



REPUBLIC OF THE PHILIPPINES
AGUSAN DEL SUR STATE COLLEGE OF AGRICULTURE AND TECHNOLOGY
BUNAWAN, AGUSAN DEL SUR

BIDDING DOCUMENTS

**COMPLETION OF COLLEGE
OF ENGINEERING AND
INFORMATION SCIENCES
INTEGRATED
LABORATORY CENTER,
PHASE I**

**Sixth Edition
July 2020**

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the “Works”) through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv) the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the “*name of the Procuring Entity*” and “*address for bid submission*,” should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms	5
Section I. Invitation to Bid.....	8
Section II. Instructions to Bidders	11
1. Scope of Bid	12
2. Funding Information	12
3. Bidding Requirements.....	12
4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	12
5. Eligible Bidders	13
6. Origin of Associated Goods	13
7. Subcontracts	13
8. Pre-Bid Conference.....	13
9. Clarification and Amendment of Bidding Documents	13
10. Documents Comprising the Bid: Eligibility and Technical Components	14
11. Documents Comprising the Bid: Financial Component	15
12. Alternative Bids	15
13. Bid Prices	15
14. Bid and Payment Currencies	15
15. Bid Security	16
16. Sealing and Marking of Bids.....	16
17. Deadline for Submission of Bids.....	16
18. Opening and Preliminary Examination of Bids.....	16
19. Detailed Evaluation and Comparison of Bids	16
20. Post Qualification	17
21. Signing of the Contract	17
Section III. Bid Data Sheet	18
Section IV. General Conditions of Contract.....	21
1. Scope of Contract.....	22
2. Sectional Completion of Works	22
3. Possession of Site.....	22
4. The Contractor's Obligations	22
5. Performance Security	23
6. Site Investigation Reports	23

7.	Warranty.....	23
8.	Liability of the Contractor.....	23
9.	Termination for Other Causes	23
10.	Dayworks.....	24
11.	Program of Work	24
12.	Instructions, Inspections and Audits	24
13.	Advance Payment	24
14.	Progress Payments	24
15.	Operating and Maintenance Manuals	25
	Section V. Special Conditions of Contract.....	26
	Section VI. Specifications	28
	Section VII. Drawings.....	30
	Section VIII. Bill of Quantities	40
	Section IX. Checklist of Technical and Financial Documents	63

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

Foreign-funded Procurement or Foreign-Assisted Project – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

GFI – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

- a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;
- b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- c. The deadline for the submission and receipt of bids; and
- d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.



REPUBLIC OF THE PHILIPPINES
AGUSAN DEL SUR STATE COLLEGE OF AGRICULTURE AND TECHNOLOGY
Bunawan, Agusan del Sur

INVITATION TO BID FOR

***Completion of College of Engineering and Information
Sciences Integrated Laboratory Center, Phase I***

1. The *Agusan del Sur State College of Agriculture and Technology (ASSCAT)*, through the *General Appropriations Act (GAA) 2024* intends to apply the sum of *Thirty Million Pesos (Php 30,000,000.00)* being the Approved Budget for the Contract (ABC) to payments under the contract for *Completion of College of Engineering and Information Sciences Integrated Laboratory Center, Phase I*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *Agusan del Sur State College of Agriculture and Technology (ASSCAT)* now invites bids for the above Procurement Project. Completion of the Works is required *270 Calendar Days*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from *Agusan del Sur State College of Agriculture and Technology (ASSCAT)* and inspect the Bidding Documents at the address given below from *Monday to Friday 8:00am to 5:00pm*.
5. A complete set of Bidding Documents may be acquired by interested Bidders on *December 22, 2023* from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of *Php 25,000.00*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees through in person or through electronic means (Deposit/Fund Transfer) using the following Bank Details:

Account Name: **ASSCAT STF**
Account Number: **4512-1004-44**
Branch: **Land Bank of the Philippines Bunawan, Agusan del Sur**

6. The *Agusan del Sur State College of Agriculture and Technology (ASSCAT)* will hold a Pre-Bid Conference¹ on *December 29, 2023, 2:00 o'clock in the afternoon* at the *Board Room, Administration Building, ASSCAT, Bunawan, Agusan del Sur* which shall be open to prospective bidders.

Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated below on or before *January 10, 2024 at 1:00 pm*. Said documents must be sent to the following address. Late bids shall not be accepted.

Receiver's Name: **ASSCAT Bids and Awards Committee (BAC)**
Receiver's Address: **Administration Building, ASSCAT, San Teodoro, Bunawan, Agusan del Sur**
Contact Numbers: **Smart 0949-1282-221**

7. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
8. Bid opening shall be on *January 10, 2024 at 2:00 pm* at the *Board Room, Administration Building, ASSCAT, Bunawan, Agusan del Sur*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
9. The *Agusan del Sur State College of Agriculture and Technology (ASSCAT)* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
10. For further information, please refer to:

ESMERALDA G. CLARO
Chair, BAC Secretariat
Procurement Office
ASSCAT, Bunawan, Agusan del Sur
09491282221

11. You may visit the following websites:

For downloading of Bidding Documents, please visit ***asscat.edu.ph***

December 22, 2023

(sgd) ***RUTH S. DESAMPARO***

BAC Chairperson

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

1. Scope of Bid

The Procuring Entity, *Agusan del Sur State College of Agriculture and Technology (ASSCAT)* invites Bids for the *Completion of College of Engineering and Information Sciences Integrated Laboratory Center, Phase I*, with Project Identification Number PB-Infra 2023-002.

The Procurement Project (referred to herein as “Project”) is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for 2024 in the amount of *Thirty Million Pesos (Php 30,000,000.00)*.

2.2. The source of funding is:

- a. NGA, the General Appropriations Act or Special Appropriations.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

- 7.1. The Procuring Entity has prescribed that:

- a. Subcontracting is not allowed.

- 7.1. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address as indicated in paragraph 6 of the **IB**.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the

IB, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid.
- 10.4. Statement of the bidder's Single Largest Completed Contract (SLSS) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.1 of this IRR, within the relevant period as provided in the Bidding Documents in the case of Goods.

All of the above statements shall include all information required in the PBDs prescribed by the GPPB.

- 10.5. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.6. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen with Valid Licenses and Certificates) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.7. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

- 10.8. Provide Safety Provisions (Occupational Safety and Health Plan) in the construction.
- 10.9. A notarized Affidavit of Site Inspection released from the Physical Plant Office is required. Schedule of Site Inspection will be after the Pre-bid Conference and before the scheduled Opening of Bids.
- 10.10. Certification from Department of Labor and Employment (DOLE) on No Labor Issues is required.
- 10.11. The bidders must submit certification of Performance from procuring entity of all on-going and completed projects in at least the last three (3) years.

11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

14.2. *Payment of the contract price shall be made in:*

- a. Philippine Pesos.

15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid for 120 calendar days from the receipt of the bids. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit three (3) copies of the first and second components of its Bid, (1 Original and 2 Certified True Copies) with Tabblings.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address as indicated in paragraph 6 of the **IB**.

18. Opening and Preliminary Examination of Bids

- 18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated

simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

- a. Information that specifies and complements provisions of the ITB must be incorporated.
- b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

Bid Data Sheet

ITB Clause																						
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: <i>Earthworks, Concrete Works, Reinforcing Steel Bars, Masonry Works, Plumbing Works, Fire Sprinkler System, Electrical Works, Windows ,Doors Aluminum and Glass Works, Steel Works Painting and Tile Works.</i>																					
7.1	<i>Subcontracting is not allowed.</i>																					
10.5	<i>PCAB License – General Engineering (Category Small “B”) and above.</i>																					
10.6	The key personnel must meet the required minimum years of experience set below: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Key Personnel</u></th> <th style="text-align: left;"><u>General Experience</u></th> <th style="text-align: left;"><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td>Project Manager-</td> <td>5 yrs</td> <td></td> </tr> <tr> <td>Project Engineer-</td> <td>3 yrs.</td> <td></td> </tr> <tr> <td>Material Engineer-</td> <td>2 yrs.</td> <td></td> </tr> <tr> <td>Safety Officer -</td> <td>2 yrs.</td> <td></td> </tr> <tr> <td>Foreman-</td> <td>2 yrs.</td> <td></td> </tr> <tr> <td>Electrical Engineer-</td> <td>1 yr</td> <td></td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	Project Manager-	5 yrs		Project Engineer-	3 yrs.		Material Engineer-	2 yrs.		Safety Officer -	2 yrs.		Foreman-	2 yrs.		Electrical Engineer-	1 yr	
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>																				
Project Manager-	5 yrs																					
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Foreman-	2 yrs.																					
Electrical Engineer-	1 yr																					
10.8	The minimum major equipment requirements are the following: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Equipment</u></th> <th style="text-align: left;"><u>Capacity</u></th> <th style="text-align: left;"><u>Number of Units</u></th> </tr> </thead> <tbody> <tr> <td>Dumptruck</td> <td>10 cu.m</td> <td>3-units</td> </tr> <tr> <td>Transit Mixer</td> <td>3 cu.m(min.)</td> <td>1-unit</td> </tr> <tr> <td>Concrete Vibrator</td> <td></td> <td>2-units</td> </tr> </tbody> </table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Dumptruck	10 cu.m	3-units	Transit Mixer	3 cu.m(min.)	1-unit	Concrete Vibrator		2-units									
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Concrete Vibrator		2-units																				
12	<i>[Insert Value Engineering clause if allowed.]</i>																					
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: <ul style="list-style-type: none"> a. The amount of not less than <i>two percent (2%) of ABC</i>, if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than <i>five percent (5%) of ABC</i>, if bid security is in Surety Bond. 																					
19.2	Partial bids are not allowed.																					
20	<i>[List licenses and permits relevant to the Project and the corresponding law requiring it, e.g. Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone, etc.]</i>																					
21	The following documents shall be submitted by the winning BIDDER within <i>ten (10) calendar days</i> from receipt of the Notice of Award (NOA): a) Construction Schedule and S-curve;																					

	<p>b) Manpower Schedule;</p> <p>c) Construction Methods;</p> <p>d) Equipment utilization schedule;</p> <p>e) Construction Safety and Health Program approved by the Department of Labor and Employment; evidence of submission as received by DOLE is acceptable).</p> <p>f) Program Evaluation and Review Technique (PERT)/Critical Path Method (CPM).</p>
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Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

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

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

1. **Scope of Contract**

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. **Sectional Completion of Works**

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. **Possession of Site**

4.1. The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC**, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

4.2. If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. **The Contractor's Obligations**

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.6 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. Performance Security

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the SCC supplemented by any information obtained by the Contractor.

7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the SCC.

8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the SCC, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex “E” of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor’s Bid shall be used for small additional amounts of work only when the Procuring Entity’s Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

11.1. The Contractor shall submit to the Procuring Entity’s Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.

11.2. The Contractor shall submit to the Procuring Entity’s Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor’s accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex “E” of the 2016 revised IRR of RA No. 9184.

14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity’s Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

- 15.1. If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

Special Conditions of Contract

GCC Clause	
2	<i>[If different dates are specified for completion of the Works by section, i.e. “sectional completion,” these dates should be listed here.]</i>
4.1	<i>[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]</i>
6	The site investigation reports are: <i>[list here the required site investigation reports.]</i>
7.2	<i>[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]</i> Fifteen (15) years.
10	<p><i>[Select one, delete the other:]</i></p> <p style="padding-left: 40px;">a. Dayworks are applicable at the rate shown in the Contractor’s original Bid.</p> <p style="padding-left: 40px;">b. No dayworks are applicable to the contract.</p>
11.1	The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within <i>[insert number]</i> days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is <i>[insert amount]</i> .
13	The amount of the advance payment is <i>[insert amount as percentage of the contract price that shall not exceed 15% of the total contract price and schedule of payment]</i> .
14	Materials and equipment delivered on the site shall be completely put in place before it can be included for payment.
15.1	The date by which operating and maintenance manuals are required is <i>[date]</i> .
	The date by which “as built” drawings are required is <i>[date]</i> .
15.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is <i>[amount in local currency]</i> .

Section VI. Specifications

Notes on Specifications

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

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

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

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

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted

subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.

I. GENERAL REQUIREMENTS

1.1 Safety Productive Measures

The Contractor shall employ First Aider / Safety Practitioner; shall furnish necessary protective equipment, precautions and visual aids; provide personal protective equipment to inspectorate at every site inspection; shall also provide temporary facilities.

1.2 Minimum Construction Gears

The Contractor shall equip its workers for personal protection such as but not limited to safety shoes / rubber boots, Hard hat (helmet), Hand Gloves, Body Harness, necessary medicines (first-aid), 70% alcohol solution, Thermal Scanner, Soap / Sanitizing Solution.

II. SITE AND EARTHWORKS

2.1 Lay-Out and Preparation

The Contractor shall furnish all materials, labor, equipment, tools, and services necessary to complete the clearing and preparation within the site premises specified in the approved drawings; Secure all required permits, clearances and fees in connection with the work.

Remove all obstructions and retain or protect from damage at construction work stages whatever indicated in the drawings or designated by Engineer / Consultant.

Stake out the structures accurately and establish points true to grades, elevation, orientation, shape and undertake placement or removal for all shoring, bracing, planking, access to a location so as not to disturb construction operations.

2.2 Excavation

The Contractor shall furnish all materials, labor, equipment, tools and services necessary to complete the excavation works specified in drawings, no structure or any utilities shall intersect in the foundation or below the foundation covering within 45 degrees of foundation lines.

