

BULACAN AGRICULTURAL STATE COLLEGE

Construction of Four (4) Storey Veterinary Medicine Building with Training Laboratory

FY 2022

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.

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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.



Bulacan Agricultural State College San Ildefonso, Bulacan, 3010

INVITATION TO BID

Construction of Four (4) Storey Veterinary Medicine Building with Training Laboratory

- The Bulacan Agricultural State College, through the General Appropriations Act (GAA) for the FY 2022 intends to apply the sum of Thirty Five Million pesos (Php 35,000,000.00) being the Approved Budget for the Contract (ABC) to payments under the contract for 2022-02-INFRA: Construction of Four (4) Storey Veterinary Medicine Building With Training Laboratory. Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The Bulacan Agricultural State College now invites bids for the above Procurement Project. Completion of the Works is required on or before the two hundred seventy (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 nondiscretionary "*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 *Bulacan Agricultural State College* and inspect the Bidding Documents at the address given below from 8:00AM to 4:30PM.
- 5. A complete set of Bidding Documents may be acquired by interested bidders on *February 13, 2022 to March 4, 2022* from 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 Thirty Thousand pesos (Php 35,000.00). Procuring Entity shall allow the bidder to present its proof of payment for the fees by presenting the receipt upon submission of their bid documents.
 - 6. The *Bulacan Agricultural State College* will hold a Pre-Bid Conference¹ on *February* 18, 2022, 01:30 PM AM via Zoom Platform (Meeting ID: 882 4169 7342; Passcode: 370460) which shall be open to prospective bidders.

¹ May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a Pre-Bid Conference.

- 7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before *01:30 PM of March 4, 2022*. Late bids shall not be accepted.
- 8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
- 9. Bid opening shall be on *March 4, 2022, 2:00PM* at the the *Conference Room, Ground Floor, Farmers Training Center, BASC, San Ildefonso, Bulacan.* Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
- 10. Observers will be invited to attend and witness the bid proceedings.
- 11. The *Bulacan Agricultural State College* 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 IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
- 12. For further information, please refer to:

CORAZON R. ABABA BAC Secretariat BULACAN AGRICULTURAL STATE COLLEGE Brgy. Pinaod, San Ildefonso, Bulacan (044) 697-1240 and 0955-367-2231 corazon.ababa@basc.edu.ph www.basc.edu.ph

13. You may visit the following websites:

For downloading of Bidding Documents:

corazon.ababa@basc.edu.ph www.basc.edu.ph

February 12, 2022

RONALD REAGAN T. ALONZO, Ph.D.

BAC Chairperson

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, *Bulacan Agricultural State College* invites Bids for the **Construction of Four (4) Storey Veterinary Medicine Building With Training Laboratory**, with Project Identification Number 2022-02-INFRA.

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 *GAA FY 2022* in the amount of *Php35,000,000.00*.
- 2.2. The source of funding is:a. NGA, the National Expenditure Program.

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.

8. **Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time via online platform 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. 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**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) 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**.
- 10.5. 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**.

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 until *120 days from the opening of 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 one copy of the original of the first and second components of its Bid and plus two (2) copies of each kind, labeled as copy 1 and copy 2.

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

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 7 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**.

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:		
	[construction, renovation, rehabilitation, repair of school, laboratory and		
	office building].		
7.1	Subcontracting is not allowed.		
10.3	Appropriate PCAB License commensurate to the Project.		
10.4	The key personnel must meet the required minimum years of experience set below:		
	Key Personnel General Experience Relevant Experience		
	Civil Engineer/ Architect at least 5 years at least 5 years		
	Materials Engineer at least 5 years at least 5 years		
	Foremanat least 5 yearsat least 5 years		
	Safety Officer at least 5 years at least 5 years		
	Skilled Laborer at least 3 years at least 3 years		
	Laborer		
10.5	The minimum major equipment requirements are the following:		
	Equipment Capacity Number of Units		
	Mini dump truck or Elf truck 1		
	Concrete Mixer one bagger 2		
	Cut Off - 2		
	Bar Bender - 2		
	Concrete Vibrator - 2		
	Welding Machine heavy duty 2		
12	Alternative Bids are not allowed.		
15.1	 The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than Php700,000.00 [Insert two percent (2%) of ABC], if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; 		
1	b. The amount of not less than Php1,750,000.00 [Insert five percent (5%)]		

	of ABC] if bid security is in Surety Bond.
19.2	Partial bids are not allowed
20	[Building permit, Occupancy permit, Locational Clearance, Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone.etc.]
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and (PERT/CPM) or other acceptable tools of project scheduling.

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 10.3 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	The intended completion date of Proposed Construction of Four(4) Storey Veterinary Medicine Building With Training Laboratory is Two Hundred Seventy (270) calendar days from the date of the
	receipt of Notice to Proceed.
4.1	The schedule of delivery of the possession of the site to the contractor is upon the receipt of the Notice to Proceed.
6	The site investigation reports are: None
7.2	In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures: I Five (5) years.
10	
	a. Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within [7 calendar] 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 1% of the progress billing.
13	The amount of the advance payment is <i>fifteen percent</i> (15%) of the contract price to be paid upon written request of the contractor reconciling on the date of the Notice to Proceed and upon submission of an irrevocable standby letter of credit of equivalent value from a commercial bank, and bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the insurance Commission.
14	Materials and equipment delivered on the site but not completely put in place shall not be included for payment.
15.1	The date by which "as built" drawings are required is fifteen (15) calendar days from completion of project.
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 0.1% of the final contract amount[<i>amount in local currency</i>].

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.

Proposed Construction of Four (4) Storey Veterinary Medicine Building with Training Laboratory

BASC New Site Campus

TECHNICAL SPECIFICATIONS

BULACAN AGRICULTURAL STATE COLLEGE

Pinaod, San Ildefonso, Bulacan

February 2022

GENERAL REQUIREMENTS

- **1.1** These specifications are intended to cover all labor and materials required for the complete construction of the proposed projects as shown in the working drawings as described herein.
- **1.2** Materials and/ or work not specifically mentioned in the specifications, working drawings, and other contract documents but is implied and deemed necessary to complete the work shall be supplied by the Contractor and executed in a workman-like manner, of appropriate number, location, and size of the highest quality available without extra cost to the Owner.
- **1.3** The Owner reserves the right to alter and/or omit any part of the plans with the approval of the Architect or Engineer as the case may be. Any extra charge must be situated to the Architect and/or Project Manager for approval before final acceptance.
- **1.4** The Contractor shall secure all permits and licenses as required and also shall be responsible for all the liabilities, under Workmen's Compensation, SSS, Insurance, etc.
- **1.5** The Contractor shall furnish for approval of the Architect/Engineer, with promptness, samples as specified or required. Works shall be in accordance with the approved samples.
- **1.6** The Contractor shall guarantee the words, except for those with specific guarantee for a period of one (1) year after final acceptance by the Owner. He shall repair, replace and make good at his expenses any and all defects, which may arise during that term of guarantee and warranty due to defective workmanship and/or interior quality of materials.

METHODS OF CONSTRUCTION

- **1.7** The construction shall be done in the manner that would cause least disturbance to neighborhood and occupant of the area. The contractor will be allowed to work 24 hours if necessary to complete the work on time subject to approval of the owner.
- 2.2. All works to be done shall be of the best quality and workmanship.

MASONRY

- **1.8** Exterior wall should be CHB 5 inches wall non- bearing with 10 mm diameter reinforcement bars spaced @ 0.80 meter for vertical and for every 3 layers of CHB for horizontal bars.
- **1.9** Partition & interior wall should be CHB 4" inches with 10 mm diameter reinforcement bars spaced @ 0.80 meter for vertical and for every 3 layers of CHB for horizontal bars in rooms, hallway, and toilet.

