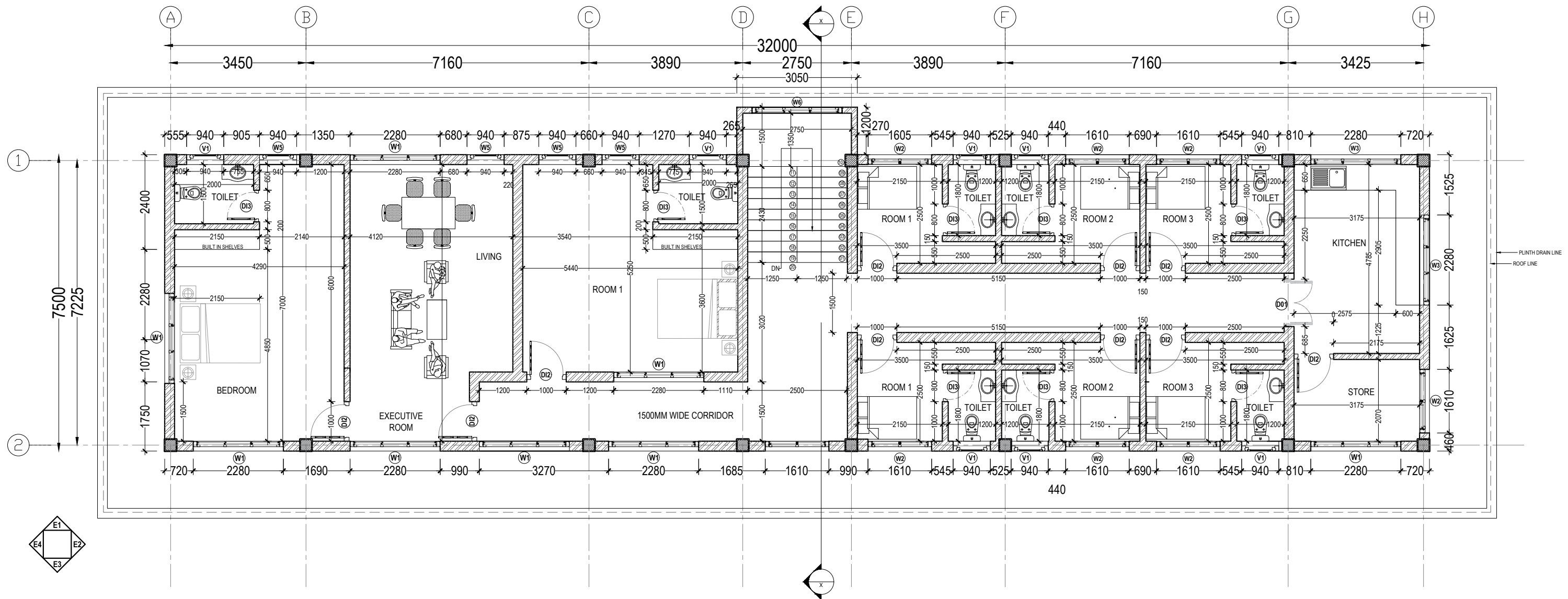
**PROJECT TITLE: G+1 FARMER'S HOSTEL**  
**BAJO, THEDTSHO, WANGDUE PHODRANG**

DESIGNED BY:- AR. MAITY BISWA

CDB REG. NO.:BA-271(G)

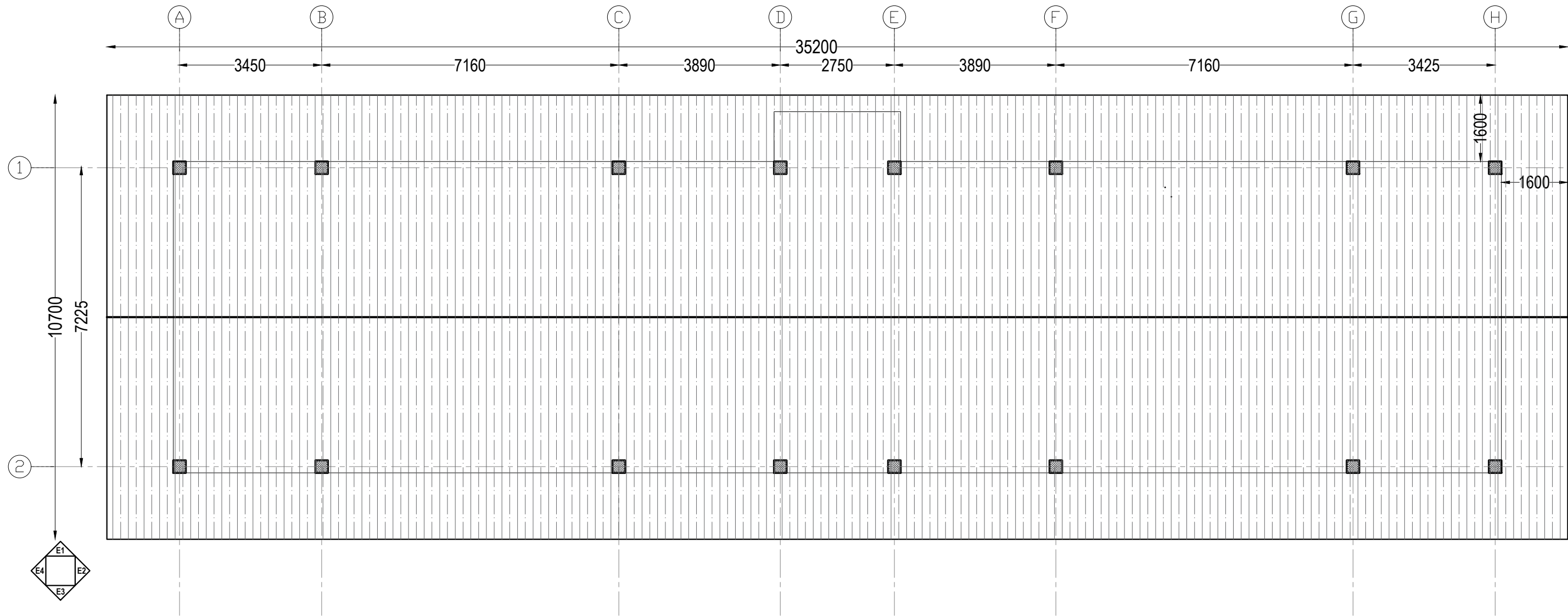


	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	SCALE	<small>NOTES:</small> -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY (REeC,Punakha)	CHECKED BY:	DATE:	SHEET NO.
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	GROUND FLOOR PLAN	VILLAGE: BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:		1:50	ARCHITECT: MAITY BISWA CDB REG. NO.: BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023



	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	SCALE	<small>NOTES:</small> - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE - ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE - ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF - ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANT'S SUPERVISION TEAM - MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY (REeC,Punakha)	CHECKED BY:	DATE:	SHEET NO.
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	FIRST FLOOR PLAN	VILLAGE: BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:		1:50	ARCHITECT: MAITY BISWA CDB REG. NO.: BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023





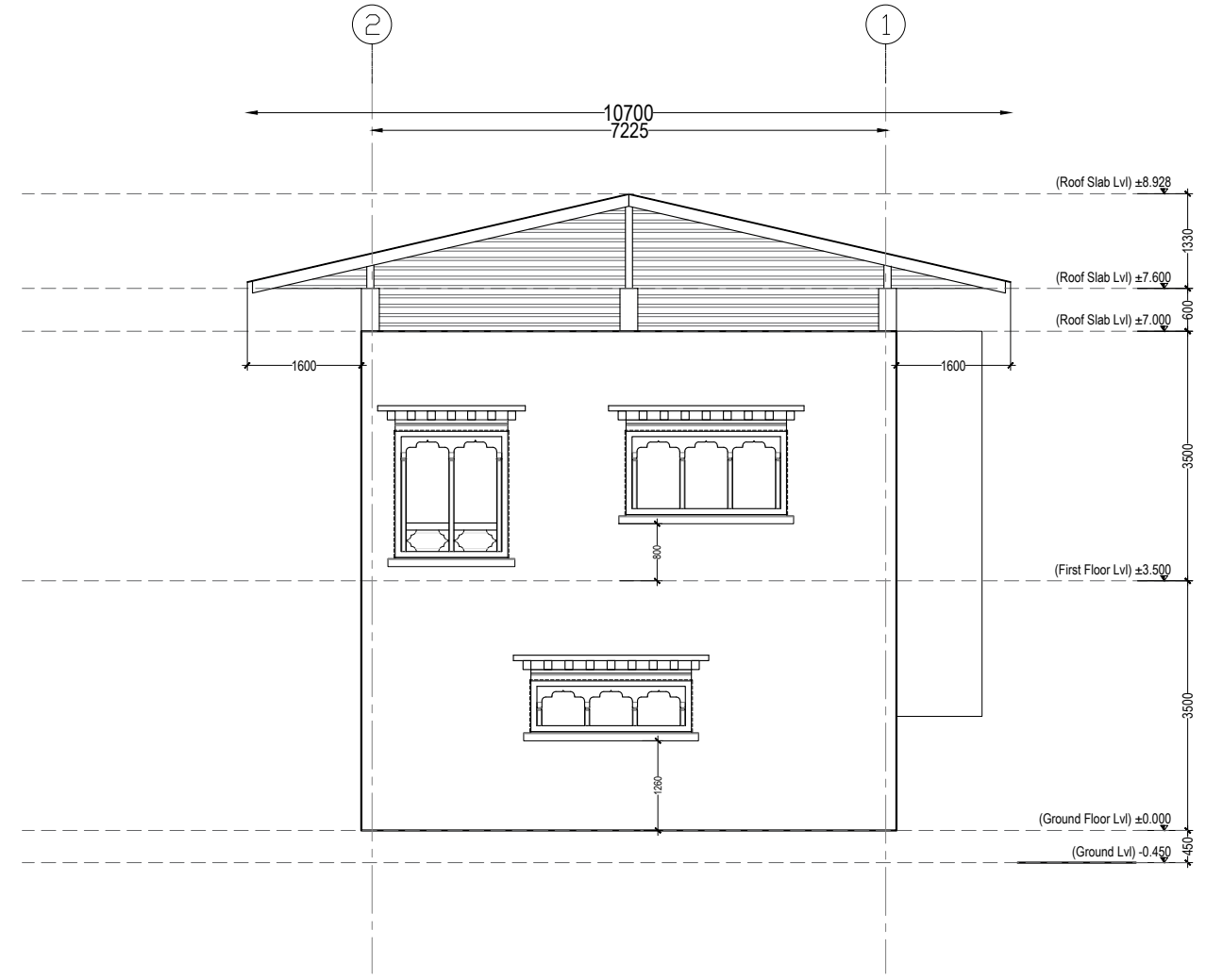
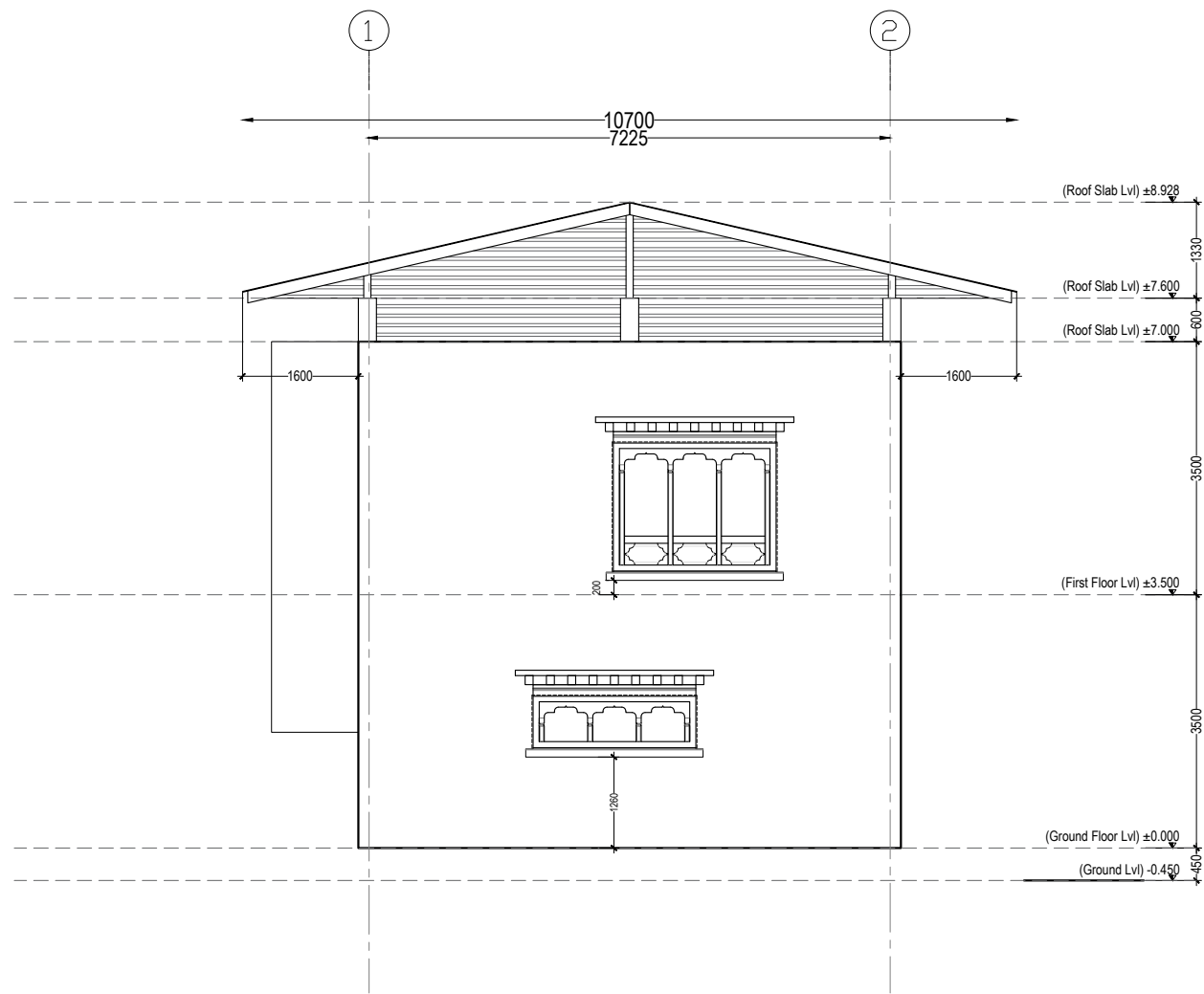
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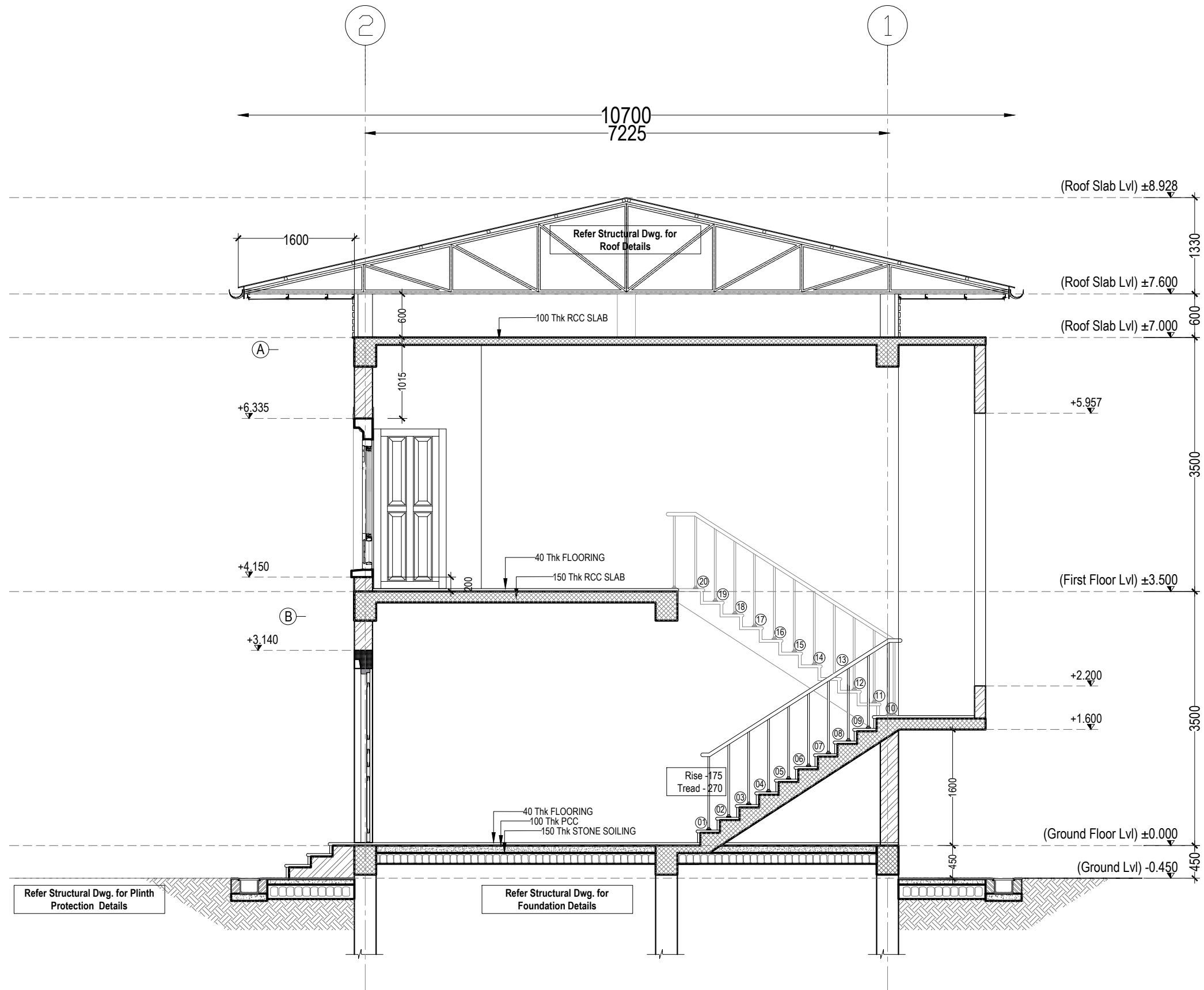
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						<b>ARCHITECT:MAITY BISWA</b> CDB REG. NO.:BA-271(G)			



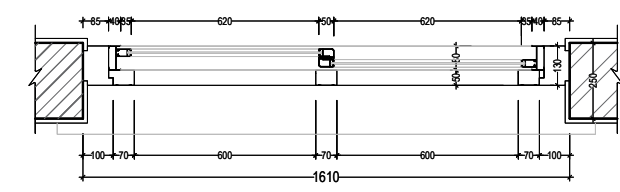
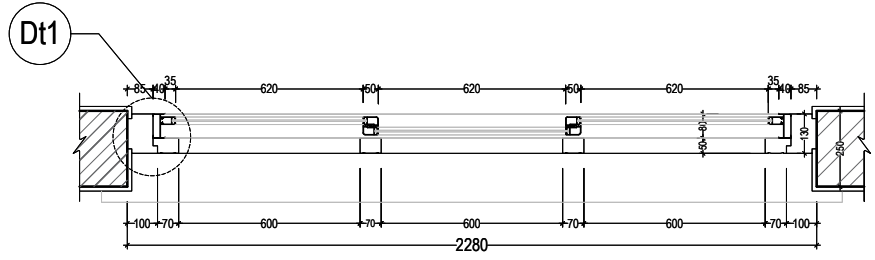
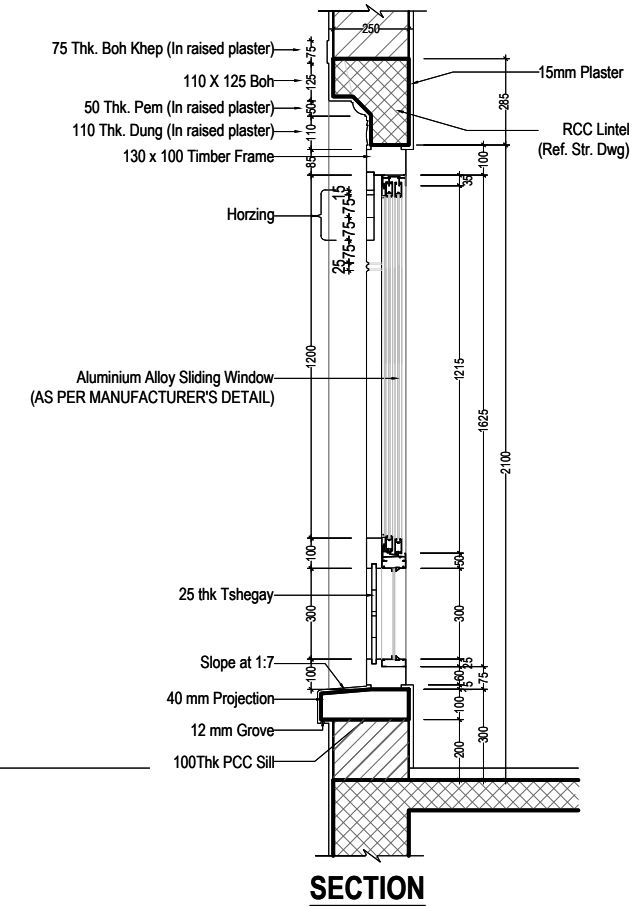
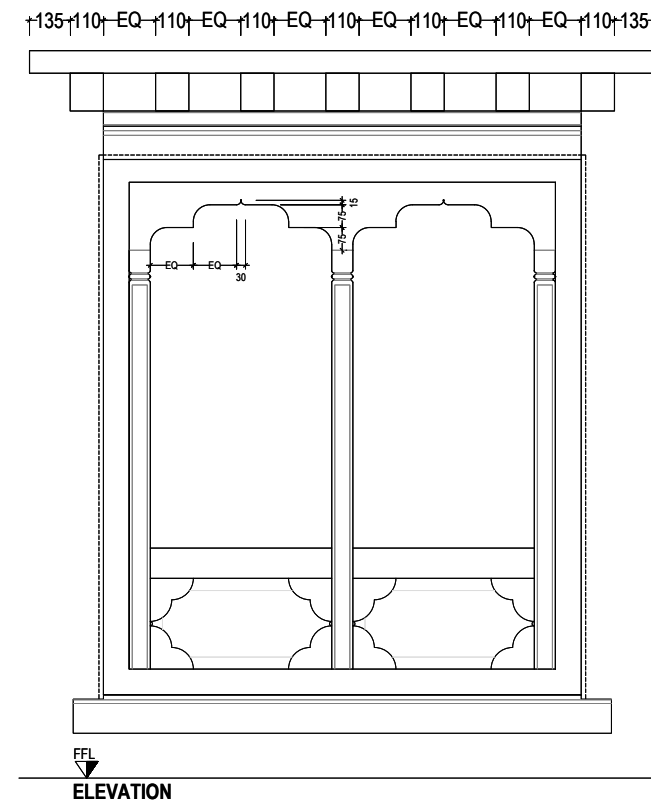
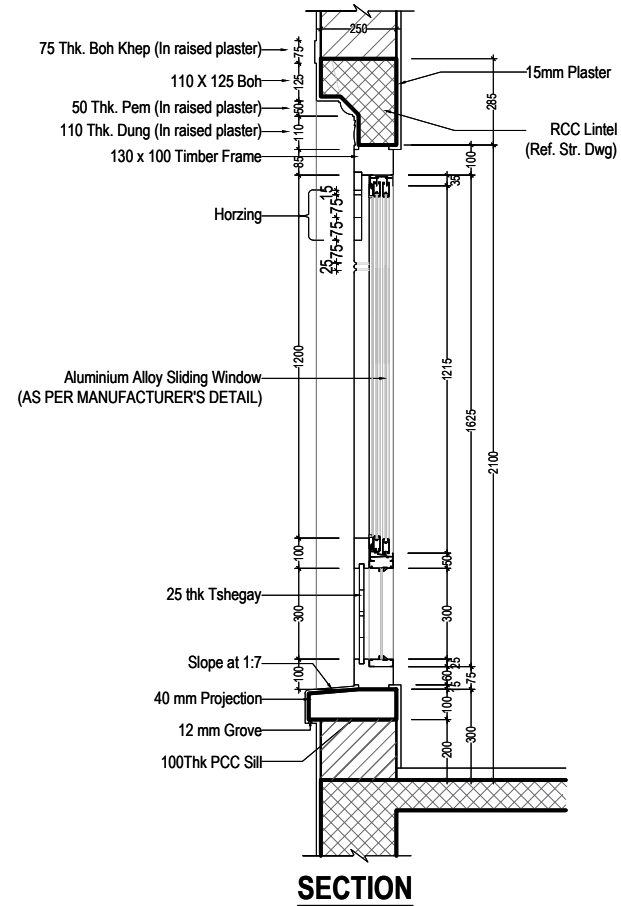
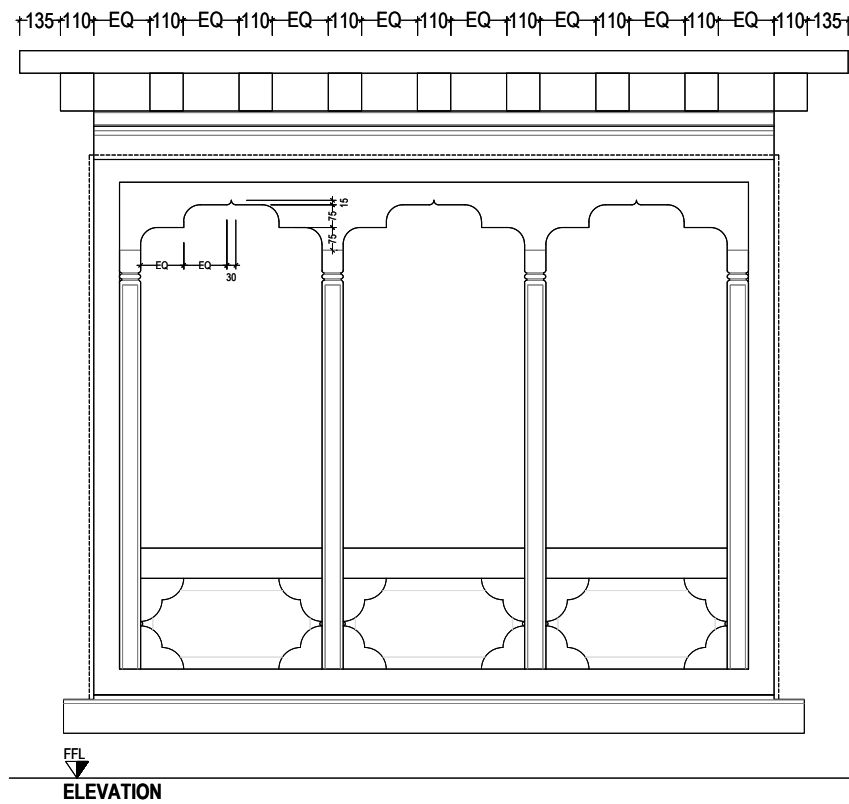
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						<b>ARCHITECT:</b> MAITY BISWA CDB REG. NO.:BA-271(G)			



PROJECT TITLE: <b>G+1 FARMER'S HOSTEL ARDC,          WANGDUE</b>	DRAWING TITLE: <b>ELEVATION E2 &amp; E4</b>	LOCATION: VILLAGE: BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:	SCALE: 1:50	NOTES: -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY (REeC,Punakha) ARCHITECT:MAITY BISWA CDB REG. NO.:BA-271(G)	CHECKED BY: CDE : PARSURAM RAI	DATE: AUGUST, 2023	SHEET NO. <b>AR/06</b>
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PROJECT TITLE: <b>G+1 FARMER'S HOSTEL ARDC, WANGDUE</b>	DRAWING TITLE: <b>SECTION XX</b>	LOCATION: VILLAGE: BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:	SCALE: 1:50	NOTES: -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY: (REeC,Punakha) ARCHITECT: MAITY BISWA CDB REG. NO.: BA-271(G)	CHECKED BY: CDE : PARSURAM RAI	DATE: AUGUST, 2023	SHEET NO.: <b>AR/07</b>
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W1

GENERAL MATERIAL, FINISHING & HARDWARE SCHEDULE FOR ALUMINIUM ALLOY WINDOWS

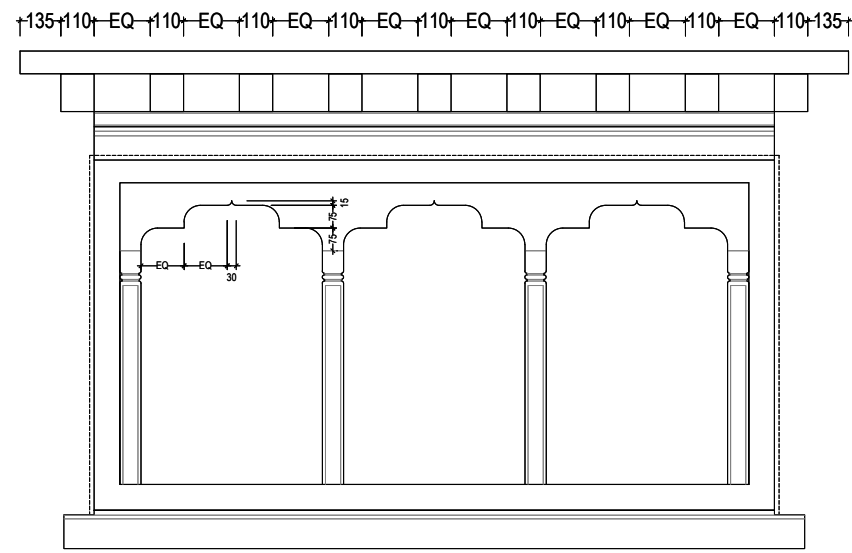
MATERIAL : ALUMINIUM ALLOY FRAMES & SHUTTER, 6MM THK. CLEAR GLASS  
FINISHING : ALUMINIUM ALLOY FRAMES & SHUTTERS WITH ELECTROPHORETIC COATING / PLAIN 20 MICRON ANNOXIDIZED  
HARDWARE : STAINLESS STEEL ROLLERS & LOCKS, PVC GUIDE RUBBER STOPPER, FLEXIBLE GLASS RUBBER AND SMOOTH SECTION BRUSH OF BEST QUALITY, STAINLESS STEEL SCREW, PVC FITTER FOR SCREWS

W2

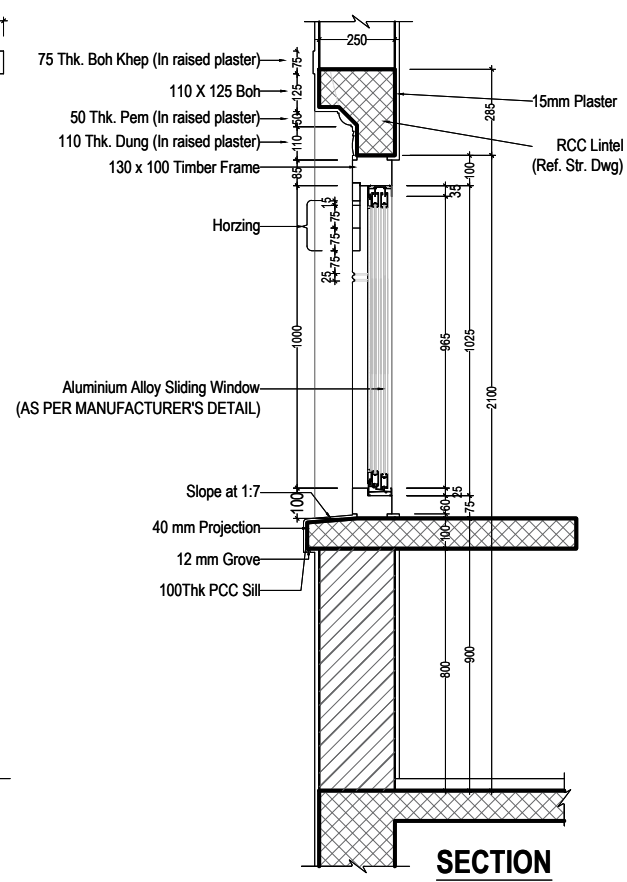
GENERAL MATERIAL, FINISHING & HARDWARE SCHEDULE FOR ALUMINIUM ALLOY WINDOWS

MATERIAL : ALUMINIUM ALLOY FRAMES & SHUTTER, 6MM THK. CLEAR GLASS  
FINISHING : ALUMINIUM ALLOY FRAMES & SHUTTERS WITH ELECTROPHORETIC COATING / PLAIN 20 MICRON ANNOXIDIZED  
HARDWARE : STAINLESS STEEL ROLLERS & LOCKS, PVC GUIDE RUBBER STOPPER, FLEXIBLE GLASS RUBBER AND SMOOTH SECTION BRUSH OF BEST QUALITY, STAINLESS STEEL SCREW, PVC FITTER FOR SCREWS

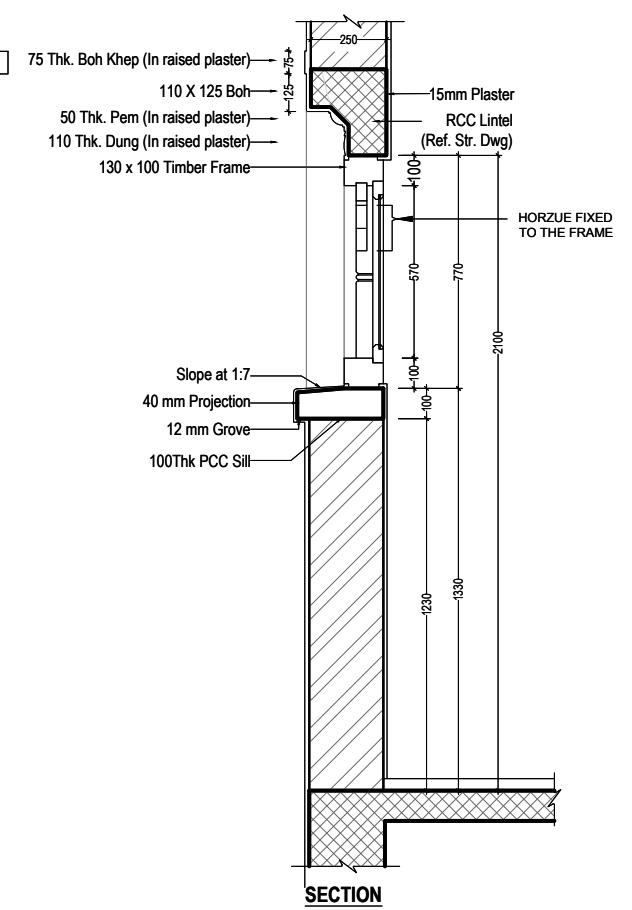
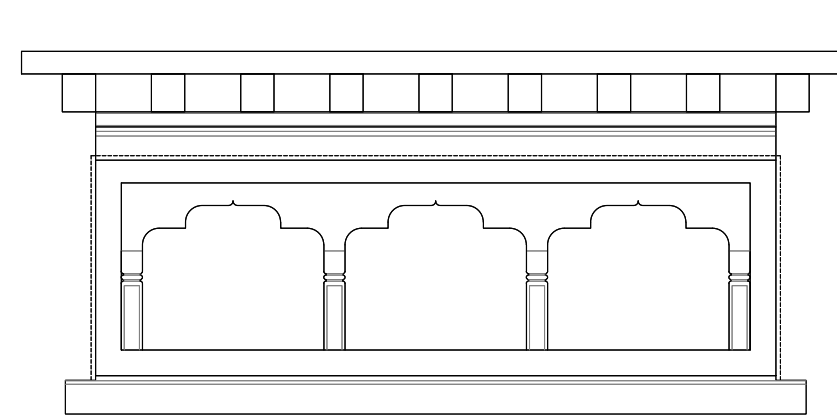
	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	SCALE	NOTES: -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY (REeC,Punakha)	CHECKED BY:	DATE:	SHEET NO.
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	WINDOW DETAILS	VILLAGE:BAJO GEWOG: THEDISHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:		1:50	ARCHITECT:MAITY BISWA CDB REG. NO.:BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023



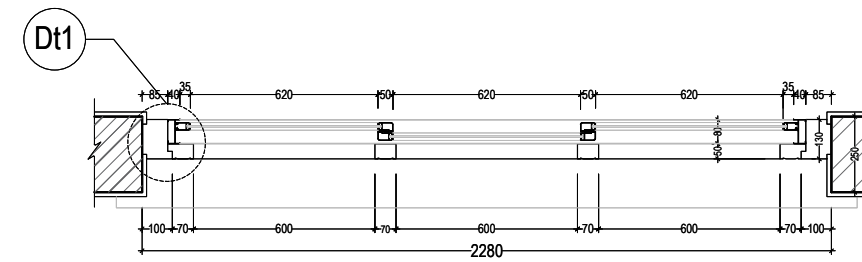
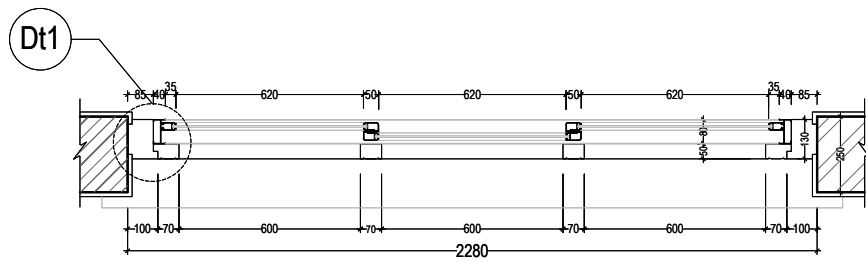
FFL  
ELEVATION



