PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Design and Build for the Modernization of Nutrition and Dietetics Building (2024-27)

Government of the Republic of the Philippines

Sixth Edition
July 2020

Preface

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

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

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

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

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

a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.

b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.

c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.

d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.

f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms

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.

Invitation to Bid for Design and Build for the Modernization of Nutrition and Dietetics Building

1. The **Mariveles Mental Wellness and General Hospital**, through the **Government Appropriation Act of 2024/HFEP SAA 2024-02-000226** intends to apply the sum of **Forty-Five Million Pesos Only (P45,000,000.00**) being the Approved Budget for the Contract (ABC) to payments under the contract for **Design and Build for the Modernization of Nutrition and Dietetics Building / 2024-27**. Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The **Mariveles Mental Wellness and General Hospital** now invites bids for the above Procurement Project. Completion of the Works is required **240 calendar days**. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Interested bidders may obtain further information from **MMWGH** and inspect the Bidding Documents at the address given below from M-F; 8am-5pm, except holidays.

5. A complete set of Bidding Documents may be acquired by interested bidders on **October 9 – 28, 2024** 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 **Php25,000.00**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person.

6. The **MMWGH** will hold a Pre-Bid Conference on **October 17, 2024 at 10:30AM** at the given address below and/or through videoconferencing/webcasting *via Zoom*, which shall be open to prospective bidders.

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated below on or before **October 29, 2024 at 10:30AM.** 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 **October 29, 2024 at 10:30AM** at the given address below and/or via *Zoom.* Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. The **MMWGH** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections

35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

    MARY RODELINE M. CASUAYAN
    BAC Secretariat
    Procurement Unit
    Mariveles Mental Wellness and General Hospital
    P. Monroe Street, Poblacion, Mariveles, Bataan
    Email Address: **procurement@mmwgh.gov.ph**
    Website: **www.mmwgh.com**
    Contact No.: +639-688545320

12. You may visit the following website(s):

    For downloading of Bidding Documents: **https://mmwgh.com/invitation-to-bid/**

Date of Issue: October 9, 2024

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RELIA I. VILLEGAS, RN, MAN, Ed. D.
Chairperson, BAC

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

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

1. Scope of Bid

The Procuring Entity, **Mariveles Mental Wellness and General Hospital** invites Bids for the **Design and Build for the Modernization of Nutrition and Dietetics Building**, with Project Identification Number **2024-27.**

[Note: The Project Identification Number is assigned by the Procuring Entity based on its own coding scheme and is not the same as the PhilGEPS reference number, which is generated after the posting of the bid opportunity on the PhilGEPS website.]

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

2. Funding Information

2.1. The GOP through the source of funding as indicated below for ***2024*** in the amount of **Forty-Five Million Pesos Only (P45,000,000.00)**

2.2. The source of funding is:

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

3. Bidding Requirements

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

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

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

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or

through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

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

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

5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

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

7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

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 and either at its physical address and/or through videoconferencing/webcasting *via Zoom* 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 **February 26, 2025**. 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 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 or through online submission 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**.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

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

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

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

a. Information that specifies and complements provisions of the ITB must be incorporated.

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

Bid Data Sheet

<table>
<tr><td>ITB Clause</td><td colspan="3"></td></tr>
<tr><td>5.2</td><td colspan="3">For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:
Design and Build Projects</td></tr>
<tr><td>10.4</td><td colspan="3">The key personnel must meet the required minimum years of experience set below:</td></tr>
<tr><td></td><td colspan="3"><table>
<tr><td><u>Key Personnel</u></td><td><u>General Experience</u></td><td><u>Relevant Experience</u></td></tr>
<tr><td colspan="3">For the Pre-Detailed Design and Detailed Design portion of the contract, the Bidder is required to have required to enter into a joint venture agreement with an architectural firm that will design the project with the minimum number of professional as shown below:</td></tr>
<tr><td>Design/Principal Architect</td><td>At least 10 years of experience managing hospital projects, including designing and optimizing specialty rooms like psychiatric wards, ensuring safety, regulatory compliance, and enhancing patient care environments.</td><td>Licensed Architect.</td></tr>
<tr><td>Junior Architect</td><td>At least 5 years of experience.</td><td>Licensed Architect.

Proficient in AutoCAD Software.</td></tr>
<tr><td>Structural / Civil Engineer</td><td>At least 10 years of experience in structural design of medium-rises structures, typically 4 to 10 floors, serve residential and commercial uses, enabling denser urban development with elevators becoming standard.</td><td>Licensed Structural / Civil Engineer.

Proficient in AutoCAD Software.</td></tr>
<tr><td>Professional Electrical Engineer</td><td>At least 10 years experience.</td><td>Licensed Professional Electrical Engineer (PEE).

Proficient in AutoCAD Software.</td></tr>
</table></td></tr>
</table>

Professional Mechanical Engineer	At least 10 years experience.	Licensed Professional Mechanical Engineer (PME). Proficient in AutoCAD Software.
Sanitary Engineer	At least 10 years experience.	Licensed Professional Sanitary Engineer (PSSE). Proficient in AutoCAD Software.
Professional Electronics Engineer	At least 10 years experience.	Licensed Professional Electronics Engineer (PECE). Proficient in AutoCAD Software.
CADD Operator (one for Architecture and one for each engineering specialty)	At least 5 years in experience.	Has a Bachelor's Degree in Architecture and Engineering. Proficient in AutoCAD Software.
Others as required for the project.	The bidder is required to prioritize the hiring of locally-based architects, engineers, and draftsmen especially if such have had experience and training in health facilities projects and designs.	
For the construction portion of the contract, the Bidder must assign to project professional as shown below:		
Project Manager	At least 10 years of construction management experience, overseeing project planning, coordination, budget control, and timely execution.	Licensed Engineer or Architect.
Project Engineer	At least 5 years of construction management experience, overseeing project planning, coordination, budget control, and timely execution.	Licensed Civil Engineer

	Project Architect	At least 5 years of construction management experience, overseeing project planning, coordination, budget control, and timely execution.	Licensed Architect
	Materials Engineer		Licensed Engineer. DPWH Accredited
	Construction Safety Officer	Must execute an undertaking that safety officer/s shall be present during the construction phase.	Licensed Engineer/Architect. DOLE accredited/trained.
	Quality Assurance / Quality Control Officer		Licensed Architect/Engineer. DOLE accredited/trained.
	Electrical Engineer	At least 5 years of experience.	Licensed Electrical Engineer.
	Sanitary Engineer	At least 5 years of experience.	Licensed Sanitary Engineer.
	Mechanical Engineer	At least 5 years of experience.	Licensed Mechanical Engineer.
	Electronics Engineer	At least 5 years of experience.	Licensed Electronics Engineer.

10.5 The minimum major equipment requirements are the following:

Equipment	Capacity	Number of Units
Backhoe with attachment	Minimum	1
Dump truck	Minimum	1
Generator Set	Minimum	1
Truck Mounted Crane	Minimum	1
Concrete Vibrator	Minimum	1
Plate compactor	Minimum	1
Welding Machine	Minimum	1
One Bagger Concrete Mixer/Transit Mixer	Minimum	1
Drill Hammer	Minimum	1

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 P 900,000.00, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than P 2,250,000.00 if bid security is in Surety Bond.
20	- Category: Category B for Medium A – PCAB License - Building Permit prior to start of actual construction activities - Occupancy Permit before turn-over of the building to the Procuring Entity.
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 other acceptable tools of project scheduling

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

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

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

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

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

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

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 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	**Design Phase –** 30 calendar days after receipt of Notice to Proceed. **Construction Phase** – 210 calendar days upon approval of DAED.
4.1	***Site is ready for Construction.***
6	The site investigation reports are: **Site inspection and verification**.
7.2	**Fifteen (15) years.**
10	No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative 30 days after receipt of NTP.
11.2	The amount to be withheld for late submission of an updated Program of Work is ***P50,000.00.***
13	The amount of the advance payment ***not exceed 15% of the total contract price.***
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.

Section VI. Specifications

Notes on Specifications

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

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

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

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

Sample Clause: Equivalency of Standards and Codes

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

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

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

DESIGN AND BUILD
FOR THE MODERNIZATION OF
NUTRITION AND DIETETICS BUILDING

TERMS OF REFERENCE
DESIGN & BUILD SERVICES

GENERAL PROJECT DESCRIPTION

I. INTRODUCTION

A. Background and Rationale:

Under Republic Act No. 11288, An Act Increasing the Bed Capacity of the Mariveles Mental Hospital in Mariveles, Bataan, from Five Hundred (500) Beds to Seven Hundred (700) Beds, Upgrading its Services, to Include the Operation of a Level 1 General Ward with One Hundred (100)-Bed Capacity, to be known as the Mariveles Mental Wellness and General Hospital and Appropriating Funds Therefore, signed into law on April 12, 2019, by President Rodrigo R. Duterte, this hospital has the mandate to increase its 500 authorized bed capacity for psychiatry cases to 700.

This year, the Health Facility Enhancement Program (HFEP) of the Department of Health allotted the amount of One-Hundred Million Pesos (Php100,000,00.00) to continue the construction of the General Hospital. However, the Department of Public Works and Highways and the contractor encountered delays during implementation of the project. Anent to this, we consulted the HFEP on how we can utilize the 100M sub-allotment. Upon discussion, the HFEP concurred with our proposal to use portion of the budget for upgrading and modernizing our Nutrition and Dietetics building.

B. Objectives

The Mariveles Mental Wellness and General Hospital has the mandate to increase its 500 authorized bed capacity for psychiatry cases to 700 which intended to improve the delivery of specialized health services through the rationalization and critical upgrading of health facilities.

The 2024 Infrastructure Project of Mariveles Mental Wellness and General Hospital will achieve the following major objectives:

1. To modernize the NDU building with state-of-the-art facilities.
2. To expand services of MMWGH to fulfill its role as Mental Health Advanced Center.

II. PROJECT REQUIREMENTS

A. Preliminary Information/Studies for Design.

III. PROJECT COMPONENTS

Site and space planning were governed by the standards, rules and regulations on the design of hospital as prescribed by the Department of Health and other concerned agencies. Building design shall conform to the provisions of the National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), Mechanical Engineering Law (RA 5336), Plumbing Code (RA 1378, 1993-1994 Revisions), Fire Code (RA 9514), Code on Sanitation PD 856, Philippine Green Building Code, and other laws and regulations covering environmental concerns and local ordinances and regulations.

DOH-ADMINISTRATIVE ORDER 2020-0011

Guidelines in the Implementation of the Unified Color, Signage Features, and Design of Identified Interior Spaces for Health Facilities Enhancement Program (HFEP)-funded and coordinated Health Facilities and Medical Transport Vehicles.

All health facilities, regardless of the scope of work, funded by and coordinated through HFEP, shall strictly follow the Unified Colors, Signage Features, and Design of Identified Interior Spaces prescribed in this Order.

A. Pre-Detailed Design

1. Engineering Surveys and Investigations
   - 1.1 Surveys and investigations of the site includes boundaries of the property, elevations and contours (at 0.5m interval), location, dimension, floor elevations and other pertinent data on existing buildings and improvements (roads, parking areas, mature trees) and existing utility lines (e.g. water, power, telephone).
   - 1.2 Soil tests have been conducted.
   - 1.3 Topographic survey
2. Design Development Drawings
   - 2.1 Preparation of the following drawings for design development based on the approved schematic plans prepared by the DOH/ MMWGH
     - 2.1.1.1 Perspective View
     - 2.1.1.2 Floor plans, two (2) sections and four (4) elevations, including complete space allocation.

B. Detailed Design Preparation of the following Detailed Design Drawings (see DOH Checklist of Drawings Requirements) based on the Design Development Drawings and Design Parameters including any revisions and refinements as approved and required by the DOH/ MMWGH.

a. Detailed Architectural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
b. Detailed Structural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
c. Detailed Electrical Plans (refer to Checklist of Drawings Requirements and Design Parameters).
d. Detailed Electronic and Communication plans (refer to Checklist of Drawings Requirements and Design Parameters)
e. Detailed Storm Drain, Sanitary and Plumbing Plans (refer to Checklist of Drawings Requirements and Design Parameters).
f. Detailed Mechanical Plans (refer to Checklist of Drawings Requirements and Design Parameters).
g. Structural Computations, including Soil Boring Test Results and Seismic Analysis and Electrical Design Computations.
h. General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
i. Detailed Bill of Quantities, Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.

C. Construction Work

- As a rule, contract implementation guidelines for procurement of infrastructure projects shall comply with Annex “E” and guidelines for the implementation of

contracts for DESIGN AND BUILD infrastructure projects shall comply with Annex "G" of IRR, RA 9184. The following provisions shall supplement these procedures:

1. No works shall commence unless the contractor has submitted the prescribed documentary requirements and the DOH/MMWGH has given written approval. Work execution shall be in accordance with reviewed and approved documents.
2. The contractor shall be responsible for obtaining all necessary information as to risks, contingencies and other circumstances which may affect the works and shall prepare and submit all necessary documents specified by the concerned Building Officials to meet all regulatory approvals as specified in the contract documents.
3. The contractor shall submit a detailed program of works within fourteen (14) calendar days after the issuance of the Notice to Commence for approval by the procuring entity that shall include, among others:
    a. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
    b. Periods for review of specific outputs and any other submissions and approvals;
    c. Sequence of timing for inspection and tests;
    d. General description of the design and construction methods to be adopted;
    e. Number and names of personnel to be assigned for each stage of the work;
    f. List of equipment required on site for each stage of the work; and
    g. Description of the quality control system to be utilized for the project.
4. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the contractor wishes to modify the design or document which has been previously submitted, reviewed and approved, the contractor shall notify the DOH/MMWGH within a reasonable period of time and shall shoulder the cost of such changes.
5. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
    a. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the DOH/MMWGH.
    b. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the DOH/MMWGH performance specifications and parameters, the contractor shall be entitled to either one of the following:

1. An extension of time for any such delays under Section 10 of Annex "E" of IRR (RA 9184); or
2. Payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original project cost.

c. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installments in which the contract will be paid.
d. The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex "E", IRR (RA 9184).
e. The DOH/MMWGH shall define the quality control procedures for the design and construction in accordance with the DOH guidelines and shall issue the proper certificates of acceptance for sections of the works or whole of the works as provided for in the contract documents.
f. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.
g. This design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice to the liabilities imposed upon the engineer/architect who drew up the plans and specification for building sanctioned under Section 1723 of the New Civil Code of the Philippines.
h. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty period of 15 years for permanent structures/buildings as specified in Section 62.2.3.2 of the IRR (RA 9184).

- The assigned project engineer or the assigned representative of the contractor must attend the weekly coordination meeting to present project status reports, including the following item and in standard format:

a. Page one content:
   i. Name of facility
   ii. Project description
   iii. Location
   iv. Contract Amount
   v. Contractor
   vi. Date of presentation
   vii. Presentation number
b. Page two content:
   i. Date of issuance of permits and other related documents.
   ii. Progress S-curve and Construction schedule (planned and actual schedule)
   iii. Two weeks look ahead to schedule catch-up plans with drawing
   iv. Site photos with description and remarks.
c. Page three content (tabular format):

i. 1st column – description of the problem encountered on site
ii. 2nd column – remarks of the contractor
iii. 3rd column – action taken/ proposal

- Any errors, omissions, inconsistencies, inadequacies, or failures submitted by the contractor that does not comply with the requirements shall be rectified, resubmitted, and reviewed at the contractor's cost.
- If the contractor wishes to modify the design or document which has been previously submitted, reviewed and approved, the contractor shall submit a formal letter to the Office of the Medical Center Chief of DOH/MMWGH through the Chief Administrative Officer and Hospital Engineer of MMWGH.

IV. IMPLEMENTATION ARRANGEMENT

- Reporting Protocol

Contact Persons:

Dennis Dayao L. Ordoña, MD
Medical Center Chief II

Vincent A. Isip, MPA
Chief Administrative Officer

Melvin Jan A. Yabut, CE, MPA
Engineer IV

DETAILED PROJECT REFERENCE

V. ELIGIBILITY REQUIREMENTS:

A. Basic

1. The eligibility requirements for Design Scheme shall comply with the applicable provisions of Section 12.1 (a) of the ITB and 12.1 (a) of the Bid Data Sheet (BDS) of this bidding document.
2. A modified set of requirements integrating eligibility documents and criteria for infrastructure projects and consulting services shall be adopted in accordance with Annex G - Guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects Annex "G" of IRR of RA 9184
4. The Design Build Contractor must have completed a similar project in the amount of at least fifty percent (50%) of the ABC. For this project, a similar project will be defined as at least three (3) storey building with roof deck, which includes special requirements such as automatic fire sprinkler system, elevator system and communication system.

B. Specialized

B.1 For the Pre-Detailed Design and Detailed Design portion of the contract, the Bidder is required to have required to enter into a joint venture agreement with an architectural firm that will design the project with the minimum number of professionals as shown below:

1. Design/Principal Architect (1)
   a. Licensed Architect
   b. At least 10 years of experience in hospital and hospital-related projects
2. Junior Architect (2)
   a. Licensed Architect
   b. At least 5 years of experience
   c. Proficient in AutoCAD Software
3. Structural/ Civil Engineer (1)
   a. Licensed Structural/ Civil Engineer
   b. At least 10 years of experience in structural design of medium-rise structures
   c. Proficient in AutoCAD Software
4. Professional Electrical Engineer (1)
   a. Licensed Professional Electrical Engineer (PEE)
   b. At least 10 years of experience with similar project undertaken
   c. Proficient in AutoCAD Software
5. Professional Mechanical Engineer (1)
   a. Licensed Professional Mechanical Engineer (PME)
   b. At least 10 years of experience with similar project undertaken
   c. Proficient in AutoCAD Software
6. Sanitary Engineer (1)
   a. Licensed Professional Sanitary Engineer (PSSE)
   d. At least 10 years of experience with similar project undertaken
   b. Proficient in AutoCAD Software
7. Professional Electronics Engineer (1)
   e. Licensed Professional Electronics Engineer (PECE)
   f. At least 10years experience
   g. Proficient in AutoCAD Software
8. CADD Operator (4) (preferably one for Architecture and one for each engineering specialty)
   a. At least 5 years in experience
   b. Has a Bachelor's Degree in Architecture or Engineering
   c. Proficient in AutoCAD Software
9. Others as required for the project
   a. The bidder is required to prioritize the hiring of locally-based architects, engineers, and draftsmen especially if such have had experience and training in health facilities projects and design.

B.2. For the construction portion of the contract, the Bidder must assign to the project professionals as shown below:

1. Project Manager (1)

a. Licensed Engineer or Architect
b. At least 10 years of experience in construction management
c. Good oral and written communication skills

2. Project Engineer (2)
   a. Licensed Civil Engineer
   b. At least 5 years of experience in construction management
   c. Good oral and written communication skills

3. Project Architect (1)
   a. Licensed Architect
   b. At least 5 years of experience in construction management

4. Materials Engineer (1)
   a. Licensed Engineer
   b. DPWH Accredited

5. Construction Safety Officer (1)
   a. Licensed Engineer/Architect
   b. DOLE accredited/trained

6. Quality Assurance/ Quality Control Officer (1)
   a. Licensed Architect/Engineer
   b. DOLE accredited/trained

7. Electrical Engineer (1)
   a. Licensed Electrical Engineer
   b. At least 5 years of experience

8. Sanitary Engineer (1)
   a. Licensed Sanitary Engineer
   b. At least 5 years of experience

10. Mechanical Engineer (1)
    a. Licensed Mechanical Engineer
    b. At least 5 years of experience

11. Electronics Engineer (1)
    c. Licensed Electronics Engineer
    d. At least 5 years of experience

APPROVED BUDGET COST

The total approved budget cost for the Project is **Forty-Five Million Pesos (Php 45,000,000.00).**

LEVEL	AREA	AMOUNT

Ground floor	429.25	15,100,000.00
Second Floor	242.85	8,500,000.00
Third Floor	295.85	10,400,000.00
Roof Deck	295.85	6,000,000.00
Temporary NDU facility (storage, preparation, and cooking)	394.60	5,000,000.00
Project Cost		**45,000,000.00**

VI. TIME FRAME

The Design Firm/ Contractor is required to complete the Project within an indicative period as shown below, to start within 7 days upon the contractor's receipt and signing of Notice to Proceed. The time frame to be followed for the project is as follows.

ACTIVITY	DAYS											
	30	60	90	120	150	180	210	240	270	300	330	360
Pre-Detailed Design and Detailed Design	→											
Construction including Application and Issuance of Building Permit and Acceptance and Turnover		→	→	→	→	→	→	→				

VII. SCOPE OF WORKS:

1. Pre- Detailed Design
    a. Geodetic Survey of lot and structures
    b. Topographic Survey

2. Detailed Design Works
    a. Detailed Architecture and Engineering Design
        i. Modernization, Retrofitting and Upgrading of existing Nutrition and Dietetics Building into Three-Storey with Roof Deck Building
        ii. 8 sets of building plans signed and sealed by respected registered and licensed Professional:
            1. Paper size: 20" X 30"
            2. Copy Furnished of Building Plans (signed copy):
                a. 2 sets – MMWGH
                b. 5 sets – Office of the Building Official/ BFP

c. 1 set – Site copy

b. Technical Specifications
   i. 8 sets, signed and sealed by licensed Professional:
      1. Paper size: A4 Size Bond paper
      2. Copy Furnished of Building Plans (signed copy):
         a. 2 sets – MMWGH
         b. 5 sets – Office of the Building Official/ BFP
         c. 1 set – Site copy

c. Bill of Quantities and Detailed Cost Estimates
   i. 8 sets, signed and sealed by licensed Professional:
      1. Paper size: A4 Size Bond paper
      2. Copy Furnished of Building Plans (signed copy):
         a. 2 sets – MMWGH
         b. 5 sets – Office of the Building Official/ BFP
         c. 1 set – Site copy

d. Engineering Computations including Structural Analysis
   i. 8 sets, signed and sealed by licensed Professional:
      1. Paper size: A4 Size Bond paper
      2. Copy Furnished of Building Plans (signed copy):
         a. 2 sets – MMWGH
         b. 5 sets – Office of the Building Official/ BFP
         c. 1 set – Site copy

e. Detailed Summary of Works
   i. 8 sets, signed and sealed by licensed Professional:
      1. Paper size: A4 Size Bond paper
      2. Copy Furnished of Building Plans (signed copy):
         a. 2 sets – MMWGH
         b. 5 sets – Office of the Building Official/ BFP
         c. 1 set – Site copy

3. Construction Works (inclusive of Building Permits, and other licenses required.)

   General Scope: Modernization of 3-Storey with Roof Deck Nutrition and Dietetics Building, the project includes the retrofitting, upgrading and modernizing the existing NDU building and construction of temporary facility for NDU operations with complete architectural and engineering works breakdown of which is but not limited to the following:

a. Site Preparation Works
   i. Mobilization
   ii. Temporary Facilities (includes the construction of temporary storage, preparation, and cooking area at the identified location)
   iii. Temporary Utilities
   iv. Excavation Works
   v. Backfill Works
   vi. Soil Poisoning
   vii. Clearing and Grubbing, Removal of obstructions on site

b. Structural and Civil Works including ramp.

i. Foundation, beams, columns/posts, slabs, shear wall, floor and roof framing,
ii. Interior and exterior walls
iii. Floor framing
iv. Roof framing
v. Path walks
vi. Power and Pump Room
vii. Protection of existing Structures, utility systems during construction

c. Complete Architectural Works
   i. Architectural metal works
   ii. Thermal Protection, insulation, waterproofing, damp proofing and roofing
   iii. Wall, ceiling, counter finishes and accessories
   iv. Finishes for wall, ceiling, wall, counter finishes and accessories
   v. Doors and windows and fenestration (including window grills)
   vi. Painting Works

d. Complete Sanitary/Plumbing Works
   i. Fixtures, fittings and accessories
   ii. Sewer line and Vent system
   iii. Wastewater line and vent system
   iv. Cold Waterline system
   v. Storm Drainage system
   vi. Septic Tank and Lift station
   vii. Cistern Tank and Rain Water Collection Tank
   viii. Pressure Tank with Pump

e. Complete Electrical Works
   i. Power system including fixtures, fittings, devices, wires and cables
   ii. Lighting system including fixtures, fittings, devices, wires and cables
   iii. Standby/Emergency system
   iv. Panel Board and Circuit breakers
   v. Electrical Equipment
   vi. Lightning Protection System
   vii. Electric transformers sufficient to supply the whole building
   viii. Solar Panel with battery sufficient to supply the whole building
   ix. All electrical System to be tapped to existing connections.

f. Complete Communications Works
   i. Communications system including telephone system, LAN system, Public Address Paging System and Master or Cable Antenna Television
   ii. Fire Detection and Alarm System
   iii. Tapping/ connectivity to the existing system of the hospital
   iv. Security system including CCTV

CCTV Specifications:

1. **Dome Camera (Upon Design Approval)**

a. 4MP Fixed Dome Network Camera (Full color capability on night)
b. High quality imaging with 4 MP resolution
c. 24/7 colorful imaging
d. Excellent low-light performance
e. Water and dust resistant (IP67)
f. Efficient H.265+ compression technology
g. 1/3" Progressive Scan CMOS
h. Wide Dynamic Range 120 dB
i. Pan: 0° to 360°, tilt: 0° to 75°, rotate: 0° to 360°
j. Lens 2.8 mm, horizontal FOV 96.5°, vertical FOV 50.8°, diagonal FOV 113.9°
k. DORI 2.8 mm lens, D: 64.0 m, O: 25.4 m, R: 12.8 m, I: 6.4 m
l. Max. Resolution: 2560 × 1440
m. PoE Capable

2. **Fisheye Camera (Conference Rooms)**
    a. 5 MP Network Fisheye Camera
    b. Max. Resolution 2560 × 1920
    c. Image Sensor 1/2.5" Progressive Scan CMOS
    d. Min. Illumination Color: 0.01Lux @ (F1.2, Automatic Gain Control ON), 0.034Lux @ (F2.2, Automatic Gain Control ON), 0 Lux with IR on
    e. Shutter Speed 1/3 s to 1/100,000 s
    f. Lens 1.05 mm @ F2.2, horizontal field of view: 180°, vertical field of view: 180°
    g. Lens Mount M12
    h. Day & Night IR cut filter with auto switch
    i. Wide Dynamic Range 120 dB
    j. PoE Capable

3. **Uninterruptible Power Supply (3pcs)**
    a. Ratings: 1200VA / 650W
    b. Battery: 1 x 12V / 9Ah capacity
    c. Interface: 4x Universal Socket LED Indicators
    d. EU RoHS compliant
    e. EN62040-1 / CE / IEC-62040-1 / IEC-62040-2

- Main Input Voltage: 230 V AC 1 phase
- Main Output Voltage: 230 V AC 1 phase
- Rated power in W: 650 W

- Rated power in VA: 1200 VA
- Max runtime: 120 min
- Network frequency: 50/60 Hz +/- 5 Hz auto-sensing
- Input voltage limits: 140...300 V 230 V AC
- Maximum configurable power in W: 650 W
- Output frequency: 50/60 Hz +/- 1 Hz sync to mains
- UPS type: Line interactive
- Wave type: Stepped approximation to a sinewave
- Full load runtime: 00:01:00 650 W
- Half load runtime: 00:05:00 300 W
- Maximum configurable power in VA: 1200 VA
- Transfer time: 6 ms typical: 10 ms maximum

4. **Data Cabinet (3pcs)**
    a. Size 9U
    b. Width 600mm
    c. Depth 500+100mm
    d. Height 500mm
    e. Tough steel can hold 60kg static load
    f. Cable entry top and bottom
    g. Equipped with 2 cooling fans
    h. Comply with ANSI/EIA RS-310-D, IEC297-2, DIN41491.Part1, Part7, DIN4144

5. **Gigabit PoE Network Switch 20ports (3pcs)**
    a. 12 × gigabit PoE ports, 4 × gigabit Hi-PoE ports, 2 × gigabit RJ45 ports, and 2 × gigabit fiber optical ports.
    b. IEEE 802.3at/af/bt standard for Hi-PoE ports (Max. 90 W PoE output).
    c. IEEE 802.3at/af standard for PoE ports (Max. 30 W PoE output).
    d. IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, and IEEE 802.3z standard.
    e. 6 KV surge protection for PoE ports.
    f. Up to 300 m long-range transmission.
    g. PoE watchdog to auto detect and restart the cameras that do not respond.
    h. Port isolation to improve network security.
    i. Gigabit network access design.
    j. Wire-speed forwarding.
    k. Store-and-forward switching.
    l. Solid high-strength metal shell.