ARCHITECTURAL

WALL

- CHB 5" WALL FOR EXTERIORWALL PAINTED FINISHED OR APPROVED EQUAL
- CHB 4" WALL FOR INTERIOR WALL PAINTED FINISHED OR APPROVED EQUAL
- 30 X 30 CERAMIC WALL TILES FOR THE WALL OF TOILETS
- ELASTOMERIC PAINT BY BOYSEN OR APPROVED EQUAL BRAND FOR EXTERIOR WALL

- SEMI-GLOSS LATEX PAINT BY BOYSEN OR APPROVED EQUAL BRAND FOR INTERIOR WALLS
- ARCHITECTURAL STONE BRICKS @ EXTERIOR FACADE ACCENT WALL

CEILING FINISHES

• 4.5MM FIBER CEMENT BOARD IN METAL FURRING WITH FLAT LATEX PAINT BY BOYSEN OR APPROVED EQUAL @ TOILETS

FLOORING

- ROUGH CEMENT FINISH @ RAMP WITH GROOVES
- 60 X 60 CERAMIC FLOOR TILES FOR CLASSROOMS & HALLWAYS
- 30 X 30 CERAMIC TILES FOR TOILETS
- MAIN STAIRS- 300MM X 300MM STEPS AND RISERS WITH NOSING

DOORS & WINDOWS

DOORS & HARDWARES

D1 2.00 X 2.10M DOUBLE SWING GLASS DOOR IN WOOD PANEL FRAME

6MM THK CLEAR ORDINARY GLASS

- D2 0.80 X 2.10M SINGLE SWING WOOD PANEL DOOR
- D3 1.00 X 2.10M DOUBLE SWING WOOD PANEL DOOR
- D4 1.00 X 2.10M SWING STAINLESS DOOR
- D5 1.60 X 2.10M DOUBLE SWING WOOD PANEL DOOR
- D6 0.80 X 2.10M DOUBLE SWING WOOD PANEL DOOR WITH STAINLESS KICKPLATE

ALL DOOR FINISHES- NATURAL WOOD FINISH STAINED FINISH OR APPROVED EQUAL

ALL DOORS -HARDWARES / HINGES / LOCK SETS/ DOOR CLOSERS MUST BE HEAVY DUTY OR APPROVED EQUAL

ALL DOOR JAMB SHOULD BE 2' X 6" KD TREATED WOOD, PAINT FINISH.

WINDOWS

- W1 1.80 X 1.20M 6MM THK REFLECTIVE BRONZE GLASS CASEMENT WINDOW IN ANALOK ALUMINUM FRAME
- W2 1.20 X 1.20M 6MM THK REFLECTIVE BRONZE GLASS SLIDING WINDOW IN ANALOK ALUMINUM FRAME
- W3 1.20 X 1.20M 6MM THK REFLECTIVE BRONZE GLASS FIXED WINDOW IN ANALOK ALUMINUM FRAME

- W4 1.80 X 1.20M 6MM THK REFLECTIVE BRONZE GLASS FIXED WINDOW IN ANALOK ALUMINUM FRAME
- W5 1.20 X 0.60M 6MM THK REFLECTIVE BRONZE GLASS FIXED WINDOW IN ANALOK ALUMINUM FRAME
- W5 0.60 X 0.60M 6MM THK REFLECTIVE BRONZE GLASS FIXED WINDOW IN ANALOK ALUMINUM FRAME

PLUMBING FIXTURES

- HCG OR AMERICAN STANDARD OR EQUAL WATER CLOSET WITH COMPLETE ACCESSORIES
- HCG OR AMERICAN STANDARD OR EQUAL LAVATORY WITH FAUCET & COMPLETE ACCESSORIES
- HCG OR AMERICAN STANDARD OR EQUAL URINAL WITH COMPLETE ACCESSORIES
- 100 MM STAINLESS FLOOR DRAIN

TOILETS ACCESSORIES

- TOILET PARTITIONS-15MM THICK PHENOLIC BOARDS LAMINATED
- HANDRIER BY OTHERS
- SOAP DISPENSER BY OTHERS

WATERPROOFING

- TOILETS ELASTOMERIC WATERPROOFING WITH FIBER MESH
- DUMPROOFING 6MIL POLYETHYLENE SHEETS

FURNITURES

- CHAIRS & TABLES BY OTHERS
- WHITEBOARDS 6MM THICK MARINE PLYWOOD WITH WHITE LAMINATE INCLUDING BACKING AND SUPPORTS

METALWORKS

- MAIN STAIRS -RAILINGS- 32MM DIAMETER STAINLESS PIPES HANDRAIL AND POST WITH 2- 25MM STAINLESS PIPES HORIZOANTAL BALUSTERS
- RAMP- 32MM BLACK IRON PIPES WITH 25MM HORIZONTAL BALUSTERS EPOXY PAINT FINISHED

SANITARY WORK/PLUMBING

PART 1 GENERAL 1.1 SCOPE OF WORK:

A. Unless otherwise specified, the Contractor or his Sub-Contractor shall furnish all materials, tools, equipment, fixtures, appurtenances, accessories, transportation, labor and supervision required for the complete installation and Testing of the entire

Plumbing system in accordance with the best practice of the Plumbing Trade as listed herein but not limited to the following:

- 1. The CONTRACTOR is required to refer to all architectural, structural, mechanical, fire protection, electronics and electrical plans and investigate all possible interference and conditions affecting his work.
- 2. All work shall comply with the pertinent provision of the Plumbing Code of the concerned City, the Code of Sanitation of the Phil., and/or National Plumbing Code of the Philippines and Uniform Plumbing Code.
- 3. Tapping from an existing main pipe of the building distribution system.
- 4. Water supply and distribution system for the building
- 5. Installation of plumbing fixtures, fittings and accessories.
- 6. All building sanitary drains waste and venting systems including floor drains, & AC drains.
- 7. Sewage collection and disposal system such as tapping to the existing sewage manhole/ sewer line.
- 8. Building storm drainage system including roof drains and floor drains
- 9. Building storm drains and collection system including peripheral collector line into storm manhole or sump pit and up to existing storm drains.
- 10. Testing for leakage of all water supply and distribution system, drains, waste, sewer and venting system plus pressure testing and disinfection of the water supply and distribution system.
- 11. Securing of all permits and licences as required to include water connection.
- 12. Excavation and backfilling in connection with the work shall be included.
- 13. Preparation and submittal of As-Built Drawings of two (2) sets in Blue Print and one (1) set in reproducible prints at no cost to the Owner(s).
- 14. Contingency to include the furnishing of written one (1) year warranty on the plumbing system upon completion of works.

1.2 NOTES ON DRAWINGS:

- A. The Drawings show the general arrangement of all piping. However, where local and/or actual conditions at the jobsite necessitate a deviation or rearrangement, the Contractor shall prepare and submit the new arrangement for the Architect's or Engineer approval.
- B. Small scale Drawings do not possibly indicate all offsets, fittings and other parts of the system required. The Contractor shall arrange such work accordingly, furnishing such fittings, traps valve and accessories as may be required to meet such conditions.

1.3 APPLICABLE SPECIFICATION CODES, ORDINANCES, PERMITS AND FEES

A. The work covered in this contract is to be installed according to the Specification, Codes, Ordinances and Requirements of the following:

- 1. National Plumbing Code of the Philippine
- 2. The Code on Sanitation of the Philippines
- 3. Uniform Plumbing Code of the Philippines
- 4. DENR Rules and Regulation of Environment/Clean Air Act
- 5. Ordinances of concerned city or municipality
- B. All construction permits and fees required for the work shall be obtained by and at the expense of the contractor. The contractor shall furnish the Owner final certificates of inspection and approval from the government authorities having jurisdiction after the completion of the work.

1.4 WORKMANSHIP & COORDINATION WITH TRADES:

- A. All work shall be performed in first class and neat workmanship by persons skilled in their trades and such persons and their work shall be satisfactory to the Engineer. The Contractor shall fully assume full responsibility and shall provide the services of a qualified Engineer to supervise the complete installation of equipment and to conduct the final acceptance test.
- B. The Contractor shall be fully responsible for the work of any manufacturer or subcontractor supplying materials to or performing work for, as it is intended that the entire Plumbing System shall be ready in every respect for satisfactory and efficient operation when finally delivered to the Owners.
- C. The work throughout shall be executed in the most thorough and satisfactory manner in accordance with the practice of the trade.
- D. The CONTRACTOR is required to refer to the General Conditions and to all architectural, structural, electrical, electronic, mechanical and fire protection plans and specifications and shall investigate all possible interference and conditions affecting his work.

