

PHILIPPINE BIDDING DOCUMENTS
(As Harmonized with Development Partners)

**Procurement of
INFRASTRUCTURE
PROJECTS**

Government of the Republic of the Philippines

*Name of the Project : “1 Lot Proposed Architectural Fit-Out
for the Vertical Expansion of Hospital Building
at 2nd Floor to 5th Floor Level above New ER to
include Provision of New Lift and Lobby
Adjacent ER Entrance”*

ITB No. : 023.21

Procuring Entity : Philippine Heart Center
East Avenue, Quezon

**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.

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Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

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

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

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

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

Philippine Heart Center

Invitation to Bid for “1 Lot Proposed Architectural Fit-Out for the Vertical Expansion of Hospital Building at 2nd Floor to 5th Floor Level above New ER to include Provision of New Lift and Lobby Adjacent ER Entrance”

1. The *Philippine Heart Center PHC*, through the *Bayanihan 2 funded CY 2022* intends to apply the sum of **Php30,000,000.00** being the Approved Budget for the Contract (ABC) to payments under the contract for **“1 Lot Proposed Architectural Fit-Out of the Vertical Expansion of Hospital Building at 2nd Floor to 5th Floor Level above New ER to include Provision of New Lift and Lobby Adjacent ER Entrance”**. Bids received in excess of the ABC shall be automatically rejected at bid opening.

Select this for lot-procurement:

The *Philippine Heart Center*, through the *Bayanihan 2 funded CY 2022* intends to apply the sum of *Php30,000,000.00* being the Approved Budget for the Contract (ABC) to payments under the contract for each lot. Bids received in excess of the ABC for each lot shall be automatically rejected at bid opening.

2. The *Philippine Heart Center* now invites bids for the above Procurement Project. Completion of the Works is required **180 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 *PHC Bids and Awards Committee (BAC)* and inspect the Bidding Documents at the address given below from 8:00 AM to 5:00 PM, Monday to Friday.
5. A complete set of Bidding Documents may be acquired by interested bidders on *May 10, 2021* 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 *Twenty Five Thousand Pesos (Php25,000.00)*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees in cash and *presented by the authorized person*.

6. The *Philippine Heart Center (PHC)* will hold a Pre-Bid Conference¹ on *May 26, 2021, 11:00 AM* at *5th Flr. Amphitheater Conf. Rm. MAB Bldg., PHC* which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on *June 09, 2021, 11:00 AM*. Late bids shall not be accepted.

*PHC – Bids and Awards Committee
5th Flr. Amphitheater Conference Room
MAB Building., PHC*

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 *June 09, 2021, 11:00 AM* at *5th flr. Amphitheater Conf. Rm. MAB Bldg., PHC*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. *[Insert such other necessary information deemed relevant by the Procuring Entity such as the use of a back-up data or cloud storage for large files uploaded for online bid submissions]*
11. The *Philippine Heart Center (PHC)* 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.
12. For further information, please refer to:

PHC – BAC Secretariat
Bids and Awards Committee (BAC)
Philippine Heart Center
East Avenue, Quezon City
Telefax No. : 925-2401 local 4059
PHC Website : www.phc.gov.ph

13. You may visit the following websites:

For downloading of Bidding Documents: www.phc.gov.ph

RANULFO B. JAVELOSA, JR., MD.
Chairman BAC for Infrastructure,
Medical Supplies and Services

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

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, *Philippine Heart Center* invites Bids for the *1 Lot Proposed Architectural Fit-Out for the Vertical Expansion of Hospital Building at 2nd Floor to 5th Floor Level above New ER to include Provision of New Lift and Lobby Adjacent ER Entrance*, with Project Identification Number *ITB No. 023.21*

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 *[indicate funding year]* in the amount of *[indicate amount]*.

2.2. The source of funding is:

- a. GOCC and GFIs, the proposed Corporate Operating Budget.

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 {[insert if applicable]} and/or through videoconferencing/webcasting} 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 *[indicate date]*. 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 (**copy 1 and copy 2**) 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.

ENVELOPE 1 shall contain the following Orange folder in three separate envelopes properly marked as:

ORANGE FOLDER (1) – Original copies of Eligibility and Technical Documents as described in ITB Clause 20 (This should be enclosed in an envelope marked “*ORIGINAL ELIGIBILITY and TECHNICAL COMPONENT*”)

ORANGE FOLDER (2) - Original copies of Eligibility and Technical Documents as described in ITB Clause 20 (This should be enclosed in an envelope marked “*COPY NO.1 – ELIGIBILITY and TECHNICAL COMPONENT*”)

ORANGE FOLDER (3) - Original copies of Eligibility and Technical Documents as described in ITB Clause 20 (This should be enclosed in an envelope marked “*COPY NO.2 – ELIGIBILITY and TECHNICAL COMPONENT*”)

ENVELOPE 2 1 shall contain the following Yellow folder in three separate envelopes properly marked as:

YELLOW FOLDER (1) – Original copies of the Financial Documents as described in ITB Clause 20 (This should be enclosed in an envelope marked “*ORIGINAL FINANCIAL COMPONENT*”)

YELLOW FOLDER (2) - Original copies of the Financial Documents as described in

ITB Clause 20 (This should be enclosed in an envelope marked “*COPY NO. 1 FINANCIAL COMPONENT*”

YELLOW FOLDER (3) - Original copies of the Financial Documents as described in ITB Clause 20 (This should be enclosed in an envelope marked “*COPY NO.2 FINANCIAL COMPONENT*”

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:

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

Bid Data Sheet

ITB Clause							
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: <u>1 Lot Proposed Architectural Fit-Out For the Vertical Expansion of Hospital Building at 2nd floor to 5th floor Level above New ER to include Provision of New ER to include Provision of New Lift and Lobby Adjacent ER Entrance</u>						
7.1	<i>[Specify the portions of Works and the maximum percentage allowed to be subcontracted, which shall not be significant or material components of the Project as determined by the Procuring Entity.]</i>						
10.3	<i>[Specify if another Contractor license or permit is required.]</i>						
10.4	The key personnel must meet the required minimum years of experience set below: <table><tr><td><u>Key Personnel</u></td><td><u>General Experience</u></td><td><u>Relevant Experience</u></td></tr><tr><td></td><td></td><td></td></tr></table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>			
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>					
10.5	The minimum major equipment requirements are the following: <table><tr><td><u>Equipment</u></td><td><u>Capacity</u></td><td><u>Number of Units</u></td></tr><tr><td></td><td></td><td></td></tr></table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>			
<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>					
12	<i>[Insert Value Engineering clause if allowed.]</i>						
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than <u>P600,000.00</u> , 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 <u>P1,500,000.00</u> if bid security is in Surety Bond.						
19.2	Partial bids are allowed, as follows: <i>[Insert grouping of lots by specifying the items and the quantity for every identified lot.]</i>						
20	<i>[List licenses and permits relevant to the Project and the corresponding law requiring it, e.g. Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone, etc.]</i>						
21	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	<i>[If different dates are specified for completion of the Works by section, i.e. "sectional completion," these dates should be listed here.]</i>
4.1	<p><i>[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]</i></p> <p>The Intended Completion Date is One Hundred Twenty (120) calendar days upon receipt of the Notice to Proceed (NTP)</p> <p><i>NOTE : The contract duration shall be reckoned from the start date and not from contract effectivity date.</i></p>
6	The site investigation reports are: <i>[list here the required site investigation reports.]</i>
7.2	<p><i>[Select one, delete the other.]</i></p> <p><i>[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]</i> Fifteen (15) years.</p> <p><i>[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]</i> Five (5) years.</p> <p><i>[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]</i> Two (2) years.</p>
10	<p><i>[Select one, delete the other:]</i></p> <p>1.1.a.1.i.1.a. Dayworks are applicable at the rate shown in the Contractor's original Bid.</p> <p>1.1.a.1.i.1.b. No dayworks are applicable to the contract.</p>
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within <i>[insert number]</i> days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is <i>[insert amount]</i> .
13	The amount of the advance payment is <i>[insert amount as percentage of the contract price that shall not exceed 15% of the total contract price and schedule of payment]</i> .
14	<i>[If allowed by the Procuring Entity, state:]</i> Materials and equipment delivered on the site but not completely put in place shall be included for payment.

15.1	The date by which operating and maintenance manuals are required is <i>[date]</i> . The date by which “as built” drawings are required is <i>[date]</i> .
15.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is <i>[amount in local currency]</i> .

A. Determination of Lowest Calculated Bidder

B. Detailed Bid Evaluation (Eligibility and Technical Specification)

C. Post-Qualification

The post-qualification shall verify, validate, and ascertain all statements made and documents submitted by the bidder with the Lowest Calculated Bid/Highest Rated Bid, using non-discretionary criteria, as stated in the Bidding Documents. These criteria shall consider, but shall not be limited to, the following:

Class “A” Documents

Legal Documents

1. Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);.or
2. 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
3. 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
4. Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

5. 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**
6. Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; **and**
7. 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**

8. Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; **and**
9. 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

10. The Supplier's audited financial statements, showing, among others, the Supplier'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
11. The prospective bidder's computation of Net Financial Contracting Capacity (NFCC);
or
A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class "B" Documents

12. If applicable, a duly signed joint venture agreement (JVA) 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.

Other documentary requirements under RA No. 9184 (as applicable)

13. *[For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos]* Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
14. Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.
15. Latest Income Tax Return (for monthly or quarterly tax remittance) *(Only tax returns filed and taxes paid through the BIR EFPS shall be accepted)*

16. Latest Business Tax (Percentage tax or VAT) Returns (*Only tax returns filed and taxes paid through the BIR EFPS shall be accepted*)
17. For those who submitted a Notarized Statement to form a Joint Venture during the Opening of Bids, the Joint Venture Agreement will be submitted with a disclosure of the percentage of ownership of both parties.
18. All parties to the Joint Venture shall submit the following:
 - a) Latest Income Tax Returns (for monthly or quarterly tax remittance) (*Only tax returns filed and taxes paid through the BIR EFPS shall be accepted*)
 - b) Latest Business Tax (Percentage tax or VAT) Returns (*Only tax returns filed and taxes paid through the BIR EFPS shall be accepted*)
 - c) Certificate of PhilGEPS Registration (Platinum Membership)
19. Duly Notarized Certificate of Good Standing, Completion, **AND** Acceptance from PHC. Said Certification must be issued within the past twelve (12) months from bid submission. (This is applicable only to prospective bidder **with** previous contracts and completed projects with the PHC entered into within the past three (3) years from the submission and receipt of bids); **OR**

Duly Notarized Certificate of Good Standing, Completion, OR Acceptance from at least one (1) previous client. Said Certification must be issued within the past twelve (12) months from bid submission. (This is applicable only to prospective bidders **without** previous contracts and completed projects with the PHC).
20. Product Demonstration (if required through a written notification by the BAC)

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.

