

# **PHILIPPINE BIDDING DOCUMENTS**

# **Procurement of INFRASTRUCTURE PROJECTS**

Government of the Republic of the Philippines

**PROPOSED IMPROVEMENT OF DISTRICT 3 MINI CITY  
HALL**

**Project number:**

**21-00070**

**Sixth Edition  
July 2020**

# Preface

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

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

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

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

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

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

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

# TABLE OF CONTENTS

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



7.	Warranty.....	21
8.	Liability of the Contractor.....	21
9.	Termination for Other Causes .....	21
10.	Dayworks .....	21
11.	Program of Work.....	22
12.	Instructions, Inspections and Audits .....	22
13.	Advance Payment.....	22
14.	Progress Payments .....	22
15.	Operating and Maintenance Manuals.....	22
<b>Section V. Special Conditions of Contract.....</b>		<b>24</b>
<b>Section VI. Specifications .....</b>		<b>26</b>
<b>Section VII. Drawings.....</b>		<b>28</b>
<b>Section VIII. Bill of Quantities .....</b>		<b>29</b>
<b>Section IX. Checklist of Technical and Financial Documents.....</b>		<b>31</b>

# ***Glossary of Terms, Abbreviations, and Acronyms***

**ABC** – Approved Budget for the Contract.

**ARCC** – Allowable Range of Contract Cost.

**BAC** – Bids and Awards Committee.

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

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

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

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

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

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

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

**CPI** – Consumer Price Index.

**DOLE** – Department of Labor and Employment.

**DTI** – Department of Trade and Industry.

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

**GFI** – Government Financial Institution.

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

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

**GOP** – Government of the Philippines.

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

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

**PhilGEPS** - Philippine Government Electronic Procurement System.

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

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**UN** – United Nations.

## ***Section I. Invitation to Bid***

### **Notes on the Invitation to Bid**

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

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

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

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



**REPUBLIC OF THE PHILIPPINES**  
**QUEZON CITY GOVERNMENT**  
**BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE &**  
**CONSULTANCY**



2<sup>nd</sup> floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

**June 10, 2021**

**Invitation to Bid**

No.	Project No.	Project Name	Location	Amount	Duration Cal. Days	Office	Source Fund
<b><u>Buildings – Small B</u></b>							
1	21-00060	Proposed Rehabilitation of Pump System at Quezon Memorial Circle - QC Hall Underpass	Central	1,002,099.86	90	City Engineering Department	Engineering
2	21-00061	Proposed Upgrading of Main Electrical Service Entrance of Holy Spirit National High School (Main Campus)	Holy Spirit	1,397,063.79	75	City Engineering Department	Special Education Fund
3	21-00062	Proposed Rehabilitation of QCPD Police Community Precinct No. 3	Culiat	1,680,237.50	90	City Engineering Department	Engineering
4	21-00063	Proposed Rehabilitation of La Loma Pedestrian Walk and Welcome Archways	Paang Bundok	3,190,644.38	60	City Engineering Department	Engineering
5	21-00064	Proposed Rehabilitation of PS 11 - Galas Police Station	San Isidro Galas	3,246,243.86	60	City Engineering Department	Engineering
6	21-00065	Proposed Rehabilitation of Pump House at Quezon Memorial Circle near Quezon Avenue	Central	3,471,538.59	120	City Engineering Department	Engineering
7	21-00066	Proposed Rehabilitation of Electrical System at Police Station 1 - La Loma	N.S. Amoranto	4,748,415.40	90	City Engineering Department	Engineering
8	21-00067	Proposed Rehabilitation of Belarmino Sports Complex	Milagrosa	4,990,584.11	90	City Engineering Department	Engineering
9	21-00068	Proposed Improvement of Drug Rehabilitation and Treatment Facility (Phase 3)	Payatas	7,217,566.24	150	City Engineering Department	Engineering
10	21-00069	Proposed Rehabilitation of Emergency Room Bay and Construction of Storage Facility for Medical Supplies at Basement of Rosario Maclang Bautista General Hospital	Batasan Hills	7,547,648.50	150	City Engineering Department	OCM-20% CDF
11	21-00070	Proposed Improvement of District 3 Mini City Hall	Marilag	27,387,518.76	270	City Engineering Department	Engineering

<b><u>Flood Control – Medium A</u></b>							
12	21-00071	Proposed Construction of Slope Protection (Steel Sheet Piles) at Lagarian Creek, Champaca Street	Roxas	35,787,239.46	240	City Engineering Department	OCM-LDRRMF
13	21-00072	Proposed Rehabilitation and Construction of Reinforced Concrete Retaining Wall at Diliman Creek (Phase 2)	Kamuning	36,922,575.94	210	City Engineering Department	OCM-LDRRMF
<b><u>Roads – Small B</u></b>							
14	21-00073	Proposed Rehabilitation (Surface Improvement) at Grants Street	Sangandaan	3,033,023.52	20	City Engineering Department	OCM-20% CDF
15	21-00074	Proposed Rehabilitation (Surface and Drainage System Improvement) of Rolling Meadows Subdivision Phase II	San Bartolome	4,985,602.30	60	City Engineering Department	OCM-20% CDF
16	21-00075	Proposed Rehabilitation of Road and Drainage at W. Santiago Street	Paltok	7,919,967.51	150	City Engineering Department	OCM-20% CDF
17	21-00076	Proposed Rehabilitation of Road and Drainage at Administration Street	Bahay Toro	20,218,474.20	270	City Engineering Department	OCM-20% CDF
<b><u>Roads – Medium A</u></b>							
18	21-00077	Proposed Rehabilitation of Road and Drainage at Misamis Street	Sto. Cristo	32,691,976.01	240	City Engineering Department	Engineering

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 **11 June 2021 (Friday)** 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 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 2<sup>nd</sup> Floor, Procurement Department, Finance Building, Quezon City Hall Compound.

6. The ***QC- BAC- INFRASTRUCTURE & CONSULTANCY*** will hold a Pre-Bid Conference<sup>1</sup> on **June 21, 2021 at 10:00 AM at 2<sup>nd</sup> 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 **July 5, 2021. – 9:00AM.** 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 **July 5, 2021 - 10:00 AM at 2<sup>nd</sup> 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 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.

<sup>1</sup> 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.



11. For further information, please refer to:

**ATTY. DOMINIC B. GARCIA**

OIC, Procurement Department

2<sup>nd</sup> 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](mailto:bacinfra.procurement@quezoncity.gov.ph)

Website: [www.quezoncity.gov.ph](http://www.quezoncity.gov.ph)

12. You may visit the following websites:

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

By:

**ATTY. MARK DALE DIAMOND P. PERRAL**

Chairman, BAC-Infra and Consultancy

## ***Section II. Instructions to Bidders***

### **Notes on the Instructions to Bidders**

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

## 1. Scope of Bid

The Procuring Entity, **Quezon City Government** invites Bids for the **PROPOSED IMPROVEMENT OF DISTRICT 3 MINI CITY HALL**, with Project Identification Number **21-00070**.

*[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 **2021** in the amount of **Twenty-Seven Million Three Hundred Eighty-Seven Thousand Five Hundred Eighteen Pesos & 76/100 Cts. (P 27,387,518.76)**.

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 “P” 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 **June 21, 2021 10:00 A.M. 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

ITB Clause																																													
5.2	For this purpose, similar contracts shall refer to contracts which have the same major categories of work.																																												
7.1	<b>Subcontracting is not allowed.</b>																																												
10.3	<i>No additional contractor license or permit is required</i>  <b><i>In addition, eligible bidders shall qualify or comply with the following:</i></b>  1. Bidders with valid Philippine Contractors Accreditation Board (PCAB)  Type  <b>Buildings - Small B</b>																																												
10.4	<table><tr><td colspan="4">The minimum work experience requirements for key personnel are the following:</td></tr><tr><td>Qty.</td><td>Key Personnel</td><td>General Experience</td><td>Relevant Experience</td></tr><tr><td>1</td><td>Project Manager</td><td>3 years</td><td>3 years</td></tr><tr><td>1</td><td>Project Engineer</td><td>3 years</td><td>3 years</td></tr><tr><td>1</td><td>DPWH duly accredited Materials Engineer</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>Foreman</td><td>3 years</td><td>3 years</td></tr><tr><td>19</td><td>Skilled Worker</td><td>3 years</td><td>3 years</td></tr><tr><td>1</td><td>Driver</td><td>3 years</td><td>3 years</td></tr><tr><td>33</td><td>Laborer/Helper</td><td>1 year</td><td>3 months</td></tr><tr><td colspan="4"><b><i>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.</i></b></td></tr></table>	The minimum work experience requirements for key personnel are the following:				Qty.	Key Personnel	General Experience	Relevant Experience	1	Project Manager	3 years	3 years	1	Project Engineer	3 years	3 years	1	DPWH duly accredited Materials Engineer	3 years	3 years	1	Safety Officer	3 years	3 years	1	Foreman	3 years	3 years	19	Skilled Worker	3 years	3 years	1	Driver	3 years	3 years	33	Laborer/Helper	1 year	3 months	<b><i>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.</i></b>			
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12	<i>[Insert Value Engineering clause if allowed.]</i>
15.1	<p>The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:</p> <ul style="list-style-type: none"> <li>a) The amount of not less than Php 547,750.38 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</li> <li>b) The amount of not less than Php 1,369,375.94 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.</li> </ul>
19.2	<b>Partial bid is not allowed.</b> 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	<p><b>Additional Contract Documents relevant to the Project as required:</b></p> <ol style="list-style-type: none"> <li><b>1. Construction Schedule and S-curve,</b></li> <li><b>2. Manpower Schedule,</b></li> <li><b>3. Construction Methods,</b></li> <li><b>4. Equipment Utilization Schedule,</b></li> <li><b>5. PERT/CPM or other acceptable tools of project scheduling, shall be included in the submission of Technical Proposal.</b></li> </ol>

## ***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 270 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: <i>[list here the required site investigation reports.]</i>
7.2	<p><i>[Select one, delete the other.]</i></p> <p><i>[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]</i> Fifteen (15) years.</p> <p><i>[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]</i> Five (5) years.</p> <p><i>[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]</i> Two (2) years.</p>
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
13	The amount of the advance payment is no more than 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	<p>The date by which operating and maintenance manuals are required is <i>thirty (30) days</i></p> <p>The date by which "as built" drawings are required as part of final payment</p>
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.



Republic of the Philippines  
Quezon City  
**Office of the City Mayor**  
**QUEZON CITY BIDS & AWARDS COMMITTEE**  
**(QC-BAC-INFRA)**



**PROJECT : PROPOSED IMPROVEMENT OF DISTRICT 3 MINI CITY HALL**  
**LOCATION : Barangay Marilag, Quezon City**  
**SUBJECT : GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS**

**I. GENERAL CONDITIONS**

**1.01 DEFINITIONS**

- a. OWNER : LOCAL GOVERNMENT OF QUEZON CITY**
- b. CONTRACTOR :** Any individual, form, corporation, partnership or association that enters into an agreement with the Owner for furnishing the materials and/or labor, tools, equipment, plant and other facilities required for the erection and completion of the project subject to the accompanying plans and working drawings.
- c.** The Owner/Implementing Agency and the Contractor are treated through the contract documents as if each were of the regular number, masculine gender.

**1.02 EXAMINATION OF MEMBER**

The Contractor shall carefully examine the premises before submitting any bids to enable him to have full knowledge of conditions existing therein.

**1.03 LOCATION**

The Proposed Improvement of District 3 Office (Mini City Hall) is to be constructed along Barangay Marilag, Quezon City.

**1.04 EXECUTION, CORRELATION & INTENT OF DOCUMENTS**

- 1.** The Contract Documents are signed in sufficient number of copies by all parties concerned. In case anybody fails to sign copies of any item forming part of the set contract documents, the Implementing Agency's identification thereon shall suffice.
- 2.** The items, specifications and all other documents forming the contract documents are complementary. Anything shown on plans but not mentioned in the specifications or vice versa or anything not expressly set forth in either, but necessarily implied, shall be furnished or done as if specifically shown and mentioned in both, with no extra charge. Where dimensions are given in figures, follow them in preference to measurement by scale.
- 3.** Execute work as per agreement, making no changes or deviations whatsoever, without prior permission from the Implementing Agency.
- 4.** The Contractor shall verify and check all dimensions particularly those on the plans. He will be held directly responsible in case of any discrepancy that may be discovered during the progress of work.

4. The Contractor shall verify and check all dimensions particularly those on the plans. He will be held directly responsible in case of any discrepancy that may be discovered during the progress of work.

#### **1.05 DETAIL DRAWINGS AND INSTRUCTIONS**

Plans furnished for use at the jobsite are whenever necessary, supplemented by detail drawings and instructions essential to the proper execution of the work. Such supplementary detail drawings and instructions shall be treated as of equal force as though originally issued.

#### **1.06 PLANS AND PROJECT SITE**

Keep at project site, in good order and condition, one (1) set of approved plans, specifications, supplementary detail drawings and instructions.

#### **1.07 SHOP DRAWINGS**

Shop drawings shall be provided by the Implementing Agency and/or Contractor during the progress of construction. The contractor should not place any item subject to shop drawings until the Implementing Agency shall have duly approved such drawings.

#### **1.08 CHANGES**

The Owner and the Implementing Agency reserve the right to make alterations or additions, including changes during the progress of work. The same shall be carried into effect without in any way deviating from or violating any agreement. Whatever amount shall necessarily be entailed in the cost of labor or materials or both shall be added to or deducted from the original contract price.

#### **1.09 TIME OF COMPLETION AND SCHEDULE OF CONSTRUCTION**

The Contractor shall, before actual commencement of the project operations, prepare and submit to the Implementing Agency for verification and approval, a complete and comprehensive work schedule covering the entire duration of construction. He shall also include therein, the estimated number of days within which the entire project shall be completed stage by stage by phase.

#### **1.10 WORKMANSHIP**

The project shall be executed with the use of first class workmanship to the full intent and meaning of the plans and specifications and to the complete approval and acceptance by the Implementing Agency.

#### **1.11 MATERIALS**

All materials to be used shall be the best of their respective types and kind. They shall be properly stored and protected from damage or injury.

#### **1.12 SAMPLES**

Submit samples as specified and proceed with the work with the use of materials procured based on the samples previously approved by the Implementing Agency.

#### **1.13 INSPECTION OF WORK**

The Contractor shall provide the facility for inspecting the work to the Implementing Agency, the Owner and other personnel having jurisdiction over the work.

#### **1.14 DEFECTIVE OR IMPROPER WORK**

All work or materials not acceptable to the Architect shall be removed immediately and replaced with appropriate work or materials without extra charge. All condemned materials shall be taken away from the premises without delay.

#### **1.15 BUILDING LAWS AND REGULATIONS**

The Contractor shall be held responsible for strict compliance with existing labor laws and regulations and shall free the Owner from any responsibility in connection therewith, he shall pay on time at his own expense, all taxes, fees and/or licenses due to the government, both national and local arising from his work on the project.

#### **1.16 MANNER OF PAYMENT**

Payments to the Contractor shall be based on the periodic work accomplishments subject to verification, approval and recommendation by the Implementing Agency.

#### **1.17 RETENTION MONEY**

Progress payments shall be subject to a ten percent (10%) deduction, referred to as retention money. All retained amounts shall be released upon satisfactory completion of the work and issuance of the Certificate of Final Completion and Acceptance.