PART 2 PRODUCTS / MATERIALS

2.1 GENERAL

- A. Except as specified, the CONTRACTOR shall submit for the Engineer's approval, four (4) copies of a complete list of manufacturer's names of all equipment and materials he proposes to use, within thirty (30) days after award of contract.
- B. The Contractor shall assume the cost of and the entire responsibility for any change in the work as shown on contract drawings which may be occasioned by approval of materials other than those specified.

2.2 PIPES AND FITTINGS SCHEDULE:

A. Hot/Cold Water Lines – for inside and outside building, 150mmØ and smaller, riser, down feed, main distribution, roughing-in and tapping water lines, shall be Polypropylene Random Copolymer (PPRC) pipe, PN- 20, standard conforming to

DIN-8077-8078, "BELDEN" brand by United or approved equal, fittings shall be fusion type.

- B. Sewer Lines for inside building, shall be Polyvinyl Chloride (PVC) pipes, series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477. For outside building larger than 300mmØ, shall be Reinforced Concrete Drain Pipe (RCDP), tongue and groove, mortar joints, locally manufactured
- C. Sink Waste Pipes shall be Polyvinyl Chloride (PVC) pipes, Series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477.
- D. Vent Pipe shall be Polyvinyl Chloride (PVC) pipes, Series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477.
- E. Downspouts shall be Polyvinyl Chloride (PVC) pipes, Series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477.
- F. Storm Drainage Pipe for inside building, shall be Polyvinyl Chloride (PVC) pipes, series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477. For outside building 300mmØ and larger, shall be Reinforced Concrete Drain Pipe (RCDP), tongue and groove, mortar joints, locally manufactured.
- G. Waste Pipes shall be Polyvinyl Chloride (PVC) pipes, Series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477.
- H. ACU/FCU Waste Pipes for waste stack and collector pipes, shall be Polyvinyl Chloride (PVC) pipes, Series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Joints and connection shall be by solvent cement conforming to ASTM D-2564 and/or elastomeric ring conforming to ASTM F477. For lateral and branch pipes shall be Polyvinyl Chloride (PVC) pipes, Series 1000 II, "ATLANTA", "NELTEX" brand or approved equal. Pipes shall be provided with ½" thick close cell elastomeric thermal insulation conforming to ASTM D166 and ASTM C177, "AEROFLEX" brand or approved equal.

2.3 VALVES

A. Gate Valve – 50 mmØ and smaller, rising stem, all bronze, female threaded, minimum of 125 psig working pressure similar to "KITZ" brand or approved equal. 65 mmØ larger, shall be rising stem outside screw and yoke (OS&Y) flanged connection shall be iron body with bronze trim, minimum of 250 psig working
pressure at transfer pump and booster pump discharge lines, risers and downfeeds and 175 psig for main distribution and lateral water lines Similar in all aspect to "KITZ", "WEFLO VALVES", "BESTOP" brand by JPI, or approved equal.

- B. Gate Valve inside toilet and fixtures 50 mm and smaller shall be Polypropylene Random Copolymer (PPRC) Valve, PN- 20, standard conforming to DIN-8077-8078, "BELDEN" brand by Unitec or approved equal, fittings shall be fusion type.
- C. **Non-Return Valve for Sewer and Drainage System** shall be operated that will efficiently prevent backflow of sewer and drainage system. Similar to "Neltex" brand or approved equal.

2.4 PLUMBING FIXTURES AND ACCESSORIES

Refer to Architectural Specifications.

2.5 OTHER MATERIALS

- A. **Drains** "FLAMINGO", "JPI" brand or approved equal
 - 1. Gutter Drain as per approved material.
 - 2. Floor Drains for Toilets As per approved material.
 - 3. Area Drain Grating Cover- As per approved material.
- B. Hose Bibbs 20mm standard hoes connection, male tapered threads, polished chromium plated.
- C. PIPE, HANGERS AND SUPPORTS
 - 1. Pipe hangers shall be wrought iron or malleable iron pipe spaced not more than 1.50 meters apart for horizontal runs of pipe.
 - 2. Trapeze hangers may be used in lieu of separate hangers on pipe running parallel to and closed to each other.
 - 3. Wrought iron clamps or collars to support vertical runs of pipe shall be spaced not more than 3.0 m apart or as indicated on the plan.

PART 3 WARRANTY AND AS-BUILT DRAWINGS

- A. Upon completion of the work, the contractor shall submit two sets of prints with all As-Built changes shown on the drawings in a neat workmanship manner.
- B. Such prints shall show changes or actual installation and conditions of the plumbing system in comparison with the original drawings.
- C. All Works, equipment and fixture shall be guaranteed by the CONTRACTOR for satisfactory service for a minimum period of one (1) year.

PART 4 CONTRACTOR'S RESPONSIBILITY

A. The Contractor's shall identify and save the Owner, the Architect and the Consulting Engineer harmless from and against liabilities for damage to property occasioned by any or omission of this Contractor's on any of this Sub-Contractors including any and all expenses, legal or otherwise which maybe insured by the Owner, the Architect or the Consulting Engineer, in the defense of any claims, action or suit.

- B. The General Contractor shall be responsible for the coordination among the different trades on the job in order to finish the work in the least possible time, in strict compliance and in accordance with the Plans and Specifications.
- C. A temporary fire protection system shall be provided by the contractor during the construction period. This shall be of sufficient capacity to put out any fire that may break out due to construction operations. This is in addition to temporary fire extinguisher required.
- D. Throughout the construction period open ends of all installed drainage, sewer and vent lines, waterlines and other related piping shall be kept closed by temporary plugs.
- E. Drainage lines shall not be used to conduct dirty construction waste water specially those with cement mixes to avoid possible clogging.
- F. All installed drainage, sewer and vent lines, water lines and other related piping shall not be used to conduct dirty construction wash water especially those with cement mixes to avoid possible clogging.
- G. A temporary potable water supply shall be maid available to construction workers as construction progresses.
- H. A Temporary human excreta disposal system shall be provided by the Contractor to serve the workers during the construction period.

ELECTRICAL WORKS

PART 1.00 – GENERAL

1.1 GENERAL DESCRIPTION

A. The work to be done under this Division of the Specifications consist of the fabrication, furnishing, delivery and installation, complete in all details of the Electrical System, at the project premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by others. All works shall be in accordance with the governing Codes and Regulations and with the specifications, except those where same shall conflict with such Codes, etc., where the latter shall then govern. The requirements with regards to materials and workmanship specify the required standards for the finishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated in the drawings. The Specifications are intended to provide a broad outline of the required equipment, and are not intended to include all details of design and construction.

B. SITE OF WORK

SAN ILDEFONSO, BULACAN

C. SCOPE OF WORK

Under this section of the specifications, provide all labor, materials and equipment and perform all the work necessary for the complete execution of all the Electrical System as shown on Electrical Drawings. Scope of Work shall include but not be limited to the following principal items of work:

- 1. Furnish and install all conduits for power and telephone service entrances.
- 2. Furnish and install all feeder and distribution wires and conduit for power, telephone, and auxiliary systems as required on the plans.
- 3. Furnish and install low voltage switchgear, emergency switchboard, automatic transfer switch, distribution and lighting panelboard, circuit breakers and disconnect switches and other protective devices as required on the plans.
- 4. Furnish and install complete distribution for lighting, power and fire detection and alarm system to include conduits, wiring and wiring devices as required on the plans.
- 5. Furnish and install a complete wiring system for all pumps and motors to include conduits, wires and fittings up to circuit breaker protection. Circuit breaker protection shall be included as indicated in the plan.
- 6. Furnish and install all feeder wires and conduit complete with support and other related accessories as indicated in the plan.
- 7. Furnish and install complete grounding system.
- 8. Application of electric power and telephone connection including preparation of all necessary plans, forms and related documents, payment of all required fees and charges and coordination with other authorities or person involved in the procedure.
- 9. Perform all termination to include testing.
- 10. Preparation of as-built plans and drawings.
- 11. All work materials, equipment, fittings, support, etc. which are necessary for the completion of the works must be included in this division of work.

Works Not Included:

1. Furnish and installation of power service, telephone and CATV service entrance cable facilities and hardware including termination except for entrance conduit.