SECTION



SECTION



W3

GENERAL MATERIAL, FINISHING & HARDWARE SCHEDULE FOR ALUMINIUM ALLOY WINDOWS

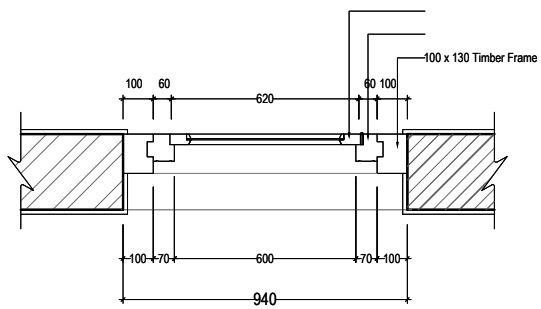
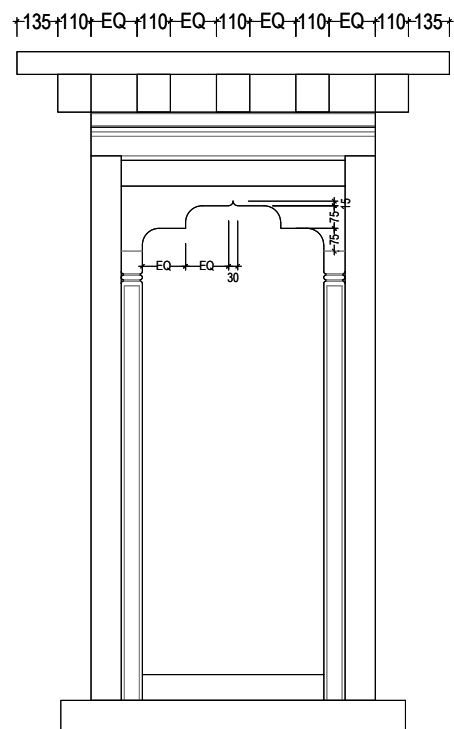
MATERIAL : ALUMINIUM ALLOY FRAMES & SHUTTER, 6MM THK. CLEAR GLASS  
 FINISHING : ALUMINIUM ALLOY FRAMES & SHUTTERS WITH ELECTROPHORETIC COATING / PLAIN 20 MICRON ANODIZED  
 HARDWARE : STAINLESS STEEL ROLLERS & LOCKS, PVC GUIDE RUBBER STOPPER, FLEXIBLE GLASS RUBBER AND SMOOTH SECTION BRUSH OF BEST QUALITY, STAINLESS STEEL SCREW, PVC FITTER FOR SCREWS

W4

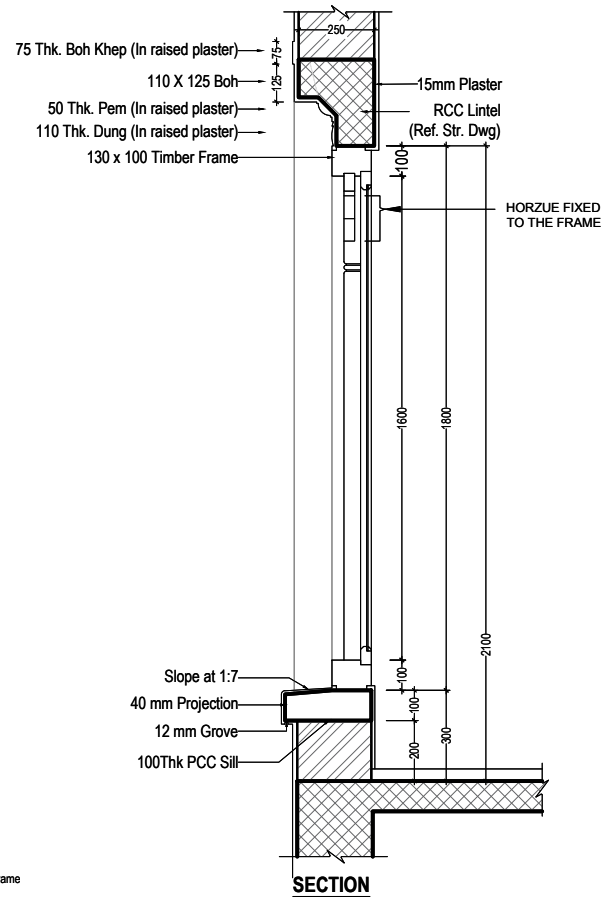
GENERAL MATERIAL, FINISHING & HARDWARE SCHEDULE FOR ALUMINIUM ALLOY WINDOWS

MATERIAL : ALUMINIUM ALLOY FRAMES & SHUTTER, 6MM THK. CLEAR GLASS  
 FINISHING : ALUMINIUM ALLOY FRAMES & SHUTTERS WITH ELECTROPHORETIC COATING / PLAIN 20 MICRON ANODIZED  
 HARDWARE : STAINLESS STEEL ROLLERS & LOCKS, PVC GUIDE RUBBER STOPPER, FLEXIBLE GLASS RUBBER AND SMOOTH SECTION BRUSH OF BEST QUALITY, STAINLESS STEEL SCREW, PVC FITTER FOR SCREWS

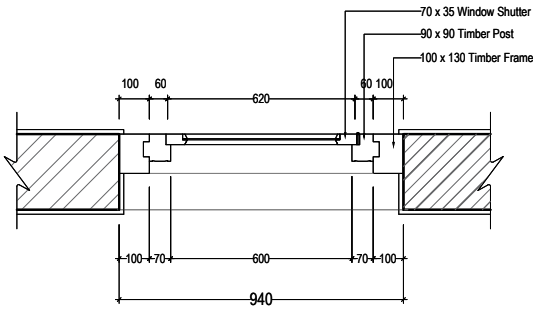
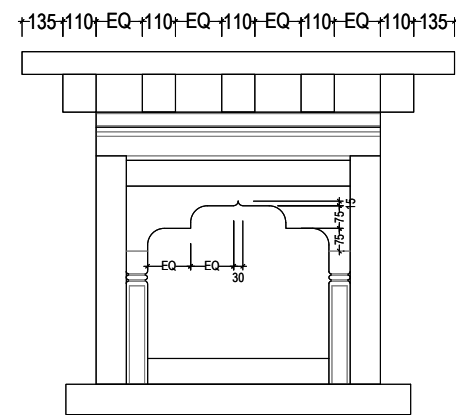
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	G+1 FARMER'S HOSTEL ARDC, WANGDUE	WINDOW DETAILS	VILLAGE: BAJO GEWOG: THEDISHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:		1:50	ARCHITECT: MAITY BISWA CDB REG. NO.: BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023



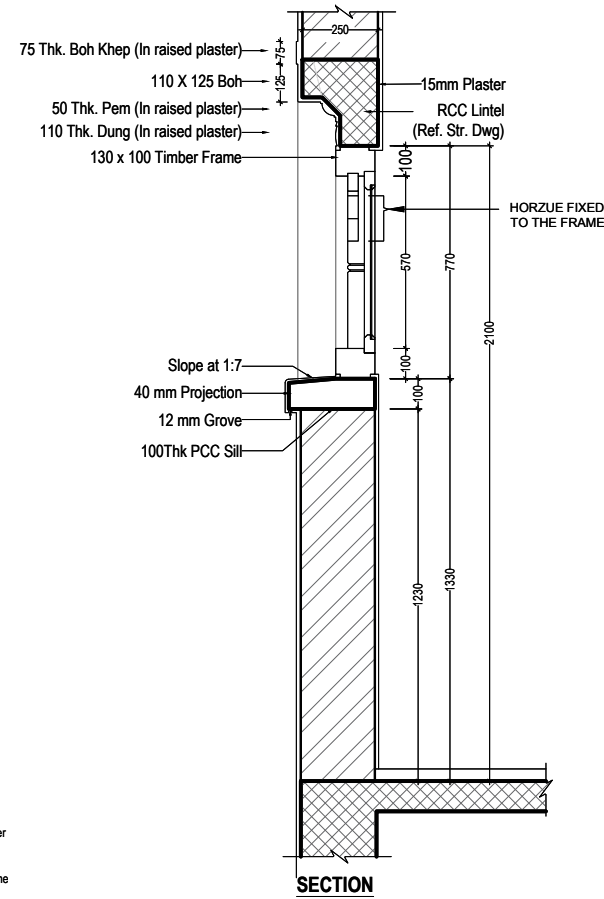
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**W5**



**SECTION**



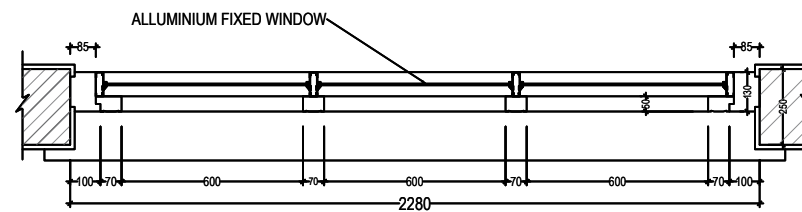
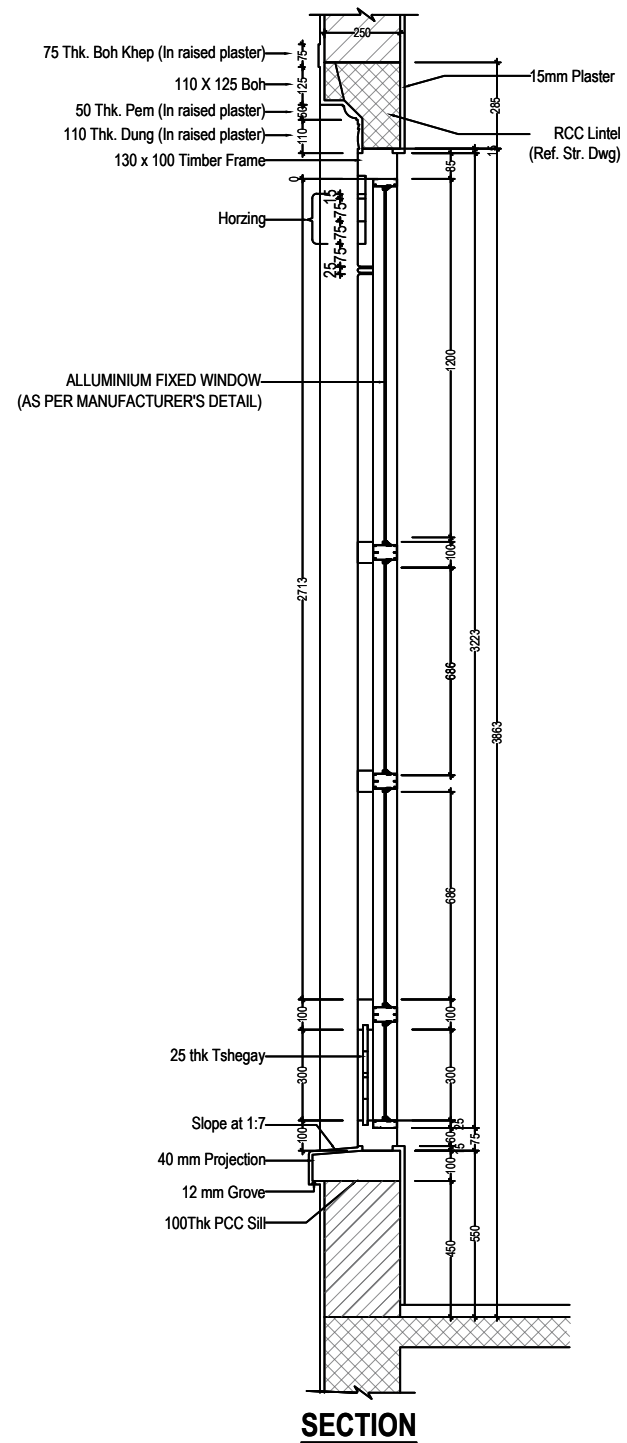
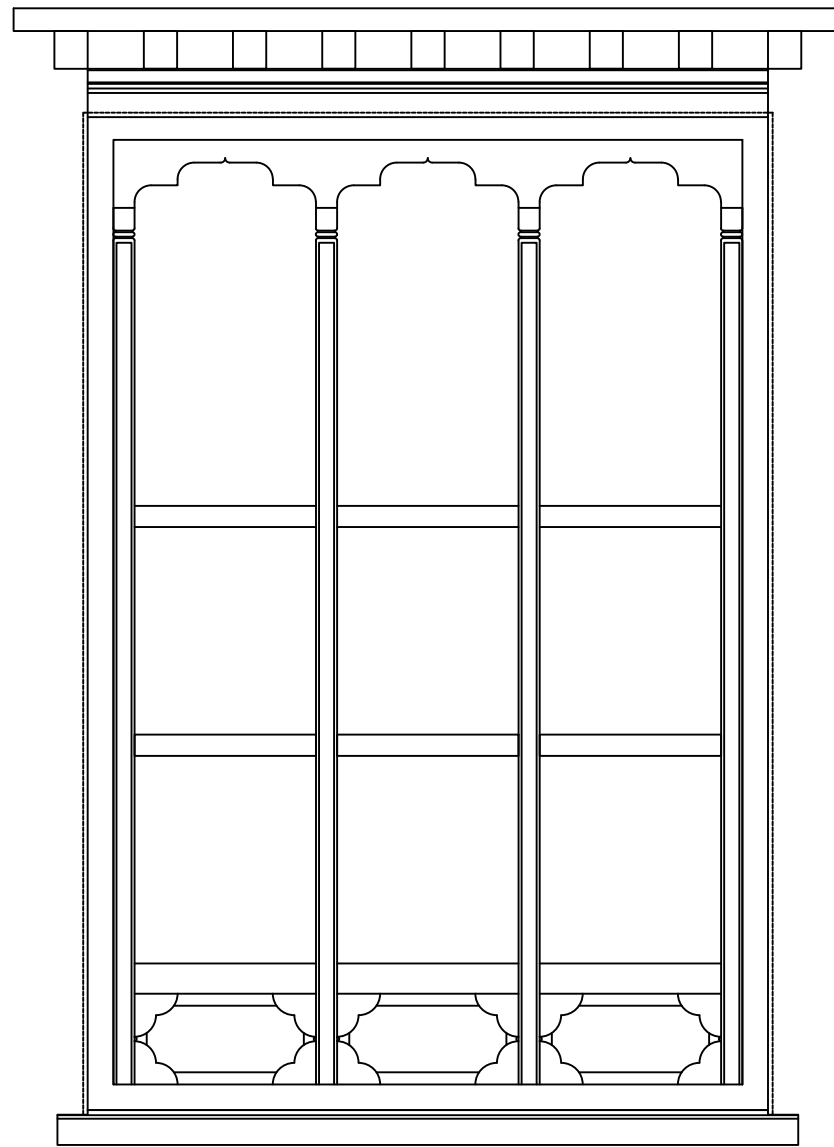
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**V1**



**SECTION**

	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	SCALE:	<small>NOTES:</small> -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY: (REeC,Punakha)	CHECKED BY:	DATE:	SHEET NO.
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	WINDOW DETAILS	VILLAGE: BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:		1:50	ARCHITECT: MAITY BISWA CDB REG. NO.: BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023





GENERAL MATERIAL, FINISHING & HARDWARE SCHEDULE FOR ALUMINIUM ALLOY WINDOWS

MATERIAL : ALUMINIUM ALLOY FRAMES & SHUTTER, 6MM THK. CLEAR GLASS  
 FINISHING : ALUMINIUM ALLOY FRAMES & SHUTTERS WITH ELECTROPHORETIC COATING / PLAIN 20 MICRON ANODIZED  
 HARDWARE : STAINLESS STEEL ROLLERS & LOCKS, PVC GUIDE RUBBER STOPPER, FLEXIBLE GLASS RUBBER AND SMOOTH SECTION BRUSH OF BEST QUALITY, STAINLESS STEEL SCREW, PVC FITTER FOR SCREWS

W6



PROJECT TITLE:  
**G+1 FARMER'S HOSTEL ARDC,  
 WANGDUE**

DRAWING TITLE:  
**WINDOW DETAILS**

LOCATION:  
 VILLAGE: BAJO  
 GEWOG: THEDISHO  
 WANGDUE PHODRANG

PLOT NO.:  
 THARM NO.:

SCALE  
 1:50

NOTES:  
 -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE  
 -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE  
 -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF  
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 -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING

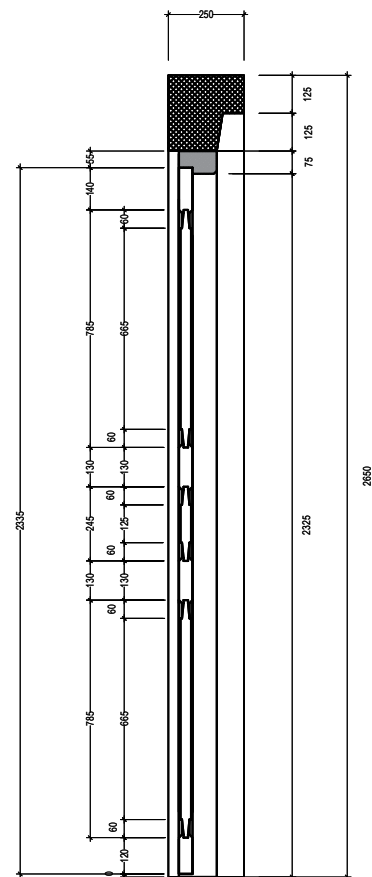
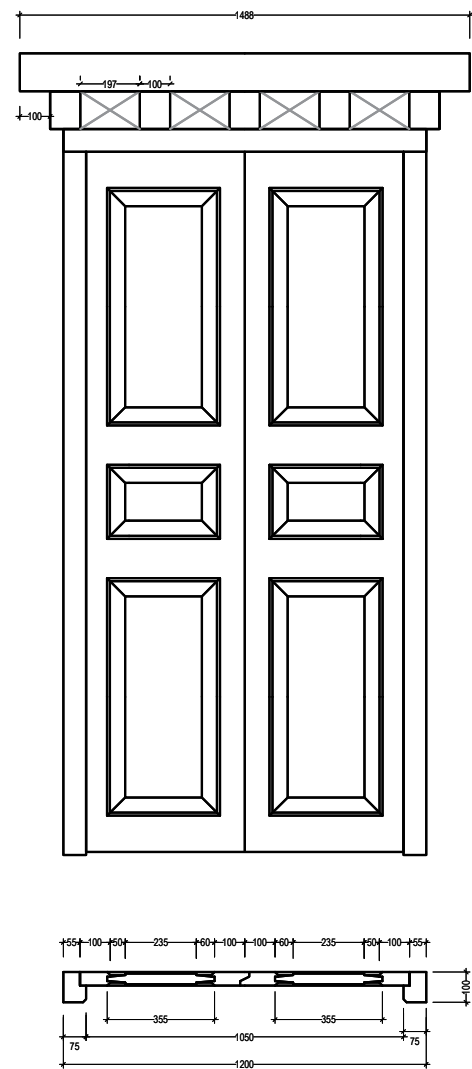
DESIGNED BY (REeC,Punakha)  
 ARCHITECT:MAITY BISWA  
 CDB REG. NO.:BA-271(G)

CHECKED BY:  
 CDE : PARSURAM RAI

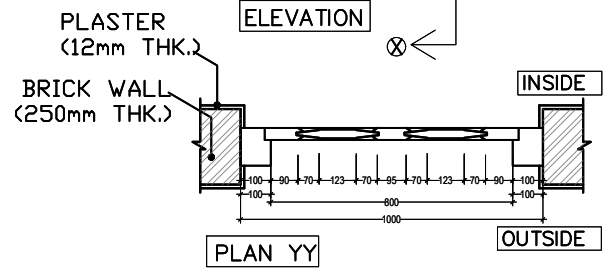
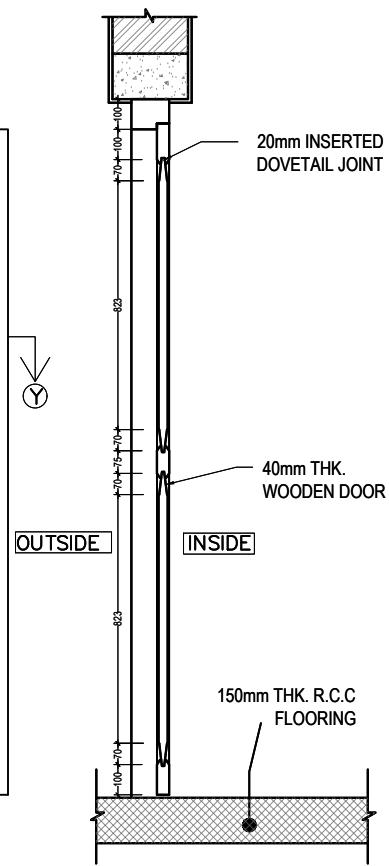
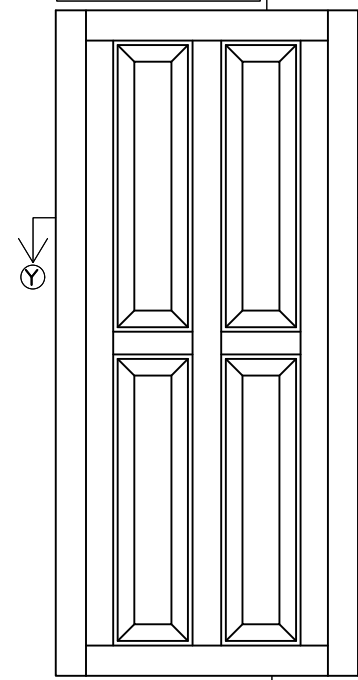
DATE:  
 AUGUST, 2023

SHEET NO.  
**AR/11**

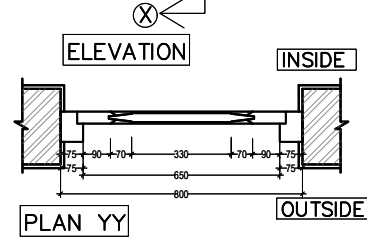
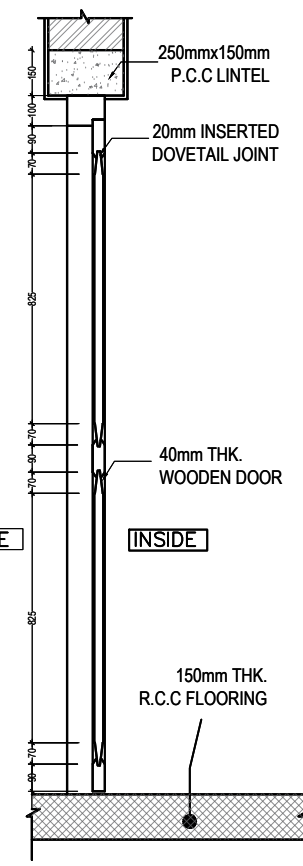
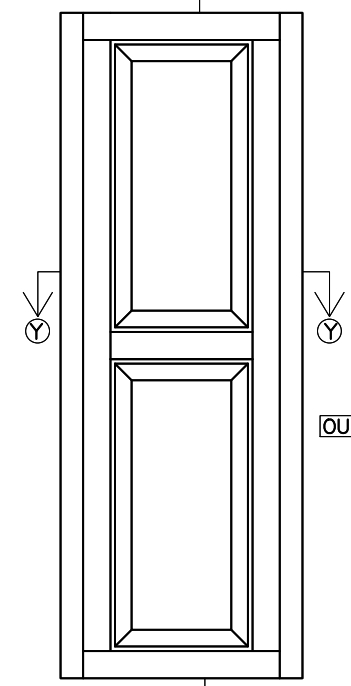
D01 DETAIL



D12 DETAIL

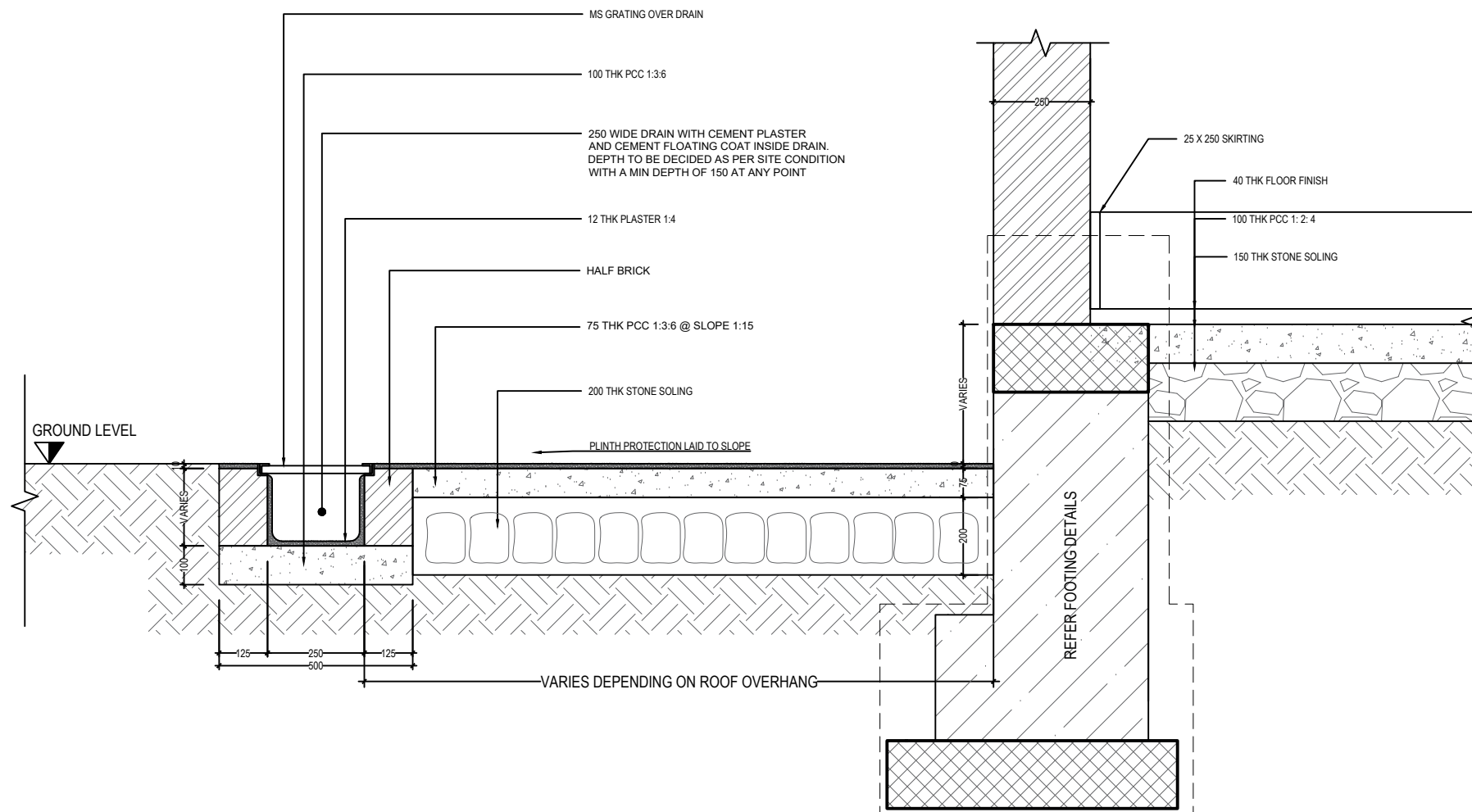
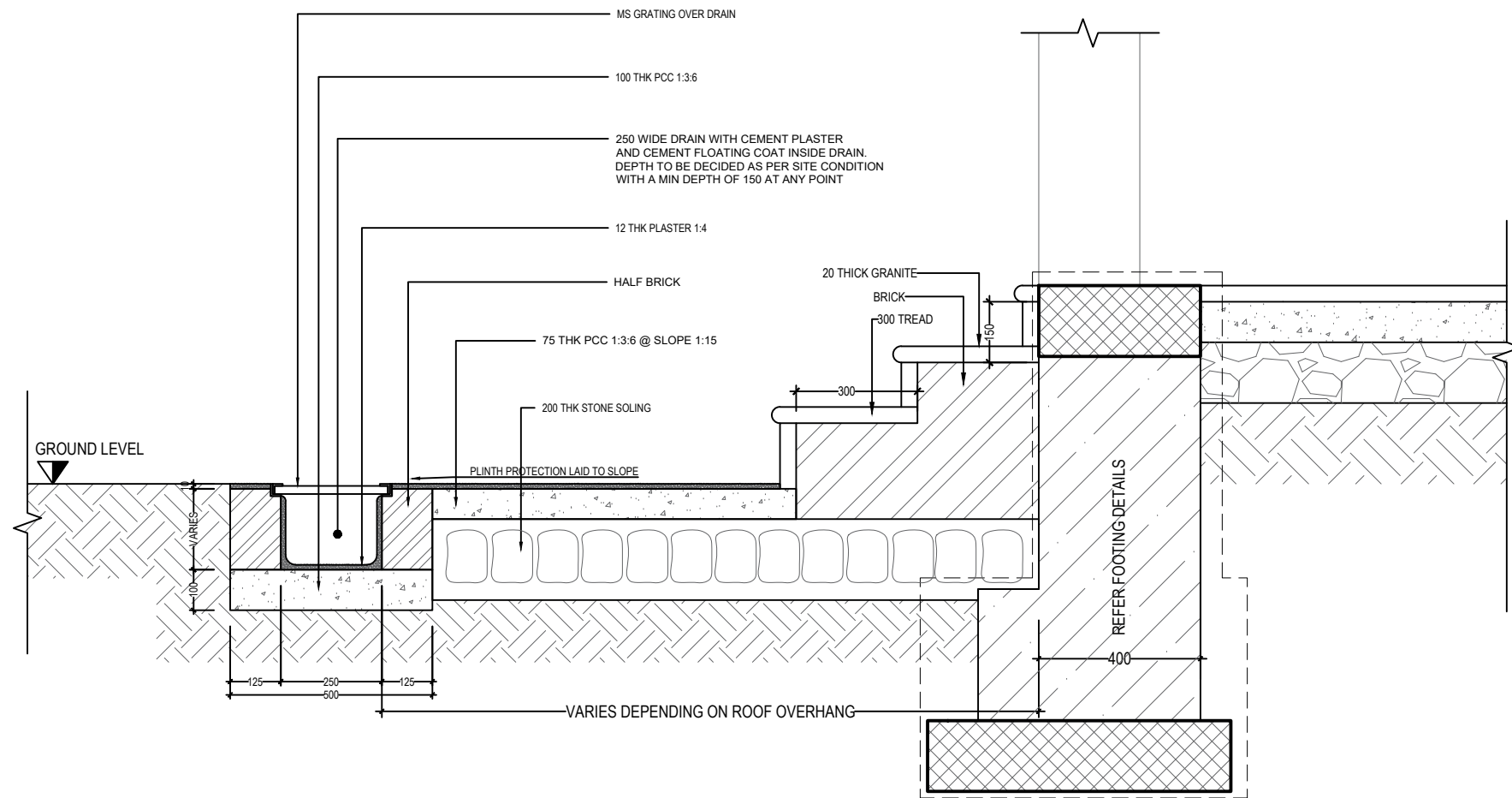


D13 DETAIL



NOTES:  
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 -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING

	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	SCALE:	DESIGNED BY (REc,Punakha)	CHECKED BY:	DATE:	SHEET NO.
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	DOOR DETAILS	VILLAGE:BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	1:50	ARCHITECT:MAITY BISWA CDB REG. NO.:BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023	AR/12



PROJECT TITLE:  
G+1 FARMER'S HOSTEL ARDC,  
WANGDUE

DRAWING TITLE:  
PLINTH PROTECTION  
DETAILS

LOCATION:  
VILLAGE: BAJO  
GEWOG: THEDISHO  
WANGDUE PHODRANG

PLOT NO.:  
THARM NO.:

SCALE  
1:50

NOTES:  
-ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE  
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-MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING

DESIGNED BY (REeC,Punakha)  
ARCHITECT:MAITY BISWA  
CDB REG. NO.:BA-271(G)

CHECKED BY:  
CDE : PARSURAM RAI

DATE:  
AUGUST, 2023

SHEET NO.  
AR/14





དབལ་ཕྱན་འབྲུག་གཞུང་།  
གཞི་རྟེན་མཁོ་ཆས་ དང་སྐྱེལ་འདྲེན་ལྷན་ཁག།  
ལྷང་ཕྱོགས་བཟོ་རིག་ཕྱོགས་སློབ་ཡིག་ཚང་།  
ROYAL GOVERNMENT OF BHUTAN  
MINISTRY OF INFRASTRUCTURE AND TRANSPORT  
DEPARTMENT OF INFRASTRUCTURE DEVELOPMENT  
Regional Engineering Cluster, Punakha

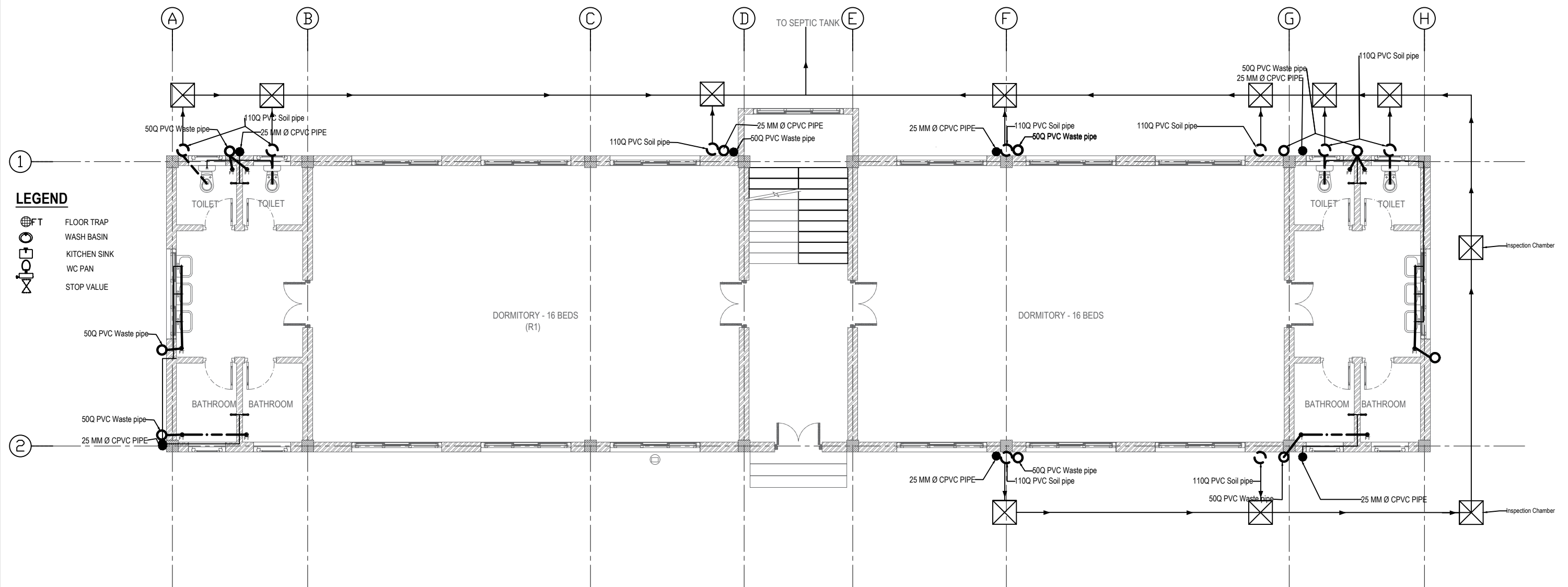


# PLUMBING DRAWINGS

**PROJECT TITLE: G+1 FARMER'S HOSTEL  
BAJO, THEDTSHO, WANGDUE PHODRANG**

DESIGNED BY:- AR. MAITY BISWA

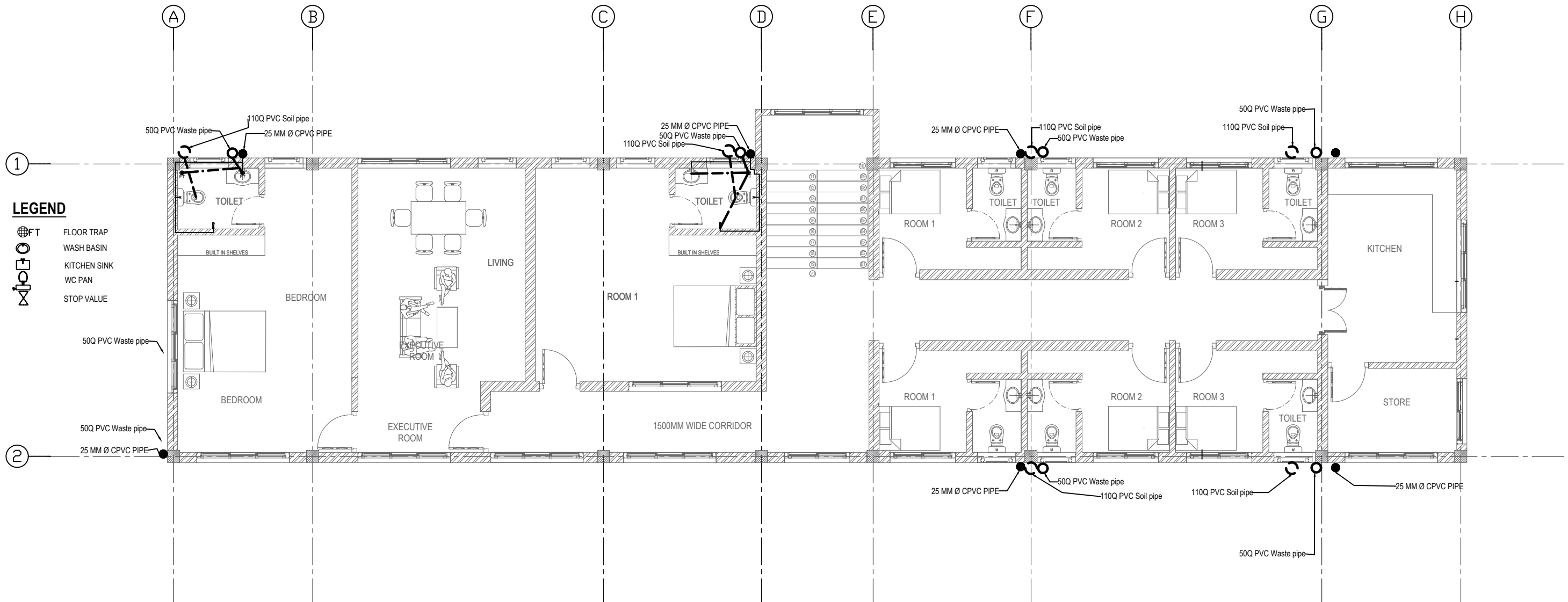
CDB REG. NO.:BA-271(G)