Section VII. Drawings

[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]

“ANNEX A” - Floor Plan

- 1. A1 - Site Development Staking Plan/Location MAP***
- 2. A2 - Ground Floor Plan / Second Floor Plan***
- 3. A3 - Third Floor Plan / Fourth Floor Plan***
- 4. A4 - Fifth Floor Plan / Roof Deck Level***
- 5. A5 - Right Side Elevation***

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

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

“ANNEX B” - Scope of Works (Probable Project Cost)

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

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

Technical Documents

- ☐ (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- ☐ (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- ☐ (h) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**
- ☐ (i) 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**
- ☐ (j) Project Requirements, which shall include the following:
 - ☐ a. Organizational chart for the contract to be bid;
 - ☐ b. List of contractor’s key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
 - ☐ c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- ☐ (k) Original duly signed Omnibus Sworn Statement (OSS);
and if applicable, Original Notarized Secretary’s Certificate in case

of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

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

Class "B" Documents

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

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

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

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]

Bid Securing Declaration Form

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

REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

BID SECURING DECLARATION

Project Identification No.: *[Insert number]*

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

I/We, the undersigned, declare that:

b. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.

c. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.

d. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:

a.i.1. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;

a.i.2. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and

a.i.3. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

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

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date : _____

Project Identification No. : _____

To: *[name and address of Procuring Entity]*

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

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract]*;
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;
- d. The discounts offered and the methodology for their application are: *[insert information]*;
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines² for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof

²currently based on GPPB Resolution No. 09-2020

included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

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

k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].

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

Name: _____

Legal Capacity: _____

Signature: _____

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

Date: _____



PROJECT: **PROPOSED ARCHITECTURAL FIT-OUT FOR THE VERTICAL
EXPANSION OF HOSPITAL BUILDING @ 2ND TO 5TH FLOOR
ABOVE NEW EMERGENCY ROOM**
TO INCLUDE PROVISION OF GROUND FLOOR NEW LIFT & LOBBY

OWNER: **PHILIPPINE HEART CENTER**

RE: **TECHNICAL SPECIFICATIONS/SCOPE OF WORKS**

STRUCTURAL DESIGN SERVICES

A. STRUCTURAL DESIGN DEVELOPMENT PHASE

- Design Development Documents - prepares and submits design development drawings from the Approved Architectural Drawings for review & coordination with the PHC-EMD project technical team and its concerned parties prior to preparation of final construction plans.
- o **STRUCTURAL PLANS** (*prepared, signed & sealed by a licensed Structural Engineer*)
 - _ General Notes
 - _ As-found Structural Plans
 - _ Foundation & Column Plan, Schedule and Detail of columns
 - _ Second, Third, Fourth & Fifth Floor Elevator Lobby Framing Plan
 - _ Schedule and Detail of Beams, Girders & Slab
 - _ Miscellaneous Structural Details
 - _ Pertinent Structural Documents:
 - Structural Analysis
 - Design Criteria and Load Computation
 - Structural Specifications

CONSTRUCTION SERVICES

I. GENERAL REQUIREMENTS

1.1 Topography

Verify all existing elevations, natural growth and man-made structures which will conform to the related proposed plans, (architectural, structural, sanitary, electrical, mechanical, fire-protection, etc.).

1.2 Setbacks & Height Limitations

Verify local building and association laws for any setback & height requirements.

1.3 Existing Utilities

Verify all existing utilities on site (sanitary, electrical, mechanical, etc.) which may affect the construction. Any alteration, revision or relocation shall be subject for approval by concerned authorities.

1.4 Permits

All necessary permits (Building, Sanitary, Electrical, Mechanical, Association, etc.) required by the local building laws should be furnished before the construction.

II. SITEWORK

2.1 Scope of Work

- 2.1.1 Staking out of building, establishment of lines, grades and benchmarks.
- 2.1.2 All excavation work including all necessary shoring, bracing and drainage of storm water from site.
- 2.1.3 Protection of property, work and structures, workmen, and other people from damage and injury.

2.2 Clearing & grubbing

- 2.2.1 Clear the "Contract Area" within limits shown on the location plan, of fences, trees, logs, stumps, bush, vegetation, other perishable, objectionable or unnecessary matter, except existing structures & growth designated for preservation.
- 2.2.2 Burn or remove to approve disposal areas all spoiled material. Remove ashes as the Architect may direct.

2.3 Protection of Trees & Lawns

- 2.3.1 When so directed, wrap trees designated for preservation with burlap and boards to protect them from damage.
- 2.3.2 When so desired, cover lawns with tarpaulins before placing earth thereon; remove earth as soon as practicable. Erect barriers around flower beds, shrubs and hedges where such growth may be damaged.
- 2.3.3 Replace and put into perfect condition all landscape work that shall be damaged. Replace lawns by new sod.

2.4 Lines, Grades & Benchmark

- 2.4.1 Stake out accurately the lines of the building and of the other structures Included in the contract and establish grades thereof, after which secure Approval by the Architect before any excavation work is commenced.
- 2.4.2 Erect basic batter boards and basic reference marks as directed by the Architect at such places where they will not be disturbed during the construction.
- 2.4.3 Store materials and conduct work in such a manner as to preserve all reference marks. Re-establishment of lines where necessitated due to negligence on the part of the contractor shall be done at the Contractor's expenses.

- 2.4.4 Construct two permanent benchmarks of previously known or determined elevations near or within the site of construction, for the purpose of determining any settlement that may occur during the progress of construction.
- 2.4.5 Take readings, once every week, of the elevations of at least 4 points in the building during the progress of construction work under contract, as directed by the Architect.

2.5 Excavation

- 2.5.1 The Contractor shall control the grading in the vicinity of affected areas to prevent surface drainage running into the existing building. Water, which when accumulated shall be removed by pumping before fill or concrete is placed therein.
- 2.5.2 Excavation of trenches for pipelines shall conform to the typical sections as shown on the plans.

2.6 Shoring, Bracing & Sheet Piling

- 2.6.1 Locate shoring, bracing, sheet piling, planking and cribbing and coffer dams at sufficient distance away walls and other permanent work to permit erection and removal forms, application of damproofing, installation of sub-soil drains, pipes and other permanent work. Drive shoring, sheathing etc. below the bottom of the excavation, deep enough to maintain the bottom.
- 2.6.3 Provide necessary and required decking, guards, fences, barricades, planking, warning signs and the like to maintain safe pedestrian and vehicular traffic and to render all work safe to life and property, safe to workmen and other persons within or near the premises.
- 2.6.4 Remove any shoring, bracing, sheet piling, planking, cribbing or any non-permanent sheet piling, which are not necessary to remain in the work as may be directed by the Architect.

2.7 Disposal of Surplus Materials

- 2.9.1 Any excess material remaining after completion of the earthwork shall be disposed of by hauling and spreading in nearby spoil areas designated by the owner. Excavated material deposited in spoil areas shall be graded to a uniform surface.

III. CONCRETE

3.1 Concrete Materials

- 3.1.1 Cement - use locally manufactured Portland cement.
- 3.1.2 Gravel - shall be clean, hard, sharp, and siliceous free from loam, silt or other impurities. Refer to Structural Specs for varying sizes to be used.
- 3.1.3 Sand - shall be river sand, well screened, clean, hard, sharp, siliceous, free from loam, silt or other impurities, composed of grains of varying sizes within the following limits:

Sieve No.	Passing
8	100
16	5
100	97

- 3.2 **Concrete Reinforcements** - refer to Structural Specifications.
- 3.3 **Concrete Formworks** - timber, plywood, steel or combination. Refer to Structural Specifications.
- 3.4 Refer to structural specifications for other structural materials not specified herein.

IV. MASONRY

- 4.0 **Mortar & Masonry Grout** - use locally manufactured Portland cement & river sand.
- 4.1 **Masonry Reinforcing & Accessories** - use deformed reinforcing bars. Refer to Structural Drawings and Specifications.
- 4.2 **Concrete Hollow Blocks** - use concrete hollow blocks with nominal sizes of 150mm. X 200mm. X 400mm. and 100mm. X 200mm. X 400mm. Refer to Structural Drawings and Specifications. Submit sample for Architect's approval.
- 4.4 All other structural materials not specified herein, refer to Structural Drawings and Specifications.

V. STRUCTURAL SPECIFICATIONS:

5.1 General

5.1.1 Scope

The Work includes labor, materials, equipment, transportation and services required to furnish, fabricate, install and perform excavation, formwork, steel reinforcement, pre-stressing steel, concrete, work of tensioning, laboratory, and field tests as shown on the drawings and/or specified herein.

5.1.2 Codes and Standards

Unless otherwise stated, the National Structural Code of the Philippines, Volume I, Fourth Edition and the U.S. Codes of Practice are used herein to determine the minimum standard of practice required. The following publications are hereby made a direct part of this Specification and all structural works included in this contract shall conform with the applicable requirements therein except as specified herein. If these codes are in conflict with local codes of practice, the more restrictive requirements shall govern.