1.2 QUALIFICATIONS

A Sleeves, Chases and Openings

- 1. Furnish templates, sleeves or details for chases and openings to be left in the floors and walls to accommodate the work. Layout the work in accordance with accepted shop drawings. Furnish and set in place in advance of pouring of slabs or construction of walls, all inserts and sleeves necessary to complete the work.
- 2. Pipe sleeves for all electrical conduits passing through walls, partitions, ceiling, floors etc. shall be of sufficient length to extend through the full thickness of the construction, with ends flush with the finish on each side, unless noted otherwise.
- B. Access Panels (By Main Contractor For Reference Only)
 - 1. Coordinate size and location of access panels as required for access to pull boxes and electrical equipment. Where, in the opinion on the Contractor, access panels are required, but are not shown on the drawings, the omission shall be brought to the attention of the Architect before installation of equipment. All access panels and their sizes shall be noted on shop drawings.

MANUFACTURER'S DATA

Submittals for each manufactured item shall include manufacturer's descriptive literature, equipment drawings, diagrams, performance and characteristic curves and catalog cuts. Each submittal shall have the manufacturer's name, trade name, catalog model or number, nameplate data, size, layout, dimensions, capacity, specification reference, Industry Specification references, and all other information necessary to establish contract compliance.

B. The Contractor shall examine and study the architectural scale drawings, large scale and full size details. The approved shop drawing of other parties and he shall frequently consult with them to ascertain any changes that may have been made and he shall be guided accordingly before establishing the precise location of conduits runs, pull and junction boxes and devices. All outlets covered or partially covered by ducts, piping, etc., shall be extended laterally or to underside of same so that the equipment may be properly installed

C. The Contractor shall effectively protect his own work from damage during, and as may be necessary after installation, and he shall likewise protect adjoining work other parties from damaged resulting from his installation.

1.3 LOCATION OF WIRING AND EQUIPMENT

- A. The Contractor shall coordinate his work with all parties involved so that exact locations may be obtained for all apparatus, appliances and wiring.
- B. The location of equipment shown on diagrammatical wiring plans shall be considered as approximate and it shall be incumbent upon the Contractor before installation. To study all pertinent drawings and obtain precise information from the architectural schedules, scale drawings, large scale and full size details of finished rooms, approved shop drawings of other parties involved or from the Engineer.

1.4 BUILDING PROVISION

Certain provisions have been made in the Building for the accommodations of electrical installation, these provisions include space allocation, holes through beams and structural slabs, etc. The provisions so made are shown on the drawings. Before proceeding with the works, the Contractor is to check and confirm that the provisions are adequate and satisfactory for the works, and where necessary, additional information is to be provided. It is the Contractor's responsibility to ensure that the Builder is informed of all holes required in the Structure. Any subsequent structural openings required due to negligence in providing sleeves beforehand shall be at the expense of the Contractor unless they are covered on a duly authorized variation order issued by the Architect.

It is the Contractor's responsibility to ensure that all holes, openings, etc. are provided correctly during construction of the building.

1.5 MATERIAL PROPOSED

The Contractor is required to state in his bid the manufacturer and type proposed for all materials to be used for the works. Any alternative offer shall be submitted at the time of bidding.

Samples of the materials to be used shall be submitted to the Architect/Engineer for approval before procurement and/or installation.

1.6 INTERPRETATION OF SPECIFICATIONS AND DRAWINGS

Any queries regarding the interpretation of the specifications or of the drawings may be addressed to the Architect or Engineers in wiring before submission of bid. The Contractor will be deemed to have satisfied himself that he is able to comply in all respects with the plans and specification to a degree acceptable to the Architect and Engineers.

INTERIOR WIRING SYSTEM

PART 1.00 – GENERAL

1.1 GENERAL REQUIREMENTS

"Electrical General Requirements", applies to this section with additions and modifications specified herein. In each of the standards referred to herein, consider the advisory provisions to be mandatory, as though the word "shall" wherever it appears. Interpret reference in these standards to the "authority having jurisdiction", or words of similar meaning, to mean the Engineer.

1.2 SUBMITTALS

- A. MANUFACTURER'S DATA
 - 1. Wiring Devices (each type)
 - 2. Conduit and Fittings (each type)
 - 3. Insulated Conductors
 - 4. Junction and utility Boxes
 - 5. Panelboard and Circuit Breakers
 - 6. Others as required

B. SHOP DRAWINGS

- 1. Panelboard (lighting and distribution panels)
- 2. Support details including hangers, brackets and clamps.
- 3. Others as required.

PART 2.00 – PRODUCTS

A. CONDUIT AND FITTINGS

- 1. Service Entrance Conduits shall be Rigid Metal Conduit (RSC) with an ineterior coating as manufactured by "Matsushita", or Approved equal".
- 2. Poly-vinyl-chloride (PVC) conduit shall be heavy wall, schedule 40, with factory made bends, couplings and fittings "Neltex", "Atlanta", "Crown Pipe" or "Emerald".
- 3. No conduits shall be used in any system smaller than 15mm (1/2 inch) diameter electric trade size, nor shall have no more than four (4) 90 degree bends in any one run and where necessary, pull boxes shall be provided as directed.
- 4. No wire shall be pulled into any conduit until the conduit system is completed in all details, in the case of concealed work until all rough plastering masonry has been completed and in the case of exposed work until the conduit work has been completed in every detail.
- 5. The ends of all conduits shall be tightly plugged to exclude plaster, dust and moisture while the construction of building is in progress. All conduits shall be reamed to remove all burrs.

6. All pipes and fittings on exposed work shall be IMC and be secured by means of metal clips, which shall be held in place by means of machine screws. When running over concrete surface, the screws shall be held in place by means of expansion sleeves. All pipes on exposed work shall be tun at right angles to and parallel with the surrounding walls. No diagonal runs shall be allowed and all bends and offsets shall be avoided as much as possible. Where necessary conduit fittings shall be used. Conduits in all cases shall be run perfectly straight and true, satisfactory to the Engineer. Conduits shall be supported at 1.50 meter interval maximum.

B. OUTLETS, BOXES AND FITTINGS

- 1. At all outlets of whatever kind, for all system, there shall be provided a suitable fitting, which shall be either a box or other device especially designed to received the type of fitting to be mounted thereon.
- 2. The Contractor shall consult with the Engineer as to the nature of the various fittings to be used before installing his outlet fittings and shall conform strictly in the use of fittings to the nature of the appliance to be mounted on them so that the work, when completed, will be a finished design.
- 3. At all outlets on concealed conduit work, provide galvanized pressed steel outlet boxes of standard make. These boxes shall be in all cases standard and where such boxes are not available on the market, fabricated boxes shall be provided by the Contractor at his own expense. In general, boxes shall be at least 100mm in diameter, 53mm deep and 2mm minimum gauge.
- 4. All utility boxes intended for outlet devices shall be especially designed to receive the particular type of device to be mounted and should be deep enough to accept and fit the total number of conductors and device required.
- 5. Boxes shall be as manufactured by "Fumaco" or approved equal.
- 6. In case of lighting fixtures, their outlet fittings shall be provided with suitable supports of size and kind required by the lighting fixture to be hung. Fixture studs shall be 9 mm dia.

C. JUNCTION AND PULL BOXES

- 1. Junction and pull boxes, of code gauge steel, galvanized shall be provided as indicated or as required for facilitating the pulling of wires and cables. Pull boxes in finished places shall be located and installed with the permission and to the satisfaction of the Architect and Engineers.
- 2. Al junction and pull boxes on exposed conduit work shall be provided with hubs for threaded pipe entry and covers provided with hinged and provisions for padlocking.

D. WIRES AND CABLES

- 1. All wires shall be copper, soft-drawn and annealed, 98% conductivity, smooth and true of a cylindrical form and variation shall be within 1% of the actual size called for.
- 2. All wires and cables shall be as manufactured by "Phelps Dodge", "Duraflex", "Philflex"
- 3. Wires and cables for power and lighting system shall be plastic insulated for 600 volts working pressure type. "THHN" and "THWN".
- 4. THHN/THWN wires can be used for the same size of wires provided the allowable current does not exceed that of TW/THW wires.
- 5. All wires 3.5 mm² or larger shall be stranded copper.
- 6. Control leads for motors or lighting shall be or type "TW".
- 7. For lighting and power systems no wire smaller than 3.5mm² shall be used unless otherwise indicated in the plan.
- 8. Color Coding:

Provide for all service, feeder, branch, control and signaling circuit conductors. Color shall be green for grounding, conductors, and white for neutrals. The color of the ungrounded conductors in different voltage systems shall be as follows: Phase A - Red; Phase B - Yellow; Phase C - Blue.

