



**ASIAN UNIVERSITY
FOR WOMEN**

**REQUEST FOR PROPOSAL (RFP)
Grid-Connected Net Metering Solar System and Lightning Protection System for the Service
Building and Academic Building
Asian University for Women (AUW), Arefin Nagar Campus
Summary Sheet**

Name of the company	Asian University for Women
Procurement Reference Number	Package/Solar & LPS-MEP /25_26
Date of issue of the RFP	8 February 2026
Date and Closing Time for RFP submission	22 March 2026 (12:01 pm) (GMT +6)
Quotation submission mail address	tender155@auw.edu.bd
Address for Communication	Asian University for Women 20/A M. M. Ali Road Chattogram 4000, Bangladesh Tel: +880-31-285-4980 Fax: +880-31-285-4988

Bidders are invited to submit their proposals in accordance with the terms outlined in the enclosed Request for Proposal (RFP).

AUW reserves the right to reject any or all offers without providing any reason.

Confidentiality must be strictly maintained. The information provided here should only be used for its intended purpose and scope. By retaining this RFP, you agree to treat all information as confidential.

All communications regarding this Request for Proposal should be directed to AUW, with copies sent to the email addresses listed in the RFP email.

For any further queries, please contact:

- **Primary Point of Contact for RFP Process and Technical Queries:**

Mohammed Ishrat Bin Mahbub

Director of Supply Chain Management

Email: mohammed.mahbub@auw.edu.bd

Contact Number: +8801926673027; Whatsapp: +8801671470348

Proposals should be submitted only to the following email: tender155@auw.edu.bd

No other AUW email address should be used in the "To," "CC," or "BCC" fields. Any proposal that violates this instruction may be disqualified.



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RFP and Tender Notice

Asian University for Women (AUW) is committed to adhering to the highest standards of financial integrity and management best practices in all aspects of its operations, including RFPs, Tender Notices, and campus construction. We value respect for all, high standards for occupational health and safety, environmental preservation, and equality of men and women as workers and their entitlements for equal wage for equal work. We encourage all our contractors to employ at least 50% women in their workforce. Should anyone notice or otherwise come to know of any practice or incidence of malfeasance, corruption, unlawful or disrespectful treatment or unsafe living or working conditions, avoidable environmental degradation or mismanagement in any form, they may write in full confidentiality to the Secretary of the Board of Trustees. In case of receipt of any such submission with sufficient specificity, an independent agency may investigate the matter and respond to the writer and if appropriate, to the public.

boardsecretary@asian-university.org

AUW is a privately funded independent international university governed by its Board of Trustees with a public service mission. All decisions relating to its management are at the sole discretion of its Board of Trustees.

Thank you for helping AUW achieve the highest ethical and management standards.



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Proposal Summary Executive Summary

This Request for Proposal (RFP) seeks qualified and experienced firms to design, supply, install, test, and commission a complete Grid-Connected Net Metering Solar System and Lightning Protection System for the Asian University for Women (AUW) Main Academic Building. The project aims to ensure the facility is equipped with a comprehensive and compliant fire protection, detection, and alarm system in accordance with national and international fire safety standards.

Project Implementation Schedule

The successful bidder shall complete the works within the stipulated time frame stated in the Letter of Award. The indicative timeline for implementation is as follows:

- Design submission and approval: within 15 working days from award.
- Material delivery and installation: within 90 working days from design approval.
- Testing and commissioning: within 15 working days after installation.
- Total completion period: 120 working days from the date of contract signing.

Proposal Evaluation Methodology

All proposals will be evaluated in accordance with AUW procurement procedures and applicable regulations. Evaluation will be conducted based on the following criteria:

- Technical compliance with specifications (25%)
- Relevant experience and qualifications (25%)
- Financial proposal and competitiveness (50%)

The contract will be awarded to the bidder offering the most advantageous proposal, technically compliant and commercially competitive.

Warranty and Post-Installation Support

The contractor shall provide a minimum one (1) year warranty according to the section 4 ITA 2.7 covering all materials, equipment, and workmanship. During this period, the contractor shall perform preventive and corrective maintenance at no additional cost. The contractor shall also ensure availability of spare parts and service personnel as required.

Training and Handover

Upon completion, the contractor shall conduct a comprehensive training session for AUW's designated staff on system operation, troubleshooting, and maintenance. The contractor shall submit the following documents prior to handover:

- As-built drawings
- Operation and Maintenance (O&M) manuals
- Test reports and commissioning certificates
- Warranty certificates

Confidentiality and Compliance

The contractor shall maintain strict confidentiality of all information and documents provided by AUW. All works shall comply with Bangladesh National Building Code (BNBC), NFPA standards, and local standard regulations, IEC. The contractor shall be responsible for obtaining necessary clearances and ensuring safety during execution.

Scope of Work

The scope of work should be updated to focus on the Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building. The CONTRACTOR shall be responsible for the complete execution design, supply, installation, testing, commissioning, and handover of the Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building in accordance with international codes and standards. The scope includes, but is not limited to, the following:

1. Site Assessment and Mobilization

- Conduct site visits and assessments as required.
- Mobilize resources and set up utility service connections for the site office (if required).

2. Design and Documentation

- Prepare design drawings and obtain approval from relevant authorities.
- Prepare any necessary evacuation plan drawings.
- Develop shop drawings based on the GFC layout and obtain approval from the Client and Consultant before execution.
- Submit an execution schedule that accounts for both imported and local materials.
- Submit material samples (from the approved BOQ brand list) for approval.
- Prepare all required documentation, including as-built drawings, calculations, and handover documents, in compliance with relevant codes.

3. Supply and Installation

- Provision and installation of equipment and accessories as per drawings and specifications.
- Include any necessary electrical, mechanical, civil, or other items not explicitly covered in the supporting BOQ or technical specifications.
- Manage on-site storage of both imported and local materials, with proper records maintained by the storekeeper.
- Execute work strictly in accordance with approved shop drawings.

4. Testing, Commissioning, and Balancing

- Perform testing, commissioning, and balancing of all installed Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building. Ensure quality and compliance with all relevant codes and standards.
- Provide valid calibration certificates for all testing equipment used, attached with the test report.

5. Technical Team Assignment

- Assign a dedicated technical team (Project Manager, Project Engineer, Safety Officer, etc.) to be continuously available throughout execution.

6. Reporting and Progress Monitoring

- Prepare and submit supporting documents, including:
 - Daily field reports
 - Monthly progress reports
 - Material inspection reports
 - Requests for inspection throughout execution

7. Post-Handover Documentation and Training

- Prepare and submit all post-handover documentation for the Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building including:
 - Operation & Maintenance (O&M) Manuals
 - As-built drawings
 - Warranties
 - Commissioning reports and test certificates
 - Training manuals
 - Spare parts lists
- Conduct training for client personnel on all installed systems.

8. General & Additional

- Prepare shop drawings based on the GFC layout, and need to be approved by the client and consultant prior to commencement of execution.
- Submit the actual execution schedule, taking into account both imported and local materials.
- Prepare documentation works including as-built drawings and handover documents, testing, pre-commissioning, post commissioning and all types of calculation in compliance with relevant codes upon completion of execution.
- Submit material samples based on the brand list for approval by the client's technical team and consultant.
- Manage on-site storage for imported and local materials with proper record by the store keeper.
- Include any necessary items (i.e, electrical, mechanical, civil, etc.) which is not included in the supporting BOQ and technical specifications should be considered in the shop drawings before execution.
- Execution works must be carried out in accordance with the approved shop drawings & related GFC drawings.
- Assign a dedicated technical team/engineers (i.e, Project Manager, Project Engineer, Safety Officer etc.) to be continuously available during execution.
- Ensure the quality of execution meets all compliance and code requirements.
- Prepare and submit all necessary supporting documents such as daily field reports, monthly progress reports, material inspection reports, and requests for inspection throughout the execution period.
- Prepare post-handover documents for On Grid Net Metering Solar System of Service Building & Lightning Protections System of Service & Academic Building include Operation &



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Maintenance (O&M) Manuals, as-built drawings, warranties, commissioning reports, test certificates, training manuals, and spare parts lists for all installed systems.

- The contractor will perform the temporary generator installation and termination to facilitate the ant testing and commissioning of the overall working scope with their own cost.
- If any item brands are missing from the BOQ the contractor shall follow the country of origin in the technical specifications when selecting product brands.
- All foreign and local items must undergo factory inspection with necessary test either locally or abroad by the engineers, consultant, and client prior to shipment or delivery.
- All testing equipment's must have a valid calibration certificate.
- The attic stock should be calculated as 2% of the total quantity of materials installed, to be provided after project handover.
- During execution, if any core cutting/punches is required, the contractor shall be responsible for any leakage that occurs after the work is completed. The contractor must ensure that all core cutting is properly sealed and leak-proof.
- Any substandard work, use of unapproved materials, or non-compliance with QC policies will attract a hefty penalty, deducted from the R/A bill against the issued NCR.
- The contractor shall ensure the Solar system (Integrated with grid) & LPS system of service building & academic building is fully operational after completing all works, tests, commissioning activities, and required certifications.
- The contractor must comply with all EHS (Environment, Health & Safety) policies and standards.
- If any technical personnel are deemed unsuitable by the Client/Consultant, they must be replaced immediately.
- The contractor shall submit an RFI (Request for Information) for drawings/decisions with at least two weeks' lead time for consultant feedback.
- Where necessary, the contractor shall coordinate with the metal roofing/metal contractor before and during the execution of roofing works. Any issues resulting from miscommunication or insufficient coordination shall be borne by the contractor, including all associated rework.
- The contractor must maintain the site in a neat and clean condition. Debris shall be disposed of at designated areas, and a separate team must be deployed for curing works.
- The contractor shall submit a detailed Work Method Statement (WMS).
- The contractor shall provide 2 sets of shop drawings (A1), 2 sets of as-built drawings (A1 and A2), and 2 sets in A3 size. All documents, calculations, operation manuals, maintenance checklists, and color images of approved samples shall be submitted in one A3 set and one A4 set.

9. Product Warranty

The product of LPS and solar system shall carry a minimum warranty period of 20 years or higher.

Summary of Qualification of Tenderers

The Applicant must meet the following qualification criteria:

1. A minimum of Ten (10) years of experience in Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building installations and operations.
2. Specific experience as a Prime Contractor in Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building installations and operations, with at least one (01) contract of similar nature, complexity, and construction methods/technology successfully completed within the last five (05) years, having a minimum value of Tk. 1.6 (One Point Six) crore.
3. Experience in completing Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building installations and operations for a building with a total built-up area of at least 9,000 square meters.
4. The average annual turnover shall be greater than Tk. 5 (Five) crore, calculated over the best three (3) years within the last five (5) years.
5. The minimum amount of liquid assets, i.e., working capital or credit line(s), of the Tenderer shall be Tk. 3.50 (Three Point Five Zero) crore.
6. Proven reputation as a constructor in both the public and private sectors, supported by a detailed company profile, client list, and work accomplishment certificates.
7. The applicant must not have any record of contract non-performance in the **last 5 years** from the RFP publication date.
8. All pending litigation must not exceed **15% of the applicant's net worth**.
9. At least **1 contract** of similar nature and complexity in Grid-Connected Net Metering Solar System and Lightning Protection System for the Service Building and Academic Building, completed within the last **3 years**.
10. Applicants must demonstrate: Relevant **professional and technical qualifications, Managerial capability, A reliable reputation** for contract performance, Adequate and **skilled personnel**
11. The successful Applicant, who later becomes the Tenderer, is required to perform the works and services as described in the subsequent Tender.
12. Applicants must have access to the **necessary equipment and physical facilities** to perform the work, either by: **Owning** the equipment; having **proven access** through a **contractual arrangement** (e.g., lease or hire); or having **assured access** to such equipment for the required duration. All

required equipment must be in **full working condition**

Section 1. Instructions to Applicants

1. Interpretation 1.1 Throughout this qualification Document:

- (a) the term **“in writing”** means communication written by hand or machine duly signed and includes properly authenticated messages by facsimile or electronic mail;
- (b) if the context so requires, **singular** means plural and vice versa;
- (c) **“day”** means calendar days unless otherwise specified as working days;
- (d) **“Qualification Document”** means the Document provided by the Employer to an Applicant as a basis for preparation of the Application; and
- (e) **“Application”** depending on the context, means an application submitted by an Applicant for Qualification to participate in the subsequent Tenders and to perform the Contract, in response to an Invitation for Qualification.

1.1 Corrupt, Fraudulent, Collusive or Coercive Practices

1.2 It is the Employer’s policy to require that Employer’s staff, as well as Applicants/Tenderers, suppliers, and contractors and their subcontractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Authority-

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) **“corrupt practice”** is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (ii) **“fraudulent practice”** is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - (iii) **“collusive practice”** is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) **“coercive practice”** is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (v) **“obstructive practice”** is (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank 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 (bb) acts intended to materially impede the exercise of the Authority’s inspection and audit rights provided.
- (b) will reject a proposal for award if it determines that the Tenderer 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;
- (c) will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a contract.

2. Source of Funds

The Employer will arrange fund towards the cost of the project named in the ADS. The Employer intends to



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apply a portion of that funds to eligible payments under the contract(s) resulting from the Tendering for which this prequalification is conducted.

3. Eligible Applicants

- 3.1 This Invitation for Qualification is open to all potential Applicants from all countries, except Israel. An Applicant will be eligible if it is a citizen, or is constituted, registered and operates in conformity with the provisions of the laws of that country.
- 3.2 Applicants may be a physical or juridical individual or body of individuals, or company, association or any combination of them in the form of a Joint Venture, Consortium or Association (JVCA) invited to take part in public procurement or seeking to be so invited or submitting an Applicant in response to an Invitation for Qualification.
- 3.3 Applicants shall have the legal capacity to enter into the Contract under the Applicable Law.
- 3.4 Applicants and all parties constituting the Applicant shall not have a Conflict of Interest. Applicants in its own name or its other names or also in the case of its Persons in different names shall not be under a declaration of ineligibility for corrupt, fraudulent, collusive or coercive practices.
- 3.5 Applicants with a poor performance, consistent history of litigation or arbitration awards against it shall not be eligible for Qualification.
- 3.6 Applicants shall not be insolvent, be in receivership, be bankrupt, be in the process of bankruptcy, be not temporarily barred from undertaking business and it shall not be the subject of legal proceedings for any of the foregoing.
- 3.7 Applicants shall have fulfilled its obligations to pay taxes and social security contributions under the provisions of laws and regulations of the country of its origin.
- 3.8 Applicants shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer will reasonably request.
- 3.9 Applicants' requirements for eligibility will extend, as applicable, to each JV partner and Specialist Subcontractor proposed by the Applicant.



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4. Eligible Materials, Equipment and Associated Services

4.1 All materials, equipment and associated services to be supplied under the Contract are from eligible sources, unless their origin is from Israel.

4.2 For the purposes of this Clause, “**origin**” means the place where the Materials and Equipment’s are mined, grown, cultivated, produced or manufactured or processed, or through manufacturing, processing, or assembly, another commercially recognized new product results that differs substantially in its basic characteristics from its components or the place from which the associated services are supplied.

5. Site Visit

- 5.1 Applicants are advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Application, submission of subsequent Tender and entering into a contract.
- 5.2 Applicants and any of its personnel or agents will be granted permission by the Employer to enter into its premises and lands for the purpose of such visit, but only upon the express condition that the Applicant, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 5.3 The costs of visiting the Site shall be at the Applicants’ own expense.

7 Qualification: General

Qualification Document

6.1 The Sections comprising the Qualification Document are listed below, and should be read in conjunction with any Addendum issued under ITA Clause 11.

- Section 1 Instructions to Applicants (ITA)
- Section 2 Application Data Sheet (ADS)
- Section 3 Application Forms
- Section 4 Scope of Works

6.2 Applicants are expected to examine all instructions, forms, terms, and specifications in the Qualification Document as well as in Addendum to Qualification, if any.

8 Clarification of Qualification Document

- 7.1 Applicants requiring any clarification of the qualifications Document shall contact the Employer in writing at the Employer’s address indicated in the RFP before **two-third** of the time allowed for preparation and submission of Application elapses.
- 7.2 Non-performance of a contract shall not occur within the last years, prior to the deadline for Application submission based on all information on fully settled disputes or litigation.

9 Litigation History

- For the purpose, a fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract and where all appeal instances have been exhausted.
- For a Joint Venture under ITA Sub Clause 18.1, the precise minimum requirements of Leading Partner and other partners shall be as specified in the ADS.

10 Joint Venture, Consortium or Association (JVCA)

- 10.1 Applicants may participate in the qualification process and subsequent procurement proceedings by forming a Joint Venture, Consortium or Associations (JVCA) or alternately with the intent to enter into such an agreement supported by a Letter of Intent.
- 10.2 The JV agreement, indicating at least the parts of the Works to be executed by the respective partners, shall be legally entered into case-by-case in the Applicant's Leading Partner's country of origin, as specified in the ADS, duly signed by all legally authorized representatives of the Persons who are parties to such agreement.
- 10.3 Applicants, as an alternate to ITA Sub Clause 9.2, may intend to enter into a JV agreement case-by-case in the form of a Letter of Intent along with the proposed agreement, indicating at least the parts of the Works to be executed by the respective partners, duly signed by all partners of the intended JV and authenticated by an authority of the Applicant's Leading Partner's country of origin, as stated in the ADS, with the declaration that the partners will execute the Joint Venture agreement in the event the Applicant, in the first place pre-qualified and then successful in the subsequent Tender.
- 10.4 Applicants shall submit the Letter of Intent and the proposed JV agreement along with the Application.
- 10.5 For a Joint Venture under ITA Sub Clause 9.1, the precise minimum qualification requirements of Leading Partner and other partners shall be as specified in the ADS.
- 10.6 In cases where a JV partner's, personnel capacity, equipment capacity and financial capacity individually fulfils the precise minimum qualifying requirement of that particular component as specified, capacities of such partner(s) in the JV will be combined together for summation to determine the total precise minimum qualifying requirements criterion of that JV as stated under ITA Sub Clause 9.5.
- 10.7 Each partner of the JV shall be jointly and severally liable for the execution of the Contract, all liabilities and ethical and legal obligations in accordance with the Contract terms.
- 10.8 The JV shall nominate a Representative (partner-in-charge) who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution including the receipt of payments for and on behalf of the JV.
- 10.9 The composition or the constitution of a JV once formed shall not be allowed to be altered prior to signing of the Contract.
- 10.10 Alteration of partners to the composition or constitution at a date later than the signing of the Contract during execution shall be allowed by the Employer only when any of such partners is found to be incompetent or has serious difficulties which may impact the overall implementation of the

proposed Works, where the incoming partner shall require to have qualifications higher than that of the outgoing partner.

