PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED CONSTRUCTION OF FIVE (5) STOREY WITH TWO (2) BASEMENT AND ROOF DECK MULTI-PURPOSE BUILDING (PUBLIC MARKET, BARANGAY HALL, PUBLIC LIBRARY, HEALTH CENTER AND DAY CARE CENTER) AT BARANGAY DAMAYAN

Project number:
24-00139

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.

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.

REPUBLIC OF THE PHILIPPINES
QUEZON CITY GOVERNMENT
BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE & CONSULTANCY
2nd floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

BAGONG PILIPINAS

October 15, 2024

Invitation to Bid

No.	Project No.	Project Name	Location	Amount	Duration Cal. Days	Office	Source Fund
Building – Small B							
1	24-00125	Proposed Construction of Perimeter Wall at Cong. R. Calalay Memorial Elementary School	Damayan	1,217,312.38	60	Engineering Department	Special Education Fund
2	24-00126	Proposed Rehabilitation of Covered Court at Doña Juana Elementary School	Holy Spirit	5,132,804.11	90	Engineering Department	Special Education Fund
3	24-00127	Proposed Upgrading of Electrical System at Kalantiyaw Elementary School in Barangay Bagumbuhay	Bagumbuhay	8,235,656.93	120	Engineering Department	Special Education Fund
4	24-00128	Proposed Waterproofing of Roof Deck and Rehabilitation of Ceiling (15th Floor) at Main Building in Quezon City Hall Compound	Central	8,697,155.64	120	Engineering Department	General Fund – Continuing Appropriation
5	24-00129	Proposed Upgrading of Plumbing System and Rehabilitation of Comfort Rooms at Tomas Morato Elementary School in Barangay Kamuning	Kamuning	8,913,447.29	150	Engineering Department	Special Education Fund
6	24-00130	Proposed Upgrading of Waterline System and Rehabilitation of Comfort Rooms at Mines Elementary School in Barangay Vasra	Vasra	11,575,042.08	150	Engineering Department	Special Education Fund
7	24-00131	Proposed Upgrading of Waterline System and Rehabilitation of Comfort Rooms at Doña Josefa Elementary School	San Roque	13,922,881.76	150	Engineering Department	Special Education Fund
8	24-00132	Proposed Construction of Perimeter Fence at Teresa Heights in Barangay Pasong Putik Proper	Pasong Putik Proper	14,356,791.59	120	Engineering Department	General Fund – Continuing Appropriation
9	24-00133	Proposed Construction of Covered Activity Area and Pathwalk and Rehabilitation of Fernando C. Amorsolo Senior High School	Kamuning	18,868,533.38	180	Engineering Department	Special Education Fund
10	24-00134	Proposed Upgrading of Waterline System and Rehabilitation of Comfort Rooms at Camp General Emilio Aguinaldo High School	San Roque	19,876,954.60	180	Engineering Department	Special Education Fund

11	24-00135	Proposed Upgrading of Waterline System and Rehabilitation of Comfort Rooms at North Fairview Elementary School	North Fairview	19,944,137.23	150	Engineering Department	Special Education Fund
Building – Medium A							
12	24-00136	Proposed Rehabilitation of Tandang Sora Women's Museum at Barangay Tandang Sora	Tandang Sora	39,953,160.12	60	Engineering Department	Fund from Sen. Risa Hontiveros
Building – Large A							
13	24-00137	Proposed Construction of Amoranto Indoor Sports Facility Building and Improvement of Existing Multi-Purpose Building at Amoranto Sports Complex, Quezon City	Paligsahan	358,866,379.62	450	Engineering Department	20% Community Development Fund – Continuing Appropriation
14	24-00138	Proposed Construction of Six (6) Storey with Deck Multi-Purpose Building	Central	431,193,763.95	720	Engineering Department	20% Community Development Fund – Continuing Appropriation
Building – Large B							
15	24-00139	Proposed Construction of Five (5) Storey with Two (2) Basement and Roof Deck Multi-Purpose Building (Public Market, Barangay Hall, Public Library, Health Center and Day Care Center) at Barangay Damayan	Damayan	661,398,881.76	540	Engineering Department	20% Community Development Fund – Continuing Appropriation
Electrical Work – Small B							
16	24-00140	Proposed Installation of Solar Power System at Manuel A. Roxas High School Including Net Metering Application	Paligsahan	12,080,386.87	120	Engineering Department	Special Education Fund
17	24-00141	Proposed Installation of Solar Power System at Pasong Tamo Elementary School Including Net Metering Application	Pasong Tamo	12,148,723.93	120	Engineering Department	Special Education Fund
18	24-00142	Proposed Installation of Solar Power System at Novaliches High School Including Net Metering Application	San Agustin	12,228,497.23	120	Engineering Department	Special Education Fund
19	24-00143	Proposed Installation of Solar Power System at San Agustin Elementary School Including Net Metering Application	San Agustin	12,242,281.06	120	Engineering Department	Special Education Fund
20	24-00144	Proposed Installation of Solar Power System at San Bartolome High School Including Net Metering Application	San Bartolome	12,307,218.93	120	Engineering Department	Special Education Fund

21	24-00145	Proposed Installation of Solar Power System at Commonwealth Elementary School Including Net Metering Application	Commonwealth	12,317,262.22	120	Engineering Department	Special Education Fund
22	24-00146	Proposed Installation of Solar Power System at Camp General Emilio Aguinaldo High School Including Net Metering Application	Camp Aguinaldo	12,346,151.11	120	Engineering Department	Special Education Fund
23	24-00147	Proposed Installation of Solar Power System at Ramon Magsaysay Elementary School Including Net Metering Application	Lourdes	12,355,546.17	120	Engineering Department	Special Education Fund
24	24-00148	Proposed Installation of Solar Power System at Tandang Sora Elementary School Including Net Metering Application	Tandang Sora	12,406,483.24	120	Engineering Department	Special Education Fund
25	24-00149	Proposed Installation of Solar Power System at Batasan Hills National High School Including Net Metering Application	Batasan Hills	12,468,274.28	120	Engineering Department	Special Education Fund
26	24-00150	Proposed Installation of Solar Power System at Placido Del Mundo Elementary School Including Net Metering Application	Talipapa	12,544,398.72	120	Engineering Department	Special Education Fund
27	24-00151	Proposed Installation of Solar Power System at Judge Feliciano Belmonte Sr. High School Including Net Metering Application	Holy Spirit	12,607,622.07	120	Engineering Department	Special Education Fund
28	24-00152	Proposed Installation of Solar Power System at Lagro High School Including Net Metering Application	Greater Lagro	12,629,898.96	120	Engineering Department	Special Education Fund
29	24-00153	Proposed Installation of Solar Power System at Culiat Elementary School Including Net Metering Application	Culiat	12,652,507.89	120	Engineering Department	Special Education Fund
30	24-00154	Proposed Installation of Solar Power System at Quirino High School Including Net Metering Application	Duyan-Duyan	12,655,519.95	120	Engineering Department	Special Education Fund
31	24-00155	Proposed Installation of Solar Power System at Holy Spirit Elementary School Including Net Metering Application	Holy Spirit	12,771,548.68	120	Engineering Department	Special Education Fund
32	24-00156	Proposed Installation of Solar Power System at New Era High School including Net Metering Application	New Era	12,776,202.97	120	Engineering Department	Special Education Fund
33	24-00157	Proposed Installation of Solar Power System at Culiat High School Including Net Metering Application	Culiat	12,870,990.71	120	Engineering Department	Special Education Fund

34	24-00158	Proposed Installation of Solar Power System at Juan Sumulong High School Including Net Metering Application	Tagumpay	13,035,914.96	120	Engineering Department	Special Education Fund
Building – Small B							
35	24-00159	Proposed Upgrading of Electrical System at Sta. Lucia High School	Sta. Lucia	18,093,988.07	90	Engineering Department	Special Education Fund
Flood Control – Small B							
36	24-00160	Proposed Construction of Slope Protection (Steel Sheet Pile) Along Katipunan Avenue (Center Island Area) at Barangay Pansol	Pansol	7,200,191.98	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
37	24-00161	Proposed Drainage System at Usaffe Road from AFP Road (Sta 0+000) to Creek (Sta 0+070) at Barangay Holy Spirit	Holy Spirit	10,099,069.10	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
38	24-00162	Proposed Drainage System at Dunhill Street from Viceroy Street (Sta. 0+000 to Sta. 0+050) in Barangay Fairview	Fairview	11,576,060.33	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
39	24-00163	Proposed Drainage System at Valiant Street from Fairview Avenue (Sta. 0+000) to Gate (Sta.0+060) in Barangay Fairview	Fairview	12,309,581.99	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
40	24-00164	Proposed Drainage System at Rachel Lane from Regina Lane (Sta.0+000) to Carmen Drive (Sta.0+085) in Barangay Kaligayahan	Kaligayahan	13,505,820.84	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
41	24-00165	Proposed Drainage System at West Riverside Street from Valencia Street (Sta.0+000) to Florencia Road (Sta. 0+100) in Barangay Del Monte	Del Monte	19,449,533.38	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
42	24-00166	Proposed Construction of Slope Protection (Reinforced Concrete Retaining Wall) Along Kamuning Public Market (Sta. 0+000 - Sta. 0+068.5) at Barangay Kamuning	Kamuning	20,180,401.70	150	Engineering Department	Local Disaster Risk Reduction and Management Fund
43	24-00167	Proposed Drainage System at Mangga Street (Sta.0+000 to Sta.0+180) in Barangay Katipunan	Katipunan	22,374,396.77	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
44	24-00168	Proposed Drainage System at Capoas Street from Gasan Street (Sta.0+000) to Inaman Street (Sta. 0+200) in Barangay Masambong	Masambong	23,079,798.79	90	Engineering Department	Local Disaster Risk Reduction and Management Fund

45	24-00169	Proposed Drainage System at Castro Street from Santa Marcela (Sta 00+000) to Creek (Sta 00+250) in Barangay Sta. Lucia	Sta. Lucia	24,742,951.11	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
Flood Control – Medium A							
46	24-00170	Proposed Drainage System at Kaliraya Street from ROTC Hunter (Sta. 0+000) to San Juan River (Sta. 0+280) in Barangay Tatalon	Tatalon	42,499,586.57	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
47	24-00171	Proposed Construction of Slope Protection (Steel Sheet Piles) at Tullahan River Near Odelco Subdivision in Barangay San Bartolome	San Bartolome	60,764,822.59	90	Engineering Department	Local Disaster Risk Reduction and Management Fund
Road – Small B							
48	24-00172	Proposed Rehabilitation (Surface Improvement) of Barangay Hall Compound at Barangay U.P. Village	U.P. Village	2,449,872.89	60	Engineering Department	20% Community Development Fund

1. The **QUEZON CITY LOCAL GOVERNMENT**, through *funding source of various years* intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to payments under the contract *for the above stated Projects.* Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The **QUEZON CITY LOCAL GOVERNMENT** now invites bids for the above Procurement Project. Completion of the Works is required *as stated above*. 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 **QUEZON CITY LOCAL GOVERNMENT – BAC Secretariat** and inspect the Bidding Documents at the address given below *weekdays from **8:00 am. – 5:00 p.m.***

5. A complete set of Bidding Documents may be acquired by interested bidders on **16 October 2024 (Wednesday)** from given address and website/s below *and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB.* The Procuring Entity shall allow the bidder to present its proof of payment for the fees *presented in person.*

STANDARD RATES:

Approved Budget for the Contract	**Maximum Cost of Bidding Documents (in Philippine Peso)**
More than 500,000 up to 1 Million	1,000.00
More than 1 Million up to 5 Million	5,000.00
More than 5 Million up to 10 Million	10,000.00
More than 10 Million up to 50 Million	25,000.00
More than 50 Million up to 500 Million	50,000.00
More than 500 Million	75,000.00

The following are the requirements for purchase of Bidding Documents;

1. PhilGEPS Registration Certificate (Platinum – 3 Pages)
2. Document Request List (DRL)

3. Authorization to purchase bidding documents
   3.1 Secretary's Certificate (for corporation)
   3.2 Special Power of Attorney (for sole proprietorship)
4. Notarized Joint Venture Agreement (if applicable)
5. Letter of Intent

It must be duly received by the BAC Secretariat at 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound.

6. The ***QC- BAC- INFRASTRUCTURE & CONSULTANCY*** will hold a Pre-Bid Conference[1] on **October 24, 2024** at **10:00 AM** at **2nd Floor**, **Procurement Department-Bidding Room, Finance Building**, **Quezon City Hall Compound** or we encourage the prospective bidders to join through our **Virtual Conference (ZOOM APP)** which shall be open to prospective bidders.

   Virtual Conference (ZOOM APP)
   Meeting ID: 854 9489 0133
   Password: 273320

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before **November 05, 2024 – 9:00 AM**. Late bids shall not be accepted.

8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.

9. Bid opening shall be on **November 05, 2024 – 10:00 AM** at **2nd Floor**, **Procurement Department-Bidding Room, Finance Building**, **Quezon City Hall Compound** and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

   Virtual Conference (ZOOM APP)
   Meeting ID: 810 3646 5257
   Password: 201522

10. The ***Quezon City Local Government*** 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 e with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

    ATTY. DOMINIC B. GARCIA
    OIC, Procurement Department
    2nd Floor, Procurement Department,
    Finance Building, Quezon City Hall Compound
    Elliptical Road, Barangay Central Diliman, Quezon City.
    Tel. No. (02)8988-4242 loc. 8506/8710
    Email Add: bacinfra.procurement@quezoncity.gov.ph
    Website: **www.quezoncity.gov.ph**

12. You may visit the following websites:

    For downloading of Bidding Documents: **https://quezoncity.gov.ph/public-notices/procurement/**

By:

MS. MARIAN C. ORAYANI
Chairperson, BAC-Infra and Consultancy

[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.

1. Scope of Bid

The Procuring Entity, **Quezon City Government** invites Bids for the **PROPOSED CONSTRUCTION OF FIVE (5) STOREY WITH TWO (2) BASEMENT AND ROOF DECK MULTI PURPOSE BUILDING (PUBLIC MARKET, BARANGAY HALL, PUBLIC LIBRARY, HEALTH CENTER AND DAY CARE CENTER) AT BARANGAY DAMAYAN,** with Project Identification Number **24-00139**
24-00139.

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

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

2. Funding Information

2.1. The GOP through the source of funding as indicated below for **2024** in the amount of **Six Hundred Sixty-One Million Three Hundred Ninety-Eight Thousand Eight Hundred Eighty-One Pesos and 76/100 Ctvs. (P 661,398,881.76).**

2.2. The source of funding is:

a. LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.

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.

7.1. *[If Procuring Entity has determined that subcontracting is allowed during the bidding , state:]* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criterial

stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.

7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address on **October 24, 2024 at 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound** and/or we encourage the prospective bidders to join through our **Virtual Conference (ZOOM APP) Meeting ID: 854 9489 0133 Password: 273320**

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 **in no case shall exceed One Hundred Twenty (120) calendar days from the date of opening of bids, unless duly extended by the bidder upon the request of the Head of the Procuring Entity (HoPE) of the Quezon City Local Government**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph **5** 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 15 shall be submitted for each contract (lot) separately.