9. Splices and Termination Components

Connectors for wires no. 10 AWG and smaller shall be insulated pressure-type or twist-on splicing connector (wire nut). Provide solderless terminal lugs on stranded conductors.

E. WALL SWITCHES AND PLATES

- 1. Wall switches shall be rated with ampere and voltage ratings as required. Switches shall be for flush mounting type and of the quiet type, spring operated. The type of switches shall be tumbler operation and the color, plating and appearance of wall plates shall be as selected by the Architect. Appropriate samples shall be submitted prior to the purchase of wall switches and faceplates. Switches a plates shall be as manufactures by "National" or "bticino".
- 2. Provide weather proof metal switch plate covers where indicated on plans.
- 3. All utility boxes intended for switch devices shall be specially designed to receive

the particular type of switch device to be mounted and should be deep enough to accept and fit the total number of conductors required as per drawings.

F. WALL RECEPTACLES AND PLATES

- 1. Receptacles outlets shall be 15 Ampere, 250V, 3 prong and parallel grounded type. Locking type and other special purpose receptacle outlets shall be as indicated in the drawings. Wall receptacles and plates shall be as manufactured by "National" or "Toshiba".
- 2. Appropriate weather proof fitting metal cast alloy boxes shall be provided for convenience outlet indicated to be weather proof.
- 3. Provide weather proof metal receptacle plate cover for each convenience receptacle outlet indicated as weather proof.
- 4. Type and color of receptacle outlet and plates shall be as selected by the Architect. Appropriate samples of outlets and plates shall be submitted prior to purchase of devices.
- 5. All utility boxes indicated for receptacle outlet devices shall be specially designed to receive the particular type of receptacle outlet device to be mounted and should be deep enough to accept and fit the total number of conductors required as per drawings.

Receptacle with Ground Fault Circuit Interrupter (GFCI) shall be rated 15A, 2P, 3 wire grounding type, 220V parallel slot with 15 milliampere current sensitivity.

G. PANELS AND CABINETS

- 1. Standards panels and cabinets, as much as possible shall be used and assembled on job. All panels shall be dead front construction, furnished with trims for flush or surface mounting as required. Cabinets shall be of code gauge steel with gutters at least 100mm wide and wider if necessary, and with door provided with concealed hinges and cylinder type lock and catch. Two keys per panel shall be furnished. The trim for all panels shall be finished in industrial grey enamel over a coat of trust inhibitor.
- 2. Panels and cabinets shall be as manufactured by "Allied Cor, "Fuji-Haya", "Nema", "Cosine" or "Switchgear". Manufacturer's shop drawings shall be submitted before manufacturing.

- 3. Lightings panels shall be equipped with branch circuit breakers as required and mains as noted on plans or panel schedule. All circuit breakers shall be "Square D", "GE", or "ABB".
- 4. Panelboard main bus work shall be ampacity rated to equal or exceed overcurrent protective device immediately ahead of it. All buswork shall be properly secured to withstand available short circuit forces at the location.
- 5. Distribution panels shall be of the same type as lighting panels except equipped with three poles industrial branch circuit breakers of sizes, voltage ratings and interrupting capacity as called for on plans. All circuit breakers for Main Panel, shall be industrial type molded case circuit breakers. And all Distribution panel for Power and lighting are Bolt on type.
- 6. All distribution and lighting panels shall be provided with permanent panel designation and directory. Submit sample for approval of Engineer/Architect prior to fabrication. Panel designation shall be similar to panelboard schedule and panel directory shall be provided with circuit number, breaker rating, size of wire and conduit.

H. INDIVIDUAL BREAKERS AND SWITCHES

- 1. Provide individual circuit breakers, safety switches and disconnect switches where indicated on plans. Voltage ratings shall be suitable in each case of service application. Enclosure shall be General Purpose. NEMA Type 1, except where specifically noted on plans or assembled on panel cabinets.
- 2. Circuit breakers shall consist of a quick-make, quick-break type entirely trip-free operating mechanism with contracts, arc-interrupter, and thermal-magnetic trip unit shall provide time-delayed overload protection, and in case of overload or short circuit current in any one pole. Circuit breaker shall be trip indicating, with the tripped position of breaker handle midway between "ON" and "OFF" positions.
- 3. Circuit breaker with ground fault circuit interrupter shall be provided with "push to test" button, visible indication of tripped condition and ability to detect a current imbalance of approximately 5 milliamperes.
- 4. Current limiting type circuit breaker shall be no fuse type with minimum interrupting ratings as indicated in the drawings.

- 5. All circuit breakers shall be bolt-on type. Plug-in circuit breakers are not acceptable.
- 6. Circuit breaker shall be as manufactured by "GE", "Square D", or "ABB". All circuit breakers rated above 225 amperes shall have interchangeable trip units. Unless otherwise specified'

I. PANELBOARD BUSES

Support copper bus bars on bases independent of the circuit breakers. Main buses and back pans shall be design so that the breakers may be changed without machining, drilling or tapping. Provide a separate ground bus marked with a green stripe along its front and bonded to the steel cabinet for connecting grounding conductors.

J. LOW VOLTAGE DISTRIBUTION SECTION

A. Shop Drawings

Submit shop drawings for substation indicating, but not limited to the following:

- 1. Overall dimension, front view, and sectional view.
- 2. Bus arrangements including dimensions and ampere ratings of all bus bars.
- 3. Type and spacing of bus supports.
- 4. Maximum short-circuit bracing.
- 5. Circuit breaker type, interrupting, rating, trip setting.
- 6. Ratings and sizes of lugs, impedance, taps and fans.
- 7. Elementary diagrams and wiring diagrams with terminals identified and indicating the internal wiring for each item of equipment.
- 8. Manufacturer's data for all components and accessories.
- 2. Construction
 - a) The low voltage distribution section shall consist of completely enclosed, selfsupporting vertical structures bolted together to form one sheet metal enclosure. It shall be provided with front and rear channels. The ends, top and rear shall be covered with lockable handle plates not less than 12 gauge. Switchboard shall include all protective devices and equipment as listed with necessary interconnection, instrument and control wiring, terminal blocks, and mechanical

type solderless connectors for terminals.

- b) Protective devices shall have individual drawers or compartments, and necessary bus connection straps. Devices shall be modular-sized and so arranged as to be individually removable and readily interchangeable. Each device shall be provided with identification.
- c) Bus structure shall be arranged to permit future extension. It shall be mounted on insulator supports of high impact, non-tracking, high quality insulation material and adequately braced to withstand the mechanical forces exerted during short circuit conditions up to 65,000 amperes RMS symmetrical short circuit at 230 volts. Bus bars shall be silver plated copper and rated as indicated in the plan. Branch circuit bushing shall connect directly to the bus structure. All bushing shall be arranged so as not to obstruct straight in wiring to the protective devices. All bus work shall consist of sufficient copper to limit temperature to 40°C ambient temperature.
- d) Small wiring, necessary fuse blocks and terminal blocks within each vertical structure shall be furnished as needed.
- e) All hardware shall have suitable protective finish.
- f) Metal surfaces shall be chemically cleaned and treated. Chemical treatment shall provide a bond between paint and metal surfaces and help prevent entrance of moisture and formation of rust under the paint film.

Switchboard shall be completely assembled and wired at the factory. Rigid inspection before and after assembly shall assure correctness of design and workmanship. All groups of control wires leaving equipment shall be provided with terminal blocks with suitable numbering strips.

- g) Switchboard bus shall be furnished secured to each vertical structure and shall extend the entire length of the switchboard.
- h) A ground bus shall be furnished secured to each vertical structure and shall extend the entire length of the switchboard.
- i) All switchboard outgoing and incoming feeders shall be top feed.
- j) Engraved metal nameplates shall be provided for each device. The letters or numerals on the nameplate shall be a minimum of 10 mm in height, with light colored, enameled characters on a dark background. The legend on the strips shall be so composed as to clearly indicate the name of the feeder and/or panelboard and/or equipment served by the protective devices, etc.