10.11 Each partner of the JV shall complete the JV Partner Information (Form F3) for submission with the Application.

11 Contents of Application

11.1 The Application prepared by the Applicants shall comprise the following:

- 11.1.1 Application Submission Letter (Form F-1);
- 11.1.2 Applicant Information (Form F-2);
- 11.1.3 documents demonstrating that they are enrolled in the relevant professional or trade organizations registered in their country of origin;
- 11.1.4 written confirmation authorizing the signatory of the Application to commit the Applicant;
- 11.1.5 documents confirming the legal capacity stating that there are no existing orders of any judicial court that prevents either the Applicant or employees of that Applicant subsequently entering into or signing a Contract with the Employer;
- 11.1.6 documents confirming that the Applicant is not insolvent, in receivership, bankrupt or in the process of bankruptcy, temporarily barred from undertaking business and shall not be the subject of legal proceedings for any of the foregoing;
- 11.1.7 documents confirming that all claims, arbitration or other litigation cases have been satisfactorily resolved, and if not, they shall have no serious negative impact on the financial capacity of the Applicant;
- 11.1.8 documents confirming that the Applicant has fulfilled its obligations to pay taxes and social security contributions under the provisions of laws and regulations of its country of origin as a proof of fulfilment of taxation obligations;
- 11.1.9 documents establishing the Applicant's eligibility to perform the contract;
- 11.1.10 documents establishing the origin of all Materials, Equipment and services to be supplied under the Contract, as stated under ITA Clause 26;
- 11.1.11 documents establishing the minimum qualifications of the Applicant required to be met for due performance of the Works and physical services under the contract;
- 11.1.12 any other document as specified in the ADS.

11.2 In addition to the requirements stated under ITA Sub Clause 9.1, Applications submitted by a JV or proposing a Specialized Subcontractor shall include:

- 11.2.1 Joint Venture Agreement legally entered into in the Applicant's Leading Partner's country of origin, by all partners, as stated under ITA Sub Clause 18.2;

Or,

- 11.2.2 Letter of Intent along with the proposed agreement duly signed by all partners of the intended JV and authenticated by an authority of the Applicant's Leading Partner's



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country of origin with the declaration that it will execute the Joint Venture Agreement in the event the Applicant and the Tenderer is successful in the subsequent Tender, as stated under ITA Sub Clause 18.3;

11.2.3 the JV Partner Information (**Form F-3**), as stated under ITA Sub Clause 18.11;

11.2.4 the Specialist Subcontractor Information (**Form F-4**), as stated under ITA Sub Clause 19.6.

12 Documents Establishing the Applicant's Qualification

12.1 Applicants shall complete and submit the Applicant Information (**Form F-2**) and shall include documentary evidence, as applicable to satisfy the following:

- 12.1.1 details on the financial standing of the Tenderer, such as profit and loss statements and corresponding auditor's report establishing the liabilities and assets;
- 12.1.2 details of general experience in Fire management works on case-by-case procurement proceedings performed for each of the last years along with the sums, dates and recipients;
- 12.1.3 details of specific experience in construction works of similar nature and size on case-by-case procurement proceedings performed for each of the last years along with the sums, dates and recipients;
- 12.1.4 details of average annual turnover for a period;
- 12.1.5 details of existing commitments and works to assess the minimum Tender Capacity;
- 12.1.6 details of adequacy of working capital for the subsequent Tender i.e., access to line(s) of credit and availability of other financial resources;
- 12.1.7 details of numbers of technical and administrative personnel along with their qualification and experience proposed for the subsequent Tender;
- 12.1.8 details of Applicant's technical facilities, available major construction equipment's, measures for ensuring quality such as, ISO certification and design, research and development facilities proposed to carry out the Contract;
- 12.1.9 details of Procuring Entities who may be contacted, if necessary, by the Employer; and authority to seek references from the Applicant's bankers or any other sources.

12.2 Applicants, if applying as an existing or intended JV, shall submit documentary evidence to establish its qualifications as stated under ITT and, in particular, it shall submit an affidavit nominating one of the JV partners as the REPRESENTATIVE (partner-in-charge) who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution including the receipt of payments for and on behalf of the JV.

13 Bank Guarantees

13.1 Performance Bank Guarantee Clause



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- 13.1.1 The successful bidder, upon receiving the Notification of Award (NoA), shall furnish an unconditional and irrevocable **Performance Bank Guarantee** in favor of *Asian University for Women (AUW)*.
- 13.1.2 The amount of the Performance Bank Guarantee shall be **ten percent (10%) of the total Contract Price**, issued from any scheduled bank operating in Bangladesh and acceptable to AUW.
- 13.1.3 The Performance Bank Guarantee shall remain **valid until twenty-eight (28) days after the completion of the Defects Liability Period** or final acceptance of the works, whichever is later.
- 13.1.4 Failure to submit the Performance Bank Guarantee within the stipulated time may result in the cancellation of the award and forfeiture of any right to the contract.
- 13.1.5 The Performance Bank Guarantee shall be returned to the Contractor upon satisfactory completion of all contractual obligations and submission of all completion documents as per AUW's satisfaction.
- 13.1.6 AUW reserves the right to **invoke the Performance Bank Guarantee**, in whole or in part, in the event of the Contractor's default, non-performance, or breach of any contractual terms.

13.2 Advance Payment Bank Guarantee (if applicable)

- 13.2.1 If the Employer provides any **advance payment** to the Contractor, the Contractor shall furnish an **unconditional and irrevocable bank guarantee** for the full amount of the advance, valid until the advance is fully recovered.
- 13.2.2 The Employer may encash the bank guarantee in the event the Contractor **fails to utilize the advance for the purpose of contract execution**.

13.3 Invocation of Bank Guarantee

- 13.3.1 The Bank Guarantee shall be **payable on demand and irrevocable**, and the Employer's written statement regarding Contractor's default shall be **conclusive** for the purpose of encashment.
- 13.3.2 The Bank Guarantee shall remain valid regardless of any disputes under the Contract, until it is **released in writing by the Employer**.

14. Insurance Requirements

14.1 General Insurance Coverage

The Contractor shall, at its own cost and expense, maintain insurance coverage throughout the duration of the Project to adequately cover risks associated with the performance of the Work. All insurance policies shall be issued by insurers acceptable to the Employer and shall remain in force until the completion of the Project.

14.2 Material Insurance

The Contractor shall insure all materials, equipment, and supplies brought to or used on the Project site against loss or damage due to fire, theft, vandalism, natural hazards, or any other risks associated with handling, storage, and transportation. The coverage shall be for the full replacement value of the materials.

14.3 Personnel Insurance

The Contractor shall provide adequate insurance coverage for all personnel, including employees, subcontractors, and consultants, engaged in the execution of the Project. This shall include, but is not limited to:

14.4 Workers' compensation or equivalent coverage as required by law Personal accident and injury insurance Health and medical coverage in case of work-related incidents

14.5 Liability Insurance

The Contractor shall maintain public liability and third-party liability insurance to cover claims arising from bodily injury, death, or property damage caused by the Contractor's activities, equipment, or personnel during the execution of the Project.

14.6 Proof of Insurance

Prior to commencement of work, the Contractor shall submit certified copies of all insurance policies or certificates of insurance to the Employer. All insurance policies shall require that no cancellation or material modification shall be effective without at least thirty (30) days prior written notice to the Employer.

14.7 Additional Requirements

The Contractor shall ensure that all subcontractors maintain similar insurance coverage. The Contractor shall be responsible for any gaps in coverage resulting from subcontractor non-compliance.

15. Liquidated Damages

15.1 If the Contractor fails to complete the Works or any part thereof within the time specified in the Contract, the Contractor shall be liable to pay **liquidated damages** at the rate of **1% (one percent) of the Contract Price per week** of delay, unless otherwise specified in the Contract.

15.2 The total amount of liquidated damages shall not exceed **10% (ten percent) of the Contract Price**.

15.3 Liquidated damages shall be **deducted from any payments due to the Contractor**, including the Performance Security, without prejudice to any other rights of the Employer under this Contract.

16 Termination

16.1 Termination for Default

16.1.1 If the Contractor:

- a. Fails to commence, continue, or complete the Works in accordance with the Contract; or
- b. Fails to remedy any breach, delay, or defect within the period specified in a written notice from the Employer; the Employer may, at its sole discretion, **terminate the Contract for default**, in whole or in part.

16.1.2 Upon termination for default, the Employer shall have the right to:

- a. **Cancel the Contract** immediately;
- b. **Engage another Contractor** to complete the Works at the risk and cost of the defaulting Contractor;
- c. **Recover from the Contractor all additional costs, losses, and damages** incurred as a result of the Contractor's failure, including legal and administrative expenses;
- d. **Forfeit any Performance Security or other guarantees** provided by the Contractor;

e. **Restrict or debar the Contractor** from future contracts with the Employer for a period as deemed appropriate.

16.1.3 Termination under this Clause shall be **without prejudice to any other remedies** available to the Employer under the Contract or applicable law, including claims for additional damages or specific performance.

16.2 Termination for Convenience

16.2.1 The Employer may, at any time, **terminate the Contract, in whole or in part, for convenience**, without assigning any reason.

16.2.2 In such cases, the Contractor shall be entitled to payment for:

- a. Work executed up to the date of termination; and
- b. Reasonable costs incurred for materials or commitments directly related to the terminated portion, **but shall not be entitled to any loss of profit or unperformed work.**

16.3 Termination for Insolvency or Bankruptcy

16.3.1 If the Contractor becomes **insolvent, bankrupt, or enters into receivership or liquidation**, the Employer may **terminate the Contract immediately**.

16.3.2 The Employer shall have the right to **recover costs incurred to complete the Works** from any outstanding payments or Performance Security.

16.4 Termination for Force Majeure

16.4.1 If a **Force Majeure event** persists for a period exceeding [insert period, e.g., 90 days], the Employer or Contractor may terminate the Contract by giving written notice.

16.4.2 Upon termination due to Force Majeure:

- a. Neither party shall be liable for damages resulting directly from the termination;
- b. The Contractor shall be paid for all work executed up to the date of termination.

16.5 Acceleration and Material Breach

16.5.1 In case of delays or partial non-performance, the Employer may issue a **directive for accelerated performance**.

16.5.2 Failure to comply with the acceleration directive shall constitute a **material breach**, justifying immediate termination under Clause 14.1

16.6 Effect of Termination

16.6.1 Termination of the Contract under any of the above clauses shall be **without prejudice to any other rights or remedies** of the Employer under the Contract or applicable law.

16.6.2 All obligations of the Contractor regarding **confidentiality, indemnity, and warranty** shall survive termination.

16.7 Acceleration of Completion

16.7.1 In the event of any delay or failure to accomplish the task, the Employer may issue a **written directive for accelerated performance**, specifying the revised timeline and milestones.

16.7.2 Failure to comply with the acceleration directive shall be treated as a **material breach**, justifying immediate termination and enforcement of ITA 14.2.

17. Descope and Backcharge

17.1 Descope of Work

17.1.1 The Employer reserves the right to **descope, reduce, or modify the scope of work** under the Contract, in whole or in part, by giving written notice to the Contractor.

17.1.2 Upon receiving a descope notice, the Contractor shall:

- a. Immediately **stop work on the descope items**;
- b. Submit a **revised work plan, cost estimate, and schedule** within 7 working days; and
- c. **Deliver any completed work, materials, or documentation** related to the descope items.

17.1.3 The Employer shall **adjust the Contract Price** proportionally to reflect the descope work. Such adjustment shall include:

- a. Reduction of contract payment corresponding to the value of descope items; and
- b. Recovery of any **unapproved costs incurred by the Contractor** on the descope items.

17.2 Back charge

17.2.1 The Employer may **back charge the Contractor** for costs or damages incurred due to:

- a. Non-performance, defective work, or delay caused by the Contractor;
- b. Failure to comply with specifications, drawings, or contractual obligations; or
- c. Additional work or remedial work carried out by the Employer or third parties to complete the Contractor's scope.

17.2.2 Back charge amounts shall be:

- a. **Deducted from any payment due** to the Contractor, including Performance Bank Guarantee; or
- b. **Payable by the Contractor directly** within 15 days of written notice.

17.2.3 The Contractor shall **not be entitled to any extension of time, additional payment, or claim** for costs related to the back charged items.

17.3 Procedure for Issuing Descope or Backcharge Notices

15.3.1 The Employer shall issue **written notice specifying**:

- a. The descope work or backcharged items;
- b. The reason for descope or backcharge;
- c. The monetary amount, if applicable; and
- d. The time for compliance or payment.

15.3.2 The Contractor shall **acknowledge receipt of the notice** and comply with all instructions without delay.

18 Survival of Rights

All rights of the Employer to descope, backcharge, recover costs, or enforce compliance under this Clause shall survive the termination or completion of the Contract.

19 Employer's Entitlement to Remedy Default

If the Contractor fails to execute any part of the Works, to remedy a defect, or to complete outstanding work within a reasonable time following notice from the Employer, the Employer shall be entitled to carry out all necessary work at the Contractor's cost by employing other persons. All necessary costs so incurred shall constitute a debt due from the Contractor to the Employer, recoverable by deduction from payments due or otherwise; provided always that the Contractor's liability and obligations under the Contract shall not be affected or diminished by the exercise of this right by the Employer.

20 DISPUTES

In no event shall AUW be liable to the Contractor for payments for any extra work the Contractor performs in addition to that required under the Statement of Work above unless the Contractor performs such work by written directive of AUW and unless the contract is amended accordingly. No officer, director, employee, or agent of AUW is authorized to direct any extra work by oral order. In the event of any claims or disputes arising from or relating to this Purchase Order, the parties shall use their best efforts to settle the claims or disputes. To this effect, they shall consult and negotiate with each other in good faith and, recognizing their mutual interests, attempt to reach a just and equitable solution satisfactory to both parties. If they fail to reach such a solution within THIRTY (30) days, either Party may refer the matter to arbitration, as per the law of Bangladesh, which shall be the exclusive method of resolving such disputes. The arbitration shall be conducted in Chattogram, Bangladesh. The results of arbitration shall be final and binding on the Parties and shall be in lieu of any other remedy.

21 Engineer's Instructions

The Engineer may issue to the Contractor (at any time) instructions which may be necessary for the execution of the works, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer or from the Engineer's Representative (if appointed) or an assistant to whom the appropriate authority to give instruction has been delegated under Sub-clause 3.4 (Delegation by the Engineer).

Subject to the following provisions of this Sub-clause, the Contractor shall comply with the instructions given by the Engineer or the Engineer's Representative (if appointed) or delegated assistant, on any matter related to the Contract.

If an instruction states that it constitutes a Variation, Sub-Clause 13.3.1 (Variation by instruction) shall apply.

If not so stated and the Contractor considers that the instruction:

- (a) Constitutes a Variation (or involves work that is already part of an existing Variation); or
- (b) does not comply with applicable laws or will reduce the safety of the works or is technically impossible.

the Contractor shall immediately, and before commencing any work related to the instruction, give a Notice to the Engineer with reasons. If the Engineer does not respond within 7 days after receiving this Notice, by giving a Notice confirming, reversing or varying the instruction, The Engineer shall be deemed to have revoked the instruction. Otherwise the Contractor shall comply



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with and be bound by the terms of the Engineer's response.

22 Defects and Rejection

If, as a result of an examination, inspection, measurement or testing, any plant, Materials, Contractor's design (if any) or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer shall give a Notice to the Contractor describing the item of Plant, Materials, design or workmanship that has been found to be defective. The Contractor shall then promptly prepare and submit a proposal for necessary remedial work.

The Engineer may Review this proposal, and may give a notice to the Contractor stating the extent to which the proposed work, if carried out, would not result in the Plant, Materials, Contractor's design (if any) or workmanship complying with the Contract. After receiving such a Notice, the Contractor shall promptly submit a revised proposal to the Engineer. If the Engineer gives no such notice within 14 days after receiving the Contractor's proposal (or revised proposal), The Engineer shall be deemed to have given a notice of No-objection.

If the Contractor fails to promptly submit a proposal (or revised proposal) for remedial work, or fails to carry out the proposed remedial work to which the engineer has given (or is deemed to have given) a notice or No-objection, the Engineer may:

- (a) instruct the Contractor under sub-paragraph (a) and/or (b) of Sub-clause 7.6 (Remedial work); or
- (b) reject the plant, materials, Contractors design (if any) or workmanship by giving a Notice to the Contractor, with reasons, in which case sub-paragraph (a) of Sub-Clause 11.4 (Failure to remedy defects) shall apply.

After remedying defects in any plant, materials, design (if any) or workmanship, if the Engineer requires any such items to be retested, the tests shall be repeated in accordance with Sub-Clause 7.4 (Testing by the Contractor) at the Contractor's risk and cost. If the rejection and retesting cause the Employer to incur additional costs, The Employer shall be entitled Subject to Sub-Clause 20.2 (Claims for payment and/or EOT) to payment of these costs by the Contractor.

23 Employer's Entitlement to Remedy Default

If the Contractor fails to execute any part of the Works, to remedy a defect, or to complete outstanding work within a reasonable time following notice from the Employer, the Employer shall be entitled to carry out all necessary work at the Contractor's cost by employing other persons. All necessary costs so incurred shall constitute a debt due from the Contractor to the Employer, recoverable by deduction from payments due or otherwise; provided always that the Contractor's liability and obligations under the Contract shall not be affected or diminished by the exercise of this right by the Employer.

24 Alternatives due to failure of completion by the contractor

If the contractor fails to complete specific items of work within the time schedule, the client reserves the right to assign to the completion of works those specific items to another contractor. The cost incurred for completing those items will be deducted from the original contractor's total bill. Additionally, the Defects Liability Period (DLP) for the reassigned work will still be the responsibility of the original (general) contractor.