#### **1.18 TEMPORARY WATER, POWER AND TELEPHONE FACILITIES**

The Contractor shall make the necessary arrangements with the local utility companies so as to provide temporary facilities for the supply of water, power and telephone for the duration of construction, and all expenses in connection therewith shall be borne by the Contractor.

#### **1.19 PRIVY**

The Contractor shall provide a temporary privy in a most inconspicuous and sanitary manner, and shall have it removed at the termination of the work.

#### **1.20 CLEARING AND CLEANING**

Upon its completion, the project and its premises shall be cleared and cleaned as directed by the Implementing Agency, and make ready for immediate occupancy.

#### **1.21 TEMPORARY BARRICADES, SIGNAL LIGHTS, BILLBOARDS, ETC.**

The Contractor shall provide all temporary barricades, signal lights, Architect and Contractor's billboards, the required official building billboard, etc., necessary for the protection of the public and for the proper prosecution of the work and display of construction requirements.

#### **1.22 PERFORMANCE AND GUARANTEE BOND**

To guarantee the faithful performance of the Contractor under the contract, he shall post a Performance Bond in the amount of thirty percent (30%) of the contract price in the form of cash, manager's check or surety bond, callable on demand.

#### **1.23 QUESTIONS AND DISAGREEMENTS**

All questions and disagreements between the Contractor and the Owner relative to the interpretation of the plans and specifications shall be referred to the Implementing Agency whose decision on the matter shall be final.

## **II. TECHNICAL SPECIFICATIONS**

### **2.0 SITE WORK**

#### **WORK INCLUDED**

- 2.0.0 All excavation works including all necessary shoring, bracing and drainage of storm water from the site.
- 2.0.1 All soil treatment, backfilling, filling, compaction and grading, removal of excess material from site.
- 2.0.2 Protection of property, work and structures, workmen and other people from damage and injury.
- 2.0.3 Demolition of existing road pavement as indicated in the drawings.
- 2.0.4 Laying of utility/auxiliary lines as indicated in the drawings.
- 2.0.5 Survey and Stake-out works

### **2.1 LINES, GRADES AND BENCHMARKS**

- 2.1.0 Stake out accurately the lines of the building and/or the other structures included in the contract, and establish grades therefore, after which secure approval of the Project Manager before any excavation work is commenced.
- 2.1.1 Erect basic batter boards and basic reference marks at such places where they will not be disturbed during the construction of the foundation.

### **2.2 EXCAVATION**

Structural Excavations: Excavations shall be to the depths indicated in the drawings where bearing value as indicated in the Soils Investigation Report provided as part of the Construction Documents shall be attained. Excavations for footings and foundations carried below required depths shall be filled with lean concrete and bottom of such shall be level. All structural excavations shall extend a sufficient distance from the walls and footings to allow for proper erection and dismantling of forms, for installation of service and for inspection.

All excavations shall be inspected and approved before pouring any concrete laying underground utility and auxiliary lines for placing select fill materials. The Contractor shall control the grading in the vicinity of all excavated areas to prevent surface drainage running into excavations. Water that accumulates in excavated areas shall be removed by pumping before fill is placed herein.

### **2.3 SOIL TREATMENT**

Treat soil with 2% Chlordane or Andrex solution in water to provide an unbroken horizontal and vertical chemical barrier between the proposed structure and the possible termite colonies in the soil after excavation is completed and prior to pouring of concrete foundation and ground floor slabs. At the time the soil treatment is to be applied, the soil shall be in a friable condition with a sufficient low moisture content to allow uniform distribution of the treatment solution throughout the soil.

Do not apply pesticide during or immediately after heavy rains, or whenever climatic conditions are such that runoff will occur to create an environmental hazard. Cover treated areas with polyethylene or waterproof sheeting if concrete is not poured on the same day as the soil treatment. Take adequate precautions to prevent disturbance of the pesticide barrier. Re-treat the soil or fill is disturbed after the



treatment and before the placement of structural components. Apply pesticide prior to placement of vapor barrier or waterproofing membrane.

## **2.4 SHORING**

Excavation shall be shored and braced by members of suitable sizes where necessary to prevent danger to persons, injurious caving or erosions. Shoring bracing and sheathing shall be removed, as the excavations are backfilled, in a manner such as to prevent injurious caving. The contractor shall keep all excavations free from water while construction is in progress.

## **2.5 FILLING AND BACKFILLING**

After forms have been removed and when concrete work is hard enough to resist pressure resulting from fill, backfilling may then be done. Materials excavated may be used for backfilling. All filling shall be placed in layers not exceeding six (6) inches in thickness, each layer being thoroughly compacted and rammed by wetting, tamping, rolling.

## **2.6 PLACING AND COMPACTING FILL**

2.6.0 Common Fill: shall be approved imported/site-excavated material free from roots, stumps and other perishable or objectionable matter.

2.6.1 Select Fill: shall be placed where indicated and shall consist of crushed gravel, crushed rock or a combination thereof. The material shall be free from adobe, vegetable matters and shall be thoroughly tamped after lacing.

2.6.2 Before placing fill materials, the surface upon which it shall be placed shall be cleared of all brush roots, vegetable matter and debris, and thoroughly wetted to ensure good bonding between grounds.

2.6.3 Compaction: Fills shall be evenly spread in horizontal layers of not more than 200mm in thickness. Each layer shall be wetted and compacted by approved mechanical compaction machine, roller or portable to a density of at least 90% or its maximum density for non-cohesive soils as determined by ASTM Method D-1557 or AASHTO Method T-180.

## **2.7 FINISH GRADING**

The contractor shall fill and grade the whole area to the indicated sub-grade elevations as directed by the Architect or Engineer. The contractor shall verify the finish grade elevations of the proposed pavements. Prior to grading operations, the areas shall be cleared of all heavy growth or vegetation stumps, roots, cables, wires, rocks and other debris. The finished sub-grade shall be reasonably smooth and compacted and ready to receive the base course for the proposed pavement.

## **2.8 DISPOSAL OF EXCESS MATERIALS**

Any excess and demolished materials remaining after completion of the earthwork shall be disposed of by hauling and transported out of the premises at the contractor's own expense.

## **2.9 SUB-GRADE PREPARATION**

### **2.9.0 SCOPE**

The sub-grade preparation shall be that part of the work which is the preparation for the support of the bases for pavements and structures. It shall extend to the full width of pavements including shoulders and lay-bys as shown on the drawings or as specified herein. Unless otherwise agreed upon by the

Engineer, sub-grade preparation or a section of the road shall not be commenced unless the contractor is able, after the completion and acceptance of the work, to commence immediately pavement construction.

## 2.9.1 PRODUCTS

All materials and equipment necessary for proper completion of this work shall be subject to the approval of the Engineer.

## 2.9.2 EXECUTION

2.9.2.0 Prior Works: Prior to commencing the preparation of the sub-grade, all culverts, cross drains, and other similar structures (including the fully compacted backfill) shall be completed. No work shall be started on the preparation of the sub-grade before the prior works herein approved by the Engineer.

2.9.2.1 Sub-grade Level Tolerance: The finish compacted surface of the sub-grade shall conform to AASHTO M-145.

### 2.9.2.2 Sub-grade in Cutting Common Material

- a. Unless otherwise specified, all materials below sub-grade level in earth cutting to a depth of 150mm or other depth shown on the drawings or directed by the Engineer shall be excavated. The material, if suitable, shall be placed to one side for re-use, or if unsuitable, shall be disposed of in accordance with the requirements of AASHTO M-145.
- b. Where material has been removed from below sub-grade level, the base of the resulting cutting shall be compacted to a depth of 150mm to the requirements of AASHTO M-145 Table 1. If necessary, the moisture content of the material shall be adjusted.

## 2.10 GRADED AGGREGATES AND BASE COURSE

### 2.10.0 SUBMITTALS

- a. Test Reports: Before delivery of materials, submit the following test reports:
  1. Gradation
  2. Bearing Ratio
  3. Attenberg Limits

### 2.10.1 DELIVERY AND STORAGE

Do not construct base course when rainfall or other weather conditions will detrimentally affect the quality of the finished course.

## 2.11 PRODUCTS

### 2.11.0 MATERIALS

- a. Aggregates: Consist of durable sound crushed gravel, crushed stone, free of lumps and balls of clay or other objectionable matter. Crushed stone shall be free from flat, soft or disintegrated pieces. Crushed gravel retained on a No. 4 sieve shall have at least ninety percent (90%) by weight with at least two fractured faces one hundred percent (100%) by weight with at least one fractured face.
- b. Base course materials samples shall have a Bearing Ratio of at least 100 as determined by laboratory tests on a 4-day soaked specimen in accordance

with ASTM D 1883; compact specimen in accordance with ASTM D 1557, Method D. Determine grain size in accordance with ASTM C-117.

- c. Soil binder material, the surface of the layer by a combination of rolling and blading. Final surface shall be smooth and free from waves, irregularities and from ruts of soft yielding spots.

### **III CONCRETE**

#### **3.0 GENERAL**

3.0.0 Unless otherwise specified herein, concrete work shall conform to the requirements of ACI Building Code. Full cooperation shall be given other 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.

#### **3.1 SUBMITTALS**

3.1.0 Shop Drawings: Reproduction of contract drawings is unacceptable.

3.1.1 Shop Drawings for Reinforcing Steel: ACI 315. Indicate bending diagrams, assembly diagrams, splicing and lap of bars, shapes. Dimensions and details of bar reinforcing, accessories and concrete cover. Do not scale dimensions from structural drawings to determine lengths of reinforcing bars.

3.1.2 Contractor Mix Design: Thirty (30) days prior to concrete placement, submit a design for each strength and type of concrete. Furnish a complete list of materials including type, brand; source and amount of cement and admixtures; applicable reference specifications and copies of test reports showing that the mix has been successfully tested to produce concrete with the properties specified and will be suitable for the job conditions. Provide fly ash and pozzolan test results performed within six (6) months of submittal date. Obtain approval before concrete placement.

3.1.3 Certificates of Compliance

- a. Aggregates
- b. Admixtures
- c. Reinforcement
- d. Cement

3.1.4 Catalogue Data

- a. Water stops
- b. Materials for Curing Concrete
- c. Joint Sealant
- d. Joint Filter
- e. Vapor Barrier
- f. Epoxy Bonding Agents

#### **3.2 MATERIALS**

3.2.0 Cement for concrete shall conform to the requirements of specifications for Portland cement (ASTM C-150).

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

- 3.2.2 Fine Aggregates shall consist of hard, tough, durable uncoated particles. The shape of the particles shall be generally rounded or cubicle and reasonably free from flat or elongated particles. The stipulated percentages of fines in the sand shall be obtained either by processing sand or by the production of suitable graded manufactured sand.
- 3.2.3 Coarse Aggregates shall consist of gravel. Crushed gravel or rock. Or a combination of gravel and rock. Coarse aggregates shall consist of hard, tough, durable, clean and uncoated particles. The size of coarse aggregates top be used in the various parts of the Work shall be ¾".
- 3.2.4 Reinforcing bars shall conform to the requirements of PNS-49 Standard specifications for Billet Steel Bars for concrete reinforcement (A15-625). Tensile strength and grade for all reinforcing bars such as main horizontal (for beams), vertical (for columns), ties, stirrups and inserts shall be as follows:

SCHEDULE OF REINFORCING BARS (PNS-49)

DIAMETER OF BARS	GRADE (fy)
12mmØ & smaller	275 (275mpa)
16mmØ to 25mmØ	415 (415mpa)

3.3 PROPORTIONING AND MIXING

- 3.3.0 Proportioning of all materials entering into the concrete mixture of 3,000 psi concrete shall be as follows:

<u>Class</u>	<u>Cement</u>	<u>Sand</u>	<u>Gravel</u>
A	1	2.0	4

- 3.3.1 Strength of Concrete: Concrete shall have a 28-day cylinder strength of 4,000 psi for footing, beams, suspended slabs, r.c. walls and columns, while 3,000 psi shall be for slab on grade, site pavements and footings, and 2,500 psi for lean concrete.
- 3.3.2 Mixing: Concrete of 4,000 psi compressive strength shall be ready-mixed in transit from batching plant as scheduled order from qualified supplier, **accredited by Engineer.** The 3,000 psi concrete can be machine mixed on-site or also ready mixed in transit from batching plant. On-site mixing shall be within 30 minutes after the cement has been added to the aggregates.

3.4 FORMS

- 3.4.0 General: Forms shall be used whenever necessary to continue the concrete and shape it to the required lines, or to ensure the concrete 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 of mortar from the concrete. Forms for exposed surfaces against which backfill is not to be placed shall be lined with a form grade plywood or metal panels.
- 3.4.1 Cleaning and Use of Forms: Before placing the concrete, the contact surfaces of the form shall be cleansed of encrustation of mortar, the grout or other foreign material, and shall be coated with commercial form oil that will prevent sticking and will not stain the concrete surfaces.
- 3.4.2 Removal of Forms: Forms shall be removed in a manner that will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be performed at once and airing shall be

started as soon as the surface is sufficiently hard to permit it without further damage.

### **3.5 PLACING REINFORCEMENT**

General: Steel reinforcement shall be provided as indicated, together with all necessary gauge 16 G.I. wire ties, 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 of sufficient strength to maintain the operation. The 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.

### **3.6 CONVEYING AND PLACING CONCRETE**

3.6.0 Conveying: Concrete shall be conveyed from mixer to forms as rapidly as practicable, by methods that 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.

3.6.1 Placing: Concrete shall be worked readily into the corners and angles of forms and around all reinforcement and embedded 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 consequent 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...

3.6.2 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.

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

3.6.4 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 ratio as used in concrete shall be first deposited to cover the surface.

### **3.7 CURING**

3.7.0 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.

3.7.1 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 wet spraying or intermittent hosing.

### 3.8 FINISHING

- 3.8.0 Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with smooth form material, and after removal of forms, the surfaces shall be smooth, true to line and shall present a finished appearance except for minor defects which can be easily repaired by patching with cement mortar, or can be ground to a smooth surface to remove all joint marks of the form work.
- 3.8.1 Concrete slabs on fill: The concrete slabs on fill laid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of overlaying slab except as indicated otherwise.

### 3.9 SURFACE FINISHES

- 3.9.0 Defects: Repair formed surfaces by removing minor honeycombs, pits greater than one square inch surface area or 0.25 inch maximum depth, or otherwise defective areas. Provide edges perpendicular to the surface and patch with non-shrink f=grout. Patch the holes and defects when the forms are removed.
- 3.9.1 Floor slabs, Pavements and Miscellaneous Construction: Unless otherwise specified, slab at the fountain area are straight to finish with waterproofing. Slope floors uniformly to drains where drains are provided. Depress the concrete base slab where Bomanite, Granite or Ceramic tiles are indicated.
- 3.9.2 Finish: Place, consolidate and immediately strike-off concrete to obtain proper contour, grade and elevation. A set sufficient for floating and supporting the weight of the finisher and equipment.
- 3.9.3 Pavements: Screed the concrete with a template advanced with a combined longitudinal and crosswise motion. Maintain a slight surplus of concrete ahead of the template. After screeding, float the concrete longitudinally and refloat as necessary. Obtain final finish by belting. Lay belt flat on the concrete surface and advance with a sawing motion; continue until a uniform but gritty non-slip surface is obtained. Round edges and joints with an edger having a radius of 1/8 inch.
- 3.9.4 Broomed: Provide for exterior walks, platforms, patios and ramps. Unless otherwise indicated, provide a floated finish, and then finish with a flexible bristle broom. Permit surface to harden sufficiently to retain the scoring or ridges. Broom traverse to traffic or at right angles to the slope of the slab.
- 3.9.5 Pits and Trenches: Place bottoms and walls monolithically or provide water stops and keys.
- 3.9.6 Curbs and Gutters: Provide contraction joints spaced at every 10 feet maximum unless otherwise indicated. Cut contraction joints 3/4-inch deep with a jointing tool after the surface has been finished. Provide expansion joints 1/2-inch thick and spaced at every 100 feet maximum unless otherwise indicated. Provide a pavement finish.