**LEGEND**

- FLOOR TRAP
- WASH BASIN
- KITCHEN SINK
- WC PAN
- STOP VALVE


	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	PLOT NO.:	SCALE:	<small>NOTES:</small> -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY (REeC,Punakha)	CHECKED BY:	DATE:	SHEET NO.
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	WATER & SEWERAGE PLAN GROUND FLOOR PLAN	VILLAGE: BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	THARM NO.:	1:50		ARCHITECT: MAITY BISWA CDB REG. NO.: BA-271(G)	CDE : PARSURAM RAI	AUGUST, 2023	SW/01

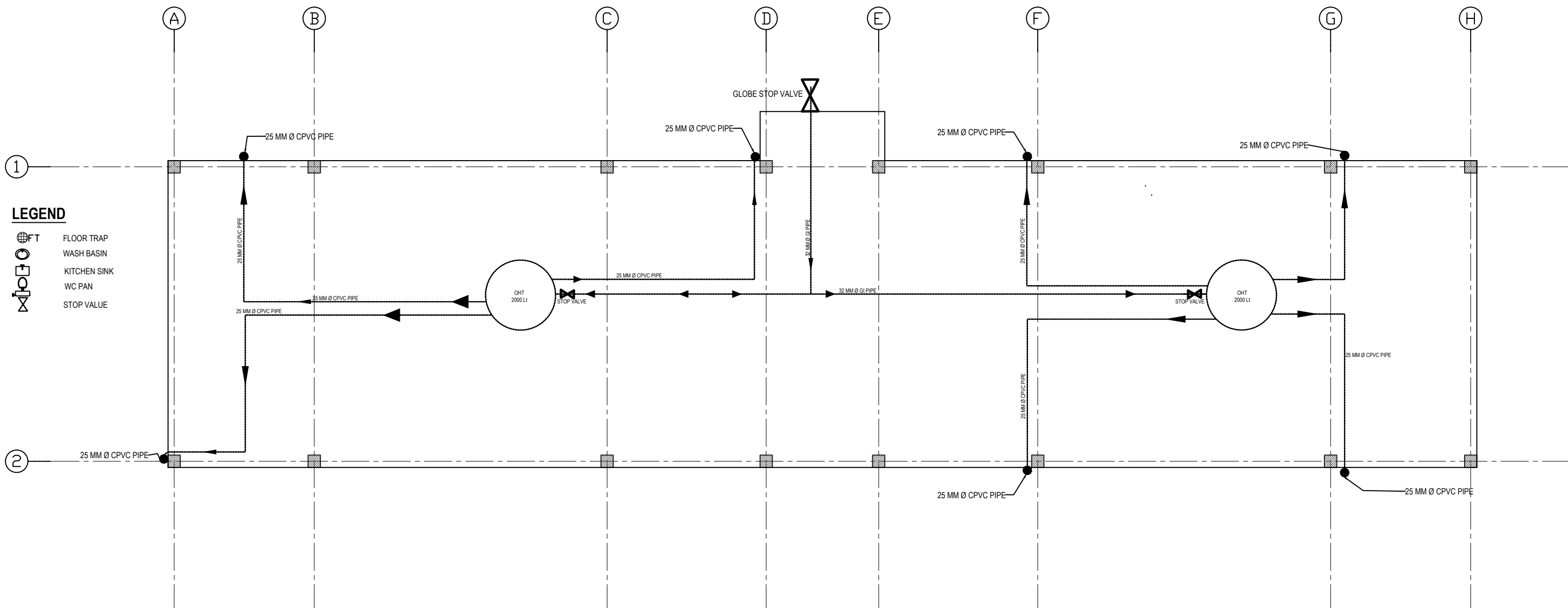


**LEGEND**

-  FLOOR TRAP
-  WASH BASIN
-  KITCHEN SINK
-  WC PAN
-  STOP VALUE

NOTES:  
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	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	SCALE	DESIGNED BY (REeC,Punakha) ARCHITECT:MAITY BISWA CDB REG. NO.:BA-271(G)	CHECKED BY: CDE : PARSURAM RAI	DATE: AUGUST, 2023	SHEET NO. SW/02
	G+1 FARMER'S HOSTEL ARDC, WANGDUE	WATER & SEWERAGE PLAN FIRST FLOOR PLAN	VILLAGE:BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:				

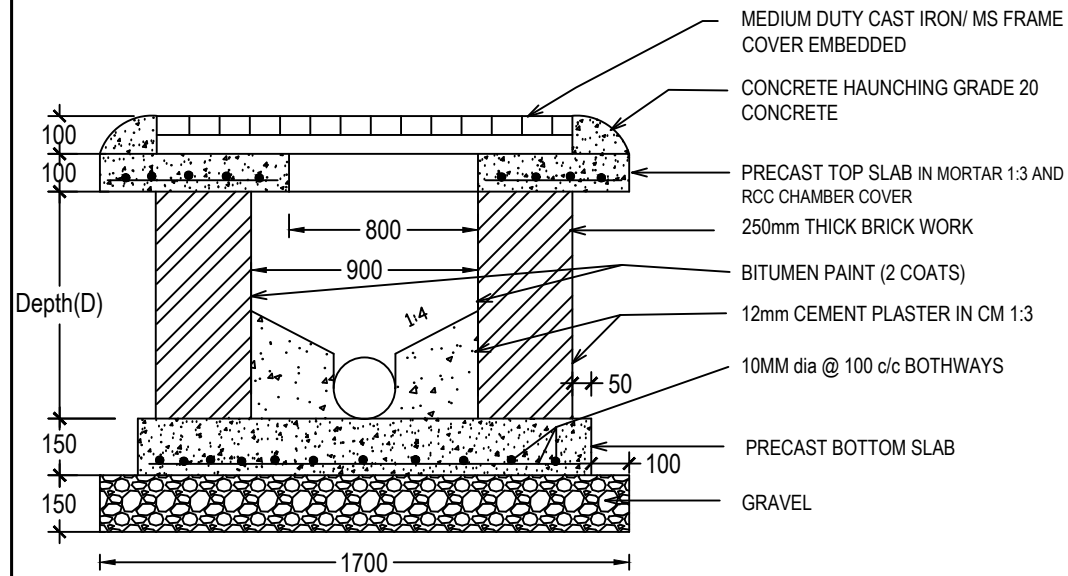


- LEGEND**
- FLOOR TRAP
  - WASH BASIN
  - KITCHEN SINK
  - WC PAN
  - STOP VALVE

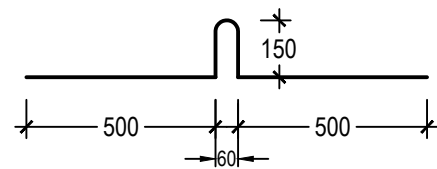
NOTES:  
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	PROJECT TITLE:	DRAWING TITLE:	LOCATION:	PLOT NO.:	SCALE	DESIGNED BY (REeC,Punakha) ARCHITECT:MAITY BISWA CDB REG. NO.:BA-271(G)	CHECKED BY: CDE : PARSURAM RAI	DATE: AUGUST, 2023	SHEET NO. <b>SW/03</b>
	<b>G+1 FARMER'S HOSTEL ARDC, WANGDUE</b>	<b>WATER &amp; SEWERAGE PLAN ROOF FLOOR PLAN</b>	VILLAGE:BAJO GEWOG: THEDTSHO WANGDUE PHODRANG	THARM NO.:	1:50				



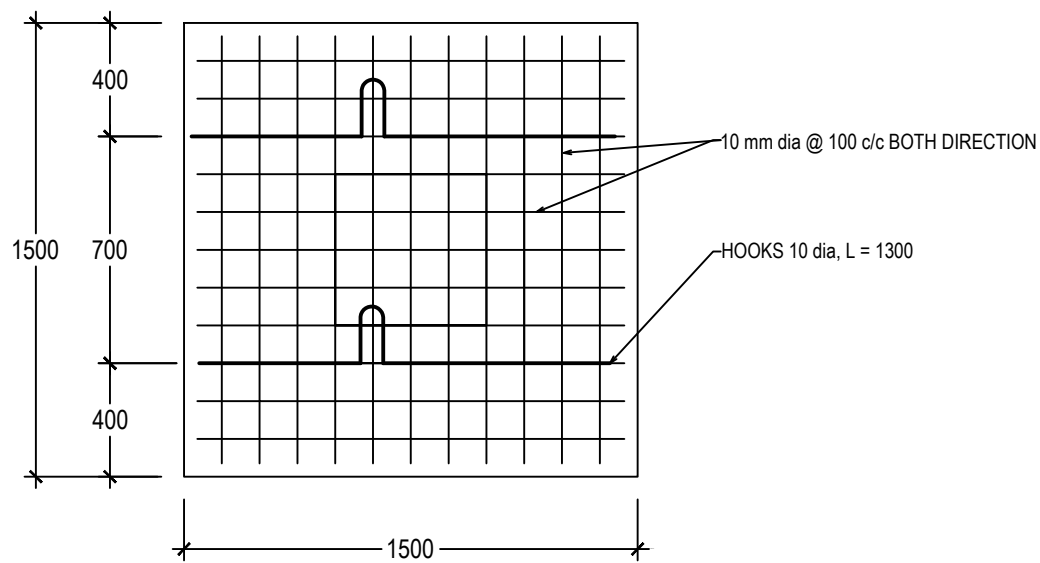


**INSPECTION CHAMBER - SECTION**

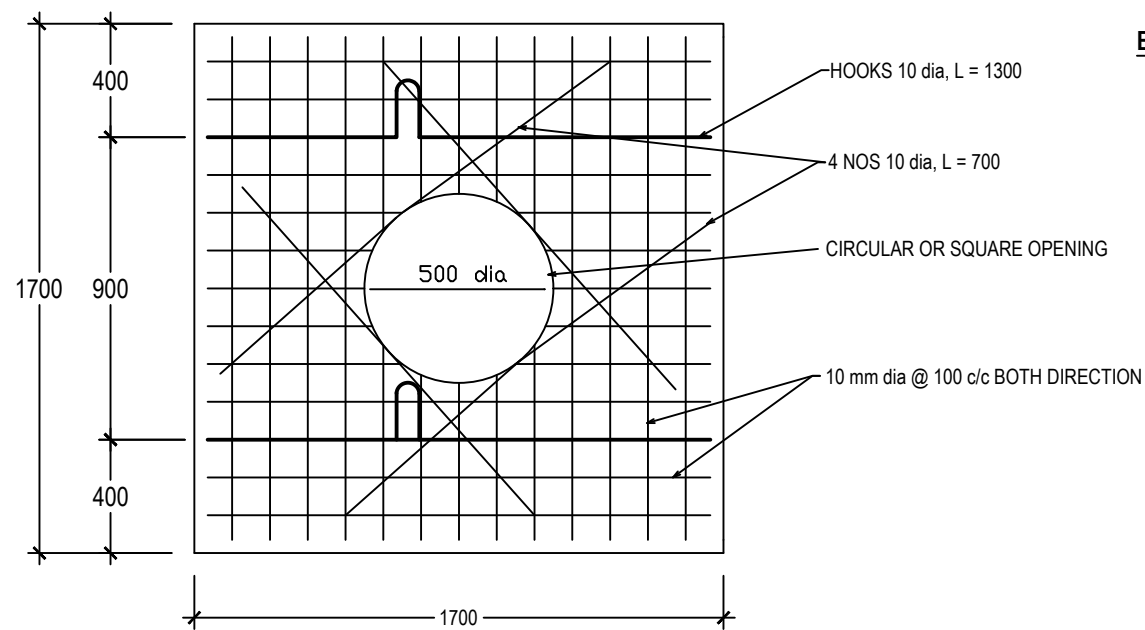


**Note: -**

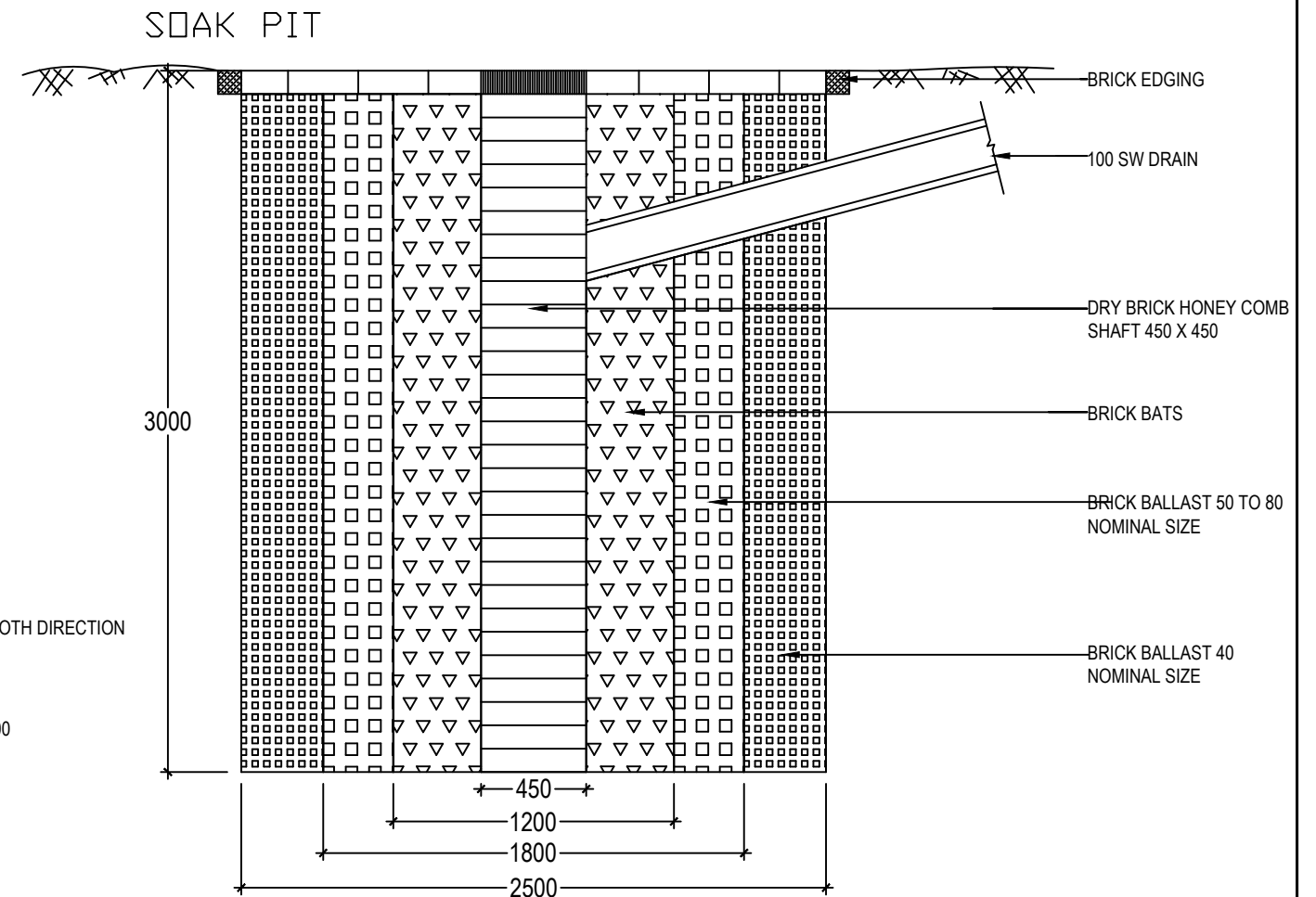
THE DEPTH (D) OF THE FIRST INSPECTION CHAMBER SHALL BE 600 MM, AND THE INSPECTION CHAMBERS FOLLOWING AFTER IT SHALL HAVE DEPTH VARYING AT A GIVEN SLOPE OF 1:50



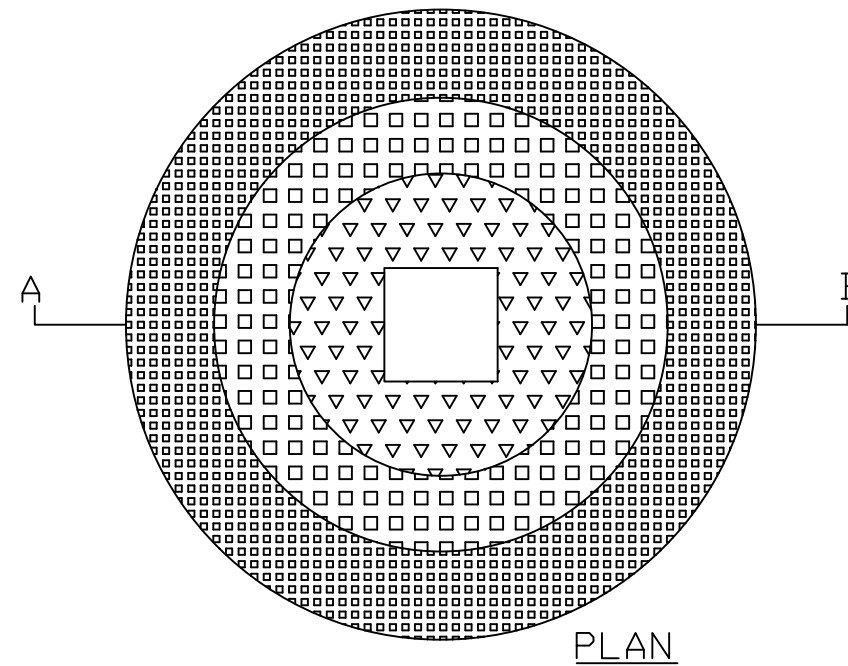
**BOTTOM SLAB**



**TOP SLAB, GRADE 20**



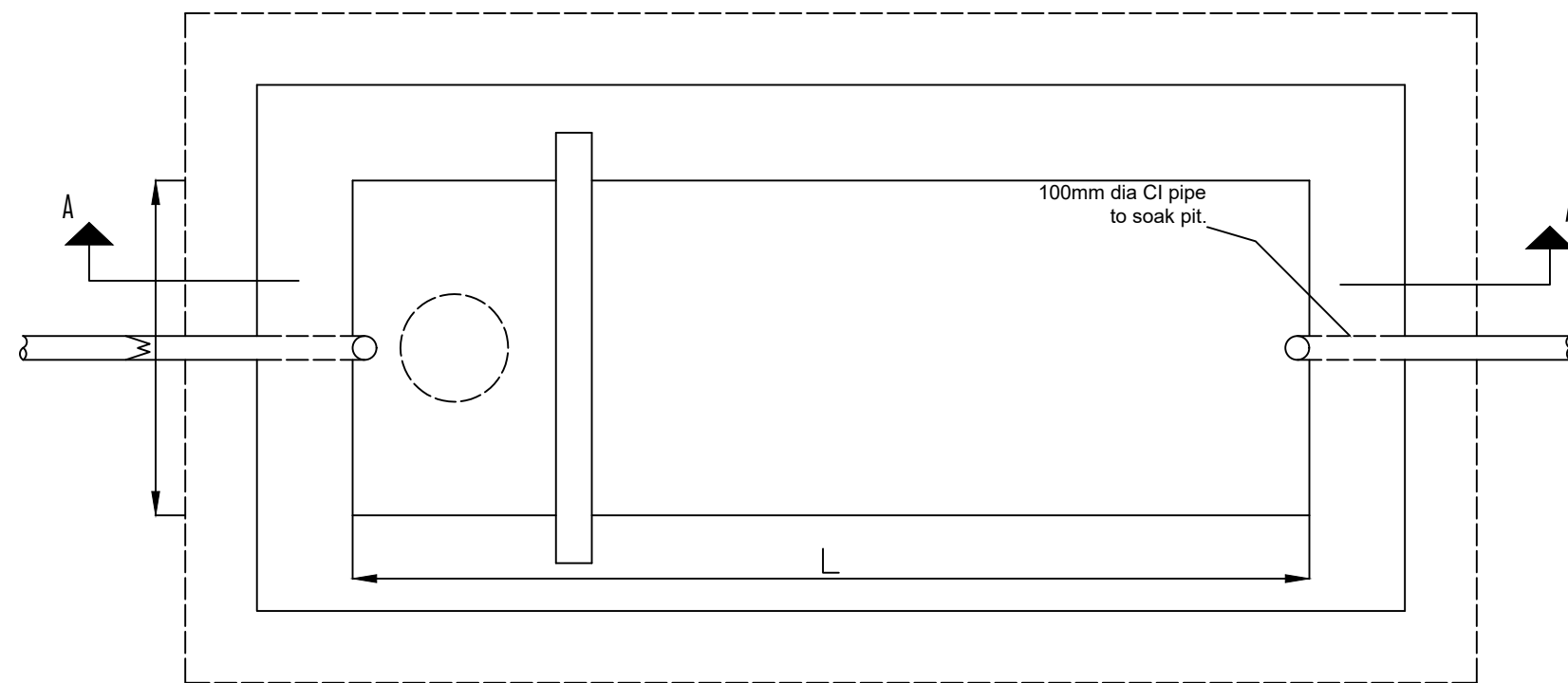
**SECTION A-B**



**PLAN**

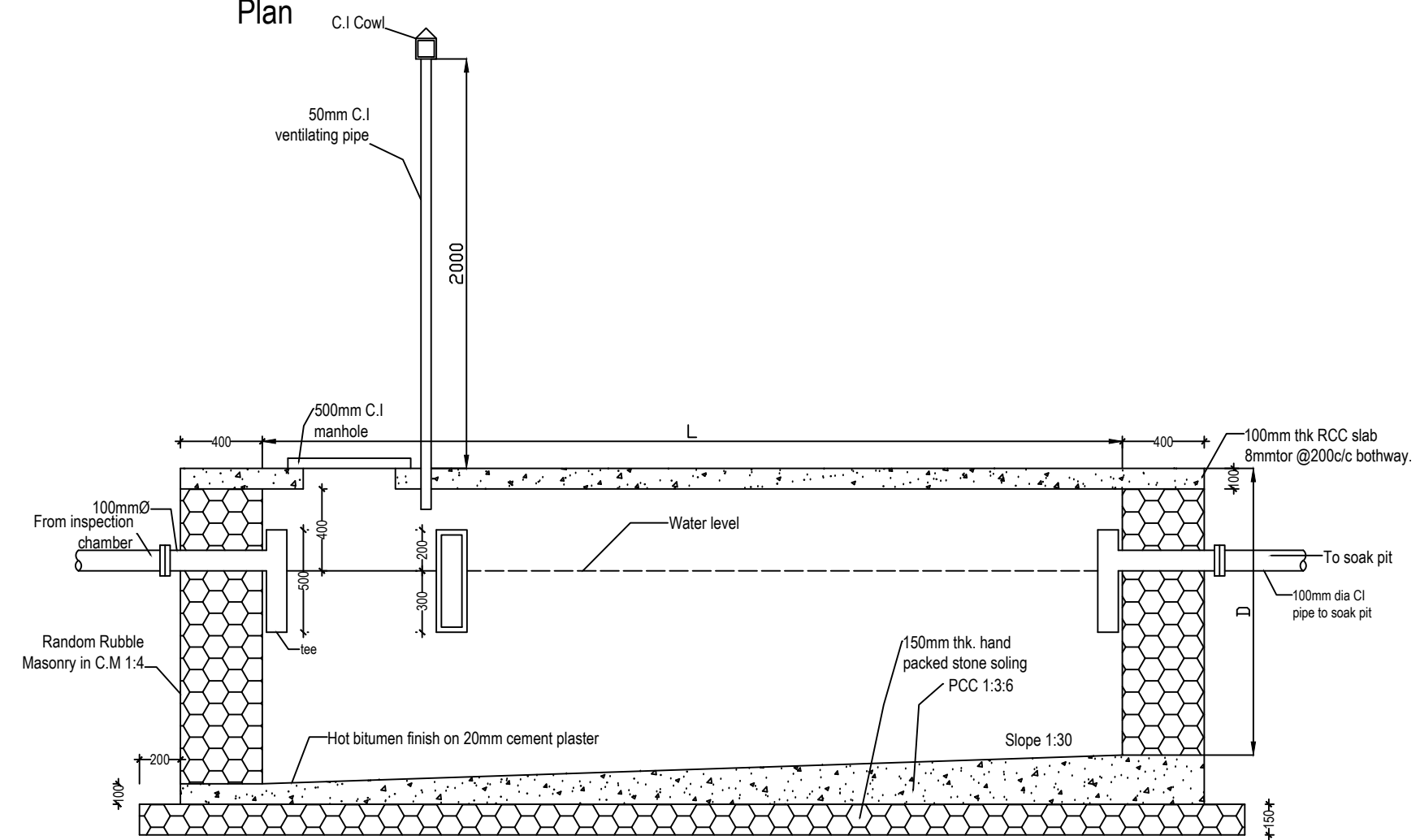


PROJECT TITLE: <b>G+1 FARMER'S HOSTEL ARDC, WANGDUE</b>	DRAWING TITLE: <b>SOAK PIT AND IC DETAILS</b>	LOCATION: VILLAGE:BAJO GEWOG: THEDISHO WANGDUE PHODRANG	PLOT NO.: THARM NO.:	SCALE: 1:50	NOTES: -ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF -ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE CONSULTANTS SUPERVISION TEAM -MINOR ADJUSTMENTS NEED TO BE CARRIED OUT ON SITE TO MATCH WITH EXISTING BUILDING	DESIGNED BY (REeC,Punakha) ARCHITECT:MAITY BISWA CDB REG. NO.:BA-271(G)	CHECKED BY: CDE : PARSURAM RAI	DATE: AUGUST, 2023	SHEET NO. <b>SW/04</b>
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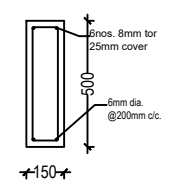


No of use	Length(m) L	Width(m) W	Liquid Depth(m) D
5	1.5	0.75	1.0
10	2.0	0.90	1.0
15	2.0	0.90	1.30
20	2.3	1.10	1.30
50	4.0	1.40	1.30
150	7.70	2.40	1.40

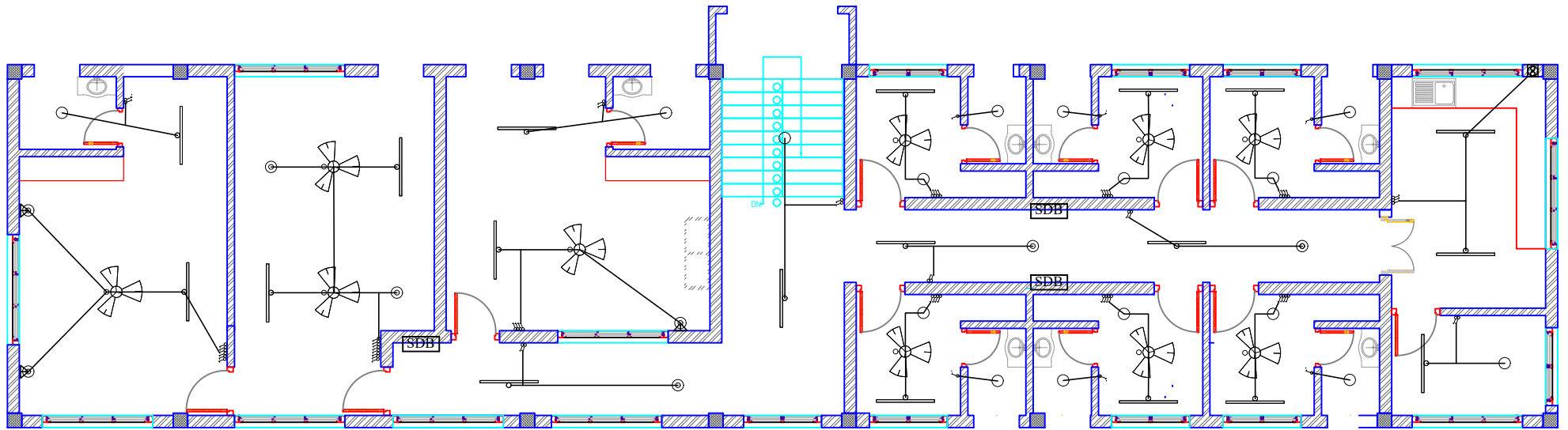
Plan



Long section of septic tank on A-A

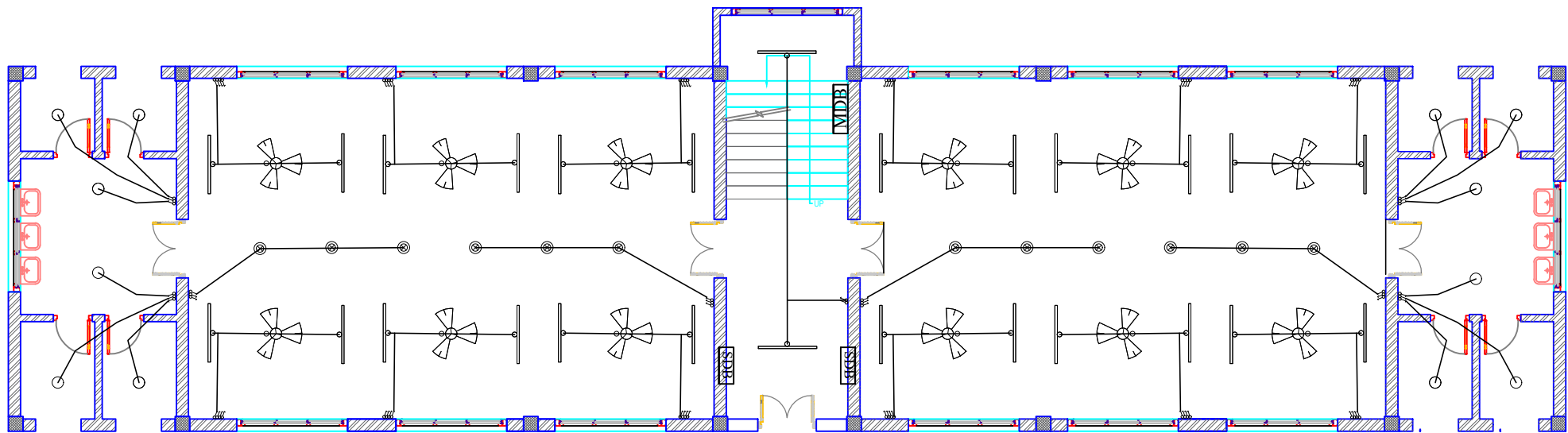


RCC Baffle Wall



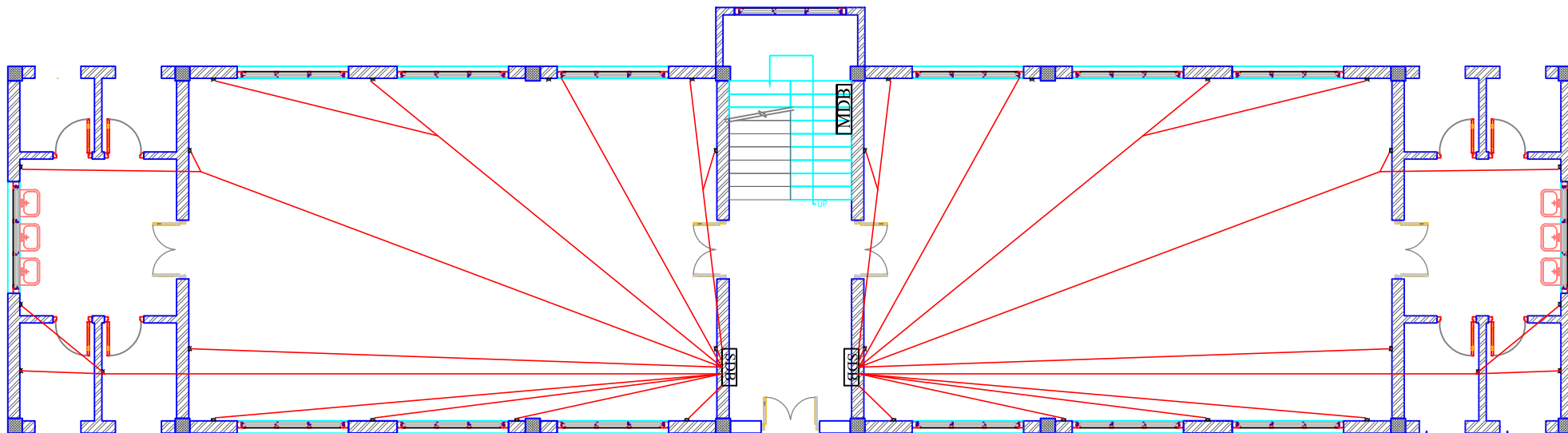
## Conduit Layout Plan for Lighting Circuit(First Floor)

ROYAL GOVERNMENT OF BHUTAN  DZONGKHAG ADMINISTRATION WANGDUEPHODRANG	<b>Project Name : Electrification of Farmers Hostel</b>		Drawing No. :
	Scale: 1:1	Drawn By: Tshering Wangdi, AE	
	All measurements are in mm.	Checked & Approved By: Chief Dzongkhag Engineer	



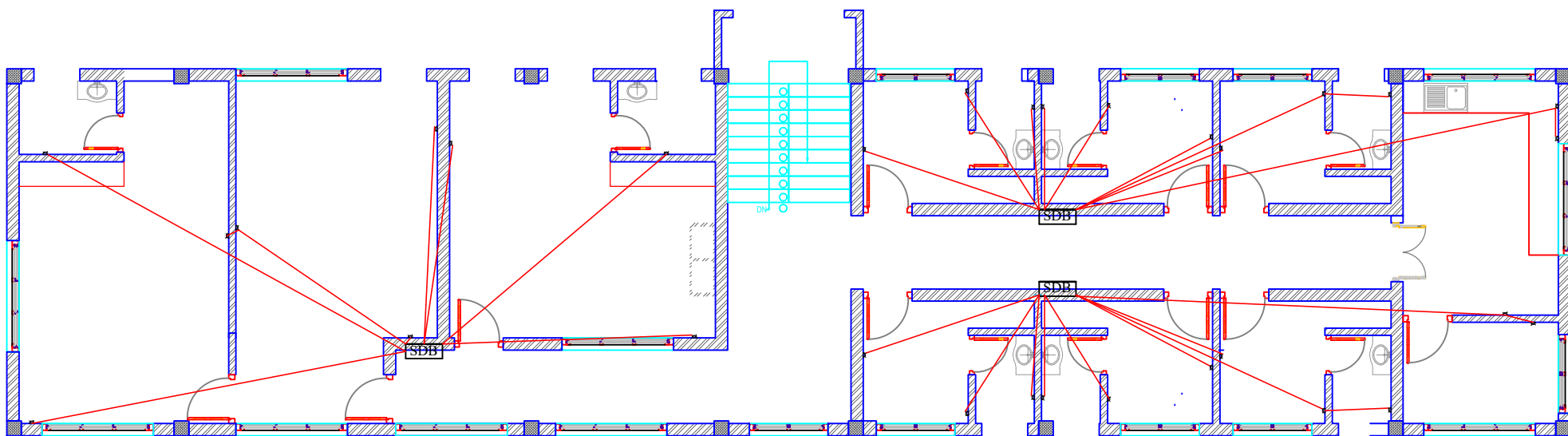
**Conduit Layout Plan for Lighting Circuit(Ground Floor)**

ROYAL GOVERNMENT OF BHUTAN DZONGKHAG ADMINISTRATION WANGDUEPHODRANG	<b>Project Name : Electrification of Farmers Hostel</b>		Drawing No. :
	Scale: 1:1	Drawn By: Tshering Wangdi, AE	
	All measurements are in mm.	Checked & Approved By: Chief Dzongkhag Engineer	



## Conduit Layout Plan for Power Circuit(Ground Floor)

ROYAL GOVERNMENT OF BHUTAN  DZONGKHAG ADMINISTRATION WANGDUEPHODRANG	<b>Project Name : Electrification of Farmers Hostel</b>		Drawing No. :
	Scale: 1:1	Drawn By: Tshering Wangdi, AE	
	All measurements are in mm.	Checked & Approved By: Chief Dzongkhag Engineer	



## Conduit Layout Plan for Power Circuit(First Floor)

ROYAL GOVERNMENT OF BHUTAN  DZONGKHAG ADMINISTRATION WANGDUEPHODRANG	<b>Project Name : Electrification of Farmers Hostel</b>		Drawing No. :
	Scale: 1:1	Drawn By: Tshering Wangdi, AE	
	All measurements are in mm.	Checked & Approved By: Chief Dzongkhag Engineer	

# STRUCTURAL DRAWING FOR CONSTRUCTION OF G+1

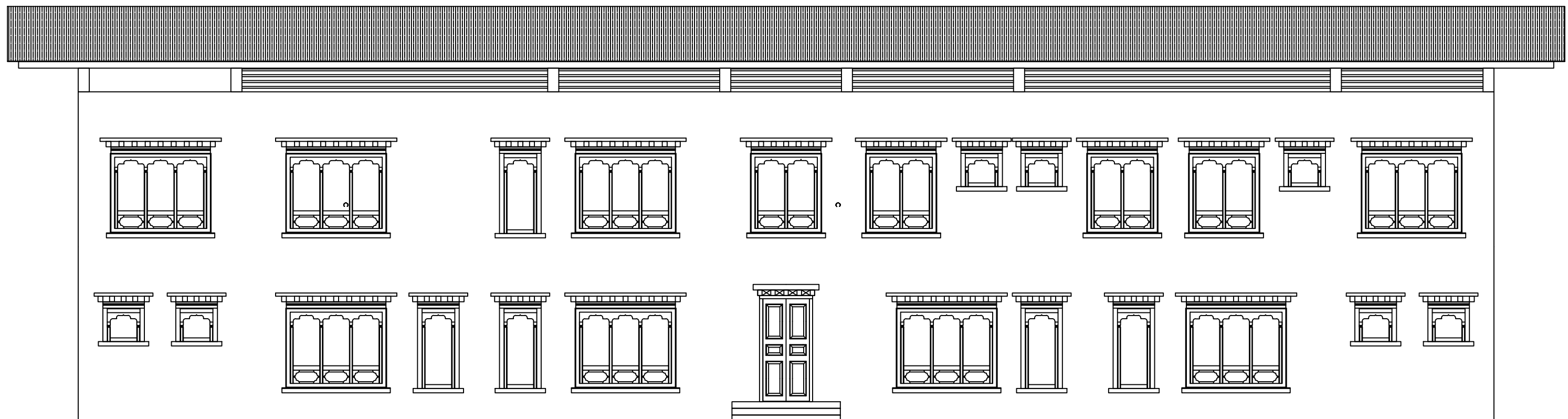
## FARMER HOSTEL BUILDIN

PLOT NO-

THRAM NO-

LOCATION:

OWNER:



## A. GENERAL

1. READ THIS DRAWINGS IN CONJUNCTION WITH ARCHITECTS' AND OTHER ENGINEERS' DRAWINGS AND SPECIFICATIONS, AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.
2. ALL DIMENSIONS ARE IN MILLIMETER UNLESS STATED OTHERWISE.
3. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
4. DESIGN CONFORMS TO:
  - IS456:2000 CODE OF PRACTICE FOR PLAIN AND REINFORCED CONCRETE
  - IS4326:1993 EARTHQUAKE RESISTANT DESIGN AND CONSTRUCTION OF BUILDINGS
  - IS13920:2016 DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES
  - IS1893:2016 IMPORTANCE FACTOR OF 1.0 & ZONE FACTOR 0.36. PSEUDO STATIC ANALYSIS PERFORMED.
5. VERIFY ALL SETTING OUT DIMENSIONS WITH THE ENGINEER/ARCHITECT. VERIFY LOCATION AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, WASHES, DRIPS, DEPRESSIONS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
6. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING WITH THE WORK.
7. ALL CONSTRUCTION MATERIALS AND 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. CHECK ALL DIMENSIONS BEFORE STARTING WORK.
9. ALWAYS REFER ADDITIONAL NOTES PROVIDED IN THE DRAWINGS.
10. UNLESS OTHERWISE INDICATED, DETAILS SHOWN ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS.
11. NO FRAMING OR STRUCTURAL MEMBERS ARE TO BE MODIFIED, NOTCHED, OR CUT WITHOUT THE APPROVAL OF THE PROJECT ENGINEER.
12. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE CONTRACT DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER BEFORE PROCEEDING WITH THE AFFECTED WORK. ANY VARIATIONS OR SUBSTITUTIONS OF MATERIALS OR DETAILS FROM THOSE INDICATED ON THE DRAWINGS MAY ONLY BE MADE WITH PRIOR APPROVAL OF THE PROJECT ENGINEER.

