# PHILIPPINE BIDDING DOCUMENTS

# Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF DAY CARE CENTER AT DISTRICT 4 AREA XXIII

Project number: 21-00170

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**

| Gle | ossar | y of Terms, Abbreviations, and Acronyms                             | 5  |
|-----|-------|---|----|
| Sec | ction | I. Invitation to Bid  | 8  |
| Sec | ction | II. Instructions to Bidders   | 9  |
|     | 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 |
| Sec | ction | III. Bid Data Sheet   | 16 |
| Sec | ction | IV. General Conditions of Contract                                  | 22 |
|     | 1.    | Scope of Contract   | 23 |
|     | 2.    | Sectional Completion of Works                                       | 23 |
|     | 3.    | Possession of Site  | 23 |
|     | 4.    | The Contractor's Obligations  | 23 |
|     | 5.    | Performance Security  | 23 |
|     | 6.    | Site Investigation Reports  | 24 |

| 7.      | Warranty   | 24 |
|---------|--|----|
| 8.      | Liability of the Contractor                        | 24 |
| 9.      | Termination for Other Causes                       | 24 |
| 10.     | Dayworks   | 24 |
| 11.     | Program of Work                                    | 25 |
| 12.     | Instructions, Inspections and Audits               | 25 |
| 13.     | Advance Payment                                    | 25 |
| 14.     | Progress Payments                                  | 25 |
| 15.     | Operating and Maintenance Manuals                  | 25 |
| Section | V. Special Conditions of Contract                  | 27 |
| Section | VI. Specifications                                 | 29 |
|         | VII. Drawings                                      |    |
|         | VIII. Bill of Quantities                           |    |
| Section | IX. Checklist of Technical and Financial Documents | 34 |

# 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 AND AWARDS COMMITTEE FOR INFRASTRACTU



# BIDS AND AWARDS COMMITTEE FOR INFRASTRACTURE & CONSULTANCY

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

November 15, 2021

# **Invitation to Bid**

| No  | Project<br>No. | Project Name   | Location                         | Amount       | Durati<br>on Cal.<br>Days | Office                    | Source<br>Fund            |
|-----|----------------|--|----------------------------------|--------------|---------------------------|---------------------------|---------------------------|
| Bui | ildings – S    | Small B  |                                  |              |                           |                           |                           |
| 1   | 21-<br>00156   | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Waterline<br>System at Krus Na Ligas<br>Elementary School (Simon<br>Building)                 | Krus Na Ligas                    | 1,136,052.36 | 60                        | Engineering<br>Department | Special<br>Education Fund |
| 2   | 21-<br>00157   | Proposed Construction of<br>Hand Washing Facility at<br>Payatas C Elementary School  | Payatas                          | 1,278,401.32 | 60                        | Engineering<br>Department | Special<br>Education Fund |
| 3   | 21-<br>00158   | Proposed Construction of<br>Hand Washing Facility at<br>Main Building of Balara High<br>School   | Pansol                           | 1,282,912.05 | 60                        | Engineering<br>Department | Special<br>Education Fund |
| 4   | 21-<br>00159   | Proposed Rehabilitation of<br>Day Care Center at District 3<br>/ Area XIII and XIV   | Claro, Silangan<br>& East Kamias | 1,458,079.64 | 45                        | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 5   | 21-<br>00160   | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Waterline<br>System at Ramon Magsaysay<br>High School Belmonte<br>Building)                   | Pinagkaisahan                    | 1,731,551.85 | 90                        | Engineering<br>Department | Special<br>Education Fund |
| 6   | 21-<br>00161   | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Waterline<br>at Bagong Pag-Asa<br>Elementary School (SB<br>Building)                          | Bagong Pag-<br>Asa               | 1,801,334.79 | 60                        | Engineering<br>Department | Special<br>Education Fund |
| 7   | 21-<br>00162   | Proposed Rehabilitation of<br>Milagrosa Daycare Center<br>and Livelihood Center  | Milagrosa                        | 2,198,687.07 | 75                        | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 8   | 21-<br>00163   | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Comfort<br>Rooms and Waterline System<br>at Aguinaldo Elementary<br>School (Estrada Building) | San Roque                        | 2,296,791.86 | 120                       | Engineering<br>Department | Special<br>Education Fund |
| 9   | 21-<br>00164   | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 2 Area VII<br>(Cluster 5)                                      | Payatas                          | 2,871,590.18 | 60                        | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 10  | 21-<br>00165   | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 3 / Area XV  | Matandang<br>Balara &<br>Pansol  | 3,027,863.77 | 60                        | Engineering<br>Department | Engineering -<br>SB No. 1 |

| 11 | 21-<br>00166 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Comfort<br>Rooms and Waterline System<br>at Maligaya Elementary<br>School (Vargas Building) | Pasong Putik  | 3,565,679.65  | 90 | Engineering<br>Department | Special<br>Education Fund |
|----|--------------|--|---|---------------|----|---------------------------|---------------------------|
| 12 | 21-<br>00167 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Comfort<br>Rooms and Waterline System<br>at San Francisco High School<br>(SB Building)      | Ramon<br>Magsaysay  | 4,900,074.64  | 60 | Engineering<br>Department | Special<br>Educution Fund |
| 13 | 21-<br>00168 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 3 / Area<br>XVI and XVIII                                    | Villa Maria<br>Clara,<br>Bagumbuhay,<br>Bayanihan,<br>Escopa 3,<br>Marilag  | 5,527,209.52  | 90 | Engineering<br>Department | Engineering -<br>SB No. i |
| 14 | 21-<br>00169 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 4 / Area<br>XIX  | Kamuning.<br>Obrero,<br>Paligsahan,<br>Roxas & South<br>Triangle  | 7,108,186.57  | 60 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 15 | 21-<br>00170 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 4 / Area<br>XXIII  | Old Capitol<br>Site, San<br>Vicente & U.P.<br>Campus  | 8,767,692.58  | 90 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 16 | 21-<br>00171 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 4 / Area<br>XXIV   | Central, Krus<br>Na Ligas &<br>Pinyahan   | 8,801,647.54  | 60 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 17 | 21-<br>00172 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 2 Area VII<br>(Cluster 1)                                    | Bagong<br>Silangan  | 8,899,769.12  | 90 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 18 | 21-<br>00173 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 4 / Area XX  | Horseshoe,<br>Immaculate<br>Concepcion,<br>Kaunlaran,<br>Pinagkaisahan<br>& San Martin<br>De Porres                   | 9,342,308.35  | 60 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 19 | 21-<br>00174 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 2 Area VII<br>(Cluster 4)                                    | Holy Spirit   | 9,513,555.66  | 90 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 20 | 21-<br>00175 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 4 / Area<br>XXII   | Tatalon, Don<br>Manuel, Doña<br>Aurora, Doña<br>Imelda, Doña<br>Josefa, San<br>Isidro Galas,<br>Santol & Sto.<br>Niño | 11,988,174.41 | 90 | Engineering<br>Department | Engineering -<br>SB No. 1 |
| 21 | 21-<br>00176 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 2 Area VII<br>(Cluster 3)                                    | Balonbato &<br>Sangandaan   | 14,755,919.20 | 90 | Engineering<br>Department | Engineering -<br>SB No. 1 |