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

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

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

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

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

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

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

Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, similar contracts shall refer to contracts which have the same major categories of work.</td></tr>
<tr><td>7.1</td><td>Subcontracting is not allowed.</td></tr>
<tr><td>10.3</td><td>No additional contractor license or permit is required

In addition, eligible bidders shall qualify or comply with the following:

1. Bidders with valid Philippine Contractors Accreditation Board (PCAB)

Type

Building - Large B</td></tr>
<tr><td>10.4</td><td>The minimum work experience requirements for key personnel are the following:

<table>
<tr><th>Qnty.</th><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience</th></tr>
<tr><td>1</td><td>Project Manager</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Project-in-Charge (Project Engineer)</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>General Foreman</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Trade Engineers/ Leadman for Civil Works</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Trade Engineers/ Leadman for Electrical Works</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Trade Engineers/ leadman for Mechanical Works</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Safety Officer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>DPWH duly accredited Materials/QA/QC Engineer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Cost Engineer/ Project Scheduler</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Surveyor</td><td>3 years</td><td>3 years</td></tr>
</table>

In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing personnel shall perform work exclusively for the project until its completion. Please see attached bid forms.</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>Equipment</th><th>Capacity</th><th>Number of Units</th></tr>
<tr><td>Dump Truck</td><td>12yd3</td><td>2</td></tr>
<tr><td>Welding Machine</td><td>500amp</td><td>2</td></tr>
<tr><td>Grinder</td><td></td><td>1</td></tr>
<tr><td>One Bagger Mixer</td><td></td><td>1</td></tr>
<tr><td>Payloader</td><td>1.5 cu.m.</td><td>1</td></tr>
</table>
</td></tr>
</table>

	Bulldozer	155 hp	1
	Jackhammer		2
	Backhoe	0.8 cu.m.	1
	Backhoe with Breaker	0.8 cu.m.	1
	Plate Compactor	5 hp	1
	Concrete Vibrator		2
	Pumpcrete		1
	Crawler Crane	36-40 mt	1
	In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing equipment shall be used exclusively for the project until its completion. Please see attached bid forms.		
12	*[Insert Value Engineering clause if allowed.]*		
15.1	The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts: a) The amount of not less than Php **13,227,977.64** or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or b) The amount of not less than Php **33,069,944.09** or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.		
19.2	**Partial bid is not allowed.** The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.		
20	No additional requirement.		
21	**Additional Contract Documents relevant to the Project as required:** **1. Construction Schedule and S-curve,** **2. Manpower Schedule,** **3. Construction Methods,** **4. Equipment Utilization Schedule,** **5. PERT/CPM or other acceptable tools of project scheduling, shall be included in the submission of Technical Proposal.**		

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

3.1 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.

3.2 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	Completion of work shall be within 540 calendar days.
4.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor upon receipt of the Notice to Proceed.
6	The site investigation reports are: *[list here the required site investigation reports.]*
7.2	*[Select one, delete the other.]* *[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:]* Fifteen (15) years. *[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:]* Five (5) years. *[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]* Two (2) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
13	The amount of the advance payment is no more that fifteen percent (15%) of the Contract Price subject to approval by the HOPE and compliance with the conditions under RA 9184 and its IRR.
14	No further instructions.
15.1	The date by which operating and maintenance manuals are required is *thirty (30) days* The date by which "as built" drawings are required as part of final payment
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 ten (10%) percent of the contract price.

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.

DED2024_0256

Republic of the Philippines
Quezon City
DEPARTMENT OF ENGINEERING
Civic Center Building B, Quezon City Hall Compound, Elliptical Road
Diliman, Central 1100 Quezon City
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E-mail address: engineering@quezoncity.gov.ph

PROJECT TITLE : **PROPOSED CONSTRUCTION OF FIVE (5) STOREY WITH TWO (2) BASEMENT AND ROOF DECK MULTI-PURPOSE BUILDING (PUBLIC MARKET, BARANGAY HALL, PUBLIC LIBRARY, HEALTH CENTER AND DAY CARE CENTER) AT BARANGAY DAMAYAN**

LOCATION : **BARANGAY DAMAYAN, DISTRICT 1, QUEZON CITY**

GENERAL AND SPECIAL CONDITIONS OF CONTRACT AND TECHNICAL SPECIFICATIONS

Table of Contents

I. GENERAL CONDITIONS

1. DEFINITIONS

A. OWNER : Local Government of Quezon City

B. CONTRACTOR: Any person, entity, company, partnership, or association that enters an agreement with the Owner to provide materials, labor, tools, equipment, machinery, and other necessary facilities for the construction and finalization of the project as outlined in the accompanying plans and drawings.

2. EXAMINATION OF MEMBER

The Contractor must thoroughly inspect the premises prior to submitting any bids to ensure they have the complete understanding of the existing conditions.

3. LOCATION

The project is situated and must be refered to the approved Location Plan.

4. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

A. The Contract Documents shall be signed by all parties in an adequate number of copies. Should any party fail to sign any item within the set of contract documents, identification by the Implementing Agency shall serve as sufficient validation.

B. The items, specifications, and all other documents that constitute the contract are interrelated. Anything depicted in the plans but not explicitly detailed in the specifications, or vice versa, and anything not expressly stated in either but inherently implied, shall be provided or executed as if explicitly shown and stated in both, without additional cost. Where dimensions are provided numerically, they take precedence over measurements taken by scale.

C. Carry out the work in strict accordance with the agreement, refraining from making any alterations or deviations without prior approval from the Implementing Agency.

D. The Contractor is responsible for verifying and cross-checking all dimensions, particularly those specified in the plans. Any discrepancies found during the execution of the work will be the Contractor's direct responsibility.

5. DETAILED DRAWINGS AND INSTRUCTIONS

The supplementay documents and/or additional details / drawings and instructions necessary for the proper execution of the work shall be provided at the jobsite as required. These supplementary documents shall have equal authority as if they were originally included.

6. PLANS AND PROJECT SITE

Ensure that one (1) complete set of approved plans, specifications, supplementary detail drawings, and instructions is kept in good order and condition at the project site.

7. SHOP DRAWINGS

During construction, the Implementing Agency and/or Contractor shall provide shop drawings if deemed necessary. The Contractor must refrain from installing any item

requiring shop drawings until such drawings have been duly approved by the Implementing Agency.

8. REVISIONS

The Owner and the Implementing Agency may alter or revise the plans, including changes during the project's progress, without breaching the terms of the agreement as much as possible within the project schedule. Any additional costs incurred for labor or materials will be added to or deducted from the original contract price as necessary and validated.

9. PROJECT SCHEDULE

The Contractor is required to prepare and submit to the Implementing Agency, prior to commencing project operations, a comprehensive work schedule outlining the entire construction duration. This schedule must include estimated timeframes for completing each project stage and phase (Milestone).

10. WORKMANSHIP

The project shall be completed with top-tier workmanship in strict accordance with the plans and specifications, ensuring full approval and acceptance from the Implementing Agency.

11. MATERIALS

Only materials of the highest quality for their respective types shall be used unless otherwise stated in the plans and technical specifications. They must be stored and protected adequately to prevent damage.

12. INSPECTION OF WORK

The Contractor shall make the work accessible for inspection by the Implementing Agency, the Owner, and other authorized personnel overseeing the project.

13. SUBSTANDARD WORK

Any work or materials deemed unacceptable by the Architect must be promptly removed and replaced with suitable alternatives at no additional cost. Disposed materials must be promptly removed from the premises.

14. LAWS AND REGULATIONS

The Contractor is responsible for adhering to all current labor laws and regulations. They shall indemnify the Owner from any associated liabilities, and at their own cost, promptly settle all taxes, fees, and licenses owed to the government—both national and local—resulting from their work on the project.

15. MANNER OF PAYMENT

Payments to the Contractor will be made based on the progress of work completed within each period, subject to verification, approval, and recommendation by the Implementing Agency.

16. RETENTION MONEY

Progress payments will have a ten percent (10%) retention withheld. The retained funds will be released upon satisfactory completion of the work and issuance of the Certificate of Final Completion and Acceptance.

17. TEMPORARY FACILITIES

The Contractor is responsible for arranging temporary water, power, and telephone services from local utility companies throughout the construction period. All associated costs is included in the contract and shall be shouldered by the Contractor. The Contractor must provide a temporary restroom in a discreet and sanitary manner, and it must be removed once the work is completed.

18. SITE CLEARING

The site must be clean, cleared and ready for occupancy prior to the issuance of the certificate of completion and acceptance. No construction debris must be left on the site premises.

19. TEMPORARY BARRICADES, SIGNAL LIGHTS, BILLBOARDS, ETC.

The contractor shall provide all necessary measures such as but not limited to temporary enclosures, billboards and safety signages that must be visible on the site premises.

20. PERFORMANCE AND GUARANTEE BOND

To ensure the Contractor's faithful performance under the contract, they must provide a Performance Bond equivalent to thirty percent (30%) of the contract price. The bond can be in the form of cash, manager's check, or surety bond, callable upon request.

21. TESTING AND COMMISSIONING

The Contractor shall ensure that comprehensive testing and commissioning of the equipment/system is included as an integral part of the performance obligations under this Contract. Testing shall be conducted in accordance with industry standards and shall verify that the equipment/system meets all specified performance criteria and operational requirements set forth in the Contract documents.

22. WARRANTY OBLIGATION

The Contractor hereby warrants that the equipment/system provided under this Contract shall be free from defects in materials and workmanship for a period stated in the technical documents such as but not limited to plans and technical specifications from the date of commissioning. This warranty includes, but is not limited to, ensuring that the equipment/system functions in accordance with its specifications and is suitable for its intended purpose as outlined in the Contract.

23. CONDITIONS OF WARRANTY

The warranty provided herein shall be subject to the following conditions: a. Any defect or non-conformance discovered during the warranty period shall be promptly reported to the Contractor in writing. b. The Contractor shall, at its own cost and expense, promptly repair or replace any defective parts or components of the equipment/system covered under this warranty. c. The warranty shall not cover damages or defects resulting from misuse, neglect, improper installation, alterations, accidents, or unauthorized repair or modification of the equipment/system.

24. QUESTIONS AND DISAGREEMENTS

Any questions or disputes between the Contractor and the Owner regarding the interpretation of the plans and specifications shall be referred to the Implementing Agency. The decision of the Implementing Agency on such matters shall be binding and final.

II. SPECIAL CONDITION

Apart from the warranty period covered by General Condition, hereunder, added Special Condition for the specific items.

EQUPMENT	WARRANTY PERIOD	COVERAGE	TERMS AND CONDITIONS
SOLAR PV PANEL	• At least 15 Years Product Warranty • At least 30 Years Performance Warranty	Covered Componets: • Solar PV Modules • Bypass Dopdes • Service and Repairs: • Replacement • Repair Services	• Alteration, disassemble, reinstallation, and/or improper installation or application. • Failures caused by surrounding equipment or facility of the products or defective compontets in the construction on which the module is mounted. • Harmful objects that may cause damaged to the Solar PV Panel.
INVERTER	At least 10 Years Product Warranty	Covered Components: • Inverter Unit • Internal Components • Cooling System • Service and Repairs: • Replacement • Repair Services	• Alteration, disassemble, reinstallation, and/or improper installation or application. • Harmful objects that may cause damage to the Inverter. • Unwanted damage due to the penetration of pest and/or animals.
RAPID SHUTDOWN DEVICE (MODULE TYPE)	5 Years Production Warranty	Covered Components: • RSD Module • Control Unit • Service and Repairs: • Replacement • Repair Services	• Alteration, disassemble, reinstallation, and/or improper installation or application. • Harmful objects that may cause damaged to Rackings.
RACKINGS	10 Years Product Warranty	Covered Components: • Module Rails • Mounting Brackets • Clamps and Hardware • Service and Repairs: • Replacement • Repair Services	• Alteration, disassemble, reinstallation, and/or improper installation or application. • Harmful objects that may cause damaged to Rackings.
Airconditioning Unit	One (1) year warranty on parts and labor. Five (5) years warranty for standard compressor part only.	Covered Componets: • Compressor • Replacement • Service and Repairs	• The warranty is void if the unit is altered, disassembled, reinstalled, or improperly installed or applied. • The warranty does not cover failures caused by surrounding equipment or facilities, or by defective components in the

			construction on which the unit is mounted. • The warranty does not cover damage caused by harmful objects.
EQUPMENT	**WARRANTY PERIOD**	**COVERAGE**	**TERMS AND CONDITIONS**
Fire Pump	One (1) to Two (2) years for parts and labor, with some manufacturers offering extended warranties for specific components.	Covered Components: • Motor • Impeller • Casing • Service and Repairs	• Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. • Unauthorized modifications or repairs.
Jockey Pump	One (1) year warranty on parts and labor.	Covered Components: • Motor • Impeller • Casing • Service and Repairs	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. •Unauthorized modifications or repairs.
Transfer Pump	One (1) to Two (2) years for parts and labor	Covered Components: • Motor • Impeller • Casing • Service and Repairs	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. •Unauthorized modifications or repairs.
Booster Pump	One (1) to Two (2) years for parts and labor	Covered Components: • Motor • Impeller • Casing • Service and Repairs	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. • Unauthorized modifications or repairs.
Pressure Tank	One (1) to Five (5) years, with some manufacturers offering longer warranties for certain parts or components.	Covered Components: • Tank • Bladder • Service and Repairs	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. •Unauthorized modifications or repairs.
Overhead Tank	One (1) to Five (5) years, with some manufacturers offering longer warranties for certain parts or components.	Covered Components: • Tank • Bladder Service and Repairs	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. •Unauthorized modifications or repairs.
Passnger Elevator	One (1) to Three (3) years for parts and labor	Covered Components: • Motor Control System • Doors • Service and Repairs	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident.

			•Unauthorized modifications or repairs.
EQUPMENT	**WARRANTY PERIOD**	**COVERAGE**	**TERMS AND CONDITIONS**
Generator Set	One (1) years for parts and labor or 1500 running hour's	Covered Components: • Wear and Tear • Damage from Misuse • Acts of Nature	•Improper installation or maintenance. • Damage caused by misuse, negligence, or accident. •Unauthorized modifications or repairs. •

Note: The Contractor shall provide the complete contact details of the supplier for the above-mentioned equipment under Special Condition.

III. TECHNICAL SPECIFICATIONS

1. GENERAL REQUIREMENTS

A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.

B.

C. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.

D. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.

E. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.

F. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.

G. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.

H. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.

I. Mobilization and Demobilization

1. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of

offices, buildings, and other necessary general facilities for the operations at the site.

2. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.

J. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.

K. Temporary Facilities and Utilities

1. All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.

2. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

3. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.

4. Temporary enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage.

5. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.

6. Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly.

L. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.

1. A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.

2. The medical room shall be provided with waterproofing; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.

3. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and suitable notices in the site.

4. Additional safety precautions shall be provided in the event of a pandemic. Protocols set forth by the government shall be strictly followed.

5. Construction safety shall consist of construction canopy and safety net.

M. Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.

N. A systematic approach for managing vehicular and pedestrian traffic within the project area shall be provided adhering to relevant regulations and standards, prioritizing the safety of workers, motorists, and pedestrians while maintaining the flow of traffic during construction activities. It shall delineate designated traffic routes, temporary signage, and traffic control measures such as flagging operations or temporary traffic signals.

O. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

2. SITE WORKS

A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.

B. This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract.

Removal and/or demolition of existing structures shall be done in accordance to safety procedures.

C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.

The Contractor shall notify the Engineer sufficiently in advance of the beginning of any excavation so that cross-sectional elevations and measurements may be taken on the undisturbed ground. The natural ground adjacent to the structure shall not be disturbed without permission of the Engineer.

Trenches or foundation pits for structures or structure footings shall be excavated to the lines and grades or elevations shown on the Plans or as staked by the Engineer. They shall be of sufficient size to permit the placing of structures or structure footings of the full width and length shown. The elevations of the bottoms of footings, as shown on the Plans, shall be considered as approximate only and the Engineer may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary, to secure a satisfactory foundation.

Boulders, logs, and other objectionable materials encountered in excavation shall be removed.

After each excavation is completed, the Contractor shall notify the Engineer to that effect and no footing, bedding material or pipe culvert shall be placed until the Engineer has approved the depth of excavation and the character of the foundation material.

D. All excavated materials, so far as suitable, shall be utilized as backfill. The surplus materials shall be disposed of in such manner as not to obstruct the stream or otherwise impair the efficiency or appearance of the structure. No excavated materials shall be deposited at any time so as to endanger the partly finished structure.

All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted by wetting, tamping and rolling.

E. Soil Poisoning. There are two methods usually adopted in soil poisoning which are as follows:

1. Cordoning. This method is usually adopted when there is no visible evidence of termite infestation. Trenches in concentric circles, squares or rectangles are dug 150mm to 220mm wide and at least one meter apart and applied with Liquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.

2. Drenching. When soil show termite infestation, this method shall be applied. The building area shall be thoroughly drenched with Liquid Termicide Concentrate working solution at the rate of 24 liters per square meter.

3. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORKS

1. Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.

2. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

3. Materials

   a. Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).

   b. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.

   c. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.

   d. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

4. Proportioning and Mixing

   a. Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions:

      Cement: Sand: Gravel
      Class "A" - 1: 2: 3
      Class "B" - 1: 2: 4
      Class "C" - 1: 2 ½

   b. Concrete mixture to be used for concrete shall conform with the structural requirements.

   c. Mixing – concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

5. Forms

a. General – Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ¼" (6mm) thick ordinary plywood and form lumber.

b. Cleaning of Forms – before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material.

c. Removal of Forms – forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

6. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary tie wires, chairs, spacers, supports and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil, grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

7. Conveying and Placing Concrete:

a. Conveying – concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.

b. Placing – concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.

c. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolutions of the machine mixer.

d. Consolidation of Concrete – concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.

e. Placing Concrete through reinforcement – In placing concrete through reinforcement, care shall be taken that no segregation of the coarse

aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

8. Curing

   a. General – All concrete shall be moist cured for a period not less than seven (7) consecutive days by an approved method or combination applicable to local conditions.

   b. Moist Curing – The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing.

9. Finishing

   a. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.

   b. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

B. MASONRY WORKS

1. Masonry Units (Concrete Hollow Blocks):

   a. 100mm thick for all interior walls and 150mm thick for all exterior walls unless otherwise indicated.

   b. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

   c. Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns and lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height and other considerations.

2. Sand:

   S-1, washed, clean and greenish in color.

3. Mortar:

   One part Portland cement and two parts sand and water but not more than three parts sand and water.

4. Reinforcement

   The concrete hollow blocks shall be reinforced with 10mm diameter deformed bar, spaced not more than 0.8m on centers, both ways.

5. Plaster bond:

The mixture of cement plaster for concrete hollow block wall finishes indicated in the drawings shall be one part Portland cement and three parts sand.

6. Floor Topping Preparation for Tilework. One part Portland cement and two parts sand and water but not more than three parts sand and water.

C. MOISTURE PROTECTION

1. Waterproofing

Liquid-based waterproofing systems are commonly used to protect surfaces from water infiltration, particularly in construction and building applications. The technical specifications for liquid-based waterproofing can vary depending on the specific product and its intended use. Here are some general technical specifications that you might find in liquid waterproofing products:

a. Type of Polymer or Material:
Liquid waterproofing products are often based on polymers such as acrylics, polyurethanes, epoxies, or bitumen. The type of polymer used will affect the product's performance and properties.

b. Application Method:
Liquid waterproofing can be applied using various methods, including brush, roller, spray, or trowel. The application method may impact the coverage, thickness, and overall performance of the waterproofing layer.

c. Coverage:
The coverage rate is usually specified in square meters or square feet per gallon or liter. It indicates how much area the product can cover at a recommended thickness.

d. Dry Time:
The time it takes for the liquid waterproofing to dry and cure is an important factor, especially in construction projects where quick drying is necessary to move on to the next phase.

e. Thickness:
The recommended thickness of the applied coating is crucial for achieving optimal waterproofing performance. It may be specified in mils, microns, or another unit of measurement.

f. Elongation and Flexibility:
The ability of the waterproofing layer to stretch and flex without cracking is crucial, especially in applications where movement or temperature fluctuations may occur.

2. Vapor Barrier

a. Vapor barrier shall be placement of 8mil Polyethylene sheet prior to pouring of concrete for foundation members, slabs-on-fill and slabs-on-grade.

D. ROOFING WORKS

1. Corrugated galvanized iron (G.I.) sheets, including plain aluminum sheets for roofing accessories shall be cold-rolled meeting ASTM A-153 and with spelter coating of zinc of not less than0.381 kg/sq.m. (1.25 ounce/sq.ft.) conforming to ASTM A-525 or pns 67:1985. Unless otherwise specified or shown on Plans, roofing sheets shall be gauge 26 (0.48mm thick) and provided in long span

sizes to minimize end laps. Sheets shall weigh not less than 3.74 kg/sq.m. and shall be marked or stamped showing the gauge, size amount of zinc coating, brand and name of manufacturer. Test specimens shall stand being bent through 180 degrees flat on itself without fracture of the base metal and without flaking of the zinc coating.

2. Ridge/hip rolls, valleys, flashing and counter flashings, gutters and downspouts, whenever required, shall be fabricated from plain G.I. sheets. Ridge/hip rolls, flashings and counter flashings shall be gauge 26. Valleys, gutters and downspouts shall be gauge 24 unless otherwise specified on Plans. Wire basket strainers shall be galvanized, gauge 24,

   Roof ventilators, whenever required shall be fabricated from gauge 26 plain G.I. sheets and constructed to the dimensions and details shown on Plans.

3. The roofing shall be secured to the purlins with min. 2 ½" max. 3" long Tek screws. Provide all-purpose sealant under the fasteners. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.

4. Polycarbonate roofing and sun breakers shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½" max. 3" long Tek screws. Provide all-purpose sealant under the fasteners. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.

5. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

6. Provide 6mm thick thermal insulation with single-side aluminum foil prior to fastening of roofing sheets to serve as thermal protection.

E. METAL FABRICATION

1. Materials:

   a. Steel and Iron. If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.

   b. Bolts, Nuts, Studs and Rivets. ASTM A 307 and A 325.

   c. Screws. Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111.

   d. Metal Purlins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1.4mm in thickness or approved equal.

3. Metal Surfaces:

Surfaces shall be clean and free from all scale, flake, rust and rust pitting; well-formed and finished to shape and size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not

use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

4. Construction:

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

5. Welding:

Use welding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where tack welding is permitted. Do not tack weld exposed to connections). Grind smooth visible weld in finished installation.

4. ARCHITECTURAL WORKS

A. FLOOR FINISHES

1. Ceramic Tiles. Unglazed ceramic tiles shall be hard, dense tiles of homogeneous composition. Its color and characteristics area determined by the materials used in the body, the method of manufacture and the thermal treatment.

   Tile work shall not be started until roughing-ins for sanitary/plumbing, electrical and other trades have been completed and tested. The work of all other trades shall be protected from damage.

2. Cement Floor Finish. Mortar topping shall be one part Portland cement and three parts fine aggregate by loose volume.

   Finish topping shall be pure Portland cement properly graded, mixed with water to approved consistency and plasticity. Where required to be colored cement floor finish, red or green oxide powder shall be premixed with Portland cement complying with finish topping requirements and the desired color intensity. Cement floor finish floor hardener shall be premixed as required and applied in accordance with the manufacturer's instruction manual.

B. WALL FINISHES AND PARTITIONING

1. Ceramic Tiles. Glazed tiles and trims shall have an impervious face of ceramic materials fused onto the body of the tiles and trims. The glazed surface may be clear white or colored depending on the color scheme approved by the Engineer. Standard glazes may be bright (glossy), semi-matte (less glossy),

Tile work shall not be started until roughing-ins for sanitary/plumbing, electrical and other trades have been completed and tested. The work of all other trades shall be protected from damage.

2. Cement Plaster Finish. Mortar mixture for brown coat shall be freshly prepared and uniformly mixed in the proportion by volume of one part Portland cement, three (3) parts sand and one fourth (1/4) part hydrated lime.

   Finish coat shall be pure Portland cement properly graded conforming to the requirements and mixed with water to approved consistency and plasticity.

3. Double-Wall Fiber Cement Board Drywall on Metal Studs. Wall panel shall be two (2) 6 mm thick fiber cement boards, properly cut and prepared for installation and shall conform to the requirements of the Plans.

   Metal Studs. Wall framing shall consist of 0.6 mm thick aluminum metal studs and aluminum metal tracks.

   Fasteners and Connection detail. All construction and connections shall be secured with rivets, screws and drive pins, and shall conform to local and standard codes. Connections shall also be secured with gypsum putty and gypsum tape.

C. CEILING FINISHES

Fiber Cement Board on Metal Frame. The ceiling materials to be used shall conform to the samples approved by the City Engineer. All ceiling works shall be done by men experienced and qualified to do this particular specialty trade. The installation of ceiling materials shall be in accordance with the detailed section and with the manufacturer's manual instructions. Ceiling materials shall be cut as required to fit the perpendicular condition and should be properly secured by anchorage and other accessories to complete the installation. No mechanical work shall be exposed on the finish work. All joints around electrical outlets, pipes and other works extending through materials shall be sealed with caulking.

D. CARPENTRY WORKS

Lumber of different species for the various parts of the structure shall be well-seasoned, sawn straight, sundried or kiln-dried and free from defects such as loose unsound knots, pitch pockets, sapwood, cracks and other imperfections impairing its strength, durability and appearance.

Rough lumber for framing and siding boards shall be air-dried or sundried such that its moisture content shall not exceed 22 percent. Dressed lumber for exterior and interior finishing, for doors and windows, millwork, cabinet work and flooring boards shall be kiln-dried and shall not have a moisture content in excess of 14 percent at the time of installation in the structure.

Plyboard shall be good grade and made of laminated wood strips of uniform width and thickness bounded together with water resistant resin glue. The laminated core shall be finished both faces with select grade Tanguile or red Lauan veneers not less than 2 mm thick similarly bonded to the core. The plyboard of not less than 19 mm thick shall be free from defects such as split in veneer, buckling or warping.

Plywood shall conform to the requirements of the Philippine Trade Standards 631-02. Thickness of a single layer laminae shall not be less than 2 mm. The laminae shall be superimposed in layers with grains crossing at right angles in successive layers to produce stiffness. The face veneers shall be rotary cut from select grade timber. The laminae and face veneers shall be bonded with water resistant resin glue, hot

exposed to moisture such as at toilets and eaves, and ceiling to be finished with acrytex.

Glue shall be from water resistant resins which, upon hardening, shall not dissolve nor lose its bond or holding power even when soaked with water for extended period.

Nails, screw, bolts, and straps shall be provided and used where suitable for fixing carpentry and joinery works. All fasteners shall be brand new and adequate size to ensure rigidity of connections.

1. Nails of adequate size shall be steel wire, diamond-pointed, ribbed shank and blight finish.

2. Screws of adequate size shall be aluminum or brass plated steel with slotted head.

3. Lag screws of adequate size, for anchoring heavy timber framing in concrete or masonry, shall be galvanized steel.

4. Bolts and nuts shall be of steel having a yield point of not less than 245 Mpa. Bolts shall have square heads and provided with standard flat steel washers and hexagonal nuts. Threads shall conform to American coarse thread series. Threaded portion shall be long enough so that the nut can be tightened against the bolted members without any need for blocking. The bolt's threaded end shall be finished smooth for ease of engaging and turning the nut.

5. Wrought iron straps or angles, when required in conjunction with bolts or lag screws to provide proper anchorage, shall be of the shape and size shown on the Plans.

E. PAINTING WORKS

1. Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology.

2. Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.

3. Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into putty consistency, with oil-based primers and paints to fill minor surface dents and imperfections.

4. Paint Schedule.

    a. Exterior Masonry Wall (plain cement plastered finish to be painted)

        i. 1 coat skim coating, 1 coat primer, 2 coats elastomeric paint finish

    b. Interior Masonry Wall (plain cement plastered finish to be painted)

        i. 1 coat skim coating, 1 coat primer, 2 coats latex paint finish

    c. Interior Dry Wall

        i. 1 coat primer, 2 coats latex paint finish

    d. Ceiling Boards

        i. 1 coat primer, 2 coats latex paint finish

e. Slab Soffit

i. 1 coat primer, 2 coats latex paint finish

f. Metal / Steel Surfaces

i. 1 coat primer, 2 coats epoxy enamel finish

5. Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sanded smooth and dusted clean. All knot-

holes pitch pockets or sappy portions shall be sealed with natural wood filler. Nail holes, cracks or defects shall be carefully puttied after the first coat, matching the color of paint.

Interior woodworks shall be sandpapered between coats. Cracks, holes of imperfections in plaster shall be filled with patching compound and smoothed off to match adjoining surfaces.

Concrete and masonry surfaces shall be coated with concrete neutralizer and allowed to dry before any painting primer coat is applied. When surface is dried apply first coating. Hairline cracks and unevenness shall be patched and sealed with approved putty or patching compound. After all defects are corrected apply the finish coats as specified on the Plans (color scheme approved).

Metal shall be clean, dry and free from mill scale and rust. Remove all grease and oil from surfaces. Wash, unprimed galvanized metal with etching solution and allow it to dry. Where required to prime coat surface with Red Lead Primer same shall be approved by the Engineer.

In addition, the Contractor shall undertake the following:

a. Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces.

b. Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer.

c. Panting and varnishing works shall not be commenced when it is too hot or cold.

d. Allow appropriate ventilation during application and drying period

e. All hardware will be fitted and removed or protected prior to painting and varnishing works.

6. Application. Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out after application of paint.

Paints made for application by roller must be similar to brushing paint. It must be non-sticky when thinned to spraying viscosity so that it will break up easily into droplets.

Paint is atomized by high pressure pumping rather than broken up by the large volume of air mixed with it. This procedure changes the required properties of the paint.

7. Application shall be as per paint Manufacturer's specification and recommendation.

8. Provide all drop cloth and other covering requisite for protection of floors,

9. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.

10. All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

11. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.

12. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

5. SANITARY / PLUMBING WORKS

A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).

B. Supply, installation and testing of the following:

1. Potable water supply system completes in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.

2. Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.

3. Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.

4. Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.

C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.

D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.

E. Install equipment in strict accordance with manufacturers written recommendations.

F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.

G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.

H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such

I. Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.

J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.

K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.

L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.

M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.

N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.

O. Cleaning and flushing shall be carried out in sections as the installation becomes completed.

P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.

Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.

R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also, test shall be carried out prior to false ceilings and other finishes are installed.

S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.

T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.

U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.

V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storey required for testing.

W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.

X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.

Y. Install hangers and supports to allow controlled thermal and seismic movement of

facilitate action of expansion joints, expansion loops, expansion bends, and similar units.

Z. Install lateral bracing with pipe hangers and supports to prevent swaying.

AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.

BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

6. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

1. This item shall consist of the furnishing and installation of the complete conduit work, consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes; conduit fittings, such as couplings, locknuts and bushings and other electrical materials needed to complete the conduit roughing-in work of this project.

2. All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.

3. All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.

4. The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.

5. All lighting fixtures and lamps are as specified and listed on lighting fixture schedule.

6. All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods, clamps, connectors, ground wells and ground wiretap as shown in the approved design.

7. All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/nurse's call/paging system installations shall be done in accordance with the approved design.

8. Upon completion of the electrical construction work, the contractor • shall provide all test equipment and personnel and to submit written copies of all

year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

B. WIRES AND WIRING DEVICES

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

2. Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.

3. Conductors or wires shall not be drawn in conduits until after the cement plaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing wires into conduits, sufficient slack shall be allowed to permit easy connections for fixtures, switches, receptacles and other wiring devices without the use of additional splices.

4. All conductors of convenience outlets and lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panelboards shall not be smaller than 3.5 mm but all homeruns to panelboard more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.

5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.

6. All joints, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.

7. No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber arid PVC tapes in a manner which will make their insulation as that of the conductor.

8. All wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.

9. When more than one switch or device is indicated in a single location, gang plate shall be used.

C. POWER LOAD CENTER, SWITCHGEAR AND PANELBOARDS

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

2. All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.

3. Power Load Center Unit Substation. The Contractor shall furnish and install an indoor-type Power Load Center Unit Substation at the location shown on the approved Plans if required. It shall be totally metal-enclosed, dead front and shall consist of the following coordinated component parts:

   a. High Voltage Primary Section. High voltage primary incoming line section consisting of the following parts and related accessories:

      i. One (1) Air-filled Interrupter Switch, 2-position (open-close) installed in a suitable air-filled metal enclosure and shall have sufficient interrupting capacity to carry the electrical load. It shall be provided with key interlock with the cubicle for the power fuses to prevent access to the fuses unless the switch is open.

      ii. Three (3)-power fuses mounted in separate compartments within the switch housing and accessible by a hinged door.

      iii. One 1) set of high voltage potheads or 3-conductor cables or three single conductor cables.

      iv. Lightning arresters shall be installed at the high voltage cubicle if required. Items (i) and (ii) above could be substituted with a power circuit breaker with the correct rating and capacity.

   b. Transformer Section. The transformer section shall consist of a power transformer with ratings and capacities as shown on the plans. it shall be oil liquid-filled non-flammable type and designed in accordance with the latest applicable standards.