## B. FOUNDATION

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 150KPA. ASSUMED SAFE .
2. FOUNDATION SHALL BEAR ON UNDISTURBED NATURAL MATERIAL OR PROPERLY PLACED AND COMPACTED CONTROLLED STRUCTURAL FILL HAVING A MINIMUM BEARING CAPACITY OF 150 KPA.
3. CONTROLLED STRUCTURAL FILL SHALL CONSIST OF CLEAN GRANULAR MATERIAL FREE OF ORGANIC OR OTHER DELETERIOUS MATTER AND CONFORM TO THE REQUIREMENTS OF STANDARDS AND QUALITY CONTROL AUTHORITY.
4. MASONRY WALLS IN THE FORM OF RANDOM RUBBLE MASONRY SHALL BE PROVIDED BELOW THE EXTERIOR AS WELL AS INTERIOR PLINTH BEAM.
5. FOUNDATION ARE TIED BY THE GROUND FLOOR BEAMS AT THE PLINTH LEVEL. REFER FOUNDATION DETAILS. THE FOOTING DEPTH AT THE MINIMUM HOWEVER SHALL BE NOT LESS THAN 1500 MM.
6. IF SEEPAGE IS ENCOUNTERED DURING FOUNDATION EXCAVATION, PUMP OUT WATER BEFORE PLACING CONCRETE.
7. THE FOUNDATIONS SHALL BE PLACED ON A PCC MAT 75 MM THICK OVER STONE SOLING 150 MM THICK REFER SECTIONS OF FOUNDATIONS.
8. BACKFILLING AGAINST BUILDING FOUNDATION WALLS SHALL BE DONE ONLY AFTER WALLS ARE BRACED TO PREVENT MOVEMENT.
9. CARE SHALL BE TAKEN NOT TO OVERSTRESS ANY ADJACENT RETAINING WALLS AND STRUCTURES DURING BACKFILLING AROUND FOUNDATIONS.
10. COMPACTION OF FOUNDATION SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

## C. LOADING

1. THIS STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING NOMINAL LOADS:
  - 1.1 DEAD LOADS:
 

UNIT WEIGHT OF WALL	19 KN/M3 (BRICK)
UNIT WEIGHT OF RCC	25 KN/M3
UNIT WEIGHT OF PCC	24 KN/M3
  - 1.2 SUPERIMPOSED LOADS(LIVE LOADS):
 

LIVE LOAD FOR FLOORS	3.00 KPA(COMMERCIAL) & 2 KPA(RESIDENTIAL)
LIVE LOAD FOR STAIRCASE	4.00 KPA
LIVE LOAD FOR ROOF	0.75 KPA
ROOF SNOW LOAD	NOT APPLICABLE
  - 1.3 WIND LOAD:
 

BASIC WIND SPEED (ASSUMED)	46 M/S
----------------------------	--------
  - 1.4 EARTHQUAKE DESIGN DATA
 

SEISMIC ZONE	V
IMPORTANCE FACTOR	1.0
SYSTEM	BASIC SEISMIC FORCE RESISTING SPECIAL MOMENT RESISTING FRAME
ANALYSIS PROCEDURE	PSUEDOSTATIC AS PER IS 1893:2002

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 IS456:2000
2. GRADE OF CONCRETE IS M 20 FOR ALL RCC WORKS. FOR FOOTING USE M25 CONCRETE
3. 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 165L FOR 300KG/M3 OF CEMENT.
4. ONLY POTABLE WATER SHALL BE USED FOR MIXING AND CURING, AND SHALL COMPLY TO THE REQUIREMENTS OF IS456:2000.
5. MECHANICALLY VIBRATE CONCRETE IN THE FORM TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.
6. CURE CONCRETE AS REQUIRED BY THE CLASUE 13.5 OF IS456:2000 AND WORK SPECIFICATIONS.
7. IN THE DRAWINGS THE BEAM SIZES ARE DESIGNATED WIDTH X DEPTH (INCLUDES SLAB THICKNESS IF ANY).
8. CONCRETE SIZES AS DRAWN ARE MINIMUM AND DO NOT INCLUDE APPLIED FINISHES.
9. DO NOT MAKE UNSPECIFIED HOLES OR CHASES WITHOUT ENGINEER'S PRIOR 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 CHARACTERISTIC STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 25 MPA. THE CONCRETE SHALL BE ASSESSED AS PER THE ACCEPTANCE CRITERIA OUTLINED IN CLAUSE 16 OF IS456:2000 OR ANY OTHER STATUTORY AUTHORITIES.
13. ALL FORMWORKS FOR BEAMS AND SLABS ARE TO BE REMOVED BEFORE CONSTRUCTION OF WALLS OR OTHER PERMANENT LOADINGS. ALL FORMWORK AND ITS REMOVAL MUST BE IN ACCORDANCE TO IS456:2000.

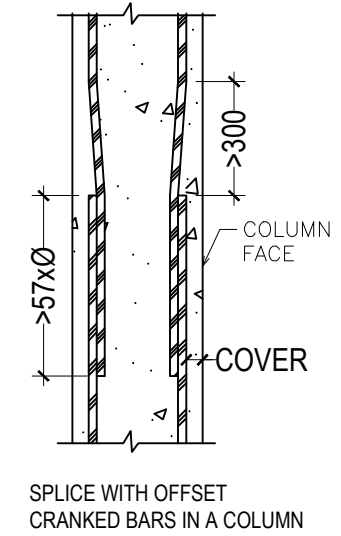
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
	NTS				ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-01



**E. REINFORCEMENT**

- GRADE OF STEEL USED FOR RCC WORKS SHALL BE Fe500(TMT). ONLY SQCA APPROVED BRANDS OF STEEL SHALL BE USED.
- BAR NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER:NUMBER OF BARS; BAR SIZE(MM); SPACING (MM, IF REQUIRED).
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- 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 57X Ø).
- REINFORCEMENT SHALL NOT BE CUT, BENT OR HEATED ON SITE WITHOUT ENGINEER'S PRIOR APPROVAL.
- THE DEVIATION OF REINFORCEMENT FROM ITS SPECIFIED POSITION SHALL NOT EXCEED THE FOLLOWING(MM):
  - TOLERANCE FOR COVER -0,+10 MM. WHERE A NEGATIVE VALUE INDICATES A DECREASE IN SPECIFIED COVER, AND POSITIVE VALUE INDICATES AN INCREASE IN COVER.
  - TOLERANCES ON PLACING OF REINFORCEMENT:
    - FOR SLABS AND STAIRCASE -10,+10MM.
    - FOR BEAMS COLUMNS AND FOUNDATION -15,+15 MM.
- 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 CONCRETE PLACEMENT WITHIN THE TOLERANCE GIVEN IN 6 ABOVE.
- THE COVER TO THE REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL NOT BE LESS THAN THE FOLLOWING EXCEPT WHERE SPECIFIED OTHERWISE:
 

BEAMS	30 MM
COLUMNS	40 MM
FLOOR SLABS AND STAIRCASE	20 MM
FOUNDATION	50 MM
- BENDING OF REINFORCEMENT IN BEAMS AND COLUMNS SHALL COMPLY WITH THE REQUIREMENTS OF IS456:2000.
- REINFORCEMENT SHALL BE SUBJECT TO LABORATORY TEST TO DETERMINE DUCTILE PROPERTY.
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER AT LEAST 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT, TO ALLOW TIME FOR INSPECTION.



**NOTES ON SPLICING OF COLUMN REINFORCEMENT:**

- NOT MORE THAN 50% OF BARS SHALL BE SPLICED AT ONE SECTION.
- REINFORCEMENT SHALL BE SPLICED ONLY AT MIDHEIGHT OF COLUMNS.
- TIE SPACING FOR FULL LENGTH OF SPLICE SHALL NOT BE GREATER THAN 125 MM C/C.
- MINIMUM SPLICE LENGTH SHALL BE 57 TIMES THE DIAMETER OF MAIN REINFORCEMENT(57XØ).
- WHERE COLUMNS ARE NOT RESTRAINED BY WALLS ON AT LEAST TWO SIDES, THEY SHALL BE PROVIDED WITH FULL CONFINING REINFORCEMENT THROUGHOUT THEIR HEIGHT.
- ANCHORAGE LENGTH SHALL BE 57 TIMES THE DIAMETER OF BAR +10 TIMES THE DIAMETER OF BAR IN ALL CASES.

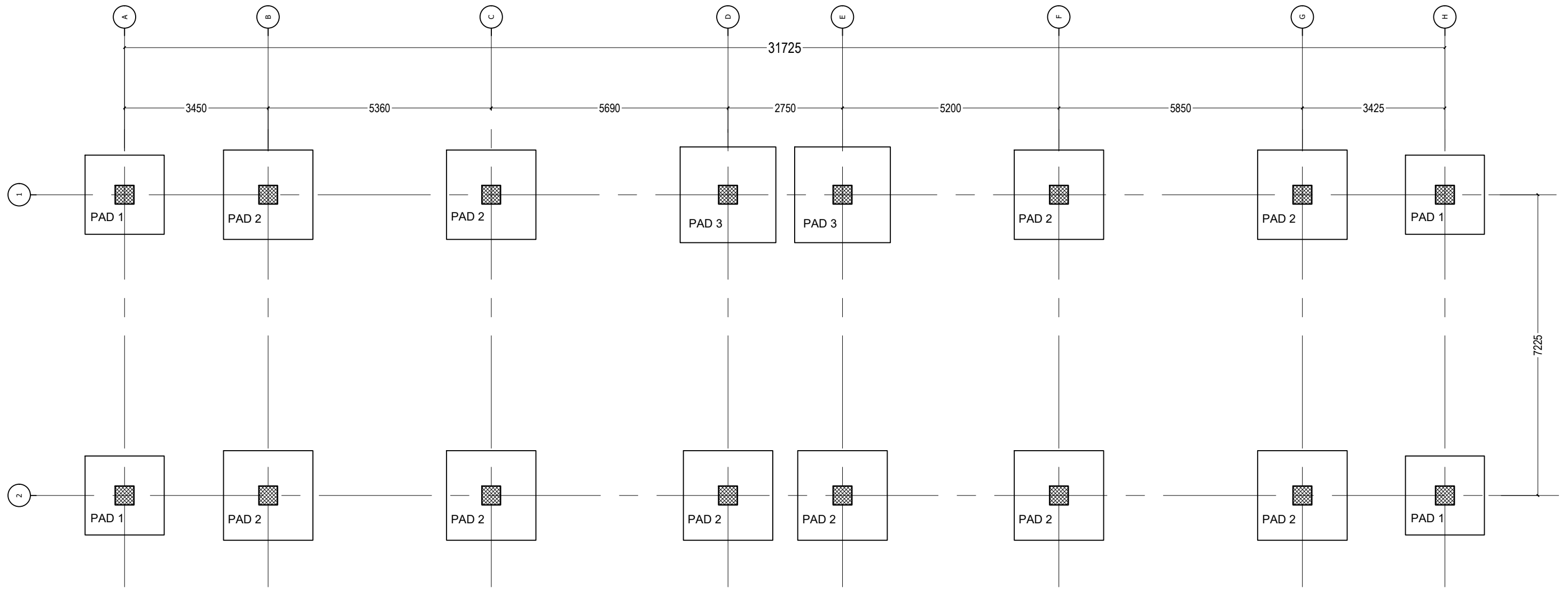
**F. TIMBER (IF USED)**

- ALL STRUCTURAL TIMBER SHALL CONFORM TO THE IS883.
- MOISTURE CONTENT OF THE STRUCTURAL TIMBER SHALL NOT EXCEED 12%.
- ALL STRUCTURAL TIMBER SHALL HAVE A MINIMUM ALLOWABLE BENDING STRESS, F<sub>b</sub>, OF 7MPA, A MINIMUM ALLOWABLE HORIZONTAL SHEAR STRESS, F<sub>v</sub>, OF 0.6MPA, A MINIMUM MODULUS OF ELASTICITY, E, OF 9800MPA, AND MAXIMUM UNIT WEIGHT OF 5.75 KN/M3.

**G. FORM WORK**

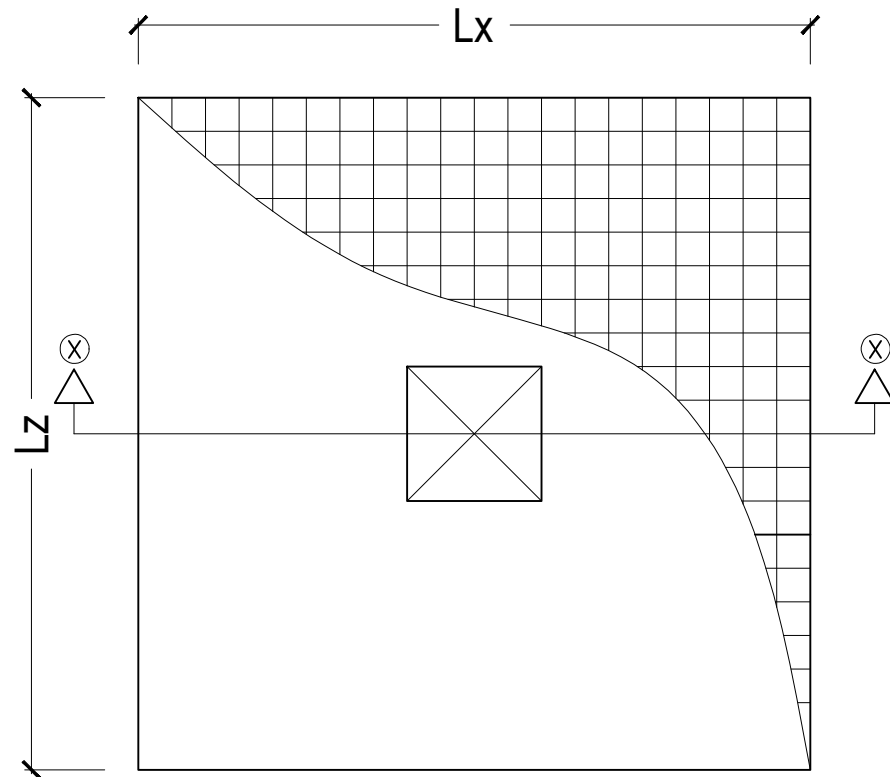
- PROPERLY BRACE AND SHORE FORM WORK TO MAINTAIN ALIGNMENT AND TOLERANCE IN ACCORDANCE WITH IS456:2000.
- FORM WORK SHALL COMPLY WITH CLAUSE 11 OF IS456:2000.
- STRIPPING OF FORM WORK SHALL COMPLY WITH CLAUSE 11.3 OF IS456:2000.

<b>PROJECT:</b>	<b>DRAWING TITLE</b>		<b>ENGINEER</b>	<b>OWNER</b>	<b>NOTES</b>	<b>DRAWING NO.</b>
	AS STATED ABOVE					
	<b>SCALE</b>	<b>DATE</b>				
	NTS				ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	<b>DWG/STR-02</b>

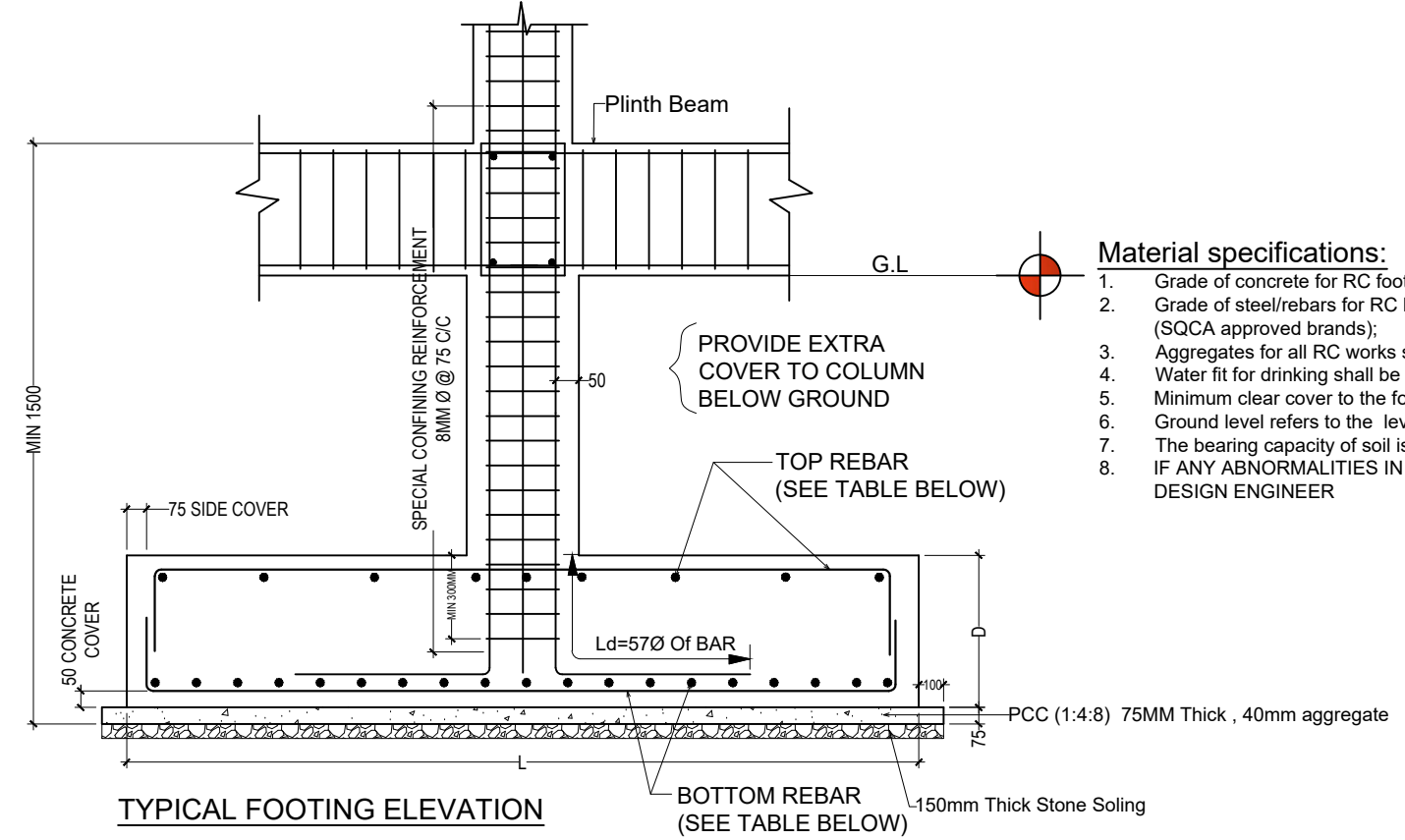


FOOTING LAYOUT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
	NTS				ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-03



TYPICAL FOOTING PLAN



TYPICAL FOOTING ELEVATION

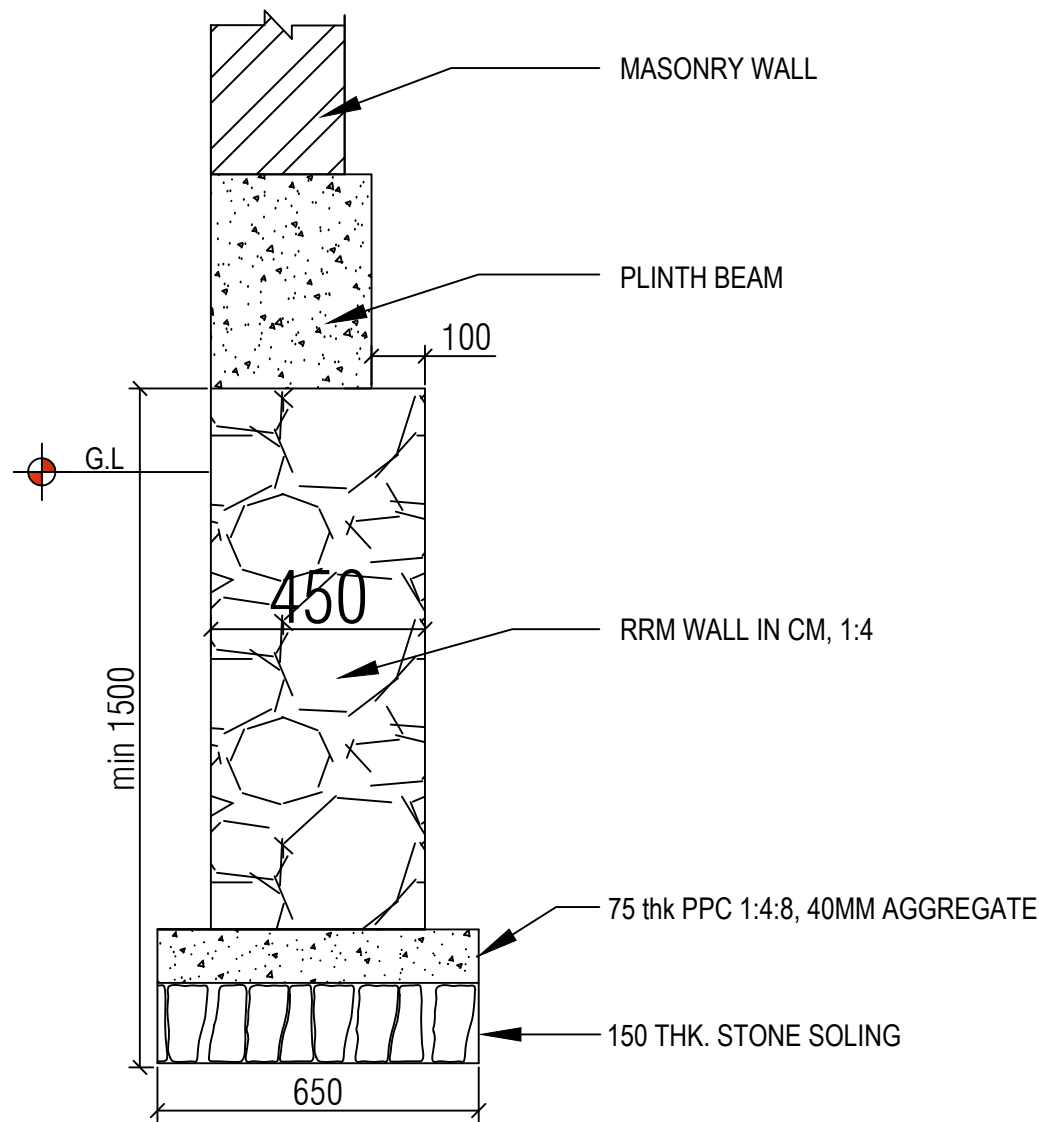
**Material specifications:**

1. Grade of concrete for RC footing works shall be...M20;
2. Grade of steel/rebars for RC beam works shall be...Fe 500 (TMT) (SQCA approved brands);
3. Aggregates for all RC works shall be of nominal size...20mm;
4. Water fit for drinking shall be used for concrete mix designs;
5. Minimum clear cover to the footing reinforcement...50 mm.
6. Ground level refers to the levelled ground after having removed all the top organic soil
7. The bearing capacity of soil is assumed as 150KN/M3 at site
8. IF ANY ABNORMALITIES IN THE SOIL CONDITION EXIST. PLEASE INFORM THE DESIGN ENGINEER

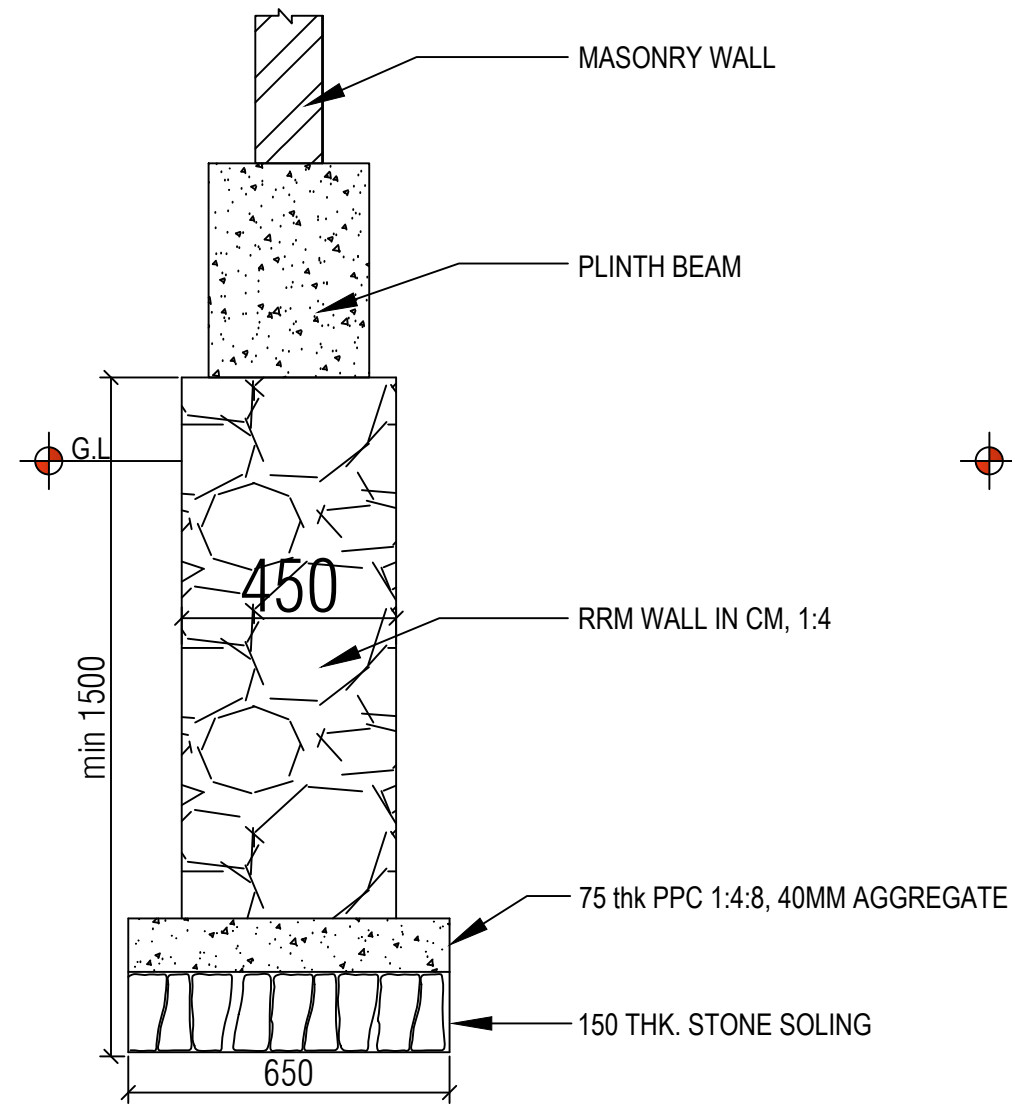
SCHEDULE OF FOOTING FOR ISOLATED FOOTING						
FOOTING	NOS	SIZE			REINFORCEMENT DETAILS	
		Length,Lx	Breadth,Lz	Total depth,D	Bottom	Top
PAD 1	4	1900	1900	400	12Ø@150 c/c in both directions	12Ø@200 c/c in both directions
PAD 2	10	2150	2150	475	12Ø@150 c/c in both directions	12Ø@200 c/c in both directions
PAD 3	2	2300	2300	500	12Ø@150 c/c in both directions	12Ø@ 200 c/c in both directions

PROJECT:	DRAWING TITLE AS STATED ABOVE		ENGINEER	OWNER	NOTES  ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DRAWING NO.  DWG/STR-04
	SCALE NTS	DATE				

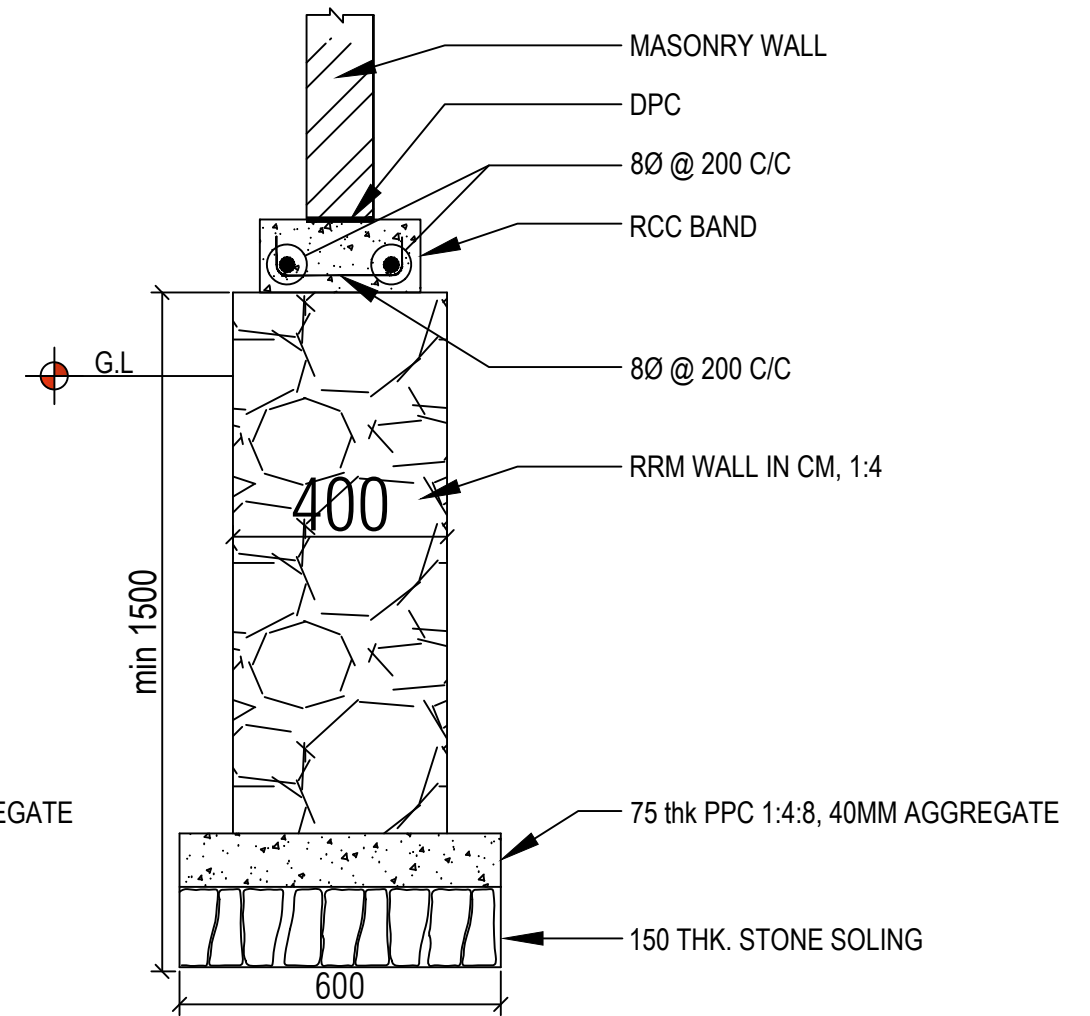
PROJECT: CONSTRUCTION OF G+2 RESIDENTIAL ON THRAM NO-2083.PLOT NO-GT-2686. GELEPHU THROMDE LAP -5	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE	SHREE KUMAR POUDYAL	LEKI DEMA	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-05
NTS	16 MARCH 2020					