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Section 2. Application Data Sheet

ITA Clause	Amendments of, and Supplements to, Clauses in the Instructions to Applicants
	RFP IDENTIFICATION NO: _____
A. General	
ITA 1.1	The Employer is <i>Asian University for Women represented by Deputy Project Director, Asian University for women, 20/A, M.M Ali Road, Chattogram-4000, Bangladesh.</i>
	The Name of the Subsequent Tender is: <i>LPS System works for three storied with a semi- basement Academic Building for Asian University for women.</i> Application Ref:..... Package No:..... <i>[if there is more than one(1) lot, individual lots are to be identified]</i>
ITA3.1	The source of public funds is: <i>AUW own fund.</i>
ITA3.3	The name of the Development Partner is: <i>None</i>
ITA6.1	Materials, Equipment's and associated services from the following countries are not eligible: <i>Israel</i>



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B. Qualification Criteria

ITA13.1	Non-performance of a contract shall not occur within the last <i>5 (five)</i> years. <i>[years counting backward from the date of publication of RFP]</i>
ITA13.2	All pending litigation shall in total not represent more than <i>15 (fifteen)</i> percent of the Applicant's net worth.
ITA 14.1 (a)	The minimum number of years of general experience of the Applicant in public or private LPS System as Prime Contractor shall be <i>10 (ten)</i> years. <i>[years counting backward from the date of publication of RFP]</i>
ITA14.1 (b)	The minimum specific experience as a LPS System works of at least <i>1 (one)</i> contract(s) of similar nature, complexity and methods/technology completed over a period of <i>5 (five)</i> years shall be required. <i>[years counting backward from the date of publication of RFP.]</i>
ITA 14.1(c)	A satisfactory completion of similar works of at least BDT <i>1.6 (One Point Six) crore</i> under a single contract over a period of <i>3 (three)</i> years shall be required. <i>[years counting backward from the date of publication of RFP.]</i>



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ITA 15.1	The required average annual <i>Fire Management Works</i> turnover shall be greater than <i>BDT 10 (Five)</i> crore over the last 5 (<i>five</i>)years. <i>[years counting backward from the date of publication of RFP.]</i>		
ITA 15.1(c)	The minimum amount of liquid assets or working capital or credit facilities of the Applicant shall be greater than <i>BDT 3.50 (Three point five zero)</i> crore on a day after publication of RFP.		
ITA 16.1(a)	A Project Manager shall have the following qualifications and experience:		
	No	Position	Total Works Experience (years)
	1.	Project Engineer	7 yrs
ITA 16.1(b)	The minimum number of Engineers with qualifications and experience shall be as follows:		
	No.	Position	Total Works Experience (years)
	1.	Site Engineer, B.Sc. Engr. (Civil)	Min. 5 yrs
	2.	Site Engineer, B.Sc. Engr. (Electrical & Mechanical)	Min. 5 yrs
ITA 16.1(c)	Other key staff with qualifications and experience shall be as follows[<i>state requirements</i>]:		
	No.	Position	Total Works Experience (years)
	1.	Material Engineer, Dip-in Engr. (Civil)	Min. 5 yrs.
ITA 17.1	The Applicant shall own or have proven access to hire or lease of the major equipments to accomplish the tasks, Mention the equipment lists to accomplish the tasks as below:		
	No	Equipment Type and Characteristics	Minimum Number Required
	1.	Essential tools & equipment	
	2.	Essential tools & equipment for small scale metal works	
	3.		
	4.		
	5.		
	6.		
	7.		
ITA 18.2	In the case the Applicant's Leading Partner's country of origin is Bangladesh, the value of non-judicial stamp for execution of the Joint Venture agreement shall be BDT <i>BDT 300 (three hundred) only</i>		
ITA 18.3	In the case the Applicant's Leading Partner's country of origin is Bangladesh, the Letter of Intent along with the proposed agreement shall be authenticated by a Notary Public.		



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ITA 18.5	<p>The minimum qualification requirements of Leading Partner and other Partner(s) of a JV shall be as follows:</p> <table border="1"> <thead> <tr> <th>ADS Clauses References</th> <th>Requirements by summation</th> <th>Requirements for Leading Partner</th> <th>Requirements for another Partner(s)</th> </tr> </thead> <tbody> <tr> <td>ITA-14.1(a)</td> <td>Summation not applicable</td> <td>Same as stated in ADS</td> <td>Same as for Leading Partner</td> </tr> <tr> <td>ITA-14.1(b)</td> <td>100%</td> <td>At least one characteristic</td> <td>Not applicable</td> </tr> <tr> <td>ITA-14.1(c)</td> <td>100%</td> <td>At least one characteristic</td> <td>Not applicable</td> </tr> <tr> <td>ITA-15.1(a)</td> <td>100%</td> <td>40%</td> <td>25%</td> </tr> <tr> <td>ITA-15.1(b)</td> <td>100%</td> <td>40%</td> <td>25%</td> </tr> <tr> <td>ITA-15.1(c)</td> <td>100%</td> <td>40%</td> <td>25%</td> </tr> <tr> <td>ITA-16.1(a)</td> <td>Summation not applicable</td> <td>To be appointed by lead partner</td> <td>Not applicable</td> </tr> <tr> <td>ITA-16.1(b)</td> <td>100%</td> <td>At least one characteristic</td> <td>Not applicable</td> </tr> <tr> <td>ITA-16.1(c)</td> <td>100%</td> <td>At least one characteristic</td> <td>Not applicable</td> </tr> <tr> <td>ITA-17.1</td> <td>100%</td> <td>At least one characteristic</td> <td>Not applicable</td> </tr> </tbody> </table>	ADS Clauses References	Requirements by summation	Requirements for Leading Partner	Requirements for another Partner(s)	ITA-14.1(a)	Summation not applicable	Same as stated in ADS	Same as for Leading Partner	ITA-14.1(b)	100%	At least one characteristic	Not applicable	ITA-14.1(c)	100%	At least one characteristic	Not applicable	ITA-15.1(a)	100%	40%	25%	ITA-15.1(b)	100%	40%	25%	ITA-15.1(c)	100%	40%	25%	ITA-16.1(a)	Summation not applicable	To be appointed by lead partner	Not applicable	ITA-16.1(b)	100%	At least one characteristic	Not applicable	ITA-16.1(c)	100%	At least one characteristic	Not applicable	ITA-17.1	100%	At least one characteristic	Not applicable
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ITA 19.4	The Employer intends to execute the following specific components of the proposed Works by the Nominated Subcontractor(s): <i>None</i>																																												
ITA 20.1	Domestic Preference <i>shall not</i> be applicable for eligible National Tenderers																																												
D. Application Preparation																																													
ITA 23.4	Use of Qualification Document posted in the website <i>is not</i> permitted for preparation of Applications.																																												
ITA 25.1	The Applicant shall provide with its Application the following additional documents: <i>None</i>																																												



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E. Application Submission

ITA31.1	<p>For <u>Application submission purposes</u> only, the Employer's address is: For <u>Tender submission purposes</u> only, the Procuring Entity's address is: TO AUW PROCURMENT COMMITTEE Email address: tender155@auw.edu.bd</p> <p>The deadline for the submission of Applications is: Time & Date: 12:01pm. 3/22/2026</p>
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Section 3. Application Forms

Form Title

Application Forms

- F – 1 Application Submission Letter
- F – 2 Applicant Information
- F – 3 JV Partner Information (*if applicable*)
- F – 4 Subcontractor Information (*if applicable*)
- F – 5 Historical Contract Non-Performance
- F – 6 Personnel Information

Application Submission Letter (Form F-1)

[This letter should be completed and signed by the Authorized Signatory preferably on the Letter-Head Pad of the Applicant]

To:

Date:[dd/mm/yy]

[Contact Person]

[Name of Employer]

[Address of Employer]

Invitation for Qualification No:

[indicate RFP No]

Tender Package No:

[indicate Package No]

This Package is divided into the following Number of Lots ***[indicate number of Lot(s)]***

We, the undersigned, apply to be qualified for the referenced Works and Physical Services and declare that:

- (a) We have examined and have no reservations to the Qualification Document, issued by you on *[insert date]*; including *[state numbers]*.
- (b) We, including as applicable, any JVCA partner or Specialist Subcontractor for any part of the contract resulting from this Qualification process, have nationalities from eligible countries according to the ITA.
[insert the nationality of the Applicant, including that of all partners in case of a Joint Venture, and the nationality of each already identified subcontractor, if applicable];
- (c) we are submitting this Application as a sole Applicant;
or
we are submitting this Application as the partners of a JVCA, comprising the following other partners;

Sl. No	Name of Partner	Address of Partner
1		
2		
3		

or

- (e) we, including as applicable any JVCA partner, declare that we are not associated, nor have been associated in the past, directly or indirectly, with a consultant or any other entity that has prepared the design, specifications and other documents in accordance with ITA;
- (f) we intend to subcontract an activity or part of the Works, to the following Specialist Subcontractor(s);

Activity or part of the Works	Name of Specialist Subcontractor with Address

- (g) we, including as applicable any JVCA partner, confirm that we do not have a record of poor performance, such as abandoning the works, not properly completing contracts, inordinate delays, or financial failure as stated in ITA, and that we do not have, or have had, any litigation against us, other than that stated in the Applicant Information (**Form -2**);
- (h) we, including as applicable any JVCA partner, confirm that we do not have a record of insolvency, receivership, bankrupt or being wound up, our business activities were not been suspended, and it was not been the subject of legal proceedings in accordance with ITA;
- (i) we, including as applicable any JVCA partner, confirm that we have fulfilled our obligations to pay taxes and social security contributions applicable under the relevant national laws and regulations of our country(s) of origin in accordance with;
- (j) we, including as applicable any JVCA partner or Specialist Subcontractor for any part of the contract resulting from this Qualification process, have not been declared ineligible by any International Development Agency or the Government of Bangladesh on charges of engaging in corrupt, fraudulent, collusive or coercive practices in accordance with ITA; or by an act of compliance with a decision of the United Nations Security Council.
- (k) furthermore, we are aware of ITA concerning such practices and pledge not to indulge in such practices in competing for or in executing the Contract;
- (l) we are not participating as Applicants in more than one Application in this pre-qualification process;
- (m) we understand that you may cancel the prequalification process at any time and that you are neither bound to accept any Application that you may receive nor to invite the pre-qualified Applicants to tender for the contract subject of this prequalification, without incurring any liability to the Applicants.

Signature:	<i>[insert signature of authorised signatory of the Applicant]</i>
Name:	<i>[insert full name of signatory with National ID Number]</i>
In the capacity of:	<i>[insert capacity of signatory]</i>

Duly authorized to sign the Application for and on behalf of the Applicant

[If there is more than one (1) signatory, or in the case of a JVCA, add other boxes and sign accordingly]

Attachment 1:

Written confirmation authorizing the above signatory to commit the Applicant and the subsequent Tenderer
[and, if applicable]

Attachment 2:

JV Agreement / Letter of Intent to form JV with draft proposed Agreement



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Applicant Information (Form -2)

[This Form should be completed only by the Applicant, preferably on its Letter-Head Pad]

Invitation for Qualification No:

[indicate IFP No]

Tender Package No:

[indicate Package No]

This Package is divided into the following Number of Lots:

[indicate number of Lot(s)]

1. Eligibility Information of the Applicant [According to ITT]	
1.1	Nationality of individual or country of registration
1.2	Applicant's legal title
1.3	Applicant's registered address
1.4	Applicant's legal status <i>[complete the relevant box]</i>
	Proprietorship
	Partnership
	Limited Liability Concern
	Government-owned Enterprise
	Others <i>[please describe, if applicable]</i>
1.5	Applicant's year of registration
1.6	Applicant's authorised representative details
	Name
	National ID number, if any
	Address
	Telephone / Fax numbers
	e-mail address
1.7	Litigation ITT
	Information on non-performance of contract and pending litigation furnished in Form F-5
1.8	Applicant to attach photocopies of the original documents mentioned aside
	<i>[All documents required under ITT Clauses]</i>
The following two information are applicable for national Applicants	

1.9	Applicant's Value Added Tax Registration (VAT) Number				
1.10	Applicant's Tax Identification Number(TIN)				
[The foreign Applicants, in accordance with ITT Clause 5, shall provide evidence by a written declaration to that effect to demonstrate that it meets the criterion]					
2. Qualification Information of the Applicant [According to ITT Clause]					
2.1	General Experience in HVAC Works of Applicant				
	Start Month Year	End Month Year	Years	Contract No and Name of Contract Name and Address of Employer Brief description of Works	Role of Applicant [Prime/Sub/Management]
2.2	Specific Experience in HVAC Works of Applicant Completed Contracts of similar nature, complexity and methods/ technology				
	Contract No		[insert reference no] of [insert year]		
	Name of Contract		[insert name]		
	Role in Contract [tick relevant box].		Prime Contractor	Subcontractor	Management Contractor
	Award date		[insert date]		
	Completion date		[insert date]		
	Total Contract Value		[insert amount]		
	Employer's Name Address Tel / Fax <u>e-mail</u>				
	Brief description with justifications of the similarity compared to this Employer's requirements		[state justification in support of its similarity compared to the proposed works]		
2.3	Average annual turnover <i>[total certified payments received for contracts in progress or completed for each year of works in progress or completed; using selling exchange rate quoted by the source being Bangladesh Bank on the date reported, if applicable]</i>				
	Year	Amount & Currency			

2.4	Existing commitments and works [targeted to be completed by the Intended Completion Date of the proposed works]		
	Name of Contract Contract No [reference] of [year] Name of Employer Contact Address Tel/fax e-mail	Target Completion Date	Value of Existing Commitments and Works
			Amount & Currency
2.5	Financial Resources available to meet the HVAC System cash flow		
	No	Source of Financing	Amount Available
			Amount & Currency
In order to confirm the above statements the Applicant shall submit, as applicable, the documents			
2.6	Contact Details [According to ITT]		
	Name, address, and other contact details of Applicant's Bankers and other Employer(s) that may provide references, if contacted by this Employer		
2.7	Qualifications and experience of key technical and administrative personnel proposed for Contract administration and management [According to ITT]		
	Position Name Years of General Experience	Years of Specific Experience	
<i>[Tenderer to complete details of as many personnel as are applicable .Each personnel listed above should complete the Personnel Information (Form-6)]</i>			
2.8	Major Construction Equipment's proposed to carry out the Contract [According to ITT]		
	Item of Equipment	Condition (new, good, average, poor)	Owned, leased or to be purchased (state owner, lessor or seller)
<i>[Applicant to list details of each item of major construction equipment, as applicable]</i>			

JVCA Partner Information (Form -3)

[This Form should be completed by each JVCA partner].

Invitation for Qualification No:

[indicate IFP No]

Tender Package No

[indicate Package No]

This Package is divided into the following Number of Lots

1. Eligibility Information of the JVCA Partner <i>[According to ITT]</i>		
1.1	Nationality of Individual or country of Registration	
1.2	JVCA Partner's legal title	
1.3	JVCA Partner's registered address	
1.4	JVCA Partner's legal status <i>[complete the relevant box]</i>	
	Proprietorship	
	Partnership	
	Limited Liability Concern	
	Government-owned Enterprise	
	Other (please describe, if applicable)	
1.5	JVCA Partner's year of registration	
1.6	JVCA Partner's authorised representative details	
	Name	
	National ID number, if any	
	Address	
	Telephone / Fax numbers	
	e-mail address	
1.7	Litigation	
	Information on non-performance of contract and pending litigation furnished in Form-5	
1.8	JVCA Partner to attach copies of the original documents mentioned aside	[All documents required under ITT Clauses]
The following two information are applicable for national JVCA Partners only		
1.9	JVCA Partner's Value Added Tax Registration (VAT) Number	

1.10	JVCA Partner's Tax Identification Number(TIN)				
[The foreign JVCA Partners, in accordance with ITT, shall provide evidence by a written declaration to that effect to demonstrate that it meets the criterion]					
2. Key Activity(ies) for which it is intended to be joint ventured [According to ITT]					
	Elements of Activity	Brief description of Activity			
3. Qualification Information of the JVCA Partner [ITT]					
3.1	General Experience in Construction Works of JVCA Partner				
	Start Month Year	End Month Year	Years	Contract No and & Name of Contract Name and Address of Procuring Entity Brief description of Works	Role of JVCA Partner [Prime/Sub/Management]
3.2	Specific Experience in Construction Works of JVCA Partner Completed Contracts of similar nature, complexity and methods/construction technology				
	Contract No	[insert reference no] of [insert year]			
	Name of Contract	[insert name]			
	Role in Contract [tick relevant box]	Prime Contractor	Subcontractor	Management Contractor	
	Award date	[insert date]			
	Completion date	[insert date]			
	Total Contract Amount	[insert amount]			
	If partner in a JV, specify participation of the total Contract Amount	_____ %	Amount & Currency [insert amount] <u>USD/GBP/EUR/JPY</u> Equivalent [insert amount] delete not appropriate		
	Employer's Name Address Tel / Fax <u>e-mail</u> Brief description with justifications of the similarity compared to this Employer's requirements	[state justification in support of its similarity compared to the proposed works]			
3.3	Average annual construction turnover <i>[total certified payments received for contracts in progress or completed for each year of works in progress or completed; using selling exchange rate quoted by the source being Bangladesh Bank on the date reported, if applicable]</i>				
	Year	Amount & Currency			

3.4	Existing commitments and works [targeted to be completed by the Intended Completion Date of the proposed works;]								
	Name of Contract Contract no [reference] of [year] Name of Employer Contact Address Tel/fax e-mail	Target Completion Date	Value of Existing Commitments and Works <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Amount & Currency</td> <td></td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Amount & Currency					
Amount & Currency									
3.5	Financial Resources available to meet the construction cash flow								
	No	Source of financing	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Amount Available</th> </tr> <tr> <td style="width: 30%;">Amount & Currency</td> <td></td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Amount Available		Amount & Currency			
Amount Available									
Amount & Currency									
	In order to confirm the above statements the JVCA Partner shall submit, as applicable, the documents mentioned in ITT Clause 28.								
3.6	Contact Details								
	Name, address, and contact details of Tenderer's Bankers and other Employer(s) that may provide references if contacted by this Employer								
3.7	Qualifications and experience of key technical and administrative personnel proposed for Contract administration and management								
	Position Name Years of General Experience	Years of Specific Experience							
	<i>[Tenderer to complete details of as many personnel as are applicable. Each personnel listed above should complete the Personnel Information (Form -6)]</i>								
3.8	Major items of Construction Equipment proposed for carrying out the works [ITT Clause 28]								
	Item of Equipment	Condition (new, good, average, poor)	Owned, leased or to be purchased (state owner, leaser or seller)						
	<i>[Tenderer to list details of each item of Major equipment, as applicable]</i>								

 Signatur
 e (Name of Authorized Signatory of the JVCA
 Partner)

Specialist Subcontractor Information (Form F-4)

[This Form should be completed by each Subcontractor, preferably on its Letter-Head Pad]

Invitation for Qualification No:

[indicate IFP No]

Tender Package No

[indicate Package No]