      The transformer shall be provided with four (4) approximately 2 1/2 % rated KVA taps on the primary winding in most cases one (1) above and three (3) below rated primary voltage and shall be changed by means of externally gang-operated manual tap changer only when the transformer is de-energized. Tap changing under load is acceptable if transformer has been so designed.

      The following accessories shall be provided with the transformer, namely: drain valve, sampling device, filling connection, oil liquid level gauge, ground pad, top filter press connection, lifting lugs, diagrammatic nameplate, relief valve, thermometer and other necessary related accessories.

      The high-voltage and low-voltage bushings and transition flange shall be properly coordinated for field connection to the incoming line section and low voltage switchboard section, respectively.

   c. Low Voltage Switchboard Section. The low-voltage switchboard shall be standard modular-unitized units, metal-built, dead front, safety type construction and shall consist of the following:

      i. Switchboard Housing. The housing shall be heavy gauge steel sheet, dead front type, gray enamel finish complete with frame supports, steel bracings, steel sheet panelboards, removable rear plates, copper busbars, and all other necessary accessories to insure sufficient mechanical strength and safety. It shall be provided with grounding bolts and clamps.

      ii. Secondary Metering Section. The secondary metering section shall consist of one (1) ammeter, AC, indicating type; one (1) voltmeter, AC, indicating type, one (1) ammeter transfer switch for 3-phase; one (1) voltmeter transfer switch for 3-phase; and current transformers of suitable rating and capacity.

The above-mentioned instruments shall be installed in one compartment above the main breaker and shall be complete with all necessary accessories completely wired, ready for use.

iii. Main Circuit Breaker. The main circuit breaker shall be draw-out type, manually or electrically operated as required with ratings and capacity as shown on the approved Plans.

The main breaker shall include insulated control switch if electrically operated, manual trip button, magnetic tripping devices, adjustable time overcurrent protection and instantaneous short circuit trip and all necessary accessories to insure safe and efficient operation.

iv. Feeder Circuit Breakers. There shall be as many feeder breakers as are shown on the single line diagram or schematic riser diagram and schedule of loads and computations on the plans. The circuit breakers shall be draw out or molded case as required. The circuit breakers shall each have sufficient interrupting capacity and shall be manually operated complete with trip devices and all necessary accessories to insure safe and efficient operation. The number, ratings, capacities of the feeder branch circuit breakers shall be as shown on the approved Plans.

Circuit breakers shall each he of the indicating type, providing 'ON' - "OFF and "TRIP" positions of the operating handles and shall each be provided with nameplate for branch circuit designation. The circuit breaker shall be so designed that an overload or short on one pole automatically causes all poles to open.

d. Low Voltage Switchgear (For projects requiring low-voltage switchgear only). The Contractor shall furnish and install a low-voltage switchgear at the location shown on the plans. It shall be natal-clad, dead front, free standing, safety type construction and shall have copper busbars of sufficient size, braced to resist allowable root mean square (RMS) symmetrical short circuit stresses, and all necessary accessories. The low-voltage switchgear shall consist of the switchgear housing, secondary metering, main breaker and feeder branch circuit.

e. Grounding System. All non-current carrying metallic parts like conduits, cabinets and equipment frames shall be properly grounded in accordance with the Philippine Electrical Code, latest edition.

The size of the ground rods and ground wires shall be as shown on the approved Plans. The ground resistance shall not be more than 5 ohms.

f. Panelboards and Cabinets. Panelboards shall conform to the schedule of panelboards as shown on the approved Plans with respect to supply characteristics, rating of main lugs or main circuit breaker, number and ratings and capacities of branch circuit breakers.

Panelboards shall consist of a factory completed: dead front assembly mounted in an enclosing flush type cabinet consisting of code gauge galvanized sheet steel box with trim and door. Each door shall be provided with catch lock and two (2) keys. Panelboards shall be provided with directories and shall be printed to indicate load served by each circuit.

Panelboard cabinets and trims shall be suitable for the type of mounting shown on the approved Plans. The inside and outside of panelboard cabinets and trims shall be factory painted with one rust-proofing primer coat and two finish shop coats of pearl gray enamel paint.

Main and branch circuit breakers for panelboards shall have the rating, capacity and number of poles as shown on the approved Plans. Breakers

shall be thermal magnetic type. Multiple breakers shall he of the common trip type having a single operating handle. For 50-ampere breaker or less, it may consist of single-pole breaker permanently assembled at the factory into a multi-pole unit.

4. The Contractor shall install the Power Load Center Unit Substation or Low-Voltage Switchgear and Panelboards at the locations shown on the approved Plans.

   Standard panels and cabinets shall be used and assembled on the job. All panels shall be of dead front construction furnished with trims for flush or surface mounting as required.

D. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).

E. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.

F. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.

G. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.

H. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

I. PANELBOARDS

1. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.

2. Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.

   a. Rated for environmental conditions at installed location.

      i. Indoor Dry and Clean Locations: NEMA, Type 1.

      ii. Outdoor Locations: NEMA, Type 3R.

      iii. Kitchen and Wash-Down Areas: NEMA, Type 4X, stainless steel.

      iv. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA, Type 12.

      v. Outdoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA, Type 5R.

   b. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.

   c. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.

   d. Skirt for Surface-Mounted Panelboards: Same gauge and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.

e. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.

f. Finishes:

i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.

ii. Back Boxes: Galvanized steel Same finish as panels and trim.

iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.

g. Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.

3. Incoming Mains Location: Top or Bottom.

4. Phase, Neutral, and Ground Buses:

a. Material: Hard-drawn copper, 98 percent conductivity.

b. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.

c. Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

5. parts of the structure and equipment damaged by the Contractor in the prosecution of the work shall be replaced as shown on the Plans.

a. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.

7. ELECTRONICS COMPONENTS AND EQUIPMENT

A. All CCTV electronic devices/components and equipment shall be listed by Underwriter's Laboratories Inc. (UL) approved by the Factory Mutual System. It should be furnished by a single supplier/ manufacturer (one brand) only who are regularly engaged in the production/supply of such component/equipment, to achieve devices compatibility and for a reliable CCTV and Security system. All electronics equipment shall be state of the art and shall be only solid state component, and must be suitable for the purpose intended.

B. PoE Switch

All security cameras should be Power over Ethernet (PoE) supplied using a 26- port UTP 10/100/1000 Managed Ethernet injector.

C. CCTV Camera

All security cameras installed outdoors shall be Compact Bullet Smart IP Camera with water-tight housing (IP 66), while those installed indoors shall be 2MP Smart IP Indoor-Dome Camera. Both cameras shall use 1/2.8" progressive scan CMOS as image sensor,

with a minimum effective pixel of 2.0 MP, maximum IR range of 30m and at least 120 dB WDR.

D. Network Video Recorder (NVR)
NVR supports H.264/H.264+/MPEG4 video formats, can handle up to 60 IP cameras, recording at up to 12MP resolution and has up to 8 SATA interfaces and 1 eSATA interface connectable for recording and backup.

E. LED Monitor/Display

The monitor should be CCTV- graded, with LED BL panel better than 32", supports NTSC/ PAL signal system, with a minimum resolution of 1920 x 1080 Full HD, and supports 2 x BNC, VGA, DVI & HDMI at input/output. It shall require an AC input of 100-240Vac and consumes a power of at least 24W. It shall have a high-end video processor, PIP control function and automatic color control and color adjustment.

F. All Telephone (Voice) and Data System electronic devices/components and equipment shall be listed by Underwriter's Laboratories Inc. (UL), or approved by the Factory Mutual System. It should be furnished by a single supplier/ manufacturer (one- brand) only who are regularly engaged in the production/supply of such component/equipment, to achieve devices compatibility and for a reliable voice and data system. The specifications are intended to provide a broad outline of the required voice and data system, but are not intended to include all details of design and construction.

G. IP based Private Automatic Branch Exchange (IP PBX)
IP PBX shall be capable of connecting virtually all types of data/ voice telecommunication equipment into an integrated, easily controllable and configurable network. IP PBX can provide 20- direct lines and 120-IP extensions. This compatibility boosts speed and broadens networks for global connections. The system can be easily upgradable/ stackable to handle at multiple of 256 extensions with a range of capabilities.

H. Cabinets/Rack Enclosures

Cabinets are the basis for housing all cabling system components. The cabinets shall be fully equipped with internal frames for patch panel, active equipment (cross-connect hardware), connection modules, and to organize the cable and patch cord lay out. Typically, a standard 19" framing and paneling shall be used provided by proper climate control or ventilation. Cabinets should be in a room that is environmentally suitable, climate controlled and that can be secured. All cabinets should have locks or intrusion detection to safeguard the network infrastructure.

I. IDC Frame

Insulation displacement contact (IDC) frame shall have sufficient space for overvoltage protection, front side connections for easy installation, one single insertion tool for all connections. The front panel covers all underlying modules and cabling for a homogenous appearance and orderly installation.

J. All Fire Alarm electronic devices/components and shall be listed by Underwriter's Laboratories Inc. (UL), or approved by the Factory Mutual System. It should be furnished by a single supplier/ manufacturer (one- brand) only who are regularly engaged in the production/supply of such component/equipment, to achieve devices compatibility and for a reliable fire detection and alarm system. Provide a complete, manual fire alarm system. The actuation of any manual station or shall cause: building alarm devices to sound.

K. DC Power Supply

Obtain a power input of 240Vac from emergency support panel, transformed and rectified to 24V DC output. This DC supply is enough for operation of initiating, alarm signal, trouble signal, and tripping circuits.

L. Battery Back-up

This is provided for FDAS operation in the event of primary power source failure. Transfer from normal to auxiliary power shall be done automatically. The rechargeable batteries shall have a sufficient ampere- hour rating to operate the system under supervisory and troubled conditions, including audible trouble signal devices for 60 hours and audio visual signal devices under alarm conditions for an additional 5 minutes. Provide a solid-state automatic battery charger capable of recharging a completely discharged batteries to fully charged condition in 48-hours or less.

M. Manual Pull Station

It contains electronics that communicate the station's status (alarm, normal) to the transponder over two wires which also provide power to the pull station. Stations shall be flush mounted.

N. Audiovisual Alarms

Provide surface mounted approved audiovisual alarm devices consisting of a single vibrating type alarm horn/bell suitable for use in an electronically- supervised circuit and top-mounted integral flashing strobe light. Horn/bell shall have a sound rating of at least 90 dB at 3m. Strobe light shall have a ruby colored lens and shall pulse in march- time sequence.

O. Heat Detectors

Provide rate compensated detectors. Contacts shall be self- resetting. Detectors shall be hermetically sealed and automatically resetting type which shall operate when ambient air temperature reaches detector setting regardless of rate of temperature rise. Detectors shall be surface mounted.

P. Smoke Detectors

It is designed for detection of abnormal smoke densities by the photoelectric and ionization principle. Each detector shall contain an alarm lamp which shall illuminate when the detector is activated into an alarm condition. Detectors shall be surface mounted

8. MECHANICAL WORKS

When specifying a water pump, several technical parameters must be considered to ensure its suitability for the intended application.

A. The type of pump must be identified, whether it's a centrifugal pump, submersible pump, diaphragm pump, jet pump, or positive displacement pump. The flow rate, expressed in gallons per minute (GPM) or liters per second (L/s), determines the volume of water the pump can deliver per unit of time.

B. The total dynamic head (TDH) and suction lift indicate the pump's capacity to raise water vertically and its ability to lift water from its source, respectively. The maximum discharge pressure, power rating, efficiency, and speed are crucial factors influencing the pump's performance and energy consumption. Material of construction, temperature range, and viscosity range dictate the pump's compatibility with the fluid being handled and the operating environment.

C. Furthermore, considerations such as seal type, inlet and outlet connections, drive type, and maintenance requirements ensure proper installation, operation, and longevity of the pump. Compliance with relevant certifications and standards, along with warranty and support options, provides assurance of quality and reliability. These technical specifications guide the selection process, enabling the procurement of a water pump that meets the specific needs of the application while ensuring optimal performance and efficiency.

9. FIRE PROTECTION WORKS

A. GENERAL

Applicable provisions of the "General Conditions" govern work under this section.

B. QUALIFICATIONS OF CONTRACTORS

The Contractor for the fire protection installation shall be a qualified Fire Protection Contractor, regularly engaged in the installation of automatic fire sprinkler systems and other fire protection equipment, and must have at least one (1) sprinkler installation Companies or approved by the Philippine Insurance Rating Association (PIRA). corporations whose personnel have supervised an approved sprinkler plan and subsequently approved by PIRA or by the Fire Department are also qualified.

C. SCOPE OF WORK

1. This specification includes the furnishing of all labor, materials, equipment and services necessary or incidental to the complete installation, testing, adjusting and placing into service of the several systems of fire protection, all as shown on the drawings and as hereinafter specified. Drawings and specifications are considered as mutually explanatory and all works called for by one and not the other, shall be performed as though called for by both. In cases of conflicting information, the Architect and Engineer shall be notified at once in writing. Where incidental equipment or appurtenances are required and not listed as shown, same shall be furnished as required for a complete fire protection system.

2. Drawings are intended to show general arrangement and approximate physical sizes of equipment diagrammatically. Every bolt, nut, brace, strut, etc., is not necessarily indicated or specified; all such items as may be required, necessary or incidental to the proper and dependable operation of each system being a requirement of this contract, whether specifically referred to or not, must be supplied.

3. Work included in this specification shall consist of, but not limited to the following items:
    a. Arrange for, obtain and bear the cost of necessary permits, bonds and fees for the automatic sprinkler work.

    b. All fees, private or government shall be paid by the Contractor.

    c. Fire hose cabinets and fire hose accessories, including connection pipe and fittings to the sprinkler system.

    d. Furnish and install fire department connection for the wet system.

    e. Do the testing of all piping works and necessary cleaning of the fire protection works. This includes also the testing of the fire department pipeline and drain pipe and water flow alarms.

f. Fire extinguishers as shown in the plans shall be supplied and installed by the Contractor. Over and above those specified, the owner of the building shall supply the requirements of the Fire Department.

g. All openings through which fire may spread from one floor to the other, such holes through floors or walls for the pipe shall be sealed with fire resistant materials.

h. Furnish the shop drawings and certificates of inspection.

i. Periodically remove from the jobsite all rubbish and debris resulting from the fire protection work.

j. Furnish and install one (1) unit of 10 lbs (HCFC) portable fire extinguishers for Electrical Rooms, Pump Room.

k. Miscellaneous items as hereinafter provided.

D. SITE CONDITIONS

The Contractor shall be deemed to have visited the site and acquaint himself with the existing site condition, means of access and take into account any feature that may affect his tender. No claim for his neglect to do so or not, out of a misunderstanding on his part in these conditions shall be entertained.

The Fire Protection Contractor shall be responsible for the proper coordination with other trade contractors.

E. STANDARDS, CODES AND REGULATIONS

The applicable current standards for the fire protection systems shall be the National Fire Protection Association (NFPA), NFPA-13, and Philippine Fire Code-PD 1185, the PSME Code and all other applicable local codes and ordinances.

F. SUBMITTAL (SHOP) DRAWINGS AND DATA

A. Before commencing any work or providing any materials at the jobsite for this project, the Fire Protection Contractor shall submit to the Engineer for approval, four (4) copies of catalogue cuts and descriptive matter regarding materials and equipment which he intends to furnish and install.

B. Shop drawings and data shall be submitted specifically for, but not limited to the following items: calves, pipes, pipe hangers, hose valves and accessories, Fire Department connections, fire pumps and, controllers, fire hose cabinets, mechanical grooved coupling, flexible pipe connectors, pressure reducing valves, pipe riser support and sleeves, portable fire extinguishers and foam equipment.