6. **Network Cable (3 rolls)**
Cat6 UTP Cable

Inner Conductor thickness	:	0.56mm Pure Copper
Conductor size	:	23AWG
Conductor Material	:	BC
No. of Conductor	:	4Pairs
Insulator Material	:	High Density Polyethylene
Jacket	:	RoHS PVC
Shield	:	Unshielded twisted pairs
Filler	:	PE CROSS
Insulation Thickness	:	0.2mm
Stretching Resistance	:	(max) 400N
Working Capacitance	:	5.4nf/100m
Insulation Resistance	:	72%

7. Fiber Optic Cable (Drop Flat Cable) 2-core (1 roll)

a. Two parallel FRP strength members protect the optical fibers
b. The cable is completed with an LSOH jacket
c. Compliant with: ITU-T G652D/G657A1/G657A2/G651; ANSI/TIA 568-C.3; IEC-60332; RoHS

8. **CCTV Signages (1 pc)**
    a. 22cm x 33cm Acrylic Signage in Yellow and Black Color
    b. Logo: CCTV Camera
    c. Text: 24/7 CCTV OPERATIONS

Note: Quantity of the said equipment varies on the design of the infrastructure per floor.

g. Complete Mechanical Works
    i. Automatic Fire Sprinkler System
    ii. Air-Conditioning
    iii. Elevator System
    iv. Water Reservoir, rain water collection and pumps
    v. Exhaust and Filtration and Ducting systems
    vi. All mechanical systems to be tapped to hospital connections

4. Construction Supervision

    The contractor shall execute all the item of works stipulated in the contract strictly in accordance with standard engineering methodology and procedures and shall be responsible for maintaining cleanliness and orderliness, health and safety of workers and general public in the project area throughout the duration of the contract.

5. Utilities

    The contractor shall install functional and in good condition sub-meters (water, electricity, etc.) and pay monthly for all the utilities to be use for the project.

6. Quality Control

The contractor shall adhere to the submitted and approved minimum material testing plan.

7. Construction Safety and Health program
    a. Safety Program
    b. Health Program

8. As-built Plans

    The contractor shall prepare and submit as-built plans duly signed and sealed by respective engineers in the same sheet size and scale as the original drawings in two (20) reproducible copies. Electronic copies shall also be submitted in CAD and PDF format.

9. Project Acceptance and Turn-over
    a. A construction monitoring team or infrastructure inspection team created under Inspection and Acceptance Committee of MMWGH to ensure to complete the work is:
        i. In accordance with the approved construction contract documents and plans and specifications
        ii. Able to perform as expected and was constructed in a way to allow successful testing, commissioning, and certification.
    b. Should the construction monitoring team members notice defects after completing the punch list, new items may be added to the list which the contractor shall correct prior to final acceptance.
    c. Upon final acceptance of the project, the retention money for the project shall be released accordingly, upon the request and posting of the required one (1) year guarantee bond for the contract.

VIII. DESIGN PARAMETERS

ARCHITECTURAL DESIGN PARAMETERS

I. Codes and Standards

The Architectural Works shall be in accordance with the following Laws, Codes and Standards.

- Laws and Codes:

  - National Building Code of the Philippines and its Latest and Amended IRR
  - RA 9266 or Architecture Law and its Latest and Amended IRR
  - RA 4226 or Hospital Licensing Act and its Latest and Amended IRR
  - BP 344 or Accessibility Law and its Latest and Amended IRR
  - AO 35, s. 1994 or AO Pertaining to the Control of Radiation Hazards
  - RA 9514 Fire Code of the Philippines
  - Existing Local Codes and Ordinances.
  - And other Laws that applies to the projects

- Standards:

  - Bureau of Product Standards (BPS)
  - Underwriters Laboratory (UL)
  - DOH Technical Guidelines for Hospital & Health Facilities Planning and Design

I. General Drawing Guidelines

- All drawings shall be computer-drafted. Drawings shall be submitted both in printed and electronic copies.
- Keep the same orientation for all plans. The north orientation shall be indicated in all architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans.
- Existing buildings and new works shall be clearly indicated and labeled in the site plans.
- Detailed plans shall have a scale not smaller than 1: 50 meters.
- Spot detailed plans, elevations, and sections shall have a scale not smaller than 1: 10 meters.
- Avoid notes such as ‘see architectural detail’ or ‘see structural’. Always refer with a callout to the specific detail drawing and sheet number.

1. *Perspective*

  - In the most appreciable scale, show the entire structure’s façade or prominent feature/s; include appropriate elements to scale the structure’s volume (e.g. human figures, vehicles, trees and vegetation, adjacent structures

3. *Site Development Plan*

  - The site development plan shall have a scale not smaller than 1:400 meters and shall show the structures in relation to each other and its natural or built surroundings.
  - Site Development Plan shall include the following:

    a. Contour and survey of the lot, including bearing and distance of the property line
    b. Road network and curbs and sidewalks
    c. Parking spaces

d. Reference location of existing trees

e. Reference location and footprint of existing buildings, with the corresponding building names and dimensions, including distances between adjacent buildings, and distances between buildings and the nearest property line

f. Reference location of utilities, e.g. water reservoirs, septic tank, wastewater treatment plant, powerhouse, transformers, waste storage area, security outposts and waiting sheds

g. Site furniture and other site features

- Identify building/structure name and its corresponding number of storeys/levels
- Reflect modules and total dimension of structures
- Indicate dimensions of all other site elements.

There shall be a separate road network and entry/exit for the public and the service vehicles, e.g. ambulance, waste collection vans, delivery trucks.

4. *Vicinity Map/ Location Plan*

- Locate the project site in a vicinity map (at least 2-kilometer radius) showing districts/political subdivision, major landmarks, institutions, major thoroughfares
- Locate the project site in a location map (at most 2-kilometer radius) showing major and minor road networks, establishments, markers, etc.

5. *Floor Plans*

- All plans shall be 1: 100 meters. The same scale shall be used for the rest of the architectural, structural, sanitary, plumbing, electrical and mechanical plans, except for each trade's site plan, detailed plans and spot details.
- For renovation/modification works involving the existing structure, indicate architectural and structural elements to be retained, demolished/removed, blocked off, constructed or relocated.
- Unless areas are indicated for blow-up details, indicate dimensions for all floor plan elements.
- Elevation callouts shall be indicated on the floor plans and shall be consistent with the elevation drawing.
- Section line callouts on the floor plans shall be consistent with the section drawing.
- Detail callouts shall be consistent with the blow-up/spot detail drawings.
- Other callouts may be used for toilets, stairs, cabinets, etc.
- Floor elevations shall be indicated in the floor plans. This shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings.
- Door callouts shall be circles with the proper numbering, e.g. D-01.
- Window callouts shall be hexagons with the proper numbering, e.g. W-01.

6. *Elevations*

- Provide at least four elevations. However, if structure is clustered (polygonal or with interior openings), provide elevations for all exterior walls.
- Indicate measurements for finish floor levels and notable building heights (eg roof/s, parapet/s, canopies, spires, towers and other projections) where applicable

- Indicate measurements for other surface features/elements
- Finish floor lines and top of truss/roof deck lines shall be consistent to all the elevations, sections and structural plans and details.
- The height from finish ground line to finish ground floor line shall be higher than the recorded flood level of the area for the past five (5) years
- Indicate all wall finishes, detail callouts for spot details.

7. *Sections*

- Provide at least two sections. However, if structure is clustered (polygonal or with interior openings), provide additional sections to show notable features.
- Indicate measurements for finish floor levels, ceiling heights, wall heights and other notable dimensions
- Indicate interior wall finishes, detail callouts.

8. *Roof Plan*

- Indicate roof finish/es, slope and slope direction.
- Indicate gutter finish, if applicable.
- Indicate exterior building wall line (hidden line).
- Indicate downspouts, if applicable
- Provide details for gutters, downspouts

9. *Reflected Ceiling Plans*

- Indicate on plan ceiling finishes, lighting and other ceiling fixtures and accessories.
- Ceiling height relative and in reference to the finish floor line shall be indicated in the reflected ceiling plan in each room with boxed dimensions. This is to ensure that the ceiling heights of all rooms are established whether or not reflected in the sections.
- The description and location of the fixtures, e.g. lighting, smoke detectors, air-condition vents, exhaust fans, in the reflected ceiling plan shall be consistent with the electrical and mechanical plans.
- Provide details for ceiling features, where necessary.

10. *Stairs, Fire Escape Exit, Ramps*

- Present blow-up plan including detail section/ elevation and spot details for all stairs, fire exits, ramps on a scale of not smaller than 1:50m. Indicate dimensions and finishes.

11. *Toilets, Baths, Washing area/room*

- Present blow-up plan including detail section/elevations (to show all sides of the room) and spot details on a scale of not smaller than 1:50m. Indicate dimensions, elevations, clearances, center lines, slopes, fixture type, finishes and accessories.
- Provide fixture detail and accessories including mounting heights from finish floor levels.

12. *Specialized Design*

- Provide detailed/shop drawings for built-up or pre-assembled partitions, cabinets, closets, counters, lockers, etc.

13. *Bay Section*

- Provide bay section/s of scale not smaller than 1:50m for exterior walls showing in detail, systems, connections for the entire vertical length from basement/ground to topmost elements (roof, parapet, deck)

14. *Doors and Windows*

- Provide Door and Window schedules indicating the type of door or window, the number of sets, the location/s of the door or window, the materials and accessories and other special specifications, e.g. color or finish, operation system and the detailed elevation and plan (where necessary).

15. *Schedule of Materials*

- In matrix form, identify floor, wall, ceiling, counter and other accessories/ornaments finish for all rooms/areas on plan.

16. *Details*

- Provide a minimum of one (1) bay section of a scale not smaller than 1: 50 meters for each major building preferably cut along the area with special construction design.
- Provide spot detail plans, elevations and sections of a scale not smaller than 1:10 meters for special designs with aesthetic treatment and ornamentation.
- Provide detail plans of a scale not smaller than 1: 50 for all areas needing tile pattern, e.g. lobby, corridor, entrance walk, showing the position and pattern of tiles.
- Centerline location of plumbing fixtures shall be indicated in detail plans with lines of reference and its corresponding dimensions. This is to indicate the exact locations of the plumbing/sanitary roughing-in

III. Building Architectural Works

1. Floor Plans

- The structural, sanitary, plumbing, electrical and mechanical designs are required to refer to the architectural plans and specifications in case of discrepancies. If an engineering design will have any possible conflict or interference on the architectural design, the latter may be adjusted provided that the aesthetic value will not be compromised.
- The architectural and engineering plans shall be consistent all throughout in terms of dimensions and locations of columns, beams, walls, roof line, conduits, ducts, pipes, and fixtures, among others. Column and beam grid lines shall also be consistent in all the architectural and engineering plans.
- Verify and coordinate floor plans with the mechanical, electrical and sanitary design with regard to the requirements for mechanical rooms, AHU rooms, electrical rooms, pipe chase, and other engineering requirements.

- Public toilets shall have provisions and fixtures for persons with disability as required by BP 344. If enough space allows, toilets specially made and designated for persons with disability is preferable.

2. Walls

- Exterior walls shall be 200mm. thick, while interior walls shall be 150mm. thick. This is indicative of the finished wall thickness including the plastering and tile works.
- Toilet wall tiles shall be 300mm. X 300mm for Rooms, Offices and Clinics and 600mm x 600mm for common public CRs.
- Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
- All edges, corners and intersections of toilet tiles, including the top-most tile not reaching the ceiling shall be provided with polyvinyl chloride tile trims
- Tile color and design shall be approved first before installation
- Where applicable, walls shall be protected against abuse using bump guards and rails, corner guards, baseboards, wainscot especially in heavy traffic and public areas

3. Floors

- If floor tiles in two adjacent rooms with different material, color or design meet at the door opening, the cut shall be located middle of the door thickness when in a closed position. Provide details in the floor pattern design.
- Floors at the openings of toilets for persons with disability shall be sloping. Indicate in the plans and sections.
- Toilet floor tiles shall be 300mm. X 300mm for Rooms, and 600mm x 600mm for Offices and common public CRs. Indicate the tile pattern.
- The size of the floor tiles of the offices and wards shall be 600mm. X 600mm, or bigger depending on the proportion to the size of the room. Indicate the tile pattern.
- The size of the floor tiles of the lobby and corridor shall not be less than 600mm. X 600mm. The tile size of 600mm. X 600mm. is recommended for bigger areas. Indicate the tile pattern.
- Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
- All edges, corners and intersections of toilet tiles, shall be provided with polyvinyl chloride tile trims.
- Tile color and design shall be approved first before installation.

4. Ceiling Works

- Ceiling finishes shall be of type appropriate to the location

where it is applied. Ceiling material shall be of premium grade and quality performance; easily replaced and maintained. Ceiling materials must at least have flame-spread rating

- Ceiling height for areas with special aesthetic treatment, e.g. lobby, major conference room, auditorium, executive office, shall be proportional to the area or room or as required by the designer. However, this shall not be lower than 3000mm. Provide details. The ceiling material must be Fire resistant.
- If acoustic boards on aluminum T-runners would be used for the ceiling, layout should be on center and avoiding cut pieces. If the remaining perimeter of the ceiling is less than 600mm. wide, it shall be designed complimentary with fiber cement boards on

light gauge metal furring. Likewise, with acoustic boards in big areas, e.g. offices, and wards, shall be designed in a way to break the redundancy. Provide details.

- For board ceiling (gypsum, fiber cement, particle, etc, of size 1200mm x 2400mm) construct in maximum cut size of 600mm x 600mm (maximum) to avoid injury or damage in case of falls.
- For strip ceilings (g.i., aluminum, vinyl, composite), layout shall eliminate as possible connections. Should connections be inevitable; provide intervals such as false beams, bands, strips to conceal ends.
- Ceiling at eaves or at other open/exposed areas shall be designed with wind load considerations.
- Provide manholes for maintenance work, where applicable.
- Soffit of exterior beams and slabs shall have drip moulds to prevent damage due to water sipping into the eaves or ceiling. Section details shall be required to show the drip mould.

5. Architectural Metals

- Railings must be 304 stainless steel
    - All railings must be anti-ligature in all interior part of the building.
    - The material should be a UPVC material
- Exposed Aluminum composite panels shall be at less 4mm thick PVDF.
- Aluminum composite panels used for indoors should at least be 3mm polyester.
- Other metals for decorative purposes

6. Doors and Windows

- Major rooms that require security shall have sturdy doors e.g. wood panel, and metal.
- Minor rooms that do not require security shall at least have wood flush doors.
- Toilets and other wet areas shall have marine plywood flush doors painted with epoxy paint.
- Heavy-use doors, e.g. main entrance, should be provided with stainless steel kick or push plates and door closers.
- Fire escape doors, should be provided with panic hardware and door closers, and shall conform with the requirements of the Fire Code of the Philippines.
- Aluminum frames of glass doors shall be powder-coated.
- Door finish and color shall be approved first before application.
- All glass panels for doors and windows on exterior walls shall at least be 6mm thick and tempered.
- Window sills shall be slightly sloped outwards to prevent damage to windows and paint due to water seepage. Section details shall be required to show this slope.
- All doors of a high-occupancy room shall swing outwards and as required by the Fire Code of the Philippines
- Door jambs with no moulding/casing installed on concrete walls shall have construction grooves all around. Provide details.
- All doors and windows shall have reinforced concrete lintel beams. Provide details.
- All glass panels for doors and windows on exterior walls shall at least be 10mm thick and tempered.
- Glass material testing must be conducted to test the capacity of glass in resisting the high human impact force.

7. Stairs and Corridors

- Regular stairs shall have risers at 150mm. high and treads at 300mm. wide. Fire stairs could have a maximum riser at 200mm. and tread at 250mm. Handrails shall be 1100mm. high. Clearances shall conform with the requirements of the Fire Code of the Philippines.
- Corridors shall have a minimum unobstructed width of 2450mm. This shall be measured clear from the surface of the finished wall and not on-center of the rough CHB wall.
- Corridors shall not be areas for temporary or permanent storage of stretchers, wheelchairs, trolleys, food carts, oxygen tanks or other movable hospital equipment. Storage or parking spaces shall be provided for these.
- Corridors and exit doors shall conform with the requirements of the Fire Code of the Philippines.
- All staircases must have a low-level lighting.

8. Fixtures and Accessories

- Three-way electrical light switches shall be provided at the foot and the top of the stairs per floor. Likewise, at both ends of a long corridor.
- Electrical light switches shall be located by the knob side of the door.
- Electrical switches and outlets shall be installed plumb and level.
- Public toilets shall always be provided with heavy-duty soap dispensers and electric hand dryers.
- Public toilets shall always be provided with stainless steel handrails in conformity to the requirements of BP 344.
- A drainage line shall be provided for window-type air-conditioners. Likewise, split-type air-conditioners located in the interior part of the building shall be so located adjacent to areas with drainage lines, e.g. toilets, downspouts, balconies.

9. Roofing Works

- The section of the roof gutters shall be designed, in case of a clogged downspout, so that the overflow of water will be directed outside of the building and not towards the eaves or interior ceiling to prevent any damage. Provide details.
    - Avoid valley or inside gutters in roof design. But in cases required in aesthetic design, valley or inside gutters shall be in stainless steel or concrete gutters with membrane-type waterproofing, and the section shall be designed with a capacity for big volume to prevent any damage due to overflow. Provide details.
    - Parapets, designed as a roof protection from the winds, must be designed to satisfy the preceding parameters. Provide details.
    - The slope of the roof shall not be less than 30 degrees.

10. Painting

- Painted ceiling shall be in at least latex finish, while cornices and mouldings shall be in gloss enamel finish.

- Painted interior wall shall be at least in semi-gloss latex finish for ordinary rooms, e.g. offices, unless specified to a higher type of paint.
- Patient-related rooms, e.g. wards and isolation rooms, shall be in anti-bacterial and odor-absorbent paint finish.
- Painted exterior wall shall be at least in moisture-resistant/water-repellant solvent-based paint finish, textured or smooth, unless otherwise specified.
- All painting works shall be full-putty.
- Paint color and shade shall be approved first before application.
- The paint colors of the proposed project shall follow the ADMINISTRATIVE ORDER 2020-0011 Guidelines in the Implementation of the Unified Color, Signage Features, and Design of Identified Interior Spaces for Health Facilities Enhancement Program (HFEP) funded and coordinated Health Facilities and Medical Transport Vehicles (All health facilities, regardless of the scope of work, funded by and coordinated through HFEP, shall strictly follow the Unified Colors, Signage Features, and Design of Identified Interior Spaces prescribed in this Order.)

11. Special Features and Furnishing

  - Twelve (12) Movable Stainless Sinks
  - One (1) automatic dish washer
  - Two (2) Food Handling Conveyor
  - Three (3) Stainless Working Tables
  - Two (2) 6-burner gas stoves
  - Twelve (12) Low pressure Burners
  - Two (2) Griddles
  - Two (2) Grillers
  - One (1) Oven
  - Four (4) Rice Oven
  - One (1) Stainless Kitchen Island with 2 stainless kitchen sinks
  - One (1) Slicer machine
  - Sixteen (16) Stainless steel cabinet racks

- Material/ Furniture to be used in temporary facility and to be transferred to the new building upon completion:
  - Twelve (12) Movable Stainless sinks
  - Three (3) Stainless Working Tables
  - Seven (7) Low Pressure Burners
  - Two (2) Grillers
  - Four (4) Rice Oven
  - One (1) Slicer Machine
  - Five (5) Stainless Racks
  - Gas Lines and Gas Tank Storage
  - Pallets (preferrable PVC made)
  - Five (5) Trolley

1.2. Specific Requirements

- Provide spot detail plans and sections of the following:

  1. Gutter and eaves.

2. Ceiling – cove light, special connections and design, mouldings, valances
3. Stairs - handrail, and baluster design
4. Ramps - handrail design and floor pattern
5. Doors, windows and gates - grille works,
6. Special Architectural Treatment and Design, e.g. façade design, special window and door, counter/nurse station counter
7. Special Carpentry Works, e.g. partitions, cabinetry,
8. Auditorium Stage
9. Other details as may be required

V. Summary of Materials

- Materials to be used shall be fire-resistant, non-toxic, moisture-resistant and termite-resistant, e.g. fiber cement board, light-gauge steel frame, polyvinyl chloride ceiling panels.
- Wet areas, e.g. toilets, and kitchen shall use non-skid/non-slip vitrified ceramic floor tiles.
- Heavy traffic areas, e.g. lobby, and corridor shall use heavy-duty seamless granite floor tiles or a higher type of floor material.
- Ramps and stairs shall use non-skid/non-slip floor tiles, materials as specified.
- Aluminum T-runners shall be powder coated.
- Metal rod hangers with adjustable clips, and not galvanized iron wires, shall be used to support and suspend the aluminum T-runners and light gauge metal furring.
- Roofing sheets shall be Ga.# 24(0.5mm) aluminum-coated, pre-painted, and pre-formed.

DESIGN PARAMETERS (STRUCTURAL/CIVIL WORKS)

I. Codes and Standards

The Civil/Structural Design shall be in accordance with the following Codes and Standards Codes

- National Structural Code of the Philippines (NSCP) 2015
- National Building Code of the Philippines and its revised IRR
- Accessibility Law
- Local Codes and

Ordinances Standards

- Bureau of Product Standards (BPS)
- Philippine National Standards (PNS)
- DPWH Blue Book
- American Concrete Institute (ACI)
- American Society for Testing Materials (ASTM)
- American Welding Society (AWS)

II. Site Works

Based on Master Site Development Plan of the Hospital, provide where applicable complete design and details of hospital road (concrete with curb and gutter, including drainage) network, walkways parking areas and fencing.

1. The main hospital road shall have a minimum thickness of 150mm (8 inches). Concrete strength should be at least 3000psi. Interior road (leading to support facilities) shall be so designed to accommodate delivery vehicles, and fire trucks in case of emergency.
2. Walkway should be at least 100mm thick with concrete strength of 2500psi. Ramps should be provided, instead of steps, for any change in elevations.
3. Parking area slabs should be at least 150mm thick with concrete strength of 3000psi.
4. Fences should be seen through in front of the hospital while the three (3) other sides should be concrete hollow blocks with minimum height of 2 meters and to be provided with perimeter lighting. See-through fence design will be made of 32mm square bars spaced at 100mm on center and provided with three (3) concrete hollow blocks (45mm high) zoccalo wall.

III. Buildings

1. The hospital buildings should be designed using seismic importance factor of 1.25 for immediate occupancy category. Buildings should be designed in accordance with NSCP Requirements up to Magnitude 7 for those near seismic source Type A. Seismic gaps between buildings (old and new) should be properly observed.
2. The hospital buildings should be designed also using wind importance factor of 1.15 (especially for design of trusses/roofing system). Concrete gutters and parapet walls should be provided as additional protection to the roofing system during strong typhoons.
3. The structural designer should verify with Philippine Volcanology and Seismology (PHIVOLCS) the distance of the proposed hospital to nearest active fault lines and with the DENR for geo-hazard mapping.

4. Soil investigation (at least three bore holes) should be conducted to determine soil bearing capacity and recommended foundation design (applicable even for one storey structure).

5. The structural designer is encouraged to use fire-resistive and non-toxic materials.

IV. Details – the following shall be provided:

1. Connection details of beams and columns following the requirements of NSCP on confined areas.
2. Connection of trusses to beams and columns
3. Splicing details of reinforcing bars on columns and beams and the required bar cut-off points.

V. Summary of Materials

1. Concrete shall be Portland cement and conforming to ASTM Specification C150, Type I to Type II
2. Coarse Aggregates shall consist of washed gravel, crushed stone or rock or a combination thereof conforming to ASTM C33
3. Concrete Hollow Blocks shall be a standard product of recognized manufacturer conforming to PNS 16 with at least 350psi strength.
4. Reinforcing Bars shall conform to PNS Grade 60 for 16mm dia. and above and PNS Grade 40 for 12mm dia. and below.
5. Structural steel shall conform with ASTM A36/A6M
6. Bolts and Studs shall conform with ASTM A 325
7. Welding electrodes shall be E60 or E 70 and conform with AWS
8. Ready Mixed Concrete, with min strength of 3000psi @ 28CD in all structural Members.