This Package is divided into the following Number of Lots

1. Eligibility Information of the Subcontractor [ITT]		
1.1	Nationality of Individual or country of Registration	
1.2	Subcontractor's legal title	
1.3	Subcontractor's registered address	
1.4	Subcontractor's legal status <i>[complete the relevant box]</i>	
	Proprietorship	
	Partnership	
	Limited Liability Concern	
	Government-owned Enterprise	
	Other (please describe)	
1.5	Subcontractor's year of registration	
1.6	Subcontractor's authorized representative details	
	Name	
	Address	
	Telephone / Fax numbers	
	e-mail address	
1.7	Subcontractor to attach copies of the following original documents	All documents to the extent relevant to ITT Clause in support of its qualifications
The following two information are applicable for national Subcontractors		
1.8	Subcontractor's Value Added Tax Registration (VAT) Number	
1.9	Subcontractor's Tax Identification Number (TIN)	

[The foreign Subcontractors, in accordance with ITT, shall provide evidence by a written declaration to that effect to demonstrate that it meets the criterion]

2. Key Activity(ies) for which it is intended to be Subcontracted

2.1	Elements of Activity	Brief description of Activity
2.2	List of Similar Contracts in which the proposed Subcontractor had been engaged	
	Name of Contract and Year of Execution Value of Contract Name of Employer Contact Person and Contact details Type of Work Performed	

Signature (Name of Authorized Signatory of the Proposed Sub-Contractor)



**ASIAN UNIVERSITY
FOR WOMEN**

Historical Contract Non-Performance (Form F-5)

[The following table shall be filled in for the Applicant and for each partner of a Joint Venture]

Applicant's Legal Name: *[insert full name]*

Date: *[dd/mm/yy]*

Joint Venture Party Legal Name: *[insert full name]* IFP No. and title: *[insert RFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

Non-Performing Contracts in accordance with Qualification Criteria and Requirements			
<input type="checkbox"/> Contract non-performance did not occur during the <i>[number]</i> years specified in Qualification Criteria and Requirements, <input type="checkbox"/> Contract(s) not performed during the <i>[number]</i> years specified in Qualification Criteria and Requirements,			
Year	Non performed portion of contract	Contract Identification	Total Contract Amount (Current value)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for non performance: <i>[indicate main reason(s)]</i>	
Pending Litigation, in accordance with Qualification Criteria and Requirements <input type="checkbox"/> No pending litigation in accordance with Qualification Criteria and Requirements, <input type="checkbox"/> Pending litigation in accordance with Qualification Criteria and Requirements, as indicated below.			
Year	Outcome as Percentage of Total Assets	Contract Identification	Total Contract Amount (current value)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i>	Total Contract Amount (current value)



**ASIAN UNIVERSITY
FOR WOMEN**
Personnel Information (Form -6)

[This Form should be completed for each person proposed by the Tenderer on Form PW5-2& PW5-3, where applicable]

Name of the Applicant:	<i>[insert Title]</i>
Invitation for Tender No:	<i>[indicate RFP No]</i>
Tender Package No	<i>[indicate Package No]</i>
This Package is divided into the following Number of Lots	<i>[indicate number of Lot(s)]</i>

A. Proposed Position (tick the relevant box)		
<input type="checkbox"/> Electrical/Mechanical Engineer	<input type="checkbox"/> Prime Candidate	<input type="checkbox"/> Alternative Candidate
<input type="checkbox"/> Key Personnel	<input type="checkbox"/> Prime Candidate	<input type="checkbox"/> Alternative Candidate
B. Personal Data		
Name:		
Date of Birth:		
Years overall experience:		
National ID Number:		
Years of employment with the Tenderer:		
Professional Qualifications: 1. 2. 3. 4.		
C. Present Employment <i>[to be completed only if not employed by the Applicant]</i>		
Name of the Employer:		
Address of the Employer:		
Present Job Title:		
Years with the present Employer:		
Tel No:	Fax No:	e-mail address:



**ASIAN UNIVERSITY
FOR WOMEN**

Contact *[manager/personnel officer]*:

D. Professional Experience

Summaries professional experience over the last twenty (20) years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

	From	To	Company / Project / Position / Relevant technical and management experience.
1			
2			
3			
4			
5			

(Name and Signature of the Proposed Personnel)

BOQ and Specification

Asian University for Women (AUW), Permanent Campus Project Summary of BOQ of the 52 KWp On Grid Net Metering Solar System & Lightning Protection System of Service & Academic Building Arefin Nagar, Chattogram Bangladesh		
SN	Description of Item	Amount (BDT)
1	GENERAL WORKS	
2	LIGHTENING PROTECTION SYSTEM OF SERVICE BUILDING	
3	LIGHTENING PROTECTION SYSTEM OF ACADEMIC BUILDING	
4	52KWp ON GRID NET METERING SOLAR SYSTEM	
	TOTAL SUMMARY OF AMOUNT	
In Words:		



**ASIAN UNIVERSITY
FOR WOMEN**

A. GENERAL WORKS

Item No.	Description	Quantity	Unit	Rate in Taka	Amount in Taka
1	Erection and maintenance of site office and removal of the same after completion of work in accordance with the conditions of contract. In addition to the office required for his own use, the contractor shall provide and maintain furnished field office for the use of the Engineer-in-charge and his staff. The field office is to have a concrete floor, adequate foundation, brick walls, false ceiling of hard board with seasoned Garjan wood frame and painted, and all windows are to be glazed and provided with steel grill. Outside and inside wall surface are to be painted on plaster acceptable to the Engineer-in-charge. The field office shall be maintained in a secure and watertight condition by the contractor until the completion of the contract and shall be provided with electricity, running water and sewerage. All doors shall be fitted with approved locks and windows shall be provided with screen/blinds. Before construction the contractor shall submit plans and drawings showing proposed details and location for the field office, including foundations, access roads, shades, layout of electrical and water supply and hard standings thereto for the approval				
	The Engineer-in-charge may require revision of the plans prior to giving approval for construction. The contractor shall also submit details proposed furniture, fittings and other items of equipment and plant to the Engineer-in-charge for approval. The office, complete with furnishings, fittings, access roads and hard standings shall be ready for occupation by the Engineer-in-charge (This is a time related item; proportionate payment for this item shall be made distributing in each bill on the basis of percentage progress of the whole works under contract)				
1.1	Engineer's site office of minimum 10 sqm plinth area with providing necessary facilities including office furniture, consumables, stationeries etc.	1	Job		
2	Providing necessary facilities in construction site for maintaining site safety including safety helmet, safety belt, apron, gumboot, goggles etc.	1	Job		



**ASIAN UNIVERSITY
FOR WOMEN**

3	Supplying and providing of first aid box with necessary materials/medicine (hygienic gown, thermometer, adhesive dressings, antiseptic solutions, bandages, cotton balls or swaps, emergency blanket, gloves, hand sanitizer, ice pack, saline etc). All complete as per direction of Engineer-in -charge.	1	Job		
4	Providing 3 sets as-built drawings subject to Engineer’s approval produced in AutoCAD software in 584.5 mm x 413.5 mm (A-2 size) standard drawing paper, and operating and maintenance manual of the equipment and plant incorporated in the works, if any, in original by the date stated in the particular conditions of contract (PCC). If the contractor does not supply the as-built drawings and operating & maintenance manuals by the date stated in the particular conditions of contract (PCC), or they do not receive the Engineer-in-charge’s approval, the Engineer-in-charge shall withhold the amount stated in the PCC from the payments due to the contractor. The as-built drawings must show the permanent works as actually constructed and reflect the revision of drawings supplied to the contractor during the Contract as well as revisions of drawings supplied to the contractor during the contract. (One set of as-built drawings shall be considered for measurement and payment)	1	Per Tender		
5	Mobilization and cleaning site before commencing actual physical work and during contract period and demobilization after completion of the Works under contract accepted by Engineer-in-Charge/Consultant. This work shall also covers clayey cleaning and clearing, and in the ground to the project can be executed an extent that all the events of works of smoothly in a working environment with a particular attention on safety and security in all respects, agreed by the Engineer / Consultant, where payments are to be based on ground area determined by the Engineer-in-Charge / Consultant. and be proportionate to the percentage progress of work under contract as a whole in all respects and approved by the Engineer-inCharge / Consultant.	1	Job		
				Total Amount (BDT)	
In Words:					



ASIAN UNIVERSITY FOR WOMEN

BOQ & Technical Specifications of Lightning Protection System OF Service Building							
Project: Asian University of Women, Permanent Campus Project, Arefin Nagar, Chattogram							
Scope: Supply, Installation, Testing and commissioning of LPS (ESE) System of Service Building							
Sl.No	Item of works	Reference Product Images	Qty.	Unit	Unit Rate in taka	Amount in taka	Remarks
1	LIGHTNING PROTECTION SYSTEM :						
1.1	Air Terminal						
	Supply, Installation, Testing & Commissioning of early streamer Emission Lightning Air-Terminal (ESEAT) as per IEEE 998-2012. Having the following technical specification a) Withstand peak lightning current (65Kamp) and material of lightning Air-terminal should be able to work in any environment condition so materials should be stainless steel b) The air termination(s) shall be compliant to UL-96: Lightning protection component (stander of safety) c) The air terminal shall be non-radioactive and require no special licensing d) The air Terminal shall be a passive terminal not requiring an internal or external power source for its operation confirmed to NFC 17-102 standards. To protect the systems against the transient over voltage (lightning) Triggering time $\Delta T=30\mu s$ e) Protection Radious =79 mtr for tower height 5mtr. e) Brand: ABB/ALPS, Model: OPR-30/ALPS-30 or Equivalent , Origin: Franch/UK/Austria f) Warranty: 2 years and all other accessories for mounting on the rooftop of shades & other structures, as per drawing and specification & direction of the Engineer-in-charge.		1	Pcs			
1.2	ESEAT MAST						
	Supply of ESEAT MAST for fixing Tower and Air-Terminal Made of stainless steel and length 1.5mtr to 2.3 mtr. Depend on site condition. The mast shall be fixed on the top the GI tower with SS nuts bolts clamps as per drawing and specification & direction of the Engineer-in-charge.		1	Pcs			
1.3	Lightning Event Counter						
	Supply, Installation, Testing & Commissioning of Lightning Event Counter a) The Lightning event counter should be a non-resolvable mechanical counter & should work on induction with a triggering impulse of $> =1500Amp$ for $8/20\mu$ sec. This should be displayed to the technical committee during technical evaluation. b) The counter should be a minimum 3-digit, waterproof & weatherproof (IP-65) for external application or fitment and should be mountable easily in the conductor with all other fixing accessories including fixing on the rooftop of shades & other structures as per drawing and specification & direction of the Engineer-in-charge. a) Origin: Europe/UK/Austria and Warranty 3 years or higher		1	Pcs			
1.4	Tripod Stand Tower or Base Plate : 15ft						
	Supply of Supporting Tripod stand, suitable to hold air terminal of dia 40mm. Roof slope to max. 5 degrees. Incl. Rd 8-10 crossbar for quick round conductor fastening., Clamp a)Materials class: Stainless steel (S.S) and dia-2" & Length 15'		1	Jobs			If necessary civil base work may occurred due to tripod stand
1.5	Down Conductor (Cable)						
	1C-50 mm2 (19 W LF-FR).(BYA) Green Colour cable Supply, installation, testing & commissioning of cable wiring with the following PVC insulated cable (BYA) & PVC insulated reputed manufacturer complete with fixing materials, other accessories, etc. Brand & Origin: BRB/BBS/SQ. Bangladesh		75	Mtr			Actual measurement will depend on after preparing & finalization of shop drawings and site measurement

1.6	Advance Chemical Earthing					
	Excavation, supply, installation, testing, and commissioning of a maintenance-free Earthing system provide a low impedance path to the lightning energy captured by the Air Terminal and conducted through Down Conductor to the Earth. a) The earth should be done with a minimum of 3 nos of Copper Ground Rod Earth electrode of 10 ft length and 12.7mm diameter in single length or square depending on site conditions with Exothermically Welded Connection (Comprising 3 nos of Earth electrode as one set). Earthing boring length should be cosidred at least 20-40 feet including earth inspection pit (640X650X450) mm (LXWXD) b) Ground Enhancement Material (FurseCEM/ Low Res 25kg Bag minimum 3-bags) per lightning Protection earth should be used in treating the earth to reduce overall impedance each of maximum 5 ohms. & combined less than 5 ohms. by the earth. c) Ground enhancement material should have a resistivity of not more than 0.02 ohm. d) Ground enhancement material shall be tested as per IEC 62561-7 or BS EN 50164-7, Testing shall be done from an international lab having some level of expertise in environmental protection (EPA), especially for soil pollution tests and the environment- friendly & all other fixing accessories including fixing on rooftop of shades & other structures as per drawing and specification & direction of the Engineer-in-charge. Detail shop drawing to be submitted with catalog, Sample of material for approval from Engineer -in -Charge.	   	3.00	Nos		
1.7	Aviation Lamp with day-night sensor					
	International standard: ICAO (Annex 14) Type B low-density aviation light& FAA-L810 Light source: LED, Vertical Degree: <10 Light color: Red, Horizontal degree: 360 Led life: < 100000 H, On/Off level: 70/100 lux Light capacity: 5.6Watt, Type Bilking Operating temperature: -40°c to +55°c, IP65, Origin: France/UK/Austria		1	Nos		
1.8	Civil Works					
	The contractor will be liable for any civil-related work including supply of materials during the installation period.		1	Job		
1.9	Electrical Accessories					
	The contractor will be liable for any electrical related work including supply of materials as like bus bar, fibre supporters, shaddle, screw, royal bolt, earth test box, service cables etc. during the installation period. Brand: For PVC pipe: Sajjan/Npoly/Vigo/RFL, For circuit breaker: ABB/Schneider, For busbar: copper tech, for Earth test box 16 SWG sheet		1	Job		
2	Testing, Commissioning & Documentation					
	Installation, testing and commisioning of Lightning Protection System. Supplier must be provide certificate and confirmation for genuine product		1	Jobs		
2.1	Miscellaneous & Others					
			Total Amount=			

BOQ WITH TECHNICAL SPECIFICATIONS

Sl. No.		Description of Items	Quantity	Unit	Unit Rate in BDT	Amount in BDT
1.0		LIGHTNING PROTECTION SYSTEM :				
1.1		Supply, installation & commissioning of LIGHTNING PROTECTION SYSEYEM from OBO-BETTERMANN suitable for VM ZINC model of roof of AUW comprising of 8mm dia round conductor, various types of clamps, roof conductor, holder for parapet flat roof, T-cross/parallel connector, expansion piece, 30x3mm galvanized flat conductor with cross connector, corrosion resistant plastic strip, copper coated carbon rod as electrode, universal clamps, conductivity hanced compound, earth chamber (6 sets) etc including all other accessories as per drawing & specification & certification from OBO regarding the completeness of the total system as per IEC 62561 (1-8). The bidder shall study the drawing of Lightning Protection & the Roof detail & submit the offer accordingly along with the authority from OBO-VM ZINC.				-
		AIR TERMINAL :				
1.1.1		Supply of 8 mm Aluminum Round Conductor complete as specified in drawing & Meets the requirements of VDE 0185-305 (IS/IEC62305), Tested as per IEC 62561(1-8).(Country of Origin : Germany) (Manufacturer :India)	550	Meter		
1.1.2		8mm Round cable, Stainless steel, material A4. According to DIN EN 62561-2 (VDE 0185-561-2) (Country of Origin : Germany) (Manufacturer :India)	1800	Meter		
1.1.3		Seaming clamp to route the 8-10mm dia round conductor on standing seam sheet. Material : Staninless steel Suitable to fix for seam roof maximum thickness up to 10 mm.Tested as per IEC 62561(1-8). OBO Type No. 270 8-10 VA (5317208) (Country of Origin : Germany)	550	Pcs		
1.1.4		Supply of Roof conductor holder - Stainless steel Conductor holder With Bottom section and conductor holder stainless steel (V2A)Bottom section with Ø 8.5 mm slot. Conductor holder @ 1 meter distance. Tested as per IEC 62561(1-8).(Country of Origin : Germany)	50	Pcs		
1.1.5		Vario quick connector A2. Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel. Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305) (Country of Origin : Germany)	150	Pcs		
1.1.6		Providing of expansion piece with connector: For equalising temperature related length changes. Necessary on conductors length over 20 meters. For round conductor Rd 8/ALU. Relevant test report should be provided as per IEC 62561 for 100 kA Lightning surge current(10/350micro sec) (Country of Origin : Germany)	30	Pcs		

Sl. No.		Description of Items	Quantity	Unit	Unit Rate in BDT	Amount in BDT
1.1.7		Supply of Connector: For T cross and parallel connectors. Quick installation using hexagonal bolt M10X30 , Made up of Al material. Conforms to the requirements according to DIN VDE 0185-305 (IS-IEC 62305)(2nos/expansion piece). Tested as per IEC 62561(1-8) for 100kA lightning current(10/350µs) from VDE approved laboratory. (Country of Origin : Germany)	80	Pcs		
1.1.8		Mushroom-shaped air-termination with connectors With pre- mounted cross-piece and hexagonal bolt M8 x 25, hot-dip galvanized steel. Tested as per IEC 62561(1-8) for 100kA lightning current (10/350µs). (Country of Origin : Germany)	170	Pcs		
		DOWN CONDUCTOR :				
1.1.9		isCon® conductor, Professional plus black. Tested according to IEC/EN 62561-1 (VDE 0185-561-1) with H1/150 kA (Country of Origin : Germany)	180	Meter		
1.1.10		VA cable bracket for isCon® conductor for mounting on roof/wall structures VA cable bracket for isCon® conductor for mounting on roof/wall structures (Country of Origin : Germany)	180	Pcs		
1.1.11		Supply of connection element : Made of SS, Screw on termination of the connection for the iscon cable . Including screw heat shrinkable sleeve and screw lock. Tested up to 150 kA (lightning protection class II) (Country of Origin : Germany)	30	Pcs		
1.1.12		Supply of Potential connection : Made of SS grade 304 , Holds good up to 17-25mm dia ,To avoid surface discharge on iscon cable Installation takes place at after 1.5Mtrs. (Country of Origin : Germany)	16	Pcs		
1.1.13		Supply of Test Joint (Folding Clamp) Made up of SS 316 grade,suitable to connect 8-10mm round conductor and 8-10mm round conductor as specified in drawing and directed by Engineer. Tested as per IEC 62561(1-8) for 100kA lightning current(10/350µs). (Country of Origin : Germany)	6	Pcs		
1.1.14		The LSC I+II lightning current meter measures and permanently saves pulse currents, together with the date and time. This ensures constant monitoring in order to notice if any lightning has struck the lightning protection system. Should this be the case, then the lightning protection system must be maintained according to VDE 0185-305 (IEC 62305). (Country of Origin : Germany)	2	Pcs		
		RING & VERTICAL EARTHING SYSTEM :				
1.1.15		10mm Round cable, Stainless steel, material A4. According to DIN EN 62561-2 (VDE 0185-561-2) (Country of Origin : Germany) (Manufacturer :India)	320	Meter		