- 5.1.2a National Structural Code of the Philippines – (NSCP)
- 5.1.2b American Society of Testing Materials – (ASTM)
- 5.1.2c American Concrete Institute – (ACI)
- 5.1.2d Pre-stressed Concrete Institute – (PCI)

5.1.3 Materials

All materials shall be of the best quality and new unless otherwise stated, and shall comply with the Standard Specifications.

5.1.4 Workmanship

Workmanship must be the best practice in all respects. All work must be done in a thorough manner.

5.1.5 Coordination

Contractor shall verify all dimensions as shown before beginning of work. Coordinate with sub-contractors of other trades (electrical, mechanical, plumbing, pre-stressing, etc.) to make certain that all openings, ducts, inserts, anchors and the like are specified for their work are in the form prior to placing concrete.

5.1.6 Inspection

All work and materials furnished by the contractor shall be submitted to inspection and ejection by the Engineer. Any work or any material furnished by the Contractor found to be in any way unsatisfactory or defective before final acceptance of the work shall be corrected or replaced immediately by the Contractor at his own expense.

5.2 FORMWORK

5.2.1 Scope

This Section includes all labor, materials, equipment, transportation and services required to furnish, install and remove all forms for cast-in-place concrete, including all shorings and form supports.

5.2.2 Required Submittals

Shop Drawings showing all construction details of formwork, falsework, and proposed locations and details of construction joints shall be submitted to the Engineer for approval prior to the start of work.

5.2.3 Materials

Timber, plywood or steel or a combination of these will be permitted, provided that the required finish is produced to the satisfaction of the Engineer.

5.3 REINFORCING STEEL

5.3.1 SCOPE

This section includes all labor, materials, equipment, transportation and services required to furnish, cut, bend and place all reinforcing steel as shown on drawings and/or specified herein.

5.3.2 REQUIRED SUBMITTALS

- 5.3.2a Shop Drawings including all necessary elevations, sections, plans, & diagrams showing placement, spacing, splicing, bending details & schedules as well as erection marks for all reinforcing bars shall be submitted to the Engineer for approval prior to start of fabrication.
- 5.3.2b Samples of reinforcing bars of each size and grade shall be submitted to testing laboratory for tension and bending tests as per ASTM A-15 and A-305.

5.3.3 MATERIALS

- 5.3.3a Reinforcing Steel shall be new billet steel, weldable quality and conforming to ASTM requirements as follows:
 - 6.3.3a1 #2 bars, plain, ASTM A-82.
 - 6.3.3a2 #3 to #11 bars, deformed, ASTM a-615.
- 5.3.3b Welded Wire Fabric shall conform to ASTM A-185.
- 5.3.3c Tie Wire shall be #16 black annealed wire.
- 5.3.3d Bar Supports shall be approved type.

5.3.4 FABRICATION

- 5.3.4a All bars shall be of size, grade and length as indicated, and accurately cut, bent or formed to shapes as detailed or scheduled on drawings by methods that will not injure the materials.
- 5.3.4b Hooks and Bends shall be located as specified on drawings and shall conform to the Standard Hooks and Bends as recommended in ACI-315. All bars shall be bent cold. Heating or reinforcement for bending shall not be permitted.
- 5.3.4c Erection Marks: Reinforcement shall be bundled and tagged with erection marks corresponding to those shown on shop drawings to facilitate sorting and placing at the job.

5.3.5 PLACING

- 5.3.5a Reinforcing bars shall be accurately placed as to spacing and clearance; securely tied at intersections with #16 black annealed wire.
- 5.3.5b Bar Supports of metal chairs, cement blocks, etc., of approved type shall securely support & fasten bars in proper position to permit walking upon them w/o deflection/dislocation during placing of concrete.
- 5.3.5c Spacing: the clear space between parallel bars in a layer shall not be less than 1 ½ times the nominal diameter of the bars, 1 1/3 times the maximum size of aggregate, nor 40mm (1 ½ "). Where bars are placed in two or more layers, the clear space between layers shall not be less than 25mm (1") and bars in the upper layer shall be placed directly above those in the bottom layers.
- 5.3.5d Concrete Protection: unless otherwise noted, the minimum concrete cover for reinforcing bars shall be as follows:
 - 5.3.5d1 Walls: 20mm (3/4") clear for not exposed to weather or earth.
 - 40mm (1 ½ ") clear for exposed to weather.

- 5.3.5d2 Slabs: 20mm (3/4") clear for not exposed to weather of earth.
- 5.3.5d3 Beams: 40mm (1 1/2") clear all round.
- 5.3.5d4 Columns: 50mm (2") clear to main bars.
- 5.3.5d5 Footings: 50mm (2") clear for poured against form.
75mm (3") clear for poured against earth.

5.3.5e Splices

- 5.3.5e1 Splices shall be staggered wherever feasible.
- 5.3.5e2 where lapped splices are used, the minimum length of Lap, unless otherwise noted, shall as follows:
 - 5.3.5e2.1 Vertical bars in columns – 36 diameter or Minimum 750mm (2'-6").
 - 5.3.5e2.2 Horizontal bars in beams – 36 diameter or minimum 750mm (2' -6").
 - 5.3.5e2.3 Vertical bars in walls - 30 diameter or minimum 450mm (1' -6").
 - 5.3.5e2.4 Horizontal bars in walls - 24 diameter or minimum 300mm (1' -0").
- 5.3.5e3 Lapped splices shall not be used for bar sizes larger than #11. They shall be spliced by butt welding which shall develop in tension at least 125% of the specified yield strength of the bar by test.

- 5.3.5f Welding of reinforcement shall be done only where shown on drawings, or as specified, or as approved by the engineer. Welding shall be performed only by qualified welders and shall comply with American Welding Society recommended practices AWS D-12.1.
- 5.3.5g Welded Wire Fabric used as reinforcement in slab shall not be spliced in region of maximum stress wherever possible. Lap adjoining pieces with at least one full mesh at sides and ends, and securely wire each other and other reinforcement.
- 5.3.5h Dowels extending from footings to columns and walls shall be of same size and spacing as the vertical bars in columns and walls, and shall be embedded into the footing with length equal to the lapped length which is spliced to the vertical bars above.
- 5.3.5j Cleaning: Before placing, and again before concrete is poured, all reinforcing steel shall be thoroughly cleaned for loose rust, oil, dirt, and other coating detrimental to bond.
- 5.3.5k Maintain Reinforcement in Position at all times during placing of concrete. There shall be a competent representative of the Contractor present who shall keep watch and maintain all reinforcement in proper position during placing of concrete.

5.3.6 INSPECTION

All reinforcement shall be inspected and approved by the Engineer before placing of concrete.

5.4 CONCRETE CAST-IN-PLACE

5.4.1 SCOPE

This Section includes labor, materials, equipment, transportation and services required to furnish and pour all concrete members as shown on drawings and/or specified herein.

5.4.2 REQUIRED SUBMITTALS

- 5.4.2a Concrete placing schedule including location of proposed construction joints.
- 5.4.2b Mill certificates of cement from supplier.
- 5.4.2c Laboratory test reports on aggregate as per paragraph 110.1.1 of this section.
- 5.4.2d Laboratory test reports on Mix Designs for all classes of concrete required as per paragraph 104 of this section.
- 5.4.2e Drying Shrinkage test reports on concrete as per paragraph 110.2.1 of this section.

5.4.3 MATERIALS

- 5.4.3a Cement shall conform to ASTM C-150, type I or II, and shall be constant and of same brand and source throughout the project.
- 5.4.3b Coarse Aggregate
 - 5.4.3b1 Shall comply with ASTM C-33, sound crushed stone or hard gravel from sources with proven history of successful use. Sources shall be constant unless prior notice is given to the Engineer for approval after re-check of Mix Design.
 - 5.4.3b2 Shall have no pieces larger than specified in General Notes, and shall be properly graded from 6mm (1/4") in size to maximum use.
 - 5.4.3b3 Shall be clean, chemically inert, hard, durable, of limit porosity and free from adhering coatings, clay lumps, and organic or other impurities.
- 5.4.3c Fine Aggregate shall comply with ASTM C-33, of hard & durable grains of natural sand, and shall be free from coagulate lumps and shall contain not more than 1% of clay and silt by volume.
- 5.4.3d Water shall be clean and free of impurities detrimental to concrete.
- 5.4.3e Concrete Admixture for water reduction, increase of plasticity and early strength may be used subject to prior approval by the Engineer.
 - 5.4.3e1 No Admixture containing calcium chloride shall be used.
 - 5.4.3e2 All admixture shall be used in strict accordance with the manufacturer's recommendations and under the control of the testing laboratory which designs the concrete mixes.

5.4.4 MIX DESIGN

Concrete mixes shall be designed based on trial Batch Methods by a qualified testing laboratory. All final designed mixes shall be submitted to the Engineer for approval prior to the beginning of work.

- 5.4.4a All mixes shall meet the requirements as called for in the General Notes.
- 5.4.4b All materials shall be mixed in proportions by weight.
- 5.4.4c Cement content shall be kept to a minimum in order to prevent shrinkage cracks.
- 5.4.4d Water/Cement ratio shall be kept to a minimum, and the concrete slump shall not exceed the requirements as called for in General notes.
- 5.4.4e Drying-Shrinkage test for each trial batch of each proposed mix design for pre-stressed concrete as per paragraph 110.2.1 of this section.

5.4.5 MIXING

Except as otherwise specified, concrete may be Job-mixed or Ready-mixed at Contractor's option.

- 5.4.5a Job-Mixed Concrete shall be done in a batch mixer of approved type. All materials shall be measured in weigh-batcher separately in proper order to assure that they are in right proportions. Mixing shall be continued after all ingredients are in mixer for at least 1 ½ minutes before any part of the batch is released. The mixing drum shall revolve at rate of peripheral speed of 200 ft. per minute and shall be completely emptied before any portion of the succeeding batch is placed therein.
- 5.4.5b Ready-Mixed or Transit Mixed Concrete shall meet all the requirements of ASTM C-94 and the following conditions:
 - 5.4.5b1 Central Mixing Plant shall be equipped to properly segregate and accurately weigh various components of the mix. Equipment shall be adequate and kept in good mechanical condition at all times.
 - 5.4.5b2 Rate of delivery, hauling time, mixing time, and hopper capacity shall be such that all mixed concrete shall be placed into the forms within 60 minutes from time of introduction of cement and water to mixer.
 - 5.4.5b3 Rotation of transit mixing drums shall produce peripheral speed of approximately 200 ft. per minute. Mixing period shall be no less than 5 minutes.
 - 5.4.5b4 All concrete shall be kept continuously agitated until discharged into the hopper at the jobsite.
 - 5.4.5b5 No water shall be added at any truck unless specifically authorized and in such quantity as will be necessary in the opinion of the Engineer to secure the desired slump.