| 22 | 21-<br>00177 | Proposed Construction of<br>Hand Washing Facility and<br>Rehabilitation of Day Care<br>Center at District 2 Area VII<br>(Cluster 2) | Batasan Hills | 17,576,527.83 | 90 | Engineering<br>Department | Engineering -<br>SB No. 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.
- 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).
- Bidding will be conducted through open competitive bidding procedures using nondiscretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
- Interested bidders may obtain further information from QUEZON CITY LOCAL GOVERNMENT – BAC Secretariat and inspect the Bidding Documents at the address given below weekdays from 8:00 am. – 5:00 p.m.
- 5. A complete set of Bidding Documents may be acquired by interested bidders on 16 November 2021 (Tuesday) 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<br>(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  |
|  | # DATE (100 DECEMBER 100 DECEMB |

The following are the requirements for purchase of Bidding Documents;

- PhilGEPS Registration Certificate (Platinum 3 Pages)
- 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 on or before November 23, 2021 - 5:00PM.

 The QC-BAC-INFRASTRUCTURE & CONSULTANCY will hold a Pre-Bid Conference<sup>1</sup> on November 24, 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

- Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before December 6, 2021 – 9:00AM. Late bids shall not be accepted.
- All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 16.
- Bid opening shall be on December 6, 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.
- 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

Website: www.quezoncity.gov.ph

You may visit the following websites:

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

By:

ATTY. MARK DALE DIAMOND P. PERRAL Chairman, BAC-Lefra and Consultancy

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

# Section II. Instructions to Bidders

# **Notes on the Instructions to Bidders**

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

# 1. Scope of Bid

The Procuring Entity, Quezon City Government invites Bids for the PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF DAY CARE CENTER AT DISTRICT 4 AREA XXIII, with Project Identification Number 21-00170.

[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 Eight Million Seven Hundred Sixty-Seven Thousand Six Hundred Ninety-Two Pesos & 58/100 Ctvs. (P 8,767,692.58).
- 2.2. The source of funding is:
  - a. LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.

# 3. Bidding Requirements

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

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

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

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

# 5. Eligible Bidders

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

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

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

# 6. Origin of Associated Goods

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

# 7. Subcontracts

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

The Procuring Entity has prescribed that:

## a. Subcontracting is not allowed.

- 7.1. [If Procuring Entity has determined that subcontracting is allowed during the bidding, state:] The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criterial stated in ITB Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.
- 7.2. [If subcontracting is allowed during the contract implementation stage, state:] The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the

implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

#### 8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address on November 24, 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        |         | s purpose, similar cor<br>ategories of work. | ntracts shall refer to con          | tracts which have the same           |  |  |
| 7.1        | Subcon  | Subcontracting is not allowed.               |                                     |                                      |  |  |
| 10.3       | No add  | itional contractor lice                      | ense or permit is requir            | ed                                   |  |  |
|            | In addi | tion, eligible bidders                       | shall qualify or comply             | y with the following:                |  |  |
|            | 1. Bidd | ers with valid Philipp                       | oine Contractors Accred             | litation Board (PCAB)                |  |  |
|            | Туре    | e  |                                     |                                      |  |  |
|            | В       | Building - Small B                           |                                     |                                      |  |  |
| 10.4       | The m   | -  | rience requirements for             | or key personnel are the             |  |  |
|            | PROP    | OSED CONSTRUC                                | TION OF HAND WA<br>OF AMORSOLO II D | SHING FACILITY AND<br>AY CARE CENTER |  |  |
|            | Qnty.   | Key Personnel                                | General Experience                  | Relevant Experience                  |  |  |
|            | 1       | Project Engineer                             | 3 years                             | 3 years                              |  |  |
|            | 1       | Safety Officer                               | 3 years                             | 3 years                              |  |  |
|            | 1       | Foreman                                      | 3 years                             | 3 years                              |  |  |
|            | 5       | Skilled Worker                               | 3 years                             | 3 years                              |  |  |
|            | 1       | Driver                                       | 3 years                             | 3 years                              |  |  |
|            | 3       | Laborer                                      | 1 year                              | 3 months                             |  |  |
|            | _       |  | TION OF HAND WA<br>OF POOK LIBIS DA | SHING FACILITY AND<br>Y CARE CENTER  |  |  |
|            | Qnty.   | Key Personnel                                | General Experience                  | Relevant Experience                  |  |  |
|            | 1       | Project Engineer                             | 3 years                             | 3 years                              |  |  |
|            | 1       | Safety Officer                               | 3 years                             | 3 years                              |  |  |
|            | 1       | Foreman                                      | 3 years                             | 3 years                              |  |  |
|            | 7       | Skilled Worker                               | 3 years                             | 3 years                              |  |  |

| Driver  | 3 years  | 3 years  |  |  |  |
|---|--|--|--|--|--|
| Laborer   | 1 year   | 3 months   |  |  |  |
|   |  |  |  |  |  |
| Key Personnel   | General Experience   | Relevant Experience  |  |  |  |
| Project Engineer  | 3 years  | 3 years  |  |  |  |
| DPWH duly accredit<br>Materials Engineer  | ed<br>3 years  | 3 years  |  |  |  |
| Safety Officer  | 3 years  | 3 years  |  |  |  |
| Foreman   | 3 years  | 3 years  |  |  |  |
| Skilled Worker  | 3 years  | 3 years  |  |  |  |
| Driver  | 3 years  | 3 years  |  |  |  |
| Laborer   | 1 year   | 3 months   |  |  |  |
| PROPOSED REHABILITATION OF AMORSOLO I DAY CARE CENTER                               |  |  |  |  |  |
| ROPOSED REHABII   |  | RSOLO I DAY CARE   |  |  |  |
| ROPOSED REHABII  Key Personnel  | CENTER   |  |  |  |  |
|   | CENTER   |  |  |  |  |
| Key Personnel   | <b>CENTER</b> General Experience   | Relevant Experience  |  |  |  |
| Key Personnel Project Engineer  | CENTER  General Experience  3 years  | Relevant Experience 3 years  |  |  |  |
| Key Personnel Project Engineer Safety Officer                                       | CENTER  General Experience  3 years  3 years   | Relevant Experience 3 years 3 years  |  |  |  |
| Key Personnel Project Engineer Safety Officer Foreman                               | CENTER  General Experience  3 years  3 years  3 years  | Relevant Experience 3 years 3 years 3 years  |  |  |  |
| Key Personnel Project Engineer Safety Officer Foreman Skilled Worker                | CENTER  General Experience  3 years  3 years  3 years  3 years   | Relevant Experience 3 years 3 years 3 years 3 years  |  |  |  |
| Key Personnel Project Engineer Safety Officer Foreman Skilled Worker Driver Laborer | CENTER  General Experience  3 years  3 years  3 years  3 years  3 years  3 years   | Relevant Experience  3 years  3 years  3 years  3 years  3 years  3 months   |  |  |  |
| Key Personnel Project Engineer Safety Officer Foreman Skilled Worker Driver Laborer | CENTER  General Experience  3 years  3 years  3 years  3 years  1 year  ILITATION OF PECI  | Relevant Experience  3 years  3 years  3 years  3 years  3 years  3 months   |  |  |  |
|   | Laborer  POSED CONSTRUCT REHABILITATION  Key Personnel  Project Engineer  DPWH duly accredit Materials Engineer  Safety Officer  Foreman  Skilled Worker  Driver | Laborer 1 year  POSED CONSTRUCTION OF HAND WAREHABILITATION OF SAN VICENTE D  Key Personnel General Experience  Project Engineer 3 years  DPWH duly accredited Materials Engineer 3 years  Safety Officer 3 years  Foreman 3 years  Skilled Worker 3 years  Driver 3 years |  |  |  |