Remove any unsatisfactory materials encountered below the foundation and replace with a suitable material. In case of over excavation, such will be filled with structural fill as approved by the Engineer.

Excavation shall be performed in a manner or sequence that will provide drainage at all times and will not directly affect the stability or operations of adjacent structures. Provide Dispose all excess materials to the approved dumping site.

Excavate accurately and establish points true to grades, elevation, orientation, shape / sections. Bottom of all footings shall be on level planes.

2.3 Backfill and Compaction

Backfilling shall not begin without the approval of the Engineer, shall be placed only in structure that has been cured and attained at least 70% of the design strength. Backfill materials shall be satisfactory and approved; free from roots, organic matter, trashes and maximum size of aggregates shall be 75mm in any dimension; shall be placed in a maximum layer loose lift of 200mm.

Compaction shall be done with approved and suitable equipment. Materials for backfill shall be moistened or aerated as necessary to facilitate compaction. Method of compaction shall be in accordance to ASTM D-4253 / ASTM D-4254 for cohesionless soil or ASTM D-1557 for cohesive materials. Compacted surfaces of fill, backfill and / or subgrade shall be finish graded to the cross sections, lines, grades and elevations as indicated on the drawings.

III. FORMS AND SCAFFOLDINGS

3.1 Provision of Scaffoldings and Forms

The Contractor shall furnish all materials, labor, equipment, tools and services necessary to complete all work specified in the drawings. Scaffolding shall be designed and installed in accordance to BS EN 12811 Code of Practice for Access and Working Scaffolds. The Contractor shall be responsible for the adequacy of forms and its support. All formwork shall be provided with inspection window. Re-used forms shall have the contact surfaces cleaned thoroughly.

3.2 Erection and Dismantling

All Scaffoldings must only be erected, modified, dismantled, tested or certified by a competent technical person/s. Access Ladder shall necessitate a 2-man operation being securely fixed in place. The Contractor shall ensure that scaffoldings does not cause any damage to adjacent properties, structure or environment. Forms shall be tight to prevent leakage; free from oil / grease, irregularities, dents, sag. All Forms shall be installed in manner that it can be removed without damaging the concrete. The Contractor shall be responsible for variation due to movement, deflection / buckling. Tolerances permitted only if it conforms to ACI-347.

Formworks shall be removed at the following schedule:

Beam Sides, Walls and Columns-----	2 to 3 days
Complete Beam Shuttering -----	14 Days

IV. STRUCTURAL CONCRETE

4.1 Delivery and Storage

The Contractor shall furnish all materials, labor, equipment, tools, and services necessary to complete all works specified on the drawings. Cement and rebar shall be stored in elevated platform with sufficient distance from the ground. The manner of storage shall be first in, first out basis. Aggregates shall be stored in separately according to its size and shall be protected to prevent moisture losses / accumulation.

4.2 Material Description

- (a) Portland cement shall conform to PNS 07, type 1.
- (b) Reinforcing steel bars shall be deformed conforming to PNS grade 275 and 415 (ASTM A-615 grade 40 and 60 respectively).
- (c) Aggregates shall conform to PNS 18 type 1 and / or type 2.
- (d) Mixing water shall be potable, PH level 6 to 8, up to 500 PPM of total dissolve solid. Curing Water shall be potable, PH level 6 to 8 up to 1000 PPM total dissolve solid.
- (e) Polyethylene sheet for vapor barrier and curing shall be 6-mils minimum thickness, clear which conform to CS-238.
- (f) Burlap shall be of commercial quality.
- (g) Expansion Joint Filler shall be elastomeric pre-molded type. Sealing Materials for Expansion Joints shall be single component urethane or acrylic type sealant.
- (h) Form Coating shall be non-staining type mineral oil.
- (i) Water stop shall be rubber, neoprene or PVC with applicable jointing vulcanizing agent.

4.3 Concrete Proportioning and Mixing

The Contractor shall furnish necessary equipment and shall establish accurate procedures subject to the Approval of the Engineer. All concrete shall be machine mixed, mixing maybe done by hand if so authorized by the Engineer. Concrete shall have a compressive strength of 3000psi at 28-days with uninterrupted minimum curing of 7 days. Class A concrete for suspended slabs, suspended beams, walls above grade, columns, stairs, lintels and for all reinforced structure not indicated. Class B concrete for slabs on grade, tie beams / grade beams, footings, zocalo etc. Class AA concrete for septic tanks / vaults. Otherwise, concrete shall be Class C.

The Contractor shall maintain workability, strength and durability of concrete to meet the desired quality in varying conditions (free from

material segregation) encountered during construction. Fresh concrete shall be tested for slump, temperature. Self-compacting concrete will be placed only upon written approval. Consistency of concrete shall be determined in conformance to ASTM C-143 (slump 75mm to 125mm).

Proportioning of ingredients shall be accomplished by weight measurement or by volumetric in accordance to ASTM C-29. Temperature of concrete shall range 10 degrees to 32 degrees. Allowable tolerance shall be one percent (1%) for water, two percent (2%) for aggregates and three percent (3%) for admixtures. Water and cement ratio shall be forty percent (40%). Ready-Mixed concrete shall conform to ASTM C-94.

Mixing shall begin within 30 minutes after the water has been added to the aggregates with cement. Mixing time shall be equal or less than one-minute conforming to ASTM C-685. The allowable time elapse from the introduction of water to the cement ingredients up to the placing of concrete in the form shall not exceed 90 minutes where concrete reached its final set. Re-tampering of concrete will not be permitted.

4.4 Reinforcement and Embedded Item

Install all reinforcement bars, embedded items free from foreign substances that would reduce the bond and secure all reinforcement bars, embedded items with tie wires, chairs, spacers necessary to prevent displacement. Unless directed otherwise by the Engineer, reinforcement shall not be bent after partially embedded in concrete. Cover of reinforcement and splicing / lapping shall be in accordance with ACI 318 and detailing shall conform to ACI 1315. Location of splicing or lapping shall be approved by Construction Engineer prior to use. Anchor bolts shall be set to templates, held in position true to elevation and location.

4.5 Placing and Curing Concrete

Concrete shall be deposited only after the forms and reinforcements have been approved by Construction Engineer and in manner as rapidly as practical by proper methods to prevent segregation or loss of ingredients. At any point in conveying, the free vertical drop of the concrete shall not exceed 1.5-meter, interaction of concrete in aluminum materials shall not be permitted. Concrete shall be compacted thru vibration (ranges from 5 to 15 seconds) and or tamping. Placing of concrete in hot weather shall be in accordance to ACI-305 except as modified herein. When the outdoor ambient temperature is more than 90 degrees Fahrenheit, the fresh concrete shall be shaded and curing shall be started as soon as the surface of fresh concrete sufficiently hard to permit without damage. Curing for all concrete shall be accomplished by preventing loss of moisture, rapid temperature change, mechanical injury for a period of 7 days when ordinary Portland cement has been used.

4.6 Sampling and Testing

Three test cylinders shall be taken for each 60 cubic meter or fraction thereof each class of concrete in that day or as directed by the Construction Engineer. The making and curing of test specimens shall be in accordance to ASTM C-31. The contractor shall furnish the necessary labor, materials and facilities for taking the samples, handling, storing the cylinders at the site and shipping the cylinders for testing to the authorized / designated testing laboratory at contractor's expense. Samples shall be tagged the following information: Contract Number, Sample Number, Quantity, Date of Sample, Authorized Sampler, Structure Represented, Date for Testing. Concrete Slump shall be done whenever test cylinders are made. Compressive Test shall be in accordance to ASTM C-39.

V. MASONRY INSTALLATION AND PLASTERING

5.1 Scope and Materials

The work includes furnishing of all plant equipment, appliances, labor, materials and performing all operations necessary for the installation of all concrete masonry unit in accordance to the plans and as specified herein. Masonry units shall be from standard manufacturers, machine vibrated, shall have fine, even textures and well defined edged, shall be delivered to site and stored in a proper manner. Mortar materials shall be stored in dry, watertight enclosures. Concrete masonry unit shall be handled with care to avoid breakage.

Concrete masonry unit shall have a compressive strength of 5.52 MPa for load bearing and 2.76 Mpa for non-load bearing. Portland Cement shall be type M or Type 1 conforming to PNS 07. Sand shall be type 1 conforming to PNS 18. Mixing water shall be potable.

5.2 Erection and Mixing

Mixing and proportioning shall be done in approved containers to ensure that the quantity of materials will be controlled and accurately maintained during the progress of the work. Measuring materials using shovel will not be permitted. Mortars shall consist of one-part Portland cement, ¼ part lime and three-parts sand. The actual mixing time shall not be less than two-minutes. The blocks shall be laid on full mortar bedding in such a way that no cracks are formed at the time the blocks are placed. The blocks shall be adjusted to its final position and or patching shall be completed while the mortar is still soft and elastic. Masonry unit displaced by grouting operation shall be removed and laid in re-alignment with fresh mortar. Masonry walls and partitions shall be accurately anchored or bonded at points where they intersect and where they abut or adjoin the concrete frame of a building. All anchors and or rebars shall be completely embedded in mortar. Concrete Masonry units shall not be damped before or during laying. Workmanship shall be carried up level and plumb all around. Unless indicated otherwise, partitions shall extend from the floor to the bottom of the floor or roof construction above. Overloading of scaffolding will not be permitted.

5.3 Grout and Mortar Joints

Fine Grout shall be one-part Portland cement and 3-parts sand, shall be less than 50mm in any horizontal dimension or the clearance between reinforcement and masonry is less than 20mm. While coarse grout shall be one-part Portland cement, 3-parts sand and 3- parts pea gravel passing 10mm sieve, shall be 50mm or greater in all horizontal dimensions. All mortar joints shall be level, plumb and in alignment from top to bottom of wall within the tolerance of ± 12 mm. Sill, edges, offsets, etc. shall be protected from grout droppings. Horizontal and Vertical reinforcements shall be 12mm diameter space at every second block. These reinforcements shall be anchored to concrete works by means of 12mm diameter in 600mm minimum length.

VI. STRUCTURAL STEEL

6.1 Scope and Placement of Reinforcements

The contractor shall furnish all materials, labor, equipment, tools and services necessary to complete all work specified and shown on drawings. All reinforcing must be correct in size and length, accurately placed and securely held in position. Concrete cover must be maintained by supporting devices such as spacer blocks, ties, hangers, chairs, bolsters. The contractor shall not weld any reinforcement except when specified in the contract. Reinforcement which is to be welded shall be in accordance to the recommendation of the manufacturer or following a satisfactory procedure approved by the engineer.

6.2 Testing of Samples

When required by the engineer, the contractor shall take samples from reinforcement delivered to site and shall arrange for the samples to be tested by an approved testing agency. Test Certificates from that agency shall be submitted to the Engineer.

VII. TILE WORKS

7.1 Scope and Materials

The work includes furnishing all plant equipment, appliances, labor, materials and performing all operations in connection with the installation of ceramic tiles, complete in strict accordance to the approved plans and as specified herein. Ceramic tiles shall be manufactured by PII-Hispano, Premium tiles, Mariwasa manufacturing Inc., and or Cathay Ceramics or approved equivalent. Tiles shall be encaustic tiles, sizes and color shall be according to plans and design. Tiles shall be semi-glazed for floors and bright lustrous glazed for walls or whichever is called for in the plans. Trimmers and mouldings shall be bright, lustrous glazed to its size of wall tiles. Sample of the same with its accessories shall be submitted to the engineer for approval as to quality and color before the purchased. Locally manufactured tiles may be used. Semi-glazed tiles shall have a surface texture that is uniform throughout. Glazed tiles shall have a smooth, impervious glossy texture, bright and lustrous finish.

7.2 Tile Setting and Grouting

Floor under tile is included as part of the work under “concrete”. It shall be reinforced to prevent shrinkage and struck off to a line, even surface two-inches below the finished floor level. The mortar for setting wall tile and mortar setting bed for floor tiles shall consist of one-part Portland cement, ½ part lime putty and three-parts sand by volume. Dusting the mortar bed with cement as the floor tiles are laid will be permitted only to take up excess water and to give better adhesion. Under the prevailing conditions, waterproofing compound shall be mixed with the mortar in accordance with the manufacturer’s specifications. Tiles shall be firmly secured in place. Joints shall be well-filled, lines kept straight and true. The complete works shall be free from loose, cracked or broken tile. It shall be laid out on the floor in a manner such that no tiles less than 1½ in size shall occur on the borders. Wall filled tiles shall be set with horizontal and vertical straight-line joints, except as indicated otherwise. Setting beds of floor tiles shall be thick enough either leveled or sloped to drain as required. Under no circumstances shall expired mortar be used. Grouting shall be done as soon as the mortar beds have sufficiently set. Face joints if glazed wall tiles and glazed tile shall be carefully washed out and filled with non-straining cement grout. Upon completion of the grouting, the tile shall be thoroughly cleaned and maintained in good condition until completion of the contract.

VIII. ROUGH AND FINE CARPENTRY

8.1 Scope and Materials

The contractor shall furnish all the materials, equipment and perform all labor required to complete running and standing trim, wooden door and window frames, solid wood panels, plywood and hard-boards, counter tops, wooden structural members, etc. Wood refers to kiln-dried quarter sawn containing not more than 14% moisture content, free from imperfections impaling its strength and finish. Provide proper storage to protect the product against dampness. Do not bring interior finish including doors into the building until plaster is thoroughly dry.