5.4.6 PLACING

- 5.4.6a No concrete shall be placed without prior approval by the Engineer.
- 5.4.6b All forms shall be thoroughly wetted before placing of concrete.
- 5.4.6c Concrete shall be placed as soon as possible to its final position by approved methods of conveying which will prevent segregation and shall be carried on in a continuous operation as far as practical to avoid cold joints.
- 5.4.6d No concrete that has been partially hardened or has been contaminated by foreign materials shall be deposited in the structure.
- 5.4.6e No concrete shall be placed under heavy rains unless otherwise approved by the Engineer.

5.4.7 COMPACTING

All concrete, immediately upon placing into forms, shall be thoroughly consolidated by vibrators. All vibrators must be of approved type and used strictly in accordance with the Engineer's instructions.

5.4.8 COMPACTING JOINTS

Where a joint has been made in the structure, the surface of concrete shall be thoroughly cleaned and roughened by approved methods, and shall be wetted and applied with a coat of grout immediately before placing of new concrete.

5.4.9 CURING

- 5.4.9a Fresh concrete shall be protected from direct hot sun or dry wind by proper method to cover the exposed surface as directed by the Engineer if such a weather condition were encountered.
- 5.4.9b Concrete shall be kept moist for a period of not less than 7 days after placing. If high early strength concrete is used, the period may be reduced to a minimum of 3 days.

5.4.10 TESTING

5.4.10a Material Tests

- 5.4.10a1 Aggregate analysis shall be made for both Coarse and Fine as per ASTM C-33.
- 5.4.10b Cement Test shall be made as per ASTM C-150 unless mill certificates are furnished.

5.4.10b Concrete Tests

- 5.4.10b1 Drying-Shrinkage Test for each trial batch of each proposed Mix Design for prestressed concrete shall be made as per ASTM C-157 with the following modifications:
 - 5.4.10b1.1 Make three 4" x 4" x 11" concrete specimens for each test with 20 mm (3/4") maximum size of hardrock aggregate.

- 5.4.10b1.2 The average Drying-Shrinkage after 7 days of moist curing and 21 days of actual drying (28 days after casting) shall not exceed the specified limit of 0.042%.
- 5.4.10b2 Make Slump Test as per ASTM C-143 at time of taking compression test cylinders at jobsite during placing of concrete.
- 5.4.10b3 Make Test Cylinders of 150 mm x 300 mm (6" x 12") standard size as per ASTM C-31 with modifications as follows for prestressed concrete and ordinary concrete respectively:
 - 5.4.10b3.1 For Prestressed Concrete
 - 5.4.10b3.1.1 Make one set of at least 4 cylinders from each 75 cubic meters of concrete, of fraction thereof, placed each day for each mix.
 - 5.4.10b3.1.2 Mark each set of cylinders and keep accurate record showing the location of concrete in the structure which the cylinders represent.
 - 5.4.10b3.1.3 All test cylinders shall be carefully stored at the jobsite under the same curing condition as the concrete poured, and delivered to the testing laboratory without damage as per ASTM C-31.
 - 5.4.10b3.1.4 Use one cylinder of each set for 3-day test of the intended time period for Tensioning or Detensioning; one each set for 7-day test; one each set for 28-day test; and one for spare.
 - 5.4.10b3.2 For Ordinary Concrete: Similar procedure as above except three test cylinders shall be required for each set; one each set for 7-day test; one each set for 28-day test; and one for spare.
- 5.4.10b4 Make Compression Test by testing laboratory as per ASTM C-42 and C-39.
- 5.4.10b5 Core Tests: In the event of the last cylinder, when tested is below the specified strength, the Engineer may require test cores of hardened structure to be taken by the testing laboratory in accordance with ASTM C-42 and C-39.
- 5.4.10b6 Air Content Test as per ASTM at C-260 or C-494 at time of taking test cylinders at jobsite if any concrete admixture has been used in the mix.

5.5 STRUCTURAL STEEL

5.5.1 WORK INCLUDED

This section shall include furnishing, fabrication, erection or installation of all materials including anchor bolts, erection bolts, bracing, beams, girders, columns, trusses and all other structural steel work indicated in the plans of specified herein.

5.5.2 MATERIALS

5.5.2a All Structural steel required for this structure shall conform to "SPECIFICATIONS FOR STRUCTURAL STEEL" (ASTM A-36 latest revision), for rolled and built-up sections.

5.5.2b All arc-welding electrodes shall conform to the requirements of the American Welding Society "SPECIFICATIONS FOR IRON AND STEEL ARC-WELDING ELECTRODES", latest revision.

5.5.3 CONNECTIONS

Shop connections shall be welded unless otherwise indicated in the plans. All connections shall develop the full strength of the members.

5.5.4 WORKMANSHIP AND FABRICATION

Workmanship and fabrication shall be in accordance with AISC SPECIFICATIONS FOR DESIGN, "FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

5.5.5 WELDING

5.5.5a Welding in shop and field shall be done by operators who have been previously qualified by test as prescribed in the American Welding Society "Standard Qualification Procedure" to perform the type of work required.

5.5.5b Equipment shall be of type which will produce proper current so that the operator may produce satisfactory welds. The welding machine shall be of 200-400 ampere, 25-40 volt capacity.

5.5.5c Electrodes shall be of classifications number AWS A5, 1-69 E60XX or E70XX and shall be suitable for positions and other conditions of intended use in accordance with the instructions with each container.

5.5.5d Field welding shall be done by direct current.

5.5.5e The technique of welding employed, the appearance and quality of welds made, and the methods of correcting defective work shall conform to the American Welding Society "Code for Arc-Welding in Building Construction, Section 4, Workmanship".

5.5.5f Surfaces to be welded shall be free from loose scale, rust, grease, paint and other foreign material except that will scale which withstands vigorous wire brushing may remain. A light film from linseed oil may likewise be disregarded. Joint surfaces shall be free from fins and tears.

- 5.5.5g Finished members shall be true to line and free from twists, bends and open joints.

5.5.6 PAINTING

- 5.5.6a Paint shall be delivered to the shop and jobsite in original sealed containers, which shall be clearly marked with the manufacturer's name and the identifying brand number of name. the paint shall be used as prepared by the manufacturer without thinning or other mixture.
- 5.5.6b All painting shall be done on dry surfaces, free from rust, loose mill scale, and grease. Surfaces in contact shall be cleaned by effective means but not painted, except that contact surfaces of exposed exterior steel, such as tank supports, shall be painted.
- 5.5.6c All steel, except where it is to be encased in concrete, shall be painted as follows:
- 1st Coat - Medium oil alkyd-based red oxide zinc chromate Primer FEDERAL GLOSS COAT 24 CRP 1.5 mils dry film thickness.
 - 2nd Coat- Medium oil oxidizing Alkyd FEDERAL GLOSS COAT ALKYD GRAY ENAMEL 20E 1.5 mils dry film thickness.
 - 3rd Coat- Same as 2nd Coat but different color 1.5 mils dry film thickness.
- 5.5.6d All field rivets, bolts, field welds, and serious abrasions to the shop coat shall be spot-painted with the materials used in item 3.
- 5.5.6e Steel encased concrete shall not be painted. However, steel with furring only (plaster on expanded metal) shall be painted.

5.5.7 ERECTION

Erection shall include the setting of all structural steel as called for under the contract for furnishing and delivery of structural steel including temporary supports.

5.5.8 FIELD MEASUREMENT

The contractor shall make measurements in the field to verify or supplement dimensions shown on structural drawings, and he shall take the responsibility for the fit of the new steel to the existing work.

5.5.9 SHOP (FABRICATION) DRAWINGS

The contractor, immediately on the award of the contract, shall prepare shop (fabrication) drawings of all structural steel, based on the designs for the approval of the Engineer. The preparation of these drawings shall not be sublet without the Engineer's permission. These drawings shall show all requirements necessary for the structure, and shall be based on the AISC Specifications. Approval of these drawings shall be primarily with reference to sections and connections and checking in only for conformance with design concept and compliance with information given in the Contract Documents. The Contractor shall be responsible for the dimensions to be confirmed and correlated at the jobsite; for the correct fittings of the component parts; for the information that

pertains solely to the fabrication processes as to techniques of construction and for coordination of the work of all trades.

VI. METALS

6.1 Metal Roofing & Flashing

- 6.1.1 Roofing – 0.60mm thk. prepainted preformed hi-rib metal sheet with alloy coating of aluminum & zinc (55% aluminum, 43.4% zinc and 1.6 Silicon; top coat with 18-20 microns regular polyester with epoxy primer. (canopy)

6.2 Metal Coatings

- 6.2.1 Red Oxide Paint - use "Boysen" Red Oxide Primer, B-310 for all structural metal members.
- 6.2.2 Epoxy Enamel Paint – use "Boysen" Epoxy Enamel for steel that are exposed to heavy traffic and abrasion.
- 6.2.3 Automotive Lacquer Paint - use "Boysen" Quick Drying Enamel for finishing Architectural Metal surfaces.

6.3 Structural Framing System

- 5.2.1 Refer to Structural Drawings and Specifications. Submit shop drawings for Architect and Structural Engineer's approval.