| 1     | DPWH duly accredit |                                 |                     |
|-------|--------------------|---------------------------------|---------------------|
|       | Materials Engineer | 3 years                         | 3 years             |
| 1     | Foreman            | 3 years                         | 3 years             |
| 7     | Skilled Worker     | 3 years                         | 3 years             |
| 1     | Driver             | 3 years                         | 3 years             |
| 4     | Laborer            | 1 year                          | 3 months            |
| PR    | OPOSED REHABII     | LITATION OF POOK<br>CARE CENTER | DAANG TUBO DAY      |
| Qnty. | Key Personnel      | General Experience              | Relevant Experience |
| 1     | Project Engineer   | 3 years                         | 3 years             |
| 1     | DPWH duly accredit | ed                              |                     |
|       | Materials Engineer | 3 years                         | 3 years             |
| 1     | Safety Officer     | 3 years                         | 3 years             |
| 1     | Foreman            | 3 years                         | 3 years             |
| 6     | Skilled Worker     | 3 years                         | 3 years             |
| 1     | Driver             | 3 years                         | 3 years             |
| 12    | Laborer            | 1 year                          | 3 months            |
| PRO   | POSED REHABILIT    | TATION OF POOK V<br>CENTER      | TILLAGE B DAY CARE  |
| Qnty. | Key Personnel      | General Experience              | Relevant Experience |
| 1     | Project Engineer   | 3 years                         | 3 years             |
| 1     | Safety Officer     | 3 years                         | 3 years             |
| 1     | Foreman            | 3 years                         | 3 years             |
| 5     | Skilled Worker     | 3 years                         | 3 years             |
| 1     | Driver             | 3 years                         | 3 years             |
| 3     | Laborer            | 1 year                          | 3 months            |

|      | notarized stating th  | bidder must execute an affidavi<br>nat the foregoing personnel shall p<br>l its completion. Please see attache | erform work exclusively                          |  |  |
|------|---|--|--|--|--|
| 10.5 | The minimum major equipment requirements are the following:  PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF AMORSOLO II DAY CARE CENTER |  |  |  |  |
|      |   |  |  |  |  |
|      | Equipment   | Capacity   | Number of Units                                  |  |  |
|      | Elf Truck<br>Scaffolding<br>Power Tools<br>Minor Tools  |  | as needed as needed as needed                    |  |  |
|      |   | ISTRUCTION OF HAND WASE<br>FATION OF POOK LIBIS DAY  |  |  |  |
|      | Equipment   | Capacity   | Number of Units                                  |  |  |
|      | Elf Truck<br>Scaffolding<br>Power Tools<br>Minor Tools  |  | as needed as needed as needed                    |  |  |
|      |   | NSTRUCTION OF HAND WASH<br>ATION OF SAN VICENTE DAY  |  |  |  |
|      | Equipment   | Capacity   | Number of Units                                  |  |  |
|      | Elf Truck<br>Scaffolding<br>Power Tools<br>Minor Tools<br>Cut Off Machine   |  | as needed<br>as needed<br>as needed<br>as needed |  |  |
|      | PROPOSED R  | REHABILITATION OF AMORS<br>CENTER  | OLO I DAY CARE                                   |  |  |
|      | Equipment   | Capacity   | Number of Units                                  |  |  |
|      | Elf Truck<br>Scaffolding<br>Power Tools<br>Minor Tools  |  | as needed as needed as needed                    |  |  |
|      | PROPOSED  | REHABILITATION OF PECHA<br>CENTER  | AYAN DAY CARE                                    |  |  |
|      | Equipment   | Capacity   | Number of Units                                  |  |  |
|      | Elf Truck   |  | 1  |  |  |

|      | Coeffolding   |   | as needed                 |  |  |
|------|---|---|---------------------------|--|--|
|      | Scaffolding   |   |                           |  |  |
|      | Power Tools   |   | as needed                 |  |  |
|      | Minor Tools   |   | as needed                 |  |  |
|      | Cut Off Machine   |   | as needed                 |  |  |
|      | PROPOSED REHABILITATION OF POOK DAANG TUBO DAY<br>CARE CENTER   |   |                           |  |  |
|      |   |   |                           |  |  |
|      | Equipment   | Capacity                                  | Number of Units           |  |  |
|      | Elf Truck   |   | 1                         |  |  |
|      | Scaffolding   |   | as needed                 |  |  |
|      | Power Tools   |   | as needed                 |  |  |
|      | Minor Tools   |   | as needed                 |  |  |
|      |   |   |                           |  |  |
|      | PROPOSED REHABILITATION   | ON OF POOK VII<br>CENTER                  | LLAGE B DAY CARE          |  |  |
|      | Equipment   | Capacity                                  | Number of Units           |  |  |
|      | Elf Truck   |   | 1                         |  |  |
|      |   |   | 1                         |  |  |
|      | Scaffolding Power Tools   |   | as needed                 |  |  |
|      |   |   | as needed                 |  |  |
|      | Minor Tools   |   | as needed                 |  |  |
|      | In addition, the bidder must e<br>notarized stating that the foregoi<br>the project until its completion. P | ng equipment shal<br>lease see attached b | l be used exclusively for |  |  |
| 12   | [Insert Value Engineering clause i  | if allowed.]                              |                           |  |  |
| 15.1 | The bid security shall be in the for number, or any of the following for                                    | _   | Declaration with project  |  |  |
|      | a) The amount of not less than (2%) of ABC if bid securit draft/guarantee or irrevoca                       | y is in cash, cashier                     | 's/manager's check, bank  |  |  |
|      | b) The amount of not less than (5%) of ABC if bid securit   | <u> </u>                                  |                           |  |  |
| 19.2 | <b>Partial bid is not allowed.</b> The in and the lot shall not be divided evaluation, and contract award.  | 1 0                                       | 1 0                       |  |  |
| 20   | No additional requirement.  |   |                           |  |  |
| 21   | Additional Contract Documents   | relevant to the Pro                       | niect as required:        |  |  |
|      | 1. Construction Schedule and S-   |   | Jeer my required.         |  |  |
|      | 2. Manpower Schedule,   | cui ve,                                   |                           |  |  |
|      | -   |   |                           |  |  |
|      | 3. Construction Methods,  | ıla                                       |                           |  |  |
|      | 4. Equipment Utilization Schedu   |   | oot aabadrilles -l11 1    |  |  |
|      | 5. PERT/CPM or other accept   |   | ect scheduling, shall be  |  |  |
| Ī    | included in the submission of Te  | cnnicai Proposal.                         |                           |  |  |