- 3. Circuit Breakers
 - a) All main breakers shall be power breakers, electrically and mechanically operated with ground fault protection. Rating as shown in the riser diagram.
 - b) All feeder breakers shall be fixed type circuit breaker. Rating as shown in the riser diagram.
 - c) All power breakers shall be provided with adjustable continuous ampere setting, adjustable long time delay setting, adjustable short time delay pick-up, adjustable instantaneous pick-up and adjustable ground fault pick-up as shown in the plans.
 - d) All circuit breakers shall be 3-pole unless noted otherwise on plans, rated 25,000 A RMS symmetrical minimum interrupting rating, at 230 volts with trip ratings as shown in the riser diagram.
- K. Automatic Transfer Switch
 - 1. An automatic transfer switch (ATS) shall be provided and shall be coordinated with manufacturer of the stand by AC power generator to maintain system compatibility for the complete standby power system.
 - 2. The transfer switch shall be freestanding type suitable for use on all type of loads ATS shall be installed in-line with the normal low voltage switchboard and emergency low voltage switch as shown in the plan, and connected to the main buses of switchboards.
 - 3. All accessories and equipment shall be front accessible for ease of maintenance or removal.
 - 4. Components of the operating mechanism shall be insulated or electrically dead.
 - 5. Components of linkage and handles in operating mechanism shall be ruggedly constructed and not subject to deterioration.
 - 6. Transfer switch shall be withstood, closing and interrupting ratings sufficient for the voltage employed and the available short circuit at the point of application.
 - 7. Automatic Transfer Switch (ATS) shall be breaker type, power breaker, draw-out type, mechanically and electrically interlocked rated as shown in the plan 230 volts, 3 phase, 3-wire, 25 KA symmetrical at 230 volts interrupting capacity.
 - 8. The following operation shall be controlled by the ATS.

- a) Upon loss of normal power or phase failure, ATS shall immediately automatically start the engine-generator set after time delay of 10 seconds the ATS shall automatically transfer loads from normal to standby supply. Timer shall be adjustable.
- b) Upon return of normal power, while loads are on standby supply, the ATS shall maintain supply such emergency loads from the engine generator set for a duration of 60 seconds after which the normal supply is continuous, the ATS shall transfer emergency loads back to normal power. If the normal power fails again, within 60 seconds duration, no transfer shall be effected.
- c) After transferring to normal power, the diesel generator set shall be stopped automatically after a time delay of 10 to 15 minutes.
- d) The ATS shall be provided with capability for testing purposes by simulating power failure condition. selector switch will be provided for ENGINE TEST, SYSTEM and TRANSFER TEST, and READY conditions.
- e) ATS circuit breaker devices shall be capable of being operated manually.
- f) The ATS shall be provided with auxiliary dry contacts(4-N.O., 4-N.C.)

PART 3.00 – EXECUTION

3.1 INSTALLATION

A. GENERAL REQUIREMENTS

Electrical installations shall conform to the requirements of the Code and to the requirements specified herein.

B. WIRING METHODS

Wiring method shall be insulated conductors installed in conduit, except where specifically indicated or specified otherwise, or required by the code to be installed otherwise. An insulated equipment grounding conductor shall be provided in all branch circuits, including lighting circuits.

C. CONDUIT INSTALLATIONS

Unless indicated otherwise, conceal, conduit within finished walls and floor. Install conduit panel parallel with or at right angles to ceilings, walls and structural members where located above accessible ceilings and where conduit will be visible after completion of project.

- 1. Where conduits rise through floor slabs the curved portion of bends shall not be visible
- 2. Conduit Suppor

Support conduit by pipe straps, wall brackets, hangers or ceiling trapeze. Fasten by machine screws, welded threaded studs, or spring-tension clamps on steelwork. Do not weld conduits or pipe straps to steel structures. The load applied to fasteners shall not exceed one-fourth of the proof test load. In partitions of light steel construction, use sheet-metal screws.

- 3. Make changes in direction of runs with symmetrical bends or cast-metal fittings. Make field-made bends and offsets with a hickey or conduit-bending machine. Do not install crushed or deformed conduits. Avoid trapped conduits. Prevent plaster dirt, or trash from lodging in conduits, boxes, fittings, and equipment during construction. Free clogged conduits of all obstruction.
- 4. Install pull wires in empty conduits in which wire is to be installed. The pull wire shall be in 2 mm² (No. 14AWG) zinc-coated steel or plastic having not less than 90 kilogram (200 pound) tensible strength. Leave not less than 300 mm of slack at each end of the pull wire.
- 5. Conduit Installed in Concrete Floor Slabs:

Locate so as not to adversely affect the structural strength of the slabs. Install conduit within the middle one-third of the concrete slab. Space conduits horizontally shall not closer than three diameters except at cabinet locations. Curved portions of bends shall not be visible above the finish slab. Where embedded conduits cross expansion joints, provide suitable watertight expansion fittings and bonding jumpers. Conduit larger than 25 mm trade size shall be parallel with or at right angles to the main reinforcement; when at right angles to the reinforcement, the conduit shall be close to one of the supports of the slab.

6. Fasten conduits to sheet metal boxes and cabinets with two locknuts where required by the Code, where insulated bushings are used, and where bushings cannot be brought into firm contract with the box; otherwise, use at least a single locknut and bushing. Locknuts shall be the type with sharp edges for digging into the wall of metal enclosure. Install bushings on the ends of conduits and provide insulating type where required by Code.

7. Flexible connections of short length (maximum of 1.828m) shall be provided for lighting fixtures. Liquid-tight flexible conduit shall be used in wet locations. A separate ground conductor shall be provided across flexible connections.

D. BOXES, OUTLETS AND SUPPORTS

Provide boxes in the wiring or systems wherever required for pulling of wires, making connections, and mounting of devices of fixtures.

Boxes for metallic raceways shall be of the cast-metal hub type when located in normally wet locations, when surface mounted on outside of exterior surface, when installed exposed up to 2 m above interior floors and walkways, and when installed in hazardous areas. Boxes in other locations shall be sheet steel. Each box shall have the volume required by Code for the number of conductors enclosed in the box. Boxes for mounting lighting fixtures shall be not less than 100 mm square (or octagonal), except that smaller boxes may be installed as required by fixture configurations, as approved. Provide gaskets for cast-metal boxes installed in wet locations and boxes installed flush with the outside of exterior surfaces. Fasten boxes and supports with machine screws or welded stubs on steelwork. In open overhead spaces, cast boxes threaded to raceways need not be separately supported except where used for fixture support: support sheet metal boxes directly from the building structure or by bar hangers. Where bar hangers are used, attach the bar to raceways on opposite sides of the boxes and support the raceway with an approved type fastener not more than 600 mm from the box.

1. Boxes for use with raceway systems shall not be less than the minimum size required by Code of code-gage aluminum or galvanized sheet steel, except where cast-metal boxes are required in locations specified above. Furnish boxes with common pull box; tag the feeders to indicate clearly the electrical characteristics, circuit number, and panel designation.

E. MOUNTING HEIGHTS

Mount panelboards, circuit breakers and disconnecting switches so that the height of the operating handle at its highest position will not exceed 2 m from the floor. Mount lighting switches 1.37 m above finished floor, receptacles 0.30 m above finished floor, wall switches 1.4 m above finished floor, intercom 1.4 m above finished floor. Measure mounting heights of wiring devices and outlets to the center of device or outlet.

F. CONDUCTOR IDENTIFICATIONS

Provide conductor identification or tagging indicating its load or panel serve within each enclosure or pull boxes where a tap, splice or termination or cable pulling is made.

G. SPLICES

Make splices in accessible locations. Make splices in conductors 5.5 mm^2 and smaller with an insulated pressure type connector (wire nut). Make splice in conductors 8 mm^2 and larger with a solderless connector and cover with an insulation material equivalent to the conductor insulation or as indicated in the plan.