VII. ARCHITECTURAL FINISHES:

6.1. Floor finishes

- 6.1.1 ¾" thk. Marble Slab "Emperador Brown" -@ Ground Floor Elevator Lift lobby;
- 6.1.2 600mm x 600mm x 6mm thk. Porcelain Floor Tiles – for 2nd, 3rd, 4th & 5th floor lift lobbies & common hallways.
- 6.1.3 12" x 12" x 2mm thk. Homogenous Vinyl Tiles "Tajima", high traffic resistance & 100% recycleable – for 2nd floor callrooms, critical care office, 3rd floor facilities and 5th floor staff offices, etc.
- 6.1.4 1000mm x 1000mm studded Rubber floor finish for 2nd floor ramps.
- 6.1.5 2mm thk. "Gerflor" Mipolam Ambiance Homogenous Anti-Static & Anti-fungicidal Vinyl Roll with cove conformers and capping strips on self-leveled compound sub-flooring – for 2nd floor and 4th floor EID-ICU and EID Ward.
- 6.1.6 150mm x 900mm x 2mm thk. Wood vinyl plank – for 5th floor division chiefs office & conference room.
- 6.1.7 300mm x 300mm x 6mm thk. Porcelain Floor Tiles – for all patient & staff toilets and T&Bs.
- 6.1.8 150mm x 900mm x 6mm thk. Vitrified Ceramic Rustic Woodlike Tiles with pebble washout #10. – for covered breezeway path.
- 6.1.9 Aluminum Nosing with rubber insert – for T&B door thresholds, shower threshold depressions and stairwell stair nosing.
- 6.1.6 Submit above-mentioned floor finishes to EMD for final approval.

6.2 Wall Finishes

6.2.1 Exterior Walls:

- a. Natural brick exterior wall cladding finish – elevator wall exterior finish;
- b. Reinforced Concrete Wall, sand blasted/plastered painted finish.
- b. 150mm thk. CHB Wall, Cement Plastered, Painted.
- c. Use “Boysen” Permacoat Flat Latex PHC Gray B701-B.

6.2.2 Interior Walls:

- a. 150mm thk. CHB wall, smooth cement plastered & painted finish – for exterior perimeter walls, “wet” walls (walls with water & wasteline embedded pipes) and ward perimeter walls.
- b. 100mm thk. CHB Wall, smooth cement plastered & painted finish – for interior walls dividing patient rooms, T&B’s, toilets, utility rooms and janitor’s closets.
- c. Dry-wall partition using 6mm thk. “SCG” Smartboard Fiber-cement wall board on Ga.#18 metal stud frame with 75mm thk. 32 kg/cu.m. fiberglass insulation; to provide solid wood framing along door jambs and walls with hanging cabinet installations,
- d. Use “Boysen” Healthy Home low odor, low VOC, anti-bacterial premium acrylic water based interior coating. (submit sample for architect’s approval, application as per manufacturer’s specs).
- e. ¾”thk. Marble Slab “Emperador Brown” wall cladding for wall, jamb and casing of all elevator openings.
- f. 300mm x 300mm x 6mm thk. Porcelain Polished Wall Tiles – for all patient T&Bs and staff toilets.
- g. ¾” thk. Narra plyboard wall cladding – on all patient headboards;
- h. 150mm x 900mm x 2mm thk. Wood Vinyl plank “Kent”, “Apo” or any approved equal – for all nurse station front cladding;
- i. Baseboard – 100mm PVC Rubberized Baseboard (Chocolate brown)
- j. All above-mentioned floor finishes shall be submitted to the architect for approval of color, shade & grain of finish.

6.3 Ceiling Finishes

- 6.3.1 610mm x 1220mm x 15mm thk. “AMF” Thermoacoustic Fine Stratos acoustic performance ceiling panels, non-sag, micro perforated, SK profile with powder coated aluminum T and shadow line runners on metal furring framing system. – for all EID-ICU wards, EID wards, offices and 3rd floor facilities not indicated in 6.3.2 & 6.3.3.
- 6.3.2 12mm thk. U.S. Gypsum Board on metal furring framing system, in Roller Painted Finish, “Boysen” Virtuoso Latex Paint, satin finish. – for all false beams, nurse station drop ceilings & coves.
- 6.3.3 6mm thk. Fiber Cement Ceiling board on metal furring framing system. – for all patient & staff T&B’s. (see EMD sample)
- 6.3.4 PVC Wood like T&G Ceiling Finish for all exterior ceiling eaves at ground floor and 5th floor level.
- 6.3.5 “Boysen-Virtuoso” Anti-Bacterial Latex Paint, Satin Finish – for slab soffits.
- 6.3.6 “Boysen” Permacoat Flat Latex PHC Gray B701-B – for exterior Reinforced Concrete Slab Soffit Bare Finish.

6.4 Lumber

- 6.4.1 Solid Eco-wood, kiln-dried, moisture treated, sanded to smooth finish, sizes and design as indicated by the Architect on wood fabrication units, jams and headers in contact with concrete with a coat of "Coal Tar".
- 6.4.2 4' x 8' x 1/4" and 1/2" thk. Ordinary or marine ribbon-grain plywood – for cabinet backings, pigeon holes, form racks, etc.
- 6.4.3 4' x 8' x 3/4" thk. Plyboard – for reception counters, counter and hanging cabinets, built-in closets, lockers, shelves, etc.
- 6.4.4 4' x 8' x 3/4" thk. Narra plyboard – for wall cladding along common hallways in "Boysen" Stained Varnish Finish;
- 6.4.5 All architectural wood works shall be in automotive duco finish.

6.5 Waterproofing & Damp proofing

- 6.5.1 "Castle" cold applied Acrylic Film waterproofing system - Use One (1) ply PME-901 Concrete Sealer and Mortar Intensifier and three (3)/five (5) ply PME-202 Acrylic Waterproofing Film.
 - a. Three (3) ply for all toilets, T&B's and janitor's closets;
 - b. Five (5) ply for roof deck and concrete gutters.

6.6 Doors

- 6.6.1 Aluminum Framed Glass Doors
 - a. Two leaf double swing doors glass doors (1.80mW X 2.10mH) – for ground floor main entrance; main doors of Pulmonary Laboratory, Bronchoscopy, Sleep Clinic, EID-ICU Ward, EID Ward, 5th floor lift lobby to breezeway and Nursing Office;
 - b. One leaf glass doors (0.90mW X 2.10mH) – for all medication rooms & clinical care office & nursing conference rooms;
 - c. Two slide and one fixed sliding glass doors (3 panels of 1.05mW X 2.10mH) for EID-ICU patient rooms;
 - d. One slide and one fixed sliding glass doors (2 panels of 1.35mW X 2.10mH) for EID ward patient rooms;
 - e. Jamb – shall be tubular 50mm x 100mm extruded aluminum standard "local" section, analok finish.
 - f. Glass – 6mm thk. polish plate tempered clear glass by "Republic Asahi"/approved equal.
 - g. Sealant – "DOW Corning" or "Hilti" silicone sealant.
- 6.6.2 Wooden Doors & Frames:
 - a. Hollow Core Flush-type Wood Swing Doors - Ordinary plywood on solid wood framing with wood louvers at the bottom:
 - 0.80mW X 2.10mH with viewing glass – for head nurse offices, division chief's offices, call rooms,
 - 0.80mW X 2.10mH – for staff lounge, doctors lounge, storage rooms and linen rooms.

- b. Hollow Core Flush-type Ficem Doors - 4.5mm thk. SCG Smartboard fiber cement panel on solid wood framing with bottom aluminum louvers:
 - 1.00mW X 2.10mH – for all patient toilets (sliding type @ EID-ICU);
 - 0.90mW X 2.10mH – for all patient toilets @ EID Pay Ward; donning & doffing rooms
 - 0.80mW X 2.10mH – for staff toilets, utility rooms & janitor's closets;
 - c. Door jambs shall be from 2" x 6" solid treated wood.
 - e. Aluminum Louvers - 0.60mW x 0.50mH size including aluminum tubular frame with Z louvers, in analok finish.
 - f. Viewing glass on wooden doors shall be 0.50mW X 0.80m H X 6mm thk. polish plate tempered clear glass by "Republic Asahi" or approved equal.
- 6.6.3 Metal Doors:
- a. Fire-rated Metal Doors – "Toyo" Rockwool insulated metal doors with fire & smoke seals, viewing glass panel, door closer and panic hardware device. – for door access to elevator.
 - b. Jambs shall be Ga# 16, single rabbet type, U-series

6.7. Windows

- 6.7.1 Aluminum Windows:
- a.) Fixed curtain wall panel system with aluminum frame of heavy duty "local" type, analok finish – for all exterior lift lobbies;
 - b.) Fixed exterior window panels – aluminum frame of heavy duty "local" type, analok finish, 2.40m high, width and division as indicated in floor plan and elevations, fixed and operable as indicated;
 - b.) Fixed interior window panels – on all medication rooms, patient briefing room, head nurse office, fellow's room and conference room, 1.20m high X width as indicated in floor plan (window sill is 0.90m from FFL);
- 6.7.2 Frames shall be tubular 50mm x 100mm extruded aluminum standard "local" section, analok finish.
- 6.7.3 Glass – 6mm thk. polish plate clear tempered glass by "Republic Asahi" or approved equal.
- 6.7.4 Sealant – "DOW Corning" or "Hilti" silicone sealant.