8.2 Workmanship and Measurements

Check and verify measurements at site prior to fabrication. Coordinate work with all other related trades. Submit samples for Construction engineer’s approval. All wood finish shall be true to details, clean, sharply defined. Panels must be set to allow free movement in case of swelling or shrinkage. Means of fastening various parts together shall be concealed. For doors and Windows: set the frames plumb, level and brace until built-in. Anchor wood frames to masonry with approved metal anchors on each side of jamb. Provide top and bottom anchor at 200mm from head to floor. Accurately fit and install all finish hardware items required. If surface applied hardware is filled and applied before

painting, remove all such items, except butts and re-install after painting work is completed.

IX. PLUMBING WORKS

9.1 Scope and General Requirements

The work includes furnishing all equipment, appliances, labor, materials and performing all operations in connection with the installation of all plumbing works. Complete and in strict accordance to applicable plans and as specified herein. General arrangement of all piping shown in the drawing. The contractor shall provide all fixtures and equipment having connected to the plumbing system. Provide separate plumbing system intended only for chemical disposal. All drainage connections to these fixtures and equipment shall be trapped.

9.2 Materials and Installations

All pipes, fittings, traps, valves and accessories shall be adequate for the purpose of quality materials and installation acceptable to the engineer. If no definite description is given for any fixture, same shall conform to the balance of the fixtures so specified. Where manufacturer's name and product are mentioned, same are given for description purpose only to establish the desired quality without any intention of restricting competition. Where space conditions will not permit the use of standard fittings in conjunction with the cast iron floor flange, special short radius fitting shall be provided. Connection between earth ware fixtures and flanges on soil pipe shall be made absolutely to the approval of the engineer.

X. PAINTING WORKS

10.1 Paint shall be delivered to the jobsite in original sealed containers. It shall be clearly marked with the manufacturer's name and identifying number name. The Pint shall be used as preferred by the manufacturer without thinning or other admixtures.

10.2 All Painting shall be done on dry surface, free from rust, scale, grease or any foreign materials. Steel shall be cleared in the shop to remove mills scale. Surfaces in contact shall be cleaned by effective means but not painted except that contact surfaces of exposed exteriors steel such as supports shall be painted. Substrate shall be cured having minimum moisture content and considerable temperature at the time of receiving paint.

XI. ELECTRICAL WORKS

11.1 CONDUITS, BOXES & FITTINGS

This item shall consist of the furnishing and installation of the complete conduit work consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes; conduit fittings such as couplings, locknuts and bushings and other electrical materials needed to complete the conduit roughing -in work of this project. 1100.2 Material Requirements All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Conduits Conduits shall be standard rigid steel, zinc coated or galvanized. Intermediate metal conduit may be used if shown or specified on the approved Plans. PVC conduits if required shall be schedule 40. Enamel coated steel conduits with rough inner surfaces are not acceptable. Conduit Boxes All conduit boxes shall be Code gauge steel and galvanized. Outlet boxes shall be galvanized pressed steel of standard make. In general, outlet boxes shall be at least 100mm square or octagonal, 53 mm deep and 16 mm minimum gauge. Conduit Fittings All conduit fittings such as locknuts and bushing shall be galvanized of standard make. 1100.3 Construction Requirements All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer. Conduits Conduits should be cut square with a hacksaw and reamed. Bends shall be made with the required radius. In making bends only conduit bending apparatus will be used. The use of a pipe tee or vise for bending conduits shall not be permitted. Conduits which have been crushed, deformed or flattened shall not be installed. No running thread shall be allowed. Conduit runs crossing construction joints of the building shall be provided with standard expansion fittings of the approved type. No conduit shall be used in any system smaller than 12 mm diameter electric trade size nor shall have more than four (4) 90-degree bends in any one run and where necessary, pull boxes shall be provided.

All ends of conduits which are left empty in cabinets and conduit boxes shall be plugged with lead or approved pipe caps so as to prevent the entrance of white ants and dirt within the conduit system. Pull wires shall be inserted in the empty ducts before they are closed with lead or pipe caps and shall be left therein for future use. On exposed work, all pipes and outlet boxes shall be secured by means of galvanized metal clamps which shall be held in place by means of machine screws. When running over concrete surfaces, the screws shall be held in place by means of expansion sleeves for big pipes and rolled lead sheet for small for small pipes. All pipes shall be run at right angles to and parallel with the surrounding walls. No diagonal run shall be allowed and all bends and offsets shall be avoided as much as possible. Conduits shall be supported at 1,500 mm intervals maximum.

Conduit Boxes & Fittings

Provide conduit boxes for pulling and splicing wires and outlet boxes for installation of wiring devices.

As a rule, provide junction boxes or pull boxes in all runs greater than 30 meters in length, for horizontal runs. For other lengths, provide boxes as required for splices or pulling. Pull boxes shall be installed in inconspicuous but accessible locations.

Support boxes independently of conduits entering by means of bolts, red hangers or other suitable means.

Conduit boxes shall be installed plumb and securely fastened. They shall be set flush with the surface of the structure in which they are installed where conduits are run concealed.

All convenience and wall switch outlet boxes for concealed conduit work shall be deep, rectangular flush type boxes. Four-inch octagonal flush type boxes shall be used for all ceiling light outlets and shall be of the deep type where three or more conduits connect to a single box.

Floor mounted outlet boxes required shall be waterproof type with flush brass floor plate and brass bell nozzle.

All boxes shall be painted with antirust red lead paint after installation.

All conduits shall be fitted with approved standard galvanized bushing and locknuts where they enter cabinets and conduit boxes.

Junction and pull boxes of code gauge steel shall be provided as indicated or as required to facilitate the pulling of wires and cables.

11.2 – WIRES AND WIRING DEVICES

This Item shall consist of the furnishing and installation of all wires and wiring devices consisting of electric wires and cables, wall switches, convenience receptacles, PVC pipe, heavy duty receptacles and other devices shown on the approved Plans but not mentioned in these specifications.

Wire and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the PS mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation. All wiring devices shall be standard products of reputable electrical manufacturers. Wall switches shall be rated at least 10A, 250 Volts and shall be spring operated, flush, tumbler type. Duplex convenience receptacles shall be rated at least 15A, 250 Volts, Construction, Rehabilitation, Improvement of Davao Fish Port Complex Volume III- Specifications I-4 Part I-Electrical Works flush, parallel slots. Single heavy-duty receptacles shall be rated at least 20A, 250 volts, 3- wire, flush, polarized type.

9.3 POWER LOAD CENTER, SWITCHGEAR AND PANELBOARDS

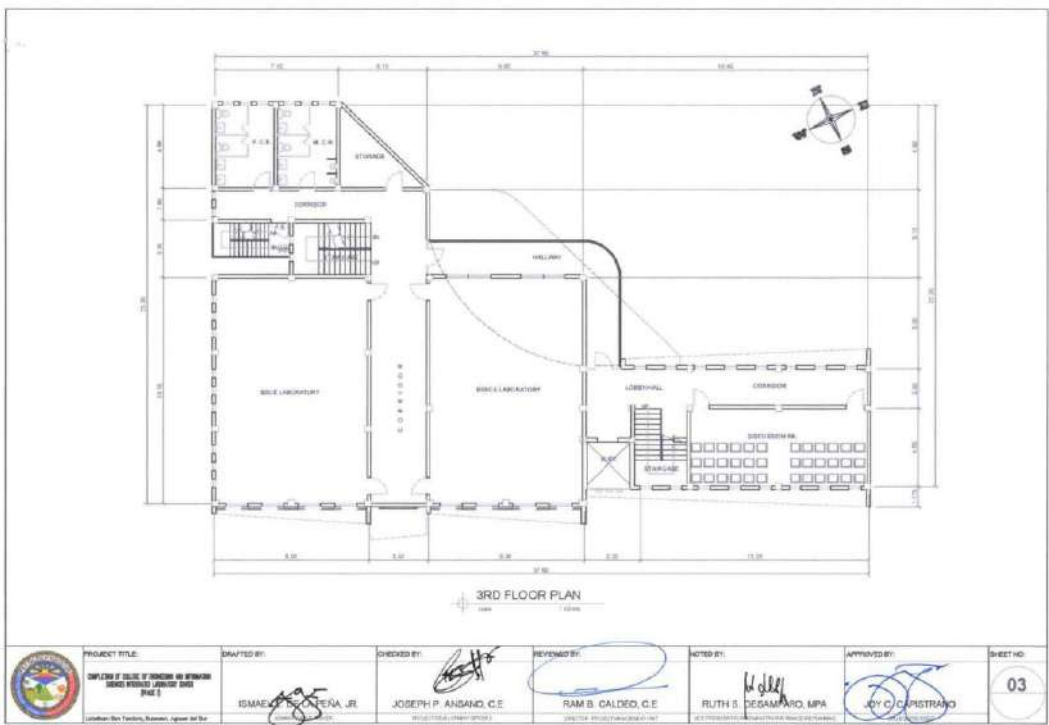
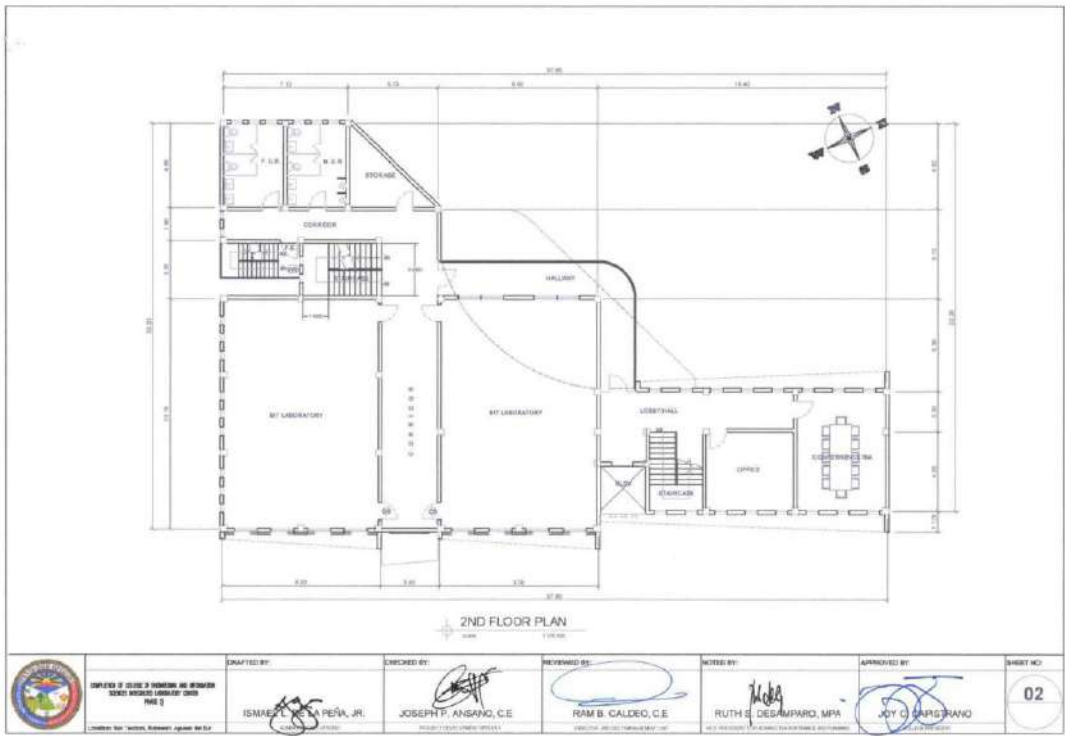
This Item shall consist of furnishing and installation of the power load center unit substation or low voltage switchgear and distribution panelboards at the location shown on the approved Plans complete with transformers, circuit breakers, cabinets and all accessories, completely wired and ready for service.