### 3.10 MISCELLANEOUS

- 3.10.0 Construction Joints: Locate joints to least impair strength; continue reinforcement across joints unless otherwise indicated.
- 3.10.1 Expansion Joints and Contraction Joints: For slab on grade, provide at edges of interior floor slab, adjacent to walls as indicated. Completely fill joints exposed to weather with joint filler material and joint sealant. Do not extend reinforcement or other embedded metal items bonded to the concrete through any expansion joints unless an expansion sleeve is used. Provide contraction joints, either formed or saw cut or cut with a jointing tool, to the indicated depth after the

surface has been finished. Sawed joints shall be completed within 4 to 12 hours after concrete placement. Protect joints from intrusion of foreign matter.

#### **IV MASONRY**

##### **4.0 MATERIALS**

- 4.0.0 Concrete Hollow Blocks (CHB) shall have a minimum face thickness of 1" (25mm). Nominal size shall be 8" x 8" x 16", minimum compressive strength shall be 500 psi for non-load bearing and 700-1000 psi for load bearing. All units shall be stored for a period not less than 28 days (including curing period) and shall not be delivered to the job site prior to that time unless the structure is equal or more than the specified.
- 4.0.1 Prior to commencing the preparation of the sub-grade, all culverts, cross drains, and other similar structures (including the fully compacted backfill) shall be completed. No work shall be started on the preparation of the sub-grade before the prior works herein approved by the Engineer.
- 4.0.2 Cement shall be standard Portland cement ASTM C-150-68 Type 1.
- 4.0.3 Mortar: Mix mortar from 3 to 5 minutes in such quantities as needed for immediate use. Re-tempering will not be permitted if mortar stiffens because of premature setting. Discard such materials as well as those that have not been used within one hour after mixing. Proportioning shall be one (1) part Portland cement and two (2) parts and by volume, but not more than one (1) Portland cement and three (3) parts and by volume.

##### **4.1 SUBMITTALS**

- 4.1.0 Submit samples for approval two (2) samples each of each type of wall reinforcement and wall ties.
- 4.1.1 Certificates of Conformance: Submit certificate attesting that masonry cement, masonry units, aggregates and accessories meet the requirements specified.

##### **4.2 ERECTION**

- 4.2.0 All masonry shall be laid plumb, true to line, with level and accurately spaced courses, and with each course breaking joint with the source below. Bond shall be kept throughout corners and reveals shall be plumb and true. Units with greater than 12% absorption shall be wet before laying. Work required to be built in masonry; including anchors, wall plugs and accessories shall be built-in as the erection progresses.
- 4.2.1 Masonry Units: Each course shall be solidly bedded in Portland cement mortar. All units shall be damp when laid units shall be showed into place not laid, in a full bed of un-furrowed mortar. All horizontal and vertical points shall be completely filled with mortar when and as laid. Each course shall be bonded at corners and intersections. No cells shall be left open in face surfaces. All cells shall be filled up with mortar for exterior walls. Units terminating against beam or slab soffits shall be wedged tight with mortar. Do not lay cracked, broken or defaced block.
- 4.2.2 Lintels shall be of concrete and reinforced as required. Lintels shall have a minimum depth of 0.20 (8") and shall extend to at least 0.20 (8") on each side of opening and reinforced with 2-12mmØ re-bars and 10mmØ lateral ties @ 200mm o.k.
- 4.2.3 Plastering: Clean and evenly wet surfaces. Apply scratch coat with sufficient force to form good keys. Cross scratch coat upon its initial set; keep damp.

Apply coat after each scratch coat has set at least 24 hours after scratch coat application. Lightly scratch brown coat; keep moist for two (2) days; allow drying out. Do not apply finish until brown coat has seasoned for seven (7) days. Just before applying coat, wet brown coat again. Float finish coat to true even surface; trowel in manner that will force sand particles down into plaster, with final trawling, leave surfaces banished smooth free from rough areas, trowel marks, checks, other blemishes. Keep finish coat moist for at least two (2) days; thereafter protect against rapid drying until properly, thoroughly cured.

#### **4.3 SCAFFOLDING**

- 4.3.0 Provide safe wood or metal scaffolding required for masonry and other related work, including cleaning down on completion. Remove upon demobilization.

#### **4.4 SURFACE PREPARATION**

- 4.4.0 Vitrified Floor Tile Installation: Do not start floor tiling occurring in space where both floor and wall tile setting has been completed. Before spreading setting bed, establish borderline center wires in both directions to permit laying pattern with minimum of cut tiles. Lay floors without borders from centerline outward. Make adjustments at walls. Clean concrete sub-floor and moisten it without soaking. Sprinkle dry cement over surface. Spread setting bed mortar on concrete and tamp to assure good bond over the entire area then screed to smooth, level bed. Set average setting bed thickness at  $\frac{3}{4}$ " but not less than  $\frac{1}{2}$ ".

- 4.4.1 Wall: Scratch coat application as foundation coat shall be at most  $\frac{1}{2}$ ". While still plastic, deeply score scratch coat or scratch and cross-scratch. Protect scratch coat and keep reasonably moist within seasoning period. Use mortar for scratch floor coats, within one hour after mixing. Re-tempering of partially hardened mortar is not permitted. Set scratch coat be cured for at least two (2) days before starting the setting.

#### **4.5 CLEANING**

- 4.5.0 Protection: Protect work which may be damaged, stained or discolored during cleaning operations.
- 4.5.1 Pointing: Upon completion of masonry work, cut out defective mortar joints and tuck joints and all holes solidly with mortar.
- 4.5.2 Cleaning: Clean exposed masonry surface with clear water and stiff fiber brushes and rinse with clean water. Where stains, mortar or other soil remain, continue cleaning as follows: Clean masonry surfaces by scrubbing with warm water and soap and rinsing thoroughly with clean water. Restore damaged, stained and discolored work to its original conditions or replace with new work.

### **V STRUCTURAL STEEL**

#### **GENERAL**

#### **5.0 SCOPE OF WORK**

The work includes the fabrication, erection and painting of structural steel. All structural steel work shall be in accordance with the AISC latest "Specifications for the Design, Fabrication and Erection of Steel for Buildings". The contractor shall furnish plates, clip angles connections and other miscellaneous work required for the completion of the structure.



## 5.1 SUBMITTALS

- 5.1.0 Shop Drawings: Submit shop drawings of all structural steel for approval prior to fabrication. Include complete information necessary for the fabrication and erection of the structure's components, including location, type and size of bolts, welds, member sizes and lengths, connection details, blocks, copes and cuts. Use AWS standard welding symbols.
- 5.1.1 Erection Plan. Submit for record purposes. Indicate the sequence of erection, temporary shoring and bracing and a detailed sequence of welding including each welding procedure.
- 5.1.2 Manufacturer's Certificates of Conformance.
- a. Structural Steel
  - b. Bolts, nuts and washers
  - c. Shop painting materials
  - d. Welding electrodes and rods
  - e. Non-shrink grout
- 5.1.3 Welding: Submit descriptive data to illustrate the sequence of welding and each welding procedure to be used. Perform welding with qualified welders. The qualification of welders and the duration of qualification period shall be in accordance with the requirements of AWS. Any welder found to be producing unsatisfactory work even if he has passed qualification tests shall be immediately re-certified or replaced with a qualified welder.

## 5.2 REFERENCE STANDARDS

- 5.2.0 Comply with the latest edition of the following as applicable, unless otherwise specified or modified.
- a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 1978: Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges; Specification for Architecturally Exposed Structural Steel.
  - b. AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2.0-68; Standard Welding Code D1.1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC).
  - c. RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bolts.
  - d. STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual, Vol. 2; Systems and Specifications.
  - e. STEEL JOIST INSTITUTE-AMERICAN INSTITUTE OF STEEL CONSTRUCTION (SJI-AISC): "Standard Specifications for Open Web Steel Joists", and "Standard Specifications for Long Span Steel Joists", 1978 Editions.
  - f. AMERICAN IRON AND STEEL INSTITUTE (AISI): "Specifications for the Design of Cold-Formed Steel Structure Members, 1974".

## 5.3 PRODUCTS

- 5.3.0 Steel: Structural Steel ASTM A-440 with minimum yield strength,  $f_y=290$  mPa

5.3.1 BOLTS, NUTS AND WASHERS. Provide the following, unless otherwise indicated:

- a. Structural Steel
- b. Bolts: ASTM A325, Galvanized 78mmØ and below. A-490 1" Ø and above.
- c. Nuts: ASTM A325, Galvanized 78mmØ and below. A-490 1" Ø and above
- d. Washers: ANSI B 18.22.1, Type B

5.3.2 SHOP PAINTING

- a. Pre-treatment: Fed. Spec. TT-C-490, Type I, II or IV
- b. Primer Paint: Fed. Spec. TT-P-645

5.3.3 GALVANIZING

- a. Galvanizing Repair Paint: Mill Spec. DOD-P-21035

5.3.4 STRUCTURAL STEEL ACCESSORIES

- a. Welding Electrodes and Rods: AWS Code D1-1. E7018 Non-Shrink with minimum yield strength,  $f_y=290$  mPa
- b. Non-Shrink Grout: With no ASTM C827

## 5.4 EXECUTION

5.4.0 FABRICATION

5.4.0.0 Markings: Prior to erection, members shall be provided with a painted erection mark. In addition, connection parts assembled in the shop for reaming holes in field connections shall be match-marked with scratch and notch marks. Do not locate erection markings on areas to be welded or on surfaces of weathering steels that will be exposed to the completed structure. Do not locate match-markings in areas that will decrease member strength or cause stress concentrations.

5.4.0.1 Shop Painting: Shop paint structural steel except as modified herein. Do not paint steel surfaces embedded in concrete, galvanized surfaces, bearing surfaces, or surface within ½ inch of the toe of the welds prior to welding. Prior to assembly, paint surfaces that will be concealed or inaccessible after assembly. Do not apply paint in foggy or rainy weather when paint may be exposed to temperature below 40 degrees F within 48 hours after application, unless approved otherwise.

- a. Cleaning: SSPC SP6, except as modified herein, SSPC SP3 or SP6 for steel surfaces exposed in spaces above ceilings, attic spaces, crawl spaces and chases. In addition, maintain steel surfaces free from rust, dirt, oil, grease and other contaminants through final assembly.
- b. Pre-Treatment: Immediately after cleaning, provide the metal surfaces with one coat of Mil. Spec. DOD-P-15328 pre-treatment to dry film thickness of 0.3 to 0.5 mil. Fed. Spec. TT-C-490, pre-treatment may be applied to SSPC DP6 cleaned surfaces in accordance with Fed. Spec. TT-C-490.
- c. Priming: Immediately after the pre-treatment coating has dried, apply primer to a minimum dry film thickness of 2.0 mil. Primer paint shall

be zinc chromate conforming to Fed. Spec. TT-P-645. Repair damaged prime surfaces with an additional coat of primer.

5.4.0.2 Galvanizing: Provide as indicated or specified. Galvanize after fabrication where practicable.

a. Galvanizing Repair: ASTM A780, using galvanizing repair paint for galvanizing damaged by handling, transporting, cutting, welding or bolting. Do not heat surfaces that repair paint has been applied to.

5.4.0.3 Bearing Surfaces and Friction Type Joints: In the shop, coat with a temporary rust preventive. Remove coating, as recommended by the coating manufacturer, immediately prior to field erection.

5.4.0.4 Surface Finishes: ANSI B46.1 maximum surface roughness of 125 pin, pinholes and sliding bearing, unless indicated otherwise.

5.4.0.5 Erection. Except when load indicator bolts are used, calibration wrenches shall be calibrated every two (2) working days on a minimum of three (3) typical bolts of each diameter. Provide for drainage in structural steel.

a. Base Plates and Bearing Plates; after final positioning of members, provide full bearing under plates using non-shrink grout. Place non-shrink grout in accordance with the manufacturer's instructions.

b. Field Painting: After erection, the field bolt heads and nuts, field welds, and any abrasions in the shop coat shall be cleaned and primed with paint of the same quality as that used for the shop priming.

#### 5.4.1 SOURCE QUALITY CONTROL

Errors of Shop Drawing, Fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the contractor. However, the contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the contractor of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

#### 5.4.2 PRODUCT DELIVERY, HANDLING AND STORAGE

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

### 5.5 PROTECTION

The Contractor shall protect any existing work subject to damage during the installation of specified work and shall adequately protect specified work during installation. Finished work that is readily subject to damage by subsequent work or environmental conditions shall be protected by the Contractor immediately following the installation thereof.

### 5.6 FIELD MEASUREMENTS

Contractor shall make measurements in field to verify or supplement dimensions indicated and be responsible for accurate fit of specified work.

## 5.7 FIELD QUALITY CONTROL

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

## 5.8 CONNECTIONS

Connections and not detailed shall be designed in accordance with AISC "Manual of Steel Construction". Build connections into existing work. Do not tighten anchor bolts set in concrete with impact torque wrenches. Punch, sub punch and ream or drill bolt and pin holes.

## 5.9 WELDING: Provide AWS D1.1 qualified welders, welding operators and tacklers.

5.10.1 Removal of temporary welds, run-off plates and backing strips, remove only from finished areas

## 5.10 TESTS AND INSPECTIONS: Perform field tests, and provide labor, equipment and incidentals required for testing.

Welds:

5.10.0 Visual Inspection: AWS D1.1 Section 6: Provide AWS certified welding inspectors for fabrication/erection inspections and testing and verification inspection. Welding inspectors shall visually inspect and mark welds, including fillet weld end returns.

5.10.1 Non-Destructive Testing: AWS D1.1. Test locations shall be selected by the Engineer if more than 20 percent (20%) of welds made by a welder contain defects identified by testing, and then all welds made shall be tested by radiographs or ultrasonic testing, as approved by the Engineer. When all welds made by an individual welder are required to be tested, magnetic particle testing shall be used in areas inaccessible to either radiographic or ultrasonic testing. Retest defective areas after repair.

## 5.11 METAL PURLINS

Metal purlins shall be of high grade galvanized steel with minim tensile strength of 275 Mpa, 1.0mm in thickness.

# VI ARCHITECTURAL

## 6.0 FINISHES

### 6.0.0 WALLS FINISHES

- a. 300 x 600 Homogeneous Porcelain Tile
- b. Dry Wall Partition- Painted Finish Both Sides
- c. Counter at PDAO and OSCA

### 6.0.1 FLOOR FINISHES

- a. 300 x 600 Homogeneous Porcelain Tile
- b. 50mm thk. Concrete Topping with Plain Cement Straight to Finish.

- c. 25mm Concrete Topping (For Tiles)

## **6.0.2 CEILING FINISHES**

- a. 12mm Thk. MR Gypsum board including framing and accessories.