RRM WALL BELOW PLINTH BEAM  
FOR EXTERNAL WALLS



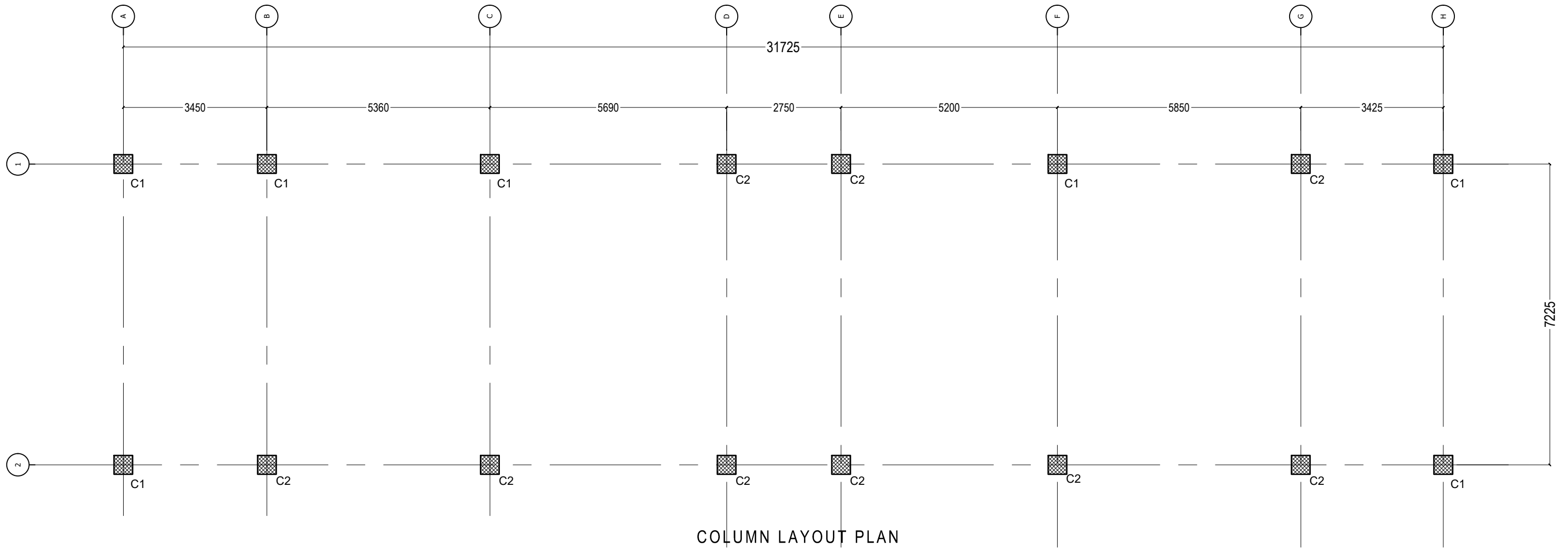
RRM WALL BELOW PLINTH BEAM  
FOR 250 MM THK. WALLS



RRM WALL BELOW PLINTH BEAM  
FOR 125 MM THK. WALLS

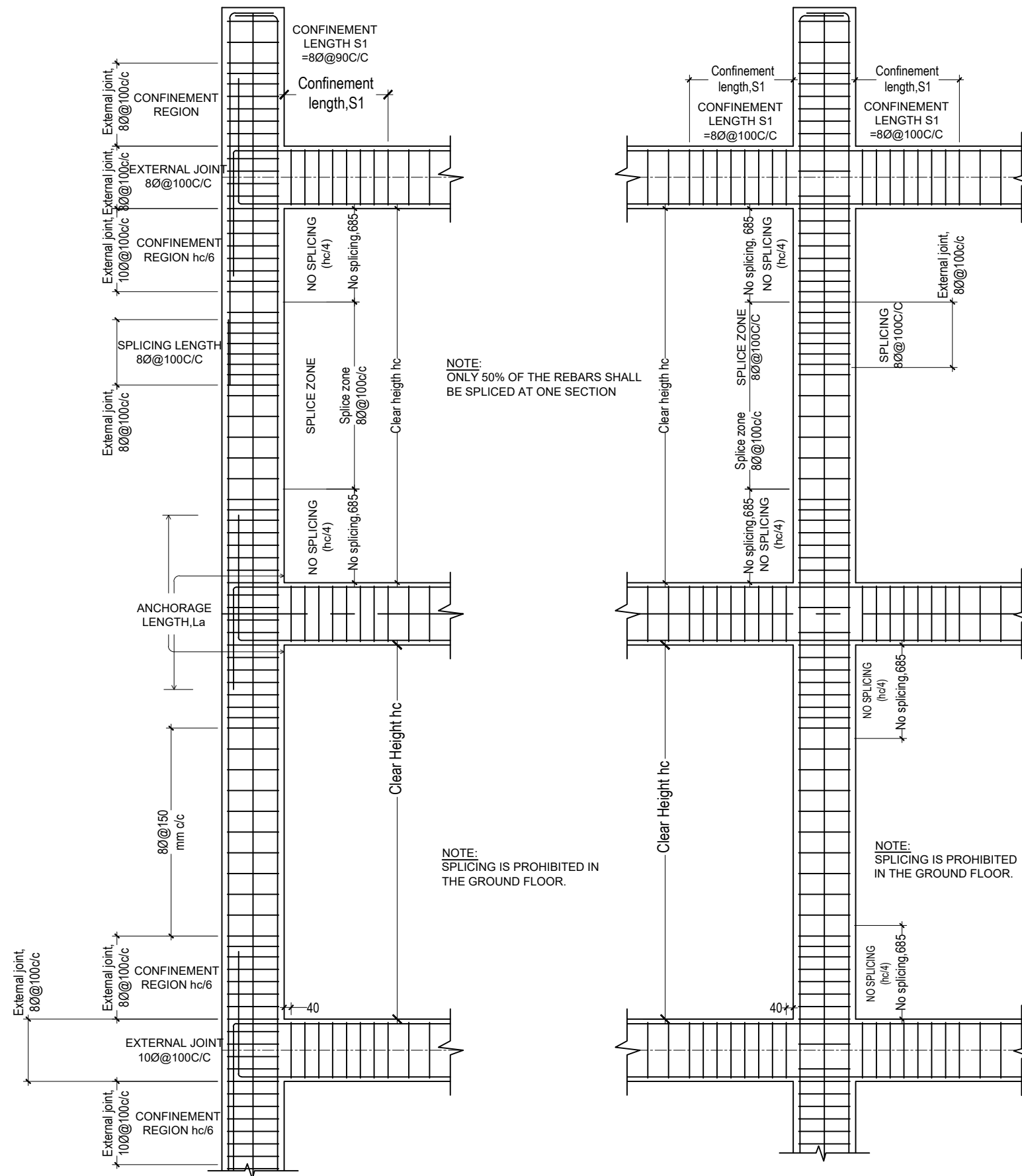
## TYPICAL FOUNDATION WALL DETAILS

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	<b>DWG/STR-06</b>
	NTS					



COLUMN LAYOUT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-07
	NTS					



TYPICAL COLUMN REBAR AND SPLICING DETAILS

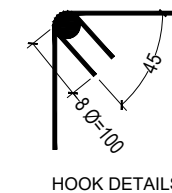
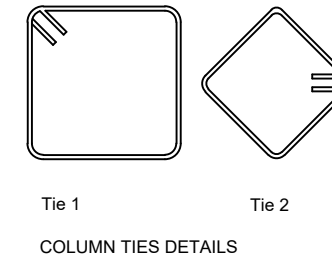
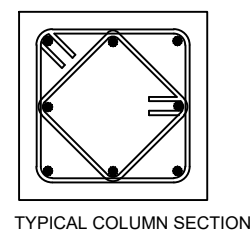
**Material specifications:**

- Grade of concrete for RC column works shall be...M20;
- Grade of steel/rebars for RC column works shall be...Fe 500 (SQCA approved brands);
- Aggregates for all RC works shall be of nominal size...20mm;
- Water fit for drinking shall be used for concrete mix designs;

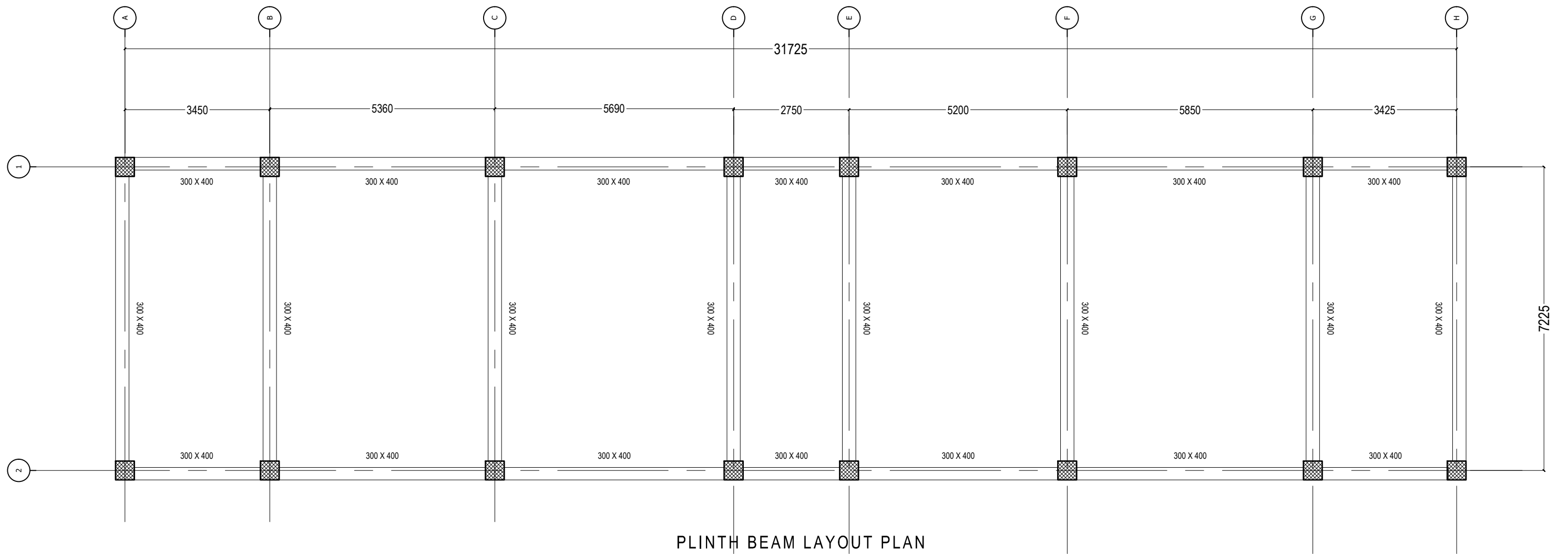
**General Detailing Notes:**

- Special confining reinforcement ties of 8Ø @ 100mm c/c shall be provided over a length of hc/6 from each face of beam towards mid span of the column,
- Special confining reinforcement of 8 @ 100 mm c/c shall be continued into the footing pad up to a minimum of 300mm from the top face of the footing pad.
- The main reinforcement of columns shall be straight without kinks or crank.
- The splice in the column shall be away from the support by hc/4 and the splice length shall be the development length(Ld) in tension.
- Columns supporting staircase shall be provided with special confining ties of 8Ø@100c/c throughout the column length.
- Splicing at ground floor level is prohibited.
- Only 50% of main re bars are spliced at one section.
- Except in confining & splicing zone, rest of the column length shall have ties/links of 8@100mm c/c.
- Ties/links of 8Ø@100mm c/c shall be provided throughout the length of splicing zone.
- The main re bars in the beam must be properly anchored in columns by length not less then La of the rebar given in the table above;.
- The one fourth (1/4) of the column length near the beam connection or framing into the column shall be casted monolithically with beams and slabs.

SCHEDULE OF COLUMN					
COLUMN	Nos.	SIZE	REINFORCEMENT DETAILS		
			Main	Confining ties	Normal ties
C-1	7	450 X 450	4-25Ø+4-20Ø	8 Ø @ 100 mm c/c	8 Ø @ 150 mm c/c
C-2	9	450 X 450	8-25Ø	8 Ø @ 100 mm c/c	8 Ø @ 150 mm c/c



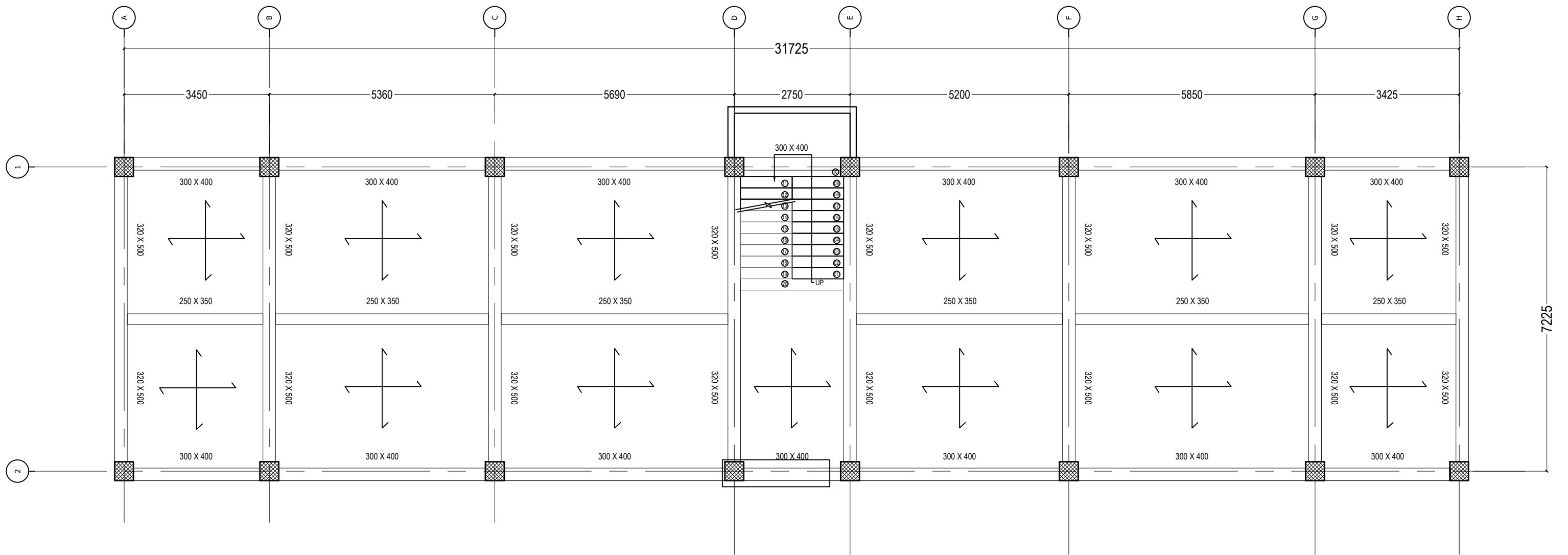
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-08
	NTS					



PLINTH BEAM LAYOUT PLAN

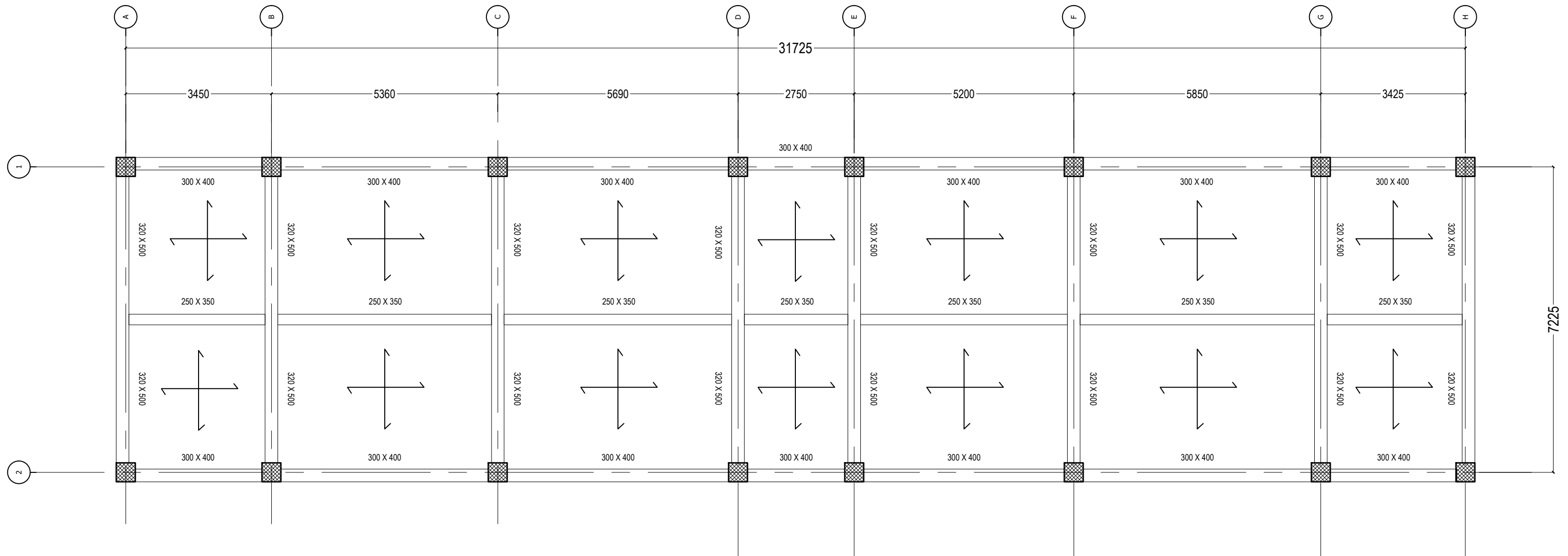
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	AS STATED ABOVE					
	<b>SCALE</b>	<b>DATE</b>				
	NTS	16 MARCH 2020			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-09





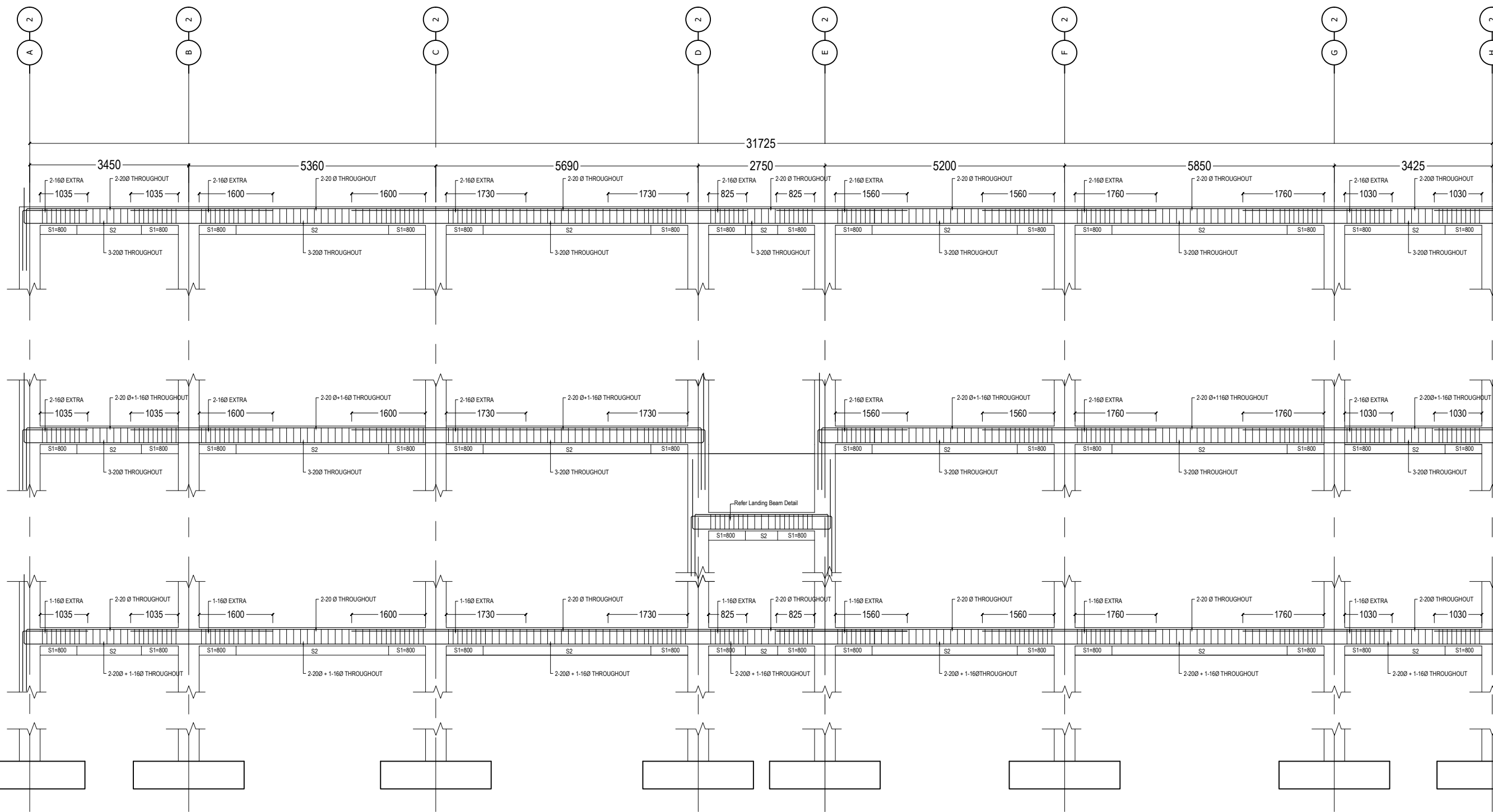
FIRST FLOOR BEAM LAYOUT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
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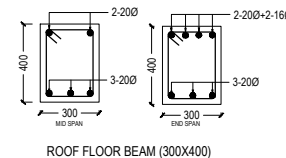


ROOF FLOOR BEAM LAYOUT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-11
	NTS					

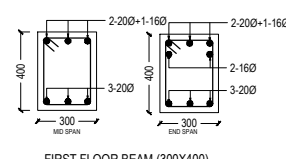


BEAM L-SECTION ALONG GRID-1



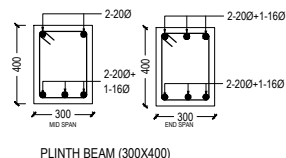
ROOF FLOOR BEAM (300X400)

NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)



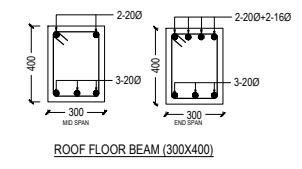
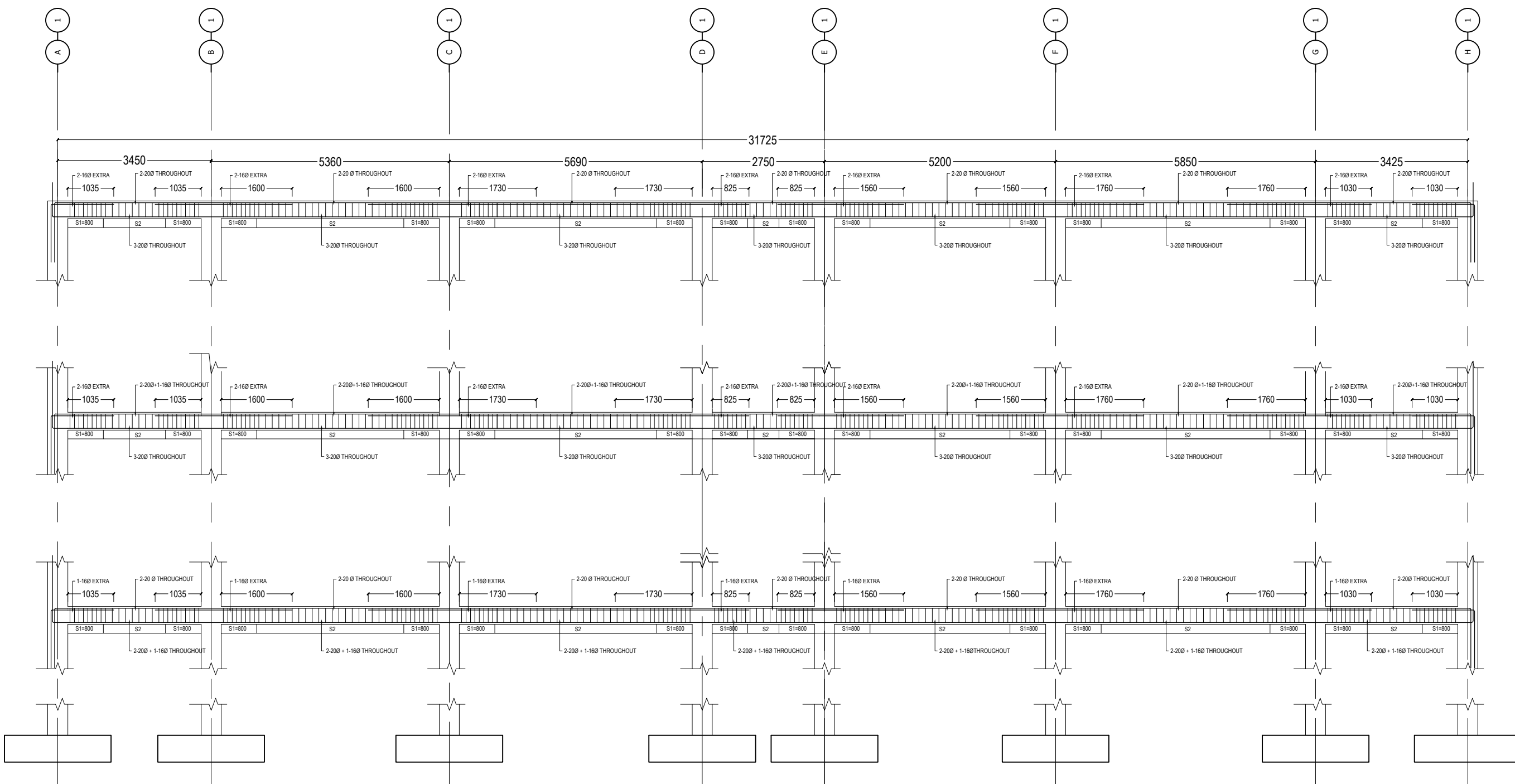
FIRST FLOOR BEAM (300X400)

NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)

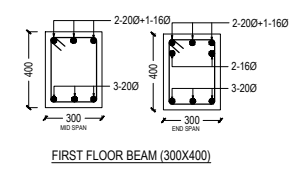


PLINTH BEAM (300X400)

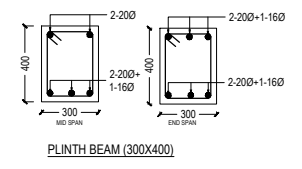
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-12
	NTS					



NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2(D)=TOTAL BEAM DEPTH

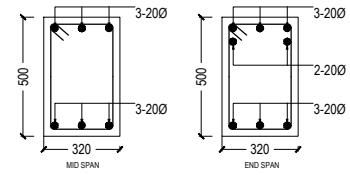
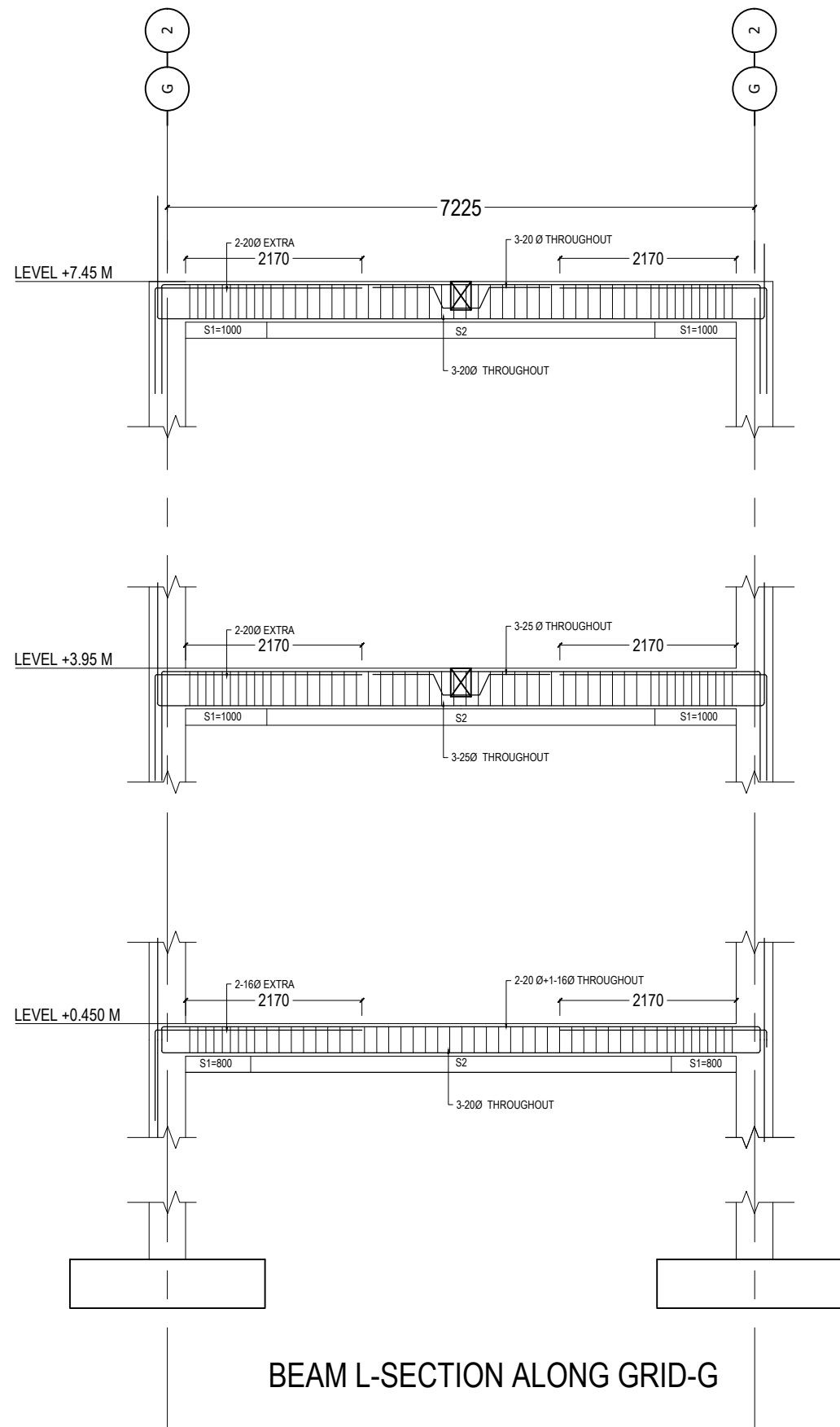


NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2(D)=TOTAL BEAM DEPTH



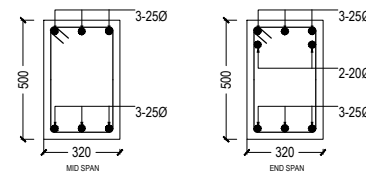
BEAM L-SECTION ALONG GRID-2

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
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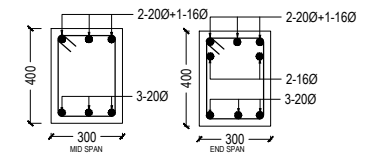
ROOF FLOOR BEAM (320X500)

NOTE  
 S1=8Ø @100 C/C  
 S2=8Ø 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)



FIRST FLOOR BEAM (320X500)

NOTE  
 S1=8Ø @100 C/C  
 S2=8Ø 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)

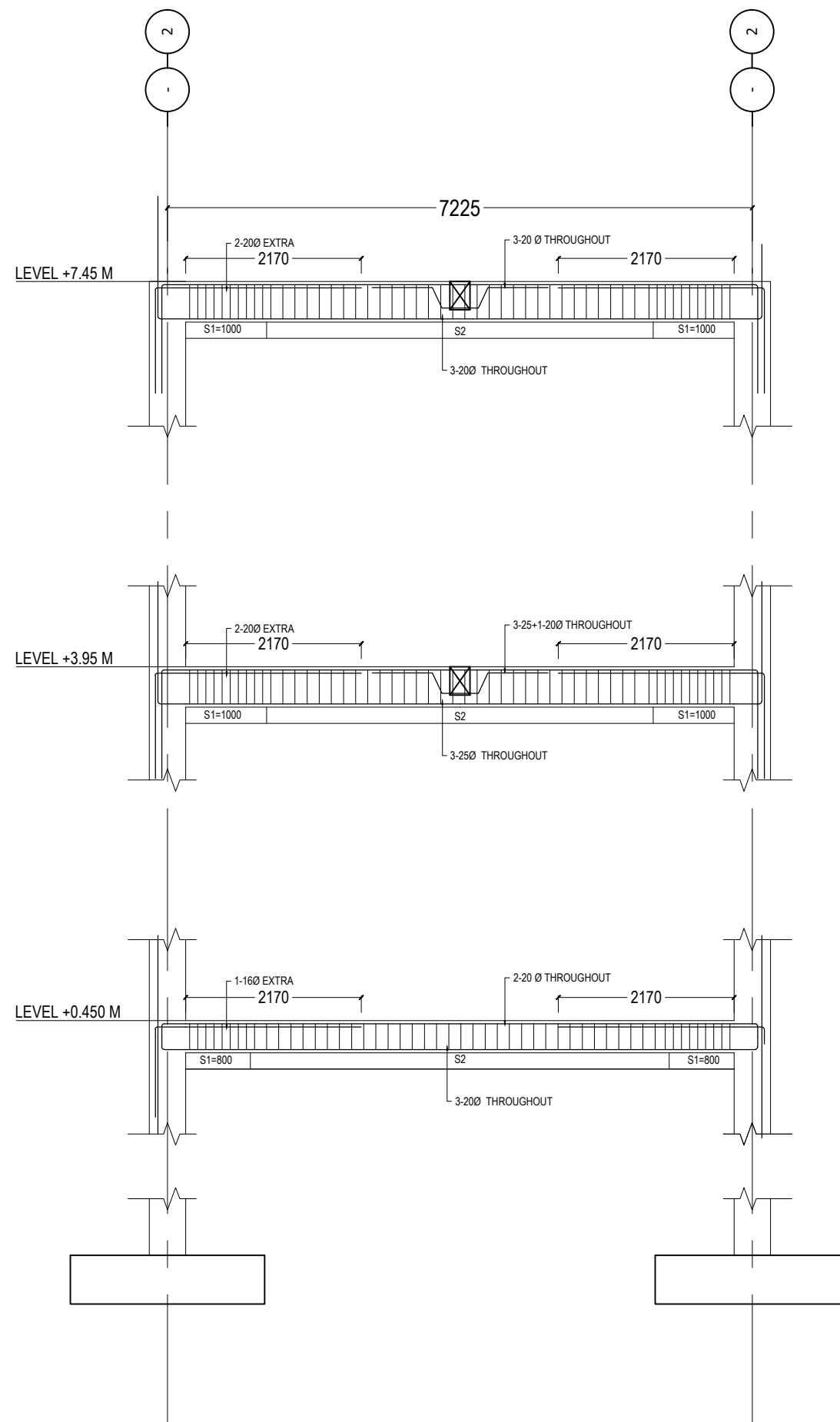


PLINTH BEAM (300X400)

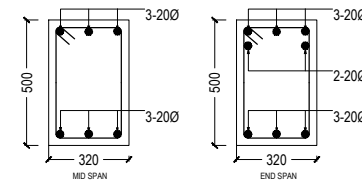
BEAM L-SECTION ALONG GRID-G

PROJECT:	DRAWING TITLE AS STATED ABOVE		ENGINEER	OWNER	NOTES ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DRAWING NO. <b>DWG/STR-14</b>
	SCALE NTS	DATE				

PROJECT: CONSTRUCTION OF G+2 RESIDENTIAL ON THRAM NO-2083.PLOT NO-GT-2686. GELEPHU THROMDE LAP -5	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE	SHREE KUMAR POUDYAL	LEKI DEMA	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-15
NTS	16 MARCH 2020					

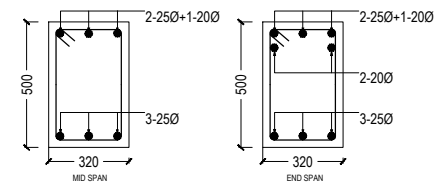


BEAM L-SECTION ALONG GRID-A,B,C,D,E,F&H



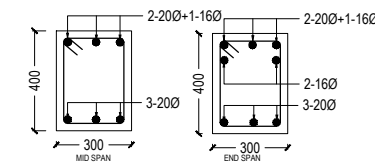
ROOF FLOOR BEAM (320X500)

NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)