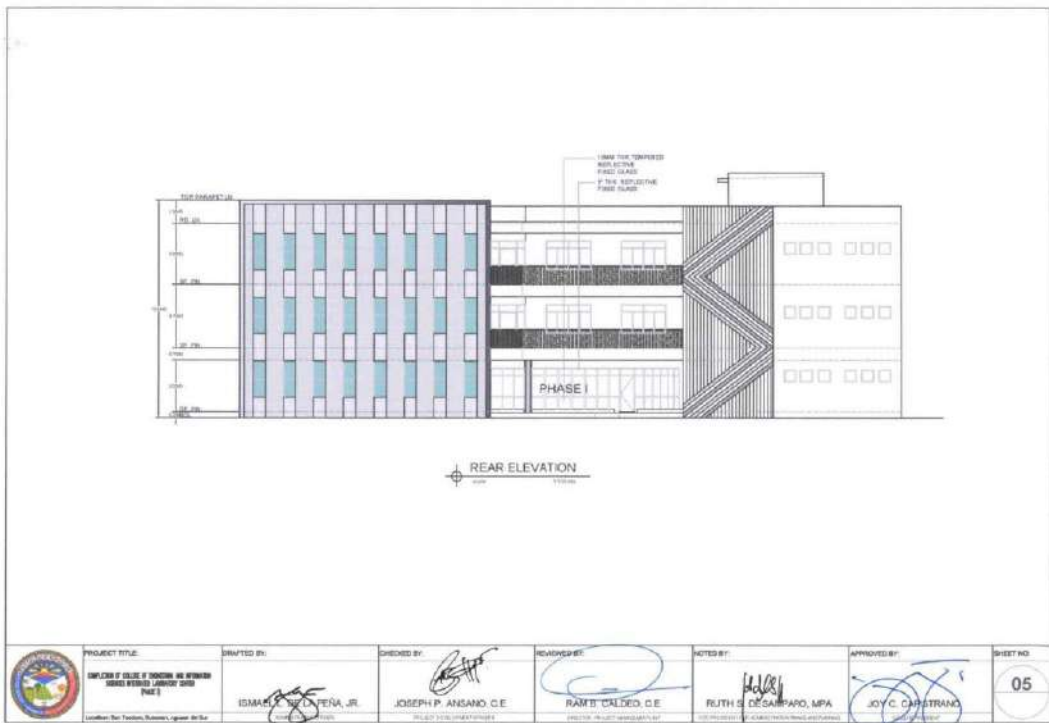
Section VII. Drawings

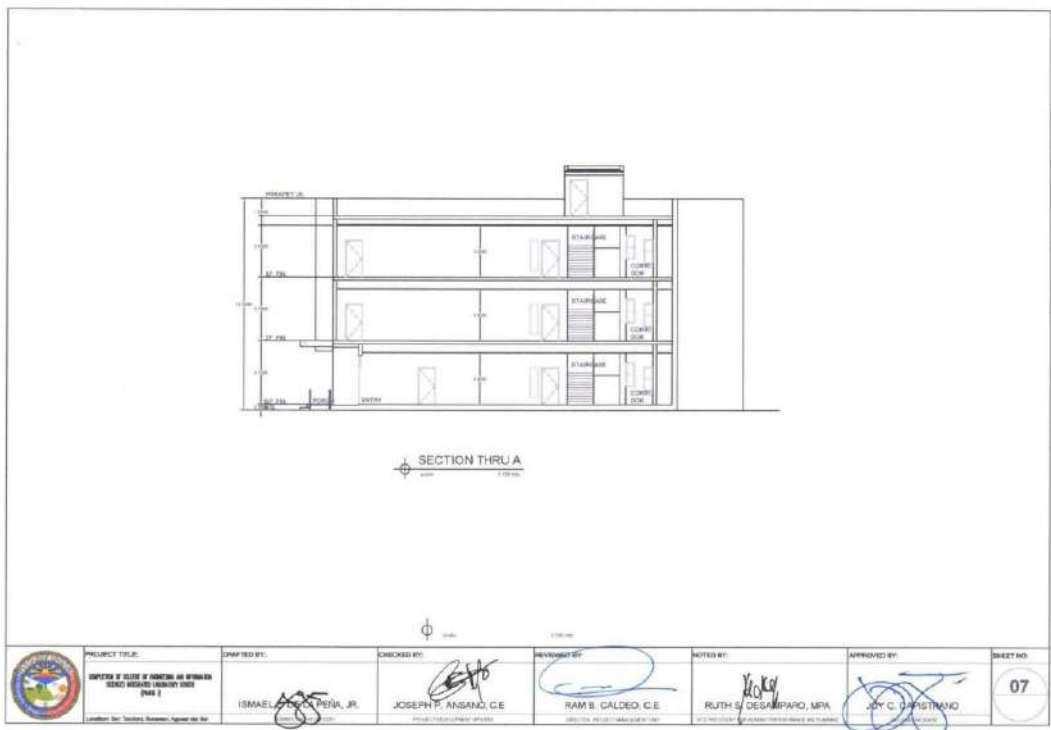


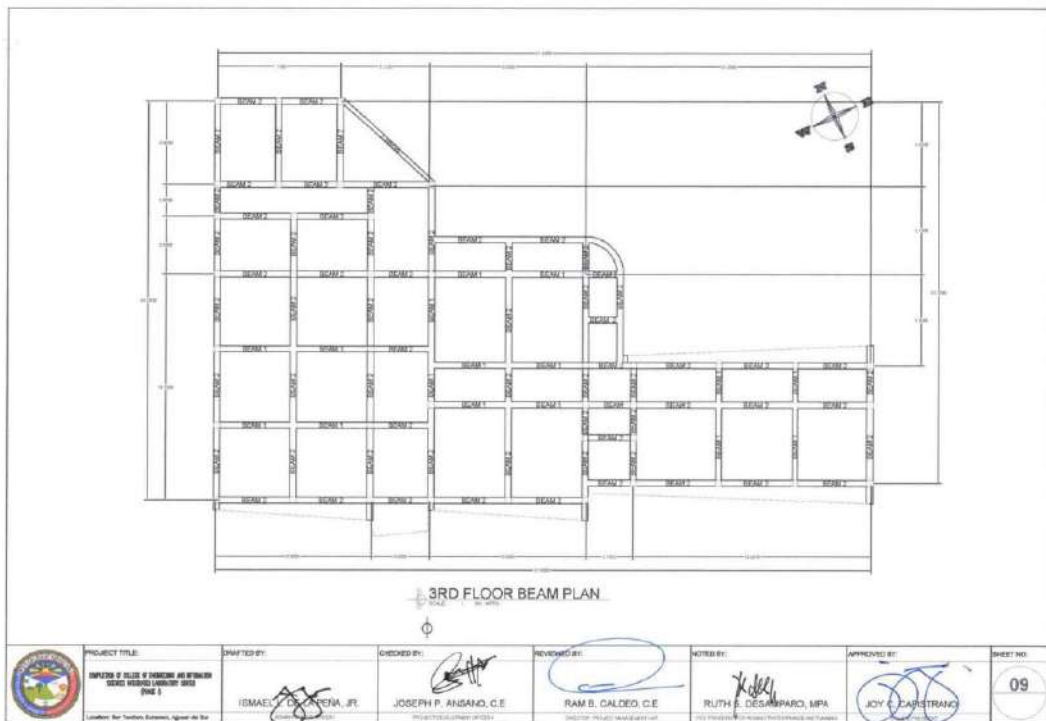
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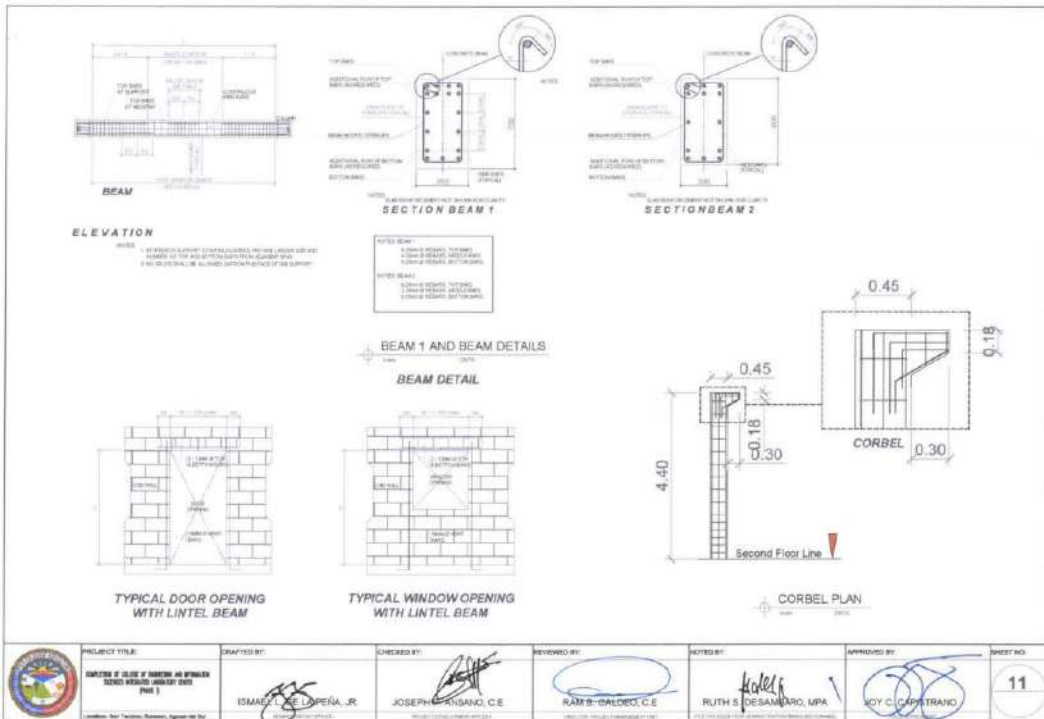
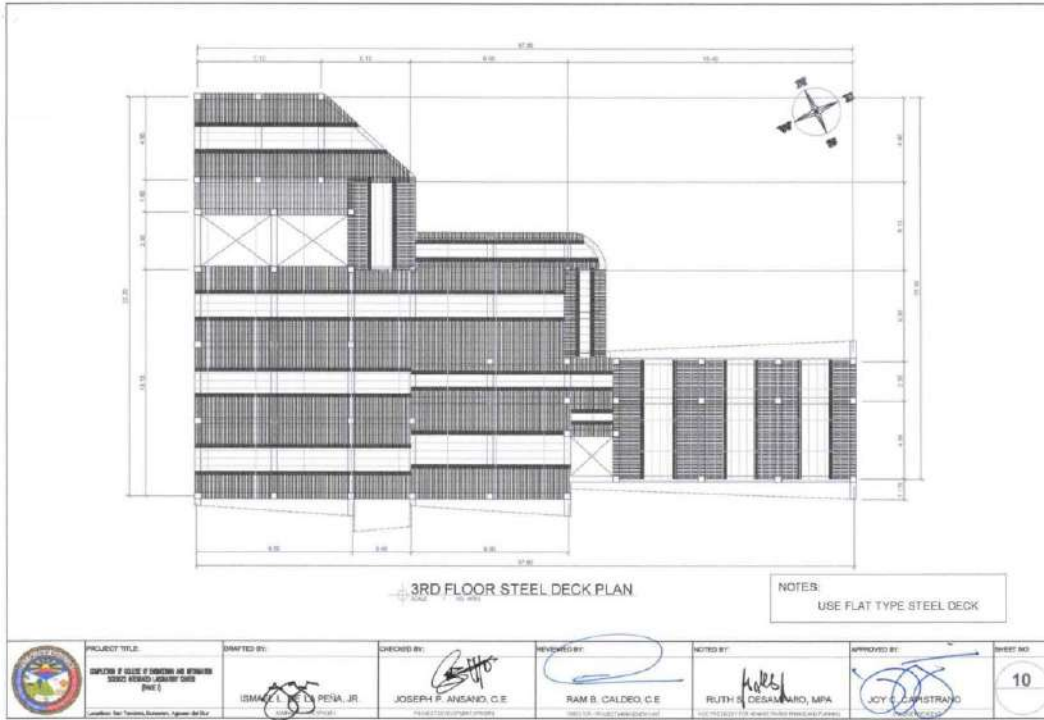
	<p>PROJECT TITLE DIVISION OFFICE OF MARIKINA AND NEIGHBORING STUDENT WELFARE LEARNING CENTER (Phase 1)</p> <p><small>Location: Marikina, Division Office - Marikina City</small></p>	<p>DRAFTED BY:  ISMAEL L. PEÑA, JR. <small>ARCHITECT</small></p>	<p>CHECKED BY:  JOSEPH P. ANSANO, C.E. <small>PROJECT DEVELOPMENT ENGINEER</small></p>	<p>REVIEWED BY:  RAM B. DALDEO, C.E. <small>ARCHITECT - PROJECT MANAGER/IN-CHARGE</small></p>	<p>NOTED BY:  RUTH S. DESAMPARADO, MPA <small>DEPT. PRESIDENT/PRO. ENGINEER/REGISTERED ARCHITECT</small></p>	<p>APPROVED BY:  JOY C. ESPINOSA</p>	<p>SHEET NO. 01</p>
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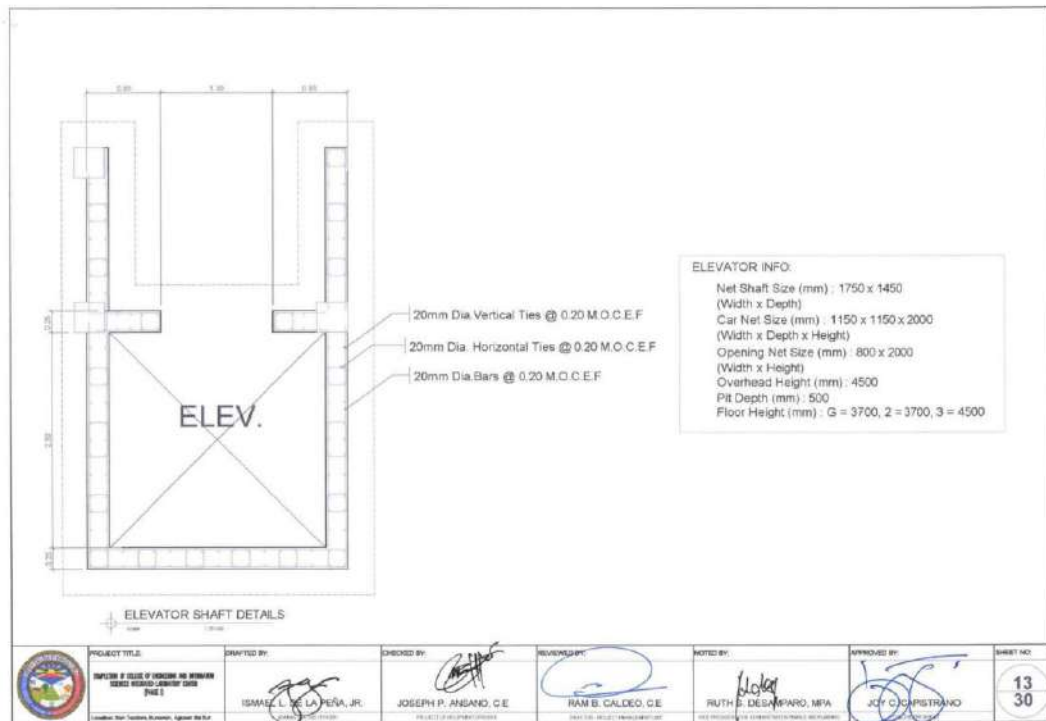
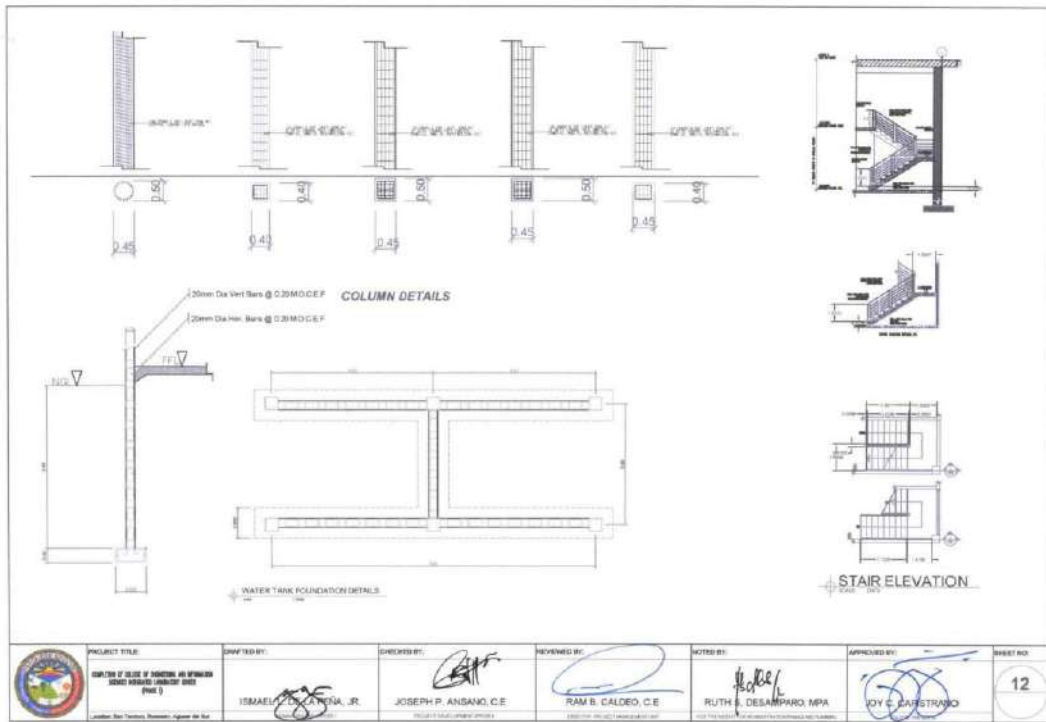