# Section IV. General Conditions of Contract

# **Notes on the General Conditions of Contract**

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

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

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

# 1. Scope of Contract

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

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

# 2. Sectional Completion of Works

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

## 3. Possession of Site

- 3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the SCC, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
  - 3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

# 4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

# 5. Performance Security

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

# **6.** Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the SCC supplemented by any information obtained by the Contractor.

# 7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

# 8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the SCC, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

## 9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

# 10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the SCC, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

# 11. Program of Work

- 11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.
- 11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

# 12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

# 13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

# 14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the SCC, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

# 15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC**.

15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

# Section V. Special Conditions of Contract

# **Notes on the Special Conditions of Contract**

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

# **Special Conditions of Contract**

| GCC Clause |   |
|------------|---|
| 2          | Completion of work shall be within 90 calendar days   |
| 4.1        | The Procuring Entity shall give possession of all parts of the Site to the Contractor upon receipt of the Notice to Proceed.  |
| 6          | The site investigation reports are: [list here the required site investigation reports.]  |
| 7.2        | [Select one, delete the other.]   |
|            | [In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:] Fifteen (15) years. |
|            | [In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:] Five (5) years.  |
|            | [In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:] Two (2) years.  |
| 10         | Dayworks are applicable at the rate shown in the Contractor's original Bid.   |
| 13         | The amount of the advance payment is no more that fifteen percent (15%) of the Contract Price subject to approval by the HOPE and compliance with the conditions under RA 9184 and its IRR.   |
| 14         | No further instructions.  |
| 15.1       | The date by which operating and maintenance manuals are required is thirty (30) days  The date by which "as built" drawings are required as part of final payment   |
| 15.2       | The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is ten (10%) percent of the contract price.  |

# Section VI. Specifications

# **Notes on Specifications**

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

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

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

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

#### Sample Clause: Equivalency of Standards and Codes

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

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

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



## Replublika ng Pilipinas Lungsod ng Quezon

# CITY ENGINEERING DEPARTMENT

5<sup>TH</sup>, 6<sup>TH</sup>, 7<sup>TH</sup> Floors, QC Clwc Center Building "B" Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF AMORSOLO II DAY CARE CENTER /

LOCATION:

BARANGAY U.P. CAMPUS, DISTRICT 4, QUEZON CITY

# **TECHNICAL SPECIFICATIONS**

#### GENERAL REQUIREMENTS

- A Compty with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost existing therafrom.
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C Should there be any change(s) in drawings or specifications lit is required to comply with the governing regulations, notify the implementing agency
- D. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H. Mobilization and Demobilization (if applicable)
  - 1 Michilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site: establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - Demobilization shalf include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmantike menner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
  - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
  - Temporary facilities shall be provided and maintained including sarutary facilities and first aid stations.

- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them duping the entire construction perior!
- Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly.
- K. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
  - 1 A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.
  - 2 The medical room shall be provided with waterproofing, it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - 3 The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and suitable notices in the site.
  - Additional safety precautions shall be provided in the event of a pendemic. Protocols set forth by the government shall be strictly followed.
  - Personal Protective Equipment (PPE) shall consist of safety helmet/hard hat, safety reflectorized vest, safety insulated gloves, dust mask, exfety shoes, safety goggles, and safety harness. Every skilled and unskilled worker, and the project foreman shall be provided PPE by the Contractor, Consideration of quantity shall be made for the Project Engineer, Materials Engineer, Safety Officer/Practitioner (as required) and project driver.
  - Construction safety materials shall consist of safety net, fire extinguisher and safety signage and posters.
- L. Necessary protections to the adjacent property shall be provided to avoid unloward incidents / accidents.
- M. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

## II. SITE WORKS

- A. All grades, tines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.
- B. This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract.
  - Removal and/or permittion of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grede as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.

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

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

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

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

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

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

- E. Soil Poisoning. There are two methods usually adopted in soil poisoning which are as follows:
  - Cordoning This method is usually adopted when there is no visible evidence of termite intestation. Trenches in concentric circles squares or rectangles are dug 150mm to 220mm wide and at least one meter apart and applied with Elquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.
  - Drenching. When soil show termite infestation, this method shall be applied. The building area shall be thoroughly drenched with Liquid Termicide Concentrate working solution at the rate of 24 liters per square mater.

## III. CIVIL / STRUCTURAL WORKS

## A. METAL FABRICATION

#### Materials:

- a. Steel and Iron. If not specified otherwise, use standard mitt-Inished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Febrication and Erection of Structural Steel for buildings.
- Bolts, Nuis, Studs and Rivets, ASTM A 307 and A 325.
- Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111
- d. Metat Purlins. High grade getvanized steel with miremum tensile strength of 275 MPa 1.4mm in thickness or approved equal

## Fabrication:

By mechanics skilled in the trade and in accordance with the manufacturer's directions. Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight. flush joints, dressed smooth and clean. Complete with bolts and nuts.

## 3 Metal Surfaces

Surfaces shall be cleen and free from all scale, flake, rust and rust pating; we'llformed end finished to shape end size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. On not use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

#### Construction:

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

## 5 Welding:

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

# IV. ARCHITECTURAL WORKS

## A. FLOOR FINISHES

- 3D0mm x 300mm Non-Skid Homogeneous Tiles including tile adhesive
- 50mm concrete Topping with Plain Cement Finish

## B. WALL FINISHES

- 300mm x 300mm Homogeneous Tites including tile adhesive
- 50ntm concrete Topping with Plain Cement Finish.