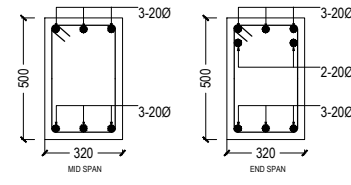
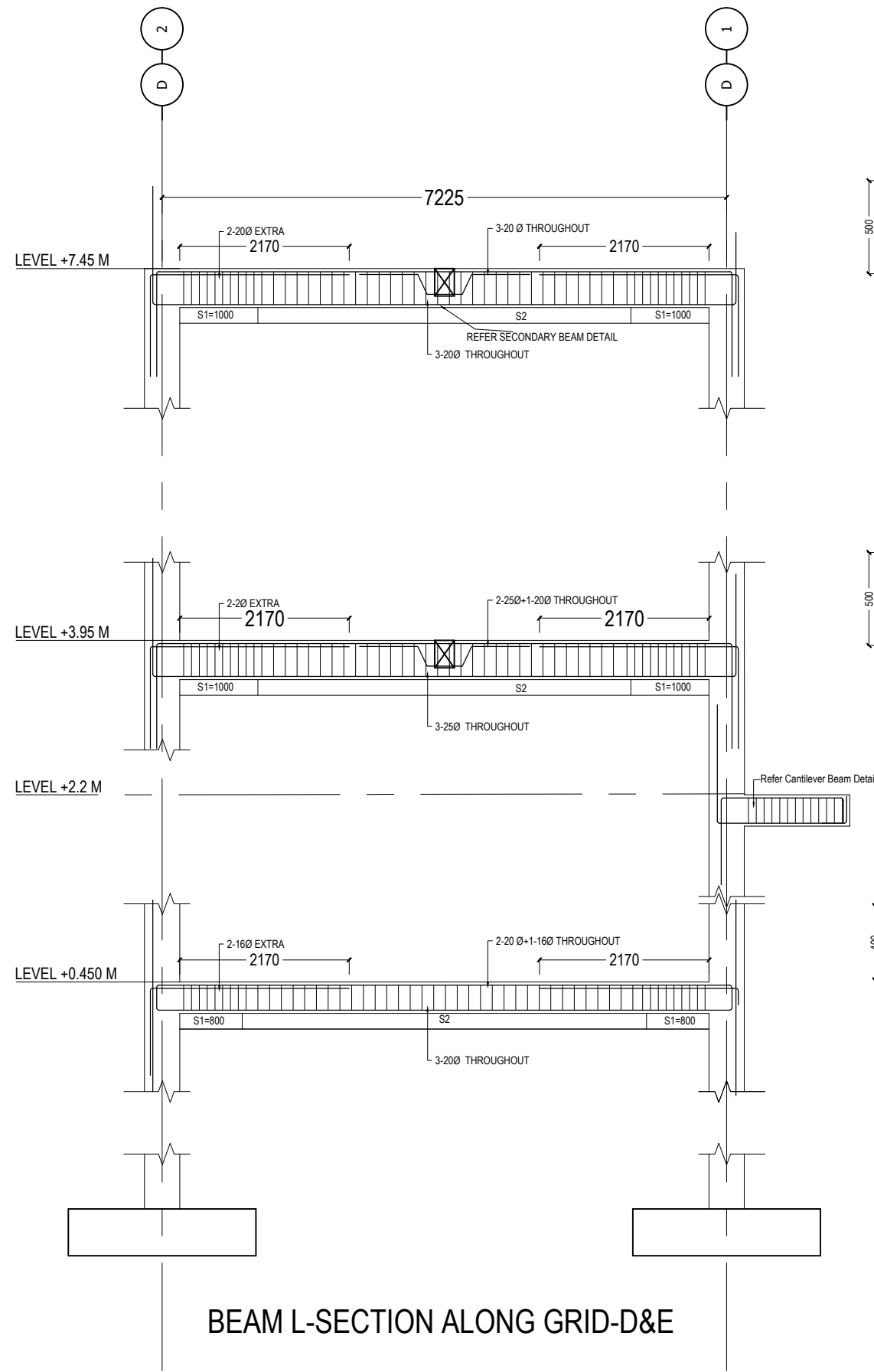
FIRST FLOOR BEAM (320X500)

NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)



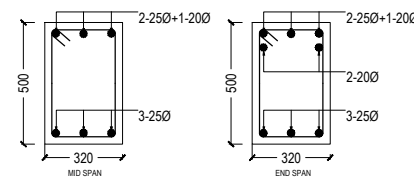
PLINTH BEAM (300X400)

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-16
	NTS					



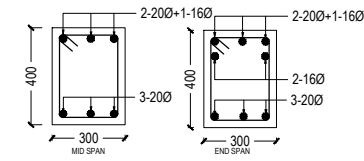
ROOF FLOOR BEAM (320X500)

NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)



FIRST FLOOR BEAM (320X500)

NOTE  
 S1=80 @100 C/C  
 S2=80 150C/C  
 S1=2D(D=TOTAL BEAM DEPTH)



PLINTH BEAM (300X400)

BEAM L-SECTION ALONG GRID-D&E

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
	NTS				ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-17



**Beam notes:**

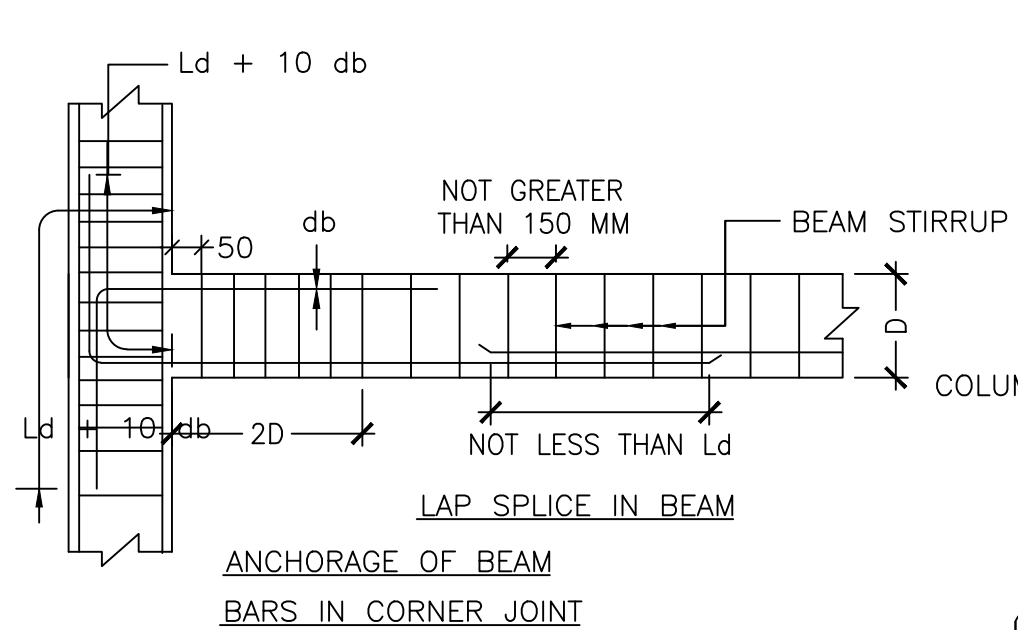
1. The longitudinal rebar of beam shall be anchored into the column by length  $L_a$  (anchorage length) of the rebar as specified in the table
2. Stirrups/hoops of  $8\emptyset$  rebar-135 degrees, with an extension of  $10x\emptyset$ , and it shall be embedded in the confined core of the section
3. Lap splice for tension reinforcement or bottom steel shall not be provided at (a) within a joint, (b) within a distance of  $2d$  from the joint face or (c) within a quarter length of the member
4. The splicing of the compression or top reinforcement shall be provided near or at mid-span of the beam member
5. Not more than 50% of the bars shall be spliced at one section
6. The lap/splice length shall not be less than development length in tension i.e.  $L_d$ , as specified in the table
7. The first stirrup should be provided at the distance of 40mm from the face of the column
8. Stirrups of  $8\emptyset@100\text{mm c/c}$  shall be provided up to the distance of  $2D$  from the column face, where  $D$ = total depth of beam
9. Stirrups of  $8\emptyset@100\text{mm c/c}$  shall be provided throughout the splicing length of reinforcement bar in a member (beam/column etc.)
10. Minimum clear cover to the beam reinforcement shall be 25mm
11. The beam form works shall not be removed till the required strength of concrete is achieved.
12. Sharp bent in main reinforcement bars shall be avoided at lapping & beam-column joints. Maximum slope of 1:6 shall be maintained in the bends.
13. Lintel/band reinforcement connection provision shall be kept while casting the beam, column, slab
14. Vertical wall reinforcement bars shall be placed while casting the slab particularly for the projected wall/rabsel walls
15. Refer table give for development length,  $L_d$  and anchorage length,  $L_a$
16. Special confining ties shall be provided in the columns of external beam-column joints & normal spacing ties in the interior beam-column joints
17. Full lap length of rebar shall be provided confining ties & stirrups in column & beam respectively

**SCHEDULE OF BARS**

SL.NO	BAR SIZE	DEVELOPMENT LENGTH ( $L_D=57\emptyset$ )	ANCHORAGE LENGTH ( $L_A=67\emptyset$ )
1	$8\emptyset$	460	540
2	$10\emptyset$	570	670
3	$12\emptyset$	685	805
4	$16\emptyset$	915	1075
5	$20\emptyset$	1140	1340
6	$25\emptyset$	1425	1675

ANCHORAGE LENGTH ( $L_A$ )= $L_D+10\emptyset$   
(ALL MEASUREMENTS IN mm)

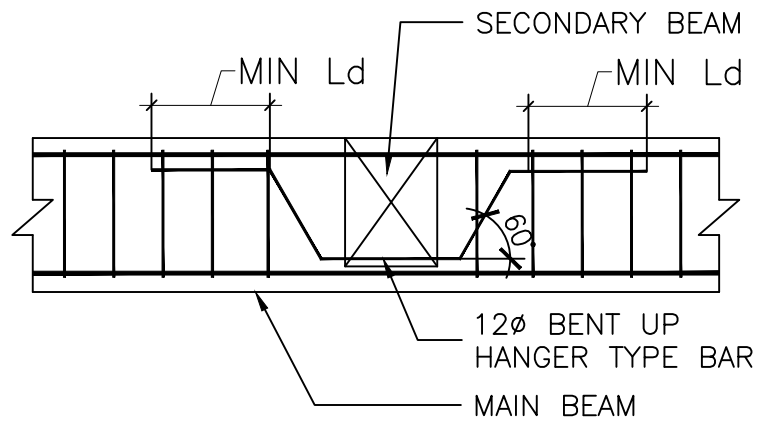
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-18
	NTS					



ANCHORAGE OF BEAM BARS IN CORNER JOINT

NOTE:

- S2 = 8 $\phi$  @ 150 C/C
- S1 = 2D = 8 $\phi$  @ 90 C/C  
(D=OVERALL DEPTH OF BEAM)
- THE FIRST STIRRUPS IS PLACED 50MM FROM THE FACE OF COLUMN



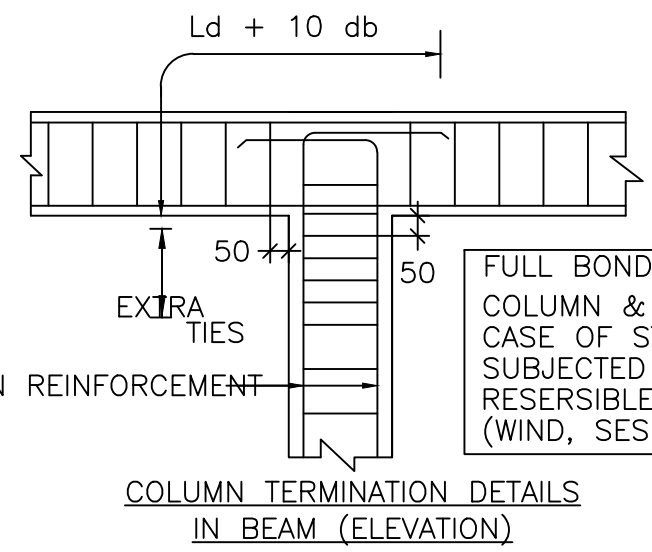
WHERE Ld = DEVELOPMENT LENGTH IN TENSION (Ld=47)

db = BAR DIAMETER

WHERE  $Ld + 10db = (57db)$ :

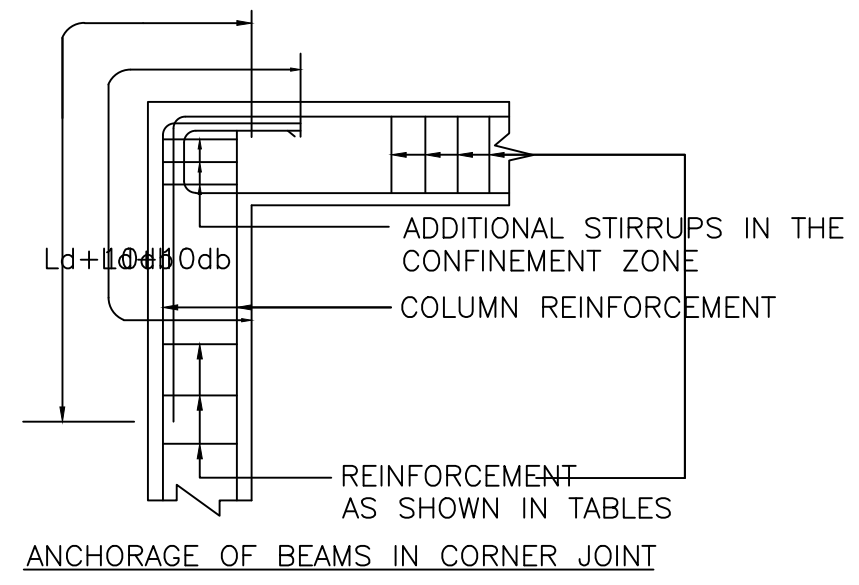
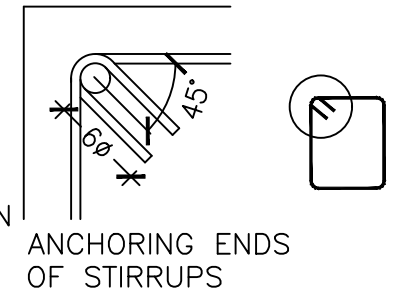
- For 12 $\phi$  = 804 MM
- 16 $\phi$  = 1072 MM
- 20 $\phi$  = 1340 MM
- 25 $\phi$  = 1675 MM

COLUMN AND BEAM TERMINATION DETAILS

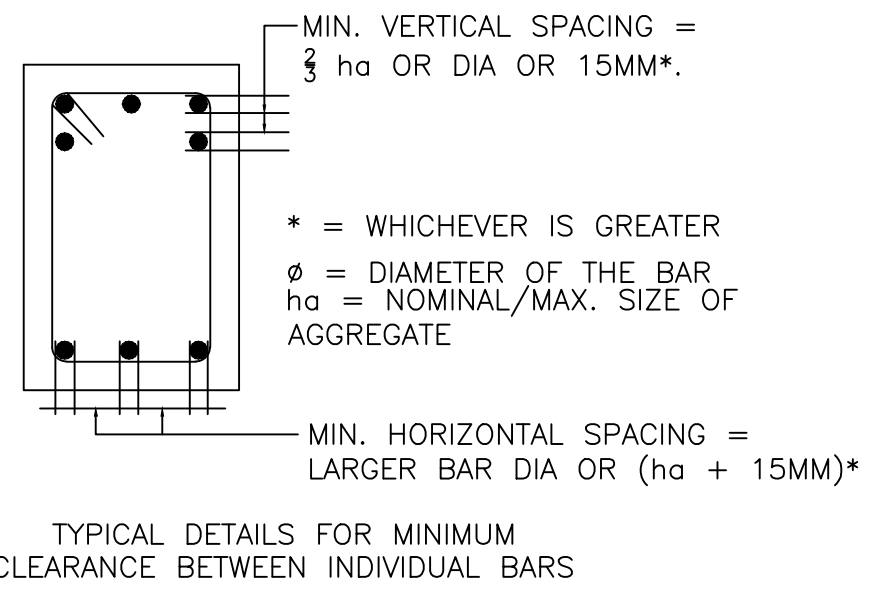


COLUMN TERMINATION DETAILS IN BEAM (ELEVATION)

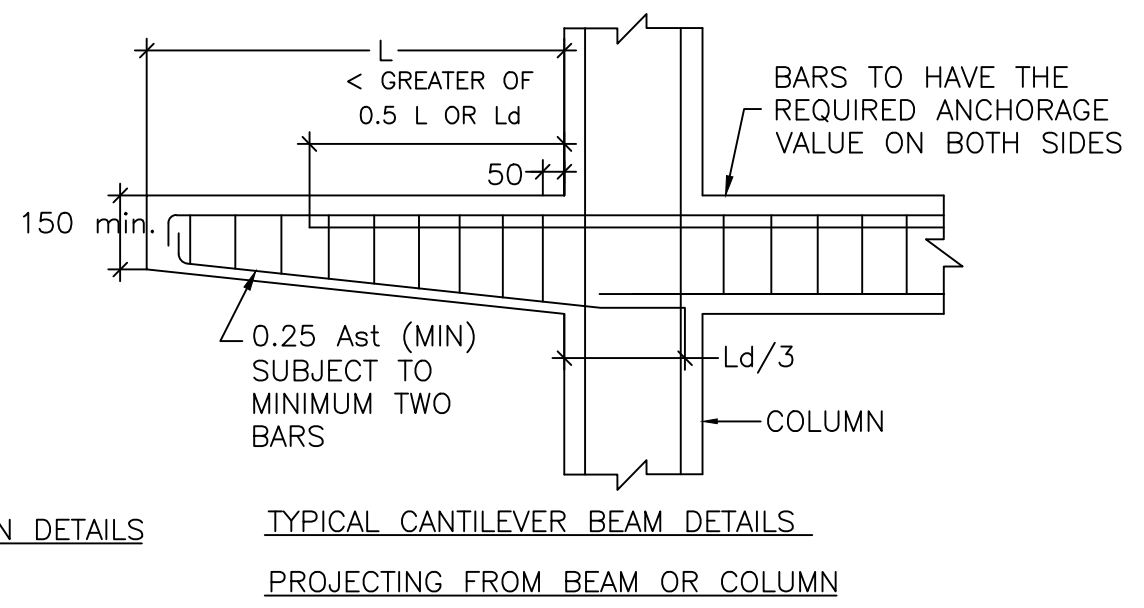
FULL BOND LENGTH FOR COLUMN & BEAM BARS IN CASE OF STRUCTURES SUBJECTED TO DYNAMIC/RESERBIBLE LOADING (WIND, SESMIC ETC..)



ANCHORAGE OF BEAMS IN CORNER JOINT

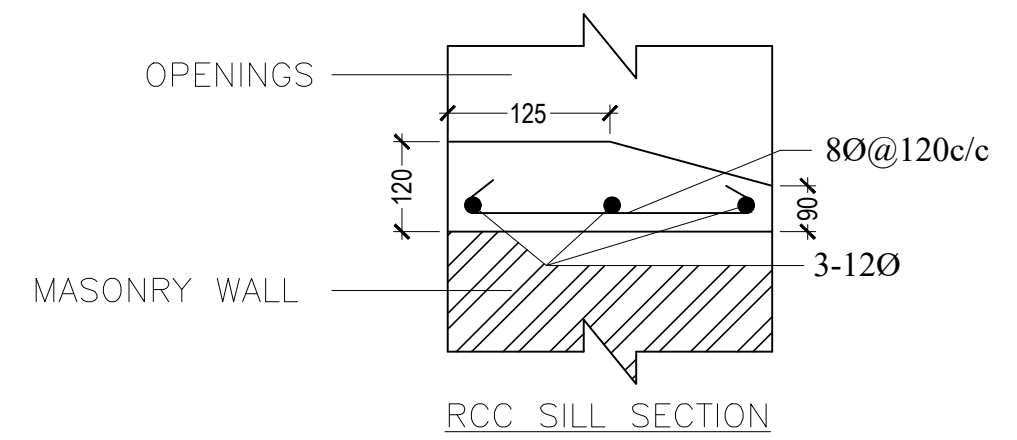
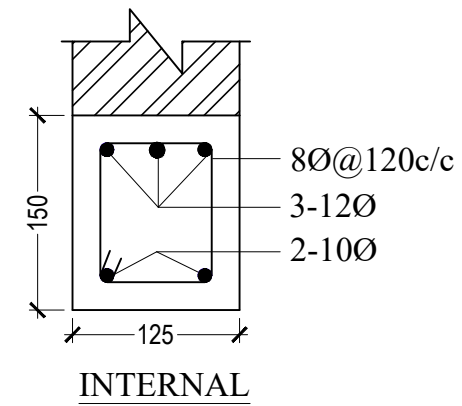
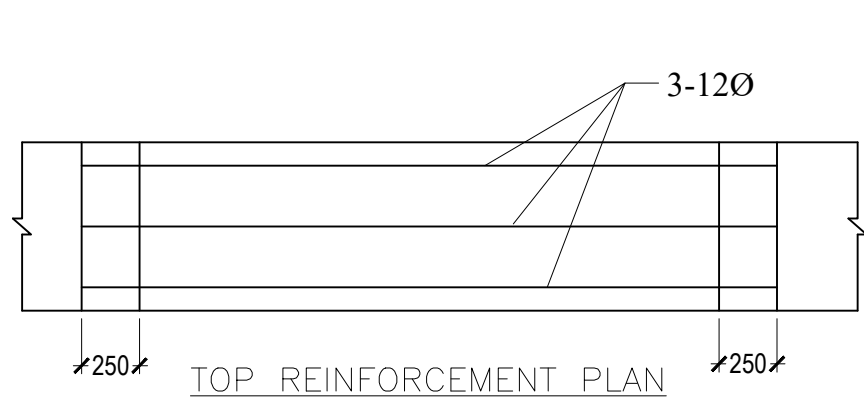
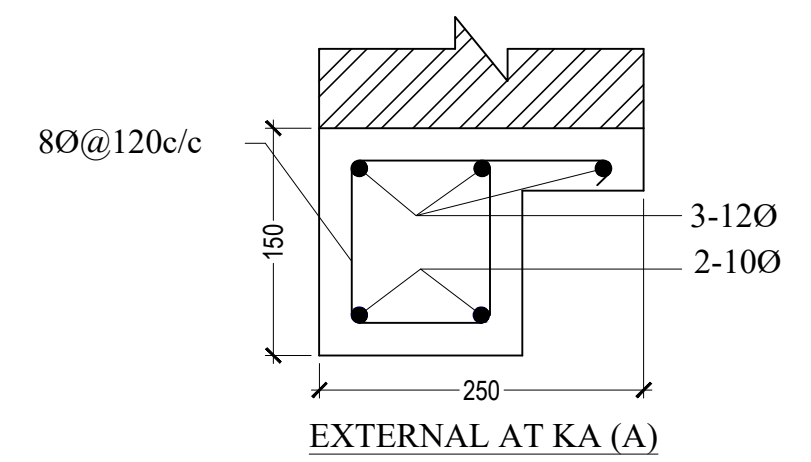
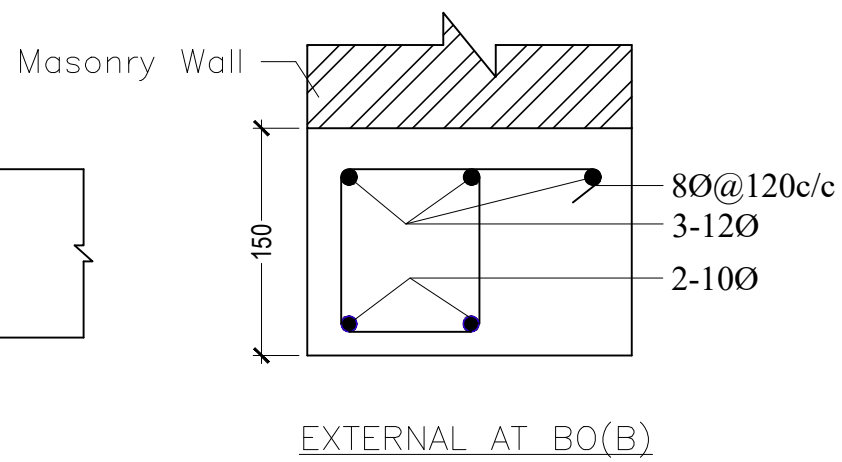
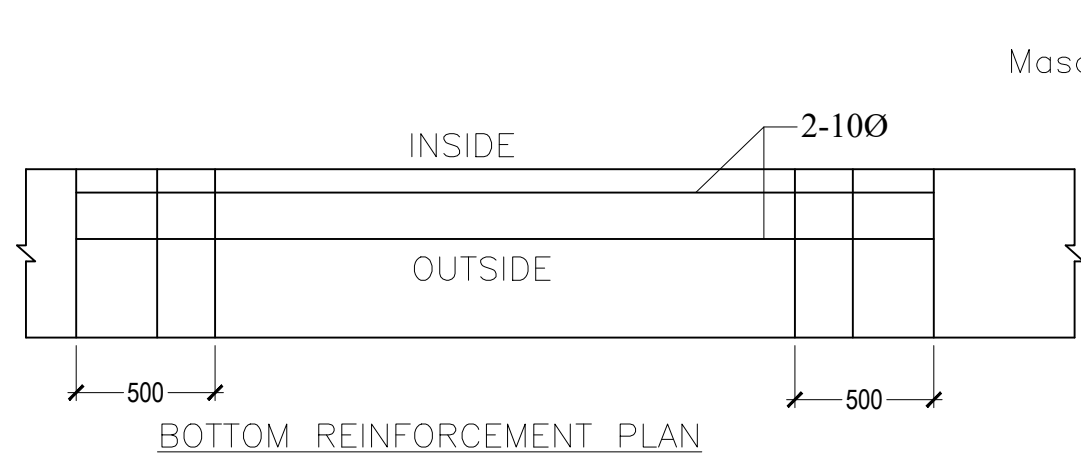
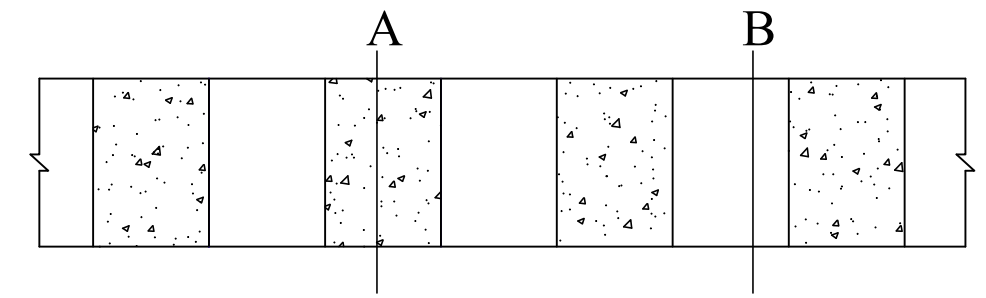
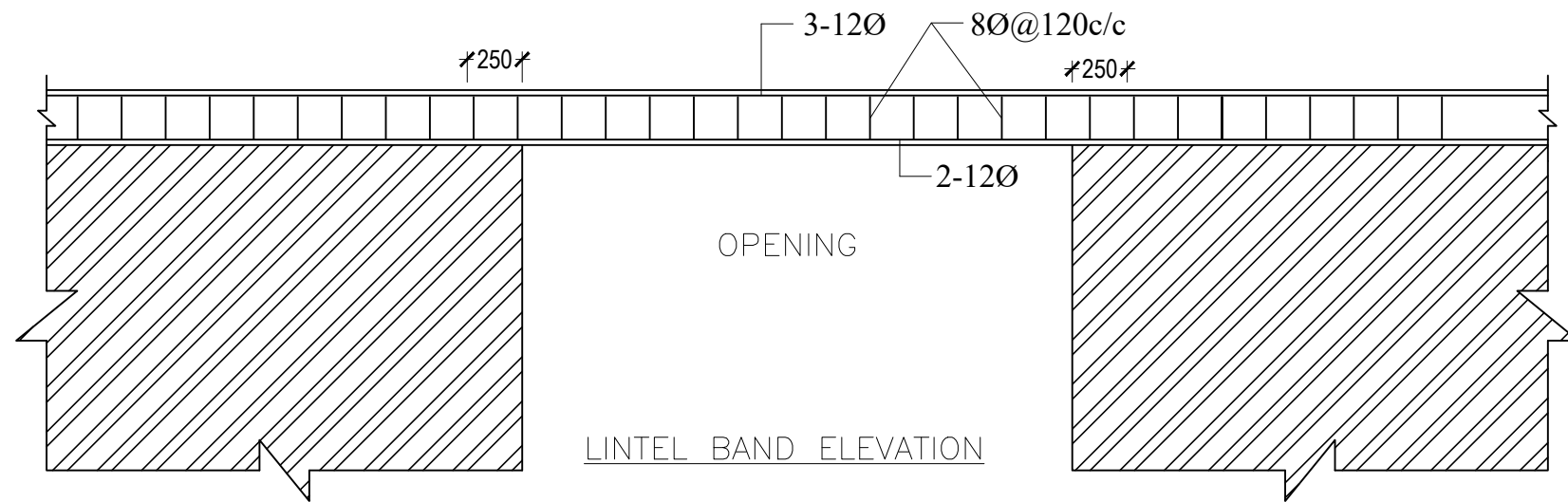


TYPICAL DETAILS FOR MINIMUM CLEARANCE BETWEEN INDIVIDUAL BARS



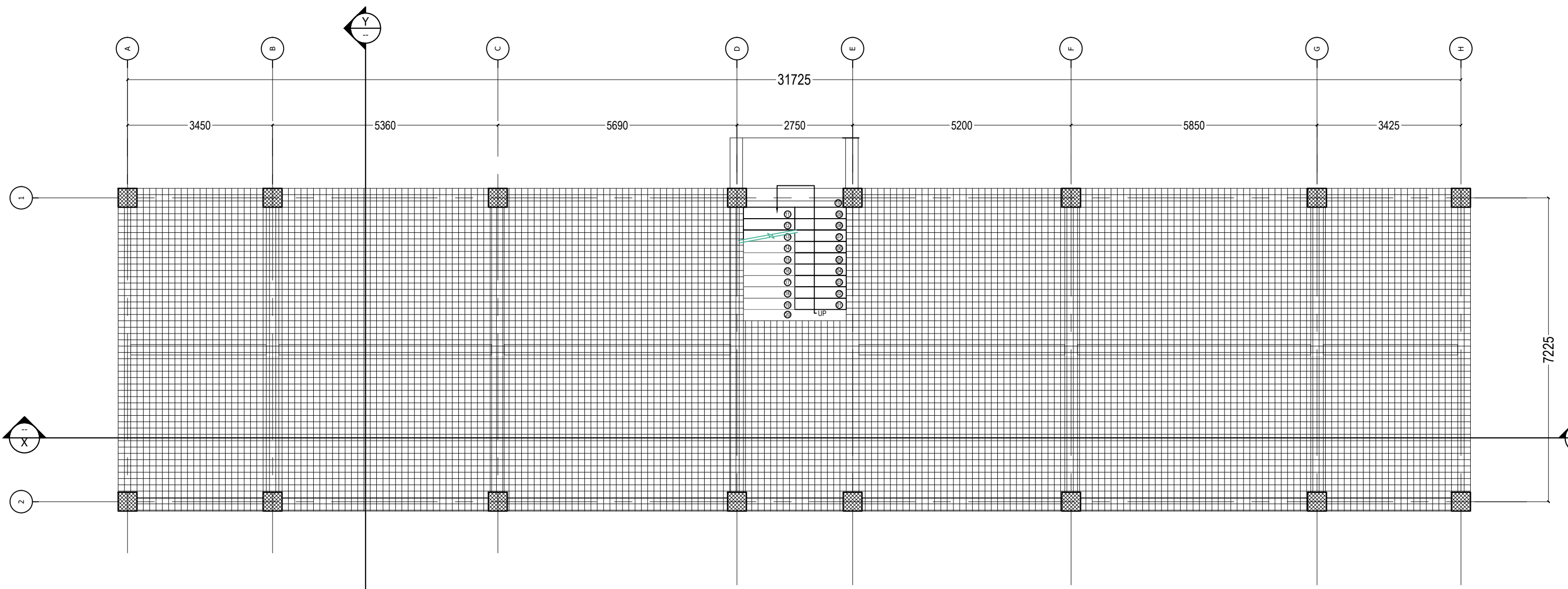
TYPICAL CANTILEVER BEAM DETAILS PROJECTING FROM BEAM OR COLUMN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-19
	NTS					



TYPICAL REINFORCEMENT LAYOUT IN LINTEL BAND OVER OPENING

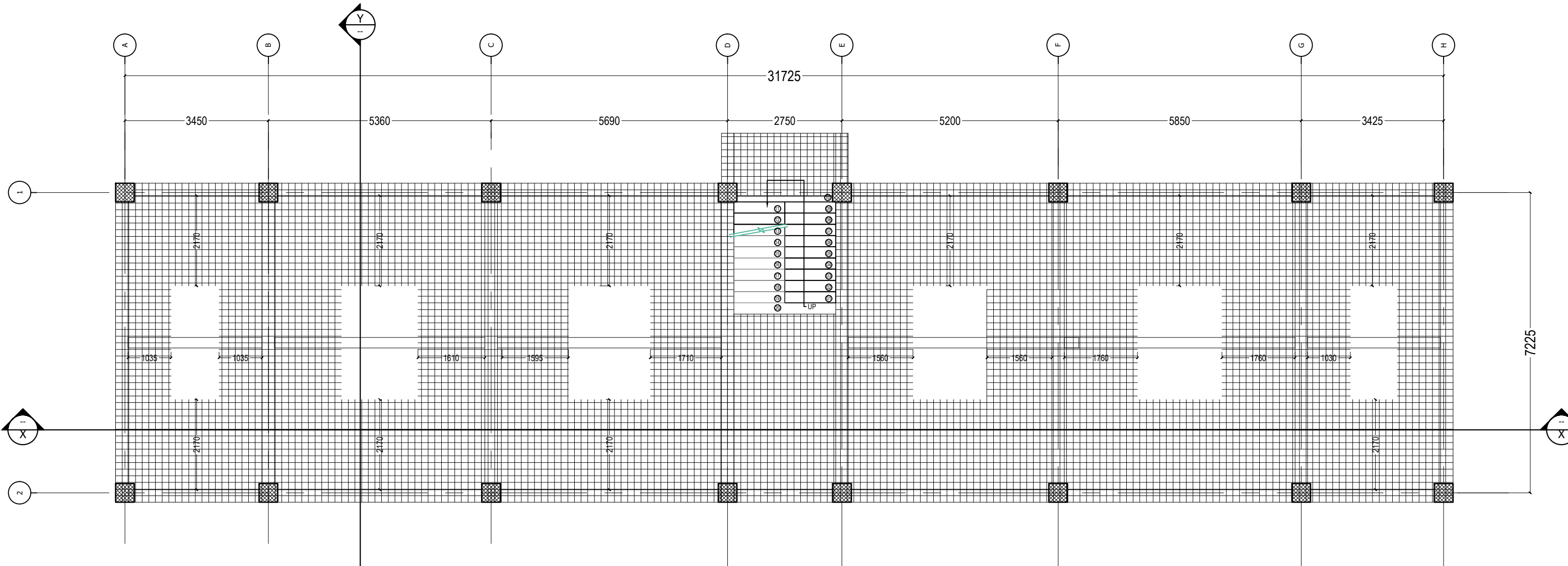
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-20
	NTS	16 MARCH 2020				



FIRST FLOOR BOTTOM REINFORCEMENT PLAN

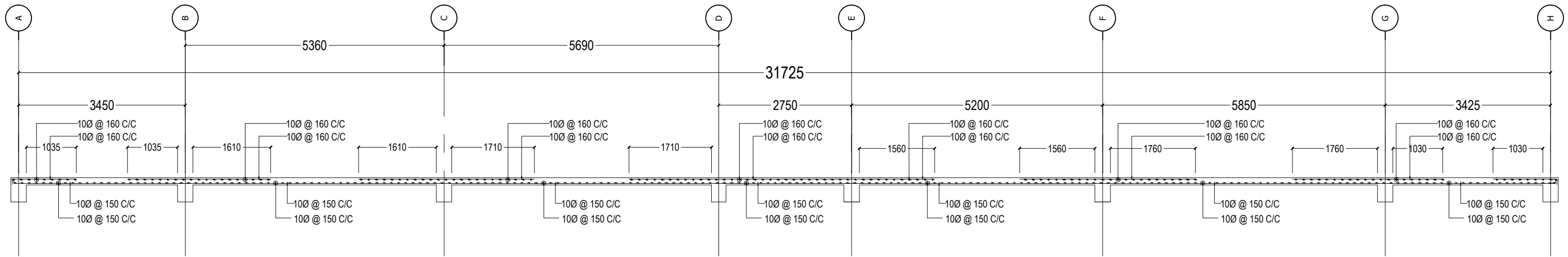
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	AS STATED ABOVE				ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-21
	SCALE	DATE				
	NTS					

FIRST FLOOR BOTTOM REINFORCEMENT PLAN

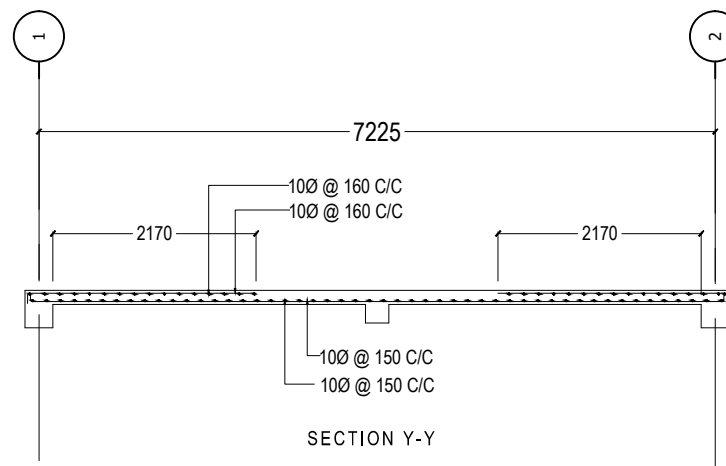


FIRST FLOOR TOP REINFORCEMENT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					DWG/STR-22
	SCALE	DATE				ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING
	NTS					