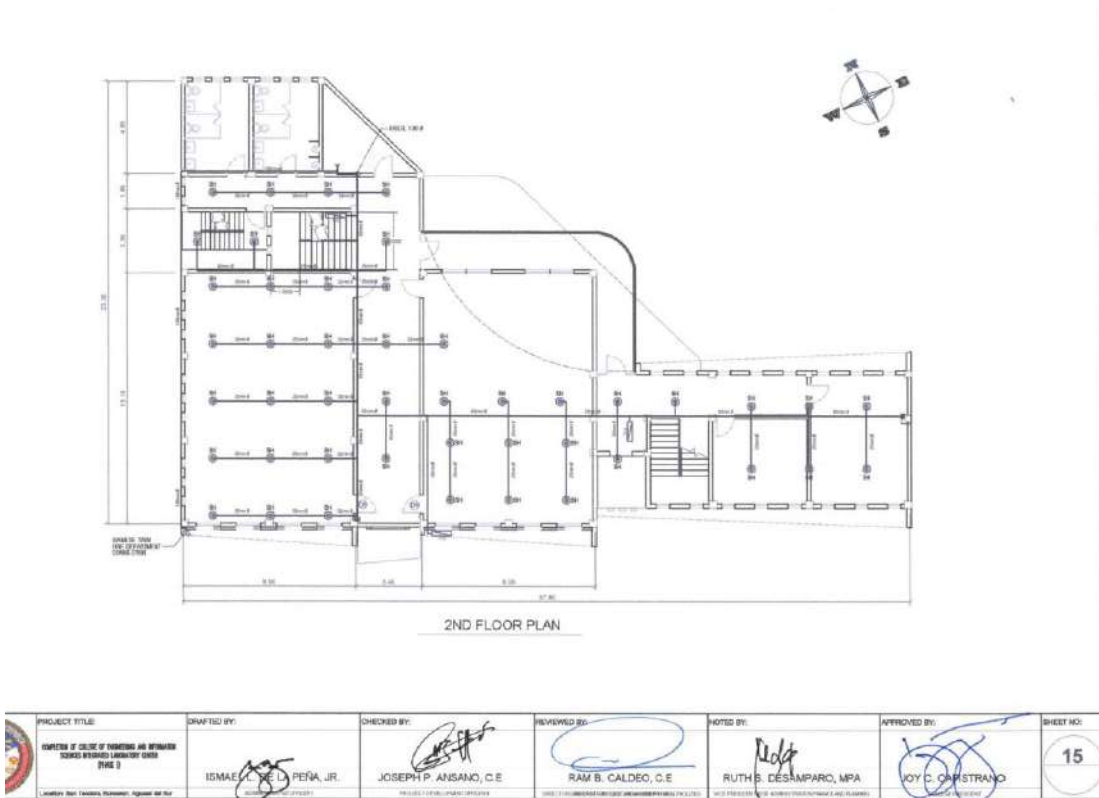
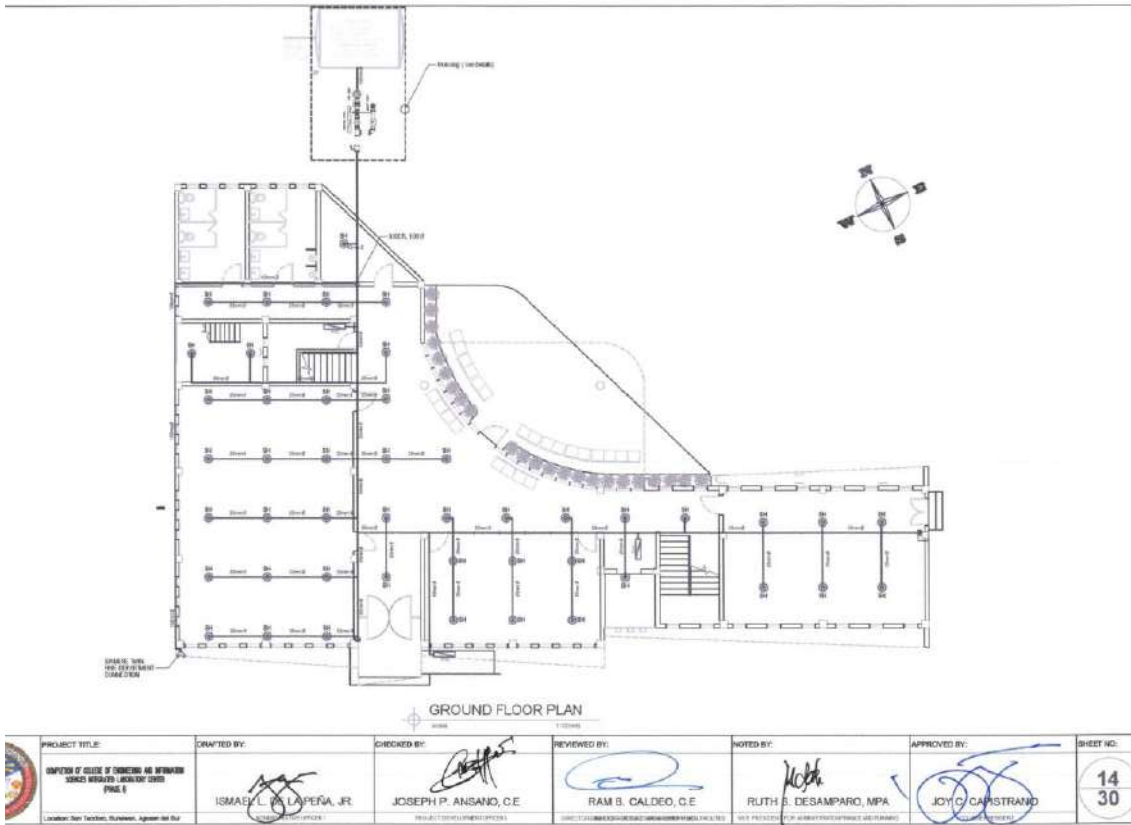










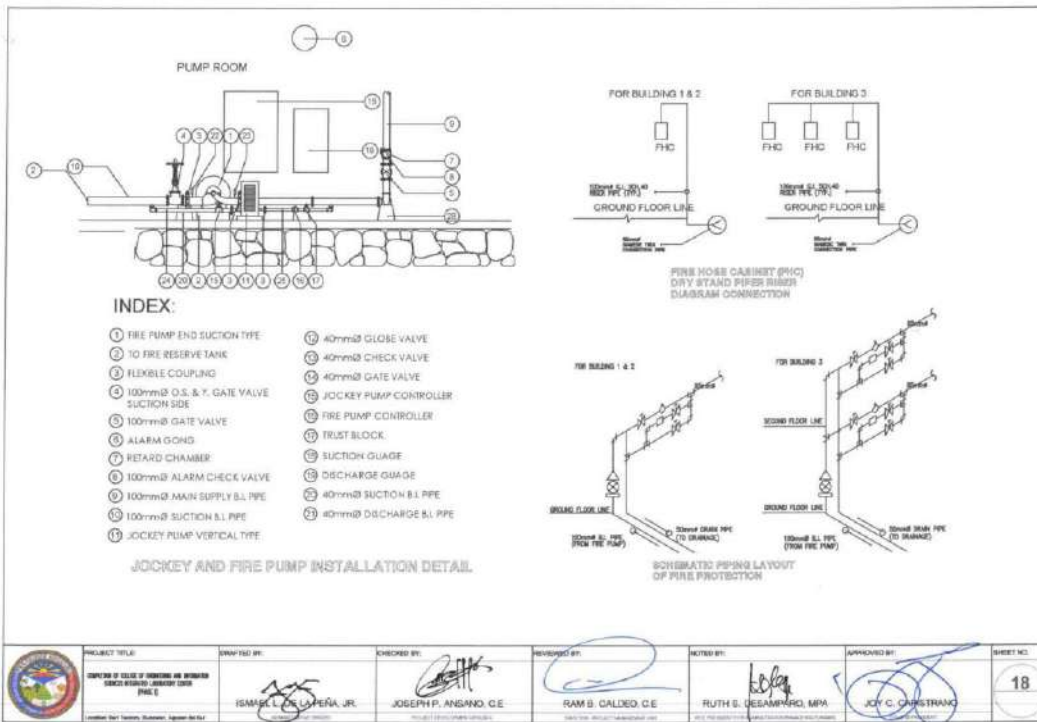


<p>PIPE RISER BRACKET DETAIL</p>	<p>ADJUSTABLE TYPE PLAT HOOK HANGER DETAIL</p>	<p>NOTE: FIRE HOSE CABINET ACCESSORIES</p> <ol style="list-style-type: none"> 1. ALL FIRE HOSE CABINET SHALL HAVE THE FOLLOWING ACCESSORIES 2. 100% 1/2" BORE/DOUBLE JOINTED TYPE FIRE HOSE, ADJUSTABLE HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 3. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 4. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 5. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 6. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 7. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 8. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 9. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE 10. 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE, 100% 1/2" HOSE <p>FIRE HOSE CABINET DETAIL</p>
<p>WALL PIPE HANGER DETAIL</p>	<p>PORTABLE FIRE EXTINGUISHER</p>	<p>FIRE HOSE CABINET DETAIL</p>
<p>ADJUSTABLE TYPE CLEVIS HANGER DETAIL</p>	<p>PORTABLE FIRE EXTINGUISHER</p>	<p>FIRE HOSE CABINET DETAIL</p>