6.8. Finishing Hardwares

- 6.8.1 Locksets
- a.) "Schlage" brand. Bell Model – for all wooden doors;
 - b.) "Schalge" brand. Bell Model keyless type – for all patient T&B doors;
 - c.) Double deadlock – "Yale" brand – for all wooden doors that needs double security such as offices, equipment rooms, nurses and doctors room, conference room and public toilets.
 - d.) Cylindrical deadlock – "Max" brand – for all aluminum doors.
- 6.8.2 Hand grab for aluminum doors – shall be stainless steel C profile, 300mm diameter.
- 6.8.3 Door closers:

- a.) "Ryobi" brand, overhead closer – for all aluminum swing glass doors;
- b.) "Schlage" or "NHN" brand or any approved equal – for wooden doors;
- 6.8.4 Automatic Sliding mechanisms – "Caviwall" or any approved equal;
- 6.8.5 Push plate & pull handle – stainless type, for all public toilets.
- 6.8.6 Hinges - "Schlage" or "Hafele" brand. From 3 ½" x 3 ½" full mortise loose-pin heavy-duty hinges for all wooden doors; heavy duty ball-bearing type for steel doors;
- 6.8.7 Barrel bolt - "Baldwin" or "Stanley" brand, spring type – for all T&B.
- 6.8.8 Cabinet and Miscellaneous Hardwares: (submit sample for Architect's approval)
 - a.) Concealed Hinges - "Hafele" brand, hydraulic type, overlap/half-lap;
 - b.) Pulls & Handles – stainless steel recessed handles;
 - c.) Drawer Guides - "Hafele" brand.
 - e.) Door Stopper - "Hafele" brand.
 - f.) Automatic Catch Lock – "Hafele" brand; for two door cabinets;
 - g.) Drawer lock – "Marco Polo" brand or any approved equal;
 - h.) Door and shower thresholds – aluminum nosing with rubber insert.
- 6.8.9 All above-mentioned hardwares to be submitted to EMD for final approval.

6.9. Glass & Glazing

- 6.9.1 Exterior glass windows - shall be 8mm. thk. Polish plate tinted tempered glass by "Republic Asahi Glass". Submit sample for Architect's approval.
- 6.9.2 Interior glass windows – shall be 6mm thk. Polish plate clear tempered glass by "Republic Asahi Glass". Submit sample for Architect's approval.
- 6.9.3 Facial Mirror - 6mm thk polish plate frameless glass, two coats of silver sealed with protective coats of copper deposited over silver by electrolysis. Provide 12mm thk. marine plywood backing w/ 3M adhesive & button clips.

6.10 Specialty Works

- 6.10.1 Elevator Lift System with 5 openings – patient passenger type;
- 6.10.2 4.5mm thk. solid Polycarbonate sheet roofing with flashing, aluminum tubular frames & seals for skylight roofing of 5th floor breezeway;
- 6.10.2 Granite Finishing Works:
 - a. ¾" thk. "Emperador Brown" Countertop only for nurse stations counter;
 - b. ¾" thk. "Black galaxy" granite Countertop, skirting and splashboard – used on all lavatories and medication counters;
- 6.10.3 Fabrication works using laminates medium density fiberboard with PVC Edging on all surfaces of wooden fabrications using appropriate hardwares for the following:
 - a. Nurse Station Counter including back counter;
 - b. Medication Room counter and hanging cabinets;
 - c. Nutrition Area Counter Cabinet
 - e. Patient Lavatory Counter & hanging cabinet;
 - f. 16 sets Patient Headboard elga duct including MEP cladding;
 - i. Lockers for nurse and doctors staff lounges;
 - j. Staff lounge counter cabinet
 - j. Lobby reception counter;

6.11. Architectural Plumbing Fixtures

- 6.11.1 Water Closets – Close-coupled Elongated “American Standard” Winplus II 2399-2, 3/4.5 LPF, top flush, dual flush.
- 6.11.2 Lavatories - “American Standard”
 - a.) Under counter type Ovalyn 0470 – for patient toilets;
 - b.) Semi-pedestal type New Codie Square 430mm 0948/0741 – for staff toilets and relatives area toilets;
- 6.11.3 Urinal - “Falcon” Waterless urinal, white.
- 6.11.4 Shower - “American Standard” Seva Exposed Bath & Shower Fitting
- 6.11.5 Lavatory Faucet – “American Standard” Seva, single hole, hot & cold – for all patient T&B, staff T&B and public toilets except on stainless steel sinks.
- 6.11.6 Stainless sink lavatory faucet – “American Standard” Ceraplan 5637 Single hole deck-mounted, hot-&-cold mixer – for all stainless steel sinks of medication rooms and utilities.
- 6.11.7 Counter sink – US brand, stainless steel 304, single bowl with faucet hole:
 - a.) 550mmL x 505mmW x 150mmD – for all medication rooms sink and nutrition counter sink;
 - b.) 25”L x 25”W x 7”D – for all utility room sinks;
- 6.11.8 Toilet accessories:
 - a.) Tissue paper holder – stainless steel 304, basket type;
 - b.) Shower curtain rod – 19mm diameter stainless steel tubular curtain rod;
 - c.) Soap holder – stainless steel 304, wall mounted;
 - d.) Bathroom shower rack – two-layer, stainless steel 304, corner wall-mount;
 - e.) Robe hook – stainless steel 304, dual type;
 - f.) Towel holder bar – 610m. stainless steel 304 square bar w/ brackets;
 - g.) P type & L type 50mm diameter stainless steel handgrab with metal flange, plate cover connected w/ 4-1/4” diameter dyna bolt connection.
- 6.11.9 Above fixtures shall be submitted to the architect for approval as well as other fixtures & accessories not indicated here shall be submitted to the architect for approval.

VIII. PLUMBING

7.1 Piping specifications:

- 7.1.1 Hot & Cold Water Lines shall be polyethylene or polypropylene pipes, “Polymutan” or any approved equal polypropylene pipes.
- 7.1.2 Downspouts, Vent pipe & stack, soil & waste pipes – Polyvinyl chloride, series 1000, “Crownpipes” or any approved equal;
- 7.1.3 Storm drainage pipes - Interior polyvinyl chloride, series1000/ class35, “Neltex” or any approved equal.
- 7.1.4 Exterior concrete pipes, ASTM standard for pipes below ground.
- 7.1.6 Roughing-in “Dong-tek” or PVC for standard cast soil pipes, “Crownpipes” or any approved equal;
- 7.1.7 Pipe sealant – Polyvinyl chloride solvent cement, 400 cc.
- 7.2 Installation shall conform to the requirements of the latest edition of the National Plumbing Code and Ordinances of Quezon City.

- 7.3 All other plumbing materials not specified herein, refer to Plumbing/Sanitary Drawings and its General Notes & Specifications.

VIII. ELECTRICAL

- 8.1 Circuit Breakers – “Westinghouse” or approved equal
- 8.2 Panel Board – “NEMA” standard or approved equal.
- 8.3 Wiring “Phelps Dodge” or any approved equal, schedule 40 in Polyvinyl Chloride (PVC) conduits. No wire smaller than #2.0mm² THHN shall be used except for low voltage system wherein #1.75mm² THHN wire shall be used. All power & lighting homeruns shall be #3.5mm² THHN minimum. Wiring method shall be in PVC conduits all throughout the system with electrical devices, junction boxes & necessary electrical fittings, “Panasonic” or any approved equal.
- 8.4 Unless specified in the load schedule, minimum size of wire and conduit to be used shall be #2.0mm² THHN & 20mm nominal diameter trade size PVC pipe, respectively. Wire shall be insulated for 600 volts.
- 8.5 Architectural lighting fixtures shall be as follows:
 - 8.5.1 610mm x 1220mm x 67mm 2-36W “Fumaco” (or any approved equal) Modena 2424T recessed/T-runner type fluorescent lighting fixture w/ parabolic mirrorized aluminum reflector & multi-lined satin finished aluminum louvers, spring wire reflector & louver frame clips – for general lighting on all rooms except patient rooms & T&B.
 - 8.5.2 610mm x 610mm LED panel lighting fixture – for patient rooms.
 - 8.5.3 150mmØ LED pinlight fixture, powder-coated reflector finish with clear
- 8.6 Switches - “Panasonic” wide series switch plates or any approved equal.
- 8.7 Communication cables “Belden or any approved equal, shall be as follows:
 - 8.6.1 Data cable shall be CAT6A gray color;
 - 8.6.2 Paging & telephone cables shall be UTP CAT5e blue color with 4 pairs;
 - 8.6.3 Tapping to existing PABX Room (verify) shall be included in the contractor’s scope of work.
- 8.8 Nurse call light system – one (1) sets main station of nurse call system, “Rauland Borg” or any approved equal, with 36 substations, containing the following:
 - 8.7.1 Sixteen (16) patient button with reset button & intercom, to be placed on patient bed overhead console;
 - 8.7.2 Sixteen (16) call light, to be placed on top of patient room entrance door;
 - 8.7.3 Eight (8) emergency button for patient toilets;
 - 8.7.4 Nurse call system must be of accredited International Standards (UL, CE, TVV or equal).
- 8.9 CATV system – cable TV outlets wired with RG-6 Coaxial Cable to be tapped to existing PABX Room @ 2nd floor Annex.
- 8.10 All works shall conform to the latest and approved edition of the Philippine Electrical Code as applied in the Philippines with the standard rules and regulations of the authorities as well as the local power, telephone companies and other authorities concerned in the enforcement of electrical laws & ordinances.
- 8.9 All other electrical materials not specified herein, refer to Electrical Drawings and its General Notes & Specifications.

IX. MECHANICAL

9.1 Ventilation system

- 9.1.1 Negative Pressure Blower Complete w/ secondary air filter 24"x24"x4 & Primary Hepa Filter 99.99% efficiency 0.3 micron 24"x24"x11-1/2" with Complete duct system and diffusers
- 9.1.2 Air conditioning units shall be split-type AC System 440V, three-phase, 60Hz, "Daikin", "Hitachi" or any approved equal.
- 9.1.3 Air conditioning units for nursing wards shall be ceiling concealed ducted-type AC System 440V, three-phase, 60Hz, "Daikin", "Hitachi" or any approved equal
- 9.1.4 Refrigerant piping shall be type-L, hard drawn, seamless copper. Condensate drain piping shall be PVC schedule 40. Sample for EMD approval.
- 9.1.5 Pipe supports for insulated pipes with vapor barrier insulation must be provided with steel sheet saddles. Likewise, it should be extended up to the hanger or support 250mm above top of the insulated pipe.
- 9.1.6 Pipes shall be anchored, plumb & parallel to building lines. Pipe hanger & supports shall be installed @ 1200mm on center. All penetrations through walls, floors & roof shall be provided w/ pipe sleeves w/ 3mm thk., rubber between pipe & support.
- 9.1.7 All equipment shall be mounted on or supported by vibration isolators or assembly.
- 9.1.8 All piping shall be leak tested with pressure of at least 1½" times the design work pressure.
- 9.1.9 Supply & return duct shall be properly insulated with polyurethane of appropriate thickness.
- 9.1.10 All other mechanical materials not specified herein, refer to Mechanical Drawings and its General Notes & Specifications.