SANITARY/PLUMBING DESIGN PARAMETERS

I. Codes and Standards

The Sanitary/Plumbing Design shall be in accordance with the following Codes and Standards.
Codes:

- National Building Code of the Philippines and Its New IRR
- Fire Code of the Philippines
- National Plumbing Code of the Philippines (NPCP)
- Sanitation Code of the Philippines
- Existing Local Codes and Ordinances.

Standards:

- Bureau of Product Standards (BPS)
- Philippine National Standards for Drinking-Water
- Underwriters Laboratory (UL)
- DOH National \ Laboratory (NRL)
- DOH Health Care Waste Management Manual
- National Water Resources Board (NWRB)
- National Plumbers Association of the Philippines (NAMPAP)
- Philippine Society of Sanitary Engineers, Inc. (PSSE)

II. Site Works

Based on the Master Site Development of the Hospital, the Site Works shall provide complete layout of the following:

1. Storm Drainage Network, indicating Drainage Manholes and Pipe Culvert;
2. Sewerage Pipe Network, indicating Sewage Manholes, Sewage pipes and the location of the proposed Sewage Treatment Plant; and
3. Water Supply Network, indicating the location of Water Service entrance, Cisterns, Elevated Water Tank and proposed Pump House and Main Water lines.

The Storm Drainage Network shall accommodate the magnitude of peak rates of surface run-off including drainage coming from the buildings. The system shall be capable of handling the design flows routing to the designated outfall;

For sizing of drainage pipes, refer to Chapter II, National Plumbing Code of the Philippines and current rainfall record from PAGASA.

The Sewerage Pipe Network design shall accommodate all sewage coming from all the facilities, conveyed by gravitational flow leading to the proposed Sewage Treatment Plant;

Per capita wastewater demand: 150-250 gal/capita/day per bed

The Water Supply Network shall include the provision of Fire Hydrants and blow-off valve, accessible faucet that will serve as testing point for safe and potable water supply and shall include all necessary protection to protect the main water supply source;

Provide stainless steel Elevated Water Tank for each building with a capacity of 11,000 liters including pumps, fittings and accessories.
Per capita water demand: 190-315 gal/capita/day per bed

III. Building Facilities Sanitary/Plumbing System

1. Sewer line and Vent System

Provide complete Sewer line and Vent System from all (Domestic) plumbing fixtures and floor drains, laid by gravity flow/pumping from lift/transfer station leading to the Sewage Treatment Plant (STP);

For Drainage Fixture Units; refer to Chapter 7, Table 7-2, NPCP

2. Wastewater line and Vent System

For all Areas dealing with Laboratory activities and generating infectious wastes, provide separate Wasteline and Vent System routing into a proposed Neutralization Tank prior to discharge to the Sewage Treatment Plant;

For all Wash Areas dealing and generating with oil/grease at the Dietary, provide separate Wasteline and Vent System and solely tap to the proposed Grease Trap and then connect its effluent to the Sewage Treatment Plant.

For Drainage Fixture Units; refer to Chapter 7, Table 7-2, NPCP

3. Waterline System

Provide complete cold water supply pipes to all plumbing fixtures. From the main water source to the cistern, the water shall be pumped to the Elevated Water Tank (EWT) and conveyed to the fixtures by gravity system and or distributed to fixtures by transfer pumped with constant pressure through a Pneumatic Storage Tank for all water closet using direct flush valve.

Provide complete Hot water system with portable water heaters for selected Areas as required and or specified by the Owner.

4. Storm Drainage System

Complete Storm Drainage System shall be provided for all roofs, canopies, concrete ledges and balconies including condensate drains laid for gravity flow connected to a leader/pipe line leading to the natural ground level storm drainage network.

5. Septic Tank and lift station

The wastewater discharges from the Septic Tank have to be connected to the lift station that would throw wastes via pumps to the existing sewerage treatment plant.

IV. Specific Requirements

Provide details of the following:

1. Grease Trap
2. Neutralization tank
3. Cistern Tanks and Elevated Water Tanks

V. Summary of Materials

- Sewer and Vent pipes; Un-plasticized Polyvinyl Chloride (uPVC) extra series 1000 (Conforming to ISO 4435 ASTM D2729 including Trims and Fittings)

- Storm Drainage pipes; Downspouts, Un-plasticized Polyvinyl Chloride (uPVC) extra series 1000 (Conforming to ISO 4435 ASTM D2729 including Trims and Fittings, BPS Certified)
- Drainage Pipes; 250mm dia. and below, Non-Reinforced Concrete Pipe (NRCDP)
- 300mm dia. and above, Reinforced Concrete Pipe (RCDP)
- Drainage Manholes; Street Inlet, Curb Inlet, Traffic Type Reinforced Concrete Area drain/Catch Basin, Reinforced Load Bearing CHB
- Sewage Manholes; Traffic Type Reinforced Concrete with Cast Iron Cover, seated type.
- Wastewater pipeline; Wash areas /Dietary (same as sewer & vent) for Laboratory-HDPE pipes and fittings, PN16
- Cleanouts; HQ Stainless/ Brass with counter sunk plug (BPS Certified)
- Floor Drains/Deck Drains; HQ Stainless/ Brass (BPS Certified)
- Gutter Drains; Cast Iron Dome Type Brass (BPS Certified)
- Cold Waterline pipes; for buildings, Polypropylene Pn16 Fusion Weld Pipes including Trims and Fittings (BPS Certified) PN20
- Hot Waterline System; for buildings, Polypropylene Pn20 Fusion Weld Pipes including Trims and Fittings (BPS Certified)
- Trench Grating; Galvanized/Stainless Steel Iron grates
- Plumbing Fixtures including Trims, Fittings and accessories; (BPS Certified)

  a) Water Closet-Direct flush valve
  b) Lavatory- (Semi-Pedestal/Counter Type) with C-spout spray faucet
  c) Kitchen Sink-Ga#16 Stainless Steel seamless bowl with gooseneck faucet
  d) Urinal-Wall hung Flush Valve type

MECHANICAL WORKS DESIGN PARAMETERS

I. Codes and Standards

The Mechanical Design shall be in accordance with the following Codes and Standards.

Codes:

- National Building Code of the Philippines and Its New IRR
- New Fire Code of the Philippines
- Mechanical Engineering Code of the Philippines (ME Code)
- Existing Local Government Codes and Ordinances.

Standards:

- Bureau of Product Standards (BPS)
- Philippine National Standards (PNS)
- Underwriters Laboratory (UL) and Factory Mutual (FM)
- International Electro-Technical Commission (IEC) 1988
- National Fire Protection Association (NFPA)
- National Fire Protection Association (NFPA) 99 Standard for Health Care Facilities.
- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).
- Center for Disease Control and Prevention (CDC) Manual.

II. Automatic Fire Sprinkler System

The automatic fire sprinkler system shall be composed of complete plans and drawings of the following:

1. Site Development Plan and Vicinity Map, indicating the location of the buildings, firewater reserve tank, firewater line, yard loop and private fire hydrant.
2. General Notes, Legends and Symbols including Schematic Diagram of the Fire Sprinkler System and Schematic Diagram of Alarm Monitoring System.
3. Floor Layout and Isometric Layout of the Automatic Fire Sprinkler System indicating pipe sizes and the location of the pipes, valves, sprinkler heads, riser nipples, fire hose cabinets, sprinkler main riser, drain pipes, cross mains, branch lines, inspector's test connections, hangers and sway braces.
4. Equipment Schedule, Detail drawings, fire pump and jockey pump layout.
5. Architectural, Structural, Electrical and Plumbing drawings of the Firewater tank and Pump house.

- An automatic fire sprinkler shall be provided in all hospital building.
- Hazard Classification shall be Light Hazard Occupancy.
- Area of coverage shall be 146 square meters and water density shall be 4.07 lbs/sq. m.
- Protection area per sprinkler head shall be 20 square meters at 2.2-meter minimum distance between sprinklers and 3.0-meter maximum
- All floor control valves shall be equipped with supervisory switch, water flow detector and drain system.
- Water supply shall be horizontal split case centrifugal fire pump with diesel engine or AC motor and a vertical in-line jockey pump with controller.

- Firewater reserve tank shall be ground level monolithic concrete tank sized for a minimum of 30 minutes.
- Hydraulic calculations report shall be based on NPFA-13 format.

III. Ventilation and Air-conditioning System

The ventilation and air conditioning system shall be composed of complete plans and drawings of the following:

1. General Notes, Legends and Symbols including Schematic Diagram of the Ventilation and Air Conditioning System.
2. Floor Layout of the Ventilation and Air Conditioning System indicating the capacity and location of the air conditioners and fans.
3. Duct layout indicating duct sizes, route and location of the dampers, diffusers, return air register, hangers and sway braces.
4. Refrigerant piping layout indicating pipe sizes, location of valves, hangers and sway braces.
5. Equipment Schedule and Details drawings of Air Conditioners and Ventilating System.

- Air conditioning system shall be provided in all patients' private rooms, radiologic and imaging area, operating rooms, delivery rooms, laboratories, critical care areas, offices and other areas where conditioned air is necessary.
- Cooling Load calculations report shall be manual or computer generated, hourly analysis program which includes heat transmission coefficients, solar heat gains factors and corrected cooling load temperature difference calculations.
- Window type air conditioners shall be used in areas with exterior wall exposure.
- Design of all critical areas shall be laminar or positive pressure, wherein the supply air is 10% more than exhaust air.
- All infectious isolation rooms, such as Covid19, TB and SARS, shall be negative pressure, wherein the exhaust air is more than 10% of the supply air.
- Maintain an air change rate greater than or equal to 12 air changes per hour or 145 liters per second per patient.
- Ceiling cassette type exhaust fans with integral air diffuser shall be provided in all toilets.
- Ceiling fans, orbit type with 360° oscillation or wall fans shall be provided in all non-air-conditioned rooms, such as patient wards, work areas, nurse station, etc.

IV. Elevator System

The elevator system shall be composed of complete plans and drawings of the following:

A. General Notes, Legends and Symbols including Schematic Diagram.
B. Floor Layout, Elevator Shaft Plan and Machine Room Plan (If applicable).
C. Equipment Schedule, Detail drawings and Equipment layout.
D. Architectural, Structural, Electrical and Plumbing drawings of the Elevator System.
    - Hospital bed type elevator shall be provided in all multi-storey hospital buildings.
    - The minimum car size shall be 1,500mm wide and 2,150mm long.
    - The car door opening shall be not less than 1,100mm and 2,100mm high.

V. Specific Requirements

Provide details of the following:

1. Cistern Tanks and Elevated Water Tanks

VI. Summary of Materials

1. Automatic Fire Sprinkler System

a. The fire pump shall be UL Listed/FM Approved, diesel engine or electric motor driven, designed specifically intended for an automatic water sprinkler protection system (not included).

b. The jockey pump shall be UL Listed/FM Approved, electric motor driven, 220V, 3-phase, 60 hertz, and electric power connection (not included).

c. Sprinkler head shall be UL Listed/FM Approved, pendant, upright or sidewall unit, 83 LPM flow capacity per head and temperature fusing at 57.5° C to 74°C.

d. The alarm assembly shall be UL Listed/FM Approved, constructed and installed that any flow of water from the sprinkler system equal to or greater than that from the single automatic head shall result in an audible and visual signed in the vicinity of the building.

e. Alarm and supervision system of the automatic water sprinkler shall include the monitoring water flow switch at each floor of the building, fire pump and jockey pump running condition and power supplies, level of water in the reservoir and control valves.

f. Pipes shall be B.I. Schedule 40. Screw fittings shall be used for inside piping.

2. Ventilation and Air-conditioning System

a. Refrigerant pipes shall be copper tubing, type L or K black steel pipe, Schedule 40 for size of 100mm diameter and smaller. Pipe over 100mm shall be black steel pipe Schedule 40.

b. Black steel pipes shall be standard seamless, lap-welded, or electric resistant welded for size of 50mm diameter and larger, screw type for size 38mm diameter and smaller, fittings for copper tubing shall be cast bronze fitting designed expressly for brazing.

c. Pipe insulation shall be performed fiberglass or its equivalent. The insulating materials shall be covered with 100mm x. 13mm thick polyethylene film, which shall be overlapped not less than 50mm.

d. Ducts shall be galvanized sheet steel of standard gauges.

e. Ductwork insulation materials shall be rigid board made of styropor or equivalent 25mm thick for ground and top floor, 13mm thick for intermediate floor.

3. Elevator System

a. The hospital elevator shall machine room less, or traction type only.

b. The elevator system shall be UL Listed/FM Approved.

ELECTRICAL AND COMMUNICATION SYSTEM DESIGN PARAMETERS

I. Codes and Standards

The Electrical System Design Parameters shall be in accordance with the following Codes and Standards.

Codes:

- Philippine Electrical Code
- National Electrical Code
- Fire Code of the Philippines
- National Building Code of the Philippines and Its New IRR
- Existing Local Codes and Ordinances

Standards:

- Bureau of Product Standards (BPS)
- Underwriters Laboratory (UL)
- National Fire Protection Association \
- International Electrotechnical Commission (IEC)
- Illumination Engineering Society (IES)
- National Electrical Manufacturer's Association (NEMA)
- DOH Manual on Technical Guidelines for Hospital and Health Facilities Planning and Design

II. Site Works

Based on the Master Site Development of the Hospital, the Site Works shall provide complete Electrical layout of the following:

1. Power Room
2. KVA rating and other specifications of Transformer.
3. Switchgear requirements
4. Panel board Layout
5. Electrical Metering Devices
6. Service Conductors and Conduit Layout
7. Grounding System
8. Emergency Standby Generators
9. Solar Panels

III. Building Facilities Electrical System

1. Lighting System

- Provide and install adequate normal branch circuits for Lighting System to all areas using the standard Lighting Design Analysis. Utilize the standard Illumination requirements per area of concern using the preferred particular type of luminaires.

2. Power System

- Provide and install adequate normal branch circuits for the Power

System.

3. Standby/Emergency System

- Provide and install adequate equipment life safety and critical emergency branch circuits for lighting and utilization equipment connected to the alternate power source.

4. Auxiliary System

- Provide and install the following Auxiliary System:

  a) Communication System

  - Telephone System
  - Local Area Network System
  - Public Address Paging System
  - Private Branch Exchange (PABX)

  b) Fire Alarm System
  c) Security System.

5. Lightning Protection System

- The building lightning protection system shall include roof-mounted air terminals grounding conductors, ground rods, conduits, clamps, and auxiliary equipment as required for a complete and operational lightning protection system.

IV. Provide Details of the following:

- Lighting Fixtures/ Luminaries
- Panel board and Circuit Breakers
- Switchgear and other Metering Devices
- Electrical and Hospital Equipment

V. Installation and Termination of Auxiliary and other Special Devices and Equipment

VI. Power and Telephone Hand holes (as may be required)

VII. Pedestal and Service Entrance to Bldg.

VIII. Grounding System Layout

IX. Electrical Room

X. Transformer and Generator Mounting

XI. Others as may be required.

1.1. Summary of Materials

1. General Lighting Luminaries: Fixtures type shall be as indicated on the Lighting Layout Plan.

   - LED Lamp shall be Linear, circular or self-ballasted compact LED lamps.
   - LED lamps shall be cool or warm white and lamp holders shall be made of thermosetting plastic.
   - LED Ballast Electronic type with high power factor or high frequency energy saving type.

- LED Fixture housing shall be steel sheet with high reflectance powder coat paint finish.
- Downlights and Pin lights shall be of heavy gauge spun aluminum equipped with lamp as indicated on the drawings.
- Other Special Lighting requirements shall be as approved by the implementing agency

2. Wiring Devices: Wiring devices shall be non-automatic control devices; the contact is guaranteed by the pressure of the special spiral springs.

   - Switches shall be of 15A, 250V or 300V except as otherwise noted and approved. Terminals shall be screw-type or quick-connected type.
   - General use receptacle shall be 15A, 240V grounding type unless otherwise indicated on the drawings.
   - Special purpose receptacles shall be as called for on the drawings. Matching plugs shall be supplied.

3. Panel boards and Circuit Breakers: The Panel board and Circuit Breakers shall be equipped with molded-case circuit breakers and shall be the type as indicated in the panel board schedule and details.

   - Provide molded-case circuit breakers of frame, trip rating and interrupting capacity as shown on the drawings. The circuit breakers shall be quick-make, quick break, thermal-magnetic, trip-indicating and shall have common trip on all multiple breakers with internal trip mechanism.
   - All current-carrying parts of the panel boards shall be plated. Provide solid neutral (S/N) assembly when required. The assembly shall be isolated from the enclosure.

4. Electrical Conduits, Boxes and Fittings: All conduits, boxes and fittings shall be standard rigid steel, zinc coated or galvanized.

   - Rigid Steel Conduits (RSC)
   - Rigid Metal Conduits (RMC)
   - Intermediate Metal Conduits (IMC)
   - Electrical Metallic Tubing (EMT)
   - Un-plasticized Polyvinyl Chloride (uPVC) if required shall be schedule 40.

5. Conductors: Wires and cables shall be of the approved type and unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts.

   - The conductors used in the wiring system shall be of soft-annealed copper having a conductivity of not less than 98% of that of pure copper and insulated for 60 □C Temperatures.
   - All conduits of convenience outlets and wire ways for lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm square in size.

6. Structured Cabling & Telephone System:

- A minimum provision for estimated 500 mixed PABX extension and direct telephone lines shall be required for tertiary hospitals.
- Final details of the system shall follow specific requirements, quantity and type of service.

7. Fire Detection and Alarm System:

- The Fire Detection and Alarm System shall be of multiplex, microprocessor-controlled addressable or zonal conventional fire detection, alarm and communication system.
- The system shall consist of full integration automatic fire detection, voice alarm communication and fire fighters telephone system.
- The system shall consist of control station, mimic panel initiating and indicating devices, control modules and system of wirings.
- Actuation of the protective signaling system shall occur by manual pull station, automatic smoke or heat detector, sprinkler flow switch and tamper switch.
- The system shall be able to monitors the status of flow switches and supervisory switches installed at the Sprinkler System risers. These monitoring points are also addressable or the conventional zonal in the same way as the detectors are making them easily recognizable at the control panel.

- Occupant notification shall be accomplished automatically. Notification will be general, audible alarm type complying with appropriate section of NFPA.

- The system shall be installed with provisions for future connection to the nearest fire services station in the locality.

8. Security System:

- The Security system shall include intrusion detection and alarm, CCTV, access control or as may be required.

LOCAL AREA NETWORK (LAN) DESIGN PARAMETERS

I. Codes and Standards

The Local Area Network (LAN) Design shall be in accordance with the following Standards.

- Standards:

1. IEEE 802
- IEEE 802.1 Bridging (networking) and Network Management
- IEEE 802.2 Logical link control (upper part of data link layer)
- IEEE 802.3 Ethernet (CSMA/CD)
- IEEE 802.4 Token bus (disbanded)
- IEEE 802.5 Defines the MAC layer for a Token Ring (inactive)
- IEEE 802.6 Metropolitan Area Networks (disbanded)
- IEEE 802.7 Broadband LAN using Coaxial Cable (disbanded)
- IEEE 802.8 Fiber Optic TAG (disbanded)
- IEEE 802.9 Integrated Services LAN (disbanded)
- IEEE 802.10 Interoperable LAN Security (disbanded)
- IEEE 802.11 Wireless LAN & Mesh (Wi-Fi certification)
- IEEE 802.12 demand priority (disbanded)
- IEEE 802.13 Not Used
- IEEE 802.14 Cable modems (disbanded)
- IEEE 802.15 Wireless PAN
- IEEE 802.15.1 (Bluetooth certification)
- IEEE 802.15.4 (ZigBee certification)
- IEEE 802.16 Broadband Wireless Access (WiMAX certification)
- IEEE 802.16e (Mobile) Broadband Wireless Access
- IEEE 802.17 Resilient packet ring
- IEEE 802.18 Radio Regulatory TAG
- IEEE 802.19 Coexistence TAG
- IEEE 802.20 Mobile Broadband Wireless Access
- IEEE 802.21 Media Independent Handoff
- IEEE 802.22 Wireless Regional Area Network

2. ANSI/TIA/EIA-568

3. TR-49 (a new TIA Engineering Committee for Healthcare Communications Technology)

II. Site Works

Based on Master Site Development Plan of the Hospital, provide where applicable complete design and details of hospital local area network for voice and data connectivity.

III. Information and Communication Technology (ICT) Component

a. Installation of structured cabling system for Data and Voice Connectivity and wireless network (LAN)

- 1000 data nodes distributed to Hospital's office area
- 1000 voice nodes distributed to Hospital's office area
- Cabling for CCTV security system
- Packaged technical implementation and training services
- LAN main distribution should be fiber optic technology

b. Structured Cabling System for Data and Voice Connectivity and Data Connectivity

- 1000 data nodes distributed to the Offices

- Category 6, 4-pair UTP cable shall be 23 AWG, 100-Ohm, 4-pair UTP
- Category 6 Patch Panel
- Shall be 1RU and provide 24 modular jack ports, with universal wiring that maybe terminated to T568A or T568B
- Shall terminate the building cabling on 100-style insulation displacement connectors
- Category 6 Information Outlet/Modular Jack shall be terminated using a 100-style pc board connector, color-coded for both T568A and T568B wiring.
- Category 6 Patch Cord:
- Equipment patch cable assemblies, 4 ft in length, must be factory-manufactured with stranded CMR UTP cable and color-matched snag less rubber boots.
- Work area patch cord shall be 5 ft in length
- One patch cord per user outlet and equipment connectivity must be provided. One patch cord per user outlet and equipment connectivity must be provided
- For Category 6 Cabling installation – It shall all pass the following end-to-end Testing Parameters using Level III Cable Tester:
  - Attenuation
  - Attenuation to Crosstalk Ratio (ACR)
  - PowerSum Attenuation to Crosstalk Ratio (PSACR)
  - Near End Crosstalk (NEXT)
  - PowerSum Near-End Crosstalk (PSNEXT)
  - Equal Level Far-End Crosstalk (ELFEXT)
  - PowerSum Equal Level Far-End Crosstalk (PSELFEXT)
  - Return Loss
  - Propagation Delay
  - Delay Skew
  - Transfer Impedance

Voice Connectivity

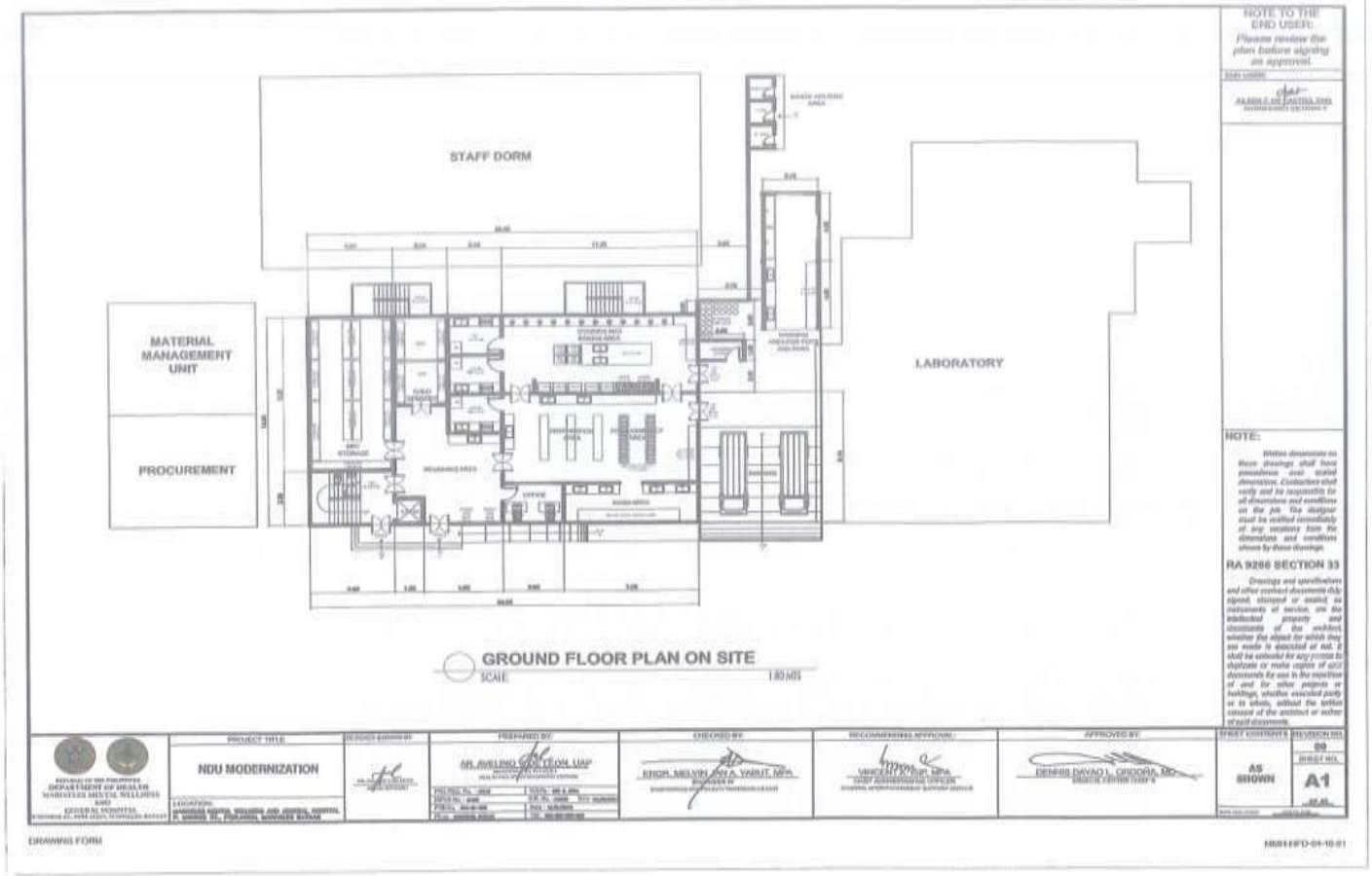
- Voice backbone and horizontal cabling shall be Category 6, 4-pair UTP which are 24 AWG, 100-Ohm, and shall meet or exceed the performance requirements of ANSI/TIA/EIA-568-B.2
- Category 6 Information Outlet/Modular Jack
- Telecommunication Terminal Cabinet shall be wall-mounted and has sufficient space or dimension to accommodate required wiring components
- Wiring blocks shall be 100-Pair count, wall mountable, with legs and shall fit traditional cross-connect backboard spacing and layout.