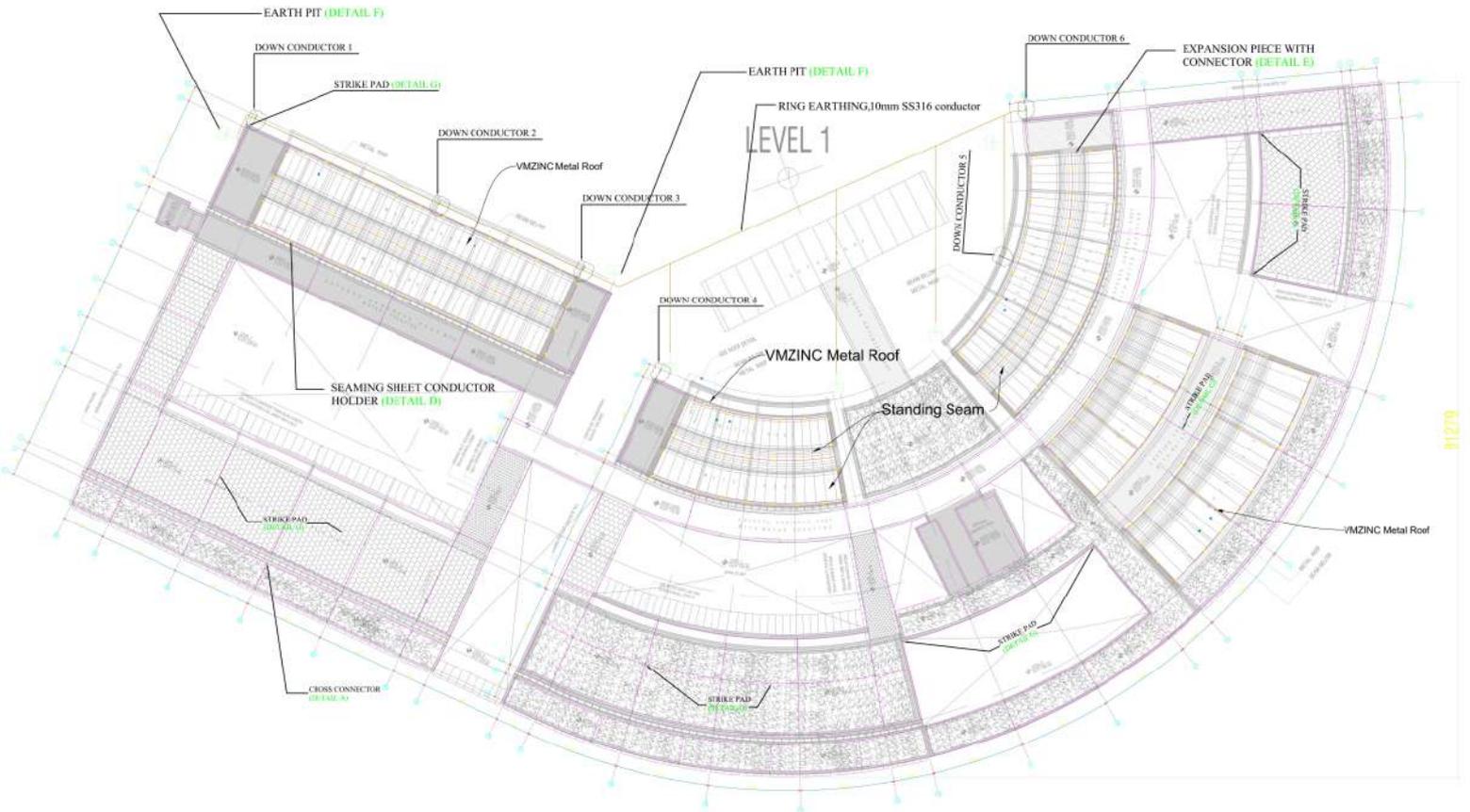
Sl. No.		Description of Items	Quantity	Unit	Unit Rate in USD	Amount in USD
1.1.16		Vario quick connector A2. Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel. Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305) (Country of Origin : Germany)	45	Pcs		
1.1.17		Roof conductor holder for wall- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance. Tested as per IEC62561(1-8) (Country of Origin : Germany)	30	Pcs		
1.1.18		Providing of Plastic Corrosion Protection strip: Approx 1.1 mm thick. Width 50mm. Made of petrolatum- coated chemical fibre fabric. (Country of Origin : Germany) (Manufacturer :India)	5	Pcs		
1.1.19		25 mm Dia x 3 m Earth rod with copper sheath. Rod should be tested & certified for short circuit current withstanding capacity of 18kA Irms for 1sec and 50kA Ipeak. (Country of Origin : Germany) (Manufacturer :India)	6	Pcs		
1.1.20		Supply of universal clamp made of SS to connect rod with flat conductor Tested as per IEC 62561(1-8). (Country of Origin : Germany)	6	Pcs		
1.1.21		Earth conductivity enhancing compound shall be of 25 kg/pit tested as per IEC 62561-7, TCLP tested. Resistivity of the compound should be of 0.2ohm meter. Relevant test report should be provided as per IEC 62561(1-8) (Country of Origin : Germany) (Manufacturer :India)	12	Pcs		
1.1.22		The above arrangements shall be provided with Heavy duty earth chamber of 5000kg load bearing capacity to ensure the safety of earthing system . Relevant test report should be provided as per IEC 62561(1-8) (Country of Origin : Germany) (Manufacturer :India)	6	Pcs		
TOTAL BDT						
5-Years AMC (Yearly LPS Survey with report and maintenance)						
Grand Total in BDT						
In Words:						

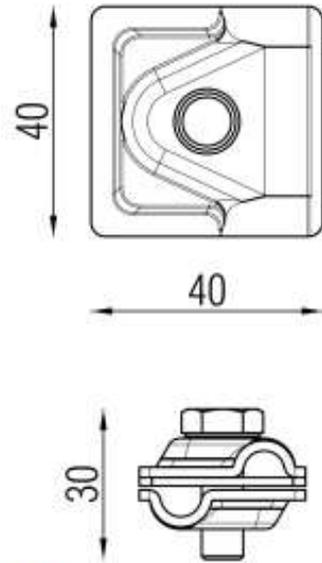
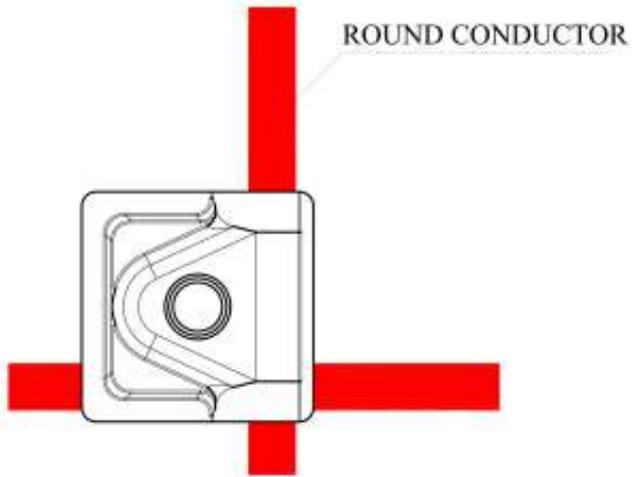
TENTATIVE BOQ OF 52 KWp ON GRID TIE NET METERING SOLAR SYSTEM OF SERVICE BUILDING							
Project: Asian University for Women (AUW), Campus Project, Arefin Nagar, Chattogram							
Scope: Supply, Installation, Testing and commissioning of 52 KWp Grid Tie Net Metering On Grid Solar System of Service Building							
Part B: Grid Tie On Grid Solar System							
SL.	Item Description	Rating/ Country of origin	Unit	Qty	Unit price (BDT)	Total price (BDT)	Remarks
1.00	Solar System Capacity 52 KWp DC		KWp	74			
	Supply, installation, testing & commissioning of solar modules, module type Monocrystalline manufacturing performance testing shall be in accordance to the IEC,EN,CE,TUV or equivalent international standards and skilled labour, technician, Engineer as per manufacturers instruction manual. Country of origin (RISEN/Jinko /Sunerise/GCL- China) Complete with following all standard accessories. (Solar capacity finalized after assesment provided by client) 710 Wp solar modules solution (Tier 1 listed, IEC & SREDA approved and appropriate compliance & safety provisions) Total Module capacity 52 KWp DC Power Tolerance: ± 3% Nominal Voltage: 40V Maximum Power Voltage at Pmax: 30.78 V Open Circuit Voltage (Voc): Maximum 38.75 V Construction: High-transmission, anti-reflective coated tempered glass Frame: Clear Anodized Aluminum alloy, color: silver/Black Temperature range: -40(c0 to +85(c) Wind Velocity withstand capacity of support structure: 200Km/h Max. System voltage: 1500V Module efficiency: 21-24% & strong low light performance Weight: 38-40 KG (Approx.) Dimention: 2400mm X 1300mm X 33mm (Approx.) Efficiency to be 80% coverage at peak hours of 5 to 6 hours in every day DC System Voltage: to suit inverter specification, Max 1000V-1500 DC Warranty: 20 years or higher						
2.00	Solar On Grid Inverter (SREDA approved)						
	Supply, installation, testing & commissioning of imported Inverter with all necessary fittings and & all accessories as per drawings, specification & instruction of the Engineer-in-charge. Inverter Capacity-25 KW, Frequency 50 Hz, AC output 400 Voltage (±4%). Warranty 03 Years or higher Country of Origin: Germany/USA/UK/Canada or Equivalent (Thiland/India/Malaysia) Protection Class: IP 65 IEC 62109-1/-2, EN50549-1/-2:2018, VDE-AR-N 4105/4110/4120:2018, IEC 62116, IEC 61727, With DC and AC SPD with DC Isolator including DC/AC ratio with energy harvesting		Set	2			
3.00	Regulatory Approval						

	Electrical safety CE marked for the Low Voltage Directive EN / IEC 62109-1/ EN/ IEC 62109-2, AS3100 Grid interconnection VDE0126-1-1, VDE-AR-N 4105, CEI 0-21, G59/3, UTE C15-712-1, AS4777, IEC 62116, IEC 61727, PEA & MEA for Thailand*** Environmental RoHS, REACH and 4K4H		Job	1			
4.00	PV Modules Racking System						
	For Steel Shed Roof : Anodized Aluminum rail with SS NUt Bolt & Washer For RCC Roof: Carbon Steel Frame with Carbon Steel Nut,Bolt and HDG Washer ISO 9001:2015, ISO 4001:2015, ISO 4001:2018		Lot	1			
1.03	DC Combiner Box						
	Supply, installation, testing & commissioning of DC combiner Box locally assembled Performance testing shall be in accordance to the International standards and skilled labour, technician, Engineer as per manufacturers instruction manual. Complete with following all standard accessories. Input: Incoming string positive & negative separately through by fuse and DC surge protector & Circuit breaker, Connector MC4 (male & female). Short Circuit Protection: Protected by combiner box. DC Surge Protection Device (SPD); Brand : ABB/Schneider/Siemens.		Set	2			
5.00	AC Combiner Box						
	Supply, installation, testing & commissioning of AC combiner box weather proof, Locally assembled, Type tested equivalent poly-carbonate suitable for outdoor and performance testing shall be in accordance to the International standards and skilled labour, technician, Engineer as per manufacturers instruction manual. Made of steel sheet with Copper busbar TPN+E and mounting provision with MCCB and Energy meter (with RS485). Complete with following all standard accessories. AC Surge Protection Device (SPD) & capable of breaking full load current. Incoming: 1X200A TP MCCB (36KA) (Adj.) Outgoing :2X125A TP MCCB (25KA) (Adj.) 1X50A 4-P MCCB (20KA) for SPD 1X20 A SP MCB (6KA) 2X16 A SP MCB (6KA) 1X32 A TP MCB (15KA) including Cable connectors & 250 A TPNE+125 A ECC copper busbars, indicating lamp, digital multimeter, phase failure relay etc. with all necessary fittings & accessories as per drawings, specification & instruction of the Engineer-in-charge. Brand : ABB/Schneider/Eaton.		Set	1			
1.06	Three Phase Energy Meter						
	Supply, installation, testing & commissioning of three phase energy meter with all necessary fittings, enclouser & in accordance with the instruction of Engineer-in-charge having						

	following features: i. Three phase (as per requirement) ii. Shall be able to measure and record the amount of solar energy provided by the system.Brand: Hosaf/Secure		Set	1			
1.06	PV-DG CONTROLLER WITH DATA LOGGER						
	A PV-DG (photovoltaic-diesel generator) controller manages the operation of both solar panels and a diesel generator, ensuring they work together to power a load efficiently and reliably. Its primary functions include synchronizing the PV and DG sources to safely share the load, optimizing fuel consumption by prioritizing solar power, and protecting both systems by preventing issues like generator underloading or reverse power flow. It must have the three following operating modes: Operation with DG: Main functions when using with DG: - Maintain spinning reserve at about 25-30% (when load is less than solar power). To protect DG from excess solar power. To monitor solar, DG and load parameters. Feed in Management (zero export): - To avoid back feeding into grid. To monitor solar, Grid & load parameters. Monitoring-Remote and Local: - Remote monitoring with alerts. Local monitoring. Origin: India/Thailand/Malaysia		Set	1			
6.00	Solar System Loading -Unloading & Transportation at site		Job	1			
7.00	Cable Tray						
	Supply & Installation of 18 SWG GP sheet capsule type cable tray with cover and size of the cable tray should be maintained 150X75 mm to laid the AC & DC cable for connection with the AC & DC combiner box		Rft	480			
8.00	PVC Conduit						
	Supply & Installation of 20 mm dia PVC conduit including necessary accessories, Brand:		Rft	280			
9.00	Firefighter Disconnect Switch						
	Supply & Installation, testing & commissioning of Firefighter Disconnect Switch(RSB remote sensor) with Certification (CE). Protection class: IP-65, DC Voltage: 1000V, Brand: India/Thailand/Malaysia.		Job	1			
10.00	Irradiation and Temperature Sensor						
	Supply & Installation, testing & commissioning of Irradiation and Temperature Sensor. Origin: India/Thailand/Malaysia. Model:Solar Irradiation and temperature sensor, SL-RS-485IRR-AMT, Protection Class: IP-65, Supply voltage: 10V to 28V.		Job	1			
11.00	Monitoring and Control System						
	Supply & Installation, testing & commissioning of SMA/HUEWAI/Equivalent Data manage M IEC 60529		Job	1			
12.00	Panel Cleaning System & Networking						
	Supply & Installation, testing & commissioning of water pump for panel cleaning Brand: Gazi Pump or Equivalent, Permanent supply water line: PPR pipe (1.15"/1.5" dia) with all relevant accessories, valve, fittings, flange union, etc.In addition, waste water disposal line with 2"/3" dia uPVC pipe line with SS gratings should be considered		Job	1			
13.00	Networking (Additional)						

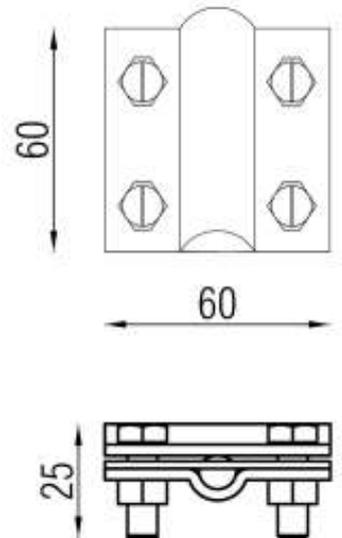
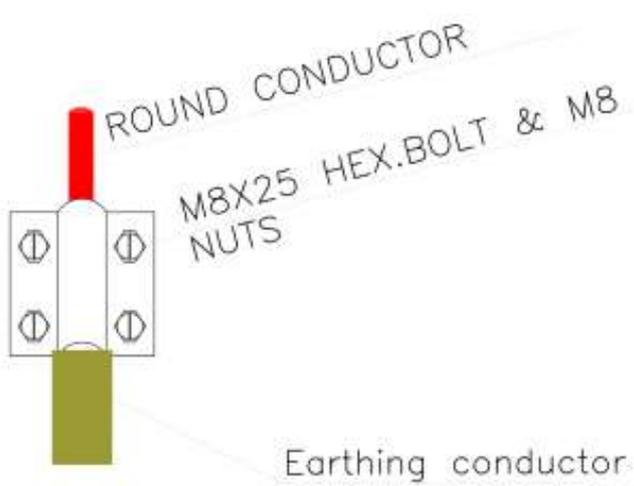
	Network set up should be considered & modem. Origin: Thailand/India/Malaysia		Job	1			
14.00	Perforated Rubber Mat						
	Supply & Installation of 10mm thickness perforated floor rubber mat with pasting materials and hooking up with each other and approved quality suitable for use as electrical insulation of the floor and complete with all other necessary accessories per required and direction of the Engineer-in-charge. Certification of materials is required.		Sqm	18			
15.00	Fittings & Accessories		Lot	1			
16.00	System Testing & Commissioning		Job	1			
17.00	As Built Drawings & Documentation		Job	1			
Part B: Cable Item							
18.00	Providing & laying of UV protected & imported DC Cable, Min 1x 4mm ² , 1500VDC, Including 2" uPVC pipe Origin:India/Thailand/Malaysia		mtr	3000			
19.00	Providing & laying of 1C-35 mm ² NYY Cable with Other Accessories for Inverter to AC DB to Energy Meter Brand : SQ/BBS/BRB, Bangladesh		mtr	320			
20.00	Providing & laying of 1C-16 mm ² BYA ECC Cable with Other Accessories for Inverter to AC DB to Energy Meter Meter Brand : SQ/BBS/BRB, Bangladesh		mtr	100			
21.00	Providing & laying of 1C-50 mm ² BYA ECC Cable with Other Accessories From LT Panel to AC Combiner		mtr	55			
22.00	Providing & laying of 1C-95 mm ² NYY Cable with Other Accessories From LT Panel to AC Combiner Box		mtr	200			
23.00	Providing & laying of Cables (NYYF DC+ NYY AC) and Surge protector(DC + AC) with fixing materials & other accessories etc.		lot	1			
24.00	Net metering formalities & miscellaneous (Utility approved bi-directional, solar Acisolator with interlocking, anti-islanding protection, grid protection relayssynchronizing facilities with grid, should be considered)		Job	1			
25.00	Earthing Connectivity Works (Excluding Earthing Boaring)		Job	1			
26.00	Civil Works (As per requirements)		Job	1			
27.00	Miscellaneous & others		Lot	1			
TOTAL AMOUNT (BDT)							