H. COVER AND DEVICE PLATES

Install with all four edges in continuous contract with finished wall surfaces without the use of mats or similar devices. Plaster fillings will not be permitted. Plates shall be installed with an alignment tolerance of 1.5 mm. The use of sectional type device plates will not be permitted. Plates installed in wet locations shall be gasketed.

I. GROUNDING AND BONDING

Ground all exposed non-current-carrying metallic parts of electrical equipment, metallic raceway systems and neutral conductor of wiring systems. Make ground connection at the main service equipment or grounding grid. Make ground connection to buried ground rods on the exterior of the building or as shown in the plan.

1. Grounding Conductor:

Provide as insulated, green-colored equipment grounding conductor in all feeder and branch circuits.

2. Resistance:

The maximum resistance to ground of the grounding system shall not exceed 25 ohms under normally dry conditions. Where the resistance obtained exceeds 25 ohms, contract the Engineer for further instructions.

J. FIELD TESTS

The Contractor shall provide all test equipment and personnel and submit written copies of all test results. As an exception to requirement that may be stated elsewhere in the Contract, the Engineer shall be given 5 working days notice prior to each test.

1. Devices Subject to Manual Operation:

Each device subject to manual operations shall be operated at least five times, demonstrating satisfactory operation each time.

2. Test on 600-Volt Wiring:

Test all 600-volt wiring to verify that no short circuits or accidental ground exist. Perform insulation resistance tests on all wiring 14 mm^2 and larger using an instrument which applies a voltage of approximately 500 volts to provide a direct reading of resistance; minimum resistance shall be 250,000 ohms.

3. Grounding System Test:

Test the grounding system to assure continuity and the resistance to ground is not excessive. Test ground wire for resistance to ground. Make resistance measurements in normally dry weather, not less than 48 hours after rainfall. Submit written results of each test to the Engineer and indicate the resistance and soil conditions at the time

the measurements were made.

DIVISION 16 : ELECTRICAL

SECTION 16060

LIGHTING SYSTEM

PART 1.00 – GENERAL

1.1 GENERAL REQUIREMENTS

- A. Section 16000 "Electrical General Requirements", applies to this section, with the additions and modifications specified herein.
- B. Description of Work :

The work includes providing and installing luminaires and auxiliaries for enterior use as indicated in the plan

C. Lighting fixtures for enterior use shall be as indicated in the drawings.

1.2 SUBMITTAL

A. MANUFACTURER'S DATA

When data that describe more than one type, size, model, or item is submitted, clearly mark the data to indicate which type, size, model or item is being provide. Data shall be sufficient to show conformance to specified requirements.

B. SHOP DRAWINGS

Include dimensions, accessories, installation and construction details.

PART 2.00 – PRODUCTS

2.1 LUMINAIRES

Provide luminairies complete with lamps of the number, type and wattage as indicated in the Fixture Schedule.

A. LAMPS

Provide the type and wattage as indicated.

B. BALLAST FOR HIGH INTENSITY – DISCHARGE LUMINAIRES

Shall be constant wattage automatic transformer or regulator, high power factor type. Ballast shall be design to operate on the voltage system to which they are connected.

PART 3.00 – EXECUTION

3.1 INSTALLATION

Shall be in accordance with the Code and requirements specified herein or indicated in the drawings.

3.2 GROUNDING

Ground noncurrent-carrying shall parts of equipment in accordance with the Code.

: ELECTRICAL

SECTION 16100

GROUNDING SYSTEM

PART 1.00 – GENERAL

- A. The Contractor shall furnish and install complete grounding system as shown in the drawings.
- B. Grounding system shall include ground wires, ground rods, clamps, connectors, grounding buses, ground wells and auxiliary ground wire taps as shown in the drawings.
- C. Equipment Grounding:

The grounded neutrals of the secondary distribution system shall be supplemented by an equipment grounding system to properly safeguard the equipment and personnel. The equipment grounding system shall be installed so that all metallic structures, enclosures, raceways, junction boxes, outlet boxes, cabinets, machine frames, portable equipment and other conductive items in close proximity with electrical circuits operate continuously at ground potential and provide a low impedance path for possible ground fault currents. The systems shall comply with the Philippine Electrical Code, modified as indicated on the drawings and/or as specified.

1.1 SUBMITTALS

A. MANUFACTURER'S DATA

- 1. Ground Rods
- 2. Ground Clamps
- 3. Ground Wires
- 4. Connectors

PART 2.00 – PRODUCTS

2.1 GROUND WIRE

Shall be bare copper stranded, with sizes as shown in the drawings and shall be of cylindrical form and variation shall be within 1% of the actual size called for:

2.2 GROUND BUS

Ground bus shall be solid copper with size as indicated in the drawing.

2.3 GROUND RODS

Shall be copperclad steel with a diameter of 20 mm by 300 mm long unless otherwise specified

2.4 GROUND CLAMPS AND CONNECTORS

Shall be soldersless compression or bolted type and shall be bronze

PART 3.00 - EXECUTION

- A. Location of ground rods and ground wells are shown on the plans.
- B. The main transformer, generator set and switchboard shall be connected to the grounding system as shown on the plans.
- C. Test the grounding system to assure continuity and the resistance to ground is not excessive. Make resistance measurements in normally dry weather, not less than 48 hours after rainfall. Submit written results of each test to the Engineer for approval.

ELECTRICAL

SECTION 16720

FIRE DETECTION AND ALARM SYSTEM

PART 1.00 – GENERAL

1.1 General Requirements

The work includes furnishing of labor, materials, tools and equipment necessary for and incidental to the installation of a complete for operation and usable standard system conforming to the applicable requirements of NFPA except as modified herein. Materials and equipment to be furnished under this Contract shall be essentially the current design products of one manufacturer regularly engaged in the production of such equipment.

- A. The system shall be a zone addressable closed circuit, electronically-supervised, noncoded, Fire Detection and Alarm System capable of control and monitoring 800 minimum addressable points.
- B. The system shall include but not limited to Fire Alarm Control Panel (FACP) with trouble buzzer and lights, manual stations, alarm speaker with strobe light, automatic detectors, interface, addressable modules, stand-by batteries , telephone and emergency voice evacuation system.
- C. The system shall be wired as Conventional System throughout. Wiring between Bells and Manual Station preferable with three (3) pairs of wires.
- D. The system shall comply with the applicable provisions of NFPA, local building codes, and meet all the requirements of the local code enforcing authorities. The system shall be listed labeled or approved by Underwriter's Laboratories, Inc.
- E. Installation of the system shall be governed by the provisions of the latest edition of the Philippine Electrical Code and existing rules and regulations of the locality and other governing agencies.
- F. All materials and equipment to be furnished shall be essentially the standard products of a single manufacturer regularly engaged in the production of such equipment.

Submittals shall be a complete set; partial submittals are not acceptable. Six copies of complete submittals shall be provided. Items for which the submittal; "ELECTRICAL GENERAL

REQUIREMENT'S" apply are as follows:

A. Manufacturer's Data

Each items supplied shall be clearly identified on each sheet.

- 1. Fire Alarm Bell with strobe light
- 2. Manual Pull Station
- B. Shop Drawings
 - 1. Point to point wiring diagrams showing the points of connection and terminals used for all electrical field connection in the system.
 - 2. Installation drawings showing locations and layout of all fire alarm equipment, electrical power supply panels, wiring counts and conduit runs from the control to all associated equipment.
- C. Operation and Maintenance Manuals: All System Components

Operating instructions shall include thorough training procedures and recommended testing frequency for each item. Maintenance instructions shall include complete trouble-shooting manuals.

D. As-Built Drawings

As built drawings shall show installed conduits and exact locations of all installed equipment.

ROOFING WORKS

- 13.1. Roofing sheet should be rib-type pre-painted long span 0.4 mm thick unión Brand or approved equal.
- 13.2. Flashing gutter, flashing, ridge roll, and valley roll should be made up of GI prepainted sheet 0.4 mm thick unión Brand or approved equal.
- 13.3. Provide sealant/elastoseal to all screws, flashing, rigde roll and valley roll.
- 13.4. Provide 2" x 4" C-purlins 1.2 mm thick and 2" x 7" C-purlins 1.2 mm thick for facia board
- 13.5. Provide ¹/₄ x 2" x 2" angle bar (double) for top chord and bottom chord of steel trusses.
- 13.6. Provide $\frac{1}{4} \times 1 \frac{1}{2}$ " x 1-1/2" angle bar (doublé) for members of steel trusses.
- 13.7. All connections for steel trusses should be welded together.
- 13.8. All steel trusses and welded connections should be coated with metal primer.