C. The Fire Protection Contractor shall not proceed with the installation of the work until he has received the Engineer's approval on his shop drawings.

D. The Engineer's approval of shop drawings, catalogue cuts, etc. shall not relieve the Fire Protection Contractor of the responsibility for any errors or omissions which may exist in the items neither submitted nor shall relieve him from the responsibility for deviations from the contract drawings and specifications.

E. The stamped approval of the shop drawings, catalogue cuts, etc. shall not be construed as a complete check, but will indicate only that the general design and method of construction is satisfactory.

F. In the event inspection authorities require additional clarifying details, the details shall be prepared and approval of the same secured by the Fire Protection Contractor at his expense.

G. CONDUCT OF WORK

The Fire Protection Contractor shall employ on the job at all times a competent superintendent Licensed Mechanical Engineer who shall be responsible for the progress and execution of the work. Workmanship shall be of high quality, conforming to standard practice as stipulated by NFPA, ASTM and ASA and PSME recommendations by skilled workmen during regular working hours.

H. LOCAL AND IMPORTED MATERIALS

1. All materials and equipment furnished under this section shall be new, manufactured in the United States, and Non-UL/FM but conforming to NFPA Standards

2. The proposal submitted shall include all materials and equipment as specified or shown on the drawings.

I. STANDPIPE SYSTEM

A. Pipe shall be new, designed for 175psi working pressure, conforming to ASTM specifications, manufactured in the United States or approved local pipes and have the manufacturer's name or brand along with the applicable. The locally ASTM standard marked on each length of the pipe manufactured pipe brand "Supreme" are acceptable brand with proper schedule and wall thickness.

B. Pipe shall be steel, schedule 40, black and in accordance with the specifications ASTM A120 or A53.

C. Schedule 40 black steel pipes shall be joined by screwed joints in accordance with specifications ANSIB2.1 up to 2½" and flanged, Victaulic type or screwed connections for 3" and up. Pipe fittings to be used with schedule 80 pipes shall be rated 300lbs. Class if there are any.

D. Sprinklers' piping that is exposed to the weather or used in a corrosive STAP atmosphere shall be painted with protective coating. Sprinkler piping in the building shall be painted with two (2) coats of enamel primer and two (2) coats of Fire Red color enamel paint.

E. Screwed fitting shall be malleable iron, 300 lbs. and 150 lbs. class, black and in accordance with ANSI B16.3. "Victaulic" brand mechanical tee and elbow UL/Fm fittings can also be used.

F. Flanged fittings shall be steel, short body, 150, black and in accordance with ANSI B16.1. Gaskets shall be full face of 1/8" minimum thickness red sheet rubber. Flange bolts shall be hexagon head machine bolts with semi-finished hexagon head nuts, cadmium-plated having dimension in accordance with ANSI B18.2.

G. Weld fittings shall be steel, standard weight, black and in accordance with ANSI B16.9, ANSI B16.25, ASTM A234, ANSI B16.5 or ANSI B16.11.

H. Outside screw and yoke (O.S. & Y) gate valves shall be flanged, iron body, bronze mounted, 175 psi working pressure, with hand wheel turning counterclockwise to open. Valve shall be tested and listed by UL and/or FM.

I. Check valve shall be flanged, swing type, iron body bronze seat ring and disc ring, and 175 psi working pressure rating. Valve shall be tested and listed by UL and/or FM.

J. Check valve shall be butterfly wafer style, iron body, rubber seal 175 psi working pressure rating. Valve shall be tested and listed by UL and/or FM.

K. Fire Department connection shall be 6" x 2" x 2" Siamese connection, brass body, brass chain and plugs, and brass escutcheon letter "AUTOMATIC SPRINKLER" for sprinkler system, and/or "STANDPIPE" for standpipe system. Inlet threading shall be National Standard, same as municipal fire department connection shall be tested and listed by UL and/or FM and 175 psi rating.

L. Valve for main riser drain shall be angle type or globe type, bronze body, screwed, 175 psi working pressure rating, 2" size and a renewable composition soft disc.

M. Valve for auxiliary drain and inspector's test connection shall be globe type, bronze body, screwed, 175 psi working pressure rating, 1" size and a renewable composition disc.

N. At each location where called for on plans or where required by the fire department, provides an approved retard-type electric flow alarm switch. Provide alarm bell as required. Flow alarm switch shall have extra set of contacts for extension by others to central alarm panel.

O. Interior bell or horn shall be 24 VDC. Horn or bell shall be tested and listed by UL and/or FM. (Shall be supplied by the Electrical Contractor).

P. Flow switch shall be vane type, 24 DC. Flow switch shall be tested and listed by UL and/or FM.

Q. Butterfly valve with tamper switch shall be tested and listed by UL and/or FM.

R. Fire Hose Valve (Dry Standpipe) shall be angle type, 21/2" female iron pipe threads by 22" male NST hose threads, chromium plated with chromium plated cap and chain. Valve hose threads shall be National Standard same as municipal fire department. Valve shall be tested and listed by UL and/or FM and 175 psi rating.

S. Valves for the fire hose stations shall be angle type, pressure restricting type 11/2" female iron pipe threads, rough brass male NST threads, polished brass, chromium plated. Valve shall be tested and listed by UL and/or FM.

T. Cabinet for fire hose shall be recessed, 16-gauge body, aluminum door trim. Cabinet shall be designed for 100 feet hose pin rack and fire extinguisher. Door shall be full panel glass. Cabinet finish shall be baked white enamel inside with "Fire Red" coat inside. Cabinet may be locally made of approved quality.

U. Pin rack for the fire hose station cabinet shall be semi-automatic, baked red enamel finish, designed for 100 feet of 11/2" hose, and furnished with 1/2" chrome plated brass rack nipple.

V. Fire hose for fire hose station shall be 100 feet of 1/2" cotton single jacket, rubber lined hose with wax and gum treatment. Hose couplings shall be 11/2" chrome plated male-female National Standard hose threads. Fire hose and couplings shall be approved by UL and/or FM.

W. Nozzle for fire hose station shall be 11/2" adjustable capable of complete shut-off, solid straight stream or any degree of solid conical fog with chrome plate. Threads shall be National Standard hose threads. Nozzle shall be approved by UL and/or FM.

X. Provide 11/2" spanner to each FHC cabinet.

Y. Furnish and install one (1) each - 10 lbs. capacity HCFC chemical multi- purpose type portable fire extinguisher UL-listed and Factory Mutual approved to each fire hose cabinet.

J. IDENTIFICATION SIGNS

The drain, alarm test valves, etc. shall have standard identification signs, painted fire red with white lettering. The signs shall be attached to the valve in a conspicuous position.

K. FIRE PUMP

A. Fire Pump Assembly: Furnish and install fire pumps as shown on plans. One (1) Underwriters Laboratory Inc. approved fire service pump. The Fire pump at the Basement Floor shall be electric motor-driven with automatic controllers, and one (1) jockey pump complete with motors, motor starters, controls, fittings and other appurtenances necessary to complete the equipment installation in each respect Pumps shall be connected as shown in the drawings. Complete installation shall be in accordance with the requirements and meeting the approval of the NFPA 20, Philippine Insurance Rating Association (PIRA) and Fire Department.

B. The fire pumps to be installed at the Basement Floor level shall be as follows:

Fire Pump - One (1) unit Fire Pump shall be vertical turbine. Capacity and electrical supply shall be as per equipment schedule.

Pump shall be furnished with the following standard accessories:

a. Main Relief Valve 3", flanged type, UL/FM listed for the 750 GPM pumps.

b. 2" air release valve

C. water flow meter, rated at 750GPM

d. Discharge gauge (0-300 psi), 3 1/2" face dial

e. Enclosed waste cone with sight glass

f. Discharge concentric reducer

C. The pump should deliver not less than 150% of rated capacity at a pressure not less than 65% of rated head. The shut-off pressure shall not exceed 140% of rated pressure. The pump shall be provided with suction bowls. Column, basket strainer, discharge head and an electric motor with hollow shaft with sufficient horsepower to drive the pump.

D. One (1) set fire ump controller with pressure recorder and shall reduce voltage primary resistor or Wye-Delta type starter, UL/FM listed.

E. The pump manufacturer shall provide the services of a qualified Engineer to advice the Contractor on the proper installation of equipment make necessary mechanical adjustments and align fire pump flexible couplings. Pump manufacturer shall pay the test fees, shall arrange and conduct final field acceptance test and provide all required test equipment.

F. One (1) set controller equipment: The fire ump control equipment shall be completely wired and tested at the factory and shall be specifically designed for fire pump purposes. Control equipment with all components shall be UL/FM listed and approved equipment, reduce voltage wye-delta type open transition or primary resistor type.

G. 10.10.7 The Fire Protection Contractor shall provide and install the necessary electrical wiring in conduits. Controls from a power supply box to be provided inside the pump machine room to the fire pumps controller, to the equipment.

L. STANDPIPE SYSTEM

A. The interior surfaces of all piping and equipment shall be clean and free of all dirt. Loose scale, rust and other foreign materials before installation.

B. Pipe ends shall be reamed to remove all burrs and pipe sections shall be cleaned inside to remove all chips and foreign materials prior to making up joints. Approved joint compound shall be applied to the threads of the pipe and not in the fitting when making up joints. Pipe shall not exceed into the waterway of the fitting.

C. When welding pipe on jobsite, the fire hazard of the welding process shall be with suitable safeguards. Weld in place of pipe and fittings shall not be allowed at the jobsite. Only shop weld fabrication will be permitted with factory made fittings. Mitered weld will not be permitted. Intersection of feed main and cross main pipe shall be provided with flanged or Victaulic type fittings.

D. Pipe passing through the building walls and floors above grade shall be provided with sleeves of standard weight galvanized steel pipe and shall be installed prior to concreting works of the Civil Contractor. The annular spaces between pipe and sleeves shall be packed tight with insulation fire resistant materials. Provide chrome plated escutcheon plates enough to cover the pipe sleeves. Sleeves shall be sized as follows:

1" pipe-2" ID Sleeve

1/4" pipe-2" ID Sleeve

1/2" pipe-2 1/2" ID Sleeve

2" pipe-3" ID Sleeve

21/2" pipe-4" ID Sleeve

3" pipe-5" ID Sleeve

4" pipe-6" ID Sleeve

6" pipe-8" ID Sleeve

8" pipe-10" ID Sleeve

M. PIPE SUPPORTS

A. All piping shall be supported by means of hangers of approved quality, capable of supporting load. Sizing, spacing and installation shall be in accordance with national Fire Protection Association Standard No. 13, "Sprinkler Systems", except as otherwise shown on drawings or specified herein.

B. The Fire Protection Contractor shall furnish and install the required sprinkler pipe seismic sway bracing for the risers, feed main pipe and cross main pipe all in accordance with tables and figures shown NFPA-13 requirements for the protection of the piping against breakage due to seismic earthquake movement.

C. No cutting, drilling, welding or burning of any structural steel member shall be allowed. Power driven studs and welding studs shall not be allowed.

D. All bolts and threaded rods shall be used with double nut and washer and lock washer wherever a single unsecured nut could work loose and allow either threaded rod or supported piping to drop.

N. TESTS AND INSPECTIONS

A. The Fire Protection Contractor shall conduct and bear the costs of all necessary tests of the fire protection work, furnishing all labor, power and equipment. All piping shall be tested with water and test witnessed by representatives of the Architect/Engineer and the Owner.

B. The fire protection piping shall be tested under a hydrostatic pressure of not less the 200lbs. PSIG, for a duration of not less than two (2) hours or at 50 lbs. psi in excess of the maximum static pressure when the maximum pressure is in excess of 150 lbs. psi.

C. The piping subjected to the hydrostatic test shall be filled with water and thoroughly checked for the elimination of all air. The control valves shall be closed during pressure testing. All joints shall be proven tight or acceptable by the test. Defective work or materials shall be corrected or replaced in approved manner. If necessary, piping shall be dismantled and re- assembled with the use of new pipe or fittings as no caulking or makeshift method of temporary repair of defective work will be permitted. Test shall be repeated until the particular line or system receives the approval of the representatives of the Architect/Engineer.

D. Acceptance of the fire protection work shall be based upon the inspection and tests of the completed installation by representatives of the local fire department, Architect, Engineer, PIRA and the Owner.

ENGR. ALEXIS DENVER M. DELIVA
Planning and Design Division

ENGR. CHRISTIAN A. CLEOFE
Planning and Design Division

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.]

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

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

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

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

Daywork Schedule

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

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

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

Provisional Sums

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

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

Signature Box

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

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

PROJECT TITLE : **PROPOSED CONSTRUCTION OF FIVE (5) STOREY WITH TWO (2) BASEMENT AND ROOF DECK MULTI-PURPOSE BUILDING (PUBLIC MARKET, BARANGAY HALL, PUBLIC LIBRARY, HEALTH CENTER AND DAY CARE CENTER) AT BARANGAY DAMAYAN**

LOCATION : **BARANGAY DAMAYAN, DISTRICT 1, QUEZON CITY**

PROJECT NO. : **24 - 000139**

DURATION : **Five Hundred Forty (540) Calendar Days**

BREAKDOWN OF COST

ITEM NO.	DESCRIPTION	ESTIMATED DIRECT COST	TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST
			%	VALUE			
PART I	**GENERAL REQUIREMENTS**						
PART II	**OTHER GENERAL REQUIREMENTS**						
PART III	**CIVIL/STRUCTURAL, PLUMBING/SANITARY, ELECTRICAL, MECHANICAL, AND FIRE PROTECTION WORKS**						
PART A	EARTHWORKS						
PART B	PLAIN AND REINFORCED CONCRETE WORKS						
PART C	FINISHING AND OTHER CIVIL WORKS						
PART D	PLUMBING / SANITARY WORKS						
PART E	ELECTRICAL WORKS						
PART F	MECHANICAL WORKS						
PART G	FIRE PROTECTION WORKS						
TOTAL							

T O T A L C O S T ₱_____

LUMP SUM BID IN WORDS : _____

Contractor : _____

BILL OF QUANTITIES
(Building Construction/Rehabilitation Project)

PROJECT TITLE : **PROPOSED CONSTRUCTION OF FIVE (5) STOREY WITH TWO (2) BASEMENT AND ROOF DECK MULTI-PURPOSE BUILDING (PUBLIC MARKET, BARANGAY HALL, PUBLIC LIBRARY, HEALTH CENTER AND DAY CARE CENTER) AT BARANGAY DAMAYAN**