## C. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard. DPWH or the National Institute of Science and Technology.
- Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body
- Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into putty consistency, with oil-based primers and paints to fill minor surface itents and imperfections.

## 4. Paint Schedule.

- Exterior Masonry Well (plain cement plastered finish to be painted)
  - 1 cost skim coating, \* coat primer, 2 coats elastomeric paint finish.
- Interior Masonry Wall (plain cement plastered finish to be painted)
  - 1 coat skim coating, 1 coat primer, 2 coats latex paint finish
- d. Interior Ory Wall
  - 1 coat primer, 2 coats latex paint firest.
- e. Ceiling Boards
  - 1 cost primer, 2 costs latex paint finish
- f Steb Soffil
  - 1 coat primer 2 coats latex paint linish

## g. Metal / Steet Surfaces

- 1 coat primer, 2 coats epoxy enamel finish.
- 5 Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sanded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be sealed with natural wood filler. Nail holes, cracks or defects shall be carefully puttied after the first cost, matching the color of paint.

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

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

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

in addition, the Contractor shall undertake the following:

- Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces
- Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer
- Panting and varnishing works shall not be commerced when it is too hot or cold.
- d. Allow appropriate ventilation during application and drying period
- At hardware will be fifted and removed or protected prior to painting and varnishing works
- Application. Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out after application of paint.

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

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

- ii Application shall be as per paint Manufacturer's specification and recommendation
- iii Provide all drop cloth and other covering requisite for protection of floors, wells aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's instructions and Specifications.
- Alt surfaces including masonry wall shall be thoroughly deemed, putfied, sandpapered, rubbed and polished imasonry wall shall be treated with Neutralizer
- vi. All exposed finish transvere, lighting fedures and accessones, glass and the tike shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- All other surfaces endangered by steins and paint marks should be laped and covered with craft paper.

## D. DOUBLE WALL FIBER CEMENT BOARD DRYWALL ON METAL STUDS

Wall panel shall be two (2) 6 mm thick fiber cement boards, properly cut and prepared for installation and shall conform to the requirements of the Plans.

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

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

## E. DOORS & WINDOWS

Follow as per approved plan and specifications.

#### F. FABRICATED MATERIALS

Follow as per approved plan and specifications

#### G. LETTERINGS

Follow as per approved plan and specifications

## V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the wility companies (as applicable).
- B. Supply, installation and testing of the following:
  - Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - 3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout drains, etc. Complete and operational.
  - Storm drainage system complete in all respect including but not limited to connection
    to existing storm drainage, submittals, shop drawings, pipes, fittings, valves,
    cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- Install equipment in strict accordance with manufacturers written recommendations.
- Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.

- G In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and instalt any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shell include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other occumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All senitery fittings and pipework shell be cleaned after installation and keep them in a new condition
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Cteaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the papework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- The Sankary Contractor must carry out any additional lests required by the end-user and/or approving agency.
- U Drainage pipe shall be tested by filting the pipe with 3m, of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three (loors/storeys required for testing.)
- W Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.

- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe enchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z. Install leteral bracing with pipe hangers and supports to prevent swaying.
- AA Install building attachments within concrete stabs or attach to structural steet. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster inserts to forms and install reinforcing bare through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC, Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

## VI. ELECTRICAL WORKS

# A. CONDUITS, BOXES AND FITTINGS

- This item shall consist of the furnishing and installation of the complete conduit work, consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes: conduit fittings, such as couplings, locknuts and bushings and other electrical materials needed to complete the conduit roughing-in work of this project.
- 2 All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark
- 3 All works throughout shall be executed in the best practice in a workmanilke manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.
- 4. The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.
- 5 All lighting fixtures and lamps are as specified and listed on lighting fixture schedule.
- 6. All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods clamps, connectors, ground wells and ground wire taps as shown in the approved design.
- 7 All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/nurse's call/paging system installations shall be done in accordance with the approved design.
- 8. Upon completion of the electrical construction work, the contractor shall provide all test equipment and personnel and to submit written copies of all test results.
- 9 The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of

works. Any defect shall be remedied by the Contractor at his own expense.

## B. WIRES AND WIRING DEVICES

- This Item shall consist of the furnishing and installation of all wires and wiring devices
  consisting of electric wires and cables, wall switches, convenience receptacles, heavy
  duty receptacles and other devices shown on the approved Plans but not mentioned
  in these specifications.
- Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be cantrally located inside the insulation.
- 3 Conductors or wires shall not be drawn in conduits until after the coment plaster is dry and the conduits are thoroughly cleaned and free from drit and moisture. In drawing wires into conduits, sufficient slack shall be allowed to permit easy connections for fixtures, switches, receptacles and other wiring devices without the use of additional splices.
- 4 All conductors of convenience outlets and lighting brench circuit homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 maters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size
- 5 All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the soldeness type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- Att joints, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber and PVC tapes in a manner which will make their insulation as that of the conductor.
- 8. Alt wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished well surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.
- 9 When more than one switch or device is indicated in a single location, gang plate shall be used.

RALPHGREGOR M. MANALO Planning and Programming Davision JOCELYN & NAONG



## Replublika ng Pilipinas Lungsod ng Quezon

## CITY ENGINEERING DEPARTMENT

5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> Floors, QC Civic Center Building 'B' Telephone Nos 8988-4242 Local 8538



PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK LIBIS DAY CARE CENTER /

LOCATION

BARANGAY U.P. CAMPUS, DISTRICT 4, QUEZON CITY

# TECHNICAL SPECIFICATIONS

#### I. GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall beer all cost arising therefrom.
- B Drawings, specifications, oddes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- D. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- F The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H. Mobilization and Demobilization (if applicable).
  - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - 2 Demobilization shall include all activities and costs for transportation of personnel equipment, and supplies not anymore required within the construction sits including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmantliks manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
  - 1 All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
  - 2 Temporary facilities shall be provided and meintained including sanitary facilities and first aid stations.