## **6.0.3 ROOFING WORKS**

- a. Rib type roofing Ga. 24, Pre-Painted long span with double sided insulation and complete accessories with flashing.
- b. 1" x 12" Fascia Board including Accessories, Painted Finish

## **6.0.4 WINDOWS**

Follow as per approved plan.

## **6.0.5 DOORS**

Follow as per approved plan.

## **6.0.6 PAINTING**

- a. All paints shall meet the required specifications and shall be delivered at the site in the original container. Use non Volatile Organic Compound (V.O.C.) paint or approved by the implementing agency and only accredited painters of the manufacturer shall execute the work to ensure the true origin and quality of paint and warranty of work.
- b. Concrete walls shall be treated with neutralizers. Exterior walls without wall veneer shall be applied with a primer before final coat. In general, rough surfaces of concrete, cabinets and woodworks surfaces shall be properly sandpapered and puffed before any application of paint.
- c. Epoxy Paint Finish (steel members)
- d. Latex paint Finish (interior masonry walls Stairs and Slab Soffit)
- e. Painting of Doors and jambs

## **6.0.7 HARDWARE**

- 1. Provide all rough hardware required for the construction of works: nails, straps, lag screws, etc.
- 2. Butt Hinges : Use Toyo Butt Hinges, 4" x 4" with bearings for panel door.
- 3. Locksets : For PVC plastic, wood and metal swing doors use ABLOY stainless mortise locksets with striker plate.

## **6.0.8 HANDRAILS AND RAILINGS**

Follow as per approved plan.

## **6.0.9 OTHER FINISHES**

- a. Countertop & Backsplash, 20mm thk. Granite Slab Finish (CDS)
- b. Undercountertop Cabinet including accessories, Painted Finish
- c. Rubberized Paint ( PWD Logo, Pedestrian Lane)

- d. Bike Racks, Painted Finish
- e. Fire Exit Stair Railing including accessories
- f. Catwalk Railing including accessories

#### **6.0.10 CLEAN-UP**

When the work is completed, the Contractor shall remove all temporary structures and surplus materials of every sort, restore what has been removed before, and leave the premises or site in as good condition as he had originally found them.

### **VII THERMAL CONTROL AND MOISTURE PROTECTION**

#### **7.0 VAPOR BARRIER**

Use 8 mils thick, 6 feet wide roll plastic vapor barrier laid over compacted base course at ground floor slab with 300mm minimum overlap prior to setting up of steel reinforcing bars. Submit samples for approval.

### **VIII FIRE PROTECTION**

#### **8.0 DRY-STANDPIPE SYSTEM**

##### **8.1 TESTS AND INSPECTIONS**

- 8.1.0 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.
- 8.1.1 The fire protection piping shall be tested under a hydrostatic pressure of not less than 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.
- 8.1.2 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.
- 8.1.3 Acceptance of the Standpipe System 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.

#### **SPRINKLER SYSTEM, AUTOMATIC, WET-PIPE TYPE SPECIFICATIONS**

##### **8.2 TESTS AND INSPECTIONS**

- 8.2.0 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.

- 8.2.1 The fire protection piping shall be tested under a hydrostatic pressure of not less than 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.
- 8.2.2 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.
- 8.2.3 Acceptance of the automatic sprinkler 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.

## **IX AIR CONDITIONING AND VENTILATING SYSTEM**

### **9.0 GENERAL REQUIREMENTS**

#### **9.0.0 Standards Compliance**

- a. Philippine Society of Mechanical Engineers Code
- d. Philippine National Building Code
- e. Philippine Electrical Code
- f. Philippine Plumbing Code
- g. Fire Code of the Philippines
- h. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- i. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
- j. National Fire Protection Association
- k. American Society of Testing Materials (ASTM)
- l. Air Moving and Conditioning Association (AMCA)
- m. American National Standard Institute (ANSI)
- n. National Electrical Manufacturing Association (NEMA)
- o. Underwriters Laboratory
- p. American Society of Mechanical Engineers (ASME)

#### **9.0.1 Scope of Work**

- a. Supply and Installation of Equipment and Materials. Complete.
- b. Supply and installation of pipes and fittings, valves and appurtenances, ducts, miscellaneous and consumables.

- c. Fabrication and installation of hangers and supports.
- d. Supply and installation of control, wiring from Split-Type Air-conditioner to circuit breakers and others to complete the control system.
- e. Testing, adjusting, balancing and commissioning.
- f. Provide shop drawings and two (2) sets of "As-Built" plans
- g. Furnishing of written one (1) year warranty of ventilation and air-conditioning system

#### 9.0.1 Submittals

- a. Within fifteen (15) days after award of contract, the mechanical contractor shall submit for engineer's approval, four (4) copies of all complete list of manufacturer's name of all materials he proposes to use.
- b. After approval of the above list and before purchase of any equipment or materials, the mechanical contractor shall submit to the engineer for approval, four (4) complete sets of detailed information consisting of manufacturer's bulletins, shop drawings and partial list of materials to be provided under this contract.
- c. The mechanical contractor shall assume the loss of and the entire responsibility of any change in the work as shown in the contract drawings which may be occasioned by approval of materials other than those specified.

### 9.1 PRODUCTS

#### 9.1.0 SPLIT TYPE AIR-CONDITIONER

- 9.1.0.0 Units shall be fitted with hermetically sealed rotary/reciprocating inverter compressors operating on R-410A/non CFC conforming to internationally accepted standards suitable for operation on 230V, 1Ø, 60 Hz, AC power supply capable of performing; cooling, dehumidifying, air circulating & filtering.

#### 9.1.1 CEILING-MOUNTED TYPE FANS

- 9.1.1.0 Units shall be ceiling-mounted type, direct driven and equipped with reverse flow prevention damper.
- 9.1.1.1 It shall have one-touch spring type louver for ease of cleaning and maintenance.
- 9.1.1.2 Fan casing shall be seam-welded and finished with corrosion resistant paint.
- 9.1.1.3 Fan shall have capacity and motor size as indicated in the plans.

#### 9.1.2 PROPELLER EXHAUST FANS

- 9.1.2.0 Units shall be propeller type, suitable for wall mounting, direct-driven and equipped with gravity shutters.
- 9.1.2.1 It shall have wall mounting collar and fan guard.
- 9.1.2.2 Units shall have statically and dynamically balanced propeller set on a deep venturi orifice. Unit shall be designed for continuous operation



and shall be permanently lubricated. Inherent motor overload protection shall be provided.

9.1.2.3 Unit shall be epoxy-coated and finished with corrosion resistant paint.

9.1.2.4 Fans shall have capacity speed and motor size as indicated on the plans.

9.1.2.5 Fans shall be provided with a remote selector switch.

### 9.1.3 EXHAUST BLOWER

9.1.3.0 Furnish and install supply exhaust blowers as shown and as indicated on the drawings, complete with motors, belt sheaves vibration isolators.

## 9.2 AIR CONDITIONING CONTROL SYSTEM

9.2.0 Operation of the air conditioning system shall be fully automatic. They shall be capable of maintaining at full or partial loads inside conditions of 25 C.D.B. (plus or minus 1.11°C) and 50% relative humidity (plus or minus 5% RH). Room thermostat shall control the operation of the compression through relays.

## 9.3 ELECTRICAL MATERIALS

### 9.3.0 ELECTRIC MOTORS

9.3.0.0 All motors shall operate at speed and electrical characteristics specified. They shall be guaranteed to operate at rated out-put with plus or minus ten (10) percent voltage variation at their terminals.

9.3.0.1 Motors 750 watts and above shall be 3-phase squirrel cage induction type, constant speed. Motors 560 watts and below shall be single-phase capacitor start induction run, or split type or shaded pole type as approved for the service.

9.3.0.2 Motor driving indoor equipment shall be of the open drip-proof construction. Motors driving outdoor equipment shall be of the totally enclosed fan cooled construction.

9.3.0.3 Motors driving equipment through pulleys and belts shall be provided with belt guards. The belt guards shall be made of heavy wire mesh or expanded metal set in a suitable frame covering the motor pulleys, belt and driving sheaves with access plates for tachometer reading.

### 9.3.1 MOTOR CONTROLERS

9.3.1.0 All motors starters shall be of magnetic type complete with overload and relays manufactured in accordance with NEMA standards. Enclosures shall be a suitable for the application

9.3.1.1 Starters for motor 3.73 kw and below shall be across the line type. Starters for motor above 3.73 Kw shall be of the reduced voltage type

9.3.1.2 Circuit breakers shall operate on the thermal magnetic principle. Aside from serving as disconnecting means, they shall afford protection for motor against phasing circuits faults. They shall be provided with enclosures suitable for the application

9.3.1.3 All motors shall be provided with an over and under voltage protection device.



## **9.3.2 WIRING**

- 9.3.2.0 All electrical power and control wiring necessary to be provided by the contractor shall be accomplished in accordance with the requirements of the electrical plans and specifications and shall conform to the Philippine Electrical Code. Wiring system including materials shall also comply with the specifications under the electrical division of the project

## **9.3.3 ELECTRICAL INTERLOCKS**

- 9.3.3.0 For motors requiring electrical interlocks, remote control or sequence starting control features, starters shall be equipped with necessary auxiliary contacts or terminals to provide the control feature required. A separate set of terminal is required for each control circuit. Such starter shall be provided with "man-off-auto" selection switches. Other starters shall have a start-stop push buttons mounted in covers.
- 9.3.3.1 Except where otherwise specified, enclosure shall be sheet metal with hinged cover, NEMA type I for the general purpose indoor application. Starters shall be arranged for floor or wall mounting as shown or as indicated.
- 9.3.3.2 Pilot light shall be provided for all starters where the equipment is not visible from the starter and for all remote control stations.
- 9.3.3.3 Where possible, relays and switches that are not part of the automatic control system shall be mounted on the same panel as the corresponding motor starter. All supports for the stating equipment shall be furnished and installed by the A/C contractor.
- 9.3.3.4 This contractor shall furnish detailed wiring diagram to those installing the electrical wire and furnish all information necessary to assure the proper connection, operation and control of motorized equipment including interlocks, automatic and safety control auxiliary circuit

## **9.3.4 PAINTING AND FINISHING**

Pipe hangers, duct hangers, uninsulated piping and other ferrous metal work that have not received factory painting shall be thoroughly cleaned and given two (2) coats of rust preventive paint.

## **9.4 EXECUTION**

### **9.4.0 EQUIPMENT**

- 9.4.0.0 Install all equipment as indicated and in accordance with the manufacturer's instructions. Provide clearance for inspection, repair, replacement and service. Provide conduits for wirings. Equip motors with unfused safety switches and overload protection in the operating disconnects switches and magnetic starters. Schedule and administer specified test.

#### **9.4.0.1 PIPING SYSTEM**

- 9.4.0.1.0 Install piping and piping components to ensure proper and efficient operation of the equipment and controls. Proper supports for the mounting of vibration isolators, stands, guides, anchors, clamps and brackets shall be provided. Piping connections to equipment shall; be arranged so that removal or equipment can be accomplished with the least amount of disassembly or removal of the piping system.

Allow sufficient pitch to ensure adequate drainage and venting. Hydrotest the piping system and conduct testing, adjusting and balancing of water flow to ensure efficient system performance

## **9.5 GUARANTEE AND SERVICE**

- 9.5.0 The air conditioning and ventilating system equipment and accessories furnished and installed under this part of the specifications shall be guaranteed for a period of one (1) year from the date of acceptance thereof, and materials and equipment furnished shall be free from any defects in the materials, workmanship and design.
- 9.5.1 At any time within one year after the acceptance and upon proper notice, the contractor shall rectify any and all deficiencies including replacements of parts or the entire units without additional cost of the owner, if such deficiencies have been caused directly or indirectly by inferior materials, faulty workmanship and/or defective design or parts.
- 9.5.2 Expendable items such as oil, refrigerant, belts, filters, etc. are included in this one-year guarantee. During the guarantee period, the contractor shall perform free monthly inspection and service and make adjustments if necessary for the proper and efficient operation of the system

## **X PLUMBING**

### **GENERAL**

#### **10.0 DESCRIPTION**

- 10.0.0 Applicable provisions of General Conditions govern work under this section.
- 10.0.1 All fittings, connections and piping embedded in concrete shall be subject to inspection by the Architect and/or his representative before covering and/or completion.
- 10.0.2 The contractor shall provide all items, articles, materials, operations of methods listed, mentioned or scheduled on the drawings and/or herein, including labor, materials and incidentals necessary and required for their completion.
- 10.0.3 The contract drawings and specifications are complementary to each other, and any labor or materials called for by either, whether or not called for by both, if necessary, for the successful operation of any of the particular type of equipment furnished and installed will be without additional cost to the owner.
- 10.0.4 Intent: It is not intended that the drawings shall show every pipe fitting.
- 10.0.5 All such items, whether specifically mentioned or not, or indicated in the drawings shall be furnished and installed, if necessary to complete the system in accordance with the best practice of the plumbing trade and to the satisfaction of the engineer and the owner.
- 10.0.6 The plumbing contractor is required to refer to all architectural, structural and electrical plans and specifications and shall investigate all possible interferences and conditions affecting his work.

#### **10.1 SCOPE OF WORK**

- 10.1.0 Work included under this section of this specification consists of furnishing all labor, tools and equipment, appliances and materials necessary for complete

installation, testing and operation of the plumbing and storm drainage system in accordance with the contract.

- a. Arrange for, obtain and bear the cost of necessary permits, bonds and fees, private or government shall be paid by the contractor.
- b. Soil, waste and vent pipe system within the building.
- c. Sanitary drainage system of the building and its connection to the nearest existing sewer line or drainage line.
- d. Storm drainage system and connection to the nearest storm drainage outlets.
- e. Cold-water distribution system and supply pipes to fixtures, hose bibs, inclusive of all valves, fittings and other accessories to complete the system.
- f. Supply of all plumbing fixtures, trims and accessories.
- g. Supply and installation of transfer pumps including valves and accessories under the supervision of the pump supplier.
- h. Supply and installation of overhead water tank, rainwater collector tank including valves and accessories under the supervision of the supplier.
- i. The contractor shall provide all necessary shop drawings and two (2) sets of As-Built Plans.
- j. Testing for leakage of all water supply and distribution system, drains, waste and venting system plus pressure testing for two (2) hours and disinfection of water distribution system.
- k. Water meter and MWSI connection as shown on plans and to be verified at the jobsite.
- l. Test run of transfer pumps.
- m. Excavation and backfilling in connection with the work shall be included.
- n. Furnishing of written one (1) year warranty of the plumbing system

## **10.2 SUBMITTALS**

10.2.0 Within fifteen (15) days after award of contract, the plumbing contractor shall submit for engineer's approval, four (4) copies of all complete list of manufacturer's name of all materials he proposes to use.

10.2.1 After approval of the above list and before purchase of any materials, the plumbing contractor shall submit to the engineer for approval, four (4) complete sets of detailed information consisting of manufacturer's bulletins, shop drawings and partial list of materials to be provided under this contract.

10.2.2 The plumbing contractor shall assume the loss of and the entire responsibility of any change in the work as shown in the contract drawings, which may be occasioned by approval of materials other than those specified.

## **10.3 APPLICABLE CODE AND STANDARD**

10.3.0 All plumbing works to be done and the sizes of pipes to be used shall be in accordance with the National Plumbing Code and the Plumbing Code of the Philippines.