LOCATION : **BARANGAY DAMAYAN, DISTRICT 1, QUEZON CITY**

PROJECT NO. : **24 - 00139**

DURATION : **Five Hundred Forty (540) Calendar Days**

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
PART I	**FACILITIES FOR THE ENGINEER**											
A.1.1(8)	Provision of Field Office for the Engineer (Rental Basis)	18	month									
	TOTAL OF PART I											
PART II	**OTHER GENERAL REQUIREMENTS**											
B.5	Project Billboard/Signboard	1	each									
B.7(1)	Occupational Safety and Health Program	18	month									
B.9(1)	Mobilization	1	unit									
B.9(2)	Demobilization	1	unit									
B.4(1)	Layout and Staking	2,797	sq.m.									
B.20	Temporary Enclosure	225	l.m.									
B.24	Scaffolding (Rental) Height = 2.4m	2,468	sq.m.									
	TOTAL OF PART II											
PART III	**CIVIL/STRUCTURAL, PLUMBING/ SANITARY WORKS, ELECTRICAL, MECHANICAL WORKS, AND FIRE PROTECTION WORKS**											
PART A	**EARTHWORKS**											
800(1)	Clearing and Grubbing	2,797	sq.m.									
801(6)	Removal of Actual Structures	3,169	cu.m.									
803(1)c	Structure Excavation (Solid Rock)	16,384	cu.m.									
804(1)a	Embankment from Structure Excavation	1,990	cu.m.									
804(4)	Gravel Fill	146	cu.m.									
1000(1)	Soil Poisoning	1,060	lit									
1034(1)b	Damproofing,Polyethylene Sheets, 8 mils	1,984	sq.m.									
	TOTAL OF PART A											
PART B	**PLAIN AND REINFORCED CONCRETE WORKS**											
900(1)a1	Structural Concrete, Ready Mix Concrete 4000psi, 28 days	5,711	cu.m.									
900(1)b1	Structural Concrete, Ready Mix Concrete 3000psi, 28 days	161	cu.m.									
901(1)	Lean Concrete (Ready Mix, 28 days)	15	cu.m.									
902(1)a	Reinforcing Steel (Deformed, Grade 40)	488,058	kg									
902(1)b	Reinforcing Steel (Deformed, Grade 60)	616,366	kg									
903(2)a	Formworks and Falseworks	40,243	sq.m.									
	TOTAL OF PART B											
PART C	**FINISHING AND OTHER CIVIL WORKS**											
III-C.1 Moisture Protection Works												
628(1)	Waterproofing on Deck Slab	962	sq.m.									
1016(1)a	Waterproofing, Cement - Base	3,530	sq.m.									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1016(1)b	Waterproofing Liquid	262	sq.m.									
III-C.2 Masonry Works												
1046 (2) a1	CHB Non Load Bearing (including Reinforcing Steel), 100mm	5,673	sq. m.									
1046 (2) a2	CHB Non Load Bearing (including Reinforcing Steel), 150mm	4,863	sq. m.									
III-C.3 Fabricated Materials												
807(12)	Wheel Stopper	52	set									
1018(3)	Granite Tiles/Slab, Countertop	35	sq.m.									
1018(4)	Quartz Tiles/Slab, Countertop	11	sq.m.									
1018 (5)	Stainless Steel Counter	87	l.m.									
1018 (6)	Stainless Steel Countertop	27	sq.m.									
1018(7)	Porcelain Tiles / Slab, Countertop	1	sq.m.									
1003(15)b	Concrete Moulding	1,268	l.m.									
407	Aluminum Under Counter Cabinet	16	sq.m.									
407(1)	Aluminum Wall Hung Cabinet	19	sq.m.									
407(2)	Aluminum Under Counter Cabinet	22	l.m.									
1003(3)	Wall, 16mm, Metal frame, Fiber Cement Board	2,442	sq.m.									
1003(2)	Wall, 4.5mm, Metal frame, Fiber Cement Board	758	sq.m.									
1003(1)	Ceiling, 6mm, Metal frame, Fiber Cement Board	398	sq.m.									
1003(25)	1/4" thk Ordinary Plywood	173	sq.m.									
1003(25)	1/2" thk Ordinary Plywood	268	sq.m.									
1003(25)	3/4" thk Marine Plywood	26	sq.m.									
1011(1)a	Roll up	1,335	sq.m.									
1021(a)	Aluminum and Rubber Nosing	326	l.m.									
1021(b)	Grooved Tile Nosing	188	l.m.									
1047(8)c	Welded Wire Mesh (2"x2"x4.5mm)	179	sq.m.									
1047(8)d	Welded Wire Mesh (1"x 1"x 8mm)	26	sq.m.									
1003(26)	Kiln Dry Wood	1,730	l.m.									
1004(2)g	Hinges	485	set									
1010(2)a	Corner Shower Enclosure	6	sq.m.									
1004(2)a	Door Handle	4	set									
1004(2)c	Grab Handle	37.2	l.m.									
1004(2)a	Lockset	147	set									
1001(1)a	Wooden Door Jamb	99	set									
1001(1)b	Metal Door Jamb	32	set									
1004(2)d	Hydraulic Door Closer	17	set									
1004(2)e	Push Plate and Kick Plate	1,730	set									
1004(2)f	Push Bar Panic Hardware	19	set									
1010(1)	Frames (Jambs, Sill, Head, Transoms and Mullions)	183	set									
605	QC Logo	1	set									
605	Stainless Letter with Neon Backlight and Wall Stud	155	set									
605	Acrylic Board with Lettering	29	set									
	Basketball Ring	2	set									
	Whiteboard	1	set									
III-C.4 Finishing Works												
1021(3)a	Floor Topping, Plain Finish	1,981	sq.m.									
1021(1)	Cement Floor Finish	9,745	sq.m.									
1018(2)	Unglazed Tiles	1,851	sq.m.									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1018(2)a	Non-skid Paver Tiles	328	sq.m.									
1021(2)	Plain Cement w/ Grooved Lines	390	sq.m.									
1020(1)a	Vinyl Floor Planks	495	sq.m.									
	Porcelain Mosaic Floor Tiles	6	sq.m.									
	Vinyl Sports Flooring	528	sq.m.									
	Seamless EPDM Rubber Flooring	43	sq.m.									
	Rubber Flooring	109	sq.m.									
1021 (3)	Stamped Concrete	185	sq.m.									
1028(7)a	Tactile Blocks	89	sq.m.									
III-C.5 Wall Finishes												
1027(1)	Cement Plaster Finish	18,674	sq.m.									
1018(1)	Glazed Tiles and Trims	1,332	sq.m.									
1018(2)	Porcelain Mosaic Wall Tiles	30	sq.m.									
1018(3)	Granite Slab	97	sq.m.									
1027(3)	Decorative Stone, Wall Stone	672	sq.m.									
1003 (22)	Wall, Comfort Room Partition (Toilet)	184	sq.m.									
1003 (22)a	Wall, Comfort Room Partition (Toilet) w/ Acrylic Glass	12	sq.m.									
1003 (2)	Wall, Comfort Room Partition (Urinal)	12	set									
1003(2)b1	Wall, 6mm, Metal frame, Fiber Cement Board	296	sq.m.									
III-C.6 Ceiling Works												
1003(1)e1	Ceiling, Metal Frame, Gypsum Board	1,516	sq.m.									
1003(1)e4	Ceiling, Metal Frame, Moisture Resistant Gypsum Board	477	sq.m.									
1003(1)	Acoustic Board on T-Runners	426	sq.m.									
III-C.7 Roofing Works												
1013(2)a1	Fabricated Metal Roofing Accessory, Gauge 24, Ridge/ Hip Rolls	33	l.m.									
1013(2)a2	Fabricated Metal Roofing Accessory, Gauge 24, Flashings	65	l.m.									
1014(1)b2	Prepainted Metal Sheets, Gauge 24, Rib Type, Long Span	784	sq.m.									
1038(1)	Reflective Insulation	784	sq.m.									
III-C.8 Metal/Steel Works												
1047(4)b	Metal Structure Accessories, Turnbuckle	32	each									
1047(5)b	Metal Structure Accessories, Sagrods	790	kg									
1047(5)c	Metal Structure Accessories, Cross Bracing	842	kg									
1047(8)a	Structural Steel, Truss	13,832	kg									
1047(8)a	Structural Steel, Strut	1,955	kg									
1047(8)a	Structural Steel, Basketball Board Frame	1,330	kg									
1047(8)a	Structural Steel, Metal Channel	83	kg									
1047(8)b	Structural Steel, Metal C - Purlins	2,119	kg									
1051(5)a	Metal Railing, Stair Railings	8,771	kg									
1051(5)b	Metal Railing, Ramp Railings	1,748	kg									
1051 (5)c	Metal Railing, PWD Railings	1,012	kg									
1051 (5)d	Metal Railing, Mezzanine Railings	774	kg									
1051 (5)e	Metal Railings, Market Railings	4,207	kg									
1051 (5)f	Metal Railings, Balustrade	3,113	kg									
1047(8)a	Structural Steel, Angle Bar	2,986	kg									
1047(8)b	Structural Steel, Tubular Bar	27,133	kg									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1047(8)c	Structural Steel, Stainless Steel Pipe	3,062	kg									
1047(8)d	Structural Steel, Steel Fence Framing	2,256	kg									
III-C.9 Painting, Varnishing and Other Related Works												
1032(1)a	Painting Works, Masonry/Concrete	37,641	sq.m.									
1032(1)b	Painting Works, Wood	11,638	sq.m.									
1032(1)c	Painting Works, Steel	1,685	sq.m.									
III-C.10 Installation of Door												
1012(3)b	Tempered Glass Door, 10mm	115	sq.m.									
1010(2)b	Solid Wood Panel Door	19	sq.m.									
1010(2)b	Solid Wood Panel Door w/ Louvers	95	sq.m.									
1010(2)b	Solid Wood Panel Door w/ Fixed Glass Panel Slit	12	sq.m.									
1010(2)b	Solid Wood Panel Door w/ Fixed Glass Panel	60	sq.m.									
1010(2)b	Solid Wood Panel Sliding Door with Fixed Glass Panel	6	sq.m.									
1007(1)	Aluminum Louvered Door	9	sq.m.									
1006(4)	Metal Louvered Door	53	sq.m.									
1006(5)	Fire-Rated Door	18	sq.m.									
1006(5)a	Insulated Metal Panel Door	5	sq.m.									
1006(3)	Metal Grille Doors	4	sq.m.									
1006(6)a	Metal Door with Fixed Glass Panel Slit	5	sq.m.									
	Galvanized Steel Door	2	sq.m.									
	Steel Wiremesh Door	1	set									
	Solid Wood Flush Door w/ Glass Panel Slit	6	sq.m.									
	Wooden Door w/ Glass Panel Slit	2	sq.m.									
	Wooden Door w/ Louver	3	sq.m.									
III-C.11 Installation of Window												
1008(1)b	Aluminum Glass Window (Casement Type)	191	sq.m.									
1005(7)	Galvanized Steel Louvered Window	104	sq.m.									
1008(1)c	Aluminum Glass Window (Awning Type)	36	sq.m.									
1008(1)d	Aluminum Glass Window (Fixed Type)	11	sq.m.									
1007(1)c	Aluminum Framed Glass Wall 10mm thk.	4	sq.m.									
1010(4)	Fixed Glass Window on Wood Frames (10mm thk Clear Glass)	15	sq.m.									
1012(4)c	Fixed Tempered Glass Window (10mm thk Tempered Glass)	51	sq.m.									
	Galvanized Steel Bar	2	sq.m.									
1047(8)c	Welded Wire Mesh (1"x1"x6mm)	45	sq.m.									
	TOTAL OF PART C											
PART D	**SANITARY / PLUMBING WORKS**											
III-D.1 Sewer Line Works / Storm Drainage / Downspout												
1001 (1) a5	50mm Ø PVC Pipe and Fittings with Hanger/Support	1,304	l.m.									
1001 (1) a6	75mm Ø PVC Pipe and Fittings with Hanger/Support	1,423	l.m.									
1001 (1) a7	100mm Ø PVC Pipe and Fittings with Hanger/Support	3,865	l.m.									
1001 (1) a8	150mm Ø PVC Pipe and Fittings with Hanger/Support	486	l.m.									
1001 (1) a9	200mm Ø PVC Pipe and Fittings with Hanger/Support	261	l.m.									
1001 (1) a10	250mm Ø PVC Pipe and Fittings with Hanger/Support	80	l.m.									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1001 (1) a11	315mm Ø PVC Pipe and Fittings with Hanger/Support	24	l.m.									
1001 (1) d	Elevator Pit Pipe Assembly	24	set									
500(1)a1	Pipe Culverts, 610mm dia., RCPC	180	l.m.									
502(1)a1-2	Manholes, 460mm, 610mm, 760mm dia., Concrete	4	each									
1720(3)a1	Area Drain(HT for 610mm dia. RCPC)	18	each									
III-D.2 Waterline Works												
1002 (2) a3	20mm Ø PPR Pipe and Fittings with Hanger/Support	1,514	l.m.									
1002 (2) b3	25mm Ø PPR Pipe and Fittings with Hanger/Support	176	l.m.									
1002 (2) c3	32mm Ø PPR Pipe and Fittings with Hanger/Support	308	l.m.									
1002 (2) d3	40mm Ø PPR Pipe and Fittings with Hanger	212	l.m.									
1002 (2) e3	50mm Ø PPR Pipe and Fittings with Hanger/Support	84	l.m.									
1002 (2) f3	65mm Ø PPR Pipe and Fittings with Hanger/Support	40	l.m.									
1002 (2) g3	75mm Ø PPR Pipe and Fittings with Hanger/Support	22	l.m.									
1002 (2) h3	90mm Ø PPR Pipe and Fittings with Hanger/Support	150	l.m.									
1002 (2) i3	110mm Ø PPR Pipe and Fittings with Hanger/Support	44	l.m.									
III-D.3 Plumbing Fixtures												
1002 (5) a	Water Closet, Elongated, Tank Type, with Complete Accessories, Pipes and Fittings	54	set									
1002 (5) b	Water Closet, Elongated, Flush Valve Type, with Complete Accessories, Pipes and Fittings	16	set									
1002 (9) b	Urinal,Flush Valve Lever Type, with Complete Accessories, Pipes and Fittings	26	set									
1002 (11) a	Kitchen Sink with Faucet, Single Tub with Grease Trap (5gpm) and Complete Accessories, Pipes and Fittings	20	set									
1002 (13)	Slop Sink with Faucet and Complete Accessories, Pipes and Fittings	8	set									
1002 (14) a	Lavatory Wall Hung with Faucet and Complete Accessories, Pipes and Fittings	16	set									
1002 (15) a	Lavatory Counter Top with Faucet and Complete Accessories, Pipes and Fittings	45	set									
1002 (15) a5	Laboratory Sink (200mm Deep) with Faucet and Complete Accessories, Pipes and Fittings	20	set									
1002 (16) a3	Floor Drain, 100mmØ, Stainless with Complete Accessories and Fittings	344	set									
1002 (16) a4	Counter Drain (Stalls), 100mmØ, Stainless with Complete Accessories and Fittings	99	set									
1002 (16) e3	Trench Drain, 100mmØ, Stainless with Complete Accessories and Fittings	6	set									
1002 (16) c2	Deck Drain, 75mmØ with Complete Accessories and Fittings	47	set									
1002 (16) d3	Roof Drain, 100mmØ with Complete Accessories and Fittings	14	set									
1002 (19)	Shower with Drain and Complete Accessories, Pipes and Fittings	10	set									
1002 (22)	Hose Bibb	118	set									
1002 (24)	Grease Trap (7GPM)	2	set									
III-D.4 Bathroom Accessories												
1002 (18)a	Stainless Steel Grab Bar	40	l.m.									
1002 (18)b	Anti-Bacterial Flip-up Grab Bar	10	set									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1002 (20)	Facial Mirror	77	sq.m.									
1002 (28)	Wall Mounted Diaper Changing Table	1	set									
1002 (29)	Tissue Holder, Stainless	62	pc									
1002 (30)a	Liquid Soap Dispenser, Stainless	39	set									
1002 (30) b	Soap Holder	21	pc									
1002 (31)	Robe Hook Hanger	54	pc									
III-D.5 Valves and Fittings												
1201(12) a1	20mm Ø Gate Valve	173	pc									
1201(12) a2	20mm Ø Union Patente	49	pc									
1201(12) a6	20mm Ø Foot Valve with Strainer	2	pc									
1201(12) b1	25mm Ø Gate Valve	11	pc									
1201(12) b2	25mm Ø Union Patente	6	pc									
1201(12) b5	25mm Ø Water Meter	116	pc									
1201(12) c1	32mm Ø Gate Valve	21	pc									
1201(12) c2	32mm Ø Union Patente	11	pc									
1201(12) d1	40mm Ø Gate Valve	8	pc									
1201(12) d2	40mm Ø Union Patente	4	pc									
1201(12) d3	40mm Ø Check Valve	1	pc									
1201(12) e1	50mm Ø Gate Valve	7	pc									
1201(12) e2	50mm Ø Union Patente	9	pc									
1201(12) e3	50mm Ø Check Valve	3	pc									
1201(12) f1	65mm Ø Gate Valve	1	pc									
1201(12) f2	65mm Ø Union Patente	1	pc									
1201(12) f3	65mm Ø Check Valve	4	pc									
1201(12) f4	65mm Ø Float Valve	9	pc									
1201(12) f5	65mm Ø Water Meter	1	pc									
1201(12) h1	90mm Ø Gate Valve	19	pc									
1201(12) h2	90mmØ Union Patente	13	pc									
1201(12) h4	90mm Ø Float Valve	4	pc									
1201(12) h5	90mm Ø Water Meter	1	pc									
1201(12) i1	110mm Ø Gate Valve	3	pc									
1201(12) i2	110mmØ Union Patente	3	pc									
1201(12) i3	110mmØ Check Valve	10	pc									
III-D.6 Valves and Fittings												
1201 (2)	Transfer Pump with Control, 15.0HP, 220 GPM	2	set									
1201 (4)a	Elevator Pit Pump with Control, 3.0HP, 30GPM	2	set									
1201 (4)b	Sump Pump with Control, 3.0HP, 75GPM	2	set									
1201(6) a	Booster Pump with Control, 2.0HP, 48GPM	2	set									
1201 (8) a	Rain Water Collector Tank, 528 Gallons	12	set									
1201 (8) b	Cyclone Filter and First Flush Diverter, 50L	4	set									
1201 (9) a	Overhead Water Tank, 2000 Gallons	2	set									
1201(10) a	Pressure Tank (Stainless), 90 Gallons	1	set									
III-D.7 Sewage Treatment Plant												
1001	100 CMD STP Advance Oxidation Process (AOP)	1	set									
	TOTAL OF PART D											
PART E	**ELECTRICAL WORKS**											
III-E.1 Roughins, Boxes and Fittings												
1100	PVC Junction Box with accessories	1,982	set									
1100	20mmØ PVC Flexible Tube with straight connector	1,982	l.m.									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1100	PVC Utility Box with accessories	1,630	set									
1100	20mmØ PVC Pipe	7,078	piece									
1100	15mmØ IMC Pipe with coupling	3	set									
1100	20mmØ IMC Pipe with coupling	127	set									
1100	25mmØ IMC Pipe with coupling	478	set									
1100	40mmØ IMC Pipe with coupling	9	set									
1100	50mmØ IMC Pipe with coupling	94	set									
1100	65mmØ IMC Pipe with coupling	111	set									
1100	80mmØ IMC Pipe with coupling	172	set									
1100	100mmØ IMC Pipe with coupling	378	set									
1100	15mmØ IMC Elbow	1	piece									
1100	20mmØ IMC Elbow	27	piece									
1100	25mmØ IMC Elbow	78	piece									
1100	40mmØ IMC Elbow	2	piece									
1100	50mmØ IMC Elbow	9	piece									
1100	65mmØ IMC Elbow	4	piece									
1100	80mmØ IMC Elbow	4	piece									
1100	100mmØ IMC Elbow	50	piece									
III-E.2 Wires and Wiring Devices												
1101	3.5mm² THHN Wire	41,340	l.m.									
1101	5.5mm² THHN Wire	1,470	l.m.									
1101	8.0mm² THHN Wire	16,790	l.m.									
1101	22mm² THHN Wire	1,000	l.m.									
1101	30mm² THHN Wire	1,700	l.m.									
1101	38mm² THHN Wire	1,600	l.m.									
1101	50mm² THHN Wire	80	l.m.									
1101	80mm² THHN Wire	850	l.m.									
1101	125mm² THHN Wire	1,000	l.m.									
1101	150mm² THHN Wire	1,550	l.m.									
1101	250mm² THHN Wire	3,400	l.m.									
1101	2.0mm² THW Wire	5,670	l.m.									
1101	3.5mm² THW Wire	15,735	l.m.									
1101	5.5mm² THW Wire	8,278	l.m.									
1101	8.0mm² THW Wire	1,433	l.m.									
1101	14mm² THW Wire	27	l.m.									
1101	22mm² THW Wire	283	l.m.									
1101	30mm² THW Wire	333	l.m.									
1101	38mm² THW Wire	517	l.m.									
1101	60mm² THW Wire	1,133	l.m.									
1101	Electrical Sub-meter	206	piece									
1101	Switch with Plate and Cover, One-Gang	264	piece									
1101	Switch with Plate and Cover, Two-Gang	221	piece									
1101	Switch with Plate and Cover, Three-Gang	45	piece									
1101	Switch with Plate and Cover, One-Gang Three Way	25	piece									
1101	Simplex Convenience Outlets/Receptacles (Universal Type)	334	piece									
1101	Duplex Convenience Outlets/Receptacles (Universal Type)	645	piece									
1101	Ground Fault Circuit Interrupter Outlet 250V/20A	18	piece									