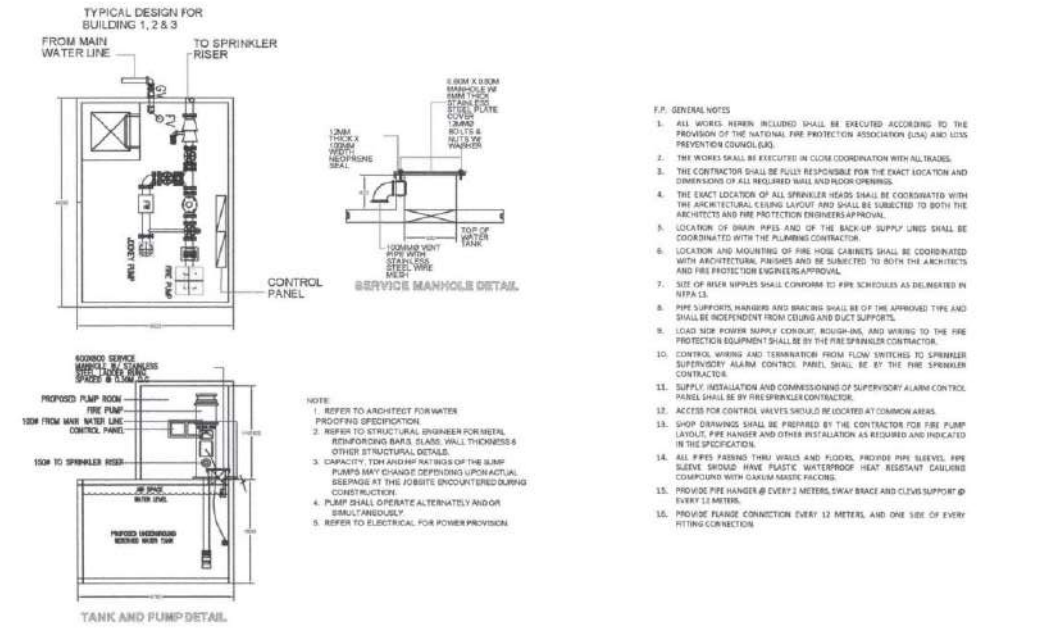
	<p>PROJECT TITLE: DESIGN OF CIVIL ENGINEERING AND ARCHITECTURE SCHOOL BUILDING UNIVERSITY OF THE PHILIPPINES (PHU)</p>	<p>DRAWN BY: ISMAEL S. PEÑA, JR.</p>	<p>CHECKED BY: JOSEPH P. ANSANO, C.E.</p>	<p>REVIEWED BY: RAM B. CALDEO, C.E.</p>	<p>NOTED BY: RUTH S. DESAMPARO, MPA</p>	<p>APPROVED BY: JOY D. CRISPINANO</p>	<p>SHEET NO: 16</p>
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<p>PENDENT AND UPRIGHT</p>	<p>FLOOR CONTROL VALVE DETAIL</p>	<p>WATER FLOW ALARM (GONG) DETAIL</p>
<p>SPRINKLER HEADS DETAIL</p>	<p>WATER FLOW DETECTOR DETAIL</p>	<p>MOTOR SWITCH DETAIL</p>
<p>SET-UP VALVE ALARM DET.</p>	<p>WATER FLOW DETECTOR DETAIL</p>	<p>MOTOR SWITCH DETAIL</p>

	<p>PROJECT TITLE: DESIGN OF CIVIL ENGINEERING AND ARCHITECTURE SCHOOL BUILDING UNIVERSITY OF THE PHILIPPINES (PHU)</p>	<p>DRAWN BY: ISMAEL S. PEÑA, JR.</p>	<p>CHECKED BY: JOSEPH P. ANSANO, C.E.</p>	<p>REVIEWED BY: RAM B. CALDEO, C.E.</p>	<p>NOTED BY: RUTH S. DESAMPARO, MPA</p>	<p>APPROVED BY: JOY D. CRISPINANO</p>	<p>SHEET NO: 17</p>
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	PROJECT TITLE:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	NOTED BY:	APPROVED BY:	SHEET NO.:
	COMPLETION OF SOLIDITY OF FOUNDATION AND INTERIOR DESIGN INTERIOR LAYOUT OTHER (PAGE 1)	ISMAEL L. DE LA PEÑA, JR.	JOSEPH P. ANSANO, C.E.	RAM B. CALDEO, C.E.	RUTH S. DEBAMBARO, MPA	JOY C. CASTRANO	18



	PROJECT TITLE:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	NOTED BY:	APPROVED BY:	SHEET NO.:
	COMPLETION OF SOLIDITY OF FOUNDATION AND INTERIOR DESIGN INTERIOR LAYOUT OTHER (PAGE 2)	ISMAEL L. DE LA PEÑA, JR.	JOSEPH P. ANSANO, C.E.	RAM B. CALDEO, C.E.	RUTH S. DEBAMBARO, MPA	JOY C. CASTRANO	19

P.P. LEGENDS & SYMBOLS

- ← WATER METER IN/OUT
- FLOOR SPRINKLER HEAD
- SIDE WALL SPRINKLER HEAD
- GATE VALVE
- CHECK VALVE
- WATER FLOOR SWITCH
- FLOOR VALVE
- FLOOR SLIDE
- WATER TANK
- FLOORING CONNECTION
- FIRE ALARM
- INSPECTOR TEST CONNECTION (TIC)
- 1/2" GAS AND DIV. CONNECTION
- METALIC COUPLAND
- ALARM CHECK VALVE
- TEE
- ELBOW
- FIRE HOSE CABINET
- 1/2" & 3/4" GAS VALVE

DESIGN COMPUTATION

FIRE PUMP

HP RATING = $\frac{2500\text{GPM} \times 8.33 \text{ LBS/GAL} \times 175\text{FT}}{33,000 \frac{\text{FT-LBS}}{\text{MIN-HP}}}$

HP RATING = 11.04 HP
 USING AN EFFICIENCY OF 0.75
 HP RATING = 14.72 HP

USE 1 UNIT 15.0 HP MOTOR DRIVE PUMP, 230V, 3PH, 50Hz

JOCKEY PUMP

HP RATING = $\frac{25.0 \text{ GAL/MIN} \times 8.33 \text{ LBS/GAL} \times 175\text{FT}}{33,000 \frac{\text{FT-LBS}}{\text{MIN-HP}}}$

HP RATING = 1.1 HP
 USING AN EFFICIENCY OF 0.75
 HP RATING = 1.47 HP

USE 1 UNIT 1.5 HP MOTOR DRIVE PUMP, 230V, 50Hz, 3PH

DESIGN CONSIDERATION FOR FIRE WATER LINE

THE PUMP TO CONTINUE TO NO. 10 MINUTES BEFORE THE FIRE TRUCK FROM INHALE OF THE PROTECTION (TYP.) IS AWAY AT 10.00.

INTEGRITY = 250 GPM / MIN (TYP.)
 INTEGRITY = 1,000 GPM

DESIGNS OF OPERATION

1. WHILE THE SYSTEM PRESSURE IS THE MIN. DESIGN LINE ENDING THE NO. 10 (TYP.) IN THE INITIAL, THE Jockey Pump Shall Automatically Start To Maintain The Pressure In The System In Accordance With The Following Sequence:
 - ON: ON
 - OFF: OFF
2. A FURTHER INCREASE IN THE SYSTEM PRESSURE DUE TO THE ACTIVATION OF ONE OR MORE SPRINKLER HEADS AND/OR FIRE ALARMS, SHALL CAUSE THE FIRE PUMP TO START AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SEQUENCE:
 - ON: ON
 - OFF: MANUAL OFF

FIRE AND JOCKEY PUMP SCHEDULE

DATA DESIGNATION	FP-1	JP-1
SERVICE	FIRE PUMP	JOCKEY PUMP
LOCATION	PUMP ROOM	PUMP ROOM
QUANTITY	1 UNIT	1 UNIT
TYPE	VERTICAL BRISTLE END	VERTICAL FLANGE
CAPACITY/TYP	250 GPM @ 175 PSI	40 GPM @ 175 PSI
DRIVE	ELECTRIC MOTOR	ELECTRIC MOTOR
MOTOR TYPE	DIRECT COUPLED-TYPE	DIRECT-COUPLED-TYPE
MOTOR CONTROL	WYE-Delta TRANSFORMER TYPE	PURVISOL, SIMPLEX TYPE
HP	15.0 HP APPROX.	1.5 HP APPROX.
PHV	230V 3PH	230V
V. & Hz	230 V, 3ø, 60 Hz	230V, 60 Hz
MODEL/BRAND		

JOCKEY PUMP SETTINGS
 CUT-IN AND CUT-OFF PRESSURES (TYPICAL SETTINGS FOR THE JOCKEY PUMP) SHALL BE 80 PSIG AND 120 PSIG, RESPECTIVELY.

FIRE PUMP SETTINGS
 CUT-IN PRESSURE (TYPICAL SETTINGS FOR THE FIRE PUMP) SHALL BE 100 PSIG AND SHALL BE ADJUSTED USUALLY THROUGH THE FIRE PUMP MOTOR CONTROLLER.

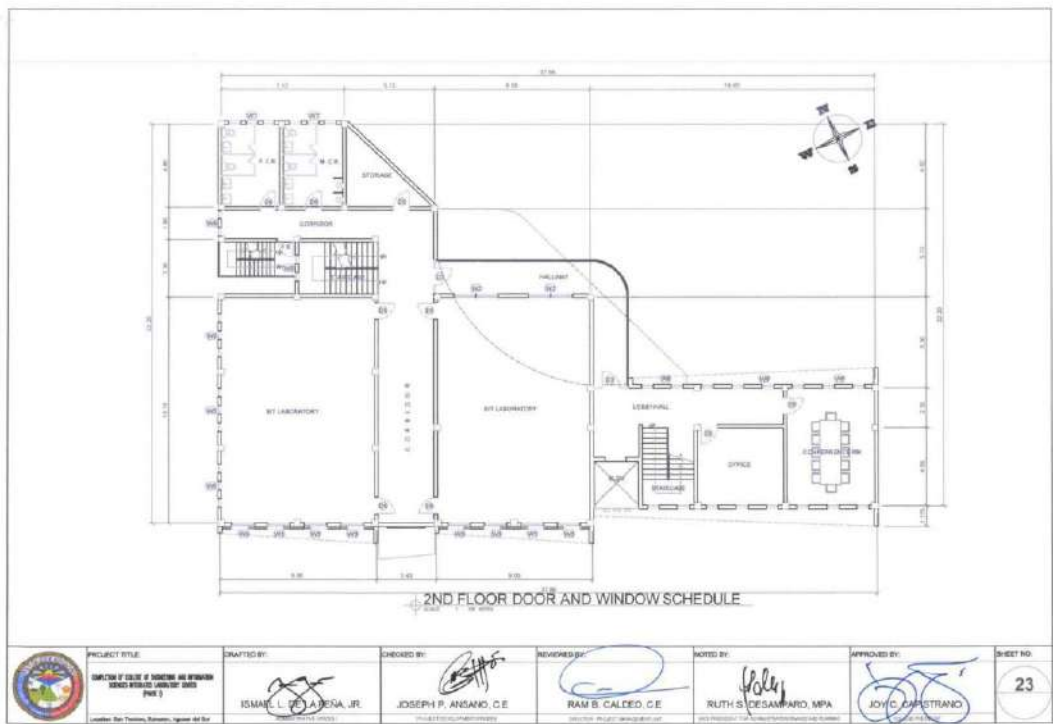
WATER TANK SCHEDULE

DATA DESIGN	WATER TANK
SERVICE	STYLINDRICAL STEEL TANK
LOCATION	GROUND FLOOR
QUANTITY	ONE (1) UNIT
CAPACITY	7,500 gallons
REMARKS	PROVIDE BARRIERS FOR PROTECTION OF TANK AND PUMP

	PROJECT TITLE COMPLETION OF DESIGN OF STRUCTURE AND MECHANICAL SYSTEMS FOR THE UNIVERSITY CENTER (PHASE I)	DRAFTED BY ISMAEL L. CALDERA, JR.	CHECKED BY JOSEPH P. ANSANO, C.E.	REVIEWED BY RAM B. CALDEO, C.E.	NOTED BY RUTH B. DESAMPARO, MPA	APPROVED BY JOY C. OSTRAND	SHEET NO. 20
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GF REFLECTED CEILING PLAN

	PROJECT TITLE COMPLETION OF DESIGN OF STRUCTURE AND MECHANICAL SYSTEMS FOR THE UNIVERSITY CENTER (PHASE I)	DRAFTED BY ISMAEL L. CALDERA, JR.	CHECKED BY JOSEPH P. ANSANO, C.E.	REVIEWED BY RAM B. CALDEO, C.E.	NOTED BY RUTH B. DESAMPARO, MPA	APPROVED BY JOY C. OSTRAND	SHEET NO. 21
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SCHEDULE OF WINDOWS

WINDOW	MARK	DESCRIPTION	QUANTITY	LOCATION
WINDOW - 1	W1	2" THK REFLECTIVE GLASS ALUMINUM FINISH WINDOW	4	ST LAB - 4A ST LAB - 5
WINDOW - 2	W2	2" THK REFLECTIVE GLASS ALUMINUM FINISH WINDOW	16	ST LAB - 3 ST LAB - 4 ST LAB - 5A ST LAB - 6
WINDOW - 3	W3	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	2	HALLWAY
WINDOW - 4	W4	2" THK REFLECTIVE GLASS ALUMINUM FINISH WINDOW	5A	HALLWAY
WINDOW - 5	W5	2" THK REFLECTIVE GLASS ALUMINUM FINISH WINDOW	1	HALLWAY
WINDOW - 6	W6	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	16	ST LAB - 1A OFFICE
WINDOW - 7	W7	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	4	CONFERENCE OFFICE CORRIDOR RECEPTION

	PROJECT TITLE	DRAWN BY	CHECKED BY	REVIEWED BY	NOTED BY	APPROVED BY	SHEET NO.
	DEPARTMENT OF EDUCATION - DIVISION OFFICE - MARIKINA CITY SCHOOL REPAIR LABORATORY DATA [PAK 1]	ISMAEL L. DELA PERA, JR.	JOSEPH P. ANSANO, C.E.	RAM B. CALDEO, C.E.	RUTH S. DESAMPARO, MPA	JOY C. BANSTRAND	24