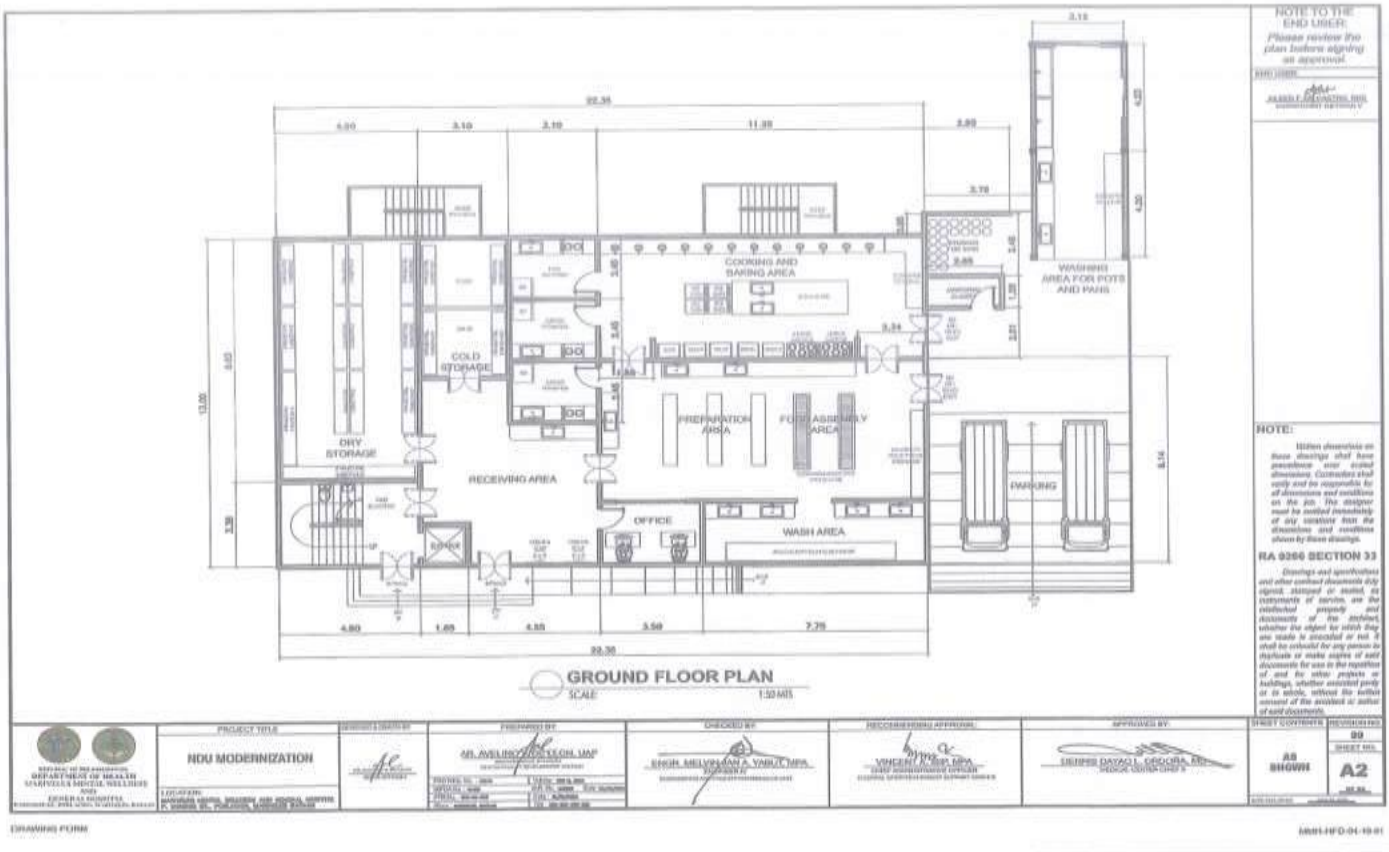
c. Cabling for CCTV Security System

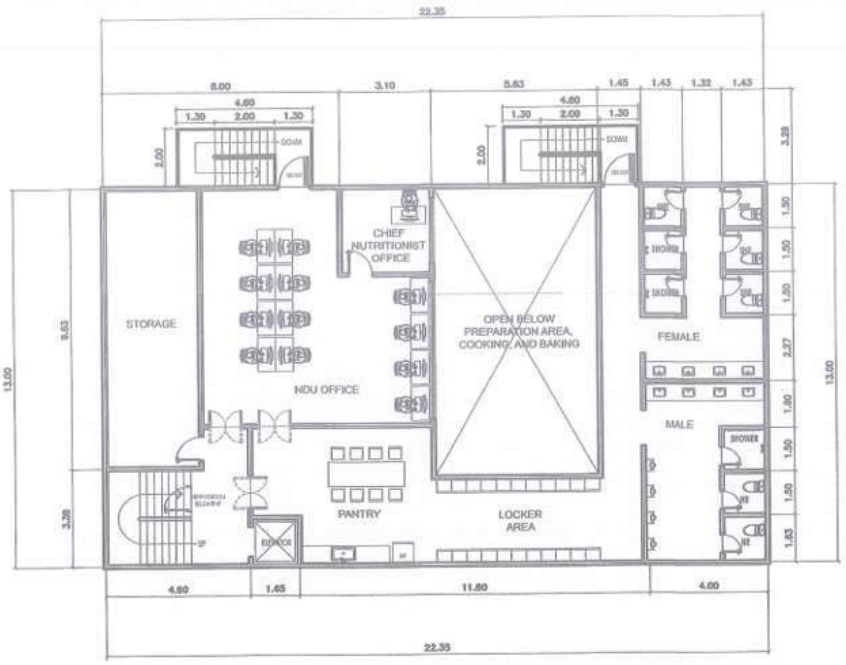
d. Other Requirement/s

- Supply of Communication cabinets (Intermediate Distribution Frame) for each floor of the building

Section VII. Drawings







SECOND FLOOR PLAN
SCALE: 1:50 MTS

NOTE TO THE END USER:
Please review the plan before signing as approval.

END USER:

AILEEN P. DECASTRO, RND
NUTRITIONIST DIETITIAN V

NOTE:

Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job. The designer must be notified immediately of any variations from the dimensions and conditions shown by these drawings.

RA 9266 SECTION 33

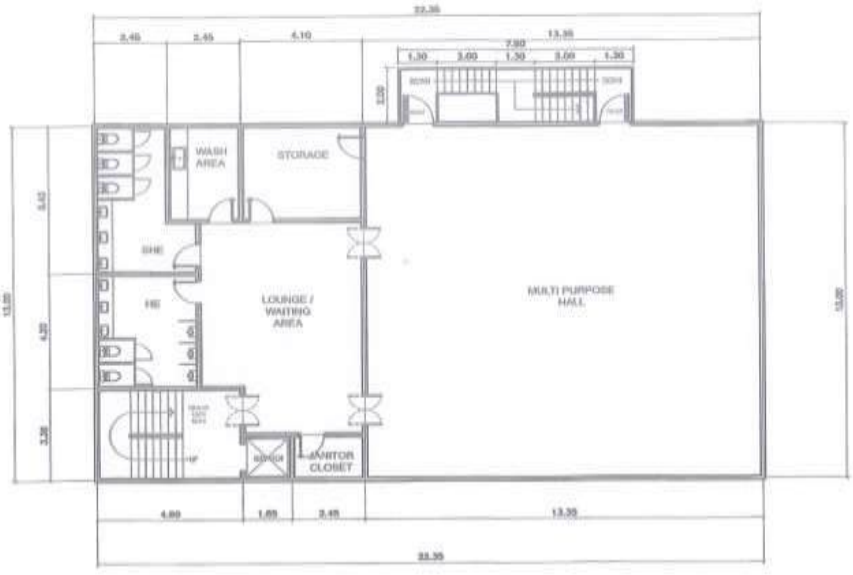
Drawings and specifications and other contract documents duly signed, stamped or sealed, as instruments of service, are the intellectual property and documents of the architect, whether the object for which they are made is executed or not. It shall be unlawful for any person to duplicate or make copies of said documents for use in the repetition of and for other projects or buildings, whether executed partly or in whole, without the written consent of the architect or author of said documents.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL

PROJECT TITLE	DESIGNED & DRAWN BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS	REVISION NO.
NDU MODERNIZATION		AR. AVELINO V. DE LEON, UAP	ENGR. MELVIN JAN A. YABUT, MPA	VINCENT P. SIP, MPA	DENNIS DAYAO L. ORDOÑA, MD	AS SHOWN	00
LOCATION: MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL P. BURGOS ST., POBLACION, MARIVELES BATAAN			ENGINEER IV	CHIEF ADMINISTRATIVE OFFICER	MEDICAL CENTER CHIEF II		SHEET NO. A3

DRAWING FORM

MMH-HFD-04-10-01



THIRD FLOOR PLAN
SCALE: 1:50 MTS

NOTE TO THE END USER:
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END USER:

AILEEN P. DECASTRO, RND
NUTRITIONIST DIETITIAN V

NOTE:

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RA 9266 SECTION 33

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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL

PROJECT TITLE	DESIGNED & DRAWN BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS	REVISION NO.
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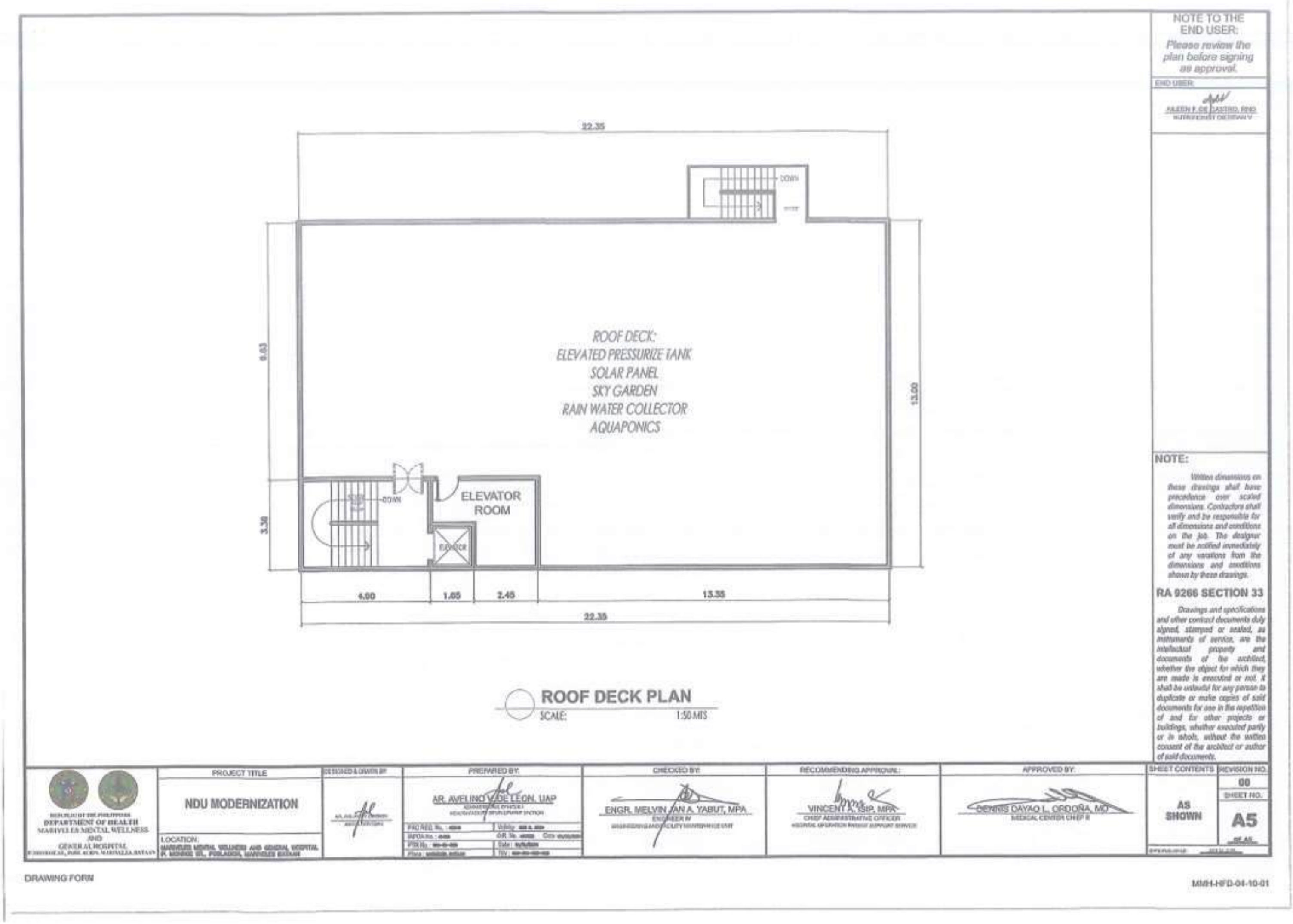
LOCATION: MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL P. BURGOS ST., POBLACION, MARIVELES BATAAN			ENGINEER IV	CHIEF ADMINISTRATIVE OFFICER	MEDICAL CENTER CHIEF II		SHEET NO. A4

DRAWING FORM

MMH-HFD-04-10-01



NOTE TO THE END USER:
Please review the plan before signing as approval.
END USER:
22.35
DOWN
ROOF DECK:
ELEVATED PRESSURIZE TANK
SOLAR PANEL
SKY GARDEN
RAIN WATER COLLECTOR
AQUAPONICS
13.00
3.30
DOWN
ELEVATOR ROOM
4.90
1.65
2.45
13.35
22.35
ROOF DECK PLAN
SCALE: 1:50 MTS
NOTE:
Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job. The designer must be notified immediately of any variations from the dimensions and conditions shown by these drawings.
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DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
PROJECT TITLE
NDU MODERNIZATION
LOCATION:
DESIGNED & DRAWN BY:
PREPARED BY:
AR. AVELINO V. DE LEON, UAP
CHECKED BY:
ENGR. MELVIN JAN A. YABUT, MPA
ENGINEER IV
RECOMMENDING APPROVAL:
VINCENT A. ISIP, MPA
CHIEF ADMINISTRATIVE OFFICER
APPROVED BY:
DENNIS DAYAO L. ORDOÑA, MD
MEDICAL CENTER CHIEF II
SHEET CONTENTS
AS SHOWN
REVISION NO.
00
SHEET NO.
A5
DRAWING FORM
MMH-HFD-04-10-01

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and

b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

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

Daywork Schedule

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

a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.

b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

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

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

Signature Box

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

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

Department of Health
Central Luzon Center for Health Development
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. Monroe Street, Poblacion, Mariveles, Bataan, Philippines, 2105
Mobile: 0968-8525-604; Office of the COH: 0968-852-6726 mail@mmwgh.gov.ph mmwgh.gov.ph

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)
I	**EARTHWORKS** a. Clearing and Grubbing b. Removal of structures and obstructions c. Excavation d. Structure Excavation e. Embankment	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____
II	**PLAIN AND REINFORCED CONCRETE WORKS** a. Reinforced Concrete b. Portland Cement c. Metal Reinforcement	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

III	**FINISHING** a. Termite Control work b. Storm drainage and Sewerage system c. Plumbing d. Carpentry and Joinery works e. Hardware f. Steel Windows g. Steel Doors and Frames h. Aluminum Glass Doors i. Aluminum Glass Windows j. Wooden Doors and Windows k. Rolling Up Doors l. Glass and Glazing m. Pre-painted Metal Sheets n. Waterproofing o. Roof Drains with strainers p. Floor and wall finishes q. Painting, Varnishing and other related works	1.0	l.s.	In words: Pesos _____ _____ _____ _____ In figures: Php _____ _____ _____ _____	In words: Pesos _____ _____ _____ __ In figures: Php _____ _____ _____ __
IV	**ELECTRICAL** a. Conduits, Boxes and Fittings b. Wires and Wiring Devices c. Power Load Center, Switchgear and Panel Boards	1.0	l.s.	In words: Pesos _____ _____ _____ _____ In figures: Php _____ _____ _____ _____	In words: Pesos _____ _____ _____ __ In figures: Php _____ _____ _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

V	**MECHANICAL** a. Air-conditioning and Refrigeration System b. Water Pumping System c. Automatic Water Sprinkler System d. Electric Elevator e. Electric Dumbwaiter f. Heating System g. Boiler h. Special Mechanical Fixtures	1.0	l.s.	In words: Pesos _____ _____ In figures: Php _____ _____ _____	In words: Pesos _____ _____ In figures: Php _____ _____ _____
VI	**PROTECTIVE WORKS AND ACCESSORIES**	1.0	l.s.	In words: Pesos _____ _____ _____ In figures: Php _____ _____ _____	In words: Pesos _____ _____ _____ In figures: Php _____ _____ _____ __
VII	**WATER SUPPLY** a. Excavation b. Backfill and Fill c. Installation of Pipeline d. Installation of Valves	1.0	l.s.	In words: Pesos _____ _____ _____ In figures: Php _____ _____ _____	In words: Pesos _____ _____ _____ In figures: Php _____ _____ _____ __

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

VIII	**DRAINAGE WORKS** a. Pipe Culverts and Storm Drains b. Underdrains c. Manholes, Inlets and Catch Basins d. Cleaning and Reconditioning Existing Drainage Structures	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

IX	**MAJOR EQUIPMENT/ DEVICES/ ACCESSORIES** Special Features and Furnishing: a. Twelve (12) Movable Stainless Sinks b. One (1) automatic dish washer c. Two (2) Food Handling Conveyor d. Three (3) Stainless Working Tables e. Two (2) 6-burner gas stoves f. Twelve (12) Low pressure Burners g. Two (2) Griddles h. Two (2) Grillers i. One (1) Oven j. Four (4) Rice Oven k. One (1) Stainless Kitchen Island with 2 stainless kitchen sinks l. One (1) Slicer machine m. Sixteen (16) Stainless steel cabinet racks Material/ Furniture to be used in temporary facility and to be transferred to the new building upon completion: a. Twelve (12) Movable Stainless sinks b. Three (3) Stainless Working Tables c. Seven (7) Low Pressure Burners d. Two (2) Grillers e. Four (4) Rice Oven f. One (1) Slicer Machine g. Five (5) Stainless Racks	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

	h. Gas Lines and Gas Tank Storage i. Pallets (preferrable PVC made) j. Five (5) Trolley				

Total Bid Amount in Figures: _____

Total Bid Amount in Words: _____

_____

_____
CONTRACTOR/BIDDER

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) in accordance with Section 8.5.2 of the IRR;

Technical Documents

☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**

☐ (c) 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**

☐ (d) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**

☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**

☐ (f) 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;

☐ d. Duly Signed Manpower Utilization Schedule

☐ e. Duly Signed Key Personnel Certificate/Contract of Employment

☐ f. Duly Signed Key Personnel Bio-Data with PRC License/Accreditation Latest Professional Tax Receipt (PTR)

☐ g. Duly Signed Construction Schedule & S-Curve

☐ h. Duly Signed Narrative Description of Construction Methods

☐ i. Duly Signed Construction Safety and Health Program.

☐ (g) 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

☐ (h) 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**

☐ (i) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

☐ (j) 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.

Additional Documentary Requirements

☐ (k) Certificate of Site Inspection

II. FINANCIAL COMPONENT ENVELOPE

☐ (l) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

☐ (m) Original of duly signed Bid Prices in the Bill of Quantities; **and**

☐ (n) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of materials, labor rates, and equipment rentals used in coming up with the Bid; **and**

☐ (o) Cash Flow by Quarter.

Note: Any missing document in the above-mentioned checklist is a ground for outright rejection of the bid.

Post Qualification Documents

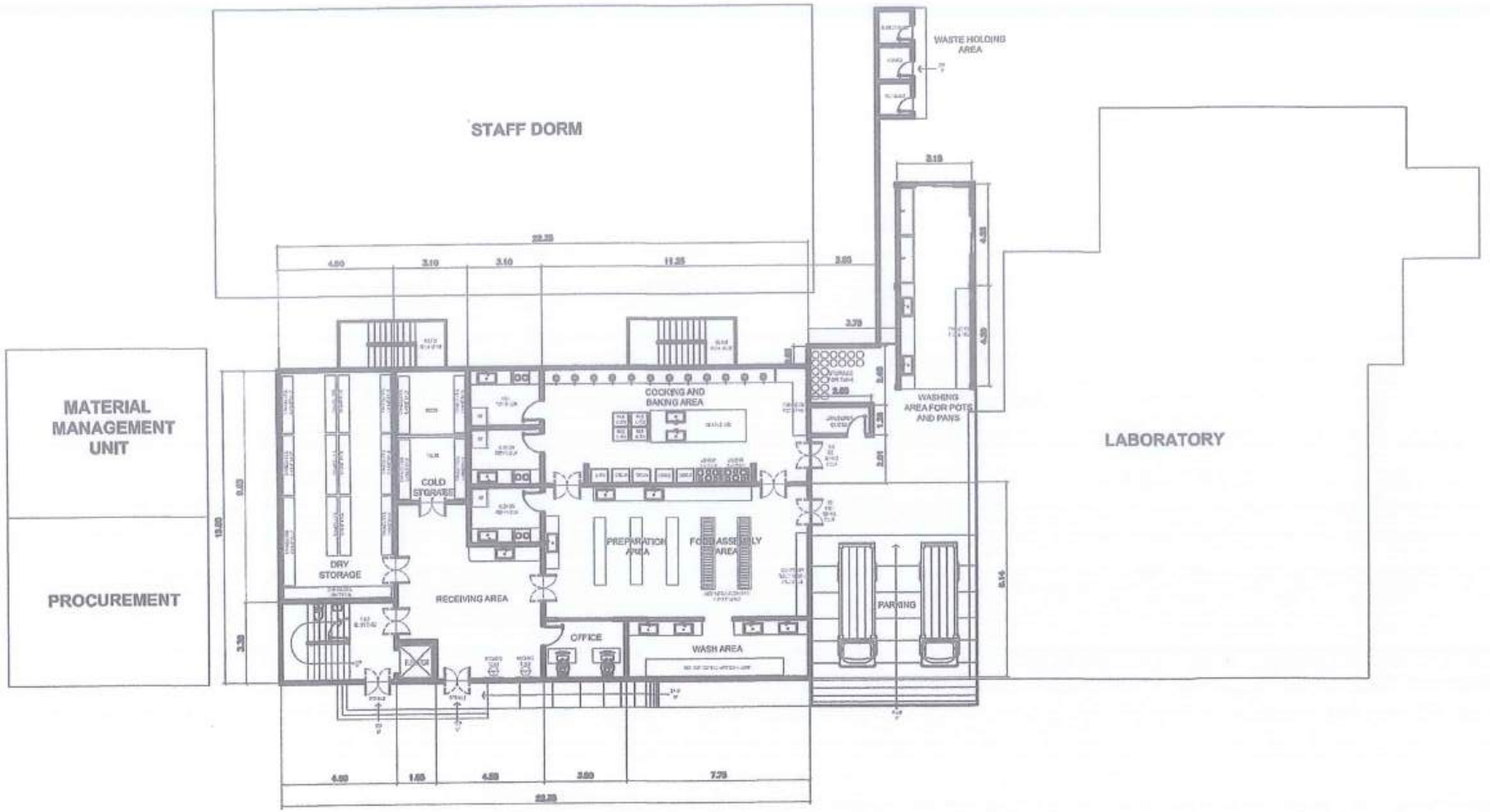
☐ 1. BIR Form 2303 (BIR Registration Certificate)
☐ 2. Business and Income Tax Return

Note: It is encouraged to submit the above-mentioned Post Qualification documents during Bid Opening to expedite the bidding process.

Requirements if Awarded the Contract

1. Cash or Letter of Credit issued by a Universal or Commercial Bank: Provided, however, That the Letter of Credit shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank. – Five percent (5%) of the Total Contract Price.
   or
2. Bank guarantee confirmed by a Universal or Commercial Bank. – Ten percent (10%) of the Total Contract Price.
   or
3. Surety bond callable upon demand issued by GSIS or a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security. – Thirty percent (30%) of the Total Contract Price.


Republic of the Philippines
gppb
Government Procurement Policy Board



GROUND FLOOR PLAN ON SITE

SCALE: 1:80 MTS

NOTE TO THE END USER:

Please review the plan before signing as approval.