- 10.3.1 The plumbing contractor shall verify the above paragraphs with each section of the specifications and coordinate his work so that the general contractor will understand clearly the intent of the work to be done.

## **10.4 PRODUCTS**

### **10.4.0 Description of Materials**

All materials to be used shall conform to the standards specified. Use of materials shall be governed by other requirements imposed on other section of these specifications. Materials shall be subject to tests necessary to ascertain their fitness if the engineer so requires.

#### **10.4.1 Alternate Materials**

Use of any material not specified in these specifications may be allowed, provided such alternate has been approved by the engineer, and provided further, that a test if required shall be done by an approved agency in accordance with generally accepted standards.

#### **10.4.2 Identification of Materials**

Each length of pipe, fittings, traps, fixtures and devices used in the storm drainage system shall have case, stamped or indelibly marked on it the manufacturer's trademark or name, type and classes of products when so required by the standards mentioned. All materials and equipment mentioned in these specifications, including all incidental items not specifically indicated, but required to complete the contract shall be new and free from defects. If damaged during the course of construction, it shall be repaired or replaced as directed by the Project Manager at no additional cost for the owner.

#### **10.4.3 Pipes and Fittings Schedule**

10.4.3.0 Cold Water Lines – Shall be PP-R, pipes DIN 8077, non-corrosive, Lear proof, taste and odour neutral, jointing method is socket fusion.

10.4.3.1 Drain, Waste and Vent – shall be unplasticized polyvinyl chloride (uPVC) conforming to ASTM D1784, Crown Pipes or approved equivalent.

10.4.3.2 Storm Drainage Lines – Pipe sizes 250mmØ and above shall be reinforced concrete pipe. Pipe sizes 200mmØ and below shall be non-reinforced concrete pipe.

#### **10.4.4 Flanges, Bolting and Gaskets and Union**

10.4.4.0 Provide flanges at flange connection to equipment and valves, slip-on or threaded as required.

Flanges shall conform to Class 300 black forged steel welding flanges 1/16" in raised faced to ASTM A-181 Grade 1. Bolts to ASTM A-193 regular hexagonal head unfinished, heavy semi-hexagonal nuts to ASTM A-194. Gasket shall be flat ring or full face "cranite" or equal.

10.4.4.1 Provide union at each threaded connection to equipment, and valves for pipe sizes up to two (2) inches in diameter. It shall be galvanized steel pipe Class 300 screwed galvanized malleable iron, ground joint, brass to iron seat.

#### 10.4.5 Valves

Valves up to and including two (2) inches shall be threaded ends, rough bodies and finished trimmings. Valves 2 ½ inches diameter and larger shall have iron [bodies, brass mounted and shall have either screws or flange ends.

10.4.5.0 Water meter shall be positive displacement type or any brand approved by MWSI or LWUA.

10.4.5.1 Hose Bibb shall made of male inlet threads, hexagon shoulder and three quarter inch hose connections. Provide one (1) extra gate valve on the vertical before the hose bib.

#### 10.4.6 Drains

10.4.6.0 Floor drains at toilets shall be gauge no. 22 with round strainer and plastic bucket. Pipe size 50mmØ.

10.4.6.1 Deck drain shall be ASA 10-12, pipe size 75mmØ.

10.4.6.2 Floor drain for genset room shall be ASA 40-9F.

10.4.6.3 Grating cover (to be supplied by civil contractor).

10.4.6.4 Area Drain/Catch Basin shall be 140kg/sq. cm. (2000psi) reinforced concrete with GI cutting cover.

10.4.6.5 Valve box shall be 140 kg/sq. cm. (2000psi) reinforced concrete with pre-cast RC cover.

10.4.6.6 Site storm drain shall be reinforced concrete for 250mmØ and above, 200mmØ and below shall be concrete pipe.

#### 10.4.7 Pipe Sleeves

10.4.7.0 Pipe sleeves shall be installed and properly secured in place at all points where pipes pass through masonry or concrete, except unframed floors on earth.

10.4.7.1 Pipe sleeves shall be of sufficient diameter to provide approximately one-quarter inch clearance around the pipe.

10.4.7.2 Pipe sleeve in walls and partitions shall be of wrought iron or steel pipe schedule 40. The pipe sleeves in concrete beams of concrete fireproofing shall be steel pipe schedule 40.

10.4.7.3 Pipe sleeves through floors shall be galvanized steel pipe schedule 40. Sleeve in pipe floor shall extend not less than one (1) inch and not more than two (2) inches above and the space around the pipe shall be packed with fiberglass insulation.

10.4.7.4 Pipe sleeves in footings shall be steel pipe and shall be not less than four (4) inches larger in diameter than the pipe to be installed.

#### 10.4.8 Hangers and Supports

Vertical run of pipe shall be supported by brace. Horizontal runs of pipe shall be supported by loop 4-sway hanger.

#### 10.4.9 Pumps Specifications

#### 10.4.9.0 Plumbing Fixtures and Accessories

10.4.9.1 Water closet shall be Tank type.

10.4.9.2 Lavatory shall be under the counter

10.4.9.3 Urinal shall be wall-hung.

### 10.5 EXECUTION

#### 10.5.0 Piping Installation

Piping shall be installed as shown on the drawings, as recommended by the manufacturer and as directed during installation, straight and direct as possible, forming right angles or parallel lines with building walls and other pipes and neatly spaced. Erect pipe risers plumb and true, parallel with walls and other pipes neatly spaced. All piping shall be supported or suspended on stands, clamps, hangers or equivalent or approved design. Supports shall be installed in such a manner to permit pipe free expansion and contraction while minimizing vibration.

#### 10.5.1 Plumbing System Test

The entire system of drains, waste and vent shall be tested. Water test shall be in accordance with the plumbing Code. Every portion of the system shall be tested to a hydrostatic pressure equivalent to at least 10-foot head water for a period of ½ hour before covering. All cold water lines shall be tested at 150 psi for a period of two (2) hours before covering. Defects disclosed by the test shall be repaired with new materials at the expense of the contractor.

#### 10.5.2 Fixture Installation

Support all fixtures securely in a neat workman-like manner on approved carriers and supports. The method of support for each fixture shall be approved type manufacturer's standard, except where fixture designations on the drawings indicate modifications. Install all fixtures level and flush with finish floors and partitions. All fixtures shall be provided with individual shut-off valve and equipped with a trap.

## XI ELECTRICAL WORKS

### 11.0 WORK INCLUDED

11.0.0 The work to be done under this Division comprises the furnishing of all tools, labor, equipment, fixtures and materials, unless otherwise herein specified, required to complete and leave ready for use the electrical system of the Proposed Improvement of District 3 Office, Barangay Marilag, Quezon City in accordance with this specification and accompanying drawings of materials and finishes.

11.0.0 The electrical contractor shall coordinate his work so that the general contractor and all other subcontractors will understand clearly the work to be done. The electrical contractor shall finish all electrical facilities and provision necessary for the installations and operations of other trades such as mechanical, air-conditioning, plumbing, sanitary and others.

11.0.1 All contractors and all companies or persons providing labor, materials or both for this project, are specifically referred to the General Conditions of the specifications, to the general contract plans, to all Divisions of specifications and to the various other contract documents, which may affect the completion of the contract work.



## **11.1 CODES, INSPECTIONS, PERMITS AND FEES**

11.1.0 The work under this contract shall be done according to the requirements of the latest edition of the Philippine Electrical Code, the rules and regulations of the Local Government Authorities of Quezon City and the requirements of Manila Electric Company. Nothing contained in this specification or shown on the drawings shall be construed as conflict with national and local ordinances or laws governing the installation of Electrical Works, and all such laws and ordinances are hereby made part of these specifications. The contractor is required to meet the requirements hereof.

11.1.1 All permits and electrical fees required for this work shall be obtained at the expense of the Contractor. The Contractor shall furnish the Architect or the Owner or the same maybe, a final certificate of electrical inspection and approval from the proper government authorities after completion of the work.

## **11.2 TEST**

11.2.0 The electrical contractor shall apply such test, replace or remedy all defective work and adjust such system as needed or as the Architect or the owner shall direct. He shall also instruct the proper use of the system and equipments to persons designated by the owner. Submit copies of test data and results, including test reports on instrument to the engineer.

## **11.3 MEASUREMENTS**

11.3.0 The Electrical Contractor shall procure from the Architect detailed drawings of those parts of the work not fully shown on the plans and he shall compare and verify with the Owner. Any lack of agreement shall be submitted at once to the Architect for adjustments.

## **11.4 SLEEVES AND FORMS FOR OPENINGS**

11.4.0 The Electrical Contractor shall provide and places all shelves, for piping penetrating floors, walls, partitions, etc. He shall locate all necessary slots and openings for his work and it shall be done at such time as not to delay the general contractor of the project.

## **11.5 LOCATION OF OUTLETS**

11.5.0 All Outlets shall be truly centered in panels and spaces provided thereof. Any discrepancy outlet location between the electrical plan and architectural plans shall be submitted to the Architect at once and verified before outlets are installed.

## **11.6 GROUNDINGS**

11.6.0 All metallic conduits, supports, cabinets and equipments shall be properly grounded and bonded by means of copper straps. The conduits of such system shall be grounded by connecting to the grounding rod.

11.6.1 All ground connection shall have clean outlet surfaces and shall be tinned and sealed while bolting. Unless otherwise specified, ground wire shall be installed in exposed conduits and connections made readily accessible for inspection. Connection shall not be made underground or concealed in floors or walls.

## **11.7 WIRING METHODS**

11.7.0 All wiring shall in general be installed inside standard conduits. All conduits shall be run embedded in concrete, underground but in concrete envelope, embedded

in hollow blocks partition, concrete slab, walls and roof above, between double wall wooden partitions if any, where the installation of concealed and/or embedded conduit wiring may be used, but only upon approval of the Owner's authorities concerned. Exposed conduits shall be rigid steel conduits unless otherwise specified.

## **11.8 GUARANTEE**

11.8.0 The Electrical Contractor shall guarantee his work for a period of one (1) year from the date of final acceptance by the owner except for particulars items specifically mentioned in these specifications.

11.8.1 The Electrical Contractor shall, without additional compensation for the period specified, replace any work materials or equipment furnished and installed by him under this contract, which develop defects except from ordinary wear and tear.

## **11.9 MATERIALS**

11.9.0 All materials shall be new and shall conform to the standards of **Underwriter's Laboratories, Inc.** In every case where such a standard has been established for the particular type of materials in question.

11.9.1 All materials on all system shall comply with the following specifications unless specified and all materials where not specified shall be of the best of their respective kind.

11.9.2 Samples on any materials shall be submitted for approval as required by the Architect.

## **11.10 WIRES**

11.10.0 All wires shall be copper, soft drawn and annealed, shall be 98% conductivity, shall be smooth and true of a cylindrical form and shall be within the actual size called for.

11.10.1 All wires and cables shall comply with the requirements of the **Underwriter's laboratories**, the **ASTM** and the **IPCEA** as to their particular usage.

11.10.2 Wires and cables for outdoor and indoor lighting and power system shall be moisture and Heat Resistant Thermoplastic with nylon insulated for 600volts working pressure type THHN unless otherwise noted on the plans or specified.

11.10.3 For lighting and power system, no wire smaller than 3.5mm<sup>2</sup> shall be used except for control leads.

11.10.4 All wires and cables shall be manufactured by a reliable manufacturing company acceptable to the Electrical Engineer of the owner.

## **11.11 CONDUITS**

11.11.0 The conduit system shall consist of the following

### **1. Intermediate Metal Conduit ( IMC ) :**

They shall be of standard sizes and weight, mild steel hot dipped galvanized with inside enamel or epoxy coating and acceptable to the Electrical Engineer of the Owner.

2. Polyvinyl chloride conduit ( PVC )

They shall be of standard size and weight, made of polyvinyl chloride, extruded, heavy wall, rated for 90-degree centigrade cable, schedule 40.

3. Limitations of use shall be as follows:

- a. As per requirement of the latest edition of **PEC** and/or **NEC**.
- b. Not permitted where subject to mechanical damage.

11.11.1 All conduits shall be of true cylindrical form and shall be within the actual size called for.

11.11.2 No conduits shall be used in any system smaller than 15-mm electrical trade size, not shall have more than four 90 degrees bend in any one run, and where necessary, hand hole and pull boxes shall be provided.

11.11.3 No wires shall be pulled in any conduit until the conduit system is complete in all details, In case of underground work, until concrete envelope or masonry has been completed in every detail,. In case of concealed work, until rough plastering has been completed.

11.11.4 The ends of all conduits shall be tightly plugged to exclude plaster dust sand and soil including moisture while the renovation of the perimeter is in the process.

**11.12 OUTLET BOXES AND FITTINGS**

11.12.0 At all outlets of every kind, for all systems, there shall be provided a suitable fittings which shall be either a box or other device especially designed to receive the type of fitting to be mounted thereon.

11.12.1 The Contractor shall consult with the Architect as to the nature of various fittings to be used before installing his outlet fittings and shall conform strictly in the use of fittings so that the work when completed will be finished design.

**11.13 SWITCHES**

11.13.0 Local lighting switches shall be flush type, heavy duty, 15 ampere size 250 volts, bakelite case, quick connect terminal. Outdoor lights shall be automatically operated by means of photo switch and manual selection. Manually switch by means of breaker switch inside the lighting panel.

**11.14 RECEPTACLES**

11.14.0 Standard receptacles shall be 10-ampere size 250volts, parallel slots, duplex, flush mounted composition case, side wired with the insulated mounting yoke, If weatherproof wall plate are required, standard factory made metal waterproof plate shall be provided by reliable manufacturer.

**11.15 PLATES**

11.15.0 All switches and receptacles plates shall be bakelite plastic, ivory-colored or as directed by the Architect

**11.16 PANEL BOARDS AND CABINETS**

11.16.0 Panel boards for outdoor lightings shall conform to the indications of the drawings with respect to supply characteristics rating of main lug or main circuit

breaker, main magnetic contactor, number and sizes of branch circuit breakers. Factory wired control wirings with terminal block connection for external leads.

- 11.16.1 Lighting and power panel board wall mounted shall consist of a factory complete dead front assembly of back plan, main busses, over current and switching units, sheet metal cabinet and trim. Cabinet shall be fabricated from code gauge galvanized sheet metal with cover capped and fastened.
- 11.16.2 Panel boards and trim shall be suitable for the type of mounting shown on the drawings. The inside and outside of the panel boards cabinet and trim shall be factory painted and having two (2) coats of rust proof prime coat and one finish shop of gray enamel paint.
- 11.16.3 All cabinets and enclosure shall be general purpose, NEMA type 1 for indoor installation, except where specifically noted on plans for outdoor use shall be rain tight and dust type NEMA 3R type enclosure.
- 11.16.4 All circuit breakers with frame size above 100A shall have minimum interrupting capacity of 18 KAIC at 230 volts and frame size 100A and below shall have minimum interrupting capacity of 10KAIC at 230 volts. All circuit breakers shall be molded case, bolt on type with thermal magnetic trip elements. Number of poles, trip coil rating and frame size shall be as indicated on plans.
- 11.16.5 Cardholder on inside of door with clear plastic cover and complete typewritten schedule of panel branch circuit shall be provided. Leave spare circuit blank.
- 11.16.6 Local panel boards and switchgear shall be made by reliable manufacturer.
- 11.16.7 Submit samples and or product description of panel board to be used for approval prior to ordering and installation

## **11.17 ELECTRIC SERVICE**

- 11.17.0 The electric service shall be three-phase, 3 wire, 220volts, 60 hertz. The sizes of service entrance conductor and conduit are shown in the plans.
- 11.17.1 The electrical contractor shall inspect the site, consult with Meralco and check the orientation of the proposed service entrance before commencing work to avoid field problems.