9.2 Fire sprinkler system

- 9.2.1 Specifications:
 - 9.2.1.1 Size of Main Riser – 150mm B.I. Pipe Schedule # 40.
 - 9.2.1.2 Size of Zone Gate Valve – 150mm ø @ 250 – 300 Psig
 - 9.2.1.3 Sprinkler Head Temperature Rating – 57 to 77°C, ½" diameter
- 9.2.2 The Sprinkler system shall be provided with the following:
 - 9.2.2.1 System Main Drain Valve
 - 9.2.2.2 Hydraulic Calculation
 - 9.2.2.3 Auxiliary Drain on trapped section of pipe.
 - 9.2.2.4 Inspector Test connections not less than 25mm.
 - 9.2.2.5 Pipe sleeves of proper size.
 - 9.2.2.6 Pipe sway - bracing the pipe hangers conforming to fire code.
- 9.2.3 There shall be sufficient number of hydrants to concentrate the required flow above any building protected.
- 9.2.4 An adequate fire hose with cabinet and approved adjustable nozzle with shut-off valve complete with Fire Axe with bracket, Hydrants Wrench & Hose Coupling with gaskets shall be installed.

- 9.2.5 All other requirements not included in this general notes shall be referred to the plan & Fire Code & Mechanical Engineering Code.

9.3 Medical Gases, Compressed Air & Oxygen

- 9.3.1 Compressed Air & Oxygen outlet shall be “Ohmeda”, DISS Screw Type.
 9.3.2 All piping system of adequate sizes shall be copper tube type L, Hard Drawn.
 9.3.3 Installation of piping system shall be done in a manner that is properly secured with interval of brace & bracket.
 9.3.4 All piping & fittings shall be oil free prior fully Oxy-Acetylene welding.
 9.3.5 Monitoring alarm zone valves shall be installed in specified area according to the plan.
 9.3.6 Individual isolation valve shall be installed for safety purposes.
 9.3.7 Leak testing of both Oxygen & Compressed Air Outlet shall be done prior to turn over of the project.
 9.3.8 All works shall conform to the latest and approved edition of the Philippine Mechanical Engineering Code.
 9.3.9 All other materials not specified herein, refer to Mechanical Drawings and its General Notes & Specifications.

POST-CONSTRUCTION SERVICES

1. Preparation of complete AS-BUILT DRAWINGS - shall furnish three (3) sets of signed & sealed required as-built drawings & documents including soft “electronic” copies in CAD & PDF for EMD filing purposes permit purposes.
2. Approval of Government Authorities for Occupancy Permit Application - shall assist PHC in filing the required documents to secure approval of government authorities having jurisdiction over the design of the Project.

Prepared by:

AR. MARLON L. REYES, uap
 Architect III
 Building & Facilities Section, EMD

ENGR. RAUL L. ROSAL
 Engineer II
 Building & Facilities Section, EMD

ENGR. DIONISIO H. EOY
 Engineer IV
 Electrical Section, EMD

ENGR. JOSE B. BARSAGA
 Engineer IV – Mechanical Section
 Acting Chief, EMD

PHILIPPINE HEART CENTER
EAST AVENUE, QUEZON CITY

PROJECT : PROPOSED ARCHITECTURAL FIT-OUT OF HOSPITAL BUILDING VERTICAL EXPANSION
LOCATION : PHC- Second Floor to Fifth Floor, Hospital Building Vertical Expansion
SUBJECT : PROBABLE PROJECT CONSTRUCTION COST
DATE : May 15, 2021

ITEM	DESCRIPTION	QUANTITY		MATERIALS		LABOR		TOTAL AMOUNT
				UNIT COST	AMOUNT	UNIT COST	AMOUNT	
A.	GENERAL REQUIREMENTS & SITEWORKS							
a. 1	Structural Design for New Lift with Lobby & 5th floor	1.00	lot					
a. 2	Building Permit, Plans, Licenses & Professional Fees	1.00	lot					
a. 3	Mobilization / Mobilization	1.00	lot					
a. 4	Temporary Facilities & Utilities	1.00	lot					
a. 5	Bonds & Insurance	1.00	lot					
a. 6	Demolition Works of Existing affected by Layout	1.00	lot					
a. 7	Hauling & Disposal of Debris	1.00	lot					
		Sub-Total						
B.	CONCRETE WORKS (Concrete 3,000 psi)							
b. 1	Concrete Slab-on-Fill							
b. 2	Concrete Stiffener Beams, Lintel Beams & Columns							
b. 3	Concrete Suspended Slabs							
b. 4	Concrete Elevator Shear Wall							
b. 5	Concrete Ramp							
b. 6	Concrete Dropwall							
b. 7	Concrete Gutter							
b. 8	Concrete Lavatory Counters							
b. 9	Concrete Topping							
b. 10	Concrete Parapet Wall							
		Sub-Total						
C.	STRUCTURAL WIDE FLANGE & DEFORMED BARS							
c. 1	Wide Flange - Beams							
c. 2	Wide Flange - Girders							
c. 3	Steel Column (0.40m x 0.40)							
c. 4	Base Plate/Stiffener Plate (Assorted Thinkness)							
c. 5	Assorted Size RSB 10mm dia. to 20mm dia.							
c. 6	Acetylene							

c. 7	Oxygen							
c. 8	Steel Painting & Rustproofing							
c. 9	Welding Rod							
c. 10	#16 Gl. Tie Wire							
		Sub-Total						
D.	FORMWORKS & SCAFFOLDINGS							
d. 1	3/4" thk. Film Coated Plywood							
d. 2	Assorted Form Lumber							
d. 3	Assorted CW Nails							
		Sub-Total						
E.	EQUIPMENT							
e. 1	(Please Specify if any)							
		Sub-Total						
G.	MASONRY WORKS							
g. 1	Portland Cement							
g. 2	Screened Sand							
g. 3	10 dia. X 6.0m Length Re-Bar(33ksi)							
g. 4	4'x8' Welded Wiremesh (2"x2"x2.5mmØ)							
g. 5	Gl. Tie Wire #16							
g. 6	4" CHB							
g. 7	6" CHB							
g. 8	6mm thk. Fiber cement board with metal stud framing							
		Sub-Total						
H.	STEEL WORKS FOR ENTRANCE & DECK CANOPY							
h. 1	50mm X 200mm Main Steel Tubular Frames							
h. 2	50mm x 100mm Secondary Steel Tubular Frames							
h. 3	Ga. 12- 2" x 6" C-Purlins							
h. 4	16mmØ plain bar Cross Bracing							
h. 5	12mmØ plain bar sag rods							
h. 6	0.60mm thk. Hi-rib metal roof with insulation							
h. 7	Welding Rod							
h. 8	Acetylene /Oxygen							
h. 9	Red Lead Primer							
h. 10	Miscellaneous Materials							
		Sub-Total						
I.	WATERPROOFING & DAMPROOFING							
i. 1	6mil Polyethylene Sheet for ground floor slan on grade							
i. 2	Castle 3-ply for all Toilets, T&B'S and Dirty Utility							

i. 3	Castle 5-ply for Upper Roofdeck & Conc. Gutter							
		Sub-Total						
J.	DOORS & WINDOWS							
j. 1	Exterior Curtain Wall Glass System - Elevator Lobby							
j. 2	Aluminum Framed Exterior Fixed & Operable Windows							
j. 3	Aluminum Framed Interior Windows							
j. 4	Aluminum Framed Swing Glass Doors							
j. 5	Aluminum Framed Sliding Glass Doors							
j. 5	Hollow Core Wood Doors							
j. 6	Hollow Core Ficem Doors (all T&B doors)							
j. 7	Steel Fire rated Doors (5/F Lift Lobby/ elevator access)							
		Sub-Total						
K.	FLOOR FINISHES							
k. 1	"Emperador" Marble Slab @ G/F Lobby Floor Finish							
k. 2	600x600mm Porcelain Floor Tiles @ Elevator Lobbies							
k. 3	12"x12"x2mm thk. Homogenous Tajima Vinyl Tiles							
k. 4	1000x1000 Studded Rubber Ramp Floor Finish							
k. 5	2mm thk. Homogenous Mipolam Vinyl Roll							
k. 6	150x900x2mm thk. Wood Vinyl Plank							
k. 7	300x300mm Porcelain Floor Tiles @ all Toilets							
k. 8	150x900mm Vitrified Ceramic Woodlike Tiles							
k. 9	Aluminum Stair Nosing/Edge Trim							
		Sub-Total						
L.	WALL FINISHES							
l. 1	Brick Cladding Exterior Wall Finish							
l. 2	Plain Concrete Cement Sandblasted Exterior Finish							
l. 3	Plain Concrete Cement Plastered Interior Finish							
l. 4	"Emperador" Marble Wall Cladding @ Elevator Wall							
l. 5	300x300mm Porcelain Wall Tiles @ all Toilets							
l. 6	150x900x2mm thk. Wood Vinyl Plank Cladding							
l. 7	Narra Plyboard Wall Cladding							
l. 8	100mm PVC Rubberized Baseboard							
		Sub-Total						
M.	CEILING FINISHES							
m. 1	610mm x 1220mm x 15mm thk. AMF Fine stratos Acoustic ceiling board on suspended metal framing system with powder coated runners.							