CONCRETE WORKS

14.1. Class A mixture (1 part portland cement, 2 part sand, and 4 part gravel) for slabs in 2nd floor and landings, stairs, columns, beams, lintel beams, tie beams, column footings, wall footings, canopy and septic tank.

- 14.2. Class B mixture (1 part portland cement, 2-1/2 part sand, and 5 part gravel) for slabs in ground floor and all other concrete not mention in 14.1.
- 14.3. Cement plaster must be 1 part portland cement, and 3 part sand.

Section VII. Drawings













A7 11 SECTIONS LABORATORY ROOM ABORATORY ROOM BORATORY ROOM ABORATORY ROOM DATE: CROSS SECTION SHEET CONTENT: REVISION NO.: HALLWAY HALLWAY HALLWAY HALLWAY CLASSROOM/ LECTURE ROOM CLASSROOM/ LECTURE ROOM CLASSROOM/ LECTURE ROOM CLASSROOM/ LECTURE ROOM JAMESON H. TAN, Ed. D. COLLEGE PRESIDENT: APPROVED BY: \square \square \square \square EDWIN C. SUMAWAY, C.E. COLLECE PHONNER: +÷ + + JOHN EDWARD Y. CRUZ DIRECTOR, R.ANNING & DEVELOPMENT: +ŧ ++ ∇ ∇ LONGITUDINAL SECTION \square \square \square \square ROVED BY: DESIGNED BY: + ÷ +ŧ HALLWAY HALLWAY HALLWAY HALLWAY VETERINARY MEDICINE BUILDING WITH TRAINING LABORATORY VETERINARY MEDICINE BUILDING WITH TRAINING LABORATORY REMARDM. 544 1.0EF0450, BUILDAN + + + + BULACAN AGRICULTURAL STATE COLLEGE \square ∇ ∇ \searrow \sum \sim \searrow IECT AND LOCATION: яля назволя THERD FLR BUR GNOORS BEROUND FLR 5 표망 ES Ш ii li




























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.

ITEM	DESCRIPTION	UNIT	QTY	PHP PRICE
١.	GENERAL REQUIREMENTS			TRICL
	Plans & Design	Lot	1	
	Permits & Licenses	Lot	1	
	Temporary Facilities	Lot	1	
	Power and Water Consumption	Lot	1	
	Construction Safety and Health	Lot	1	
П.	SITE WORKS			
	Clearing, Lay-out and grubbing	Lot	1	
	Excavation	Cu.m.	375.7	
	Gravel beddings	Cu.m.	61.91	
	Filling Materials (base course)	Cu.m.	195	
	Embankment	Cu.m.	504.4	
- 111.	CONCRETE WORKS	Cu.m.	618.8	
IV.	MASONRY WORKS			
А.	CHB Laying	Sq.m.	2,447.9	
B.	Plastering	Sq.m.	4,895.9	
V.	REBARS	kgs	121,368	
VI.	FORM WORKS / SCAFFOLDINGS	Sq.m.	2,301.65	
VII.	CEILING WORKS	Sq.m.	604.8	
VIII.	ROOF FRAMING WORKS	Sq.m.	459	

BILL OF QUANTITIES

IX.	TINSMITHRY	Sq.m.	459	
Х.	ARCHITECTURAL WORKS			
Α.	Doors including jamb and accessories	lot	1	
В.	Windows including grills and accessories	lot	1	
С.	Stainless railings	lot	1	
D.	Countertop Cabinets	lot	1	
XI.	ELECTRICAL WORKS			
Α.	Wires and cables	lot	1	
В.	Roughing ins	lot	1	
С.	Electrical devices	lot	1	
D.	fixtures	lot	1	
Ε.	Panel board & circuit breakers	lot	1	
F.	Fire detection & alarm system (FDAS)	lot	1	
G.	Voice & data system	lot	1	
XII.	PAINTING WORKS	lot	1	
XIII.	PLUMBING WORKS			
Α.	Plumbing Fixtures	lot	1	
В.	Sewer Lines	lot	1	
С.	Water Lines	lot	1	
D.	Septic Tank	lot	1	
XIV.	TILE WORKS	Sq.m.	2,127	
XV.	MECHANICAL WORKS			
	Exhaust fan wall mounted, booster pump w/ control,	Lot	1	
	valves & pipe fitting			
	TOTAL PRICE			

I hereby certify to comply with all the above technical specifications as per prices quoted in the Bill of Quantities.

Name of Company/Bidder

Signature over Printed Name of Representatives

Date

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);
 or
- (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
- (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

- (f) 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; <u>and</u>
- (g) 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
- (h) Philippine Contractors Accreditation Board (PCAB) License;

<u>or</u>

Special PCAB License in case of Joint Ventures;

and registration for the type and cost of the contract to be bid; and

Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;

<u>or</u>

?

?

?

Original copy of Notarized Bid Securing Declaration; and

- (j) 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**
- (k) 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

- In 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
- (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

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

(o) Original of duly signed and accomplished Financial Bid Form; <u>and</u>

Other documentary requirements under RA No. 9184

- (p) Original of duly signed Bid Prices in the Bill of Quantities; and
- (q) Duly accomplished Detailed Estimates Form, including a summary sheel indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and
- $(r) \quad Cash Flow by Quarter.$

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date : _____

Project Identification No. : _____

To: [name and address of Procuring Entity]

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract];*
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;
- d. The discounts offered and the methodology for their application are: [insert information];
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties],* which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines² for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].

² currently based on GPPB Resolution No. 09-2020

1. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name:
Legal Capacity:
Signature:
Duly authorized to sign the Bid for and behalf of:

Date: _____

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Contract Agreement Form

THIS AGREEMENT made the _____ day of _____ 20____ between [name of PROCURING ENTITY] of the Philippines (hereinafter called "the Entity") of the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called "the Supplier") of the other part:

WHEREAS the Entity invited Bids for certain goods and ancillary services, viz., [brief description of goods and services] and has accepted a Bid by the Supplier for the supply of those goods and services in the sum of [contract price in words and figures] (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

- (a) the Supplier's Bid, including the Technical and Financial Proposals, and all other documents/statements submitted (*e.g.* bidder's response to clarifications on the bid), including corrections to the bid resulting from the Procuring Entity's bid evaluation;
- (b) the Schedule of Requirements;
- (c) the Technical Specifications;
- (d) the General Conditions of Contract;
- (e) the Special Conditions of Contract;
- (f) the Performance Security; and
- (g) the Entity's Notice of Award.

3. In consideration of the payments to be made by the Entity to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Entity to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The Entity hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the time and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of the Republic of the Philippines on the day and year first above written.

Signed, sealed, delivered by ______ the _____ (for the Entity)

Signed, sealed, delivered by ______ the _____ (for the Supplier)

[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES)

CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. [Select one, delete the other:]

[*If a sole proprietorship:*] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. [Select one, delete the other:]

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

- 3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
- 6. [Select one, delete the rest:]

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and

the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

- 7. [Name of Bidder] complies with existing labor laws and standards; and
- 8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
- 9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Bid Securing Declaration Form

[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)

CITY OF ______) S.S.

BID SECURING DECLARATION

Project Identification No.: [Insert number]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
- 2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f),of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
- 3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this _____ day of [month] [year] at [place of execution].

[[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat] [Format shall be based on the latest Rules on Notarial Practice]

NET FINANCIAL CONTRACTING CAPACITY

		Year 20
1	Total Assets	
2	Current Assets	
3	Total Liabilities	
4	Current Liabilities	
5	Net Worth (1-3)	
6	Net Working Capital (2-4)	

The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = [(Current assets – current liabilities) (15)] minus value of all outstanding or uncompleted portions of the projects under ongoing contracts including awarded contracts yet to be started coinciding with the contract to be bid.

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements submitted to the BIR.

NFCC = PhP

Submitted by:

Name of Bidder

Signature of Authorized Representative over Printed Name

Date: _____