END USER:

AILEEN F. DE CASTRO, RND
NUTRITIONIST DIETITIAN V

NOTE:

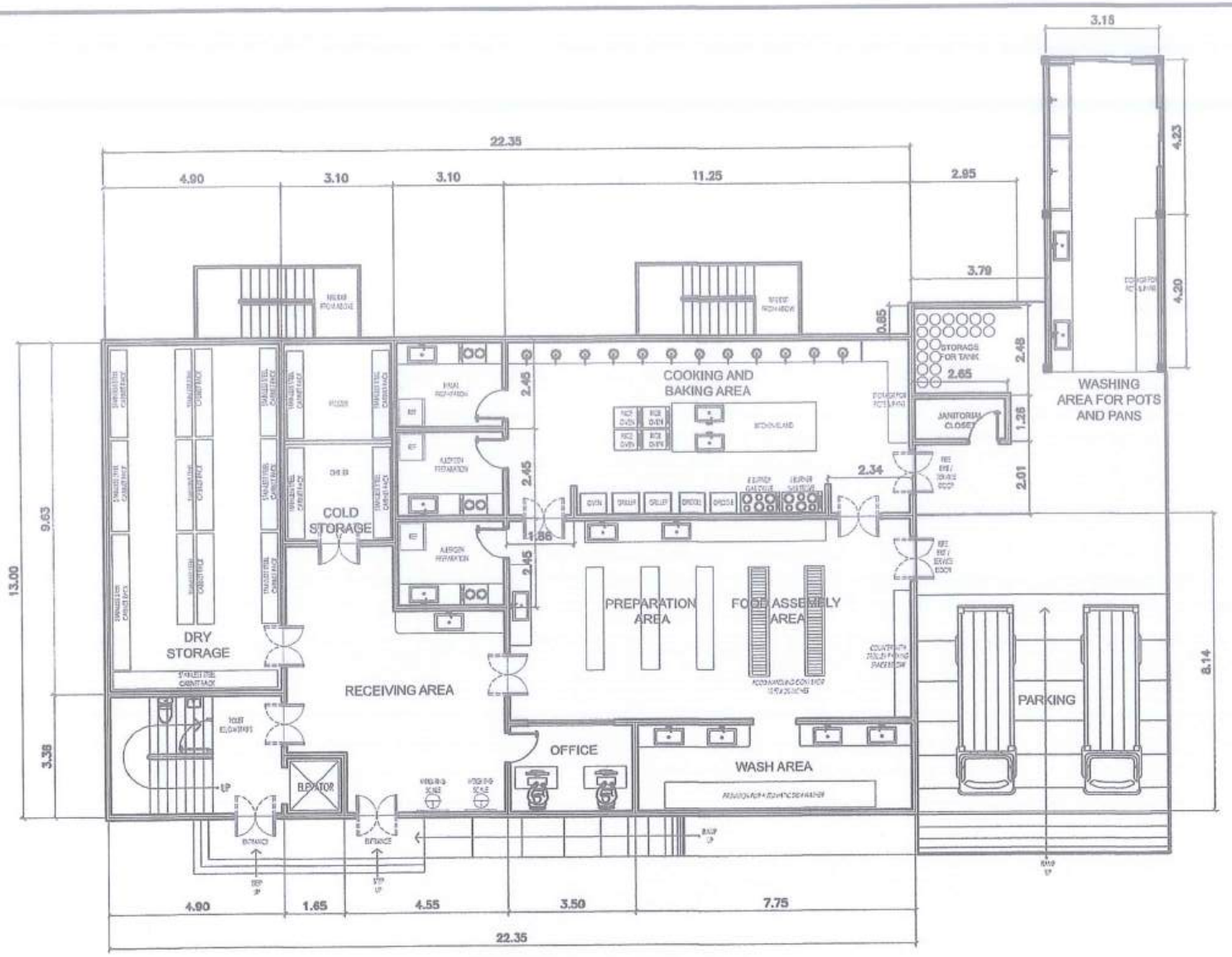
Written dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job. The designer must be notified immediately of any variations from the dimensions and conditions shown by these drawings.

RA 9266 SECTION 33

Drawings and specifications and other contract documents duly signed, stamped or sealed, as instruments of service, are the intellectual property and documents of the architect, whether the object for which they are made is executed or not. It shall be unlawful for any person to duplicate or make copies of said documents for use in the repetition of and for other projects or buildings, whether executed partly or in whole, without the written consent of the architect or author of said documents.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. MONROE ST., POBLACION, MARIVELES, BATAAN

PROJECT TITLE	DESIGNED & DRAWN BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS	REVISION NO.
NDU MODERNIZATION	AR. AVELINO V. DE LEON UAP ARCHITECT I	AR. AVELINO V. DE LEON, UAP ARCHITECT I HEALTH FACILITY DEVELOPMENT SECTION	ENGR. MELVIN JAN A. YABUT, MPA ENGINEER IV ENGINEERING AND FACILITY MAINTENANCE UNIT	VINCENT A. ISIP, MPA CHIEF ADMINISTRATIVE OFFICER HOSPITAL OPERATION/PATIENT SUPPORT SERVICE	DENNIS DAYAO L. ORDOÑA, MD MEDICAL CENTER CHIEF II	AS SHOWN	00
LOCATION: MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL P. MONROE ST., POBLACION, MARIVELES BATAAN		PRC REG. No. : IAPOA No. : PTR No. : Place :	Validity : O.R. No. : Date : TIN :				SHEET NO. A1 OF A5
						DATE PUBLISHED:	



GROUND FLOOR PLAN

SCALE: 1:50 MTS

NOTE TO THE END USER:

Please review the plan before signing as approval.

END USER:

AILEEN F. DE CASTRO, RND
NUTRITIONIST DIETITIAN V

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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. MONROE ST., POBLACION, MARIVELES, BATAAN

PROJECT TITLE	DESIGNED & DRAWN BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS	REVISION NO.
NDU MODERNIZATION	AR. AVELINO V. DE LEON, UAP ADMINISTRATIVE OFFICER I	AR. AVELINO V. DE LEON, UAP ADMINISTRATIVE OFFICER I HEALTH FACILITY DEVELOPMENT SECTION	ENGR. MELVIN JAN A. YABUT, MPA ENGINEER IV ENGINEERING AND FACILITY MAINTENANCE UNIT	VINCENT A. ISIP, MPA CHIEF ADMINISTRATIVE OFFICER HOSPITAL OPERATION PATIENT SUPPORT SERVICE	DENNIS DAYAO L. ORDOÑA, MD MEDICAL CENTER CHIEF II	AS SHOWN	00
LOCATION: MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL P. MONROE ST., POBLACION, MARIVELES BATAAN		PRC REG. No. : Validity : IAPOA No. : O.R. No. PTR No. : Date : Place : TIN :					SHEET NO. A2 OF A5

DRAWING FORM

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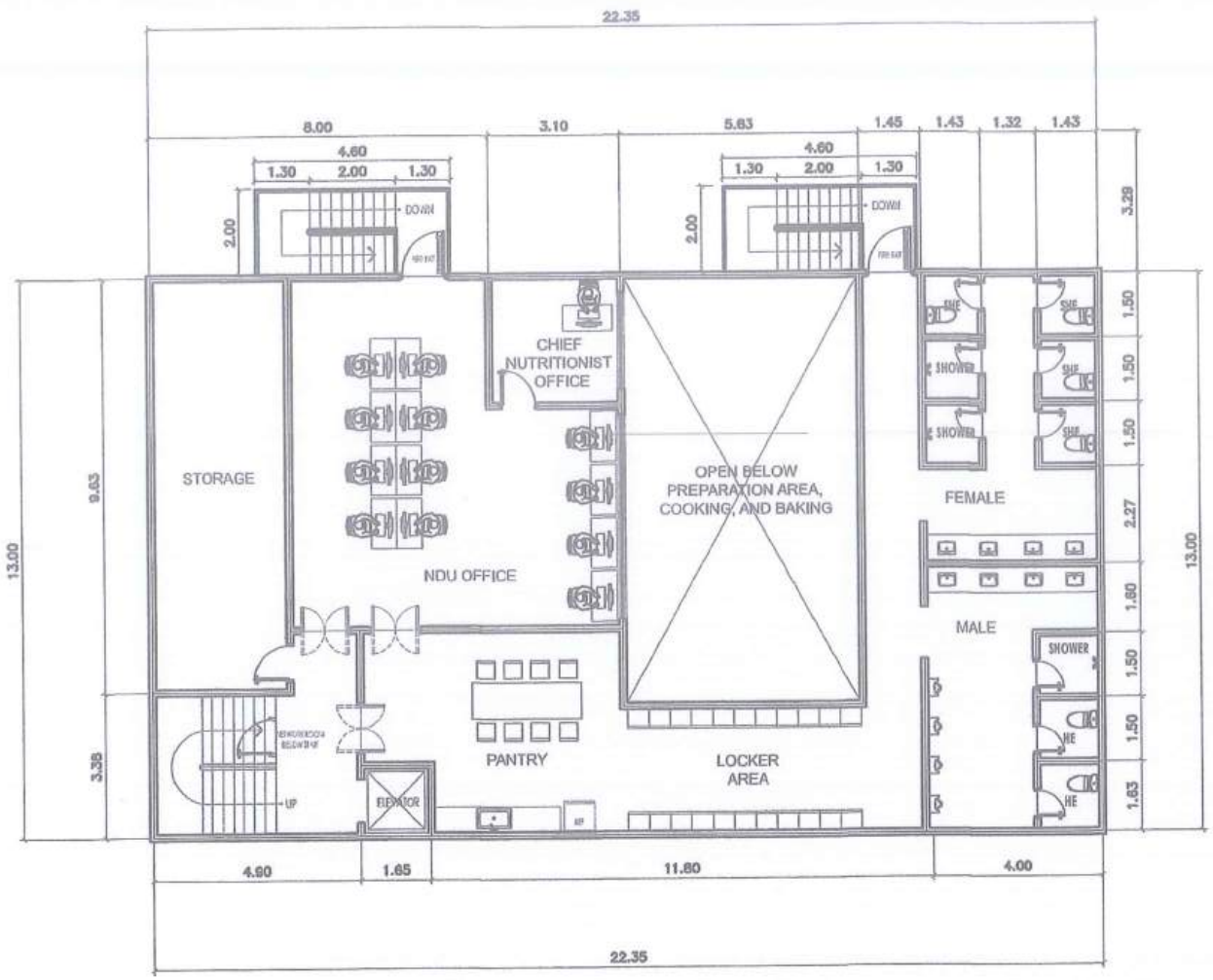

SECOND FLOOR PLAN

SCALE: 1:50 MTS

NOTE TO THE END USER:

Please review the plan before signing as approval.

END USER:

AILEEN P. DE CASTRO, RND
NUTRITIONIST DIETITIAN V

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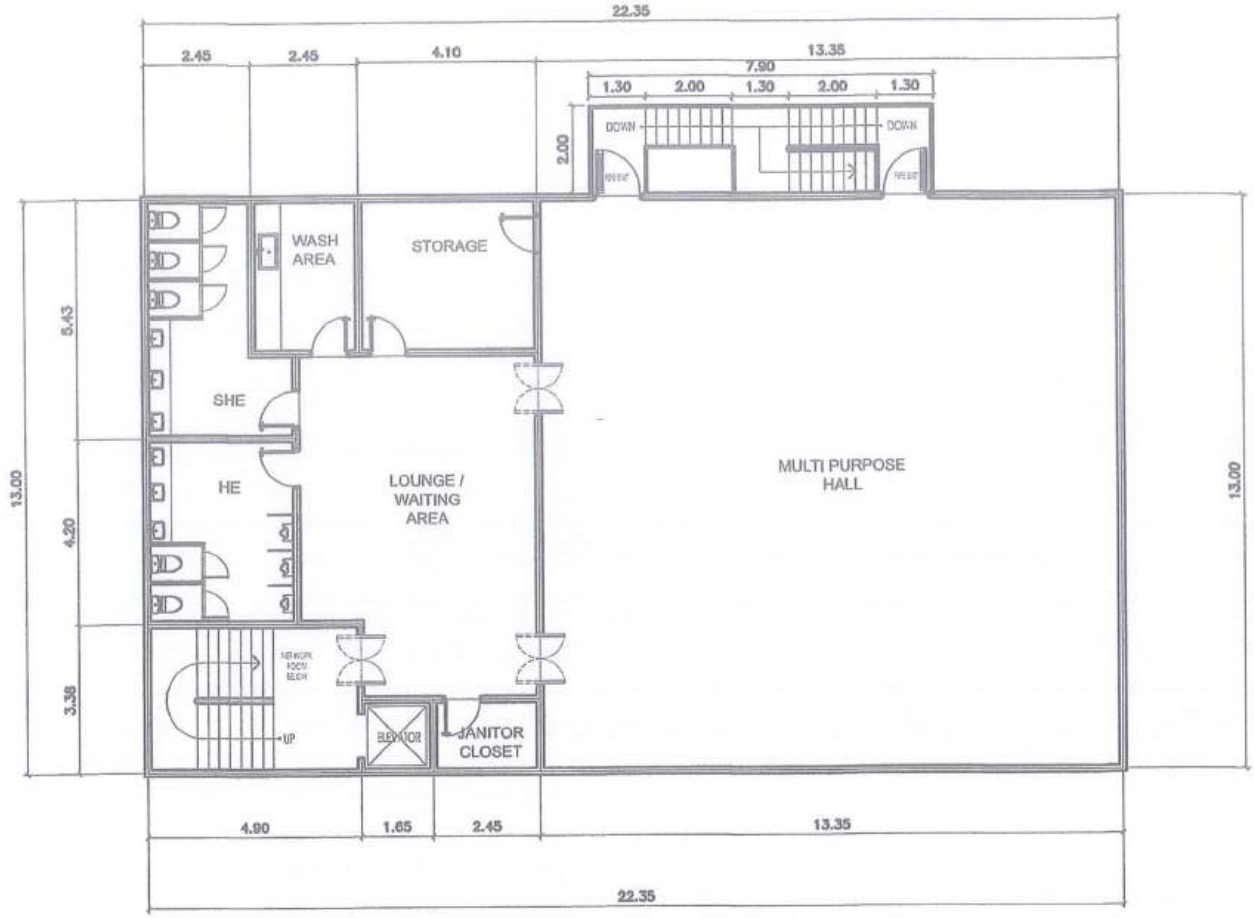
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. MONROE ST., POBLACION, MARIVELES, BATAAN

PROJECT TITLE	DESIGNED & DRAWN BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS	REVISION NO.
NDU MODERNIZATION	AR. AVELINO V. DE LEON, UAP ADMINISTRATIVE OFFICER I	AR. AVELINO V. DE LEON, UAP ADMINISTRATIVE OFFICER I HEALTH FACILITY DEVELOPMENT SECTION	ENGR. MELVIN JAN A. YABUT, MPA ENGINEER IV ENGINEERING AND FACILITY MAINTENANCE UNIT	VINCENT A. ISIP, MPA CHIEF ADMINISTRATIVE OFFICER HOSPITAL OPERATION PATIENT SUPPORT SERVICE	DENNIS DAYAO L. ORDOÑA, MD MEDICAL CENTER CHIEF II	AS SHOWN	00
LOCATION: MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL P. MONROE ST., POBLACION, MARIVELES BATAAN		PRC REG. No. : IAPOA No. : PTR No. : Place :	Validity : O.R. No. : Date : TIN :				SHEET NO. A3 OF A3
						DATE PUBLISHED:	



THIRD FLOOR PLAN

SCALE: 1:50 MTS

NOTE TO THE END USER:

Please review the plan before signing as approval.

END USER:

AILEEN F. DE CASTRO, RND
NUTRITIONIST DIETITIAN V

NOTE:

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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. MONROE ST., POBLACION, MARIVELES, BATAAN

PROJECT TITLE	DESIGNED & DRAWN BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS	REVISION NO.
NDU MODERNIZATION	AR. AVELINO V. DE LEON ADMIN. OFFICER I	AR. AVELINO V. DE LEON, UAP ADMINISTRATIVE OFFICER I HEALTH FACILITY DEVELOPMENT SECTION	ENGR. MELVIN JAN A. YABUT, MPA ENGINEER IV ENGINEERING AND FACILITY MAINTENANCE UNIT	VINCENT A. ISIP, MPA CHIEF ADMINISTRATIVE OFFICER HOSPITAL OPERATION PATIENT SUPPORT SERVICE	DENNIS DAYAO L. ORDOÑA, MD MEDICAL CENTER CHIEF II	AS SHOWN	00 SHEET NO. A4 of A5

LOCATION: MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL, P. MONROE ST., POBLACION, MARIVELES BATAAN

PRC REG. No. : [redacted] Validity : [redacted]
IAPOA No. : [redacted] O.R. No. [redacted] Date [redacted]
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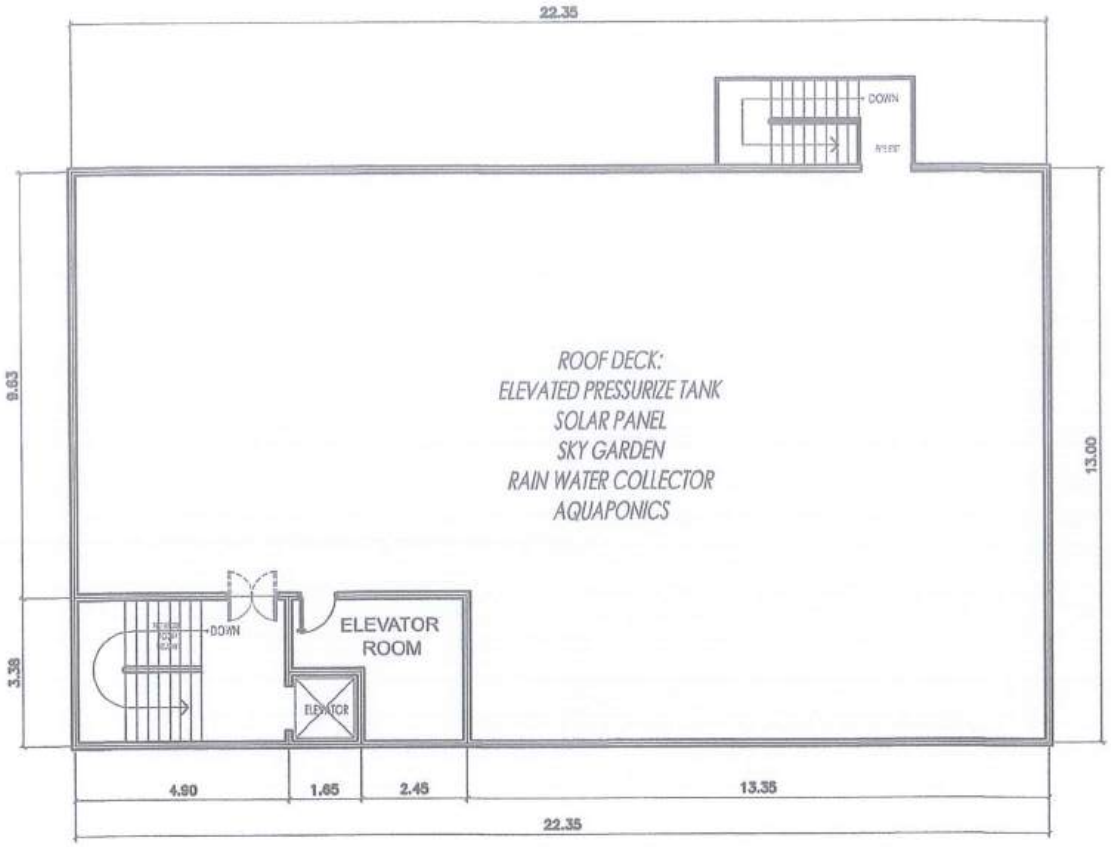
Place : [redacted] TIN : [redacted]

DATE PUBLISHED: [redacted]



ROOF DECK PLAN

SCALE: 1:50 MTS

NOTE TO THE END USER:

Please review the plan before signing as approval.

END USER:

AILEEN F. DE CASTRO, RND
NUTRITIONIST DIETITIAN V

NOTE:

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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF HEALTH
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. MONROE ST., POBLACION, MARIVELES, BATAAN

PROJECT TITLE	NDU MODERNIZATION
LOCATION:	MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL, P. MONROE ST., POBLACION, MARIVELES BATAAN
DESIGNED & DRAWN BY:	AR. AVELINO V. DE LEON, UAP, ADMINISTRATIVE OFFICER I
PREPARED BY:	AR. AVELINO V. DE LEON, UAP ADMINISTRATIVE OFFICER I HEALTH FACILITY DEVELOPMENT SECTION PRC REG. No. : [illegible] Validity : [illegible] IAPOA No. : [illegible] O.R. No. : [illegible] Date: [illegible] PTR No. : [illegible] Date: [illegible] Place : [illegible] TIN : [illegible]
CHECKED BY:	ENGR. MELVIN JAN A. YABUT, MPA ENGINEER IV ENGINEERING AND FACILITY MAINTENANCE UNIT
RECOMMENDING APPROVAL:	VINCENT A. ISIP, MPA CHIEF ADMINISTRATIVE OFFICER HOSPITAL OPERATION PATIENT SUPPORT SERVICE
APPROVED BY:	DENNIS DAYAO L. ORDOÑA, MD MEDICAL CENTER CHIEF II
SHEET CONTENTS	AS SHOWN
REVISION NO.	00
SHEET NO.	A5 OF A5
DATE PUBLISHED:	[illegible]

Department of Health
Central Luzon Center for Health Development
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. Monroe Street, Poblacion, Mariveles, Bataan, Philippines, 2105
Mobile: 0968-8525-604; Office of the COH: 0968-852-6726 mail@mmwgh.gov.ph mmwgh.gov.ph

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)
I	**EARTHWORKS** a. Clearing and Grubbing b. Removal of structures and obstructions c. Excavation d. Structure Excavation e. Embankment	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____
II	**PLAIN AND REINFORCED CONCRETE WORKS** a. Reinforced Concrete b. Portland Cement c. Metal Reinforcement	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

III	**FINISHING** a. Termite Control work b. Storm drainage and Sewerage system c. Plumbing d. Carpentry and Joinery works e. Hardware f. Steel Windows g. Steel Doors and Frames h. Aluminum Glass Doors i. Aluminum Glass Windows j. Wooden Doors and Windows k. Rolling Up Doors l. Glass and Glazing m. Pre-painted Metal Sheets n. Waterproofing o. Roof Drains with strainers p. Floor and wall finishes q. Painting, Varnishing and other related works	1.0	l.s.	In words: Pesos _____ _____ _____ _____ In figures: Php _____ _____ _____ _____	In words: Pesos _____ _____ _____ __ In figures: Php _____ _____ _____ __
IV	**ELECTRICAL** a. Conduits, Boxes and Fittings b. Wires and Wiring Devices c. Power Load Center, Switchgear and Panel Boards	1.0	l.s.	In words: Pesos _____ _____ _____ _____ In figures: Php _____ _____ _____ _____	In words: Pesos _____ _____ _____ __ In figures: Php _____ _____ _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

V	**MECHANICAL** a. Air-conditioning and Refrigeration System b. Water Pumping System c. Automatic Water Sprinkler System d. Electric Elevator e. Electric Dumbwaiter f. Heating System g. Boiler h. Special Mechanical Fixtures	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____
VI	**PROTECTIVE WORKS AND ACCESSORIES**	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____
VII	**WATER SUPPLY** a. Excavation b. Backfill and Fill c. Installation of Pipeline d. Installation of Valves	1.0	l.s.	In words: Pesos _____ In figures: Php _____	In words: Pesos _____ In figures: Php _____

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

VIII	**DRAINAGE WORKS** a. Pipe Culverts and Storm Drains b. Underdrains c. Manholes, Inlets and Catch Basins d. Cleaning and Reconditioning Existing Drainage Structures	1.0	l.s.	In words: Pesos _____ _____ _____ _____ In figures: Php _____ _____ _____ _____	In words: Pesos _____ _____ _____ __ In figures: Php _____ _____ _____ __

Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
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Project Name: Design and Build for the Modernization of Nutrition and Dietetics Building
Location of the Project: MMWGH Compound, Mariveles, Bataan

	h. Gas Lines and Gas Tank Storage i. Pallets (preferrable PVC made) j. Five (5) Trolley				

Total Bid Amount in Figures: _____

Total Bid Amount in Words: _____

_____
CONTRACTOR/BIDDER

Department of Health
Central Luzon Center for Health Development
MARIVELES MENTAL WELLNESS AND GENERAL HOSPITAL
P. Monroe Street, Poblacion, Mariveles, Bataan, Philippines, 2105
Mobile: 0968-8525-604; Office of the COH: 0968-852-6726 mail@mmwgh.gov.ph mmwgh.gov.ph

DESIGN AND BUILD FOR THE MODERNIZATION OF NUTRITION AND DIETETICS BUILDING

TERMS OF REFERENCE
DESIGN & BUILD SERVICES

GENERAL PROJECT DESCRIPTION

I. INTRODUCTION

A. Background and Rationale:

Under Republic Act No. 11288, An Act Increasing the Bed Capacity of the Mariveles Mental Hospital in Mariveles, Bataan, from Five Hundred (500) Beds to Seven Hundred (700) Beds, Upgrading its Services, to Include the Operation of a Level 1 General Ward with One Hundred (100)-Bed Capacity, to be known as the Mariveles Mental Wellness and General Hospital and Appropriating Funds Therefore, signed into law on April 12, 2019, by President Rodrigo R. Duterte, this hospital has the mandate to increase its 500 authorized bed capacity for psychiatry cases to 700.

This year, the Health Facility Enhancement Program (HFEP) of the Department of Health allotted the amount of One-Hundred Million Pesos (Php100,000,00.00) to continue the construction of the General Hospital. However, the Department of Public Works and Highways and the contractor encountered delays during implementation of the project. Anent to this, we consulted the HFEP on how we can utilize the 100M sub-allotment. Upon discussion, the HFEP concurred with our proposal to use portion of the budget for upgrading and modernizing our Nutrition and Dietetics building.

B. Objectives

The Mariveles Mental Wellness and General Hospital has the mandate to increase its 500 authorized bed capacity for psychiatry cases to 700 which intended to improve the delivery of specialized health services through the rationalization and critical upgrading of health facilities.

The 2024 Infrastructure Project of Mariveles Mental Wellness and General Hospital will achieve the following major objectives:

1. To modernize the NDU building with state-of-the-art facilities.
2. To expand services of MMWGH to fulfill its role as Mental Health Advanced Center.

II. PROJECT REQUIREMENTS

A. Preliminary Information/Studies for Design.

III. PROJECT COMPONENTS

Site and space planning were governed by the standards, rules and regulations on the design of hospital as prescribed by the Department of Health and other concerned agencies. Building design shall conform to the provisions of the National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), Mechanical Engineering Law (RA 5336), Plumbing Code (RA 1378, 1993-1994 Revisions), Fire Code (RA 9514), Code on Sanitation PD 856, Philippine Green Building Code, and other laws and regulations covering environmental concerns and local ordinances and regulations.

DOH-ADMINISTRATIVE ORDER 2020-0011

Guidelines in the Implementation of the Unified Color, Signage Features, and Design of Identified Interior Spaces for Health Facilities Enhancement Program (HFEP)-funded and coordinated Health Facilities and Medical Transport Vehicles.

All health facilities, regardless of the scope of work, funded by and coordinated through HFEP, shall strictly follow the Unified Colors, Signage Features, and Design of Identified Interior Spaces prescribed in this Order.

A. **Pre-Detailed Design**

1. Engineering Surveys and Investigations
   - 1.1 Surveys and investigations of the site includes boundaries of the property, elevations and contours (at 0.5m interval), location, dimension, floor elevations and other pertinent data on existing buildings and improvements (roads, parking areas, mature trees) and existing utility lines (e.g. water, power, telephone).
   - 1.2 Soil tests have been conducted.
   - 1.3 Topographic survey
2. Design Development Drawings
   - 2.1 Preparation of the following drawings for design development based on the approved schematic plans prepared by the DOH/ MMWGH
     - 2.1.1.1 Perspective View
     - 2.1.1.2 Floor plans, two (2) sections and four (4) elevations, including complete space allocation.