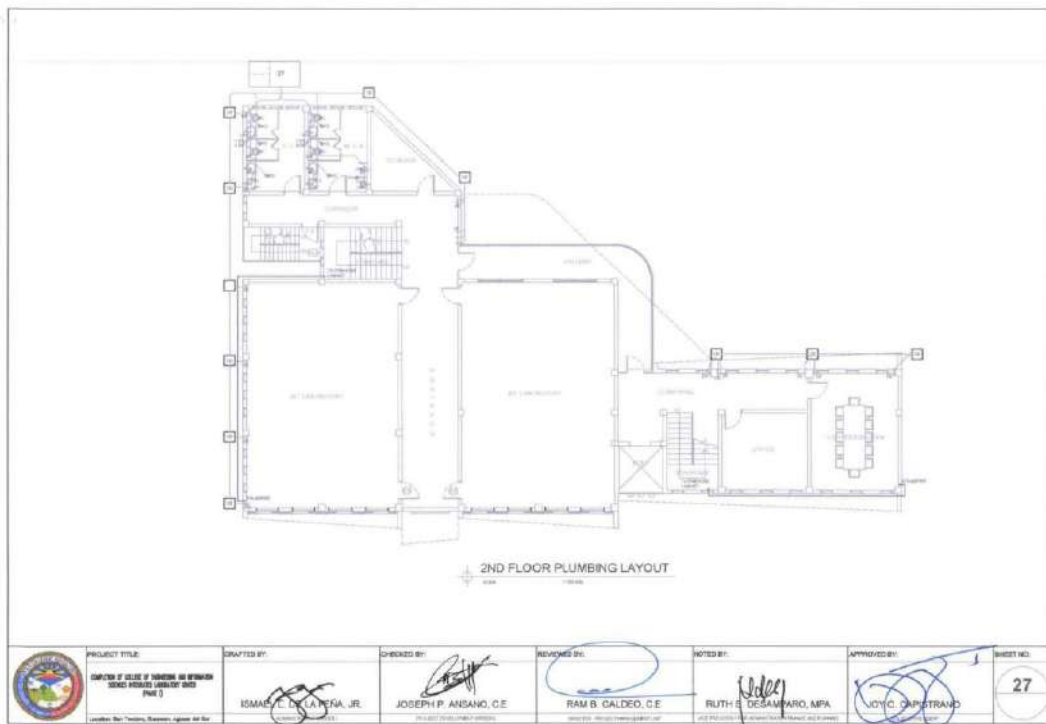
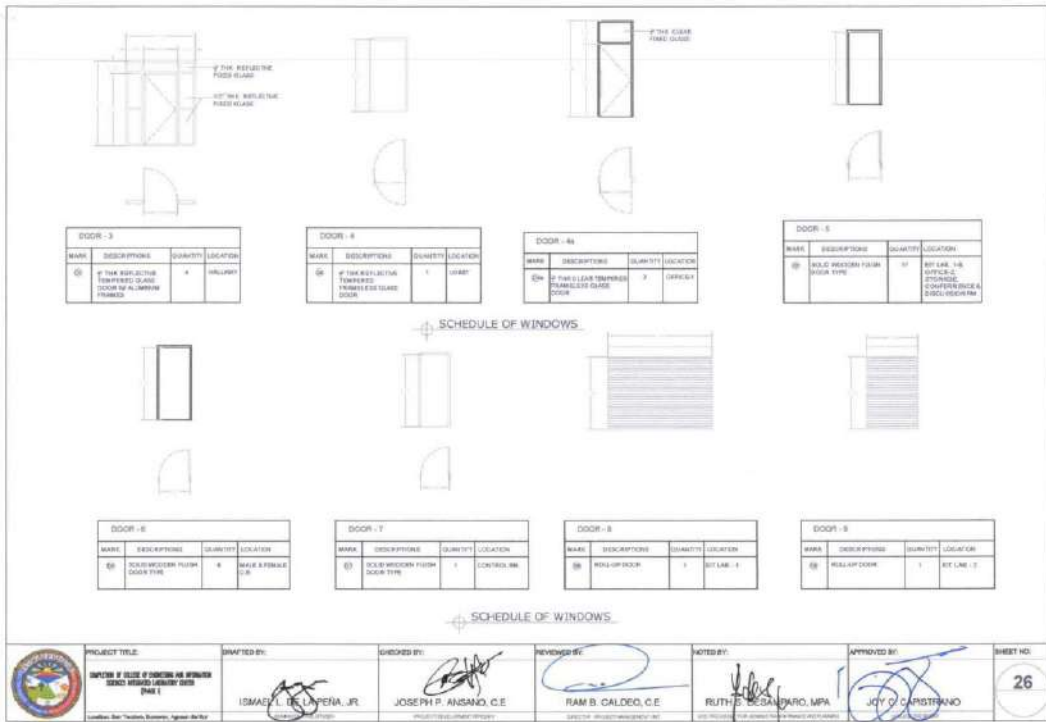
SCHEDULE OF WINDOWS

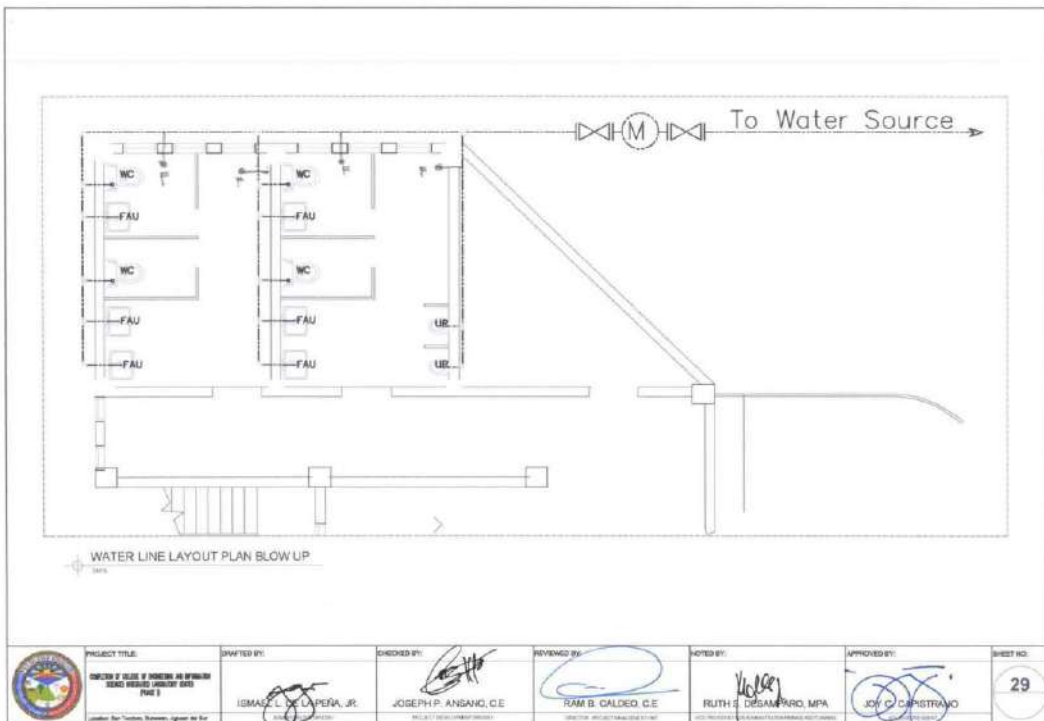
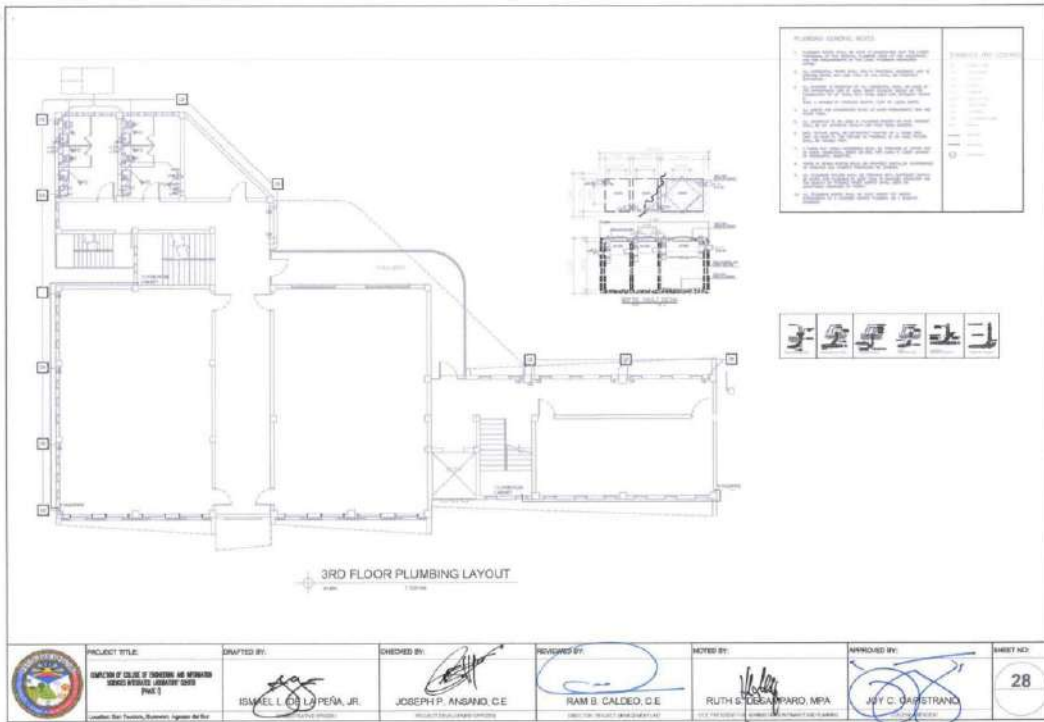
WINDOW	MARK	DESCRIPTION	QUANTITY	LOCATION
WINDOW - 8	W8	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	16	ST LAB - 1, 2, 3, 4A CORRIDOR OFFICE
WINDOW - 9	W9	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	16	HALL & PERMITS OFFICE
WINDOW - 10	W10	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	1	ST LAB C

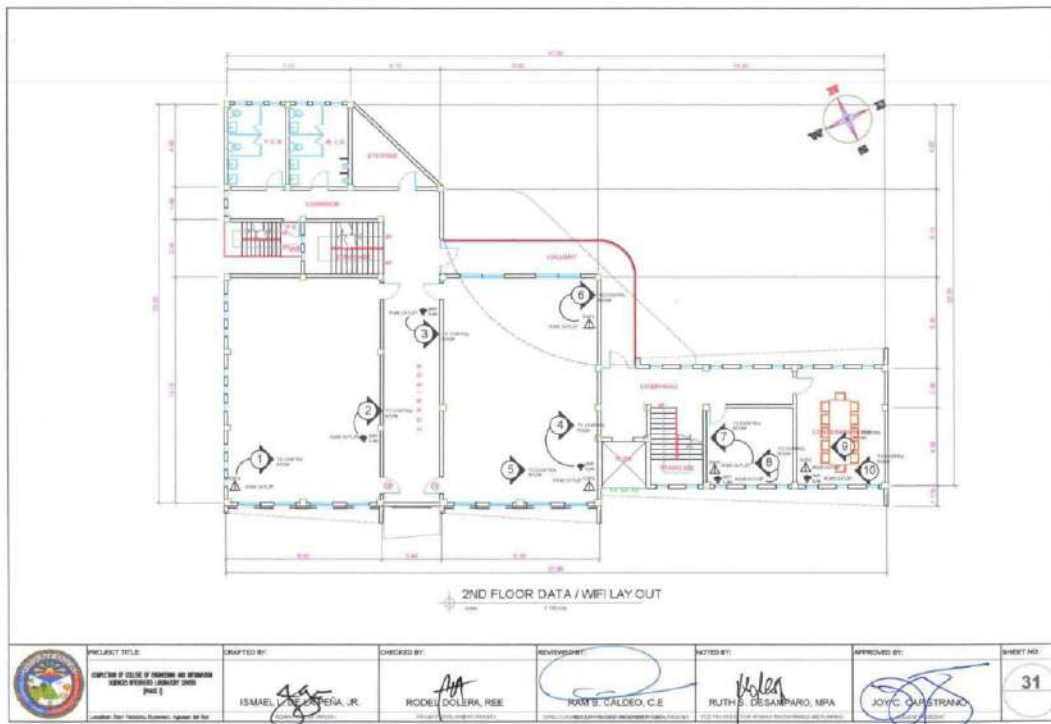
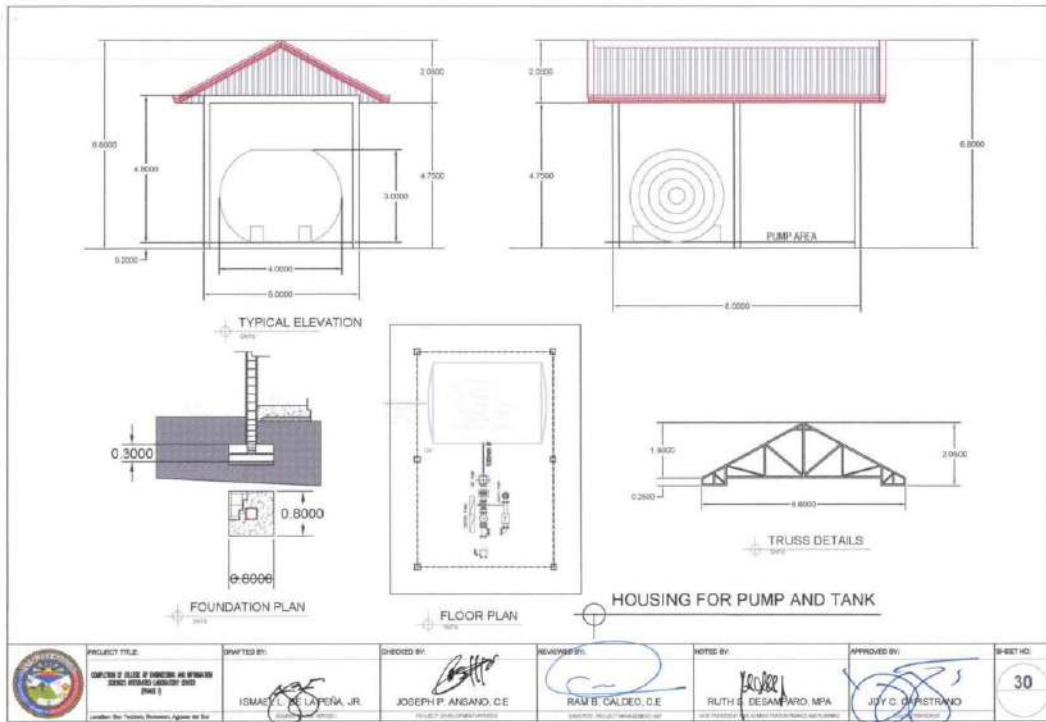
SCHEDULE OF WINDOWS