SECTION X-X



SECTION Y-Y

FIRST FLOOR SLAB CROSS-SECTION

**NOTES:-**

Slab thickness = 150mm

Reinforcements:-

Top = 10Ø @ 160mm c/c Both-directions

Bottom = 10Ø @ 150mm c/c Both-directions

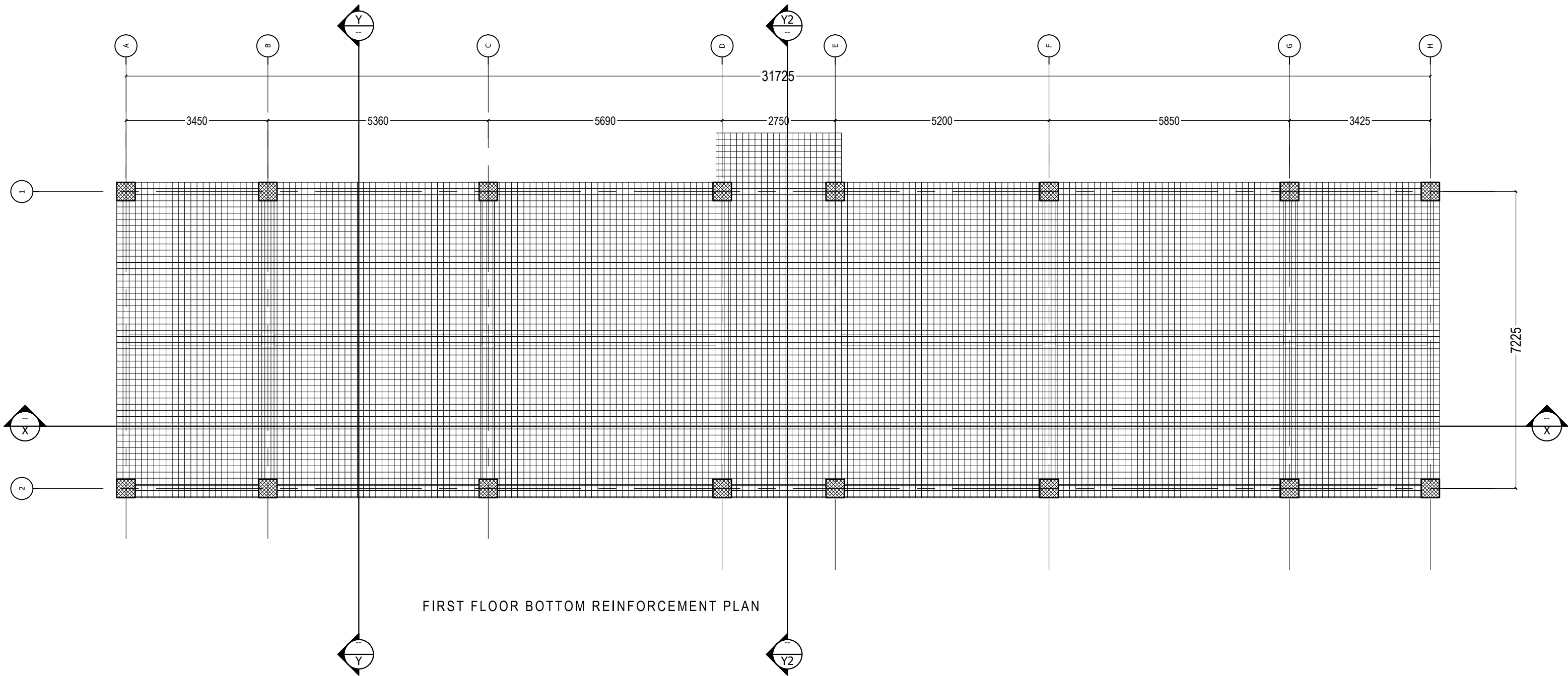
Concrete grade M20 (Cement 1: Sand 1.5 : Aggregate 3)

Steel Grade : Fe500

**Slab notes:**

1. Slab rebars shall be extended wherever necessary for the cornice projects(refer cornice rebar detail)
2. Chairs of 10Ø shall be provided at necessary places to maintain the effective depth of the slab
3. Refer slab sections reinforcement details for slab further details
4. The main reinforcement shall be place at bottom in the shorter direction of the slab panel
5. The starting distribution bar shall be place within the depth of slab or 1/2 the spacing of slab rebar
6. Slab reinforcement curtailment shall be as shown above (refer slab reinforcement detail)
7. Minimum clear cover to slab & staircase reinforcement shall be 20mm

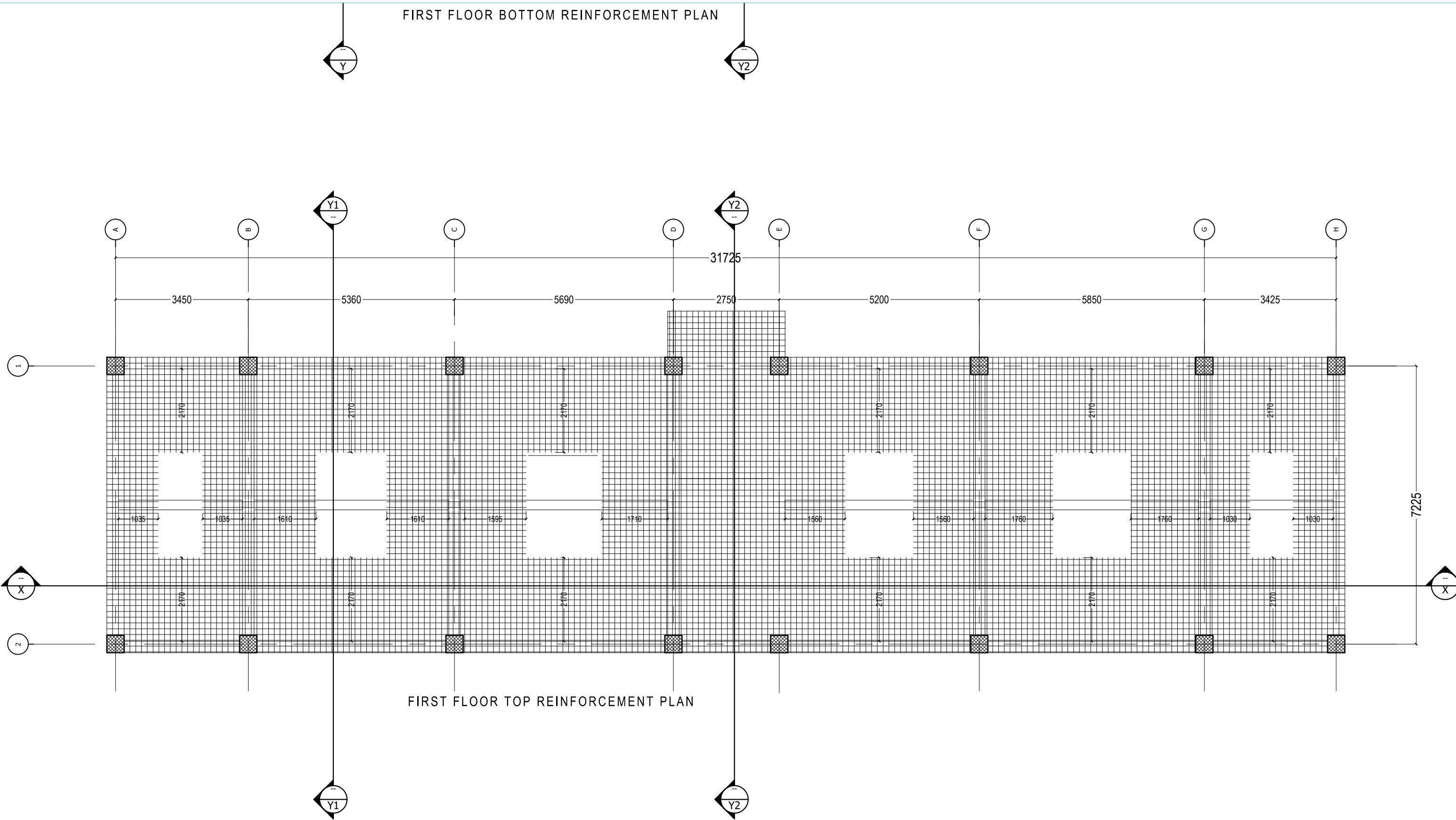
PROJECT:	DRAWING TITLE AS STATED ABOVE		ENGINEER	OWNER	NOTES  ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DRAWING NO.  DWG/STR-23
	SCALE NTS	DATE				



FIRST FLOOR BOTTOM REINFORCEMENT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					DWG/STR-24
	SCALE	DATE	LEKI DEMA			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING
	NTS					

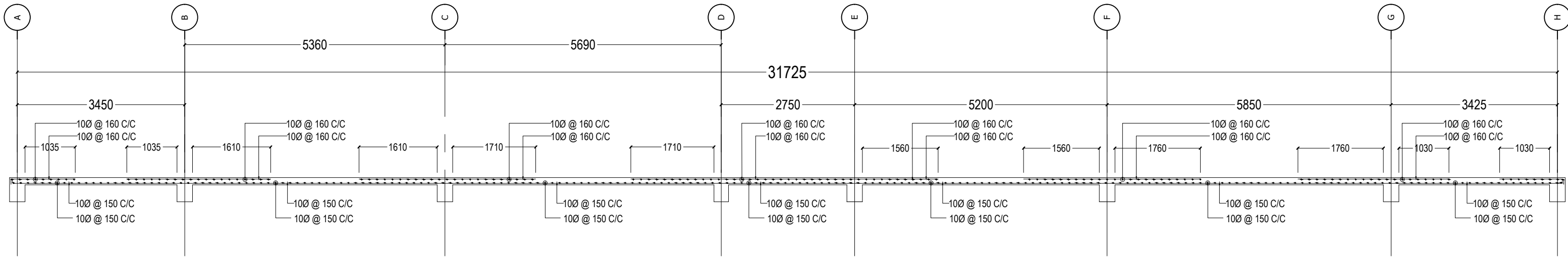
FIRST FLOOR BOTTOM REINFORCEMENT PLAN



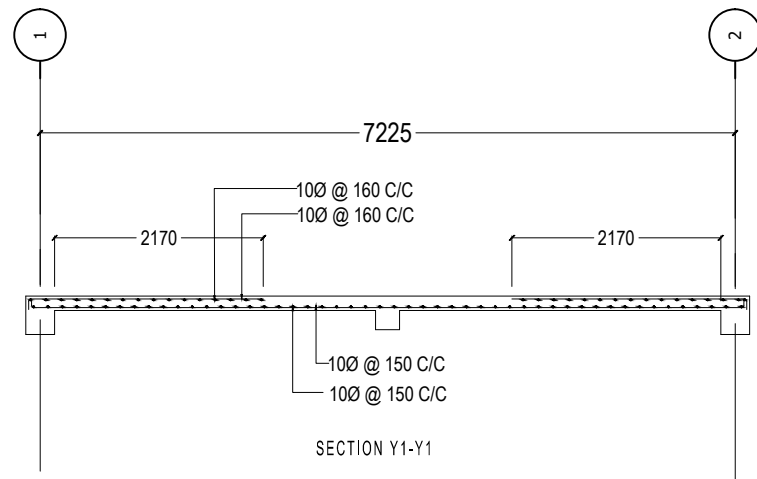
FIRST FLOOR TOP REINFORCEMENT PLAN

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-25
	NTS					

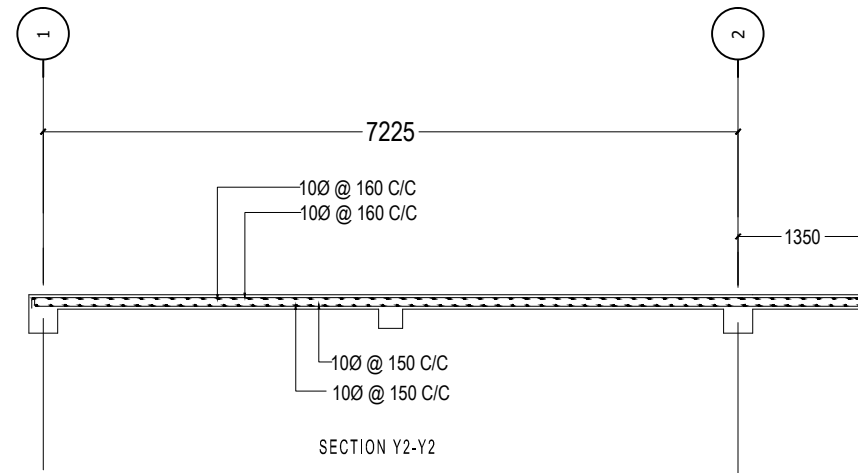




SECTION X-X



SECTION Y1-Y1



SECTION Y2-Y2

ROOF FLOOR SLAB CROSS-SECTION

**NOTES:-**

Slab thickness = 150mm

Reinforcements:-

Top = 10Ø @ 160mm c/c Both-directions

Bottom = 10Ø @ 150mm c/c Both-directions

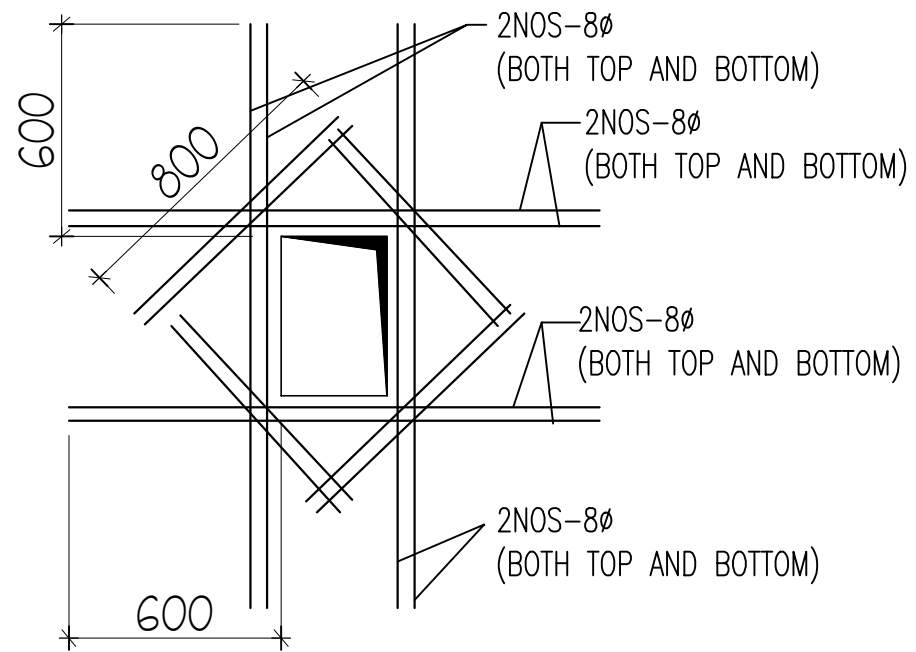
Concrete grade M20 (Cement 1: Sand 1.5 : Aggregate 3)

Steel Grade : Fe500

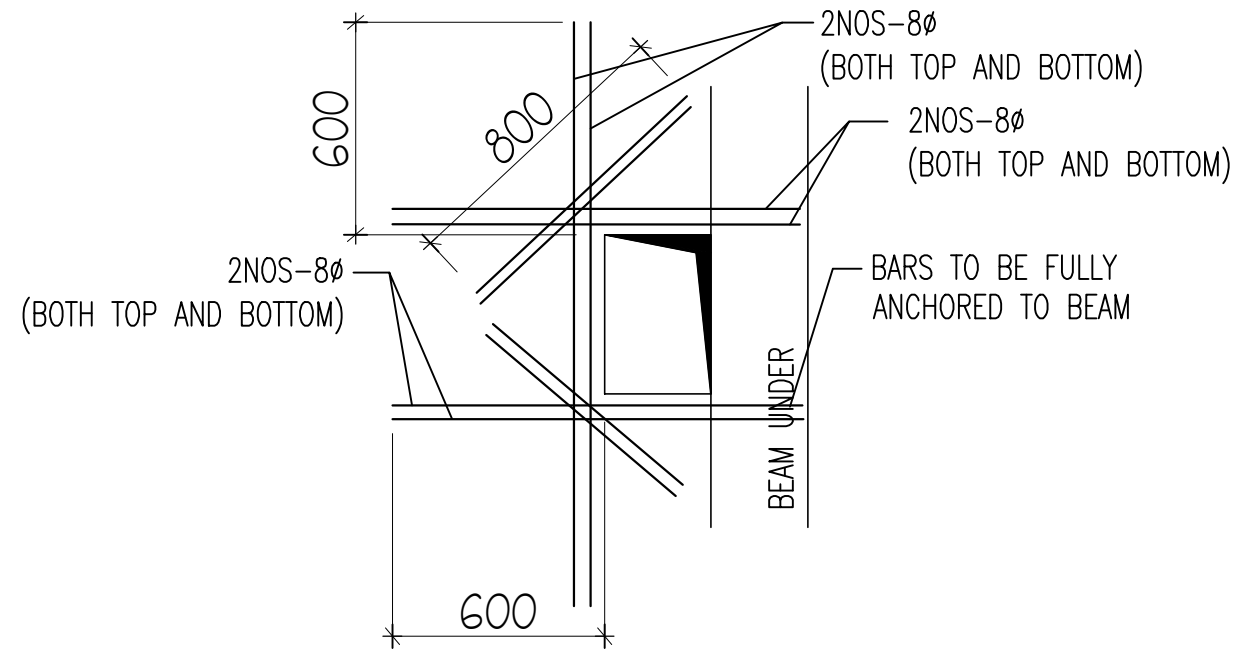
**Slab notes:**

1. Slab rebars shall be extended wherever necessary for the cornice projects(refer cornice rebar detail)
2. Chairs of 10Ø shall be provided at necessary places to maintain the effective depth of the slab
3. Refer slab sections reinforcement details for slab further details
4. The main reinforcement shall be place at bottom in the shorter direction of the slab panel
5. The starting distribution bar shall be place within the depth of slab or 1/2 the spacing of slab rebar
6. Slab reinforcement curtailment shall be as shown above (refer slab reinforcement detail)
7. Minimum clear cover to slab & staircase reinforcement shall be 20mm

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-26
	NTS					



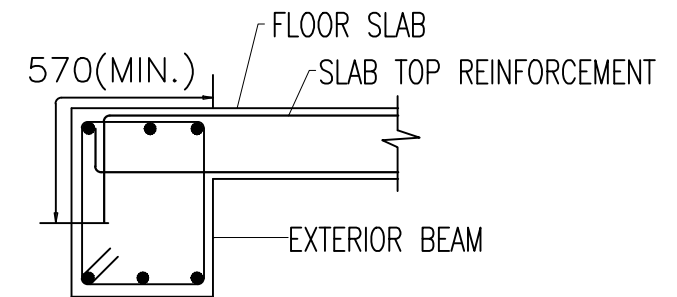
TYPICAL DETAIL FOR OPENING IN THE MIDDLE OF SLAB



TYPICAL DETAIL FOR OPENING NEAR BEAM

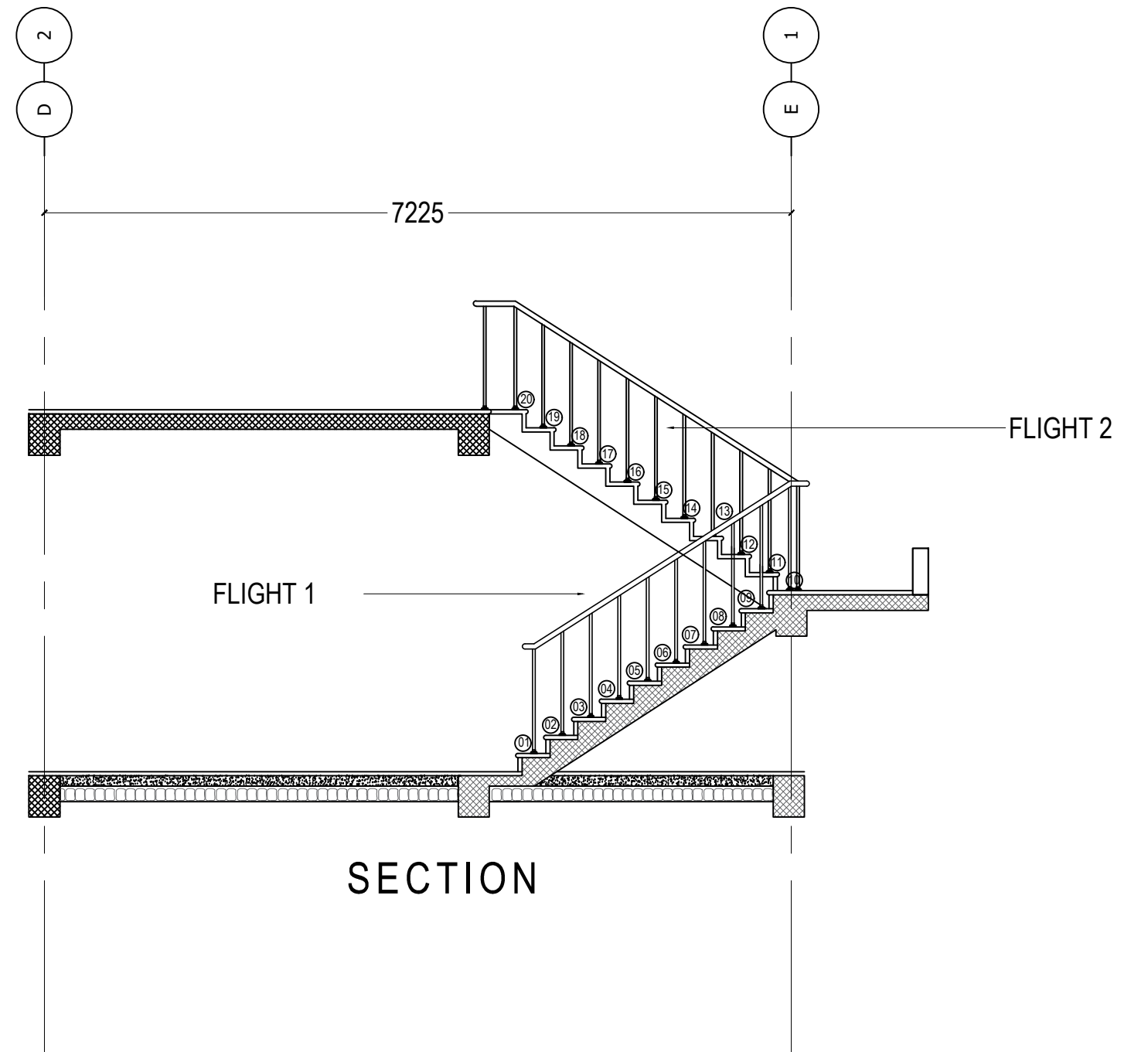
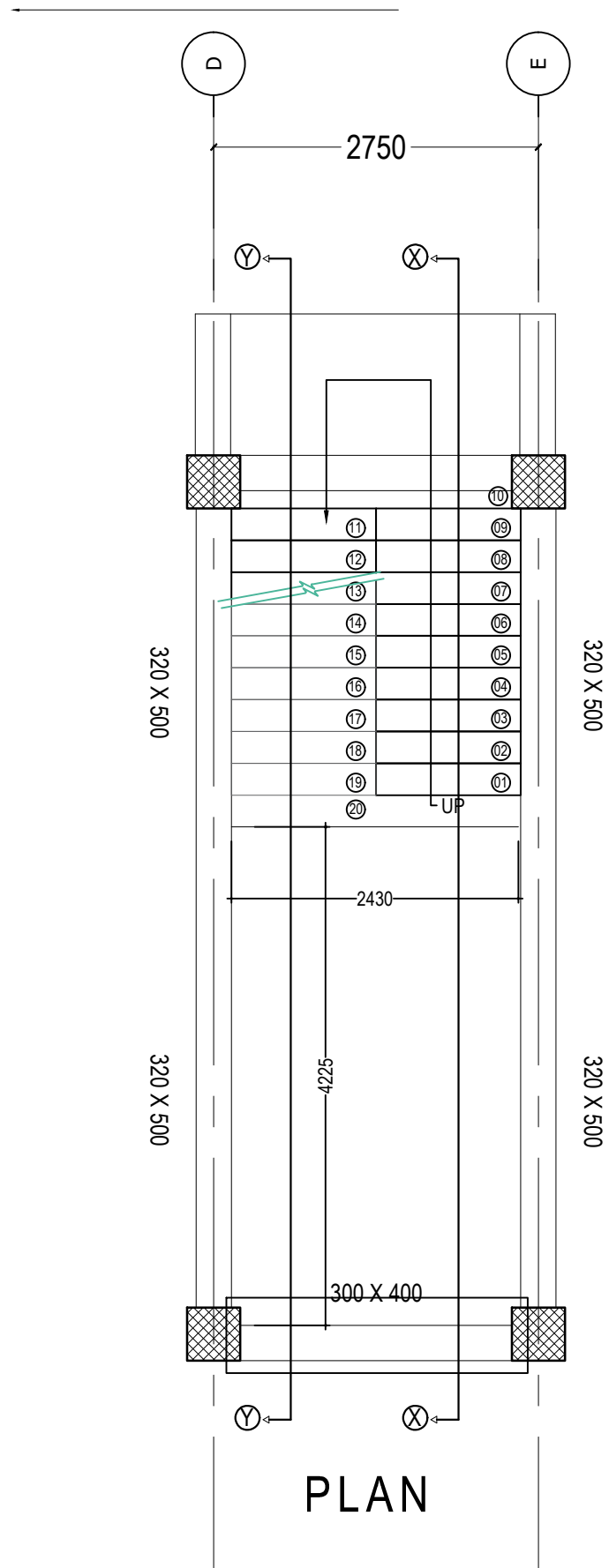
Detailing Notes:

1. The main reinforcement shall be place at bottom in the shorter direction,
2. The starting distribution rebar shall be within the distance of half of slab thickness from the edge of the beam parallel to it,
3. Grade of steel for RC slab work...Fe 500(TMT) ( SQCA approved brands),
4. The slab shall extend up to the end of cornice projection wherever necessary and refer connrice details,
5. For slab projection supporting rubsel and walls, refer cornice details,
6. Grade of concrete for RC slabs work...M20,
7. Chairs shall be placed at appropriate location to prevent the bars from bending and reducing effective depth of the slab,
8. The slab shall be cast monolithically with the floor beam/bands and must be connected properly with the RC beams/bands.
9. BUILDER IS TO PROVIDE ADEQUATE BAR CHAIRS OR SUPPORT CAGES TO SUPPORT TOP REINFORCEMENT AT THE CORRECT CENTRES(SPACING).

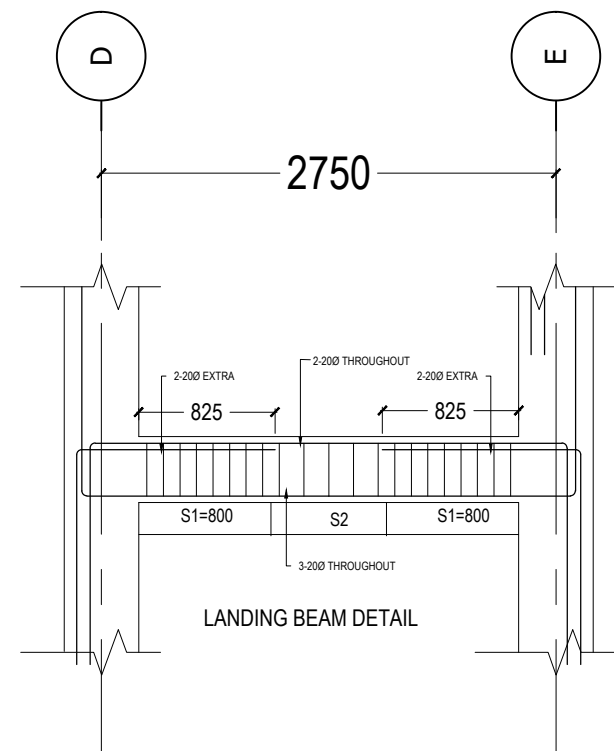
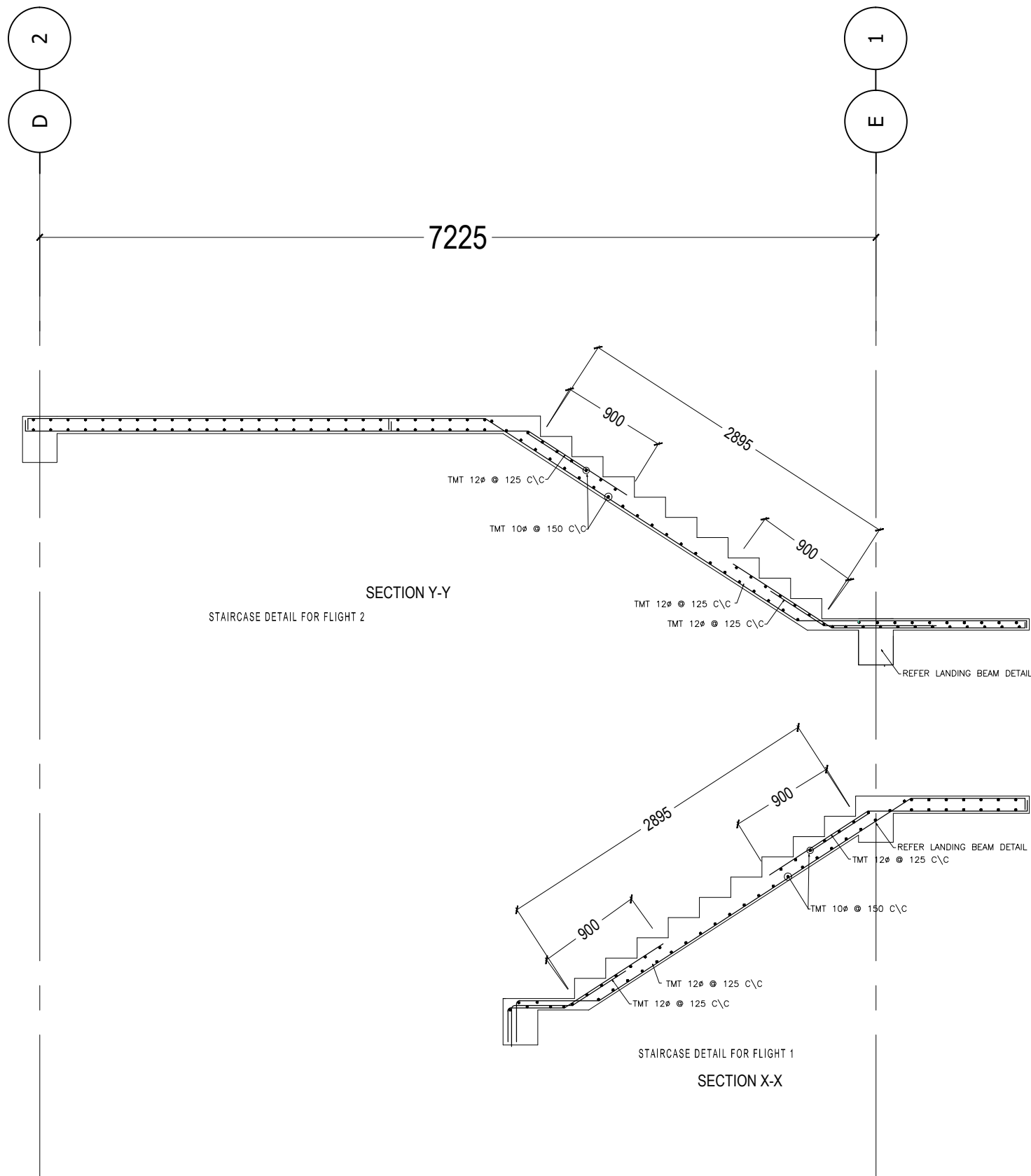


TYPICAL DETAIL OF ANCHORAGE OF SLAB TOP REINFORCEMENT IN BEAM

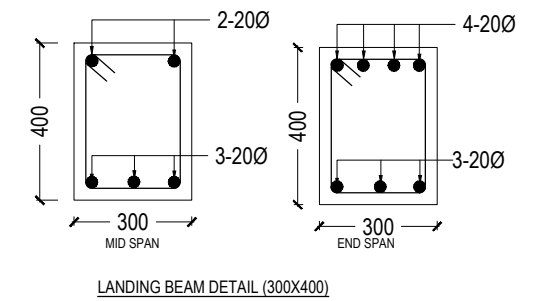
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
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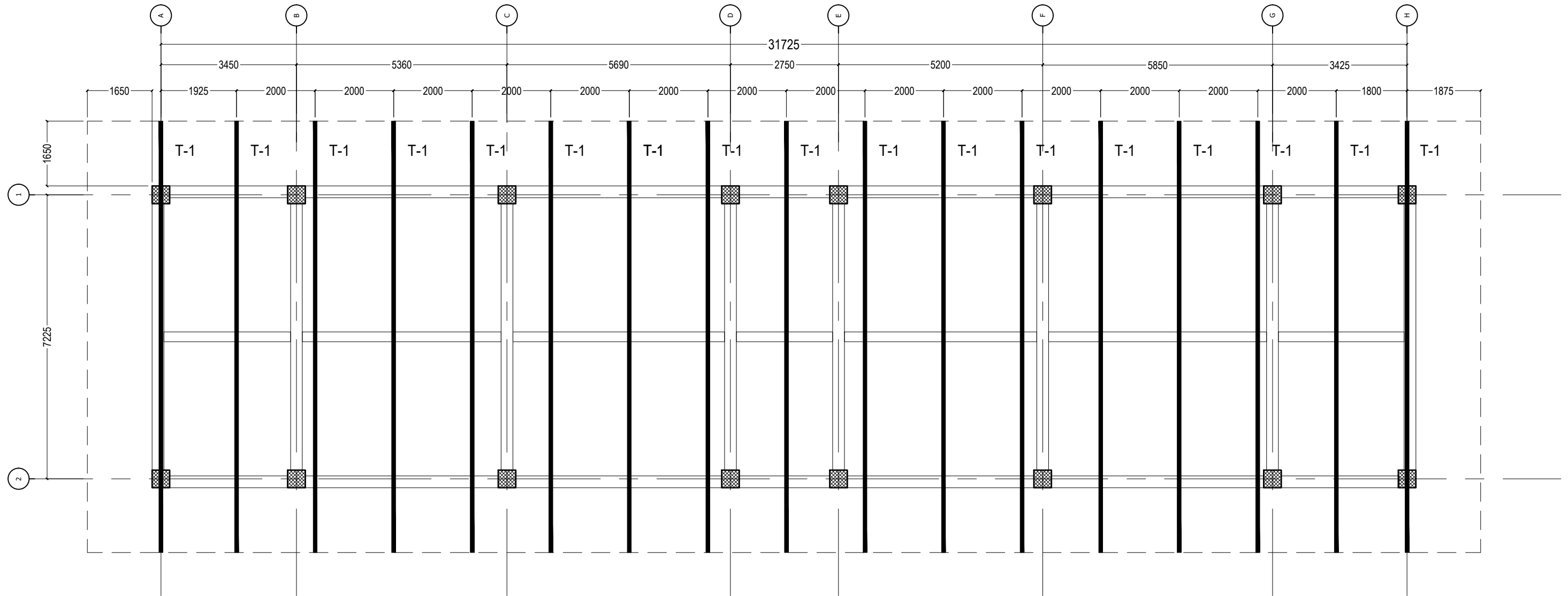
PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
					ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-28



- NOTE :**
1. ALL TREAD = 270 MM & RISER = 175 MM.
  2. THE WAIST SLAB THICKNESS = 150 MM
  3. NOTE THAT ANCHORAGEMENT LENGTH AND LAP LENGTH ARE FURNISHED FOR ALL ANCHORAGES AND LAPS.
  4. REFER PLAN OF STAIRCASE AND ARCH. SECTION FOR FINISHING DETAILS.
  5. THE REINFORCEMENT DETAIL IS SAME FOR ALL FLIGHT

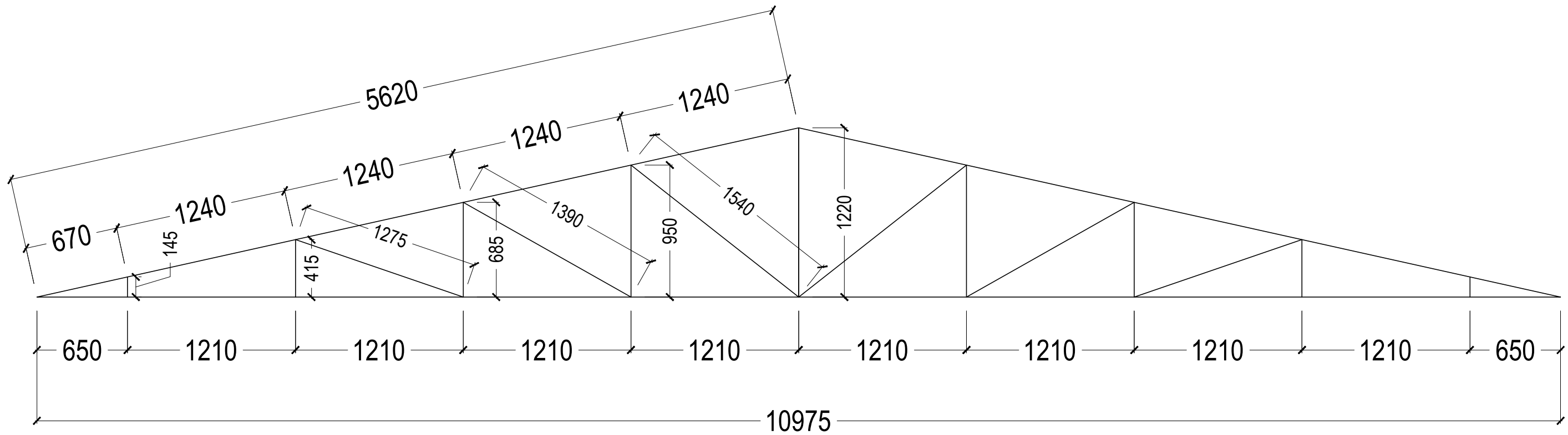


PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
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	NTS					