B. **Detailed Design** Preparation of the following Detailed Design Drawings (see DOH Checklist of Drawings Requirements) based on the Design Development Drawings and Design Parameters including any revisions and refinements as approved and required by the DOH/ MMWGH.

a. Detailed Architectural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
b. Detailed Structural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
c. Detailed Electrical Plans (refer to Checklist of Drawings Requirements and Design Parameters).
d. Detailed Electronic and Communication plans (refer to Checklist of Drawings Requirements and Design Parameters)
e. Detailed Storm Drain, Sanitary and Plumbing Plans (refer to Checklist of Drawings Requirements and Design Parameters).
f. Detailed Mechanical Plans (refer to Checklist of Drawings Requirements and Design Parameters).
g. Structural Computations, including Soil Boring Test Results and Seismic Analysis and Electrical Design Computations.
h. General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
i. Detailed Bill of Quantities, Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.

C. **Construction Work**

- As a rule, contract implementation guidelines for procurement of infrastructure projects shall comply with Annex "E" and guidelines for the implementation of contracts for DESIGN AND BUILD infrastructure projects shall comply with Annex "G" of IRR, RA 9184. The following provisions shall supplement these procedures:

1. No works shall commence unless the contractor has submitted the prescribed documentary requirements and the DOH/MMWGH has given written approval. Work execution shall be in accordance with reviewed and approved documents.

2. The contractor shall be responsible for obtaining all necessary information as to risks, contingencies and other circumstances which may affect the works and shall prepare and submit all necessary documents specified by the concerned Building Officials to meet all regulatory approvals as specified in the contract documents.
3. The contractor shall submit a detailed program of works within fourteen (14) calendar days after the issuance of the Notice to Commence for approval by the procuring entity that shall include, among others:
    a. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
    b. Periods for review of specific outputs and any other submissions and approvals;
    c. Sequence of timing for inspection and tests;
    d. General description of the design and construction methods to be adopted;
    e. Number and names of personnel to be assigned for each stage of the work;
    f. List of equipment required on site for each stage of the work; and
    g. Description of the quality control system to be utilized for the project.
4. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the contractor wishes to modify the design or document which has been previously submitted, reviewed and approved, the contractor shall notify the DOH/MMWGH within a reasonable period of time and shall shoulder the cost of such changes.
5. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
    a. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the DOH/MMWGH.
    b. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the DOH/MMWGH performance specifications and parameters, the contractor shall be entitled to either one of the following:
        1. An extension of time for any such delays under Section 10 of Annex "E" of IRR (RA 9184); or
        2. Payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original project cost.
    c. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installments in which the contract will be paid.
    d. The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex "E", IRR (RA 9184).
    e. The DOH/MMWGH shall define the quality control procedures for the design and construction in accordance with the DOH guidelines

and shall issue the proper certificates of acceptance for sections of the works or whole of the works as provided for in the contract documents.

f. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.

g. This design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice to the liabilities imposed upon the engineer/architect who drew up the plans and specification for building sanctioned under Section 1723 of the New Civil Code of the Philippines.

h. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty period of 15 years for permanent structures/buildings as specified in Section 62.2.3.2 of the IRR (RA 9184).

- The assigned project engineer or the assigned representative of the contractor must attend the weekly coordination meeting to present project status reports, including the following item and in standard format:

    a. Page one content:
        i. Name of facility
        ii. Project description
        iii. Location
        iv. Contract Amount
        v. Contractor
        vi. Date of presentation
        vii. Presentation number
    b. Page two content:
        i. Date of issuance of permits and other related documents.
        ii. Progress S-curve and Construction schedule (planned and actual schedule)
        iii. Two weeks look ahead to schedule catch-up plans with drawing
        iv. Site photos with description and remarks.
    c. Page three content (tabular format):
        i. 1st column – description of the problem encountered on site
        ii. 2nd column – remarks of the contractor
        iii. 3rd column – action taken/ proposal

- Any errors, omissions, inconsistencies, inadequacies, or failures submitted by the contractor that does not comply with the requirements shall be rectified, resubmitted, and reviewed at the contractor's cost.
- If the contractor wishes to modify the design or document which has been previously submitted, reviewed and approved, the contractor shall submit a formal letter to the Office of the Medical Center Chief of DOH/MMWGH through the Chief Administrative Officer and Hospital Engineer of MMWGH.

IV. IMPLEMENTATION ARRANGEMENT

□ Reporting Protocol

Contact Persons:

Dennis Dayao L. Ordoña, MD
Medical Center Chief II

Vincent A. Isip, MPA
Chief Administrative Officer

Melvin Jan A. Yabut, CE, MPA
Engineer IV

DETAILED PROJECT REFERENCE

V. ELIGIBILITY REQUIREMENTS:

A. Basic

1. The eligibility requirements for Design Scheme shall comply with the applicable provisions of Section 12.1 (a) of the ITB and 12.1 (a) of the Bid Data Sheet (BDS) of this bidding document.
2. A modified set of requirements integrating eligibility documents and criteria for infrastructure projects and consulting services shall be adopted in accordance with Annex G - Guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects Annex "G" of IRR of RA 9184
4. The Design Build Contractor must have completed a similar project in the amount of at least fifty percent (50%) of the ABC. For this project, a similar project will be defined as at least three (3) storey building with roof deck, which includes special requirements such as automatic fire sprinkler system, elevator system and communication system.

B. Specialized

B.1 For the Pre-Detailed Design and Detailed Design portion of the contract, the Bidder is required to have required to enter into a joint venture agreement with an architectural firm that will design the project with the minimum number of professionals as shown below:

1. Design/Principal Architect (1)
   a. Licensed Architect
   b. At least 10 years of experience in hospital and hospital dietary facility construction, which focuses on creating efficient food service areas that meet regulations and improve operational workflows.
2. Junior Architect (2)
   a. Licensed Architect
   b. At least 5 years of experience
   c. Proficient in AutoCAD Software
3. Structural/ Civil Engineer (1)
   a. Licensed Structural/ Civil Engineer
   b. At least 10 years of experience in structural design of medium-rise structures, typically 4 to 10 floors, serve residential and commercial

uses, enabling denser urban development with elevators becoming standard.

c. Proficient in AutoCAD Software

4. Professional Electrical Engineer (1)
   a. Licensed Professional Electrical Engineer (PEE)
   b. At least 10years experience
   c. Proficient in AutoCAD Software
5. Professional Mechanical Engineer (1)
   a. Licensed Professional Mechanical Engineer (PME)
   b. At least 10years experience
   c. Proficient in AutoCAD Software
6. Sanitary Engineer (1)
   a. Licensed Professional Sanitary Engineer (PSSE)
   b. At least 10years experience
   c. Proficient in AutoCAD Software
7. Professional Electronics Engineer (1)
   a. Licensed Professional Electronics Engineer (PECE)
   b. At least 10years experience
   c. Proficient in AutoCAD Software
8. CADD Operator (4) (one for Architecture and one for each engineering specialty)
   a. At least 5 years in experience
   b. Has a Bachelor's Degree in Architecture or Engineering
   c. Proficient in AutoCAD Software
9. Others as required for the project
   a. The bidder is required to prioritize the hiring of locally-based architects, engineers, and draftsmen especially if such have had experience and training in health facilities projects and design.

B.2. For the construction portion of the contract, the Bidder must assign to the project professionals as shown below:

1. Project Manager (1)
   a. Licensed Engineer or Architect
   b. At least 10 years of construction management experience, overseeing project planning, coordination, budget control, and timely execution.

2. Project Engineer (2)
   a. Licensed Civil Engineer
   b. At least 5 years of construction management experience, overseeing project planning, coordination, budget control, and timely execution.

3. Project Architect (1)
   a. Licensed Architect
   b. At least 5 years of construction management experience, overseeing project planning, coordination, budget control, and timely execution.

4. Materials Engineer (1)
   a. Licensed Engineer
   b. DPWH Accredited

5. Construction Safety Officer (1)
   a. Licensed Engineer/Architect
   b. DOLE accredited/trained

a. Licensed Engineer/Architect
b. DOLE accredited/trained
c. Must execute an undertaking that safety officer/s shall be present during the construction phase

6. Quality Assurance/ Quality Control Officer (1)
   a. Licensed Architect/Engineer
   b. DOLE accredited/trained

7. Electrical Engineer (1)
   a. Licensed Electrical Engineer
   b. At least 5 years of experience

8. Sanitary Engineer (1)
   a. Licensed Sanitary Engineer
   b. At least 5 years of experience

10. Mechanical Engineer (1)
    a. Licensed Mechanical Engineer
    b. At least 5 years of experience

11. Electronics Engineer (1)
    c. Licensed Electronics Engineer
    d. At least 5 years of experience

APPROVED BUDGET COST

The total approved budget cost for the Project is **Forty-Five Million Pesos (Php 45,000,000.00).**

LEVEL	AREA	AMOUNT
Ground floor	429.25	15,100,000.00
Second Floor	242.85	8,500,000.00
Third Floor	295.85	10,400,000.00
Roof Deck	295.85	6,000,000.00
Temporary NDU facility (storage, preparation, and cooking)	394.60	5,000,000.00
Project Cost		**45,000,000.00**

VI. TIME FRAME

The Design Firm/ Contractor is required to complete the Project within an indicative period as shown below, to start within 7 days upon the contractor's receipt and signing of Notice to Proceed. The time frame to be followed for the project is as follows.

ACTIVITY	DAYS											
	30	60	90	120	150	180	210	240	270	300	330	360
Pre-Detailed Design and Detailed Design	→											
Construction including Application and Issuance of Building Permit and Acceptance and Turnover		→	→	→	→	→	→	→				

VII. SCOPE OF WORKS:

1. Pre- Detailed Design
    a. Geodetic Survey of lot and structures
    b. Topographic Survey

2. Detailed Design Works
    a. Detailed Architecture and Engineering Design
        i. Modernization, Retrofitting and Upgrading of existing Nutrition and Dietetics Building into Three-Storey with Roof Deck Building
        ii. 8 sets of building plans signed and sealed by respected registered and licensed Professional:
            1. Paper size: 20" X 30"
            2. Copy Furnished of Building Plans (signed copy):
                a. 2 sets – MMWGH
                b. 5 sets – Office of the Building Official/ BFP
                c. 1 set – Site copy
    b. Technical Specifications
        i. 8 sets, signed and sealed by licensed Professional:
            1. Paper size: A4 Size Bond paper
            2. Copy Furnished of Building Plans (signed copy):
                a. 2 sets – MMWGH
                b. 5 sets – Office of the Building Official/ BFP
                c. 1 set – Site copy
    c. Bill of Quantities and Detailed Cost Estimates
        i. 8 sets, signed and sealed by licensed Professional:
            1. Paper size: A4 Size Bond paper
            2. Copy Furnished of Building Plans (signed copy):
                a. 2 sets – MMWGH
                b. 5 sets – Office of the Building Official/ BFP
                c. 1 set – Site copy
    d. Engineering Computations including Structural Analysis
        i. 8 sets, signed and sealed by licensed Professional:
            1. Paper size: A4 Size Bond paper
            2. Copy Furnished of Building Plans (signed copy):
                a. 2 sets – MMWGH
                b. 5 sets – Office of the Building Official/ BFP

c. 1 set – Site copy

e. Detailed Summary of Works
   i. 8 sets, signed and sealed by licensed Professional:
      1. Paper size: A4 Size Bond paper
      2. Copy Furnished of Building Plans (signed copy):
         a. 2 sets – MMWGH
         b. 5 sets – Office of the Building Official/ BFP
         c. 1 set – Site copy

3. Construction Works (inclusive of Building Permits, and other licenses required.)

General Scope: Modernization of 3-Storey with Roof Deck Nutrition and Dietetics Building, the project includes the retrofitting, upgrading and modernizing the existing NDU building and construction of temporary facility for NDU operations with complete architectural and engineering works breakdown of which is but not limited to the following:

a. Site Preparation Works
   i. Mobilization
   ii. Temporary Facilities (includes the construction of temporary storage, preparation, and cooking area at the identified location)
   iii. Temporary Utilities
   iv. Excavation Works
   v. Backfill Works
   vi. Soil Poisoning
   vii. Clearing and Grubbing, Removal of obstructions on site

b. Structural and Civil Works including ramp.
   i. Foundation, beams, columns/posts, slabs, shear wall, floor and roof framing,
   ii. Interior and exterior walls
   iii. Floor framing
   iv. Roof framing
   v. Path walks
   vi. Power and Pump Room
   vii. Protection of existing Structures, utility systems during construction

c. Complete Architectural Works
   i. Architectural metal works
   ii. Thermal Protection, insulation, waterproofing, damp proofing and roofing
   iii. Wall, ceiling, counter finishes and accessories
   iv. Finishes for wall, ceiling, wall, counter finishes and accessories
   v. Doors and windows and fenestration (including window grills)
   vi. Painting Works

d. Complete Sanitary/Plumbing Works
   i. Fixtures, fittings and accessories
   ii. Sewer line and Vent system
   iii. Wastewater line and vent system
   iv. Cold Waterline system
   v. Storm Drainage system
   vi. Septic Tank and Lift station
   vii. Cistern Tank and Rain Water Collection Tank
   viii. Pressure Tank with Pump

e. Complete Electrical Works
   i. Power system including fixtures, fittings, devices, wires and cables
   ii. Lighting system including fixtures, fittings, devices, wires and cables
   iii. Standby/Emergency system
   iv. Panel Board and Circuit breakers
   v. Electrical Equipment
   vi. Lightning Protection System
   vii. Electric transformers sufficient to supply the whole building
   viii. Solar Panel with battery sufficient to supply the whole building
   ix. All electrical System to be tapped to existing connections.

f. Complete Communications Works
   i. Communications system including telephone system, LAN system, Public Address Paging System and Master or Cable Antenna Television
   ii. Fire Detection and Alarm System
   iii. Tapping/ connectivity to the existing system of the hospital
   iv. Security system including CCTV

CCTV Specifications:

1. **Dome Camera (Upon Design Approval)**
   a. 4MP Fixed Dome Network Camera (Full color capability on night)
   b. High quality imaging with 4 MP resolution
   c. 24/7 colorful imaging
   d. Excellent low-light performance
   e. Water and dust resistant (IP67)
   f. Efficient H.265+ compression technology
   g. 1/3" Progressive Scan CMOS
   h. Wide Dynamic Range 120 dB
   i. Pan: 0° to 360°, tilt: 0° to 75°, rotate: 0° to 360°
   j. Lens 2.8 mm, horizontal FOV 96.5°, vertical FOV 50.8°, diagonal FOV 113.9°
   k. DORI 2.8 mm lens, D: 64.0 m, O: 25.4 m, R: 12.8 m, I: 6.4 m
   l. Max. Resolution: 2560 × 1440
   m. PoE Capable

2. **Fisheye Camera (Conference Rooms)**
   a. 5 MP Network Fisheye Camera
   b. Max. Resolution 2560 × 1920
   c. Image Sensor 1/2.5" Progressive Scan CMOS
   d. Min. Illumination Color: 0.01Lux @ (F1.2, Automatic Gain Control ON), 0.034Lux @ (F2.2, Automatic Gain Control ON), 0 Lux with IR on
   e. Shutter Speed 1/3 s to 1/100,000 s
   f. Lens 1.05 mm @ F2.2, horizontal field of view: 180°, vertical field of view: 180°
   g. Lens Mount M12
   h. Day & Night IR cut filter with auto switch

i. Wide Dynamic Range 120 dB
j. PoE Capable

3. **Uninterruptible Power Supply (3pcs)**
   a. Ratings: 1200VA / 650W
   b. Battery: 1 x 12V / 9Ah capacity
   c. Interface: 4x Universal Socket LED Indicators
   d. EU RoHS compliant
   e. EN62040-1 / CE / IEC-62040-1 / IEC-62040-2

   - Main Input Voltage: 230 V AC 1 phase
   - Main Output Voltage: 230 V AC 1 phase
   - Rated power in W: 650 W
   - Rated power in VA: 1200 VA
   - Max runtime: 120 min
   - Network frequency: 50/60 Hz +/- 5 Hz auto-sensing
   - Input voltage limits: 140...300 V 230 V AC
   - Maximum configurable power in W: 650 W
   - Output frequency: 50/60 Hz +/- 1 Hz sync to mains
   - UPS type: Line interactive
   - Wave type: Stepped approximation to a sinewave
   - Full load runtime: 00:01:00 650 W
   - Half load runtime: 00:05:00 300 W
   - Maximum configurable power in VA: 1200 VA
   - Transfer time: 6 ms typical: 10 ms maximum

4. **Data Cabinet (3pcs)**
   a. Size 9U
   b. Width 600mm
   c. Depth 500+100mm
   d. Height 500mm
   e. Tough steel can hold 60kg static load
   f. Cable entry top and bottom
   g. Equipped with 2 cooling fans
   h. Comply with ANSI/EIA RS-310-D, IEC297-2, DIN41491.Part1, Part7, DIN4144

5. **Gigabit PoE Network Switch 20ports (3pcs)**
   a. 12 × gigabit PoE ports, 4 × gigabit Hi-PoE ports, 2 × gigabit RJ45 ports, and 2 × gigabit fiber optical ports.
   b. IEEE 802.3at/af/bt standard for Hi-PoE ports (Max. 90 W PoE output).
   c. IEEE 802.3at/af standard for PoE ports (Max. 30 W PoE output).
   d. IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, and IEEE 802.3z standard.
   e. 6 KV surge protection for PoE ports.
   f. Up to 300 m long-range transmission.

g. PoE watchdog to auto detect and restart the cameras that do not respond.
h. Port isolation to improve network security.
i. Gigabit network access design.
j. Wire-speed forwarding.
k. Store-and-forward switching.
l. Solid high-strength metal shell.

6. **Network Cable (3 rolls)**

Cat6 UTP Cable

Inner Conductor thickness	: 0.56mm Pure Copper
Conductor size	: 23AWG
Conductor Material	: BC
No. of Conductor	: 4Pairs
Insulator Material	: High Density Polyethylene
Jacket	: RoHS PVC
Shield	: Unshielded twisted pairs
Filler	: PE CROSS
Insulation Thickness	: 0.2mm
Stretching Resistance	: (max) 400N
Working Capacitance	: 5.4nf/100m
Insulation Resistance	: 72%

7. **Fiber Optic Cable (Drop Flat Cable) 2-core (1 roll)**
   a. Two parallel FRP strength members protect the optical fibers
   b. The cable is completed with an LSOH jacket
   c. Compliant with: ITU-T G652D/G657A1/G657A2/G651; ANSI/TIA 568-C.3; IEC-60332; RoHS

8. **CCTV Signages (1 pc)**
   a. 22cm x 33cm Acrylic Signage in Yellow and Black Color
   b. Logo: CCTV Camera
   c. Text: 24/7 CCTV OPERATIONS

Note: Quantity of the said equipment varies on the design of the infrastructure per floor.

g. Complete Mechanical Works
    i. Automatic Fire Sprinkler System
    ii. Air-Conditioning
    iii. Elevator System
    iv. Water Reservoir, rain water collection and pumps
    v. Exhaust and Filtration and Ducting systems
    vi. All mechanical systems will connect to hospital infrastructure, including additional systems required for the Nutrition and Dietetics Building.

4. Construction Supervision
   The contractor shall execute all the item of works stipulated in the contract strictly in accordance with standard engineering methodology and procedures and shall be responsible for maintaining cleanliness and orderliness, health and safety of workers and general public in the project area throughout the duration of the contract. Exercise of extraordinary diligence is required for the safety of MMWGH employees and the hospital's clientele.

5. Utilities
   The contractor shall install functional and in good condition sub-meters (water, electricity, etc.) and pay monthly for all the utilities to be use for the project.

6. Quality Control
   The contractor shall adhere to the submitted and approved minimum material testing plan.

7. Construction Safety and Health program
    a. Safety Program
    b. Health Program

8. As-built Plans
   The contractor shall prepare and submit as-built plans duly signed and sealed by respective engineers in the same sheet size and scale as the original drawings in two (2) reproducible copies. Electronic copies shall also be submitted in CAD and PDF format.

9. Project Acceptance and Turn-over
    a. A construction monitoring team or infrastructure inspection team created under Inspection and Acceptance Committee of MMWGH to ensure to complete the work is:
        i. In accordance with the approved construction contract documents and plans and specifications
        ii. Able to perform as expected and was constructed in a way to allow successful testing, commissioning, and certification.
    b. Should the construction monitoring team members notice defects after completing the punch list, new items may be added to the list which the contractor shall correct prior to final acceptance.
    c. Upon final acceptance of the project, the retention money for the project shall be released accordingly, upon the request and posting of the required one (1) year guarantee bond for the contract.

VIII. DESIGN PARAMETERS

ARCHITECTURAL DESIGN PARAMETERS

I. Codes and Standards

The Architectural Works shall be in accordance with the following Laws, Codes and Standards.

- Laws and Codes:
  - National Building Code of the Philippines and its Latest and Amended IRR
  - RA 9266 or Architecture Law and its Latest and Amended IRR
  - RA 4226 or Hospital Licensing Act and its Latest and Amended IRR
  - BP 344 or Accessibility Law and its Latest and Amended IRR
  - AO 35, s. 1994 or AO Pertaining to the Control of Radiation Hazards
  - RA 9514 Fire Code of the Philippines
  - Existing Local Codes and Ordinances.
  - And other Laws that applies to the projects
- Standards:
  - Bureau of Product Standards (BPS)
  - Underwriters Laboratory (UL)
  - DOH Technical Guidelines for Hospital & Health Facilities Planning and Design

I. General Drawing Guidelines

- All drawings shall be computer-drafted. Drawings shall be submitted both in printed and electronic copies.
- Keep the same orientation for all plans. The north orientation shall be indicated in all architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans.
- Existing buildings and new works shall be clearly indicated and labeled in the site plans.
- Detailed plans shall have a scale not smaller than 1: 50 meters.
- Spot detailed plans, elevations, and sections shall have a scale not smaller than 1: 10 meters.
- Avoid notes such as 'see architectural detail' or 'see structural'. Always refer with a callout to the specific detail drawing and sheet number.

1. *Perspective*
   - In the most appreciable scale, show the entire structure's façade or prominent feature/s; include appropriate elements to scale the structure's volume (e.g. human figures, vehicles, trees and vegetation, adjacent structures

3. *Site Development Plan*
   - The site development plan shall have a scale not smaller than 1:400 meters and shall show the structures in relation to each other and its natural or built surroundings.
   - Site Development Plan shall include the following:
     a. Contour and survey of the lot, including bearing and distance of the property line
     b. Road network and curbs and sidewalks
     c. Parking spaces
     d. Reference location of existing trees
     e. Reference location and footprint of existing buildings, with the corresponding building names and dimensions, including distances between adjacent buildings, and distances between buildings and the nearest property line

f. Reference location of utilities, e.g. water reservoirs, septic tank, wastewater treatment plant, powerhouse, transformers, waste storage area, security outposts and waiting sheds

g. Site furniture and other site features

- Identify building/structure name and its corresponding number of storeys/levels
- Reflect modules and total dimension of structures
- Indicate dimensions of all other site elements.

There shall be a separate road network and entry/exit for the public and the service vehicles, e.g. ambulance, waste collection vans, delivery trucks.

4. *Vicinity Map/ Location Plan*

- Locate the project site in a vicinity map (at least 2-kilometer radius) showing districts/political subdivision, major landmarks, institutions, major thoroughfares
- Locate the project site in a location map (at most 2-kilometer radius) showing major and minor road networks, establishments, markers, etc.

5. *Floor Plans*

- All plans shall be 1: 100 meters. The same scale shall be used for the rest of the architectural, structural, sanitary, plumbing, electrical and mechanical plans, except for each trade's site plan, detailed plans and spot details.
- For renovation/modification works involving the existing structure, indicate architectural and structural elements to be retained, demolished/removed, blocked off, constructed or relocated.
- Unless areas are indicated for blow-up details, indicate dimensions for all floor plan elements.
- Elevation callouts shall be indicated on the floor plans and shall be consistent with the elevation drawing.
- Section line callouts on the floor plans shall be consistent with the section drawing.
- Detail callouts shall be consistent with the blow-up/spot detail drawings.
- Other callouts may be used for toilets, stairs, cabinets, etc.
- Floor elevations shall be indicated in the floor plans. This shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings.
- Door callouts shall be circles with the proper numbering, e.g. D-01.
- Window callouts shall be hexagons with the proper numbering, e.g. W-01.

6. *Elevations*

- Provide at least four elevations. However, if structure is clustered (polygonal or with interior openings), provide elevations for all exterior walls.
- Indicate measurements for finish floor levels and notable building heights (eg roof/s, parapet/s, canopies, spires, towers and other projections) where applicable
- Indicate measurements for other surface features/elements
- Finish floor lines and top of truss/roof deck lines shall be consistent to all the elevations, sections and structural plans and details.
- The height from finish ground line to finish ground floor line shall be higher than the recorded flood level of the area for the past five (5) years
- Indicate all wall finishes, detail callouts for spot details.

7. *Sections*

- Provide at least two sections. However, if structure is clustered (polygonal or with interior openings), provide additional sections to show notable features.
- Indicate measurements for finish floor levels, ceiling heights, wall heights and other notable dimensions
- Indicate interior wall finishes, detail callouts.

8. *Roof Plan*
   - ☐ Indicate roof finish/es, slope and slope direction.
   - ☐ Indicate gutter finish, if applicable.
   - ☐ Indicate exterior building wall line (hidden line).
   - ☐ Indicate downspouts, if applicable
   - ☐ Provide details for gutters, downspouts

9. *Reflected Ceiling Plans*
   - ☐ Indicate on plan ceiling finishes, lighting and other ceiling fixtures and accessories.
   - ☐ Ceiling height relative and in reference to the finish floor line shall be indicated in the reflected ceiling plan in each room with boxed dimensions. This is to ensure that the ceiling heights of all rooms are established whether or not reflected in the sections.
   - ☐ The description and location of the fixtures, e.g. lighting, smoke detectors, air-condition vents, exhaust fans, in the reflected ceiling plan shall be consistent with the electrical and mechanical plans.
   - ☐ Provide details for ceiling features, where necessary.