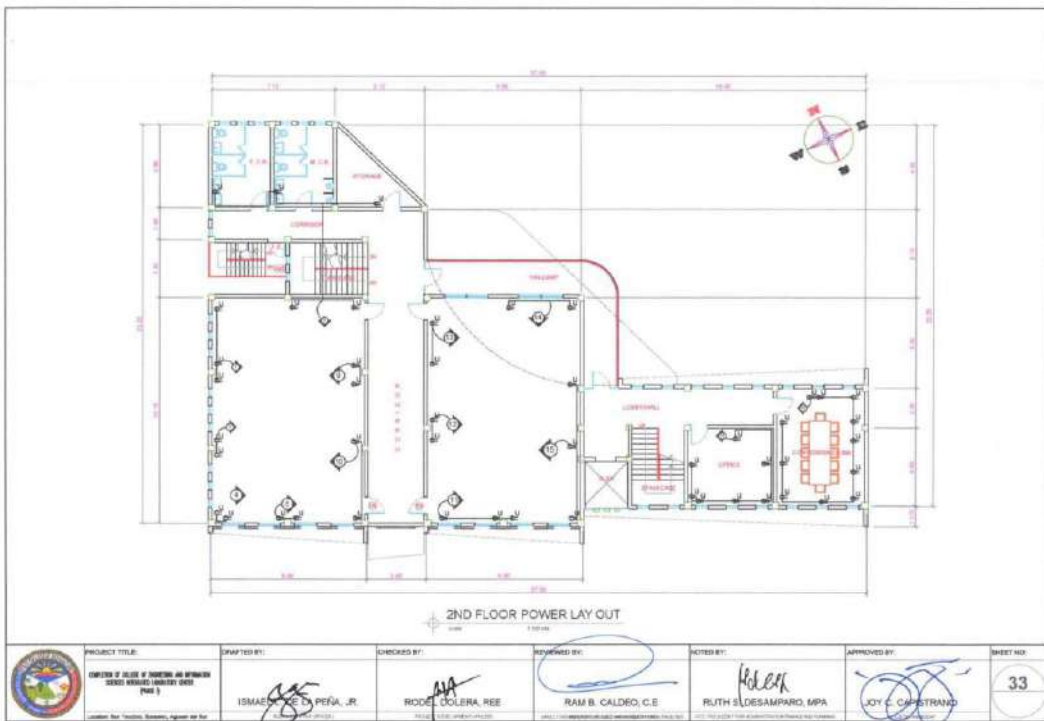
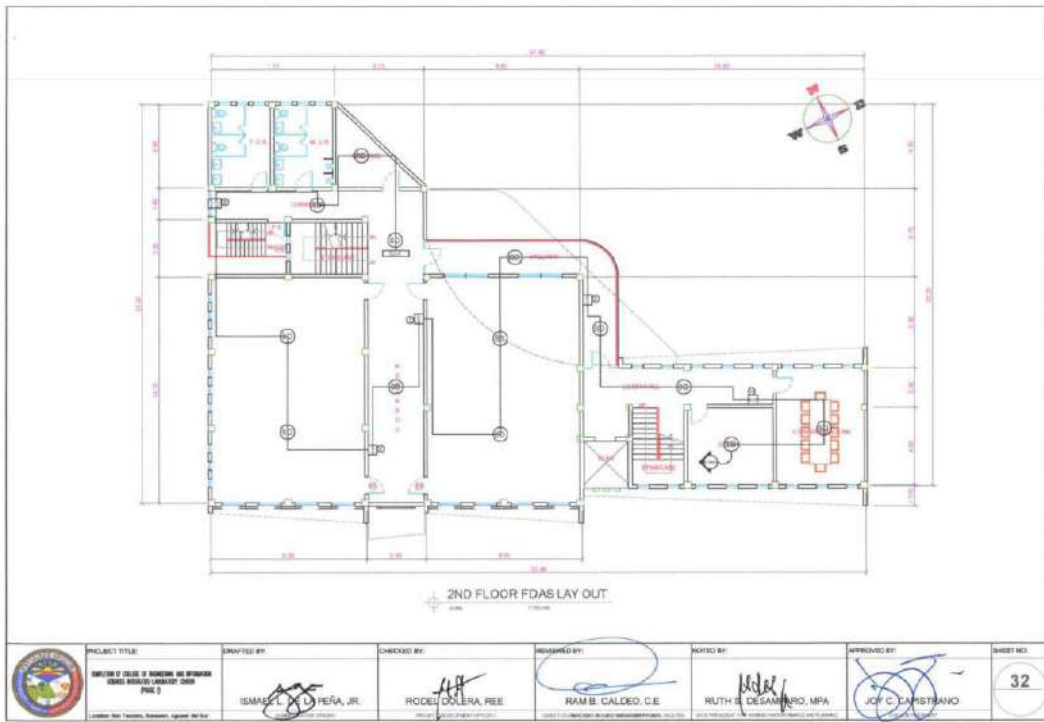
DOOR	MARK	DESCRIPTION	QUANTITY	LOCATION
DOOR - 1	D1	2" THK REFLECTIVE GLASS EMERGENCY EXIT WINDOW	1	ST LAB
DOOR - 2	D2	2" THK TINTED REFLECTIVE GLASS GLASS BY ALUMINUM FINISH	1	ST LAB C

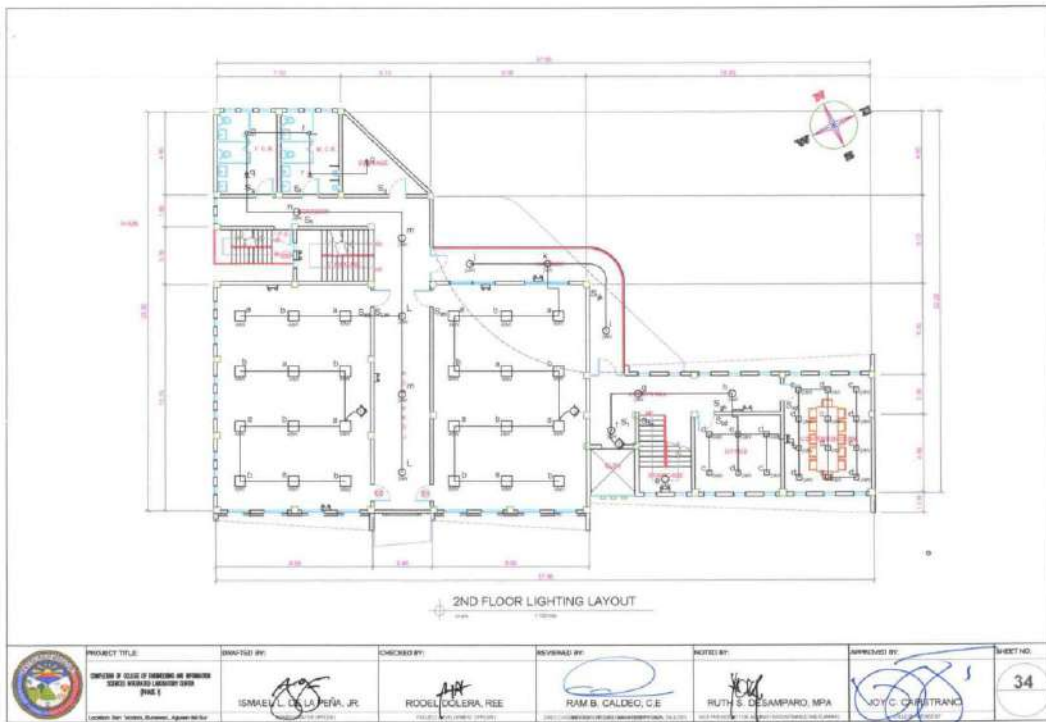
	PROJECT TITLE	DRAWN BY	CHECKED BY	REVIEWED BY	NOTED BY	APPROVED BY	SHEET NO.
	DEPARTMENT OF EDUCATION - DIVISION OFFICE - MARIKINA CITY SCHOOL REPAIR LABORATORY DATA [PAK 1]	ISMAEL L. DELA PERA, JR.	JOSEPH P. ANSANO, C.E.	RAM B. CALDEO, C.E.	RUTH S. DESAMPARO, MPA	JOY C. BANSTRAND	25











Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

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

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

Daywork Schedule

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

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

Provisional Sums

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

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

Signature Box

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

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

Section VIII. Bill of Quantities

Completion of College of Engineering and Information Sciences Integrated Laboratory Center, Phase I

Bunawan, Agusan del Sur

BILL OF QUANTITIES					
COMPLETION OF ENGINEERING AND INFORMATION SCIENCES INTEGRATED LABORATORY CENTER, PHASE I					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL AMOUNT
I	GENERAL REQUIRMENTS				
I-a	Mobilization/Demobilization, Including Temporary Facilites	Lot	1		

I-b	Project Billboards	Sq.m	17.26		
I-c	Construction Safety and Health Program	Days	270		
I-d	Building Permits, Clearnaces, Certification and Consultancy	Lot	1		
II	SITWORKS AND EARTHWORKS				
II-a	Re-Establishment of Line and Grade	Lot	1		
II-b	Septic Vault	Cu.m	41		
III	CONCRETE WORKS (Includes Formworks and Scaffolds)				
III-a	Column (Second Floor and Third Floor)	Cu.m	66		
III-b	Beam (Third Floor and Roof Deck)	Cu.m	146		
III-c	Slab (Third Floor)	Cu.m	83		
III-d	Elevator and Elevated Water Tank Support and Pad	Cu.m	33		
III-e	Stairs, 2 nd Floor to 3rd Floor	Cu.m	14		
III-f	Storage Room, Pump Room and Protection Fence	Cu.m	33		
IV	REINFORCING STEEL BARS				
IV-a	Column (Second Floor and Third Floor)	Kgs.	28,533		
IV-b	Beam (Third Floor and Roof Deck)	Kgs.	45,016		

IV-c	Slab (Third Floor)	Kgs.	6,199		
IV-d	Elevator and Elevated Water Tank Support and Pad	Kgs.	6,872		
IV-e	Stairs, 2 nd Floor to 3rd Floor	Kgs.	1,592		
IV-f	Pump Room and Rubber Coated Protection Fence	Kgs.	40		
V	MASONRY WORKS (Includes reinforcement, 2 nd Floor and Pump Rooms)	Sq.m	636		
VI	PLUMBING WORKS (parts of 1 st Floor and 2nd Floor)	FU	40		
VII	FIRE SPRINKLER SYSTEM (Ground Floor and 2 nd Floor)	Sq.m	1,170		
VIII	ELECTRICAL WORKS (2 nd floor)				
VIII-a	Roughing-ins Works	Lot	1		
VIII-b	Panel Board	Lot	1		
VIII-c	Electrical Fixture	Lot	1		
VIII-d	Service Entrance	Lot	1		
VIII-e	Fire Alarm System	Lot	1		
VIII-f	Data and Telephone System	Lot	1		
IX	WINDOWS, DOORS, ALUMINUM AND GLASS WORKS (Part of Ground Floor and 2 nd floor)	Lot	1		
X	RAMP, RAILINGS AND CEILING WORKS (Ground and 2 nd Floor)	Sq.m	1,142		

XI	PAINING AND TILEWORKS (Ground and 2 nd Floor)	Sq.m	500		
XII	SEPTIC VAULT (2 nd Floor)	Set	1		
Total Bid Price					
Amount in Words:					

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary “pass/fail” criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages); **and**
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document; **and**
- (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas; **and**
- (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

- (e) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (f) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- (g) Philippine Contractors Accreditation Board (PCAB) License; **or**
Special PCAB License in case of Joint Ventures; **and** registration for the type and cost of the contract to be bid; **and**
- (h) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission; **or**
Original copy of Notarized Bid Securing Declaration; **and**
- (i) Project Requirements, which shall include the following:
 - a. Organizational chart for the contract to be bid;
 - b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
 - c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- (j) Safety Provisions (Occupational Safety and Health Plan) in the construction; **and**

- (k) Copy of Supplemental Bid published in the PhilGEPS (if any); **and**
- (l) Notarized Affidavit of Site Inspection; **and**
- (m) Certification from Department of Labor and Employment (DOLE) on No Labor Issues; **and**
- (n) Certification of Performance from procuring entity of all on-going and completed projects in at least the last three (3) years; **and**
- (o) Original duly signed Omnibus Sworn Statement (OSS);
and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (p) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**
- (q) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

- (r) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
or
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

- (s) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

- (t) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- (u) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- (v) Cash Flow by Quarter.