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					OCM	PROFIT	%	VALUE				
1101	Floor mounted Outlet with cover	5	piece									
III-E.3 Panelboard with Main and Branch Breakers												
1102	MCB, 3200AT, 3P	1	assy									
1102	MCB, 2500AT, 3P	1	assy									
1102	MCB (METER CENTER)	1	assy									
1102	MDPG (METER CENTER)	1	assy									
1102	MDPAD (BUILDING ADMIN)	1	assy									
1102	LPPA (BASEMENT 2)	1	assy									
1102	LPPB (BASEMENT 1)	1	assy									
1102	LPPC (GROUND FLOOR)	1	assy									
1102	MPPA (BASEMENT 2)	1	assy									
1102	LPP STP (BASEMENT 2)	1	assy									
1102	MDPMA (MARKET ADMIN)	1	assy									
1102	LPPMA (GROUND FLOOR)	1	assy									
1102	LPPMB (SECOND FLOOR)	1	assy									
1102	LPPMC (THIRD FLOOR)	1	assy									
1102	LPPMD (FOURTH FLOOR)	1	assy									
1102	MPPB (FOURTH FLOOR)	1	assy									
1102	MPPC (THIRD FLOOR)	1	assy									
1102	MDPH (HEALTH CENTER)	1	assy									
1102	LPH (GROUND FLOOR)	1	assy									
1102	PPH (GROUND FLOOR)	1	assy									
1102	MSFCUA (GROUND FLOOR)	1	assy									
1102	MSFCUB (SECOND FLOOR)	1	assy									
1102	MDPBR (BARANGAY HALL)	1	assy									
1102	LPPBA (GROUND FLOOR)	1	assy									
1102	LPPBL (GROUND FLOOR)	1	assy									
1102	LPPBDAY (SECOND FLOOR)	1	assy									
1102	LPBA (FIFTH FLOOR)	1	assy									
1102	LPBB (FIFTH FLOOR)	1	assy									
1102	PPBA (FIFTH FLOOR)	1	assy									
1102	MPPD (FIFTH FLOOR)	1	assy									
1102	MSFCUD (FIFTH FLOOR)	1	assy									
1102	MDPMS (MARKET STALLS)	1	assy									
1102	MCA (GF - MARKET STALLS))	1	assy									
1102	MCB (2F - MARKET STALLS))	1	assy									
1102	MCC (3F - MARKET STALLS))	1	assy									
1102	MCD (4F - MARKET STALLS))	1	assy									
1102	30AT STALLS	7	assy									
1102	40AT STALLS	199	assy									
1102	20AT, 2P, 240V, ECB	76	assy									
1102	30AT, 2P, 240V, ECB	6	assy									
1102	40AT, 2P, 240V, ECB	1	assy									
1102	50AT, 2P, 240V, ECB	3	assy									
1102	100AT, 2P, 240V, ECB	1	assy									
1102	70AT, 3P, 240V, ECB	6	assy									
1102	125AT, 3P, 240V, ECB	3	assy									
1102	150AT, 3P, 240V, ECB	1	assy									
1102	200AT, 3P, 240V, ECB	2	assy									

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					OCM	PROFIT	%	VALUE				
1102	400AT, 3P, 240V, ECB	2	assy									
1102	800AT, 3P, 240V, ECB	1	assy									
III-E.4 Automatic Transfer Switch												
1102	Automatic Transfer Switch 600AT, 600AF, 3P with grounding and neutral bus bar, Free standing in NEMA 3R Powdercoated - Wrinkled Gray	3	assy									
1102	Automatic Transfer Switch 1000AT, 1000AF, 3P with grounding and neutral bus bar, Free standing in NEMA 3R Powdercoated - Wrinkled Gray	1	assy									
III-E.5 Generator Set												
1102	825KVA,3P, 220V, 60Hz, 1800 rpm with 0.8 pf, Diesel Engine Driven Stand-by Generator Set, Silent Type. Dimension: 6058mm x 2438mm x 2891mm	1	assy									
III-E.6 Solar Power System												
1102	720 Watts, N-Type Mono-Crystalline	126	piece									
1102	Off Grid Tied Inverter, 40kW Inverter, 230V AC 3P, 60Hz	3	piece									
1102	DC Breaker, 30AT, 1000Vdc, 4P	9	piece									
1102	DC SPD 4P 20KA/40KA	3	piece									
1102	PV Optimizer with Rapid Shutdown	63	piece									
1102	DC Combiner Box, 2 input/2 Output 1000V	3	piece									
1102	AC Combiner Box	1	piece									
1102	500AT, 3P, 240V, ECB	1	assy									
1102	RSD Emergency Push Button	1	set									
1102	PV Mount, Aluminum Railings, 2400mm	126	set									
1102	Wire Gutter, 300mm x 300mm x 20000mm with terminal lugs	3	set									
1102	TS4 Connector (M/F) and accessories	126	set									
1102	Grounding Lug	126	piece									
1102	20mmØ IMC Pipe with coupling	30	set									
1102	65mmØ IMC Pipe with coupling	53	set									
1102	80mmØ IMC Pipe with coupling	17	set									
1102	20mmØ IMC Elbow	10	piece									
1102	65mmØ IMC Elbow	6	piece									
1102	80mmØ IMC Elbow	3	piece									
1102	6.0mm² Single Core XLPE FR Cable	1,000	l.m.									
1102	1.25mm² TF Wire	252	l.m.									
1102	14mm² THHN Wire	360	l.m.									
1102	125mm² THHN Wire	480	l.m.									
1102	150mm² THHN Wire	200	l.m.									
1102	8.0mm² THW Wire	160	l.m.									
1102	38mm² THW Wire	50	l.m.									
III-E.7 LightingFixtures and Lamps												
1103	1200mm x 300mm Surface Mounted Box Type Lighting Fixture, 1-18W T8 Daylight LED Tube with complete accessories	369	piece									
1103	1200mm x 600mm Surface Mounted Troffer Type Lighting Fixture, 2-18Watts Daylight LED Tube with complete accessories	9	piece									
1103	600mm x 600mm Recessed Mounted Troffer Type Lighting Fixture, 2-10Watts Daylight LED Tube with complete accessories	212	piece									

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					OCM	PROFIT	%	VALUE				
1103	Dustproof Lighting Fixture with 2-18Watts T8 Daylight LED Tube, Surface Mounted Type with complete accessories	470	piece									
1103	10 Watts LED Bulb with Receptacle with complete accessories	293	piece									
1103	6" LED Pinlight, 11 Watts Recessed Mounted with complete accessories	289	piece									
1103	4" LED Pinlight, 7 Watts Recessed Mounted with complete accessories	249	piece									
1103	300 Watts LED Economy High Bay Lighting Fixture	12	piece									
1103	LED Floodlight IP65 300W	12	piece									
1103	Wall Lamp with 11W LED, Warmwhite with complete accessories	43	piece									
1103	Fabricated Outdoor Triangular Façade Luminaire with 2x20W LED Tubelight (Small)	2	piece									
1103	18W Recessed Mounted Super Flat LED Pinlight with complete accessories	17	piece									
1103	LED Striplight	150	l.m.									
1103	Emergency Light, Twin-Head	169	piece									
1103	LED Exit Light Milled Aluminum Type Double-sided Face,1.2V, 600mAh Rechargeable Ni-Cd Battery (Wall-	20	piece									
III-E.8 Network Cabling System												
1105	MDF	1	assy									
1105	MDFH	1	assy									
1105	IDFB and IDF3	2	assy									
1105	IDF2, IDF4 and IDF5	3	assy									
1105	IDFH	1	assy									
1105	MDFB	1	assy									
1105	Other Miscellaneous	1	assy									
1105	25mmØ PVC Pipe with accessories	500	piece									
1105	50mmØ PVC Pipe with accessories	36	piece									
1105	50mmØ Weatherproof Entrance Cap	2	piece									
1105	32mmØ EMT Pipe with coupling	5	set									
1105	25mmØ Non Metallic Flexible Conduit witn straight connector	90	l.m.									
1105	25mm x 16mm x 2.44m Rectangular uPVC Moulding	65	piece									
1105	25mmØ MicaTube	1,000	l.m.									
1105	Wifi Access Point	25	piece									
1105	RJ45 Connector, 8 Pins	664	piece									
1105	Junction Box with accessories	25	set									
1105	Utility Box with accessories	141	set									
1105	Fabricated Pull Box, 8" x 8" x 6" @ 0.16 (0.20m x 0.20m x 0.15m) and accessories	13	set									
1105	UTP Cable, CAT6, 4-Pairs	7,000	l.m.									
1105	Fiber Optic Cable (6-Core)	600	l.m.									
1105	Fiber Optic Cable (12-Core)	200	l.m.									
1105	Universal LAN Outlet, Single-Port	32	piece									
1105	Universal LAN Outlet, Dual-Port	32	piece									
1105	Wall Plate 2 port (Voice/Data Outlet)	68	piece									
1105	Floor Mounted Voice and Data Outlet Two Device	1	piece									

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					OCM	PROFIT	%	VALUE				
1105	Floor Mounted Data Outlet Two Device	8	piece									
	III-E.9 CCTV System											
1106	PA-CCTV-PM-B2 and B1	2	assy									
1106	PA-CCTV-GF	1	assy									
1106	HEALTH CENTER CCTV CABINET	1	assy									
1106	PA-CCTV-2F	1	assy									
1106	PA-CCTV-3F,4F,5F	3	assy									
1106	PA-CCTV Main Cabinet	1	assy									
1106	BARANGAY HALL CCTV CABINET	1	assy									
1106	IDF-CCTV-PL	1	assy									
1106	IDF-CCTV-CDC CABINET	1	assy									
1106	RJ45 Connector, 8 Pins	380	piece									
1106	Junction Box with accessories	95	set									
1106	Fabricated Pull Box, 8" x 8" x 6" @ 0.16 (0.20m x 0.20m x 0.15m) and accessories	12	set									
1106	UTP Cable, CAT6, 4-Pairs	5,000	l.m.									
1106	Fiber Optic Cable (6-Core)	1,300	l.m.									
1106	Fiber Optic Cable (12-Core)	120	l.m.									
1106	25mmØ Non Metallic Flexible Conduit with accessories	160	l.m.									
1106	25mm x 16mm x 2.44m Rectangular uPVC Moulding	65	piece									
1106	32" LED Display with VGA and keyboard	9	set									
1106	HD CCTV Camera, IP-based, Bullet Type	29	piece									
1106	HD CCTV Camera, IP-based, Dome Type	66	piece									
III-E.10 Public Address System												
1107	Health Center PA Cabinet	1	assy									
1107	Junction Box with accessories	120	set									
1107	Utility Box with connector	120	set									
1107	20mmØ EMT Pipe with coupling	350	set									
1107	25mm Ø Non Metallic Flexible Conduit with accessories	252	l.m.									
1107	25mm x 16mm x 2.44m Rectangular uPVC Moulding	65	piece									
1107	IP Terminal with built-in IP Control module, Audio Input Module and Decoder,RJ45 Interface	4	set									
1107	IP Ceiling Speaker, 10W	72	piece									
1107	IP Wall Mounted Speaker, 20W	48	piece									
1107	IP Paging Microphone	3	piece									
1107	UTP Cable, CAT6, 4-Pairs.	5,000	l.m.									
1107	Fiber Optic Cable (6-Core)	950	l.m.									
1107	Fiber Optic Cable (12-Core)	120	l.m.									
III-E.11 Grounding System												
1109	20mmØ PVC Pipe	100	piece									
1109	20mmØ x 3000mm Grounding Rod (Copper Clad) with Ground Clamp	32	set									
1109	Grounding Miscellaneous	1	set									
1109	Lighting Arrester Dynasphere with complete accessories	1	set									
1109	100mm² Bare Copper Wire (Uncut)	300	l.m.									