10. *Stairs, Fire Escape Exit, Ramps*
   - ☐ Present blow-up plan including detail section/ elevation and spot details for all stairs, fire exits, ramps on a scale of not smaller than 1:50m. Indicate dimensions and finishes.

11. *Toilets, Baths, Washing area/room*
   - ☐ Present blow-up plan including detail section/elevations (to show all sides of the room) and spot details on a scale of not smaller than 1:50m. Indicate dimensions, elevations, clearances, center lines, slopes, fixture type, finishes and accessories.
   - ☐ Provide fixture detail and accessories including mounting heights from finish floor levels.

12. *Specialized Design*
   - ☐ Provide detailed/shop drawings for built-up or pre-assembled partitions, cabinets, closets, counters, lockers, etc.

13. *Bay Section*
   - ☐ Provide bay section/s of scale not smaller than 1:50m for exterior walls showing in detail, systems, connections for the entire vertical length from basement/ground to topmost elements (roof, parapet, deck)

14. *Doors and Windows*
   - ☐ Provide Door and Window schedules indicating the type of door or window, the number of sets, the location/s of the door or window, the materials and accessories and other special specifications, e.g. color or finish, operation system and the detailed elevation and plan (where necessary).

15. *Schedule of Materials*
   - ☐ In matrix form, identify floor, wall, ceiling, counter and other accessories/ornaments finish for all rooms/areas on plan.

16. *Details*
   - ☐ Provide a minimum of one (1) bay section of a scale not smaller than 1: 50 meters for each major building preferably cut along the area with special construction design.
   - ☐ Provide spot detail plans, elevations and sections of a scale not smaller than 1:10 meters for special designs with aesthetic treatment and ornamentation.

- Provide detail plans of a scale not smaller than 1: 50 for all areas needing tile pattern, e.g. lobby, corridor, entrance walk, showing the position and pattern of tiles.
- Centerline location of plumbing fixtures shall be indicated in detail plans with lines of reference and its corresponding dimensions. This is to indicate the exact locations of the plumbing/sanitary roughing-in

III. Building Architectural Works

1. Floor Plans
   - The structural, sanitary, plumbing, electrical and mechanical designs are required to refer to the architectural plans and specifications in case of discrepancies. If an engineering design will have any possible conflict or interference on the architectural design, the latter may be adjusted provided that the aesthetic value will not be compromised.
   - The architectural and engineering plans shall be consistent all throughout in terms of dimensions and locations of columns, beams, walls, roof line, conduits, ducts, pipes, and fixtures, among others. Column and beam grid lines shall also be consistent in all the architectural and engineering plans.
   - Verify and coordinate floor plans with the mechanical, electrical and sanitary design with regard to the requirements for mechanical rooms, AHU rooms, electrical rooms, pipe chase, and other engineering requirements.
   - Public toilets shall have provisions and fixtures for persons with disability as required by BP 344. If enough space allows, toilets specially made and designated for persons with disability is preferable.

2. Walls
   - Exterior walls shall be 200mm. thick, while interior walls shall be 150mm. thick. This is indicative of the finished wall thickness including the plastering and tile works.
   - Toilet wall tiles shall be 300mm. X 300mm for Rooms, Offices and Clinics and 600mm x 600mm for common public CRs.
   - Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
   - All edges, corners and intersections of toilet tiles, including the top-most tile not reaching the ceiling shall be provided with polyvinyl chloride tile trims
   - Tile color and design shall be approved first before installation
   - Where applicable, walls shall be protected against abuse using bump guards and rails, corner guards, baseboards, wainscot especially in heavy traffic and public areas

3. Floors
   - If floor tiles in two adjacent rooms with different material, color or design meet at the door opening, the cut shall be located middle of the door thickness when in a closed position. Provide details in the floor pattern design.
   - Floors at the openings of toilets for persons with disability shall be sloping. Indicate in the plans and sections.
   - Toilet floor tiles shall be 300mm. X 300mm for Rooms, and 600mm x 600mm for Offices and common public CRs. Indicate the tile pattern.
   - The size of the floor tiles of the offices and wards shall be 600mm. X 600mm, or bigger depending on the proportion to the size of the room. Indicate the tile pattern.
   - The size of the floor tiles of the lobby and corridor shall not be less than 600mm. X 600mm. The tile size of 600mm. X 600mm. is recommended for bigger areas. Indicate the tile pattern.
   - Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
   - All edges, corners and intersections of toilet tiles, shall be provided with polyvinyl chloride tile trims.
   - Tile color and design shall be approved first before installation.

4. Ceiling Works

- Ceiling finishes shall be of type appropriate to the location

where it is applied. Ceiling material shall be of premium grade and quality performance; easily replaced and maintained. Ceiling materials must at least have flame-spread rating

- Ceiling height for areas with special aesthetic treatment, e.g. lobby, major conference room, auditorium, executive office, shall be proportional to the area or room or as required by the designer. However, this shall not be lower than 3000mm. Provide details. The ceiling material must be Fire resistant.
- If acoustic boards on aluminum T-runners would be used for the ceiling, layout should be on center and avoiding cut pieces. If the remaining perimeter of the ceiling is less than 600mm. wide, it shall be designed complimentary with fiber cement boards on light gauge metal furring. Likewise, with acoustic boards in big areas, e.g. offices, and wards, shall be designed in a way to break the redundancy. Provide details.
- For board ceiling (gypsum, fiber cement, particle, etc, of size 1200mm x 2400mm) construct in maximum cut size of 600mm x 600mm (maximum) to avoid injury or damage in case of falls.
- For strip ceilings (g.i., aluminum, vinyl, composite), layout shall eliminate as possible connections. Should connections be inevitable; provide intervals such as false beams, bands, strips to conceal ends.
- Ceiling at eaves or at other open/exposed areas shall be designed with wind load considerations.
- Provide manholes for maintenance work, where applicable.
- Soffit of exterior beams and slabs shall have drip moulds to prevent damage due to water sipping into the eaves or ceiling. Section details shall be required to show the drip mould.

5. Architectural Metals

- Railings must be 304 stainless steel
  - All railings must be anti-ligature in all interior part of the building.
  - The material should be a UPVC material
- Exposed Aluminum composite panels shall be at less 4mm thick PVDF.
- Aluminum composite panels used for indoors should at least be 3mm polyester.
- Other metals for decorative purposes

6. Doors and Windows

- Major rooms that require security shall have sturdy doors e.g. wood panel, and metal.
- Minor rooms that do not require security shall at least have wood flush doors.
- Toilets and other wet areas shall have marine plywood flush doors painted with epoxy paint.
- Heavy-use doors, e.g. main entrance, should be provided with stainless steel kick or push plates and door closers.
- Fire escape doors, should be provided with panic hardware and door closers, and shall conform with the requirements of the Fire Code of the Philippines.
- Aluminum frames of glass doors shall be powder-coated.
- Door finish and color shall be approved first before application.
- All glass panels for doors and windows on exterior walls shall at least be 6mm thick and tempered.
- Window sills shall be slightly sloped outwards to prevent damage to windows and paint due to water seepage. Section details shall be required to show this slope.
- All doors of a high-occupancy room shall swing outwards and as required by the Fire Code of the Philippines
- Door jambs with no moulding/casing installed on concrete walls shall have construction grooves all around. Provide details.
- All doors and windows shall have reinforced concrete lintel beams. Provide details.

- All glass panels for doors and windows on exterior walls shall at least be 10mm thick and tempered.
- Glass material testing must be conducted to test the capacity of glass in resisting the high human impact force.

7. Stairs and Corridors
   - Regular stairs shall have risers at 150mm. high and treads at 300mm. wide. Fire stairs could have a maximum riser at 200mm. and tread at 250mm. Handrails shall be 1100mm. high. Clearances shall conform with the requirements of the Fire Code of the Philippines.
   - Corridors shall have a minimum unobstructed width of 2450mm. This shall be measured clear from the surface of the finished wall and not on-center of the rough CHB wall.
   - Corridors shall not be areas for temporary or permanent storage of stretchers, wheelchairs, trolleys, food carts, oxygen tanks or other movable hospital equipment. Storage or parking spaces shall be provided for these.
   - Corridors and exit doors shall conform with the requirements of the Fire Code of the Philippines.
   - All staircases must have a low-level lighting.

8. Fixtures and Accessories
   - Three-way electrical light switches shall be provided at the foot and the top of the stairs per floor. Likewise, at both ends of a long corridor.
   - Electrical light switches shall be located by the knob side of the door.
   - Electrical switches and outlets shall be installed plumb and level.
   - Public toilets shall always be provided with heavy-duty soap dispensers and electric hand dryers.
   - Public toilets shall always be provided with stainless steel handrails in conformity to the requirements of BP 344.
   - A drainage line shall be provided for window-type air-conditioners. Likewise, split-type air-conditioners located in the interior part of the building shall be so located adjacent to areas with drainage lines, e.g. toilets, downspouts, balconies.

9. Roofing Works
   - The section of the roof gutters shall be designed, in case of a clogged downspout, so that the overflow of water will be directed outside of the building and not towards the eaves or interior ceiling to prevent any damage. Provide details.
     - Avoid valley or inside gutters in roof design. But in cases required in aesthetic design, valley or inside gutters shall be in stainless steel or concrete gutters with membrane-type waterproofing, and the section shall be designed with a capacity for big volume to prevent any damage due to overflow. Provide details.
     - Parapets, designed as a roof protection from the winds, must be designed to satisfy the preceding parameters. Provide details.
     - The slope of the roof shall not be less than 30 degrees.

10. Painting
    - Painted ceiling shall be in at least latex finish, while cornices and mouldings shall be in gloss enamel finish.
    - Painted interior wall shall be at least in semi-gloss latex finish for ordinary rooms, e.g. offices, unless specified to a higher type of paint.
    - Patient-related rooms, e.g. wards and isolation rooms, shall be in anti-bacterial and odor-absorbent paint finish.
    - Painted exterior wall shall be at least in moisture-resistant/water-repellant solvent-based paint finish, textured or smooth, unless otherwise specified.

- All painting works shall be full-putty.
- Paint color and shade shall be approved first before application.
- The color scheme of the proposed project shall follow the ADMINISTRATIVE ORDER 2020-0011 Guidelines in the Implementation of the Unified Color, Signage Features, and Design of Identified Interior Spaces for Health Facilities Enhancement Program (HFEP) funded and coordinated Health Facilities and Medical Transport Vehicles (All health facilities, regardless of the scope of work, funded by and coordinated through HFEP, shall strictly follow the Unified Colors, Signage Features, and Design of Identified Interior Spaces prescribed in this Order.)

11. Special Features and Furnishing
    - Twelve (12) Movable Stainless Sinks
    - One (1) automatic dish washer
    - Two (2) Food Handling Conveyor
    - Three (3) Stainless Working Tables
    - Two (2) 6-burner gas stoves
    - Twelve (12) Low pressure Burners
    - Two (2) Griddles
    - Two (2) Grillers
    - One (1) Oven
    - Four (4) Rice Oven
    - One (1) Stainless Kitchen Island with 2 stainless kitchen sinks
    - One (1) Slicer machine
    - Sixteen (16) Stainless steel cabinet racks

- Material/ Furniture to be used in temporary facility and to be transferred to the new building upon completion:
    - Twelve (12) Movable Stainless sinks
    - Three (3) Stainless Working Tables
    - Seven (7) Low Pressure Burners
    - Two (2) Grillers
    - Four (4) Rice Oven
    - One (1) Slicer Machine
    - Five (5) Stainless Racks
    - Gas Lines and Gas Tank Storage
    - Pallets (preferrable PVC made)
    - Five (5) Trolley

1.2. Specific Requirements
- Provide spot detail plans and sections of the following:
    1. Gutter and eaves.
    2. Ceiling – cove light, special connections and design, mouldings, valances
    3. Stairs - handrail, and baluster design
    4. Ramps - handrail design and floor pattern
    5. Doors, windows and gates - grille works,
    6. Special Architectural Treatment and Design, e.g. façade design, special window and door, counter/nurse station counter
    7. Special Carpentry Works, e.g. partitions, cabinetry,
    8. Auditorium Stage
    9. Other details as may be required

V. Summary of Materials

- Materials to be used shall be fire-resistant, non-toxic, moisture-resistant and termite-resistant, e.g. fiber cement board, light-gauge steel frame, polyvinyl chloride ceiling panels.
- Wet areas, e.g. toilets, and kitchen shall use non-skid/non-slip vitrified ceramic floor tiles.
- Heavy traffic areas, e.g. lobby, and corridor shall use heavy-duty seamless granite floor tiles or a higher type of floor material.
- Ramps and stairs shall use non-skid/non-slip floor tiles, materials as specified.
- Aluminum T-runners shall be powder coated.
- Metal rod hangers with adjustable clips, and not galvanized iron wires, shall be used to support and suspend the aluminum T-runners and light gauge metal furring.
- Roofing sheets shall be Ga.# 24(0.5mm) aluminum-coated, pre-painted, and pre-formed.

DESIGN PARAMETERS (STRUCTURAL/CIVIL WORKS)

I. Codes and Standards

The Civil/Structural Design shall be in accordance with the following Codes and Standards

Codes

- National Structural Code of the Philippines (NSCP) 2015
- National Building Code of the Philippines and its revised IRR
- Accessibility Law
- Local Codes and

Ordinances Standards

- Bureau of Product Standards (BPS)
- Philippine National Standards (PNS)
- DPWH Blue Book
- American Concrete Institute (ACI)
- American Society for Testing Materials (ASTM)
- American Welding Society (AWS)

II. Site Works

Based on Master Site Development Plan of the Hospital, provide where applicable complete design and details of hospital road (concrete with curb and gutter, including drainage) network, walkways parking areas and fencing.

1. The main hospital road shall have a minimum thickness of 150mm (8 inches). Concrete strength should be at least 3000psi. Interior road (leading to support facilities) shall be so designed to accommodate delivery vehicles, and fire trucks in case of emergency.
2. Walkway should be at least 100mm thick with concrete strength of 2500psi. Ramps should be provided, instead of steps, for any change in elevations.
3. Parking area slabs should be at least 150mm thick with concrete strength of 3000psi.
4. Fences should be seen through in front of the hospital while the three (3) other sides should be concrete hollow blocks with minimum height of 2 meters and to be provided with perimeter lighting. See-through fence design will be made of 32mm square bars spaced at 100mm on center and provided with three (3) concrete hollow blocks (45mm high) zoccalo wall.

III. Buildings

1. The hospital buildings should be designed using seismic importance factor of 1.25 for immediate occupancy category. Buildings should be designed in accordance with NSCP Requirements up to Magnitude 7 for those near seismic source Type A. Seismic gaps between buildings (old and new) should be properly observed.
2. The hospital buildings should be designed also using wind importance factor of 1.15 (especially for design of trusses/roofing system). Concrete gutters and parapet walls should be provided as additional protection to the roofing system during strong typhoons.
3. The structural designer should verify with Philippine Volcanology and Seismology (PHIVOLCS) the distance of the proposed hospital to nearest active fault lines and with the DENR for geo-hazard mapping.
4. Soil investigation (at least three bore holes) should be conducted to determine soil bearing capacity and recommended foundation design (applicable even for one storey structure).
5. The structural designer is encouraged to use fire-resistive and non-toxic materials.

IV. Details – the following shall be provided:

1. Connection details of beams and columns following the requirements of NSCP on confined areas.
2. Connection of trusses to beams and columns
3. Splicing details of reinforcing bars on columns and beams and the required bar cut-off points.

V. Summary of Materials

1. Concrete shall be Portland cement and conforming to ASTM Specification C150, Type I to Type II
2. Coarse Aggregates shall consist of washed gravel, crushed stone or rock or a combination thereof conforming to ASTM C33
3. Concrete Hollow Blocks shall be a standard product of recognized manufacturer conforming to PNS 16 with at least 350psi strength.
4. Reinforcing Bars shall conform to PNS Grade 60 for 16mm dia. and above and PNS Grade 40 for 12mm dia. and below.
5. Structural steel shall conform with ASTM A36/A6M
6. Bolts and Studs shall conform with ASTM A 325
7. Welding electrodes shall be E60 or E 70 and conform with AWS
8. Ready Mixed Concrete, with min strength of 3000psi @ 28CD in all structural Members.

SANITARY/PLUMBING DESIGN PARAMETERS

I. Codes and Standards

The Sanitary/Plumbing Design shall be in accordance with the following Codes and Standards.

Codes:

- National Building Code of the Philippines and Its New IRR
- Fire Code of the Philippines
- National Plumbing Code of the Philippines (NPCP)
- Sanitation Code of the Philippines
- Existing Local Codes and Ordinances.

Standards:

- Bureau of Product Standards (BPS)
- Philippine National Standards for Drinking-Water
- Underwriters Laboratory (UL)
- DOH National \ Laboratory (NRL)
- DOH Health Care Waste Management Manual
- National Water Resources Board (NWRB)
- National Plumbers Association of the Philippines (NAMPAP)
- Philippine Society of Sanitary Engineers, Inc. (PSSE)

II. Site Works

Based on the Master Site Development of the Hospital, the Site Works shall provide complete layout of the following:

1. Storm Drainage Network, indicating Drainage Manholes and Pipe Culvert;
2. Sewerage Pipe Network, indicating Sewage Manholes, Sewage pipes and the location of the proposed Sewage Treatment Plant; and
3. Water Supply Network, indicating the location of Water Service entrance, Cisterns, Elevated Water Tank and proposed Pump House and Main Water lines.

The Storm Drainage Network shall accommodate the magnitude of peak rates of surface run-off including drainage coming from the buildings. The system shall be capable of handling the design flows routing to the designated outfall;

For sizing of drainage pipes, refer to Chapter II, National Plumbing Code of the Philippines and current rainfall record from PAGASA.

The Sewerage Pipe Network design shall accommodate all sewage coming from all the facilities, conveyed by gravitational flow leading to the proposed Sewage Treatment Plant;

Per capita wastewater demand: 150-250 gal/capita/day per bed

The Water Supply Network shall include the provision of Fire Hydrants and blow-off valve, accessible faucet that will serve as testing point for safe and potable water supply and shall include all necessary protection to protect the main water supply source;

Provide stainless steel Elevated Water Tank for each building with a capacity of 11,000 liters including pumps, fittings and accessories.
Per capita water demand: 190-315 gal/capita/day per bed

III. Building Facilities Sanitary/Plumbing System

1. Sewer line and Vent System

Provide complete Sewer line and Vent System from all (Domestic) plumbing fixtures and floor drains, laid by gravity flow/pumping from lift/transfer station leading to the Sewage Treatment Plant (STP);

For Drainage Fixture Units; refer to Chapter 7, Table 7-2, NPCP

2. Wastewater line and Vent System

For all Areas dealing with Laboratory activities and generating infectious wastes, provide separate Wasteline and Vent System routing into a proposed Neutralization Tank prior to discharge to the Sewage Treatment Plant;

For all Wash Areas dealing and generating with oil/grease at the Dietary, provide separate Wasteline and Vent System and solely tap to the proposed Grease Trap and then connect its effluent to the Sewage Treatment Plant.

For Drainage Fixture Units; refer to Chapter 7, Table 7-2, NPCP

3. Waterline System

Provide complete cold water supply pipes to all plumbing fixtures. From the main water source to the cistern, the water shall be pumped to the Elevated Water Tank (EWT) and conveyed to the fixtures by gravity system and or distributed to fixtures by transfer pumped with constant pressure through a Pneumatic Storage Tank for all water closet using direct flush valve.

Provide complete Hot water system with portable water heaters for selected Areas as required and or specified by the Owner.

4. Storm Drainage System

Complete Storm Drainage System shall be provided for all roofs, canopies, concrete ledges and balconies including condensate drains laid for gravity flow connected to a leader/pipe line leading to the natural ground level storm drainage network.

5. Septic Tank and lift station

The wastewater discharges from the Septic Tank have to be connected to the lift station that would throw wastes via pumps to the existing sewerage treatment plant.

IV. Specific Requirements

Provide details of the following:

1. Grease Trap
2. Neutralization tank
3. Cistern Tanks and Elevated Water Tanks

V. Summary of Materials

- Sewer and Vent pipes; Un-plasticized Polyvinyl Chloride (uPVC) extra series 1000 (Conforming to ISO 4435 ASTM D2729 including Trims and Fittings)
- Storm Drainage pipes; Downspouts, Un-plasticized Polyvinyl Chloride (uPVC) extra series 1000 (Conforming to ISO 4435 ASTM D2729 including Trims and Fittings, BPS Certified)
- Drainage Pipes; 250mm dia. and below, Non-Reinforced Concrete Pipe (NRCDP)
- 300mm dia. and above, Reinforced Concrete Pipe (RCDP)
- Drainage Manholes; Street Inlet, Curb Inlet, Traffic Type Reinforced Concrete Area drain/Catch Basin, Reinforced Load Bearing CHB
- Sewage Manholes; Traffic Type Reinforced Concrete with Cast Iron Cover, seated type.
- Wastewater pipeline; Wash areas /Dietary (same as sewer & vent) for Laboratory-HDPE pipes and fittings, PN16

- Cleanouts; HQ Stainless/ Brass with counter sunk plug (BPS Certified)
- Floor Drains/Deck Drains; HQ Stainless/ Brass (BPS Certified)
- Gutter Drains; Cast Iron Dome Type Brass (BPS Certified)
- Cold Waterline pipes; for buildings, Polypropylene Pn16 Fusion Weld Pipes including Trims and Fittings (BPS Certified) PN20
- Hot Waterline System; for buildings, Polypropylene Pn20 Fusion Weld Pipes including Trims and Fittings (BPS Certified)
- Trench Grating; Galvanized/Stainless Steel Iron grates
- Plumbing Fixtures including Trims, Fittings and accessories; (BPS Certified)
  a) Water Closet-Direct flush valve
  b) Lavatory- (Semi-Pedestal/Counter Type) with C-spout spray faucet
  c) Kitchen Sink-Ga#16 Stainless Steel seamless bowl with gooseneck faucet
  d) Urinal-Wall hung Flush Valve type

MECHANICAL WORKS DESIGN PARAMETERS

I. Codes and Standards

The Mechanical Design shall be in accordance with the following Codes and Standards.

Codes:

- National Building Code of the Philippines and Its New IRR
- New Fire Code of the Philippines
- Mechanical Engineering Code of the Philippines (ME Code)
- Existing Local Government Codes and Ordinances.

Standards:

- Bureau of Product Standards (BPS)
- Philippine National Standards (PNS)
- Underwriters Laboratory (UL) and Factory Mutual (FM)
- International Electro-Technical Commission (IEC) 1988
- National Fire Protection Association (NFPA)
- National Fire Protection Association (NFPA) 99 Standard for Health Care Facilities.
- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).
- Center for Disease Control and Prevention (CDC) Manual.

II. Automatic Fire Sprinkler System

The automatic fire sprinkler system shall be composed of complete plans and drawings of the following:

1. Site Development Plan and Vicinity Map, indicating the location of the buildings, firewater reserve tank, firewater line, yard loop and private fire hydrant.
2. General Notes, Legends and Symbols including Schematic Diagram of the Fire Sprinkler System and Schematic Diagram of Alarm Monitoring System.
3. Floor Layout and Isometric Layout of the Automatic Fire Sprinkler System indicating pipe sizes and the location of the pipes, valves, sprinkler heads, riser nipples, fire hose cabinets, sprinkler main riser, drain pipes, cross mains, branch lines, inspector's test connections, hangers and sway braces.
4. Equipment Schedule, Detail drawings, fire pump and jockey pump layout.
5. Architectural, Structural, Electrical and Plumbing drawings of the Firewater tank and Pump house.

- An automatic fire sprinkler system must be installed in all areas of hospital building
- Hazard Classification shall be Light Hazard Occupancy.
- Area of coverage shall be 146 square meters and water density shall be 4.07 lbs/sq. m.
- Protection area per sprinkler head shall be 20 square meters at 2.2-meter minimum distance between sprinklers and 3.0-meter maximum
- All floor control valves shall be equipped with supervisory switch, water flow detector and drain system.
- Water supply shall be horizontal split case centrifugal fire pump with diesel engine or AC motor and a vertical in-line jockey pump with controller.

- Firewater reserve tank shall be ground level monolithic concrete tank sized for a minimum of 30 minutes.
- Hydraulic calculations report shall be based on NPFA-13 format.

III. Ventilation and Air-conditioning System

The ventilation and air conditioning system shall be composed of complete plans and drawings of the following:

1. General Notes, Legends and Symbols including Schematic Diagram of the Ventilation and Air Conditioning System.

2. Floor Layout of the Ventilation and Air Conditioning System indicating the capacity and location of the air conditioners and fans.
3. Duct layout indicating duct sizes, route and location of the dampers, diffusers, return air register, hangers and sway braces.
4. Refrigerant piping layout indicating pipe sizes, location of valves, hangers and sway braces.
5. Equipment Schedule and Details drawings of Air Conditioners and Ventilating System.

- Air conditioning system shall be provided in all patients' private rooms, radiologic and imaging area, operating rooms, delivery rooms, laboratories, critical care areas, offices and other areas where conditioned air is necessary.
- Cooling Load calculations report shall be manual or computer generated, hourly analysis program which includes heat transmission coefficients, solar heat gains factors and corrected cooling load temperature difference calculations.
- Window type air conditioners shall be used in areas with exterior wall exposure.
- Design of all critical areas shall be laminar or positive pressure, wherein the supply air is 10% more than exhaust air.
- All infectious isolation rooms, such as Covid19, TB and SARS, shall be negative pressure, wherein the exhaust air is more than 10% of the supply air.
- Maintain an air change rate greater than or equal to 12 air changes per hour or 145 liters per second per patient.
- Ceiling cassette type exhaust fans with integral air diffuser shall be provided in all toilets.
- Ceiling fans, orbit type with 360° oscillation or wall fans shall be provided in all non-air-conditioned rooms, such as patient wards, work areas, nurse station, etc.

IV. Elevator System

The elevator system shall be composed of complete plans and drawings of the following:

A. General Notes, Legends and Symbols including Schematic Diagram.
B. Floor Layout, Elevator Shaft Plan and Machine Room Plan (If applicable).
C. Equipment Schedule, Detail drawings and Equipment layout.
D. Architectural, Structural, Electrical and Plumbing drawings of the Elevator System.
   - Hospital bed type elevator shall be provided in all multi-storey hospital buildings.
   - The minimum car size shall be 1,500mm wide and 2,150mm long.
   - The car door opening shall be not less than 1,100mm and 2,100mm high.