## **11.18 LIGHTING SYSTEM**

- 11.18.0 The lighting system shall be complete in every respect all indicated on the plans or as indicated and specified in the Architectural plans. Exact fixture location shall be determined.
- 11.18.1 All wiring shall be installed in conduits, and in general shall be concealed. Buried underground in concrete encasement and/or embedded in concrete.
- 11.18.2 Mounting Height of devices shall be as indicated in the plans and/or subject to Architect's approval prior to installations as follows :

Local switches	-	1.4 above finish floor line
Receptacles	-	0.3 above finish floor line

## **11.19 DISTRIBUTIONS FEEDERS**

- 11.19.0 Distribution voltage shall be 220volts, Single-phase, 3 wire. Feeder conductor and raceway shall be installed as shown on drawings and no change in size

shall be made without written consent of the Architect. Feeder conductors shall be continuous, and without splices between terminals, when feeders are run in multiple, they shall be exactly of the same length to avoid **unbalanced division of the current**.

## **11.20 CONNECTORS AND INSULATION**

- 11.20.0 Use solderless mechanical pressure type lugs, copper connectors for splicing wires greater than no 8mm.sq. All splices shall be properly insulated using #M brand rubber tape and plastic electrical tape. Application of two tapes shall be equivalent to the insulation of wire concerned, edges to provide smooth surfaces before taping.

## **11.21 BRANCH CIRCUITS**

- 11.21.0 The drawings indicate the general methods of installation of all circuit wirings and the power lighting outlets which are to be supplied from this circuit. Branch circuit raceways shall be run from outlets to panel boards as direct as the ground and level condition will allow. Circuit allocations shall be as indicated on the drawings. Where it becomes necessary to connect any outlet to the circuit other than the one shown on the drawings, this shall be done without extra charge and only upon written consent of the Architect. No wire smaller than 3.5mm sq. shall be used for any lighting or power branch circuit. All lighting outlet shall be supplied from 2-wire single phase circuits. Number of wires for other outlets shall be as indicated on the drawings.

## **11.22 MOTOR CONNECTIONS**

- 11.22.0 Connect the motor starting devices for all motors, except where otherwise specifically provided for under other contracts. Furnish all necessary connections between controllers and motors in conduit, and leave motor ready to start. The power supply leads to the motor from the controller shall be the same as the feeder indicated on the drawings, except for six terminal lead motor where wye-delta starting method is being applied.
- 11.22.1 Other trades, i.e. mechanical contractor, except as otherwise noted or specified will supply and deliver all controllers and shall erect and connect up safe complete.
- 11.22.2 The Electrical Contractor or trade people shall be held responsible as far as power supply to the controller is concerned. He shall ascertain the exact location of the motor controller and motors from other trades before installing the circuit work.

## **11.23 RECORD DRAWINGS AND AS BUILT PLANS**

- 11.23.0 The Electrical Contractor shall keep an active record of the actual installation works during the progress job. The shall become the reference for the preparation of the As-Built Plans which shall include all pertinent information, complete in all aspects of the actual installations, all new information not originally shown in the contract drawings.
- 11.23.1 The As-Built Plans shall be prepared by the Electrical Contractor at his expense and shall be submitted to the Architect and the Engineer for approval upon the completion of the work. The approval of the As-Built drawings shall be a pre-requisite for the final acceptance of the electrical works.
- 11.23.2 Two (2) copies of the As-Built drawings, signed and sealed by the **Electrical Contractor's Professional Electrical Engineer**, shall be submitted to the Architect and Engineer consultants. Original tracing/ reproducible copy shall also be submitted.

## **XII AUXILIARY WORKS**

### **12.0 WORK INCLUDED**

- 12.0.0 The work to be done under this Auxiliary System comprises the furnishing of all tools, materials, labor & installation of equipment, unless otherwise herein specified, required to complete and leave ready for use the HD Closed Circuit Television (CCTV) and Security System, Voice & Data System including Local Area Network (LAN) and a fully addressable Fire Detection and Alarm System (FDAS) for Proposed Improvement of District 3 Office, Barangay Marilag, Quezon City, in accordance with this specification and accompanying drawings.
- 12.0.0 The contractor for the electronic works (auxiliary systems Contractor) shall coordinate his work so that the general contractor and all other subcontractors will understand clearly the work to be done.
- 12.0.1 All contractors and all companies or persons providing labor, materials or both for this project, are specifically referred to the General Conditions of the specifications, to the general contract plans, to all Divisions of specifications and to the various other contract documents, which may affect the completion of the contract work.

### **12.1 CODES, INSPECTIONS, PERMITS AND FEES**

- 12.1.0 The work under this contract shall be done according to the requirements of the latest edition of the Philippine Electronics Code, the rules and regulations of the Local Government Authorities of Quezon City and the requirements of the telecommunications service provider. Nothing contained in this specification or shown on the drawings shall be construed as conflict with national and local ordinances or laws governing the installation of Electronic Works, and all such laws and ordinances are hereby made part of these specifications. The contractor is required to meet the requirements hereof.
- 12.1.1 All permits and fees required for this work shall be obtained at the expense of the auxiliary system Contractor. The auxiliary system Contractor shall furnish to the Architect/Engineer or the Owner or the same maybe, a final certificate of electronic inspection and approval from the proper government authorities after completion of the work.

### **11.2 TEST**

- 11.2.0 The auxiliary system Contractor shall test all installed systems, replace or remedy all defective works and adjust such system as needed or as the Architect or the Owner shall direct. He shall also conduct meetings with the technical people selected by the Owner, and properly discuss the proper operation and maintenance of all auxiliary system installed.

### **11.3 MEASUREMENTS**

- 11.3.0 The auxiliary systems Contractor shall procure from the Architect/Engineer detailed drawings of those parts of the work not fully shown on the plans and he shall compare and verify with the Owner. Any lack of agreement shall be submitted at once to the Architect/Engineer for adjustments.

### **11.4 SLEEVES AND FORMS FOR OPENINGS**

- 11.4.0 The auxiliary systems Contractor shall provide and places all sleeves, for piping penetrating floors, walls, partitions, etc. He shall locate all necessary slots and openings for his work and it shall be done at such time as not to delay the general contractor of the project.

**Note:** *In contrast between these Technical Specifications and the approved Plans issued to the Contractor, the approved Plans shall prevail. See also the approved program of works. In case of doubt, for clearer outlooks consult the assigned Architect/Engineer.*

Prepared by:

PABLO S. CABUGAWAN JR.

## ***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 IMPROVEMENT OF DISTRICT 3 MINI CITY HALL  
**LOCATION :** BARANGAY MARILAG, DISTRICT 3, QUEZON CITY  
**PROJECT NO. :** 21 - 00070  
**DURATION :** Two Hundred Seventy (270) Calendar Days

***BREAKDOWN OF COST***

ITEM NO	WORK DESCRIPTION	MATERIALS COST	LABOR COST	INDIRECT COST
I	GENERAL REQUIREMENTS	P	P	P
II	SITE WORKS			
III	CIVIL WORKS / STRUCTURAL WORKS			
IV	ARCHITECTURAL WORKS			
V	PLUMBING WORKS			
VI	ELECTRICAL WORKS			
VII	AUXILIARY WORKS			
VIII	MECHANICAL WORKS			
IX	UTILITIES & ANCILLIARY WORKS			

**TOTAL COST**

LUMP SUM BID IN WORDS : \_\_\_\_\_  
 \_\_\_\_\_

Contractor : \_\_\_\_\_

AGGREGATE COST
P

P

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**BILL OF QUANTITIES**  
(Building Construction/Rehabilitation Project)

**PROJECT TITLE :** PROPOSED IMPROVEMENT OF DISTRICT 3 MINI CITY HALL

**LOCATION :** BARANGAY MARILAG, DISTRICT 3, QUEZON CITY

**PROJECT NO. :** 21 - 00070

**DURATION :** Two Hundred Seventy (270) Calendar Days

**SCOPE OF WORKS:**

- General Requirements include billboard, cleaning, hauling and disposal of construction materials and debris, construction safety and health, scaffolding, temporary facilities and utilities and temporary enclosure around the construction area.
- Site Works include demolition/removal works, relocation of doors and windows, layout and staking, excavation, gravel bedding and backfill and compaction.
- Civil/Structural works include concrete works, masonry works, metal works and thermal and moisture protection.
- Architectural works include installation of floor and wall tiles, installation of partition and finishes, installation of framings and ceiling boards, installation of doors, jambs and accessories, repainting of whole structure , logo and letterings.
- Sanitary/plumbing works include roughing-ins, installation of equipment, fixtures and accessories.
- Electrical works include installation of roughing-ins, wirings, devices, fixtures, panelboard and accessories.
- Auxiliary works include installation of Fire Detection & Alarm System, Voice & Data System, and Closed Circuit Television (CCTV) & Security System.
- Mechanical works include installation of ventilation and airconditioning system and replacement of call button of the existing elevator, and maintenance of passenger elevator & elevator shaft.
- All necessary testing and commissioning shall be performed in accordance to standards.
- Item(s) not included in the scope:
- 10.1 Installation of gutter at second floor.

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	piece	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	4	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	1,703	sq.m.		
	Temporary Electrical and Water Facilities	270	day		
	Temporary Enclosure Around the Construction Area (h=2.4m)	29	l.m.		
				<b>Direct Cost I</b>	<b>₱</b>
<b>II</b>	<b>SITE WORKS</b>				
A	Demolition/Removal Works				
	Concrete Breaking (Ground Floor slab and wheel stopper)				
	Ground Floor slab	4	cu.m.	₱	₱
	Ground Floor wheel stopper	1	cu.m.		
	Removal of Existing Window (Ground Floor)	5	sq.m.		
	Removal of Existing Door and Door Jambs				
	Second Floor	2	set		
	Third Floor	4	set		
	Fourth Floor	1	set		
	Fifth Floor	2	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Sixth Floor	1	set		
	Seventh Floor	1	set		
	Removal of Existing Drywalls				
	Second Floor	34	sq.m.		
	Third Floor	67	sq.m.		
	Fourth Floor	31	sq.m.		
	Fifth Floor	111	sq.m.		
	Sixth Floor	33	sq.m.		
	Removal of Existing Glass Wall Panel (Seventh Floor)	36	sq.m.		
B	Layout and Staking	30	sq.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
C	Excavation for Structures				
	Wall Footing (Ground Floor CR and Ramp)	17	cu.m.		
	Slab-on-fill (Ground Floor CR)	6	cu.m.		
				Subtotal	₱
D	Gravel Bedding	3	cu.m	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
E	Backfill and Compaction	11	cu.m.		
				Subtotal	₱
				Materials Cost II	₱
				Labor Cost II	
				Direct Cost II	₱
III	<b>CIVIL WORKS / STRUCTURAL WORKS</b>				
A	Concreting				
	Ready Mix 28 MPa, 19mm Gravel, @ 28 days				
	Suspended Slab	5	cu.m.	₱	₱
	Ready Mix 21 MPa, 19mm Gravel, @ 28 days				
	Wall Footing	6	cu.m.		
	Ramp	4	cu.m.		
	Slab-on-Fill	4	cu.m.		
	On Site Mix 21 MPa, 19mm Gravel, @ 28 days				
	Stiffener Beam/Column ( door and window header)	1	cu.m.		
B	Reinforcing Bars				
	Grade 40 Reinforcing Steel Bar with G.I. Tie Wire #16				
	10mm Ø Reinforcing Steel Bar				
	Wall Footing	168	kg		
	Ramp	51	kg		
	Slab on Fill	82	kg		
	Suspended Slab	285	kg		
	Stiffener Beam/Column	71	kg		
	12mm Ø Reinforcing Steel Bar				
	Suspended Slab	303	kg		
	Stiffener Beam/Column	113	kg		
C	Steel Decking				
	Steel Deck, 80,000psi, 1.0mm thick with complete accessories	13	sq.m.		
	1" Styro Foam with Structural Sealant	2	sq.m.		
D	Formworks				
	Wall Footing	27	sq.m.		
	Ramp	3	sq.m.		
	Suspended Slab	40	sq.m.		
	Stiffener Beam/Column	16	sq.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
E	Scaffolding and Shoring				
	Suspended Slab	13	sq.m.		
	Stiffener Beam	29	sq.m.		
F	Masonry Works				
	100mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering	290	sq.m.		
	Plastering of Door and Window Opening	16	sq.m.		
G	Thermal and Moisture Protection				
	Cementitious Capillary Type Waterproofing (Ground to Sixth Floor CR)	65	sq.m.		
H	Metal Fabrication				
	Fire Exit				
	Stair Railing (50mm Ø BI Pipe & 16mm Square Bar)	57	sq.m.		
	50mm x 250mm x 7.9mm Metal Channel	2,325	kg		
	250mm x 500mm x 25mm Base Plate	619	kg		
	100mm x 250mm I-Beam	1,900	kg		
	4.2mm Checkered Plate (steps)	1,211	kg		
	4.2mm Checkered Plate (landing)	2,770	kg		
	25mm Ø x 150mm Long Dyna Bolt	96	piece		
	Stair Guard Railing				
	50mm x 50mm x 3mm thick Tubular Louver	3,129	kg		
	75mm x 75mm x 3mm thick Tubular Louver	410	kg		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Catwalk Framing				
	3/16" MS Plate	1,674	kg		
	50mm x 100mm x 6.25mm Metal Channel	1,051	kg		
	50mm Ø Stainless Steel Railing	168	kg		
	25mm x 4mm thick Tubular Bar	855	kg		
	50mm x 7.9mm thk Flat Bar	102	kg		
	20mm Ø x 100mm Long Dyna Bolt	35	piece		
	PWD Railing				
	Stainless Steel Ramp Railing including Accessories	10	sq.m.		
	New Slab Framing				
	50mm x 150mm x 6.25mm Metal Channel	71	kg		
	25mm Ø x 150mm Long Dyna Bolt	14	piece		
	Bike Racks, Painted Finish	1	set		
	Miscellaneous & Consumables				
	Acetylene Tank Refill	3	tank		
	Assorted Metal Drill Bit	10	piece		
	Cut Off Blade	3	piece		
	Grinding Disc Metal	5	piece		
	Oxygen Tank Refill	6	tank		
	Welding Rod	20	box		
				<b>Materials Cost III</b>	<b>₱</b>
				<b>Labor Cost III</b>	
				<b>Direct Cost III</b>	<b>₱</b>
<b>IV</b>	<b>ARCHITECTURAL WORKS</b>				
<b>A</b>	<b>Floor Finishes</b>				
	300mm x 600mm Non-skid Porcelain/Homogeneous Floor Tile	56	sq.m.	₱	₱
	(Comfort Rooms)				
	Floor topping for preparation of tiles	56	sq.m.		
<b>B</b>	<b>Wall Partitions and Finishes</b>				
	300mm x 600mm Homogeneous/Porcelain Tile (Comfort Rooms)	180	sq.m.		
	6mm thick Double Wall Fiber Cement Board including Metal Framing	254	sq.m.		
	2.0m x 10mm thick Pressure Phenolic Laminated Toilet Partition	9	sq.m.		
	Counter at PDAO and OSCA (Marine Plywood Laminated Finish with clear Acrylic Partition)	7	sq.m.		
	Frosted Strips (for existing glass window beside elevator)	56	sq.m.		
<b>C</b>	<b>Ceiling Finishes</b>				
	12mm thick Moisture Resistant Gypsum Board including Metal Framing	56	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
<b>D</b>	<b>Installation of Doors and Windows</b>				
	Doors				
	D1 - 0.8m x 2.1m Wooden Panel Door with Louvers	8	set	₱	₱
	D2 - 0.8m x 2.1m Metal Door with Metal Louvers	6	set		



ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	D3 - 0.9m x 2.1m Wooden Panel Door	5	set		
	D4 - 1.8m x 2.1m Double Wooden Panel Door	1	set		
	D5 - 0.9m x 2.1m Wooden Panel Door	1	set		
	D6 - 0.6m x 2.1m Wooden Panel Door	4	set		
	D7 - 0.6m x 2.1m JIB Wooden Panel Door	2	set		
	D8 - 1.8m x 2.1m Metal Door with Metal Louvers equipped with latches for meralco padlock and danger sign	1	set		
	D9 - 1.0m x 2.1m Metal Door with Metal Louvers equipped with latches for meralco padlock and danger sign	1	set		
	D10 - Cubicle Doors with complete accessories	3	set		
	D11 - Shower Doors with complete accessories	4	set		
	Door Jambs				
	D1 - 0.8m x 2.1m Wooden Door Jamb	8	set		
	D2 - 0.8m x 2.1m Metal Door Jamb	6	set		
	D3 - 0.9m x 2.1m Wooden Door Jamb	5	set		
	D4 - 1.8m x 2.1m Wooden Door Jamb	1	set		
	D5 - 0.9m x 2.1m Wooden Door Jamb	1	set		
	D6 - 0.6m x 2.1m Wooden Door Jamb	4	set		
	D8 - 1.8m x 2.1m Metal Door Jamb	1	set		
	D9 - 1.0m x 2.1m Metal Door Jamb	1	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hardwares and Accessories				
	Door Hinge, Heavy Duty	93	piece		
	Door Knob, Lever Type	26	piece		
	Gate Latches, Heavy Duty (Power house)	2	piece		
	Invisible Latches for JIB Door, Heavy Duty	2	piece		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Relocation of Existing Glass Doors				
	Ground Floor	2	set	₱	₱
	Second Floor	1	set		
	Fourth Floor	1	set		
	Fifth Floor	2	set		
	Sixth Floor	1	set		
	Relocation of Existing Window (Ground Floor)	1	set		
				Subtotal	₱
				Materials Cost D	₱
				Labor Cost D	
				Subtotal D	₱
E	Painting Works				
	Elastomeric Paint Finish (Exterior Walls)	1,744	sq.m.	₱	₱
	Epoxy Enamel Paint Finish (Fire exit, Stair Guard Railing and Catwalk)	460	sq.m.		
	Flat Latex Paint Finish				
	Interior Walls	3,442	sq.m.		
	Ceiling	56	sq.m.		
	Rubberized Paint (PWD Logo and Pedestrian Lane)	9	sq.m.		
	Quick Dry Enamel Silver (Electrical Works)	7	sq.m.		
F	Logos, Letterings and Miscellaneous				
	Stainless Steel Quezon City Logo Signage with Neon Backlights	1	unit		
	250mm Stainless Steel Lettering "DISTRICT 3 MINI CITY HALL"	21	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				Materials Cost IV	₱
				Labor Cost IV	
				Direct Cost IV	₱
V	PLUMBING WORKS				
A	Sewer Line / Storm Drainage System				
	50mm Ø PVC Pipe with Hub	27	piece	₱	₱
	75mm Ø PVC Pipe with Hub	11	piece		
	100mm Ø PVC Pipe with Hub	42	piece		
	50mm Ø x 50mm Ø Wye	6	piece		
	75mm Ø x 50mm Ø Wye	4	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75mm Ø x 75mm Ø Wye	3	piece		
	100mm Ø x 50mm Ø Wye	49	piece		
	100mm Ø x 75mm Ø Wye	5	piece		
	100mm Ø x 100mm Ø Wye	9	piece		
	50mm Ø x 50mm Ø Tee	76	piece		
	75mm Ø x 50mm Ø Tee	6	piece		
	100mm Ø x 50mm Ø Tee	10	piece		
	100mm Ø x 100mm Ø Tee	6	piece		
	50mm Ø x 50mm Ø PVC 1/4 Bend	77	piece		
	75mm Ø x 75mm Ø PVC 1/4 Bend	9	piece		
	100mm Ø x 100mm Ø PVC 1/4 Bend	32	piece		
	50mm Ø x 50mm Ø PVC 1/8 Bend	116	piece		
	75mm Ø x 75mm Ø PVC 1/8 Bend	13	piece		
	100mm Ø x 100mm Ø PVC 1/8 Bend	60	piece		
	50mm Ø x 32mm Ø PVC Tap Tee	36	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø PVC Cleanout	4	piece		
	75mm Ø PVC Cleanout	4	piece		
	100mm Ø PVC Cleanout	20	piece		
	150mm Ø PVC Cleanout	2	piece		
	50mm Ø PVC P-Trap	36	piece		
B	Waterline System				
	20mm Ø PPR Pipe	31	piece		
	25mm Ø PPR Pipe	8	piece		
	32mm Ø PPR Pipe	15	piece		
	40mm Ø PPR Pipe	6	piece		
	20mm Ø x 20mm Ø Equal Tee	15	piece		
	25mm Ø x 25mm Ø Equal Tee	10	piece		
	25mm Ø x 20mm Ø Unequal Tee	4	piece		
	32mm Ø x 20mm Ø Unequal Tee	8	piece		
	32mm Ø x 25mm Ø Unequal Tee	8	piece		
	40mm Ø x 32mm Ø Unequal Tee	3	piece		
	25mm Ø x 20mm Ø Female Threaded Tee	17	piece		
	20mm Ø x 15mm Ø Female Threaded Tee	8	piece		
	20mm Ø PPR Male Adaptor	4	piece		
	25mm Ø Male Adaptor	10	piece		
	32mm Ø Male Adaptor	6	piece		
	20mm Ø End Cap	17	piece		
	25mm Ø End Cap	8	piece		
	20mm Ø x 20mm Ø PPR 90° Elbow	43	piece		
	25mm Ø x 25mm Ø PPR 90° Elbow	26	piece		
	32mm Ø x 32mm Ø PPR 90° Elbow	49	piece		
	40mm Ø x 40mm Ø PPR 90° Elbow	6	piece		
	20mm Ø Union Patente	2	piece		
	25mm Ø Union Patente	5	piece		
	32mm Ø Union Patente	3	piece		
	20mm Ø PPR Coupling	41	piece		
	25mm Ø PPR Coupling	18	piece		
	32mm Ø PPR Coupling	14	piece		
	40mm Ø PPR Coupling	5	piece		
	25mm Ø x 20mm Ø PPR Reducer	3	piece		
	32mm Ø x 20mm Ø PPR Reducer	7	piece		
	32mm Ø x 25mm Ø PPR Reducer	8	piece		
	40mm Ø x 32mm Ø PPR Reducer	4	piece		
	50mm Ø x 40mm Ø PPR Reducer	4	piece		
C	Valves and Appurtenances				
	20mm Ø PPR Gate Valve	2	piece		
	25mm Ø PPR Gate Valve	5	piece		
	32mm Ø PPR Gate Valve	3	piece		
D	Pipe Hangers and Supports				
	For Horizontal pipes less than 50mm Ø (2m interval)	40	l.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	For Horizontal pipes greater than Ø (1m interval)	52	l.m.		
E	Plumbing/Sanitary Fixtures and Accessories				
	Bidet, Stainless Heavy Duty (Water Efficient)	9	set		
	Grease Trap, 5gpm	2	set		
	Kitchen Sink, Single Tub	2	set		
	Kitchen Sink Faucet, Lever-type, Stainless Heavy Duty	2	piece		
	Lavatory, Countertop	4	set		
	Lavatory, Wall Hung	6	set		
	Lavatory Faucet, Lever-type, Stainless Heavy Duty, (Water Efficient)	10	piece		
	Shower Set, Telephone type, Stainless	4	set		
	Urinal, Flush-Valve (Water Efficient)	8	set		
	Water Closet, Tank Type (Water Efficient)	9	set		
F	Accessories & Hardwares				
	Angle Valve, Stainless	24	piece		
	Angle Valve, Stainless Two Way	9	piece		
	Facial Mirror, 450mm x 600mm x 6mm	9	piece		
	Flexible Hose, Stainless	29	piece		
	Floor Drain, 100mm x 100mm, Stainless w/ Detachable Strainer	20	piece		
	Stainless Steel Pipe, 50mm Ø (Hand Grab for PWD)	28	l.m.		
	Soap Holder, Ceramic	8	piece		
	Toilet Tissue Holder, Ceramic	2	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
G	Miscellaneous & Consumables				
	400cc Solvent Cement	12	can		
	All-Around Sealant	2	can		
	Hacksaw Blade	5	piece		
	Teflon Tape	33	roll		
	Waste Cloth	2	kg		
				<b>Materials Cost V</b>	<b>₱</b>
				<b>Labor Cost V</b>	
				<b>Direct Cost V</b>	<b>₱</b>
VI	<b>ELECTRICAL WORKS</b>				
A	Pipes & Fittings				
	20mm Ø IMC Pipe	12	piece	₱	₱
	25mm Ø IMC Pipe	15	piece		
	32mm Ø IMC Pipe	42	piece		
	50mm Ø IMC Pipe	38	piece		
	65mm Ø IMC Pipe	27	piece		
	100mm Ø IMC Pipe	19	piece		
	20mm Ø PVC Pipe	98	piece		
	25mm Ø PVC Pipe	33	piece		
	20mm Ø IMC Coupling	40	piece		
	25mm Ø IMC Coupling	17	piece		
	32mm Ø IMC Coupling	10	piece		
	50mm Ø IMC Coupling	19	piece		
	65mm Ø IMC Coupling	8	piece		
	100mm Ø IMC Coupling	24	piece		
	20mm Ø IMC Elbow	20	piece		
	25mm Ø IMC Elbow	13	piece		
	32mm Ø IMC Elbow	6	piece		
	50mm Ø IMC Elbow	12	piece		
	65mm Ø IMC Elbow	6	piece		
	100mm Ø IMC Elbow	9	piece		
	20mm Ø PVC Elbow	50	piece		
	25mm Ø PVC Elbow	20	piece		
	20mm Ø IMC Locknut & Bushing	40	pair		
	25mm Ø IMC Locknut & Bushing	42	pair		
	32mm Ø IMC Locknut & Bushing	20	pair		
	50mm Ø IMC Locknut & Bushing	40	pair		
	65mm Ø IMC Locknut & Bushing	16	pair		
	100mm Ø IMC Locknut & Bushing	30	pair		
	20mm Ø PVC Adaptor	312	piece		
	25mm Ø PVC Adaptor	20	piece		
	20mm Ø PVC Flexible Tube	100	l.m.		
	25mm Ø PVC Flexible Tube	50	l.m.		
	20mm Ø PVC Locknut & Bushing	312	pair		
	25mm Ø PVC Locknut & Bushing	20	pair		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm x 100mm PVC Utility Box	112	piece		
	100mm x 100mm PVC Octagonal Junction Box	44	piece		
	100mm x 100mm PVC Junction Box (Pull Box)	10	piece		
	Pullbox, 250mm x 250mm x 150mm	6	assy		
	200mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	9	piece		
	150mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	3	piece		
	125mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	3	piece		
	60mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	3	piece		
	38mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	3	piece		
	30mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	3	piece		
	14mm <sup>2</sup> Terminal Lugs , 2 hole, Long Barrel, AL/CU	3	piece		
B	Wires and Cables				
	3.5mm <sup>2</sup> THHN Wire	8	roll		
	5.5mm <sup>2</sup> THHN Wire	2	roll		
	8.0mm <sup>2</sup> THHN Wire	2	roll		
	14mm <sup>2</sup> THHN Wire	1	roll		
	30mm <sup>2</sup> THHN Wire	190	l.m.		
	38mm <sup>2</sup> THHN Wire	190	l.m.		
	50mm <sup>2</sup> THHN Wire	300	l.m.		
	60mm <sup>2</sup> THHN Wire	60	l.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	125mm <sup>2</sup> THHN Wire	200	l.m.		
	150mm <sup>2</sup> THHN Wire	60	l.m.		
	200mm <sup>2</sup> THHN Wire	513	l.m.		
	3.5mm <sup>2</sup> TW Wire	5	roll		
	5.5mm <sup>2</sup> TW Wire	30	l.m.		
	8.0mm <sup>2</sup> TW Wire	125	l.m.		
	14mm <sup>2</sup> THW Wire	35	l.m.		
	22mm <sup>2</sup> THW Wire	145	l.m.		
	30mm <sup>2</sup> THW Wire	356	l.m.		
C	Lighting Fixtures (Energy Efficient)				
	T8, 20W Tube light	54	piece		
	9W 150mmØ Round Recessed Pinlight	2	piece		
	600mm x 1200mm Recessed Type Troffer Fixture with Complete Accessories	17	piece		
	50mm x 1200mm Tube Light Box Type Fixture	20	piece		
	150mmØ Recessed Pinlight Casing	2	piece		
	Emergency Light, Dual Optics	4	piece		
D	Wiring Devices				
	Outlet with Gounding , One-gang	4	piece		
	Outlet with Gounding , Two-gang	88	piece		
	Switch w/ plate & cover, One Gang	18	piece		
	Switch w/ plate & cover, Two Gang	1	piece		
E	Pipe Hangers & Supports				
	Horizontal layout of pipe	245	l.m.		
	Vertical layout of pipe	10	l.m.		
F	Panelboard				
	Automatic Transfer Switch (ATS) Main: 1000AT, 1000AF, 3P, 230V, 65 KAIC, MCCB Enclosure: Weather Proof Type in NEMA 1 with ground terminals	1	assy		
	Enclosed Circuit Breakers (ECBs)				
	PACU NEW Main: 250AT, 300AF, 3P, 230V, 45 KAIC, MCCB Branches: 4-50AT, 3P, 230V, MCB Enclosure: NEMA 1 w/ Ground Terminals	1	assy		
	FP Main: 400AT, 300AF, 3P, 230V, 45 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PPP Main: 300AT, 300AF, 3P, 230V, 45 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PACU NEW Main: 250AT,300AF, 3P, 230V, 18 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PP Main: 60AT, 100AF, 3P, 230V, 18 KAIC, MCCB	1	assy		



ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Enclosure: NEMA 3R w/ Ground Terminals				
	PP1 Main: 175AT, 100AF, 3P, 230V, 35 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PP2 Main: 150AT, 100AF, 3P, 230V, 35 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PP3 Main: 100AT, 100AF, 3P, 230V, 25 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PP3A Main: 125AT, 100AF, 3P, 230V, 25 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PP4 Main: 175AT, 100AF, 3P, 230V, 35 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	PP5 Main: 175AT, 100AF, 3P, 230V, 35 KAIC, MCCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		
	ECB Main: 70AT, 100AF, 2P, 230V, 18 KAIC, MCB Enclosure: NEMA 3R w/ Ground Terminals	1	assy		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	ECB Main: 50AT, 100AF, 2P, 230V, 18 KAIC, MCB Enclosure: NEMA 3R w/ Ground Terminals	4	assy		
	ECB Main: 30AT, 100AF, 2P, 230V, 18 KAIC, MCB Enclosure: NEMA 3R w/ Ground Terminals	5	assy		
	Circuit Breakers				
	1000AT, 3P, 230V, ACB	1	assy		
	300AT, 3P, 230V, MCCB	1	assy		
	175AT, 3P, 230V, MCCB	3	assy		
	150AT, 3P, 230V, MCCB	1	assy		
	125AT, 3P, 230V, MCCB	1	assy		
	50AT, 3P, 230V, MCCB	4	assy		
	30AT, 3P, 230V, MCCB	5	assy		
G	Grounding and Lightning Protection System				
	Pipes & Fittings				
	25mm Ø PVC Pipe	18	piece		
	25mm Ø PVC Adaptor	4	piece		
	25mm Ø IMC Elbow	2	piece		
	25mm Ø PVC Locknut & Bushing	4	pair		
	Wires and Cables				
	100mm² Bare Copper Wire (Uncut)	60	l.m.		
	Lightning Protection System				
	Lightning Arrester Dynasphere	1	piece		
	Terminal Lugs Coupling Connector	2	piece		
	100mm² Terminal Lugs , 1 hole, Long Barrel, AL/CU	1	piece		
	Lightning Event Counter	1	piece		
	Event Counter Enclosure	1	piece		
	Obstruction Lighting	1	piece		
	Steel Mast 50mm dia x 6m	1	piece		
	Base Plate for Steel Mast	1	piece		
	Incline Coupling	1	piece		
	Fiber Mast 3m	1	piece		
	Lower Termination Kit	1	piece		
	Cadweld Mold For GT Connection, 100mm² Cable to 20mm Rod	3	piece		
	Powdered for GT Connection	3	tube		
	Mold Brush	1	piece		
	Handle Clamp Mold	1	piece		
	Flint Igniter	1	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) w/ Ground Clam	3	set		
H	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All around Sealant	1	can		
	Electrical Tape	30	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	3	kg		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hacksaw Blade	10	piece		
	Masking Tape	3	piece		
	Pulling Lubricant	1	can		
	Rubber Tape	5	roll		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
J	Stand By Generator Set	1	assy	₱	₱
	330 KVA 3P 230/220V 60Hz Standby Generator Set Silent Type				
	1800 rpm w/ 0.8 Pf., Electronic Governor-Diesel Engine Driven				
	Dimension: 4120mm x 1370mm x 2600mm				
				Direct Cost	₱
				Material Cost VI	₱
				Labor Cost VI	
				Direct Cost VI	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>VII</b>	<b>AUXILIARY WORKS</b>				
A	Fire Protection And Alarm System (FDAS)				
	Pipes & Fittings				
	15mm Ø EMT Pipe	315	piece	₱	₱
	20mm Ø EMT Pipe	12	piece		
	25mm Ø EMT Pipe	6	piece		
	32mm Ø EMT Pipe	3	piece		
	15mm Ø Flexible Metallic Tube	3	roll		
	15mm Ø EMT Connector, Compression type	338	piece		
	20mm Ø EMT Connector, Compression type	12	piece		
	25mm Ø EMT Connector, Compression type	6	piece		
	32mm Ø EMT Connector, Compression type	3	piece		
	15mm Ø EMT Coupling, Compression type	315	piece		
	20mm Ø EMT Coupling, Compression type	12	piece		
	25mm Ø EMT Coupling, Compression type	6	piece		
	32mm Ø EMT Coupling, Compression type	3	piece		
	15mm Ø EMT Elbow	87	piece		
	20mm Ø EMT Elbow	6	piece		
	25mm Ø EMT Elbow	6	piece		
	32mm Ø EMT Elbow	6	piece		
	Pullbox, 250mm x 250mm x 150mm	7	assy		
	50mm x 100mm Metal Utility Box with cover	28	piece		
	100mm x 100mm Metal Octagonal Box with cover	107	piece		
	Wires and Cables				
	1.25mm² TF Wire	18	roll		
	Cat6 UTP Cable	80	lm		
	Fixtures, Devices & Equipment				
	Combination Smoke & Carbon Monoxide Detector	85	piece		
	Heat Detector	8	piece		
	Fire Alarm Manual Pull Station	14	piece		
	Bell 6"Ø / Horn with Strobe Light	14	set		
	Fire Alarm Control Panel (Addressable, 16-Zones)	1	unit		
	Power Supply and Back-up Battery Pack w/ Charger & Indicator	1	set		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	210	l.m.		
	Vertical layout of pipe	10	l.m.		
	Miscellaneous & Consumables				
	Electrical Tape	15	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	5	kg		
	Hacksaw Blade	10	piece		
	Masking Tape	5	roll		
	Pulling Lubricant	1	can		
	Rubber Tape	5	roll		
	Rugs	10	piece		
				Material Cost	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Labor Cost	
				Subtotal	₱
B	Voice Data and Local Area Network (LAN) System				
	Pipes & Fittings				
	20mm Ø EMT Pipe	48	piece	₱	₱
	20mm Ø IMC Pipe	44	piece		
	16mm x 16mm x 2.44m Rectangular PVC Moulding	35	piece		
	25mm x 16mm x 2.44m Rectangular PVC Moulding	70	piece		
	20mm Ø MicaTube	210	l.m.		
	20mm Ø EMT Connector, Compression type	70	piece		
	20mm Ø EMT Coupling, Compression type	38	piece		
	20mm Ø EMT Elbow	30	piece		
	20mm Ø IMC Coupling	40	piece		
	20mm Ø IMC Elbow	10	piece		
	20mm Ø IMC Locknut & Bushing	10	piece		
	Pullbox, 250mm x 250mm x 150mm	1	assy		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm x 100mm Metal Utility Box with cover	84	piece		
	100mm x 100mm Metal Octagonal Box with cover	12	piece		
	50mm x 50mm x 2400mm Ga.16 Cable Tray with cover and coupling powdercoated in black color	82	piece		
	50mm x 100mm x 2400mm Ga.16 Cable Tray with cover and coupling powdercoated in black color	8	piece		
	SC, ST, LC Fiber Optic Connector	1	box		
	Fiber Adapter Cable Kits	1	set		
	Telecom Backboard Flame Retardant	1	piece		
	Small Form-Factor Pluggable (SFP) Optical Transceiver	10	piece		
	Cable Trays and Terminal Cabinet Ground Strap 3m	18	piece		
	Wires and Cables				
	UTP Cable Cat 6, 4-Pairs	15	roll		
	UTP Cat 6 Patch Cable, 550MHz, 3Ft	84	piece		
	UTP Cat 6 Cross-connect Cable, 6 in.	84	piece		
	Fiber Optic Cable, 2-Strand, Indoor/Outdoor	320	l.m.		
	Fixtures, Devices & Equipment				
	Universal Voice/Data Outlet, Duplex (2-Device)	74	piece		
	Universal Voice/Data Outlet, Simplex (1-Device)	5	piece		
	Additional MDF equipment due to IDF1 and Backbone Upgrade 1-Rackmounted UPS, 1000VA ≥ 5 mins "on-line" 1-Fiber Patch Panel, Rackmount Preloaded, 12-port (2U) 1-Managed Fast Fiber Switch, 12-port (2U) 1- Rackmounted Surge Suppressor	1	assy		
	Intermediate Distribution Frame(IDF) 12U Data Rack (19") with Standard Framing & Panelling and Vent Fans 1-CAT6 Standard-Density Feed-Thru Patch Panel, 16-port (1U) 1-12 port UTP + 4-port FTP 10/100/1000 Network Switch (1U) 1-Rackmounted UPS, 650VA ≥ 5 mins "on-line"	1	assy		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	70	l.m.		
	Vertical layout of pipe	10	l.m.		
	Miscellaneous & Consumables				
	Electrical Tape	15	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	3	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	10	roll		
	Pulling Lubricant	1	can		
	Rubber Tape	5	roll		
	Rugs	10	piece		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
C	Closed Circuit Television (CCTV) and Security System				
	Pipes & Fittings				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø EMT Pipe	50	piece	₱	₱
	20mm Ø EMT Connector, Set screw type	50	piece		
	20mm Ø EMT Coupling, Set screw type	50	piece		
	20mm Ø EMT Elbow	9	piece		
	20mm Ø Flexible Metallic Tube	50	l.m.		
	20mm Ø Straight Connector with locknut	3	pair		
	Pullbox, 300mm x 200mm x 200mm	1	assy		
	50mm x 100mm Metal Utility Box	3	piece		
	100mm x 100mm Metal Octagonal Box with cover	3	piece		
	RG-6/U Straight Connector	6	piece		
	RG-6/U Terminal Connector	6	piece		
	Wires and Cables				
	1.25mm² TF Wire	2	roll		
	RG-6/U Coaxial Cable, Foamed PE	1	roll		
	A/V (VGA and HDMI) Cable	20	l.m.		
	8.0mm² THW Wire	20	l.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fixtures, Devices & Equipment				
	HD CCTV Compact Bullet Camera (Vandal resistant), Day/Night	3	piece		
	DVR Security Lock Box, Low Profile	1	assy		
	HD Digital Video Recorder (DVR). 16-Channel; with DVD Burner	2	unit		
	Multi-Function Keyboard Controller	1	unit		
	32" Color LCD Display, Tilt Wall Mounted	1	unit		
	UPS, 1000VA ≥ 5 mins "on-line"	1	unit		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	38	l.m.		
	Vertical layout of pipe	10	l.m.		
	Miscellaneous & Consumables				
	Electrical Tape	5	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	1	kg		
	Hacksaw Blade	3	piece		
	Masking Tape	3	piece		
	Pulling Lubricant	1	can		
	Rubber Tape	1	roll		
	Rugs	5	piece		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>Material Cost VII</b>	<b>₱</b>
				<b>Labor Cost VII</b>	
				<b>Direct Cost VII</b>	<b>₱</b>
<b>VIII</b>	<b>MECHANICAL WORKS</b>				
A	Refrigerant Pipe System				
	6mm Ø Copper Coil Tubing	30	l.m.	₱	₱
	10mm Ø Copper Coil Tubing	100	l.m.		
	16mm Ø Copper Coil Tubing	10	l.m.		
	20mm Ø Copper Coil Tubing	60	l.m.		
	6mm Ø x 20mm thick Rubber Foam Insulation	30	l.m.		
	10mm Ø x 20mm thick Rubber Foam Insulation	100	l.m.		
	16mm Ø x 20mm thick Rubber Foam Insulation	10	l.m.		
	20mm Ø x 20mm thick Rubber Foam Insulation	60	l.m.		
B	Condensate Water Drainage System				
	32mm Ø x 3m uPVC Pipe	28	piece		
	32mm Ø uPVC Elbow	35	piece		
	32mm Ø x 12mm thick Rubber Foam Insulation	84	l.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
C	Equipment and Accessories				
	CF 1 - Ceiling Fan, 0.5cms, 100W, 230V / 1ϕ / 60Hz	2	unit	₱	₱
				Equipment Cost	₱



ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Labor Cost	
				Subtotal	₱
	SAC 1 - Ceiling Mounted Split-type Air Conditioning Unit, 4.0TR 9.52mm Ø Liquid, 19.05mm Ø Gas & 32mm Ø Drain Pipes 4200W, 230V / 1ϕ / 60Hz	4	unit	₱	₱
	SAC 2 - Ceiling Cassette Split-type Air Conditioning Unit, 3.0TR 9.52mm Ø Liquid, 15.9mm Ø Gas & 32mm Ø Drain Pipes 3100W, 230V / 1ϕ / 60Hz	1	unit		
	SAC 3 - Wall Mounted Split-type Air Conditioning Unit, 1.0TR 6.35mm Ø Liquid, 9.375mm Ø Gas & 32mm Ø Drain Pipes 1152W, 230V / 1ϕ / 60Hz	2	unit		
				Equipment Cost	₱
	Labor Cost with Technical Supervision				
				Subtotal	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
D	Pipe Hangers and Supports				
	Condensate Water Drainage System Support for Split-type ACU	84	l.m.	₱	₱
	Refrigerant Pipe System Support	100	l.m.		
	ACCU Support	7	unit		
	Vibration Isolator	28	piece		
E	Miscellaneous & Consumables				
	400cc Solvent Cement	5	can		
	25mm wide x 50m long Polyethylene Tape	20	roll		
	Brazing Rod (10pcs/box)	2	box		
	Waste Cloth	5	kg		
F	Existing Passenger Elevator				
	Replacement of Hall Call Buttons	14	piece		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Maintenance of Passenger Elevator & Elevator Shaft	1	assy	₱ 480,000.00	₱
				Labor Cost	₱
				<b>Materials Cost VIII</b>	<b>₱</b>
				<b>Labor Cost VIII</b>	
				<b>Direct Cost VIII</b>	<b>₱</b>
<b>IX</b>	<b>UTILITIES &amp; ANCILLIARY WORKS</b>				
	Electrical Earth Pit (0.30m x 0.30m)	1	unit		
				<b>Direct Cost IX</b>	<b>₱</b>

## SUMMARY

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	AMOUNT
I	GENERAL REQUIREMENTS	
II	SITE WORKS	
III	CIVIL WORKS / STRUCTURAL WORKS	
IV	ARCHITECTURAL WORKS	
V	PLUMBING WORKS	
VI	ELECTRICAL WORKS	
VII	AUXILIARY WORKS	
VIII	MECHANICAL WORKS	
IX	UTILITIES & ANCILLIARY WORKS	
		<b>TOTAL DIRECT COST</b>
		<b>₱</b>
		Overhead, Contingencies and Miscellaneous Expenses (OCM)
		Profit
		VAT
Strictly enforce Health Protocols relative to the latest applicable DPWH Memorandum		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
		TOTAL ESTIMATED COST			P

## ***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]*

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**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<sup>1</sup> 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.

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<sup>1</sup> 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]*

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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]*

## 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]*

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### 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]*

## Omnibus Sworn Statement (Revised)

*[shall be submitted with the Bid]*

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

### AFFIDAVIT

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

1. *[Select one, delete the other:]*

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

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

2. *[Select one, delete the other:]*

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

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

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

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

the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

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

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of \_\_\_\_, 20\_\_ at \_\_\_\_\_, Philippines.

*[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]*

*[Insert signatory's legal capacity]*  
Affiant

**[Jurat]**

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

## Performance Securing Declaration (Revised)

*[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]*

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REPUBLIC OF THE PHILIPPINES)  
CITY OF \_\_\_\_\_ ) S.S.

### PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents] To:  
[Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacture/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
2. I/We accept that: I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year for the first offense, or two (2) years for the second offense, upon receipt of your Blacklisting Order if I/We have violated my/our obligations under the Contract;
3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
  - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
    - i. Procuring Entity has no claims filed against the contract awardee;
    - ii. It has no claims for labor and materials filed against the contractor; and
    - iii. Other terms of the contract; or
  - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

**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]*

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 <u>IN THE</u> <u>CONTRACT SOLE</u> <u>CONTRACTOR / SUB-</u> <u>CONTRACTOR/PARTNER IN A</u>
TOTAL AMOUNT OF CONTRACT (Php)					



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, 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

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)

**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.

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 said 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