- 3 Temporary utilities shall be sufficiently provided until the completion of the project such as water power and communication.
- Temporary enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage.
- Temporary roadways shall be constructed and maintained to austain loads to be carried on them during the entire construction period
- Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly.
- K. Adequate construction satety and health protection shall be provided at all times during the execution of work to both workers and property.
  - 1 A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.
  - 2 The medical room shall be provided with waterproofing; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - 3 The location of the medical room and any other attangements shall be made known to all employees by posting on prominent accations and suitable notices in the site.
  - 4 Additional safety precautions shall be provided in the event of a pandemic. Protocols set forth by the government shall be strictly followed.
  - 5 Personal Protective Equipment (PPE) shall consist of safety helmet/hard inal, safety reflectorized vest, safety insulated gloves, dust mask, safety shoes, safety goggles, and safety hemeas. Every skilled and unskilled worker, and the project foremen shall be provided PPE by the Contractor. Consideration of quantity shall be made for the Project Engineer, Materials Engineer, Safety Officer/Practitioner (as required) and project driver.
  - 6 Construction safety materials shall consist of safety net, fire extinguisher and safety signage and posters.
- L. Necessary protections to the adjacent property shall be provided to avoid untoward incidents? accidents
- M. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

#### II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.
- B This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pevernents, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract.
  - Removel end/or demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
  - The Contractor shall notify the Engineer sufficiently in advance of the beginning of any excavation so that cross-sectional elevations and measurements may be taken on the undisturbed ground. The natural ground adjacent to the structure shall not be disturbed without permission of the Engineer

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

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

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

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

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

- E. Soil Poisoning. There are two methods usually adopted in soil poisoning which are as tollows:
  - 1 Cardoning. This method is usually adopted when there is no visible evidence of termite infestation. Trenches in concentric circles, squares or rectangles are dug 150mm to 220mm wido and at least one meter apart and applied with Liquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.
  - 2 Drenching. When soil show termite infestation, this method shall be applied. The building area shall be thoroughly drenched with Liquid Termicide Concentrate working solution at the rate of 24 liters per square mater.

## III. CIVIL / STRUCTURAL WORKS

## A. CONCRETE WORKS

- Delivery, Storage, and Handling: A'll materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign meterials and the damage of materials by water or breakage. Package materials shall be delivered and stored in onginet packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- 2 Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

#### Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- b. Water used in mixing concrete shall the clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
- c Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates" Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.

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

## 4 Proportioning and Mixing

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

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

- Concrete mixture to be used for concrete shall conform with the structural requirements.
- c Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the coment has been added to the aggregates.

#### 5. Forms

- a. Genoral Forms shall be used whatever necessary to confine the concrete and shape it to the required lines or to insure the concrete of contamination with materials caying from adjacent, excavaled surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ¼" (6mm) thick ordinary plywood and form lumber.
- b. Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material.
- c. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface impertections shall be formed at once and earing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

#### 6 Placing Reinforcement:

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

# 7. Conveying and Placing Concrete:

- a. Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- b. Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass close not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or disewhere as directed, the discharge shall be so

controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.

- c. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- d. Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spacing and tamping. Vibrators shall not be inserted into lower cursed that have commonded initial set, and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- e. Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that he segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

## 8 Curing

- General All concrete shall be moist cured for a period not less than seven
   (7) consecutive days by an approved method or combination applicable to local conditions
- b Moist Curing The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or information) hosing

#### 9 Finishing

- a. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- b. Concrete Stabs on Fill. The concrete stabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

## B. MASONRY WORKS

- Masonry Units (Concrete Hollow Blocks):
  - a 100mm thick for all intenar walls and 150mm thick for all exterior walls unless otherwise indicated
  - Use 400 psi for non-toad bearing blocks and 700 psi for load bearing blocks where required.
  - c Where full height watts are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide attifiener columns and lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height and other considerations.

#### Send:

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

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

#### Reinforcement

The concrete hollow blocks shall be reinforced with 10mm diameter deformed bar, apaced not more than 0 6m on centers, both ways.

#### 5 Plaster band.

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

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

#### C. METAL FABRICATION

#### Materials:

- Steel and from if not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings
- Bolts, Nuts. Studs and Rivets. ASTM A 307 and A 325.
- Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111.
- Metal Purlins. High grade galvanized steel with minimum tensite strength of 275 MPa, 1.4mm in thickness or approved equal.

#### Fabrication:

By mechanics skilled in the trade and in accordance with the manufacturer's directions. Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

## Metal Surfaces

Surfaces shall be clean and free from all scale, flake, rust and rust pitting, well-formed and finished to shape and size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivel permanent connections. Weld and flush rivels shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

## Construction:

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

## Welding:

Use welding electrode E7Gxx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a menner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contect (except where tack welding is permitted. Do not tack weld exposed to connections). Grind smooth visible weld in finished installation.

#### IV. ARCHITECTURAL WORKS

#### A. FLOOR FINISHES

- 1 300mm x 300mm Non-Skid Homogeneous Tites including file adhesive.
- 2 50mm concrete Topping with Plain Cement Finish.

#### B. WALL FINISHES

- 300mm x 300mm Homogeneous Tiles including tile adhesive
- 2 50mm concrete Tooping with Plain Cament Finish.

#### C. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH of the National Institute of Science and Technology.
- Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin
  that disperses and mixes easily with paint to produce the color desired. Use the same
  brand of paint and tinting color to effect good paint body.
- Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into putty consistency, with pit-based primers and paints to fill minor surface donts and imperfections.
- 4. Paint Schedule.
  - Exterior Mesorary Wall (plain coment plastered finish to be painted)
    - 1 coat skim coating, 1 coat primer, 2 coats elastomatic paint finish.
  - Interior Masonry Wall (plain cement plastered finish to be painted)
    - 1 coat skim coating, 1 coat primer, 2 coats latex paint finish.
  - d Interior Dry Wall
    - 1 cost primer, 2 costs latex paint finish.
  - e Celling Boards
    - 1 coat primer, 2 coats latex paint finish.
  - f Şlab Şoffit
    - 1 coat primer. 2 coats latex paint finish.
  - p Metal / Steel Surfaces
    - 1 cost primer, 2 costs epoxy enamel finish
- Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sainded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be sealed with natural wood filler. Nail holes, cracks or defects shall be carefully puttied after the first coat, matching the color of paint.

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

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

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

In addition, the Contractor shall undertake the following:

- Voids, cracks, nickletc, will be repaired with proper patching material and firshed flushed with surrounding surfaces
- Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer
- Panting and varnishing works shall not be commenced when it is too hot or cold.
- Allow appropriate ventilation during application and drying period.
- All hardware will be fitted and removed or protected prior to painting and varnishing works.
- j Application Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out after application of paint.

Paints made for application by roller must be similar to brushing paint, it must be nonsticky when thinned to spraying viscosity so that it will break up easily into droplets

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

- ii. Application shall be as per paint Manufacturer's specification and recommendation
- Provide all drop cloth and other covering requisits for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, puttled, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- vs. All exposed finish hardware, tighting fixtures and accessones, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- v.i. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

## D. DOORS

Follow as per approved plan and specifications.

## E. LETTERINGS

Follow as per approved plan and specifications

#### V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction the rules regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
  - t. Potable water supply system complete in all respects including but not limited to submittals, snop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
  - 4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains etc. Complete and operational
- C Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnal.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the tayout of the equipment and such redesign as required therefore shall be propared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.

- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure dearance of detxis
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drawage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydrauho tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to laise ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test than that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m of water higher than the test section and wait for 15 min, than check for teakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system honzontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Orainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems to permit freedom of movement between pipe anchors, and to fedilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z Install lateral bracing with pipe hangers and supports to prevent awaying
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster piserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

## VI. ELECTRICAL WORKS

#### A. CONDUITS, BOXES AND FITTINGS.

- This item shall consist of the furnishing and materiation of the complete conduit work, consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes utility boxes, octagonal and square boxes: conduit fittings, such as couplings, locknots and bushings and other electrical materials needed to complete the conduit roughingin work of this project.
- All materials shall be brand new and shall be of the approved type meeting all the
  requirements of the Philippine Electrical Code and bearing the Philippine Standard
  Agency (PSA) mark
- All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer
- 4 The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.
- 5 All lighting fixtures and lamps are as specified and listed on lighting fixture schedule.
- 6 All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wries ground rods, clamps, connectors, ground wells and ground wire taps as shown in the approved design.
- All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/nurse's call/paging system installations shall be done in accordance with the approved design.
- Upon completion of the electrical construction work, the contractor shall provide alltest equipment and personnel and to submit written copies of all test results.
- 9. The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

## **B. WIRES AND WIRING DEVICES**

- 1. This item shall consist of the furnishing and installation of all wires and wiring devices consisting of electric wires and cables, wall switches, convenience receptacles, heavy duty receptacles and other devices shown on the approved Plans but not mentioned in these specifications.
- 2. Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts. All wires shall be copper, soft drawn and ennealed, smooth and of cytindrical form and shall be centrally located inside the insulation.
- Conductors or wires shall not be drawn in conduits until after the cement piaster is dry
  and the conduits are thoroughly cleaned and free from dut and moisture. In drawing
  wires into conduits sufficient slack shall be allowed to permit easy connections for
  fixtures, switches, receptacles and other wiring devices without the use of additional
  splices.
- 4. All conductors of convenience authors and lighting branch arount homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.

- 5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- All joints, taps and splices on wives larger than 14 mm shalt be made of sultable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- No sphoes or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber arid PVC tapes in a member which will make their insulation as that of the conductor.
- 8. All well switches and receptacles shall be fitted with standard Baketite face plate covers. Device pates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.

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

RALPHOREGOR M. MANALO
Planning and Programming Division

JOCELYN A MAONG

Planning and Programming Division



# Republic of the Chilippines Quezon City

## CITY ENGINEERING DEPARTMENT

Chir Camer Bullining B. Quezon Oty Hell Compound, Elliptica: Road Stimary Central 3100 Quezon City Trunkline: +63 2 8988.4242



# **TECHNICAL SPECIFICATIONS**

## QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF SAN VICENTE DAYCARE CENTER /

LOCATION : BARANGAY SAN VICENTE, DISTRICT 4, QUEZON CITY

## 1. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inacvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in struct accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- h. Mobilization and Demobilization (if applicable).
  - i Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site, establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - Demobilization shall include all activities and costs for transportation of personnel, aquipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Exocute work in strict accordance with the best practices of the trades in a thorough, substantial, workmantike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
  - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
  - ii. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations

- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hausedout and disposed properly.
- k Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
  - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical dulies
  - ii The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - In the location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
  - Additional safety precautions shall be provided in the observance of pandemic Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.
- m Final cleaning of the work shall be employed prior to the final inspection for dertification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building deaning and maintenance program.

## II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plane and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B Removal / demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever weller is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
- D. All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted wetting, tamping and rolling.

## III. CIVIL / STRUCTURAL WORKS

#### A. CONCRETE WORK

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

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

## c. Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C - 150).
- d. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, atkaline, organic materials or other substances that may be deleterious to concrete or steel.
- isi. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from selt, dust, toam, dirt and all foreign matters.
- Operate aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one lifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear specing between reinforcing bars or between reinforcing bars and forms.

## d Proportioning and Mixing

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

Cement : Sand : Gravel

- Class "A" 1; 2: 3
- Class 'B' 1:2:4
- Class 'C' -1 : 2 ½
- Concrete mixture to be used for concrete shall conform with the structural requirements.
- iii. Mixing concrete shalf be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates

## e. Forms

- i. General Forms shall be used whatever necessary to confine the concrete and shape if to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excevated 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 light to prevent loss or mortar from the concrete. Forms shall be 1/2" waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar the grout or other foreign material.
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

#### f Placing Reinforcement:

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

#### g. Conveying and Placing Concrete:

- i Conveying concrete shall be conveyed from mover to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. These will be no vertical drop greater than 1.5 meters except where suilable equipment is provided to prevent segregation and where specifically authorized.
- Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- Onsolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spacing and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. 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 alabs, where the congestion of steel near the forms makes placing difficult, a layer of morter of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

# h Curing

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

## Finishing

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

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

#### B. MASONRY

- a Masonry Units (CHB):
  - 100mm thick for all interior walls and 125mm thick for all exterior walls unless
    otherwise indicated.
  - Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required
  - In. Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

#### Sand.

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

#### c. Morten

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

#### d Plaster bond:

Apply plaster bond to all wall area

## C. THERMAL AND MOISTURE PROTECTION

## VAPOR BARRIER

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

#### a. ROOFING WORKS

- a. Corrugated galvanized iron (G.I.) sheets, including plan aluminum sheets for roofing accessores shall be cold-rolled meeting ASTM A-153 and with spelter coating of zinc of not less than0.381 kg/sq.m. (1.25 ounce/sq.ft.) conforming to ASTM A-525 or pns 67:1985. Unless otherwise specified or shown on Plans, roofing sheets shall be gauge 25 (0.48mm thick) and provided in long span sizes to minimize end laps. Sheets shall weigh not less than 3.74 kg/sq.m. and shall be marked or stamped showing the gauge, size amount of zinc coating, brand and name of manufacturer. Test specimens shall stand being bent through 180 degrees flat on itself without fractive of the base metal and without flaking of the zinc coating.
- b Ridge/hip rolls, valleys, flashing and counter flashings, gutters and downspouts, whenever required, shall be fabricated from plain G.I. sheets. Ridge/hip rolls, flashings and counter flashings shall be gauge 26. Valleys, gutters and downspouls shall be gauge 24 unless otherwise specified on Plans. Wire basket strainers shall be galvanized, gauge 24.

Roof ventilators, whenever required shall be fabricated from gauge 25 plain G L sheets and constructed to the dimensions and details shows on Plans

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

- d. Polycarbonate roofing and sumbreakers shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purlins with min 2 1/31 max. 31 long Tek screws. Provide all-purpose sealant under the fasteners. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- e All roofing sheets edjacent to concrete hollow block and other masonry walls such as property fine firewalls, shall be provided with Gauge 26 pre-painted plain G I. Flashing to extend to the top and over to the other side of the wall. All fasteness shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.
- f. Provide 6mm thick thermal insulation with single-side aluminum foil prior to fastening of roofing sheets to serve as thermal protection.