MAIN ROOF TRUSS LAYOUT PLAN

PROJECT:	<b>DRAWING TITLE</b>		ENGINEER	OWNER	<b>NOTES</b>	DRAWING NO.
	AS STATED ABOVE					
	<b>SCALE</b>	<b>DATE</b>				
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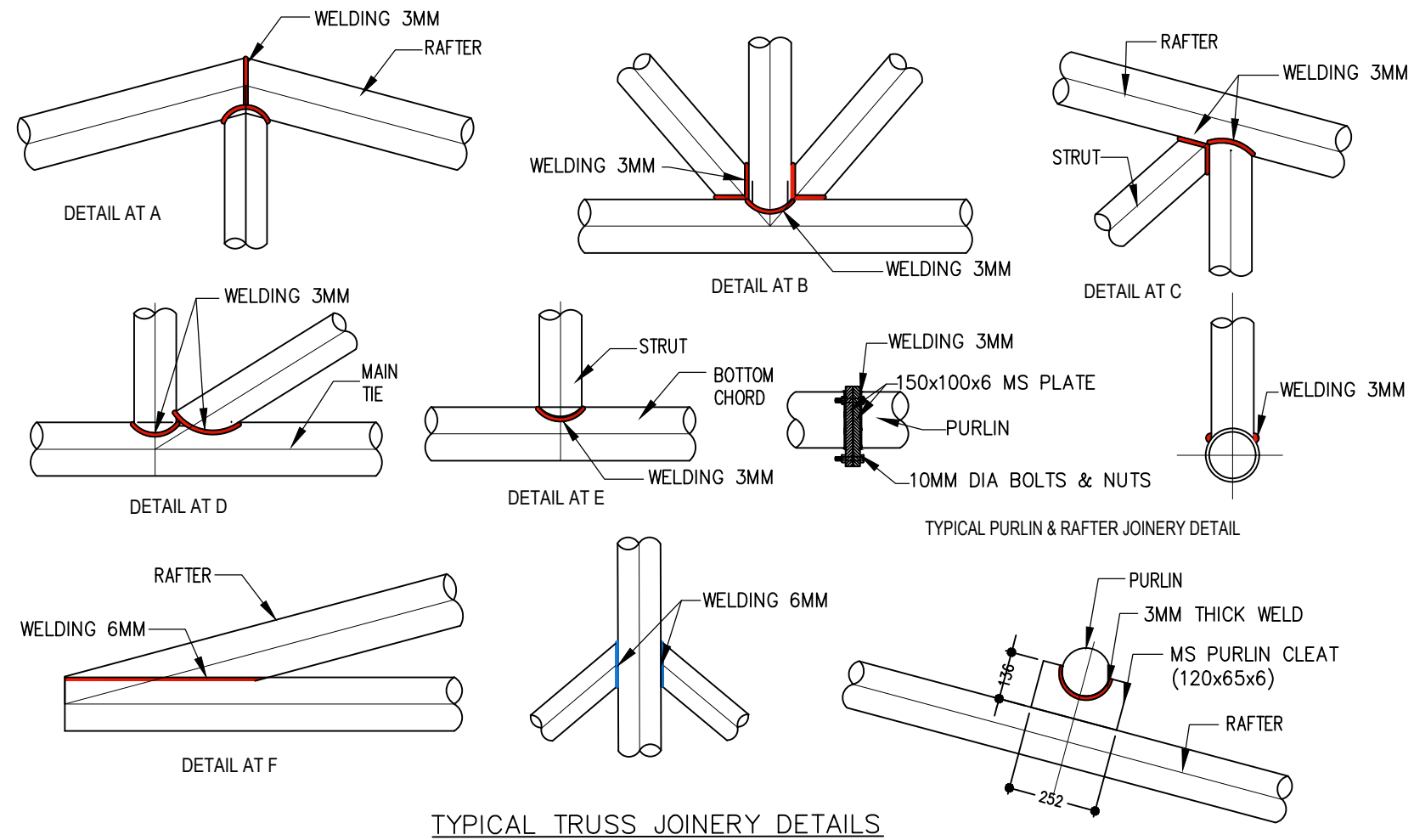
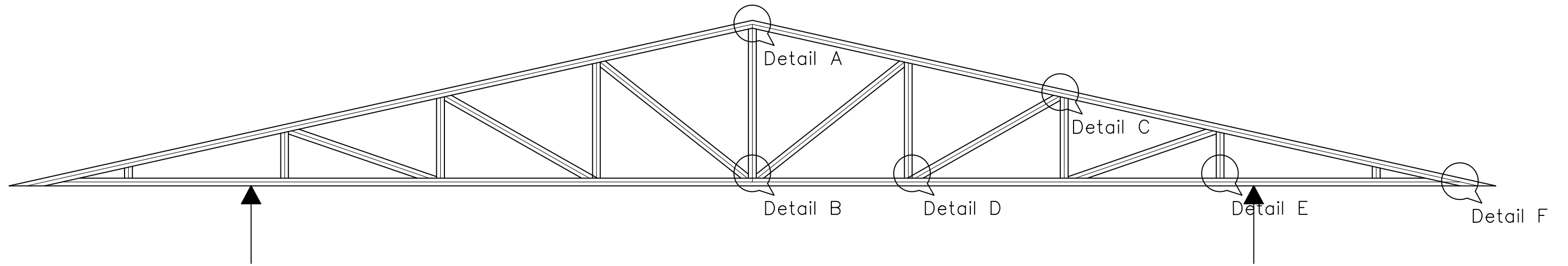
**T1**

**TRUSS MEMBERS TYPE:T1**

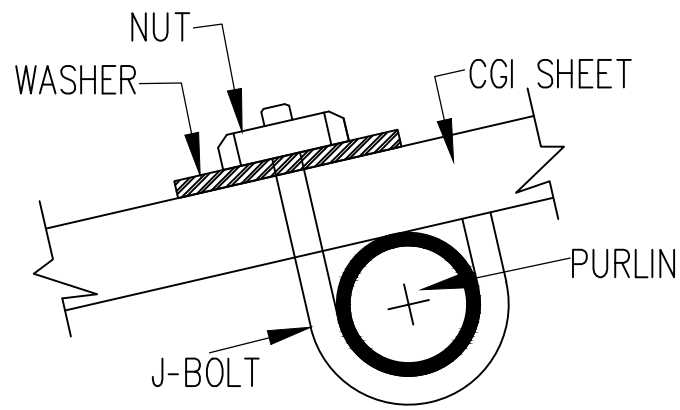
TRUSS MEMBER SCHEDULE ( ALL TRUSS UPPER ROOF )			
Particulars	Outside Diameter (mm)	Class	Thickness
Purlins	60.30	Light	3.25
Rafter	60.30	Medium	4.5
Tie Member	60.30	Medium	4.5
All Sturts	48.30	Medium	3.25

**NOTE**  
PURLINS SHALL BE LAYOUT @ MINIMUM 1200 MM C/C

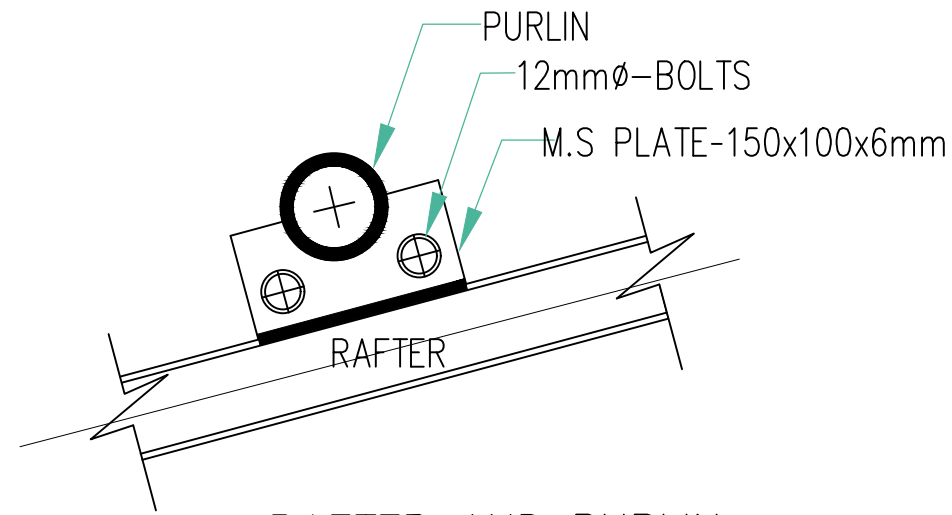
PROJECT:	DRAWING TITLE AS STATED ABOVE		ENGINEER	OWNER	NOTES <small>ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING</small>	DRAWING NO.
	SCALE NTS	DATE				DWG/STR-31



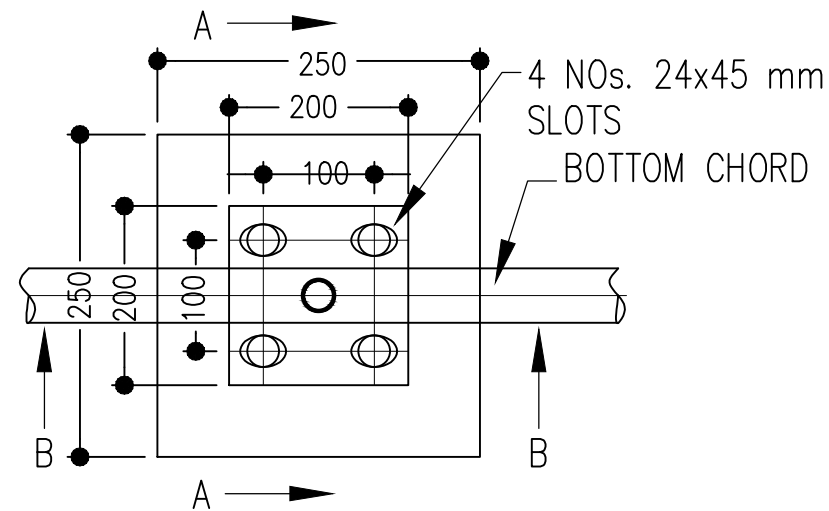
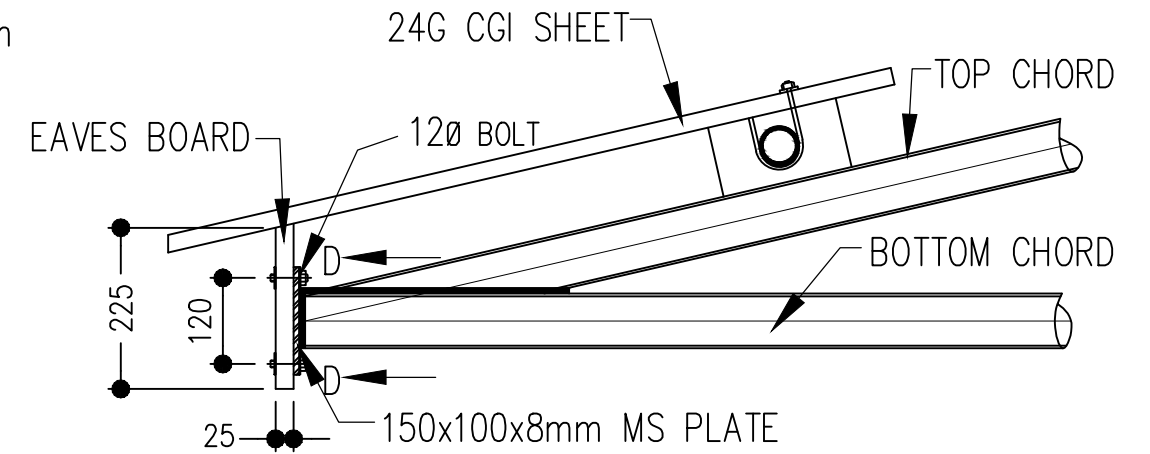
PROJECT:	DRAWING TITLE AS STATED ABOVE		ENGINEER	OWNER	NOTES ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DRAWING NO. DWG/STR-32
	SCALE NTS	DATE				



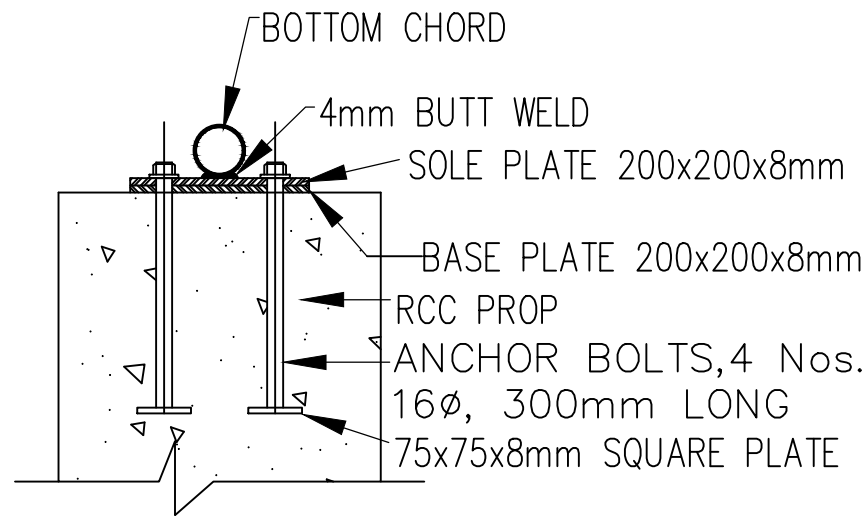
CONNECTION OF CRILI SHEET TO PURLIN



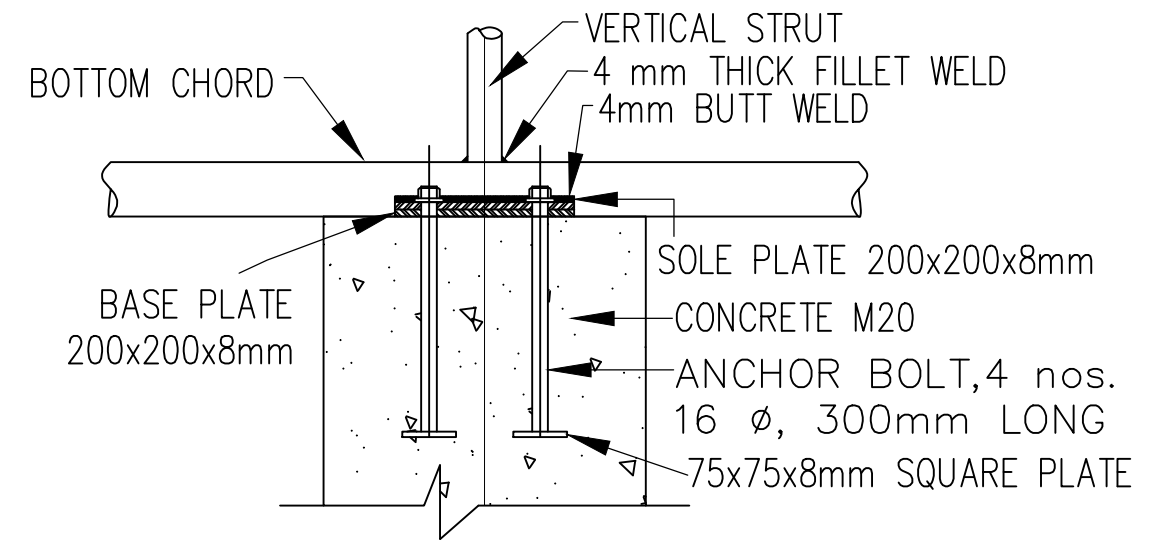
RAFTER AND PURLIN CLEAT JOINING DETAILS



TRUSS HOLDING DOWN DETAILS



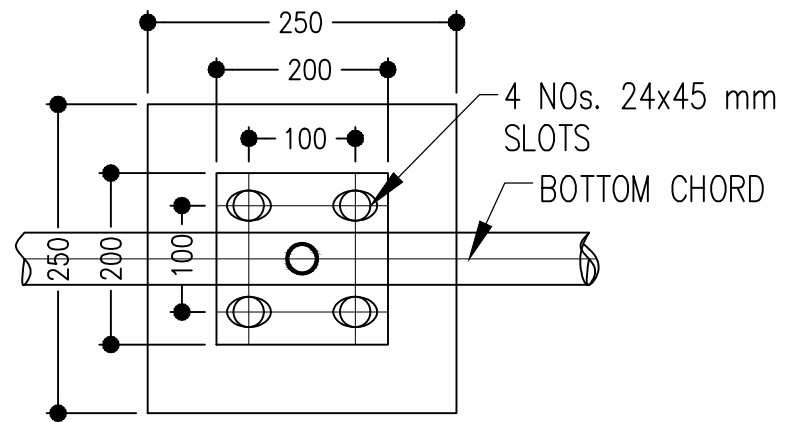
SECTION A-A



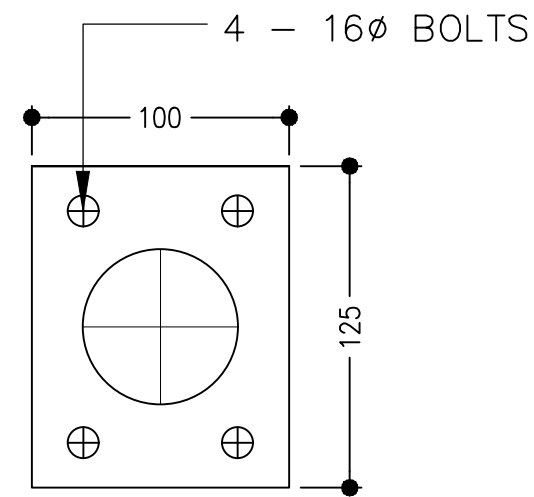
SECTION B-B

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE			ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-33
	NTS					

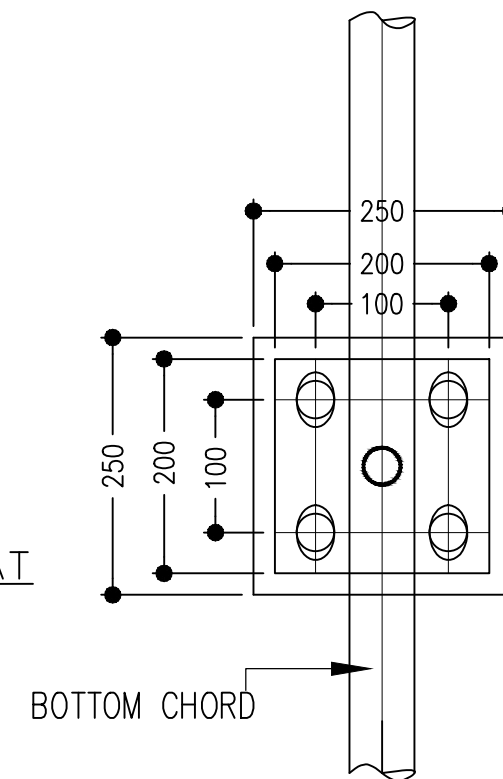




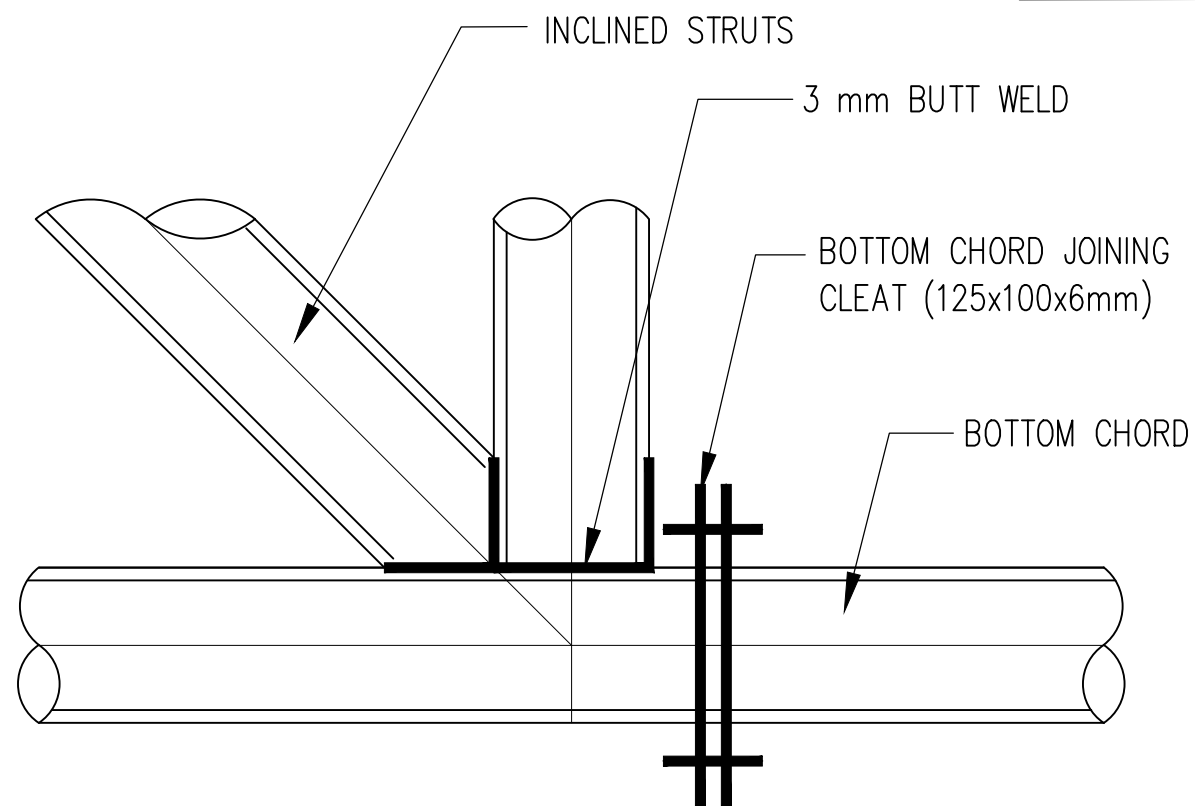
TRUSS HOLD-DOWN IN X DIRECTION



BOTTOM CHORD JOINING PLATE/CLEAT



TRUSS HOLD-DOWN IN Y DIRECTION



BOTTOM CHORD JOINING DETAILS

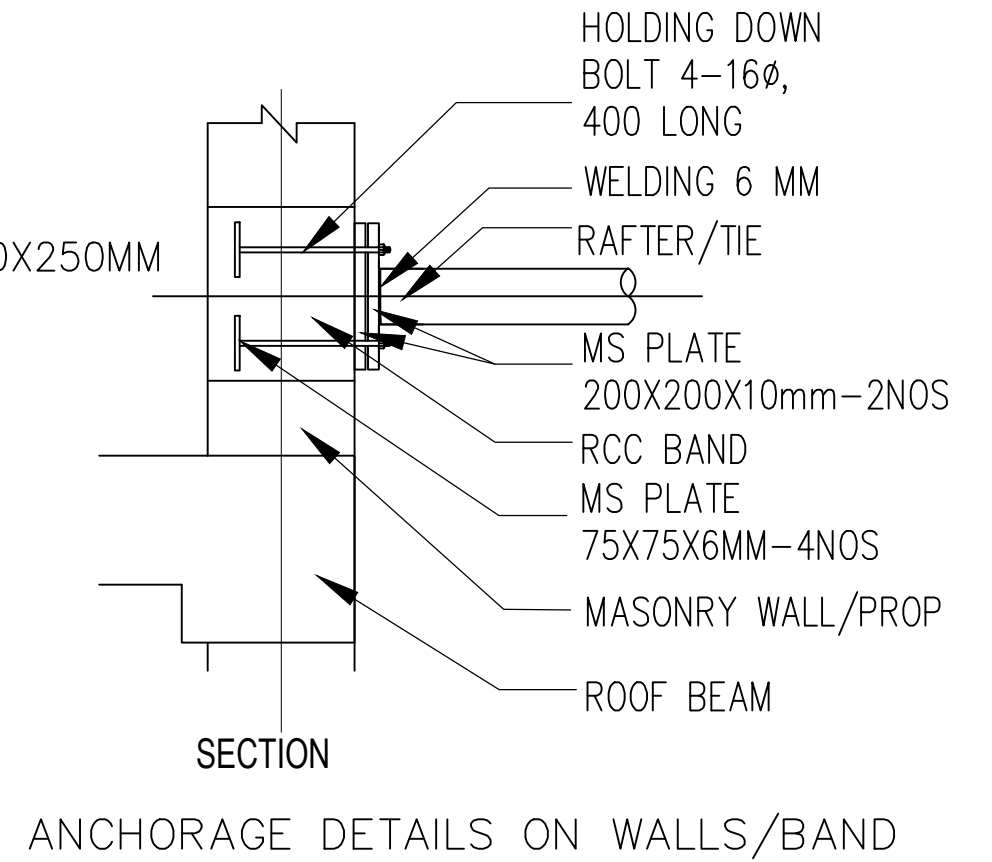
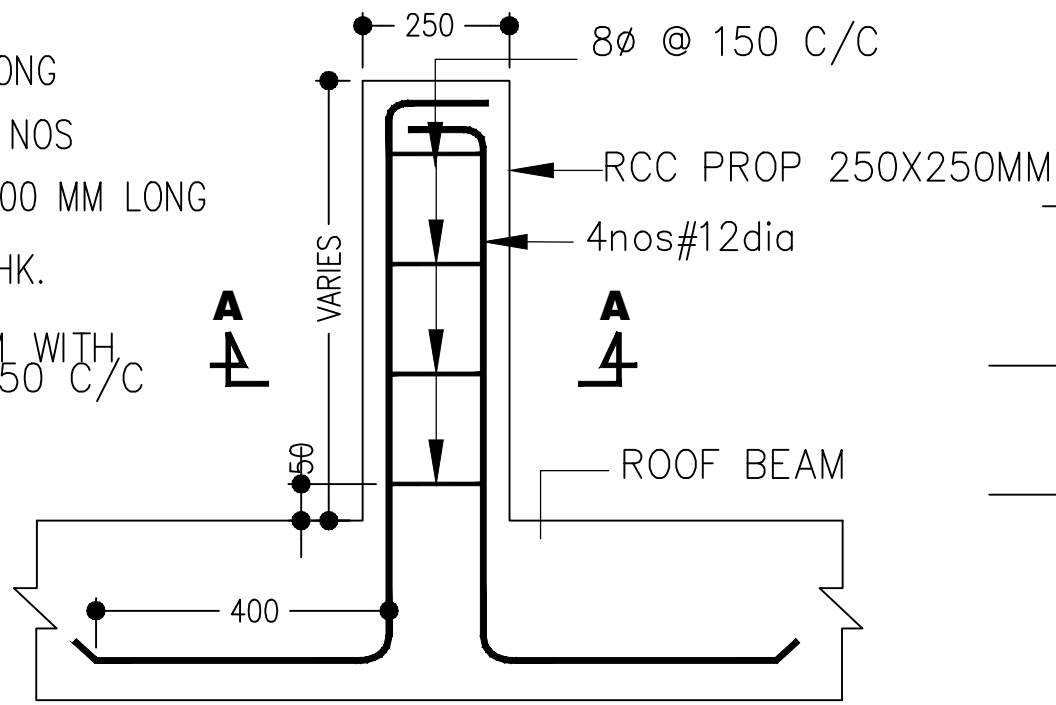
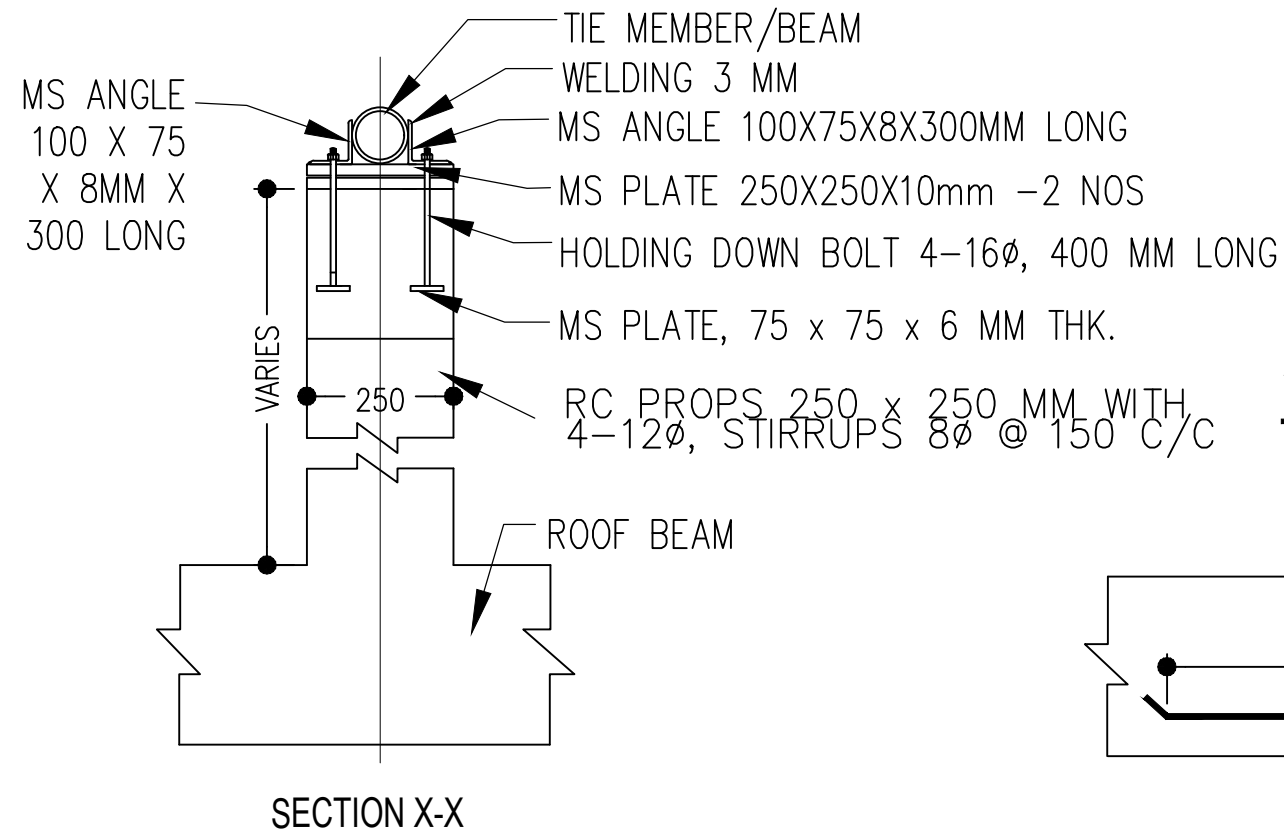
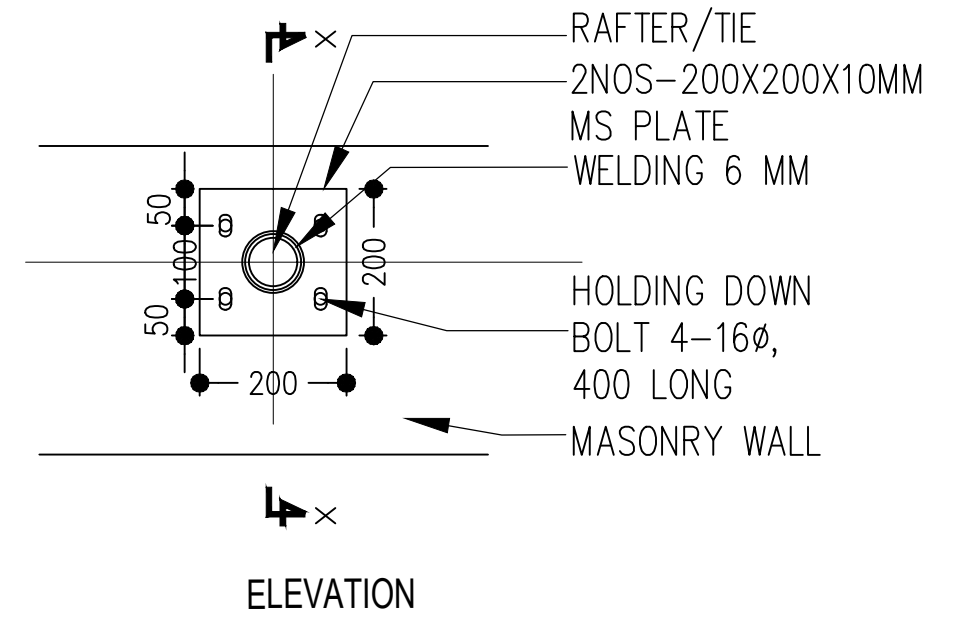
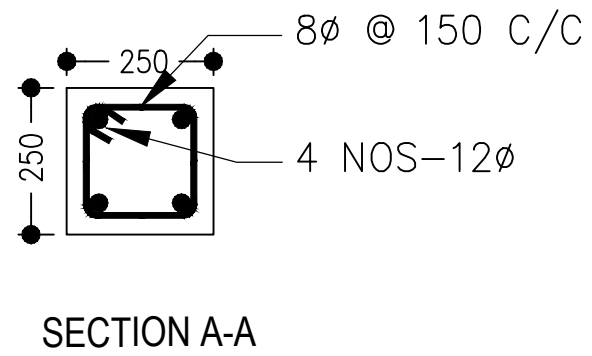
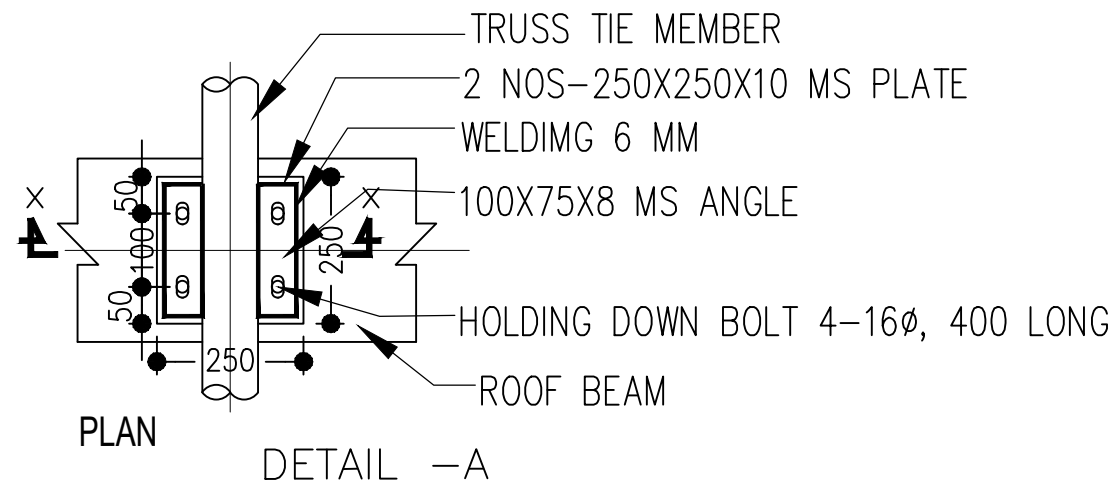
**NOTE:**

1. ALL THE SECTION DETAILS WILL BE SAME AS SHOWN BY SECTIONS A-A & B-B
2. THE PURLINS ARE SPACED AT 1200mm C/C

**NOTES (FOR ROOF TRUSS):**

1. THE GUSSET PLATES ARE MS PLATE OF DIFFERENT THICKNESS AND DESIGN CONFIRMS TO IS 806:1968
2. WELDING SHALL CONFORM TO IS: 816
3. ALL ELECTRODES SHALL CONFORM TO IS: 814 (PART-1).
4. ALL M.S. BOLTS & NUTS SHALL CONFORM TO IS: 1363(PART1-3)
5. WASHERS SHALL CONFORM TO IS: 5369, IS: 5370, IS: 5372/IS: 5374
6. HOLE SIZE = DIA OF BOLT + 1.5mm.
7. ALL STRUCTURES AFTER FABRICATION SHALL BE PAINTED WITH ANTI-CORROSIVE PAINTS.
8. ALL STRUCTURAL STEEL CONTACT SURFACES SHALL BE CLEANED OF ANY RUST, OIL, GREASE etc. BEFORE WELDING/PAINTING.
9. WRITTEN DIMENSIONS SHALL BE FOLLOWED & DOUBT MUST BE CLARIFIED BEFORE EXECUTION OF THE WORK.
10. FABRICATION AND ERECTION WORK SHALL BE CARRIED OUT AS CHECKED BY ENGINEER-IN-CHARGE.

PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
	AS STATED ABOVE					
	SCALE	DATE				
					ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED DO NOT SCALE THE DIMENSIONS FROM THE DRAWING	DWG/STR-34



PROJECT:	DRAWING TITLE		ENGINEER	OWNER	NOTES	DRAWING NO.
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**Important Note:**

**Outer Envelope contains 2 inner envelope consist of following document:**

- 1. One Original : Which contain all paged signed bidding document (Bidding document+Drawing+BOQ+Original EMD+HR documents + Equipment Documents)**
- 2. Copy : Which contain copy of bidding data sheet + copy of signed integrity Pact sheet + Copy Of BOQ + Copy of HR and equipments documents + Copy of EMD)**

**No need to submit the work experience certificate for past completed works**

**Address on all envelope**

**To,  
Program Director  
Agriculture Research Development Centre  
Bajo, Wangduephodrang**

**Mark:**

**Original/Copy on inner envelope**

**Mark Do Not Open before 11:00 Am on 16/10/2023 on all 3 Envelope**