V. Specific Requirements

Provide details of the following:

1. Cistern Tanks and Elevated Water Tanks

VI. Summary of Materials

1. Automatic Fire Sprinkler System

a. The fire pump shall be UL Listed/FM Approved, diesel engine or electric motor driven, designed specifically intended for an automatic water sprinkler protection system (not included).

b. The jockey pump shall be UL Listed/FM Approved, electric motor driven, 220V, 3-phase, 60 hertz, and electric power connection (not included).

c. Sprinkler head shall be UL Listed/FM Approved, pendant, upright or sidewall unit, 83 LPM flow capacity per head and temperature fusing at 57.5° C to 74°C.

d. The alarm assembly shall be UL Listed/FM Approved, constructed and installed that any flow of water from the sprinkler system equal to or greater than that from the single automatic head shall result in an audible and visual signed in the vicinity of the building.

e. Alarm and supervision system of the automatic water sprinkler shall include the monitoring water flow switch at each floor of the building, fire pump and jockey pump running condition and power supplies, level of water in the reservoir and control valves.

f. Pipes shall be B.I. Schedule 40. Screw fittings shall be used for inside piping.

2. Ventilation and Air-conditioning System

a. Refrigerant pipes shall be copper tubing, type L or K black steel pipe, Schedule 40 for size of 100mm diameter and smaller. Pipe over 100mm shall be black steel pipe Schedule 40.

b. Black steel pipes shall be standard seamless, lap-welded, or electric resistant welded for size of 50mm diameter and larger, screw type for size 38mm diameter and smaller, fittings for copper tubing shall be cast bronze fitting designed expressly for brazing.

c. Pipe insulation shall be performed fiberglass or its equivalent. The insulating materials shall be covered with 100mm x. 13mm thick polyethylene film, which shall be overlapped not less than 50mm.

d. Ducts shall be galvanized sheet steel of standard gauges.

e. Ductwork insulation materials shall be rigid board made of styropor or equivalent 25mm thick for ground and top floor, 13mm thick for intermediate floor.

3. Elevator System

a. The hospital elevator shall machine room less, or traction type only.

b. The elevator system shall be UL Listed/FM Approved.

ELECTRICAL AND COMMUNICATION SYSTEM DESIGN PARAMETERS

I. Codes and Standards

The Electrical System Design Parameters shall be in accordance with the following Codes and Standards.

Codes:

- Philippine Electrical Code
- National Electrical Code
- Fire Code of the Philippines
- National Building Code of the Philippines and Its New IRR
- Existing Local Codes and Ordinances

Standards:

- Bureau of Product Standards (BPS)
- Underwriters Laboratory (UL)
- National Fire Protection Association \
- International Electrotechnical Commission (IEC)
- Illumination Engineering Society (IES)
- National Electrical Manufacturer's Association (NEMA)
- DOH Manual on Technical Guidelines for Hospital and Health Facilities Planning and Design

II. Site Works

Based on the Master Site Development of the Hospital, the Site Works shall provide complete Electrical layout of the following:

1. Power Room
2. KVA rating and other specifications of Transformer.
3. Switchgear requirements
4. Panel board Layout
5. Electrical Metering Devices
6. Service Conductors and Conduit Layout
7. Grounding System
8. Emergency Standby Generators
9. Solar Panels

III. Building Facilities Electrical System

1. Lighting System
   - Provide and install adequate normal branch circuits for Lighting System to all areas using the standard Lighting Design Analysis. Utilize the standard Illumination requirements per area of concern using the preferred particular type of luminaires.
2. Power System
   - Provide and install adequate normal branch circuits for the Power System.
3. Standby/Emergency System
   - Provide and install adequate equipment life safety and critical emergency branch circuits for lighting and utilization equipment connected to the alternate power source.
4. Auxiliary System
   - Provide and install the following Auxiliary System:
     a) Communication System
        - Telephone System
        - Local Area Network System
        - Public Address Paging System
        - Private Branch Exchange (PABX)

     b) Fire Alarm System

     c) Security System.

5. Lightning Protection System
   - The building lightning protection system shall include roof-mounted air terminals grounding conductors, ground rods, conduits, clamps, and auxiliary equipment as required for a complete and operational lightning protection system.

IV. Provide Details of the following:
   - Lighting Fixtures/ Luminaries
   - Panel board and Circuit Breakers
   - Switchgear and other Metering Devices
   - Electrical and Hospital Equipment

V. Installation and Termination of Auxiliary and other Special Devices and Equipment

VI. Power and Telephone Hand holes (as may be required)

VII. Pedestal and Service Entrance to Bldg.

VIII. Grounding System Layout

IX. Electrical Room

X. Transformer and Generator Mounting

XI. Others as may be required.

1.1. Summary of Materials

1. General Lighting Luminaries: Fixtures type shall be as indicated on the Lighting Layout Plan.
   - LED Lamp shall be Linear, circular or self-ballasted compact LED lamps.
   - LED lamps shall be cool or warm white and lamp holders shall be made of thermosetting plastic.
   - LED Ballast Electronic type with high power factor or high frequency energy saving type.
   - LED Fixture housing shall be steel sheet with high reflectance powder coat paint finish.
   - Downlights and Pin lights shall be of heavy gauge spun aluminum equipped with lamp as indicated on the drawings.
   - Other Special Lighting requirements shall be as approved by the implementing agency

2. Wiring Devices: Wiring devices shall be non-automatic control devices; the contact is guaranteed by the pressure of the special spiral springs.
   - Switches shall be of 15A, 250V or 300V except as otherwise noted and approved. Terminals shall be screw-type or quick-connected type.
   - General use receptacle shall be 15A, 240V grounding type unless otherwise indicated on the drawings.
   - Special purpose receptacles shall be as called for on the drawings. Matching plugs shall be supplied.

3. Panel boards and Circuit Breakers: The Panel board and Circuit Breakers shall be equipped with molded-case circuit breakers and shall be the type as indicated in the panel board schedule and details.
   - Provide molded-case circuit breakers of frame, trip rating and interrupting capacity as shown on the drawings. The circuit breakers shall be quick-make, quick break, thermal-magnetic, trip-indicating and shall have common trip on all multiple breakers with internal trip mechanism.
   - All current-carrying parts of the panel boards shall be plated. Provide solid neutral (S/N) assembly when required. The assembly shall be isolated from the enclosure.

4. Electrical Conduits, Boxes and Fittings: All conduits, boxes and fittings shall be standard rigid steel, zinc coated or galvanized.
   - Rigid Steel Conduits (RSC)
   - Rigid Metal Conduits (RMC)
   - Intermediate Metal Conduits (IMC)
   - Electrical Metallic Tubing (EMT)
   - Un-plasticized Polyvinyl Chloride (uPVC) if required shall be schedule 40.

5. Conductors: Wires and cables shall be of the approved type and unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts.
   - The conductors used in the wiring system shall be of soft-annealed copper having a conductivity of not less than 98% of that of pure copper and insulated for 60 □C Temperatures.
   - All conduits of convenience outlets and wire ways for lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm square in size.

6. Structured Cabling & Telephone System:
   - A minimum provision for estimated 500 mixed PABX extension and direct telephone lines shall be required for tertiary hospitals.
   - Final details of the system shall follow specific requirements, quantity and type of service.

7. Fire Detection and Alarm System:
   - The Fire Detection and Alarm System shall be of multiplex, microprocessor-controlled addressable or zonal conventional fire detection, alarm and communication system.
   - The system shall consist of full integration automatic fire detection, voice alarm communication and fire fighters telephone system.
   - The system shall consist of control station, mimic panel initiating and indicating devices, control modules and system of wirings.
   - Actuation of the protective signaling system shall occur by manual pull station, automatic smoke or heat detector, sprinkler flow switch and tamper switch.
   - The system shall be able to monitors the status of flow switches and supervisory switches installed at the Sprinkler System risers. These monitoring points are also addressable or the conventional zonal in the same way as the detectors are making them easily recognizable at the control panel.

   - Occupant notification shall be accomplished automatically. Notification will be general, audible alarm type complying with appropriate section of NFPA.

   - The system shall be installed with provisions for future connection to the nearest fire services station in the locality.

8. Security System:
   - The Security system shall include intrusion detection and alarm, CCTV, access control or as may be required.

LOCAL AREA NETWORK (LAN) DESIGN PARAMETERS

I. Codes and Standards

The Local Area Network (LAN) Design shall be in accordance with the following Standards.

- Standards:

1. IEEE 802
   - IEEE 802.1 Bridging (networking) and Network Management
   - IEEE 802.2 Logical link control (upper part of data link layer)
   - IEEE 802.3 Ethernet (CSMA/CD)
   - IEEE 802.4 Token bus (disbanded)
   - IEEE 802.5 Defines the MAC layer for a Token Ring (inactive)
   - IEEE 802.6 Metropolitan Area Networks (disbanded)
   - IEEE 802.7 Broadband LAN using Coaxial Cable (disbanded)
   - IEEE 802.8 Fiber Optic TAG (disbanded)
   - IEEE 802.9 Integrated Services LAN (disbanded)
   - IEEE 802.10 Interoperable LAN Security (disbanded)
   - IEEE 802.11 Wireless LAN & Mesh (Wi-Fi certification)
   - IEEE 802.12 demand priority (disbanded)
   - IEEE 802.13 Not Used
   - IEEE 802.14 Cable modems (disbanded)
   - IEEE 802.15 Wireless PAN
   - IEEE 802.15.1 (Bluetooth certification)
   - IEEE 802.15.4 (ZigBee certification)
   - IEEE 802.16 Broadband Wireless Access (WiMAX certification)
   - IEEE 802.16e (Mobile) Broadband Wireless Access
   - IEEE 802.17 Resilient packet ring
   - IEEE 802.18 Radio Regulatory TAG
   - IEEE 802.19 Coexistence TAG
   - IEEE 802.20 Mobile Broadband Wireless Access
   - IEEE 802.21 Media Independent Handoff
   - IEEE 802.22 Wireless Regional Area Network
2. ANSI/TIA/EIA-568
3. TR-49 (a new TIA Engineering Committee for Healthcare Communications Technology)

II. Site Works

Based on Master Site Development Plan of the Hospital, provide where applicable complete design and details of hospital local area network for voice and data connectivity.

III. Information and Communication Technology (ICT) Component

a. Installation of structured cabling system for Data and Voice Connectivity and wireless network (LAN)
   - 1000 data nodes distributed to Hospital's office area
   - 1000 voice nodes distributed to Hospital's office area
   - Cabling for CCTV security system
   - Packaged technical implementation and training services
   - LAN main distribution should be fiber optic technology

b. Structured Cabling System for Data and Voice Connectivity and Data Connectivity
   - 1000 data nodes distributed to the Offices

- Category 6, 4-pair UTP cable shall be 23 AWG, 100-Ohm, 4-pair UTP
- Category 6 Patch Panel
- Shall be 1RU and provide 24 modular jack ports, with universal wiring that maybe terminated to T568A or T568B
- Shall terminate the building cabling on 100-style insulation displacement connectors
- Category 6 Information Outlet/Modular Jack shall be terminated using a 100-style pc board connector, color-coded for both T568A and T568B wiring.
- Category 6 Patch Cord:
- Equipment patch cable assemblies, 4 ft in length, must be factory-manufactured with stranded CMR UTP cable and color-matched snag less rubber boots.
- Work area patch cord shall be 5 ft in length
- One patch cord per user outlet and equipment connectivity must be provided. One patch cord per user outlet and equipment connectivity must be provided
- For Category 6 Cabling installation – It shall all pass the following end-to-end Testing Parameters using Level III Cable Tester:
  - Attenuation
  - Attenuation to Crosstalk Ratio (ACR)
  - PowerSum Attenuation to Crosstalk Ratio (PSACR)
  - Near End Crosstalk (NEXT)
  - PowerSum Near-End Crosstalk (PSNEXT)
  - Equal Level Far-End Crosstalk (ELFEXT)
  - PowerSum Equal Level Far-End Crosstalk (PSELFEXT)
  - Return Loss
  - Propagation Delay
  - Delay Skew
  - Transfer Impedance

Voice Connectivity

- Voice backbone and horizontal cabling shall be Category 6, 4-pair UTP which are 24 AWG, 100-Ohm, and shall meet or exceed the performance requirements of ANSI/TIA/EIA-568-B.2
- Category 6 Information Outlet/Modular Jack
- Telecommunication Terminal Cabinet shall be wall-mounted and has sufficient space or dimension to accommodate required wiring components
- Wiring blocks shall be 100-Pair count, wall mountable, with legs and shall fit traditional cross-connect backboard spacing and layout.

c. Cabling for CCTV Security System

d. Other Requirement/s

- Supply of Communication cabinets (Intermediate Distribution Frame) for each floor of the building

ANNEXES

Annex 1: **VICINITY PLAN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
1	ARCHITECTURAL DRAWINGS (as applicable)	
1-A	Perspective, Site Development Plan, Vicinity Map/ Location Plan (2.00 kms Radius), Table of Contents	
1-B	Floor Plans (scale 1:100m minimum) including furniture layout when necessary	
1-C	Four (4) Elevations (scale 1:100m minimum)	
1-D	Two (2) Sections (scale 1:100m minimum) including spot details when necessary	
1-E	Roof Plan/s showing downspouts (scale 1:100m minimum) including detail of gutter, downspout, etc.	
1-F	Reflected Ceiling Plan/s (scale 1:100m minimum) including details	
1-G	Details of stairs, fire escapes/ exits, accessible ramps, etc. (scale 1:50m), including details of railing, treads, risers, etc. in the form of plans, elevation/ section	
1-H	Details of Toilets (1:50m) including accessible toilets in the form of plans, elevation/ section	
1-I	Details of specialized design features (1:50m) such as exterior glass curtain walls, partitions, cabinets, etc. and accessible design features	
1-J	Detailed plan and section of conference seating layout and stage (scale 1:50m)	
1-K	Detailed plan and section of covered bridge (1:50m)	
1-L	Detail of typical bay section from ground floor to roof deck (1:50m)	
1-M	Schedule of doors, gates, emergency exits, etc. (scale 1:50m), including specifications for materials and hardware	
1-N	Schedule of windows (scale 1:50m) including specifications for materials and hardware	
1-O	Schedule of Finishes for interior and exterior floor, walls, ceilings	
	Architectural Technical Specifications	
	Architectural Scope of Works	
	Architectural Bill of Quantities	

Annex 2: **CHECKLIST REQUIREMENTS – DETAILED ARCHITECTURAL INTERIOR DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
2-A	Floor plans showing layout of floor finishes (scale 1:100m minimum)	
2-B	Interior Elevations and Sections showing wall patterns, ceiling sections, etc. (scale 1:100 minimum)	
2-C	Schedule of Finishes and Details	
2-D	Details of Partitions, Ceiling and other Interior Design Features (scale 1:100 minimum)	
2-E	Paint Color Swatch Combinations	
2-F	Architectural Interior Perspective/s	
	Architectural Interior Design Technical Specifications	
	Architectural Interior Design Scope of Works	
	Architectural Interior Design Bill of Quantities	

Annex 3: **CHECKLIST REQUIREMENTS – DETAILED LANDSCAPE ARCHITECTURE DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
	LANDSCAPE ARCHITECTURAL DRAWINGS (as applicable)	
3-A	Exterior Lighting Plan and Details	
3-B	Exterior Building Lighting Plan and Details	
3-C	Schedule of Landscape Exterior Finishes and Details	
3-D	Landscape Architectural Perspective/s	
3-E	Planting Schedule and Plant Identification	
3-F	Utilities for connection to the building	
	Landscape Architecture Design Technical Specifications	
	Landscape Architecture Design Scope of Works	
	Landscape Architecture Design Bill of Quantities	

Annex 4: **CHECKLIST REQUIREMENTS – STRUCTURAL DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
	STRUCTURAL DRAWINGS (as applicable)	
4-A	General Notes and Construction Standards	
4-B	Site Development Plan	
4-C	Foundation Plan/s (scale 1:100m minimum)	
4-D	Floor Framing Plan/s (scale 1:100m minimum)	
4-E	Roof Framing Plan/s (scale 1:100m minimum)	
4-F	Schedule and Detail of Footings, Columns, and Shear Walls	
4-G	Schedule and Detail of FTB, Girders, Beams, and Floor Slabs	
4-H	Details of Trusses	
4-I	Details of stairs, ramps, fire exits	
4-J	Other spot details	
	Structural Analysis and Design	
	Boring and Land Test Results	
	Seismic Analysis	
	Structural Technical Specifications	
	Structural Scope of works	
	Structural Bill of Quantities	

Annex 5: **CHECKLIST REQUIREMENTS –SANITARY/ PLUMBING DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
	PLUMBING/ SANITARY DRAWINGS (as applicable)	
5-A	General Notes and Legends	
5-B	Location and Site Plan	
5-C	Storm Water Drainage Layout (scale 1:100m minimum) including actual length of tapping line to Main Drainage Line	
5-D	Water Line Layout (scale 1:100m minimum) including actual length of tapping line to Main source when applicable	
5-E	Sewer line and Vent line Layout (scale 1:100m minimum) including actual length of tapping line to Septic Tank, Lift station and STP	
5-F	Isometric Layout, showing waterline, sewer line, and drainage line	
5-G	Detail of connections, catch basins, downspout, etc.	
5-H	Detail of Cistern, Schedule of Pumps	
5-I	Details of Septic Tanks/ Lift Station	
5-J	Detail of Water Tank (scale 1:50m)	
	Design Analysis	
	Sanitary Technical Specifications	
	Sanitary Scope of works	
	Sanitary Bill of Quantities	

Annex 6: **CHECKLIST REQUIREMENTS –ELECTRICAL DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
	ELECTRICAL DRAWINGS (as applicable)	
6-A	General Notes and specifications/ Legends or Symbols	
6-B	Location and Site Plan	
6-C	Lighting and Receptacle Outlets Layout (scale 1:100m minimum) and details including schedule of lighting fixtures and control devices	
6-D	Power Layout (scale 1:100m minimum) and details including Schedule of panels	
6-E	Fire Detection and Alarm Circuits Layout (scale 1;100m minimum) and details including Schedule of Equipment	
6-F	Emergency alarm, Lighting layout for exits and hallways (scale 1:100m minimum) and details including Schedule of Emergency Lighting Fixtures and Signages	
6-G	Schedule, Detail breakdown of Loads	
6-H	One Line Diagrams	
6-I	Other Details including and not restricted to wiring penetrations through fire-rated walls, section details of devices and wall plates located in exterior areas, containment areas, and office areas.	
	Electrical Computations/ calculations	
	Design Analysis	
	Electrical Scope of works	
	Electrical Bill of Quantities	

Annex 7: **CHECKLIST REQUIREMENTS –ELECTRICAL AUXILIARIES DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
	ELECTRICAL AUXILIARIES' DRAWINGS (as applicable)	
7-A	General Notes and specifications/ Legends or Symbols	
7-B	Location and Site Plan	
7-C	CCTV Layout, Telephone, Data and Wi-Fi systems Layout, One Line Diagram (scale 1:100m minimum) and details including schedule of equipment	
7-D	Mass Notification System Layout, One Line Diagram (scale 1:100m minimum) and details including Schedule of Equipment	
7-E	Cable TV, Master Antenna TV and One Line Diagram (scale 1:100m minimum) and details including Schedule of Equipment	
7-F	Building Section details showing cable tray and wiring in pathways relation to the work of other trades.	
7-G	Other Details including and not restricted to wiring penetrations through fire-rated walls, section details of devices and wall plates located in exterior areas, containment areas, and office areas.	
	Electrical Auxiliaries Scope of works	
	Electrical Auxiliaries Bill of Quantities	

Annex 8: **CHECKLIST REQUIREMENTS –MECHANICAL DESIGN**

Checklist of drawing requirements in the preparation/ evaluation/approval of Detailed Architectural and Engineering Plans and other documents for the construction project Implementation.
Reference: Revised Implementing Rules and Regulations of the National Building Code of the Philippines (PD 1096)

Project : MODERNIZATION OF NUTRITION AND DIETETICS (NDU) BUILDING
Location : Mariveles, Bataan

SHT. NO.	SHEET CONTENTS	REMARKS
	MECHANICAL DRAWINGS (as applicable)	
8-A	General Notes and specifications/ Legends or Symbols	
8-B	Location and Site Plan	
8-C	Floor Plans/ Isometric Drawings (scale 1:100m minimum) showing Fire Suppression Systems including sprinkler system, and other installations	
8-D	Detail of other Machinery/ Equipment (scale 1:50m)	
8-E	Longitudinal and Transverse section of Building (scale 1:100m) showing manner of support of machines/ equipment	
8-F	Other Details including and not restricted to wiring penetrations through fire-rated walls, section details of devices and wall plates located in exterior areas, containment areas, and office areas.	
8-G	Schedule including valves, air handling units, air-conditioning units	
8-H	Schedule exhaust system including the negative pressure layout	
	Mechanical Technical Specifications	
	Mechanical Scope of works	
	Mechanical Bill of Quantities	

REQUIRED ELIGIBILITY DOCUMENTS:

LEGAL:

- ☐ Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
- ☐ 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
- ☐ 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
- ☐ Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

TECHNICAL:

- ☐ Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; and
- ☐ 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
- ☐ Philippine Contractors Accreditation Board (PCAB) License;
- ☐ or
- ☐ Special PCAB License in case of Joint Ventures;
- ☐ and registration for the type and cost of the contract to be bid; and
- ☐ Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission; or
- ☐ Original copy of Notarized Bid Securing Declaration; and
- ☐ Project Requirements, which shall include the following:
    - o Organizational chart for the contract to be bid;
    - o List of contractor's key personnel, to be assigned to the contract to be bid, with their complete qualification and experience data;
    - o 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.
    - o Duly Signed Manpower Utilization Schedule
    - o Duly Signed Key Personnel Certificate/Contract of Employment
    - o Duly Signed Key Personnel Bio-Data with PRC License/Accreditation & Latest Professional Tax Receipt (PTR)
    - o Duly Signed Construction Schedule & S-Curve
    - o Duly Signed Narrative Description of Construction Methods
    - o Duly Signed Construction Safety and Health program

- ☐ 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:

- ☐ 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

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

- ☐ Original of duly signed and accomplished Financial Bid Form; and
- ☐ Other documentary requirements under RA No. 9184
- ☐ Original of duly signed Bid Prices in the Bill of Quantities; and
- ☐ Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and
- ☐ Cash Flow by Quarter.
- ☐ BIR Form 2303 (BIR Registration Certificate)
- ☐ Business and Income Tax Return

Prepared by:

MELVIN JAN A. YABUT, CE, MPA
Engineer IV

Conformed by:

AILEEN F. DE CASTRO, RND
Nutritionist Dietitian V

ILDEBRANDO R. RUAYA JR., RN, MHSS, FISQua
Chief Health Program Officer

Recommending Approval:

VINCENT A. ISIP, MPA
Chief Administrative Officer

Approved by:

DENNIS DAYAO L. ORDONA, MD
Medical Center Chief II

Bid Form

Date: _____
Invitation to Bid[1] Nº: _____

To: [name and address of Procuring Entity]

Gentlemen and/or Ladies:

Having examined the Bidding Documents including Bid Bulletin Numbers *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to *[supply/deliver/perform] [description of the Goods]* in conformity with the said Bidding Documents for the sum of *[total Bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we undertake to provide a performance security in the form, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in **BDS** provision for **ITB** Clause **Error! Reference source not found.** and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:[2]

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

(if none, state "None")

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements as per **ITB** Clause **Error! Reference source not found.** of the Bidding Documents.

We likewise certify/confirm that the undersigned, *[for sole proprietorships, insert:* as the owner and sole proprietor or authorized representative of *Name of Bidder,* has the full power and authority to participate, submit the bid, and to sign and execute the ensuing contract, on the latter's behalf for the *Name of Project* of the *Name of the Procuring Entity] [for partnerships, corporations, cooperatives, or joint ventures, insert:* is granted full power and authority by the

[1] If ADB, JICA and WB funded projects, use IFB.

[2] Applicable only if the Funding Source is the ADB, JICA or WB.

Name of Bidder, to participate, submit the bid, and to sign and execute the ensuing contract on the latter's behalf for *Name of Project* of the *Name of the Procuring Entity]*.

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

Dated this _____ day of _____ 20_____.

_____ _____

[signature] *[in the capacity of]*

Duly authorized to sign Bid for and on behalf of _____

Omnibus Sworn Statement (Revised)

[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]

Statement of all Ongoing Government & Private contracts including contracts awarded but not yet started

Business Name : _____
Business Address : _____

Name of Contract/ Project Cost	Date of Contract	Contract Duration	Owner's Name and Address	Kinds of Goods	Date of Delivery	Amount		End user's acceptance or official receipt(s) ***or*** sales invoice issued for the contract
						Contract	Value of Outstanding Contract	
Government								
Private								
Total Cost								

Note: This statement shall be supported with:

1 Notice of Award , Contract, NTP, and other docs, if necessary

Submitted by : _____
(Printed Name & Signature)

Designation : _____

Date : _____

Statement of all completed Government & private contracts which are similar in nature and complexity to the Contract to be Bid

Business Name : _____
Business Address : _____

Name of Contract/ Project Cost	Date of Contract	Contract Duration	Owner's Name and Address	Kinds of Goods	Date of Delivery	Contract Amount	End user's acceptance or official receipt(s) or sales invoice issued for the contract
Government							
Private							

Note: This statement shall be supported with:

1 Notice of Award, Contract, NTP, and other docs, if necessary

Submitted by : _____
(Printed Name & Signature)

Designation : _____

Date : _____

Statement of Bidder's Single Largest Completed Contract (SLCC)

Business Name : _____
Business Address : _____

Name of Contract/ Project Cost	Date of Contract	Contract Duration	Owner's Name and Address	Kinds of Goods	Date of Delivery	Amount of completed contracts, adjusted by the Bidder	End user's acceptance or official receipt(s) ***and*** sales invoice issued for the contract
Government							
Private							
						Total Cost	

Note: This statement shall be supported with:
1 Notice of Award, Contract, NTP, and other docs, if necessary

Submitted by : _____
(Printed Name & Signature)
Designation : _____
Date : _____