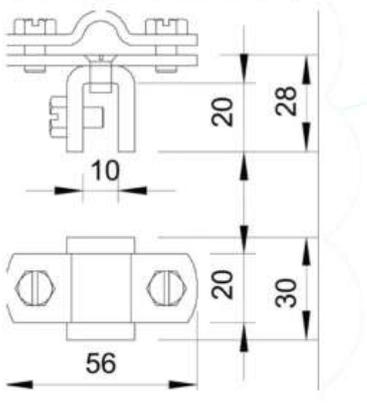
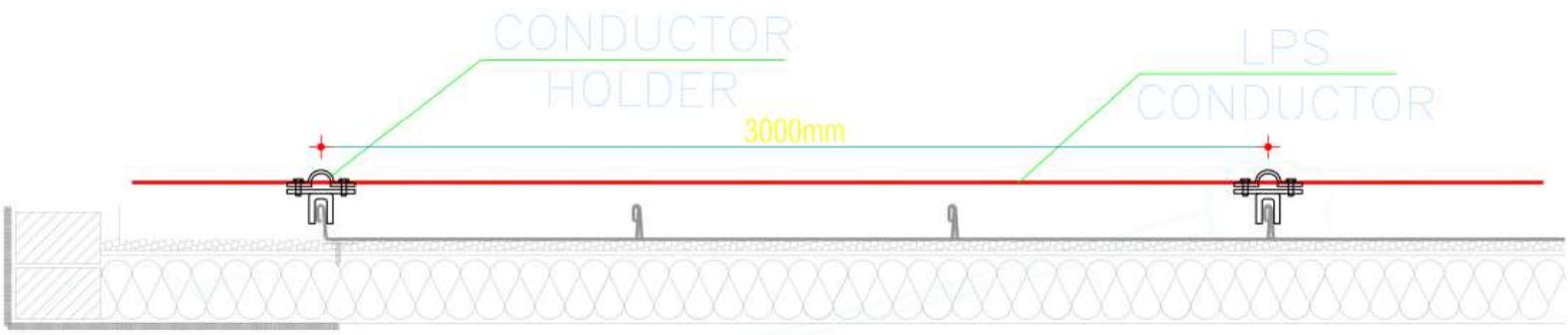
CROSS CONNECTOR

DETAIL B

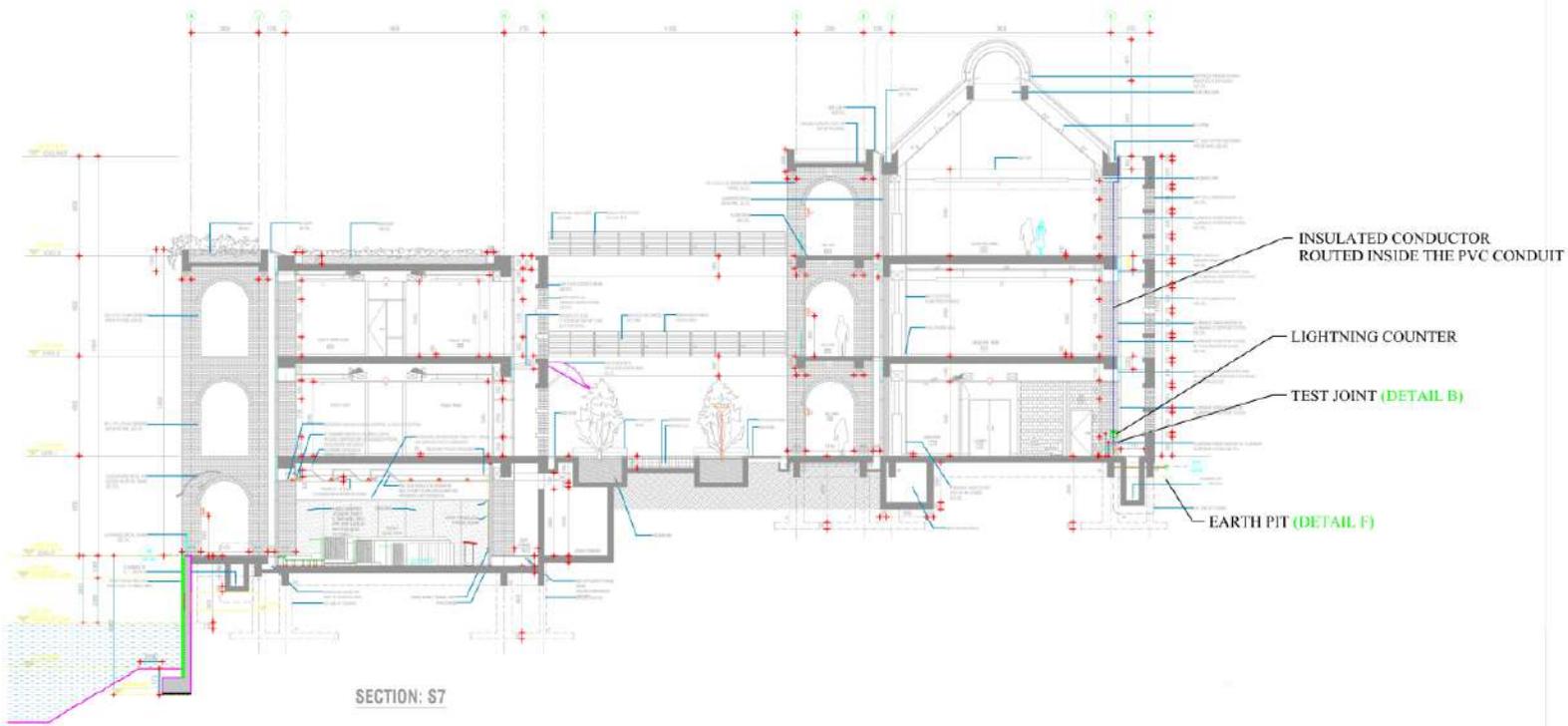


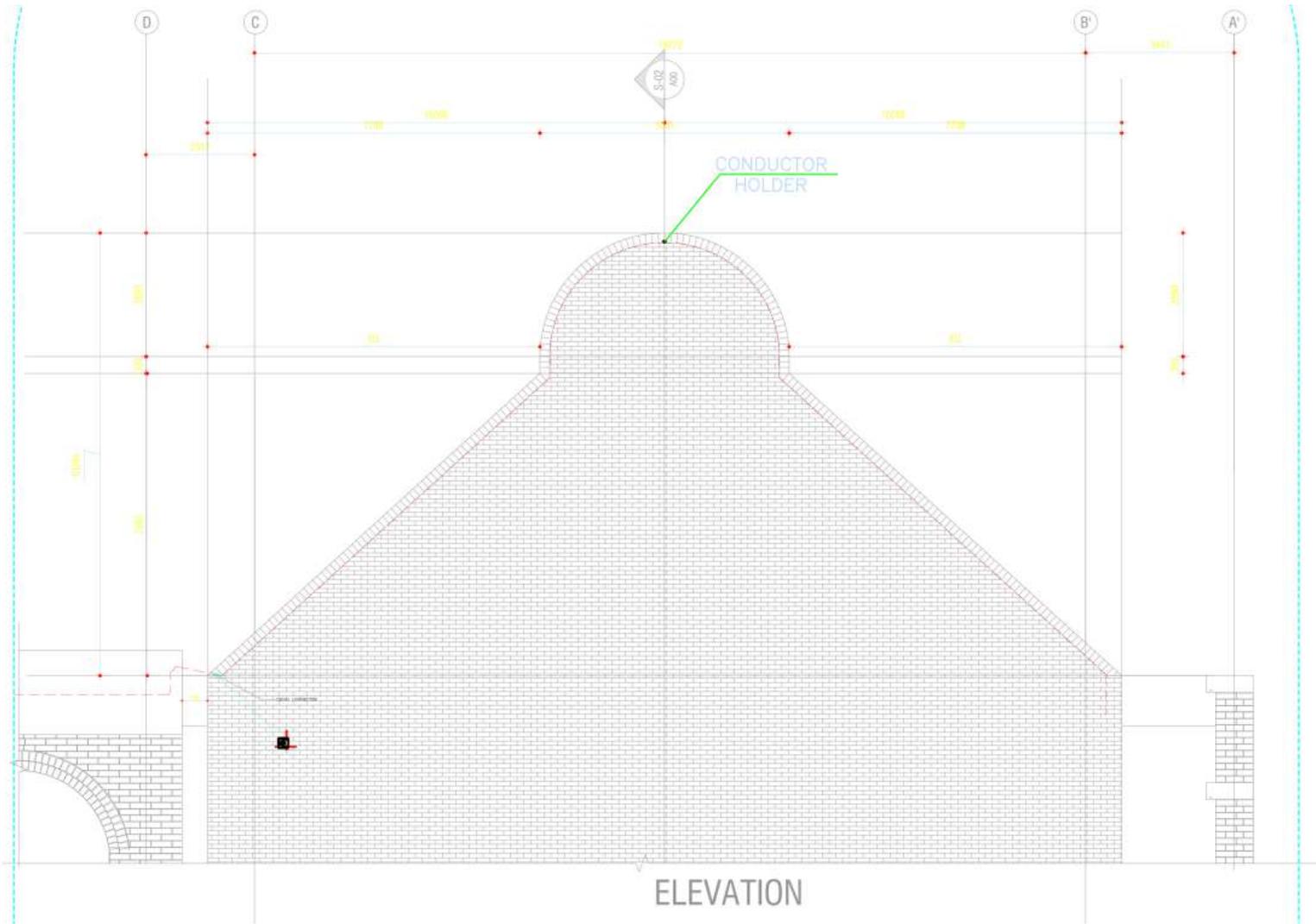
TEST JOINT

DETAIL D:

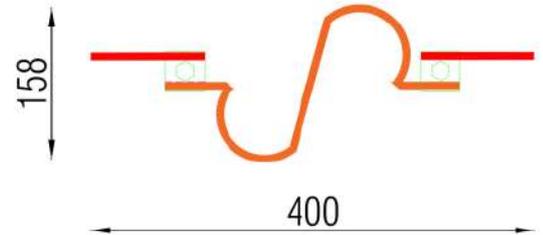
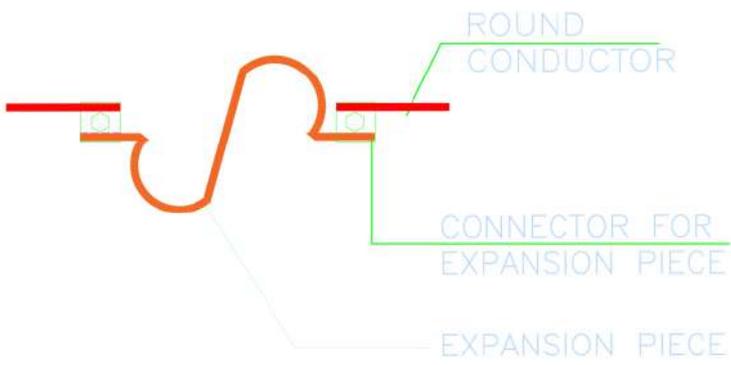


STANDING SEAM SHEET
CONDUCTOR HOLDER





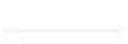
DETAIL E:

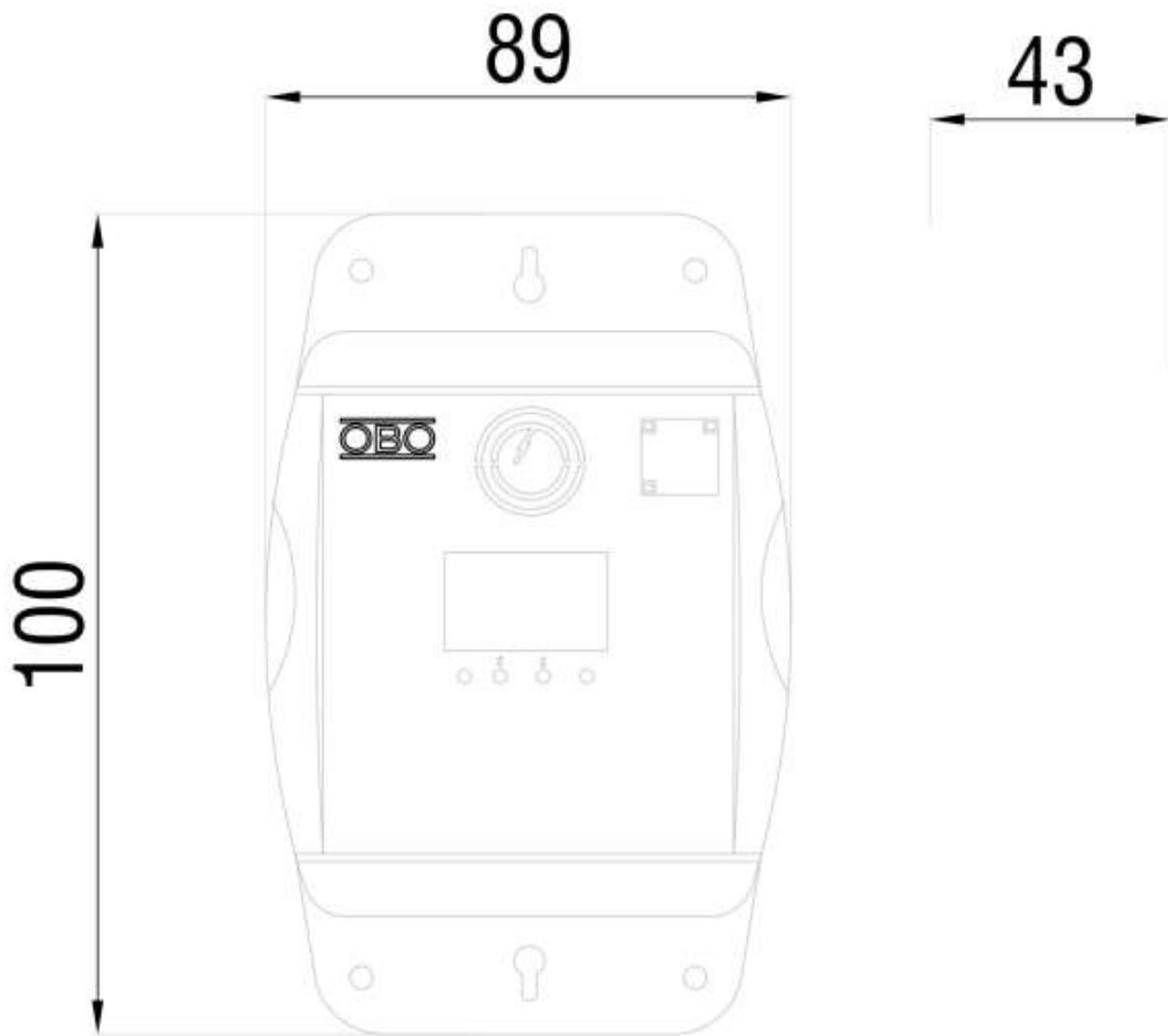


EXPANSION PIECE
WITH CONNECTOR

LEGEND

BOQ
S.No

	8mm Al Round Conductor	01
	8mm SS316 round conductor	02
	Insulated conductor	09
	Strike pad	08
	Seaming Conductor holder	03
	Conductor holder	04
	Cross Connector	05
	10mm SS316 conductor	15
	Expansion piece with connector	06
	Test Joint	13
	Lightning counter	14
	Cross Connector for Earthing	16
	Down conductor location	
	Earth pit	19,20,21,22



LIGHTNING COUNTER

Index figures associated with lightning protection design (Risk Calculation Assessment):
Asian University for Women, Academic Building

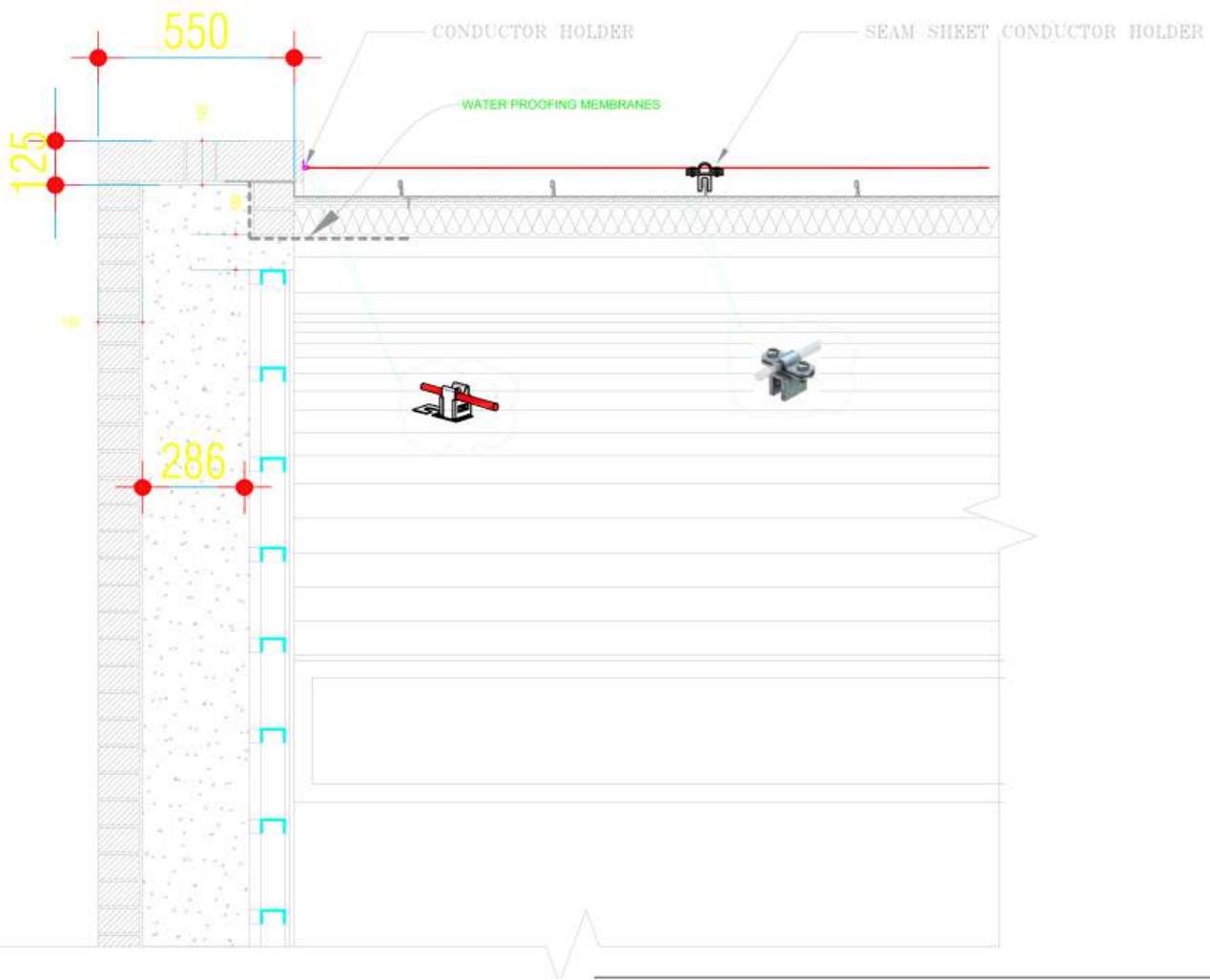
Index A: <u>Use of Structure</u>		Index		Index D: <u>Degree of isolation</u>		Index	
<ul style="list-style-type: none"> Schools,hospitals,children's homes and other such structure. 		10		<ul style="list-style-type: none"> School, Hospitals, children homes and other such structures 		10	
Index B: <u>Type of Construction</u>				Index E: <u>Type of Terrain</u>			
<ul style="list-style-type: none"> Steel framed encased and reinforced concrete with metal roof. 		5		<ul style="list-style-type: none"> Hilly terrain. 		6	
				Index F: <u>Height of Structure</u>			
<p>A structure of exposed metal which is continuous down to ground level is excluded from the table as it require no lightning protection beyond adequate earthing arrangement.</p>				<ul style="list-style-type: none"> 30-38 m. 		22	
Index C: <u>Contents or Consequentail Effects</u>				<p>c Structure higher than 53 m require protection in all cases.</p>			
<ul style="list-style-type: none"> Schools,hospitals,children's homes and other homes,places of assembly. 		10		Index G: <u>Lightning Prevalence</u>			
<p>b. This means specially valuable plant or materials vuluable plant or materials vulnerable to or the results of fire.</p>				<p>Number of thunderstorm days per year:</p> <ul style="list-style-type: none"> Over 21 		21	