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					OCM	PROFIT	%	VALUE				
III-E.12 Miscellaneous Electrical												
1111	Cable Tray, 50mm x 50mm x 2400mm, with nuts and bolts	284	set									
1111	Cable Tray, 50mm x 100mm x 2400mm, with nuts and bolts	160	set									
1111	Cable Tray, 50mm x 150mm x 2400mm, with nuts and bolts	44	set									
1111	Cable Tray, 100mm x 150mm x 2400mm, with nuts and bolts	110	set									
1111	Concrete Encasement 650mm x 650mm	1	set									
1111	Concrete Encasement 650mm x 357mm	1	set									
1111	Hand Hole (0.80m x 0.80m x 1m)	2	set									
1111	Hand Hole (0.80m x 0.80m x 0.65m)	1	set									
1111	Ground Pit (0.30m x 0.30m x 0.30m)	1	set									
III-E.13 Fire Detection and Alarm System												
1208	Intelligent Fully Addressable Fire Alarm Control Panel	1	assy									
1208	Fire Alarm Manual Pull Station and Electronic Siren with Strobe Light	60	set									
1208	24V Back-up Battery	1	piece									
1208	Input Module	30	piece									
1208	Output Module	9	piece									
1208	Smoke Detector with base	269	piece									
1208	Heat Detector with base	60	piece									
1208	Annunciator	18	piece									
1208	1.25mm² TF Wire	34,600	l.m.									
1208	Junction Box with accessories	488	set									
1208	Utility Box with connector	118	set									
1208	Fabricated Pull Box, 6" x 6" x 4" @ 0.16 (0.15m x 0.15m x 0.10m) and 32mmØ accessories	7	set									
1208	15mmØ EMT Pipe with coupling	1,205	set									
1208	32mmØ EMT Pipe with coupling	24	set									
1208	40mmØ EMT Pipe with coupling	25	set									
III-E.14 Parking System												
1209	PM MAIN CABINET	1	assy									
1209	Junction Box with Threaded Rod and accessories	110	set									
1209	Lamp Indicator LCD Display, Wall Mounted	5	piece									
1209	Occupancy Sensor	55	piece									
1209	LED Indicator, Red: Occupied ; Green: Vacant	55	piece									
1209	UTP Cable, CAT6, 4-Pairs	2,250	l.m.									
1209	Fiber Optic Cable (6-Core)	230	l.m.									
1209	Fiber Optic Cable (12-Core)	105	l.m.									
1209	25mmØ PVC Pipe	53	piece									
1209	20mmØ EMT Pipe with coupling	125	set									
	TOTAL OF PART E											
PART F	**MECHANICAL WORKS**											
III-F.1 Window Type Air Conditioning Unit												
1200 (13) a1	WAC 1 - Window Type Air Conditioning Unit with Cooling Capacity of 2.5 HP	2	unit									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1200 (13) a2	WAC 2 - Window Type Air Conditioning Unit with Cooling Capacity of 1.0 HP	1	unit									
III-F.2 Multi-Split Refrigerant Pipe Roughing Ins												
1200 (15)	6.35mm Ø Refrigerant Pipe with Insulation and Hanger	241	l.m.									
1200 (15) a	9.50mm Ø Refrigerant Pipe with Insulation and Hanger	223	l.m.									
1200 (15) b	12.70mm Ø Refrigerant Pipe with Insulation and Hanger	258	l.m.									
1200 (15) c	15.90mm Ø Refrigerant Pipe with Insulation and Hanger	310	l.m.									
1200 (15) d	19mm Ø Refrigerant Pipe with Insulation and Hanger	206	l.m.									
1200 (15) e	22mm Ø Refrigerant Pipe with Insulation and Hanger	81	l.m.									
1200 (15) f	28.60mm Ø Refrigerant Pipe with Insulation and Hanger	196	l.m.									
1200 (15) h	35mm Ø Refrigerant Pipe with Insulation and Hanger	58	l.m.									
1200 (15) g	38mm Ø Refrigerant Pipe with Insulation and Hanger	42	l.m.									
1200 (15) h	41mm Ø Refrigerant Pipe with Insulation and Hanger	137	l.m.									
III-F.3 Multi-Split Condensate Pipe Roughing Ins												
1200 (16) b	20mm Ø Condensate Pipe and Fittings with Insulation and Hanger	84	l.m.									
1200 (16) c	25mm Ø Condensate Pipe and Fittings with Insulation and Hanger	57	l.m.									
1200 (16) d	32mm Ø Condensate Pipe and Fittings with Insulation and Hanger	184	l.m.									
1200 (16) e	40mm Ø Condensate Pipe and Fittings with Insulation and Hanger	197	l.m.									
1200 (16) f	50mm Ø Condensate Pipe and Fittings with Insulation and Hanger	76	l.m.									
III-F.4 Multi-Split Fan Coil Units												
1200 (13) b1	MSFCU 1 - Ceiling Cassette Type with Cooling Capacity of 47, 800 Btu/hr	1	unit									
1200 (13) b2	MSFCU 2 - Ceiling Cassette Type with Cooling Capacity of 38,200 Btu/hr	10	unit									
1200 (13) b3	MSFCU 3 - Ceiling Cassette Type with Cooling Capacity of 30,700 Btu/hr	13	unit									
1200 (13) b4 (1)	MSFCU 4A - Ceiling Cassette Type with Cooling Capacity of 24,200 Btu/hr	8	unit									
1200 (13) b4 (2)	MSFCU 4B - Wall Mounted Type with Cooling Capacity of 24,200 Btu/hr	1	unit									
1200 (13) b5	MSFCU 5 - Ceiling Cassette Type with Cooling Capacity of 19,100 Btu/hr	2	unit									
1200 (13) b6	MSFCU 6 - Wall Mounted Type with Cooling Capacity of 15,400 Btu/hr	10	unit									
1200 (13) b7	MSFCU 7 - Wall Mounted Type with Cooling Capacity of 12,300 Btu/hr	4	unit									
1200 (13) b8	MSFCU 8 - Wall Mounted Type with Cooling Capacity of 9,600 Btu/hr	13	unit									
III-F.5 Multi-Split Air Cooled Condensing Units												
1200 (13) b9	ACCU 1 - with Cooling Capacity of 443,600 Btu/hr	1	unit									
1200 (13) b10	ACCU 2 - with Cooling Capacity of 327,600 Btu/hr	1	unit									
1200 (13) b11	ACCU 3 - Cooling Capacity of 249,100 Btu/hr	1	unit									
1200 (13) b12	ACCU 4 - Cooling Capacity of 187,700 Btu/hr	1	unit									

ITEM CODE	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UP IN %		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
1200 (13) b13	ACCU 5 - Cooling Capacity of 68,200 Btu/hr	4	unit									
III-F6 Ventilation System Equipment												
1200 (4) b	CF 1 - Ceiling Fan, 0.50 CMS	75	set									
1200 (5) d	EF 1 - Axial Flow Fan, In Line, 6,342 CMH	6	set									
1200 (5) a1	EF 2 - Axial Fan Ductless, 120-180 CMH	59	set									
1200 (5) a2	EF 3 - Ceiling Mounted Ductless, 650 CMH	1	set									
1200 (5) b1	EF 4 - Wall Mounted Axial Exhaust Fan, 1,260 CMH	7	set									
1200 (5) c	EF 5 - Industrial Wall Mounted Exhauster, 7,135CMH	8	set									
III-F.7 Ventilation System Duct Works												
1200 (6) a4	Ducting, 20 Gauge G.I. Sheet, Longest Dimension not Exceeding 250mm - 800mm	284	l.m.									
1200 (6) c1	750mm x 150mm Linear Air Grille	34	pc									
1200 (6) c2	2,800mm x 400mm Stainless Steel Exhaust Vent	1	set									
III-F.8 Elevator												
1203(1)c1	Passenger Elevator, 1050 Kgs., 7 Stops	1	set									
1203(1)c2	Passenger Elevator, 1050 Kgs., 6 Stops	1	set									
1203(1)c3	Freight Elevator, 1250 Kgs., 6 Stops	1	set									
	TOTAL OF PART F											
PART G	**FIRE PROTECTION WORKS**											
1202 (9) a	25mmØ, B.I. Pipe and Fittings with Hanger/Support	1,974	l.m.									
1202 (9) b	32mmØ, B.I. Pipe and Fittings with Hanger/Support	1,092	l.m.									
1202 (9) c	40mmØ, B.I. Pipe and Fittings with Hanger/Support	813	l.m.									
1202 (9) d	50mmØ, B.I. Pipe and Fittings with Hanger/Support	252	l.m.									
1202 (9) e	65mmØ, B.I. Pipe and Fittings with Hanger/Support	234	l.m.									
1202 (9) f	75mmØ, B.I. Pipe and Fittings with Hanger/Support	240	l.m.									
1202 (9) i	150mmØ, B.I. Pipe and Fittings with Hanger/Support	156	l.m.									
1202 (10) a	Floor Control Valve Assembly	8	set									
1202 (10) b	Fire Pump Assembly	1	set									
1202 (10) c	Inspector Test Connection	8	set									
1202(3)a	Sprinkler Head, Upright / Pendent / Sidewall	960	pc									
1202(5)	Fire Hose Cabinet Assembly	15	set									
1202(5) a3	Fire Extinguisher with Bracket (HCFC)	17	set									
1202 (7) a	Fire Department Connection 150mmØ x 65mmØ x 65mmØ	1	set									
1202 (7) b	Roof Manifold 150mmØ x 65mmØ x 65mmØ	1	set									
1202 (2)	Fire Pump with complete control	1	set									
1202 (3)	Jockey Pump with complete control	1	set									
	TOTAL OF PART G											
	TOTAL OF PART III											
	GRAND TOTAL											

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

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

a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or

b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

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

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
and

☐ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;
and

☐ (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
and

☐ (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 *(please see attached prescribed forms required by the QC – BAC for Infrastructure and Consultancy)*; **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 with an attached Notice of Award, Notice to Proceed, Contract and Certificate of Acceptance *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*; **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 *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*;

☐ 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 *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*; **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.

Additional Technical Requirements:

- ☐ Certificate of Site Inspection or Affidavit of Site Inspection as part of Omnibus Sworn Statement
- ☐ Affidavit of Undertaking for Key Personnel and Equipment *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*
- ☐ Equipment Utilization Schedule
- ☐ Manpower Schedule
- ☐ Construction Schedule and S-Curve
- ☐ PERT-CMP
- ☐ Construction Methods

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) *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy).*

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.

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 guidelines[1] for this purpose;

h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;

i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

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

---

[1] currently based on GPPB Resolution No. 09-2020

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: _____

Bid Securing Declaration Form

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

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

BID SECURING DECLARATION
Project Identification No.: *[Insert number]*

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

I/We, the undersigned, declare that:

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

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

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

    a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
    b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
    c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

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

GPPB Resolution No. 16-2020, dated 16 September 2020

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, Procurement Agent if engaged, 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, Procurement Agent if engaged, 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, Procurement Agent if engaged, 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. <u>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.</u>

11. We pledge that the project will be completed in accordance and congruency with the approved plans and programs.

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]

Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the "Entity") and *[name and address of Contractor]* (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called "the Works") and the Entity has accepted the Bid for *[contract price in words and figures in specified currency]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

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

2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz.*:

   a. Philippine Bidding Documents (PBDs);
      i. Drawings/Plans;
      ii. Specifications;
      iii. Bill of Quantities;
      iv. General and Special Conditions of Contract;
      v. Supplemental or Bid Bulletins, if any;

   b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

   Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

   c. Performance Security;

   d. Notice of Award of Contract and the Bidder's conforme thereto; and

   e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**

3. In consideration for the sum of *[total contract price in words and figures]* or such other sums as may be ascertained, *[Named of the bidder]* agrees to *[state the object of the contract]* in accordance with his/her/its Bid.

4. The *[Name of the procuring entity]* agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

[Insert Name and Signature]	*[Insert Name and Signature]*
[Insert Signatory's Legal Capacity]	*[Insert Signatory's Legal Capacity]*
for:	*for:*
[Insert Procuring Entity]	*[Insert Name of Supplier]*

Acknowledgment

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

LIST OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS

NAME OF CONTRACTOR: _____

PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR, PARTHNER IN A JV) and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION or ESTIMATED COMPLETION TIME	TOTAL CONTRACT VALUE AT COMPLETION *IF APPLICABLE*	PERCENTAGE		VALUE OF OUTSTANDING WORKS (IN PHP)
									ACTUAL ACCOMPLISHMENT	PLANNED ACCOMPLISHMENT	
									TOTAL AMOUNT (Php) OF OUTSTANDING WORKS		

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

LIST OF ALL AWARDED BUT NOT YET STARTED GOVERNMENT AND PRIVATE CONTRACTS OF THE BIDDER

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

PROJECT TITLE & EXACT LOCATION	MAJOR SCOPE OF WORKS & DATE STARTED	NAME AND ADDRESS OF PROJECT OWNER	CONTRACT PRICE (PHP) AS AWARDED	DATE OF SCHEDULED COMPLETION	ROLE OF BIDDER IN THE CONTRACT SOLE CONTRACTOR / SUB-CONTRACTOR/PARTNER IN A
		TOTAL AMOUNT OF CONTRACT (Php)			

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

SINGLE LARGEST COMPLETED CONTRACT SIMILAR TO THE CONTRACT TO BE BID

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR, PARTNER IN A JV) and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION or ESTIMATED COMPLETION TIME	TOTAL CONTRACT VALUE AT COMPLETION IF APPLICABLE

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

LIST OF MAJOR EQUIPMENT TO BE USED FOR THE PROJECT

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

TYPE	DESCRIPTION / CAPACITY	SERIAL NO.	YEAR ACQUIRED	PRESENT LOCATION (SPECIFIC ADDRESS)	STATUS OF AVAILABILITY (OWNED/LEASED)

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

A. LIST OF KEY CONSTRUCTION PERSONNEL TO BE ASSIGNED TO THE PROJECT

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

NAME	POSITION	AGE	EDUCATIONAL ATTAINMENT	TYPE OF CONSTRUCTION EXPERIENCE	NO.OF YEARS WITH THE CONTRACTOR	PROFESSION	PRC NO.

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

NAME OF BIDDER: _____

CURRENT ASSETS*		PHP	
(LESS) CURRENT LIABILITIES*	(LESS)	PHP	
NETWORTH		PHP	
NETWORTH x 15	x 15	PHP	
(LESS) VALUE OF ALL OUTSTANDING ON-GOING CONTRACTS**	(LESS)	PHP	
(LESS) VALUE OF ALL AWARDED BUT NOT YET STARTED CONTRACTS AS OF DATE**	(LESS)	PHP	
NET FINANCIAL CONTRACTING CAPACITY		PHP	

NOTES: * CURRENT ASSETS AND LIABILITIES BASED ON AUDITED FINANCIAL STATEMENT FOR THE PRECEDING CALENDAR YEAR SUBMITTED TO B.I.R.

** BASED ON LIST OF ON-GOING AND AWRDED BUT NOT YEY STARTED CONTRACTS SUBMITTED

REPUBLIC OF THE PHILIPPINES)
_____) S. S.

AFFIDAVIT OF UNDERTAKING

I, _____, of legal age, Filipino, __**[*OFFICER OR REPRESENTATIVE*]**
____

with office address at _____ after having been duly sworn to in accordance with law, hereby voluntary depose and state:

That I am duly authorized representative of the **[Name of Bidder** to execute this undertaking as evidenced by Secretary's Certificate and Board Resolution.

That ___**[Name of Bidder]**___bidding for the (Name of Project)

That relative to the aforementioned Project, the ___[Name of Bidder]___hereby undertake that the equipment to be use and the key personnel to be assign shall exclusively be used and will only perform to the project until its completion.

That I am executing this affidavit to attest to the truth of the foregoing and in compliance with the submission of the technical requirements for the public bidding of the said project.

IN WITNESS HEREOF, I have hereunto signed my name below this _____day of_____, _____at _____.

AFFIANT FURTHER SAYETH NAUGHT.

_____
Affiant

SUBSCRIBED AND SWORN TO BEFORE ME this ___ day of _____, _____in _____,
affiant exhibiting to me his/her _____ issued at _____on _____.

Doc. No. ;
Page No. ;
Book No. ;
Series of 2020

_____
Notary Public


Republic of the Philippines
gppb
Government Procurement Policy Board