m. 2	12mm thk. Gypsum Ceiling board on suspended metal framing system with shadow coves.							
m. 3	6mm thk. Fiber cement ceiling board on suspended metal framing system with shadow coves.							
m. 4	PVC wood-like T&G ceiling eaves finish on metal framing system (all exterior ceiling eaves)							
		Sub-Total						
N.	PAINTING WORKS							
n. 1	Exterior Walls - PHC Gray Flat Latex							
n. 2	Interior Walls - Healthy Home Semi Gloss Latex Paint							
n. 3	Ceiling - Virtuoso Satin Latex Paint Finish							
n. 4	Flatwall Enamel							
n. 5	Quick Dry Enamel							
n. 6	Paint Thinner							
n. 7	Patching Compound							
n. 8	Concrete Neutralizer							
n. 9	Wood Stain							
n. 10	Flat Varnish							
n. 11	Lacquer Thinner							
n. 12	Acri & Tinting Colors							
n. 13	Tinting Color							
n. 14	Sand Paper							
n. 15	Assorted brushes & rollers							
n. 16	Miscellaneous Materials/Consumables							
		Sub-Total						
O.	CARPENTRY FABRICATION WORKS							
o. 1	Nurse Station Counter with Cabinets							
o. 2	Medication Room Counter & Hanging Cabinets							
o. 3	Nutrition Area Counter Cabinet							
o. 4	Patient Lavatory Counter & Hanging Cabinet							
o. 5	Patient Headboard Elga Duct							
o. 6	Staff Lockers							
o. 7	Staff Lounge Counter & Hanging Cabinet							
o. 8	Lobby Reception Counter							
		Sub-Total						
P.	SPECIALTY WORKS							
p. 1	Elevator Lift System (Patient Passenger Type)							
p. 2	4.5mm thk. Polycarbonate skylight roofing with frame							

p. 3	ACP Canopy with High Rib Prepainted Roofing, Ga#22 Stainless Steel Gutter and Insulation for Emergency Room/Ground Floor Lift Lobby and 5th floor canopy							
p. 4	3/4" Granite Counter Works							
	a. Emperador Brown marble countertop and skirting for nurse station counters							
	b. Black Galaxy Countertop, splashboard and skirting for all lavatory & medication counters							
p. 5	Stainless Steel 304 Ramp Railing & Handrail							
p. 6	Relocation of Emergency Wall signage							
p. 7	Stainless Steel Alcohol Dispenser Wall Bracket							
p. 8	Phenolic Laminated Toilet Cubicles							
		Sub-Total						
Q	CONSUMABLE HARDWARES							
q. 1	Assorted Finishing Nail (1", 2", 3")							
q. 2	Assorted Black Screw							
q. 3	Concrete Nail 3"							
q. 4	Hardiflex Nail 1"							
q. 5	Rugby (Contact Cement)							
q. 6	Stickwell							
q. 7	Liquid Nail							
		Sub-Total						
R.	ARCHITECTURAL HARDWARES							
r. 1	Door Knob							
r. 2	Door Knob (Key less) - for T&B doors only							
r. 3	Dead Lock							
r. 4	Door Closer							
r. 5	Door Hinge 3-1/2"x3-1/2" (Loose Pin) Stanley							
r. 6	Stainless steel Piano Hinges							
r. 7	Stainless steel Pull handle 4"							
r. 8	Connecting Bolt / Nut & Washers 1/4"Øx1/2"							
r. 9	Foot Bolt & Headbolt - for double leaf doors							
r. 10	Steel Flatbar Hasps - for lockers							
		Sub-Total						
S.	PLUMBING FIXTURES							
s. 1	Waterline System (PPR Pipes & fittings) Hot & Cold							
s. 2	Sewerline System (Pips & Fittings)							
s. 3	Stormdrainage line system (Pipes & Fittings)							

s. 4	Water Closet, elongated, close coupled, top dual flush							
s. 5	Under Counter lavatory basin							
s. 6	Semi-pedestal tpe lavatory							
s. 7	Lavatory basin mixer, Seva (hot & cold)							
s. 8	Exposed Shower and basin mixer							
s. 9	Ordinary faucet (Utility)							
s. 10	Toilet Bidet Spray							
s. 11	Stainless Steel Towel Bar							
s. 12	Stainless steel 304 kitchen sink							
s. 13	Stainless steel 304 slop sink							
s. 14	Kitchen Basin Mixer, Gooseneck type							
s. 15	Floor drain (4"x4") Stainless Steel Strainer							
s. 16	Stainless Steel L & P PWD Handgrab							
s. 17	Stainless Steel shower Curtain Rod							
s. 18	Stainless Steel Tissue Holder							
s. 19	Stainless Steel Soap Holder							
s. 20	Stainless Steel Robe Hook							
s. 21	Roof drain (strainer dome type 4"Ø brass)							
s. 22	Miscellaneous Materials							
		Sub-Total						
T.	ELECTRICAL WORKS							
t. 1	'ATS' 'Main: 300 AT, 3 P, 250 V Bolt-on type							
t. 2	' MDP " Main Distribution Board Main: 600 AT, 3 P, 250 V Bolt-on type Branches: 5-100 AT, 3 P, Bolt-on 3- 70 AT, 3 P, Bolt-on							
t. 3	Branch: Circuit Panel Board Main: 70 AT, 3 P, 250V, Bolt-on type Branches: 18-20 AT, 2P, 250V, Plug-in							
t. 4	Fluorescent Fixtures LED, 2x18W							
5	LED Lighting Panel 0.60m X 1.20m							
t. 6	110/277v electronic ballast, louvered type.							
t. 7	Pin light Fixtures (6" dia. Screw type E-27) LED,9W							
t. 8	Single Switch Flush type Panasonic							
t. 9	Plate Cover Switch w/ Strap 1 gang Panasonic							
t. 10	Plate Cover Switch w/ Strap 2 gang Panasonic							
t. 11	Convenience Outlet 2 Gang tandem/ parallel, Cream							
t. 12	Convenience Outlet 2 Gang Plate cover w/ Strap							

t. 13	2.0mm ² THHN Electrical wire (Stranded)							
t. 14	3.5mm ² THHN Electrical wire (Stranded)							
t. 15	PVC Pipe Conduits Asstd 20mmØ to 63mmØ							
t. 16	RSC Pipe Asstd size 1" to 2-1/2"Ø x 3M							
t. 17	PVC Junction Box Box with Screw							
t. 18	PVC Utility Box with Screw							
t. 19	Hangers & Supports							
t. 20	Electrical tape (NITTO) black							
t. 21	Exhaust Fan							
		Sub-Total						
U.	AUXILIARY SYSTEM WORKS							
t. 1	Nurse Call System - inclusive of central terminal/ communication cabinet, patient push button switches, conduits, boxes, wires, cables, hangers, supports, etc.							
t. 2	Telephone System - inclusive of terminal cabinet, outlets, conduits, boxes, wires, cables, hangers, supports, etc.							
t. 3	Data Cable System - inclusive of terminal cabinet, outlets, conduits, boxes, wires, cables, hangers, supports, etc.							
t. 4	Paging/Sound System - inclusive of terminal cabinet, ceiling mounted speakers, conduits, boxes, wires, cables, hangers, supports, etc.							
t. 5	Fire Alarm System - inclusive of terminal cabinet, smoke detectors, manual stations/breakglass, fire alarm bell 6"Ø, end of line resistors, conduits, boxes, wires, cables, hangers, supports, etc.							
t. 6	CATV System - inclusive of terminal cabinet, catv outlets, conduits, boxes, coaxial cables, etc.							
		Sub-Total						
U.	MECHANICAL VENTILATION WORKS							
u. 1	Negative Pressure Blower Complete w/ secondary air filter 24"x24"x4 & Primary Hepa Filter 99.99% efficiency 0.3 micron 24"x24"x11-1/2" with Complete duct system and diffusers							
u. 3	Ceiling Concealed Air Conditioning System with complete duct (Ga. 26 G.I. Sheet and/or aluminum flexible duct 10"Ø).							

u. 2	Split Type Air Conditioning Systems							
u. 3	AC supply round diffusers 10"Ø w/ OBD							
u. 3	Wooden Return Grilles							
u. 5	Miscellaneous Materials							
		Sub-Total						
V.	MEDICAL GAS & COMPRESSED AIR							
v. 1	Piping Works of Copper Tube Hard Drawn Type-L including Tap to existing, fittings, support & brackets							
v. 2	Assorted size 1/2" to 3/4"Ø							
v. 3	Oxygen Line Outlet							
v. 4	Compressed Air Line Outlet							
v. 5	Oxygen Isolation Valve							
v. 6	Compressed Air Isolation Valve							
v. 7	Testing and Commissioning							
v. 8	Miscellaneous Materials							
v. 9	Hangers & Supports							
		Sub-Total						
W.	FIRE PROTECTION WORKS							
w. 1	Black Steel Pipe, ERW Schedule 40 including fittings and support & brackets Asstd Size 150 mmØ to 25mmØ B.I. pipe, S-40							
w. 2	Sprinkler Heads, quick response, 15mm dia., k=5.6 UL listed and FM approved Pendent							
w. 3	Fire Hose Cabinet - Surface Mounted Type / Class I or III Fire Hose made from gauge 18 B.I. steel construction with glass door, continuous steel hinge. Cabinet shall contain 40mm dia. Cast brass angle valve with 30m of 40mm dia. Polyurethane single lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop.							
w. 4	Fire Extinguisher - 4.5kg. Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket UL listed and FM approved.							
w. 5	Valves and Accessories - 150 mm dia. Alarm and Check valve Assembly complete with pressure gages,							
w. 6	Mechanical Groove Coupling 100mmØ							
w. 7	Mechanical Groove Coupling 50mmØ							
w. 8	Acetylene & Oxygen							

w. 9	Pipe Painting							
w. 10	Hangers & Supports							
w. 11	Testing and Commissioning							
		Sub-Total						
		TOTAL COST						

DIRECT COST:

Total Material Cost	0.00
Total Labor Cost	0.00
<hr/>	
Sub- Total	0.00

INDIRECT COST:

Contractor's Propfit (say 15%)	0.00
Contractor's Tax (say 7%)	0.00
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Sub- Total	0.00

TOTAL (Diect Cost plus Indirect Cost) 0.00

TOTAL NUMBER OF CALENDAR DAYS TO BE COMPLETED :