Calculation of Risk Index

No.	A (Use of structure)	B (Use of Construction)	C (Contents or Consequential Effects)	D (Degree of Isolation)	E (Type of terrain)	F (Height of structure)	G (Lightning provalence)	Total Index figure	Recommendation
01	Index figure Schools,hospitals,children's homes and other such structure	Steel framed encased and reinforced concrete with metal roof.	Schools,hospitals, children's homes and other homes ,places of assembly.	School, Hospitals, children homes and other such structures	Hilly terrain.	(30-38 m.) (35.185 m)	Over 21	84	CONVENTIONAL TYPE
02	Index	10	5	10	6	22	21		

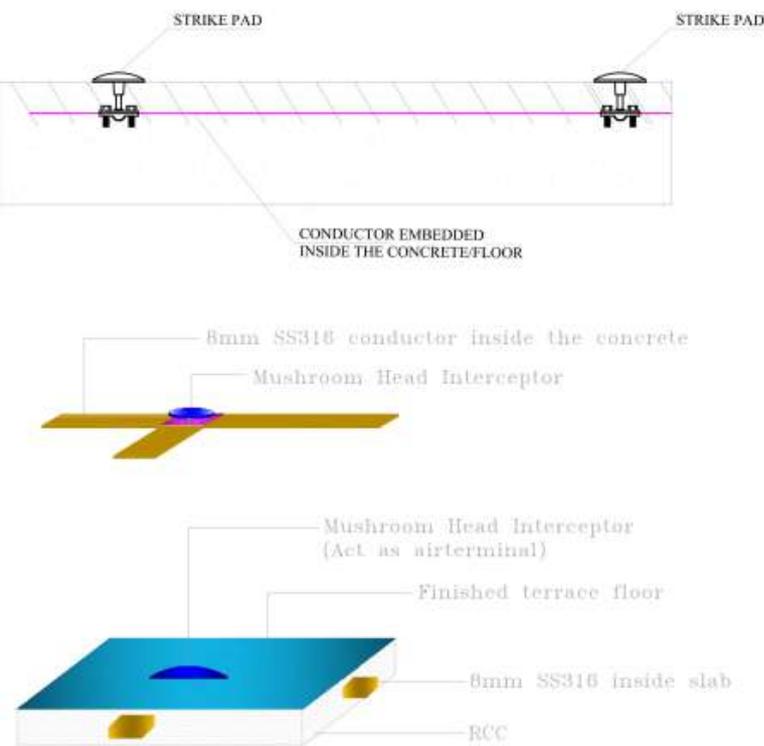
Note:

Protection need as per (BNBC 2020) Ref.-Pg-(4602-4603),Table-8.1.27. Marginal risk index figure-40
 Risk index figure of Commons Building is 55. So this building must have to protected with lightning protection system.



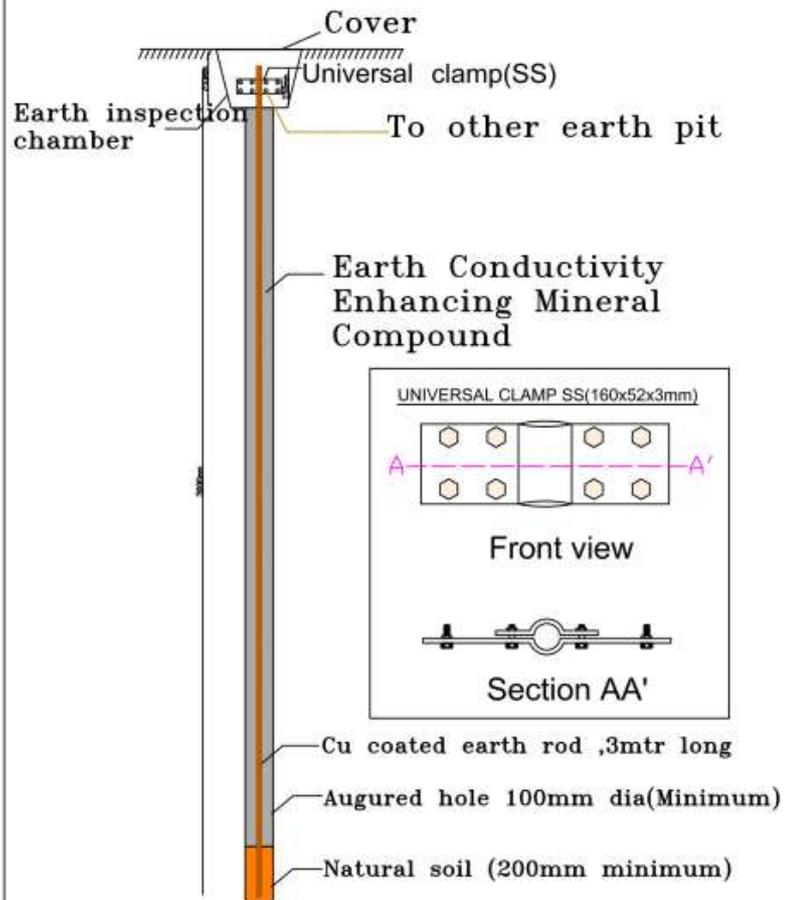
DETAIL G:

STRIKE PAD SECTION

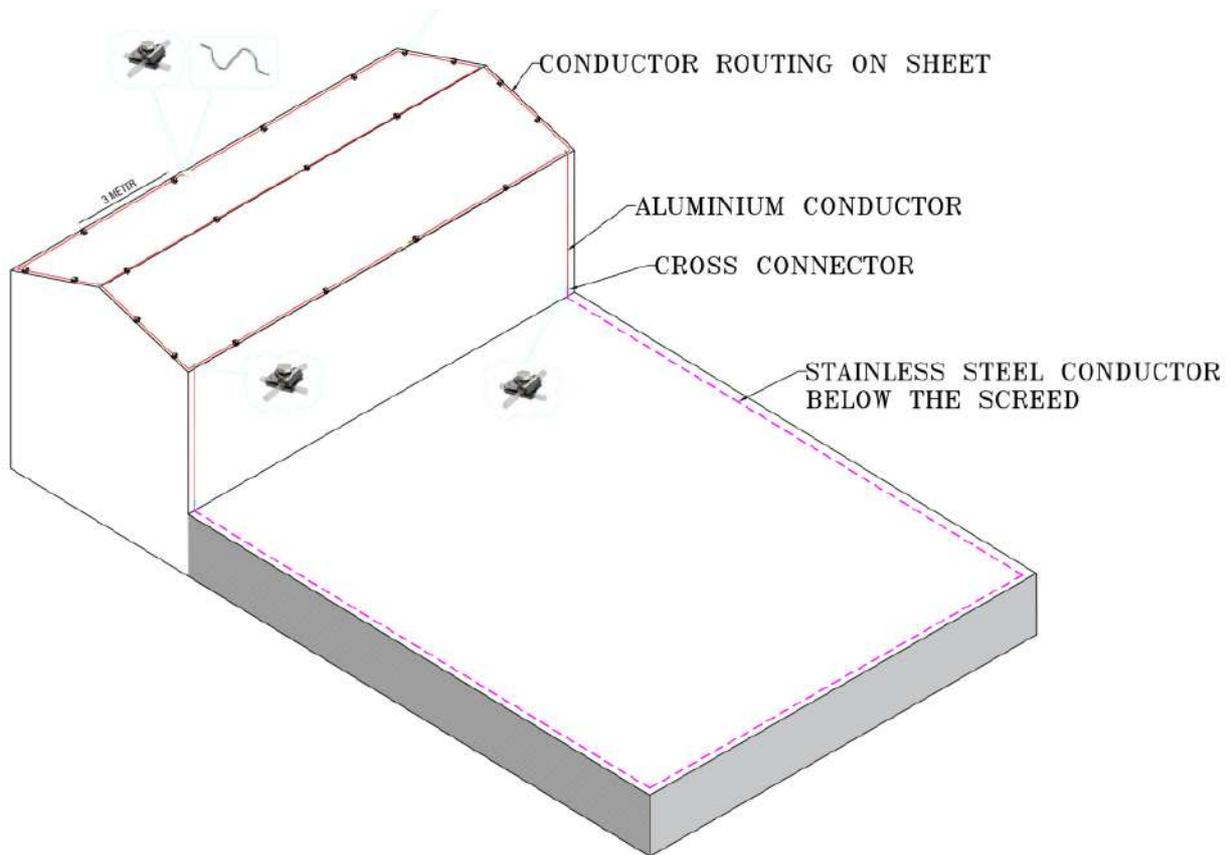


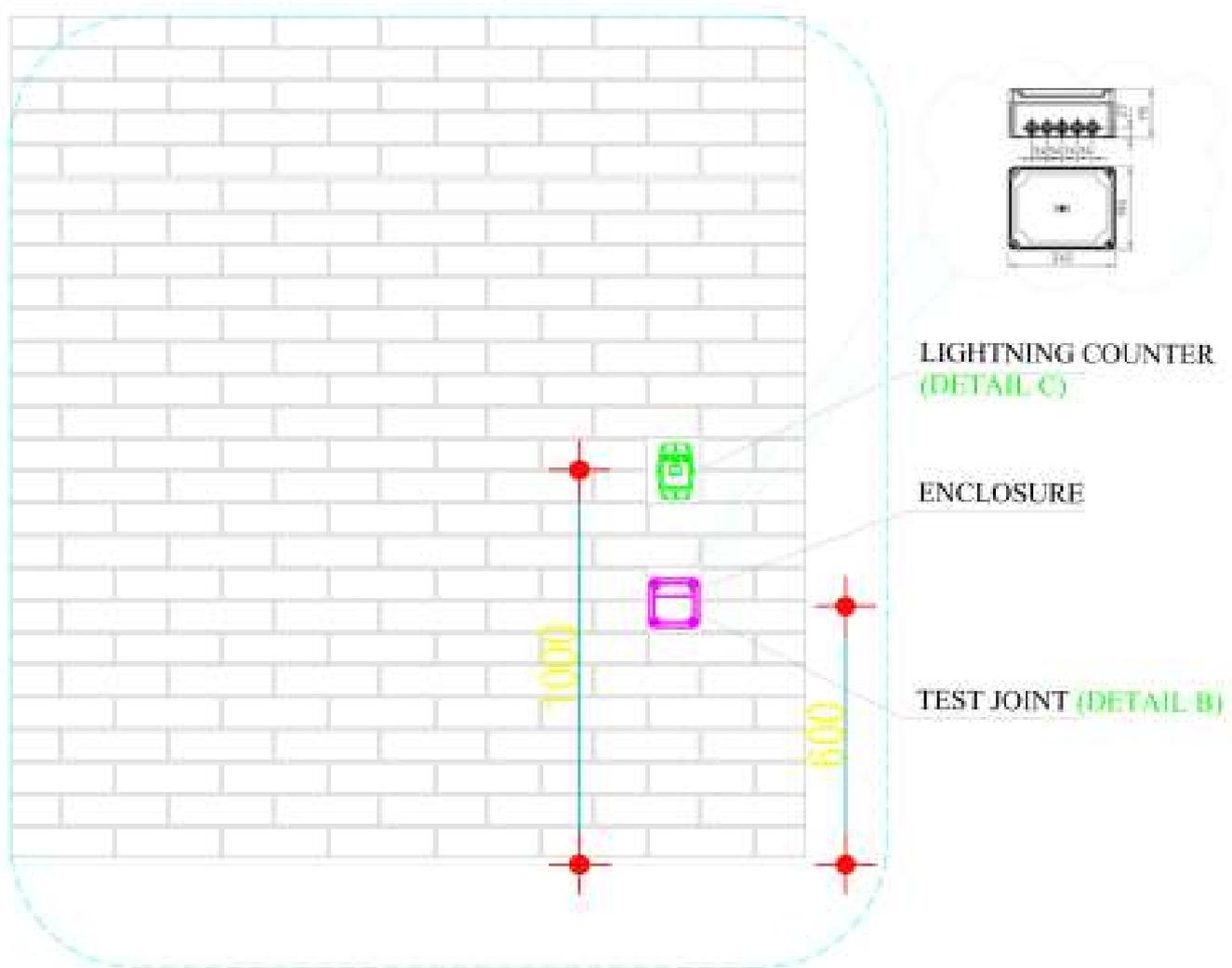
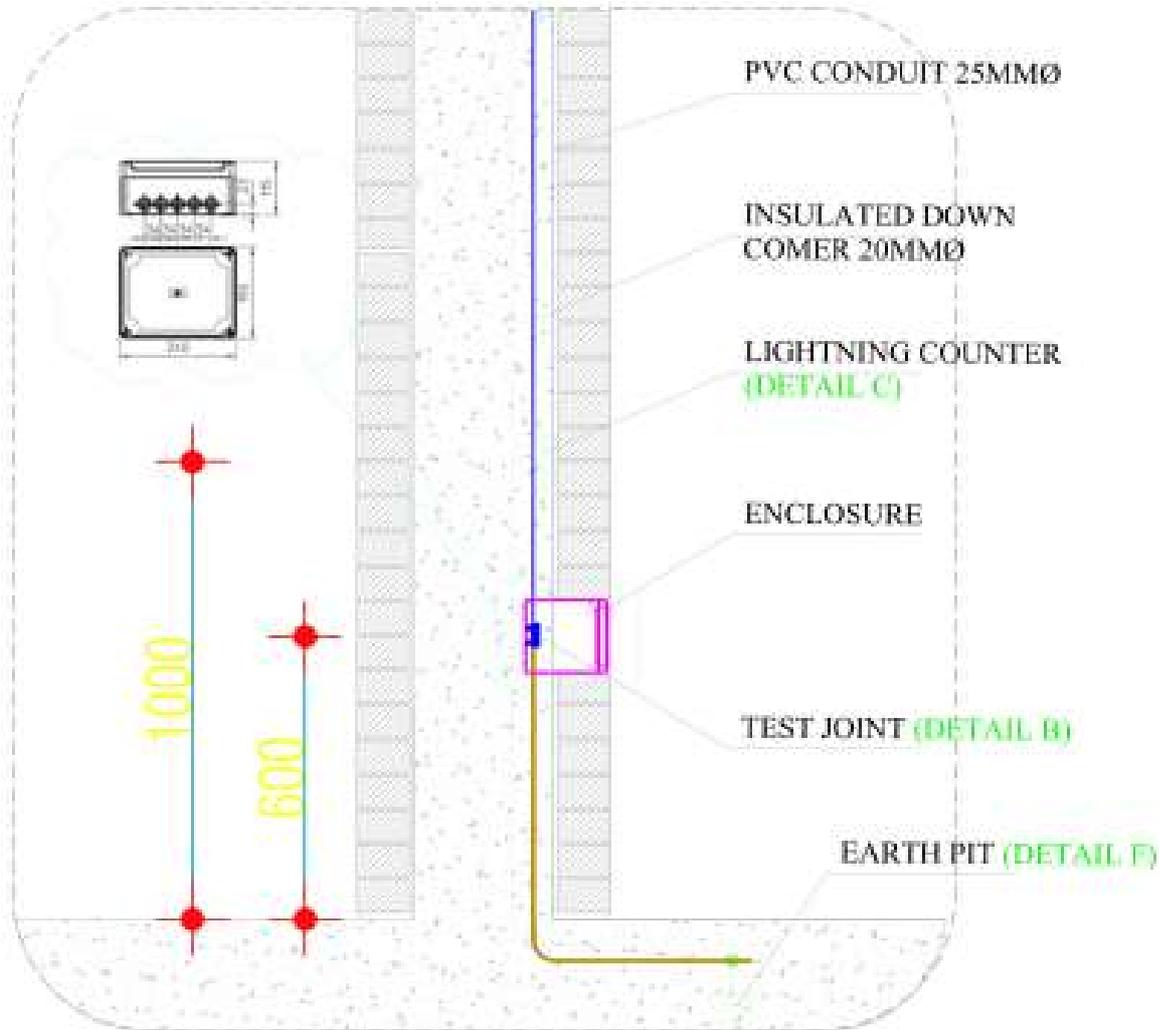
DETAIL F:

EARTHING SYSTEM – AUGURING METHOD

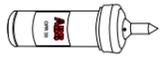


NOTE : Earth resistance Value purely depends upon soil resistivity





LEGEND FOR LPS DESIGN

S/N	ITEM SYMBOL	DESCRIPTION
1		Down conductor
2		Ground terminal
3		Air terminal (solid Copper) diameter for class ii =12.7 mm Air terminal (solid Aluminum) diameter for class ii =15.9 mm
4		Earth lead dia 12.7mm.
5		Metal Base Plate or Tripod Stand
6		Aviation Light

Index figures associated with lightning protection design:

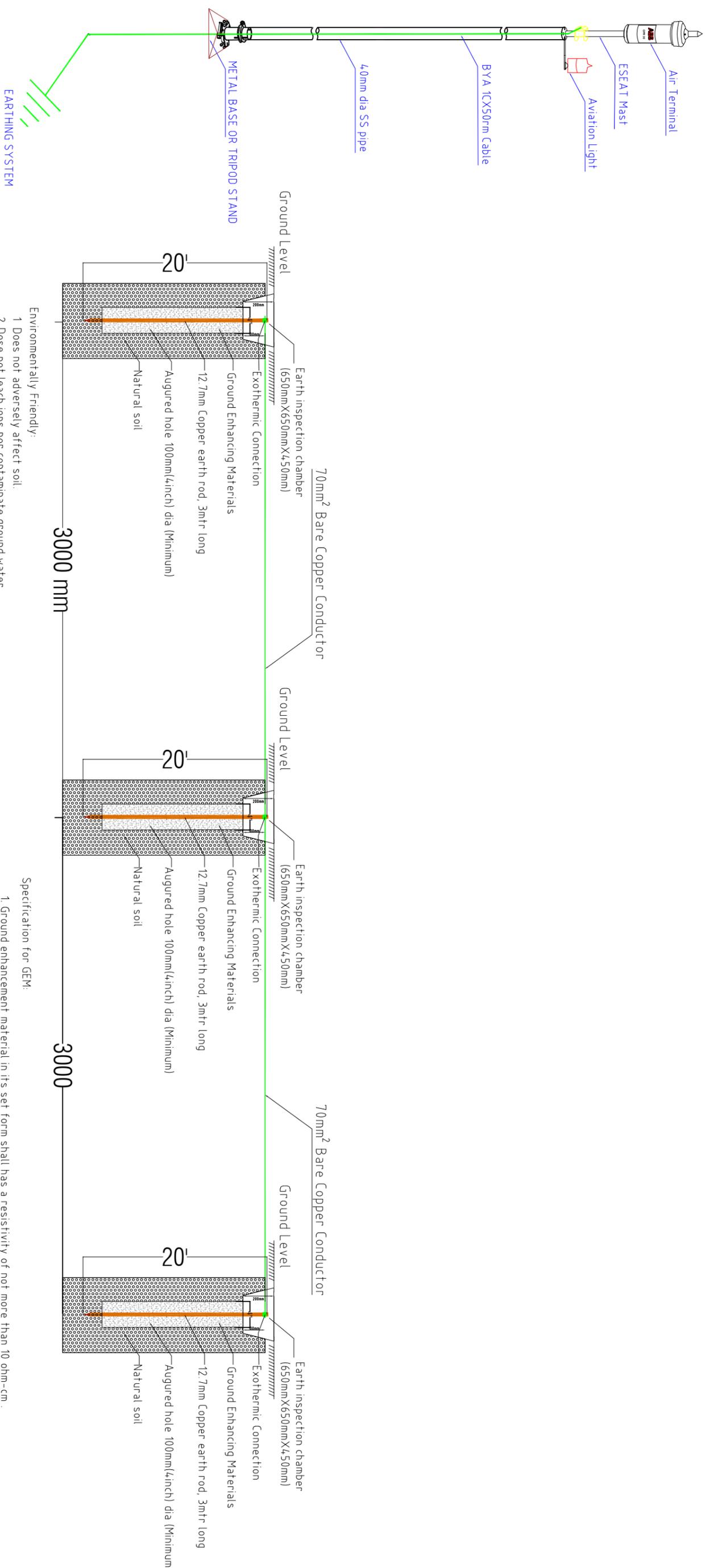
Index	Index A: Use of Structure	Index B: Type of Construction	Index C: Contents or Consequential Effects	Index D: Degree of Isolation	Index E: Type of Terrain	Index F: Height of Structure	Index G: Lightning Prevalence	Index
2	<ul style="list-style-type: none"> House and similar Building House and similar Building with outside aerial Small and medium size factories, workshops and laboratories. Big industrial plants, telephone exchanges, office blocks, hotels of flats. Places of assembly, for example, places of workshop, halls, theatres, museums, exhibitions, department stores, post offices, stations, airports, stadiums. Schools, hospitals, children's homes and other such structure 	<ul style="list-style-type: none"> Steel framed encased with nonmetal roof. Reinforced concrete with nonmetal roof. Brick, plain concrete or masonry with nonmetal roof. Steel framed encased and reinforced concrete with metal roof. Timber formed or clad with any roof other than metal or thatch. Any building with a thatched roof. 	<ul style="list-style-type: none"> Ordinary domestic office building, factories and workshops not containing valuable materials. Industrial and agricultural building with specially susceptible contents. Power stations, gas works, telephone exchanges, radio stations. Industrial key plants, ancient monuments, historic buildings, museums, art galleries Schools, hospitals, children's homes and other homes, places of assembly. b. This means specially valuable plant or materials vulnerable to or the results of fire. 	<ul style="list-style-type: none"> Structure located in an area with a few other structure of similar height. 	<ul style="list-style-type: none"> Flat terrain at any level. Hilly terrain. Mountainous terrain 300m and above. 	<ul style="list-style-type: none"> Up to 9 m. 9-15 m. 15-18 m. 18-24 m. 24-30 m. 30-38 m. 38-46 m. 46-53 m. c Structure higher than 53 m require protection in all cases. 	<ul style="list-style-type: none"> Number of thunderstorm days per year: Up to 3 4-6 7-9 10-12 13-14 15-18 19-21 Over 21 	2
4								4
5								5
6								6
7								7
8								8
10								10
2								2
6								6
8								8
2								2
4								4
5								5
8								8
11								11
16								16
22								22
30								30

Calculation of Risk Index

No.	A (Use of structure)	B (Use of Construction)	C (Contents or Consequential Effects)	D (Degree of Isolation)	E (Type of terrain)	F (Height of structure)	G (Lightning prevalence)	Total Index figure	Recommendation
01	Index figure Small and medium size factories, workshops and laboratories.	Reinforced concrete with nonmetal roof.	Power stations, gas works, telephone exchanges, radio stations.	Structure located in an area with a few other structure of similar height.	Hilly terrain	(9-15 m.) (13.5 m)	Over 21	57	
02	Index figure 6	Index figure 5	Index figure 10	Index figure 5	Index figure 6	Index figure 4	Index figure 21		

Note:
Protection need as per (BNBC 2020) Ref.-Pg-(4602-4603), Table-8.127. Marginal risk index figure-40
Risk index figure of Commons Building is 55. So this building must have to protected with lightning protection system.

LEGEND & RISK CALCULATION ASSESSMENT OF LPS ESE-OPR-30 FOR SERVICE BUILDING

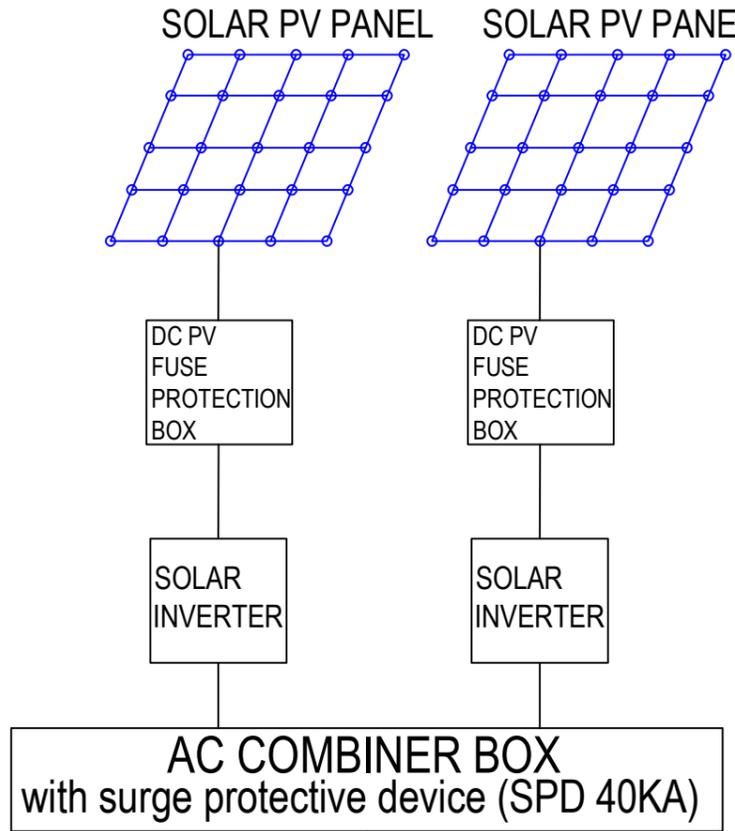


- Environmentally Friendly:
- 1 Does not adversely affect soil.
 - 2 Does not leach ions nor contaminate ground water.
 - 3 Meets (USA) Environmental Protection Authority requirements for landfill.
 - 4 Material safety data sheet (MSDS # 768) available.
- Ground Enhancement Material (GEM) a superior conductive material that solves your toughest grounding problems. Third party testing has been completed to verify that GEM conforms to IEC 62561-7. It meets all EPA requirements for landfill (USA).

- Specification for GEM:
1. Ground enhancement material in its set form shall have a resistivity of not more than 10 ohm-cm .
 2. Ground enhancement material must be permanent and maintenance-free, no recharging with salts or chemicals which may be corrosive) and maintain its earth resistance with time
 3. It must set up firmly and not dissolve or decompose or otherwise pollute the soil or the local water table .
 4. The ground enhancement material shall be suitable for installation in dry form or in a slurry form.
 5. The ground enhancement material shall not depend on the continuous presence of water to maintain its conductivity.

AIR TERMINAL SECTION LAYOUT OF LPS ESE OPR-30 & EARTHING BORING SYSTEM OF SERVICE BUILDING

52KWp ON GRID NET METERING MONO CRYSTALLINE SOLAR SYSTEM



CABLE CONNECTION
4 X 1C X 95 RM NYY (TPN)
1 X 1C X 50 RM BYA (ECC)

3150 KVA TRANSFORMER, 3-PHASE
Vp:Vs=11/0.415kV, Dyn-11, 50 Hz,
Off-Load Type, Dry Type, ANAF, Enclosure-IP23
Cast Resin Transformer (CRT), AL-Winding.

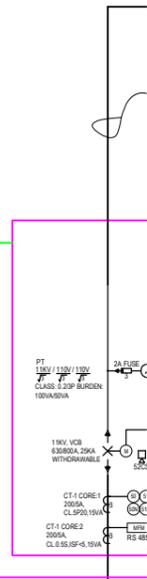
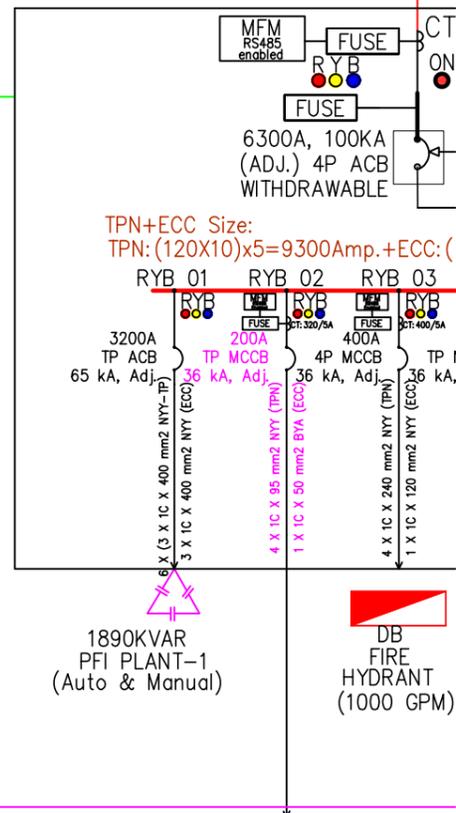
1 X 1C X 120 mm2 BYA (ECC-BODY)
EARTH PIT BORING: 10
EARTH PIT BOX: 10

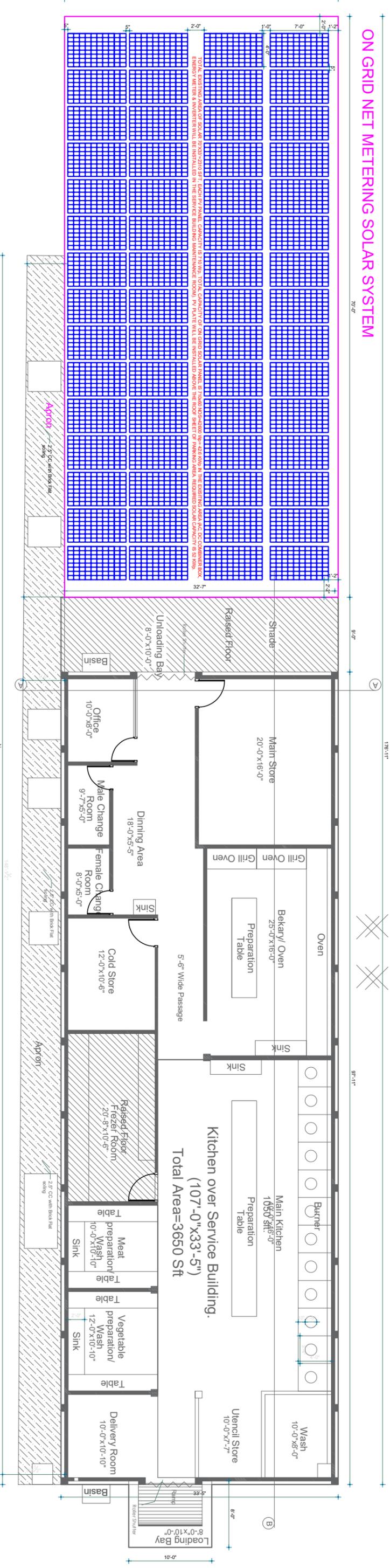
1 X 1C X 120 mm2 BYA (ECC-BODY)
EARTH PIT BORING: 11
EARTH PIT BOX: 11

1 X 1C X 120 mm2 BYA (ECC)
EARTH PIT BORING: 08
EARTH PIT BOX: 08

6300A BBT,
TPN+PE,
Conductor: AL

6 x 1C X 400 mm2 NYY (ECC)
EARTH PIT BORING: 18 & 19
EARTH PIT BOX: 16





ON GRID NET METERING SOLAR SYSTEM

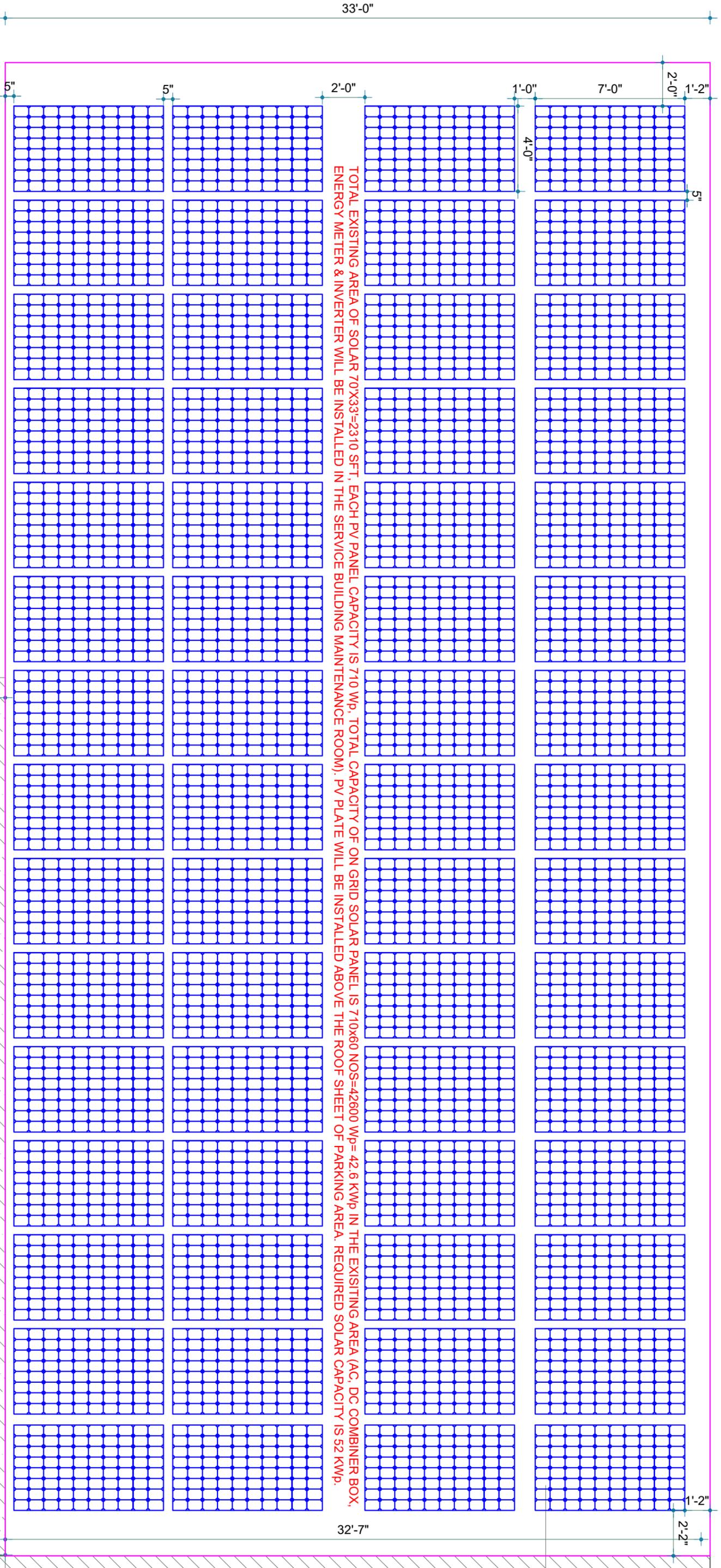
Kitchen at Main Campus (97'-1" x 32'-7")
Total Area=3162.86 Sft

Kitchen over Service Building.
(107'-0" x 33'-5")
Total Area=3650 Sft



ON GRID NET METERING SOLAR SYSTEM

70'-0"



TOTAL EXISTING AREA OF SOLAR 70'X33'=2310 SFT, EACH PV PANEL CAPACITY IS 710 Wp, TOTAL CAPACITY OF ON GRID SOLAR PANEL IS 710x60 NOS=42600 Wp= 42.6 kWp IN THE EXISTING AREA (AC, DC COMBINER BOX, ENERGY METER & INVERTER WILL BE INSTALLED IN THE SERVICE BUILDING MAINTENANCE ROOM), PV PLATE WILL BE INSTALLED ABOVE THE ROOF SHEET OF PARKING AREA. REQUIRED SOLAR CAPACITY IS 52 kWp.