## E. METAL FABRICATION

#### Meterials:

- Steel and Iron. If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.
- Bolts, Nuts, Studs and Rivets, ASTM A 307 and A 325.
- Screws Fed Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111
- Metal Purlins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1.4mm in thickness or approved equal.

## b. Fabrication

By mechanics skilled in the trade and in eccordance with the manufacturer's directions. Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuls.

## c. Metal Surfaces.

Surfaces shall be clean and free from all scale, flake, rust and rust pitting; well-formed and finished to shape and size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivel permanent connections. Weld and flush rivers shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or boths where they can be avoided, when used, heads shall be countersurk, screwed up tight and threads nicked to prevent loosening.

#### d Construction:

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

## e. Welding:

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

## IV. ARCHITECTURAL WORKS

#### A. WALLS AND FLOOR FINISHES

- 300mm x 600mm Unglazed Ceramic Tiles including tile adhesive.
- 50mm Concrete Topping for Tiles
- 300mm x 600mm Ceramic Well Tiles
- d 6mm thick Fiber Cement Board on Meta! Studs (double wall)
- Plastering Guide/ Grooves

#### B. CEILING FINISHES

- 12mm thk gypsum board on metal furning.
- 12mm this moisture resistant gypsum board on metal furring

## C. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internet and external application shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covening requisite for protection of floors, walls, aluminum, glass, finishes and other works
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- j All surfaces including masonry wall shall be thoroughly cleaned, puttled, sandpapered, rubbed and polished: masonry wall shall be treated with Neutralizer.
- k. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- I All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

## V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
  - B.1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - B.2 Water service connections including but not limited to water maters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - 8.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer submittels, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational
  - 8.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, littings valves, cleanout drains, etc. Complete and operational.

- C. Workmanship and installation methods shall comform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- Instalt equipment in strict accordance with manufacturers written recommendations.
- Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of eccess for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quentity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment compty with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N All installed pipelines shall be flushed through with water, roulded when recessory to ensure degrance of debris.
- O. Cleaning and flushing shall be carried out in sections as the installation becomes completed
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to felse cerlings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test than that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- The Sanitary Contractor must carry out any additional tests required by the and-user and/or approving agency.

- U. Drainage pipe shall be tested by filling the pipe with 3m, of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Festing of drainage systems shall be carried out in sections by dividing the system honzontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Oramage pressure pipe shelf be hydreulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y Install hangers and supports to allow controlled thermal and sersmic movement of piping systems, to parmit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete stabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and targer and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping

#### VI. ELECTRICAL WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- Di Execute work in strict accordance with the best practices of the trades in eithorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

#### F. PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinots.
  - F 2.1 Rated for environmental conditions at installed location
    - Indoor Dry and Clean Locations NEMA 250 Type 1
    - Outdoor Locations: NEMA 250, Type 3R.
    - iir. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel

- iv Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
- Indear Encations Subject to Oust, Falling Dirt, and Dripping.
   Noncorresive Liquids: NEMA 250, Type 5 or Type 12
- F.2.2 Front: Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions, for flush-mounted fronts, overlap box.
- F.2.3 Hinged Front Cover. Entire front trim hinged to box and with standard door within hinged trim cover.
- F.2.4 Skirt for Surface-Mounted Panelboards. Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
- F 2.5 Gutter Extension and Barner. Same gage and finish as panelboard enclosure, integral with enclosure body. Arrange to isolate individual panel sections.
- F 2.6 Finishes:
  - Panels and Trim: Steel and galvanized steel, factory (mished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topopat.
  - Back Boxes: Galvanized steel Same finish as panels and trim.
  - Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom
- F.4 Phase Neutral and Ground Buses.
  - F.4.1 Material. Hard-drawn copper, 98 percent conductivity.
  - F.4.2 Equipment Ground Bus. Adequate for feeder and branch-discust equipment grounding conductors; bended to box.
  - F.4.3 Neutral Bus: 100 percent of phase bus 4 Extra-Capacity Neutral Bus: Neutral bus reted 200 percent of phase bus and UL listed as suriable for nonlinear loads.

Prepared by:

verget Jeromela mapili

Planning & Programming Division

Checked by.

Planning & Programming Division



## Replublika ng Pilipinus Lungsod ng Quezon

# CITY ENGINEERING DEPARTMENT

5<sup>1H</sup>, 6<sup>TH</sup>, 7<sup>TH</sup>, Floors, QC Civic Center Building "8" Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE .
LOCATION:

PROPOSED REHABILITATION OF AMORSOLO I DAY CARE CENTER BARANGAY U.P. CAMPUS, DISTRICT 4, QUEZON CITY

# TECHNICAL SPECIFICATIONS

## I. GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary40 the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- Drawings, specifications, codes and standards are minimum requirements. Where
  requirements differ the more stringent apply.
- C. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency
- D. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- F The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- H Mobilization and Demobilization (if applicable)
  - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
  - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
  - 2 Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided around the construction site with adequate quard lights, railings and proper signage.
- 5 Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period
- Upon completion of the work, the temporary facilities shall be demolished, heuled-out end disposed properly.
- K. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
  - A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.
  - The medical room shall be provided with waterproofing; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 aguare meters and a plazed window area of at least 2 square meters
  - 3 The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and sultable notices in the site.
  - Additional safety precautions shall be provided in the event of a pandemic. Protocols set forth by the government shall be strictly followed.
  - 5 Personal Protective Equipment (PPE) shall consist of safety helmet/hard hat, safety reflectorized vest, safety insulated gloves, dust mask, safety shoes, eafety goggles, and safety hemeas. Every skilled and unskilled worker, and the project foreman shall be provided PPE by the Contractor, Consideration of quantity shall be made for the Project Engineer, Materials Engineer, Safety Officer/Practitioner (as required) and project driver.
  - 6 Construction selety materials shall consist of safety net, fire extinguisher and safety signage and posters
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents? accidents.
- M. Final cleaning of the work shall be employed prior to the final aspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

## II. SITE WORKS

- A. All grades, tines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.
- B. This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old payements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract.
  - Removal and/or demolition of existing structures shall be done in accordance to safety procedures
- C. Alt excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
  - The Contractor shall notify the Engineer sufficiently in advance of the beginning of any excavation so that cross-sectional elevations and measurements may be taken on the undisturbed ground. The natural ground adjacent to the structure shall not be disturbed without permission of the Engineer.

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

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

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

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

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

- E. Soil Poisoning. There are two methods usually adopted in soil poisoning which are as follows:
  - Cordoning. This method is usually adopted when there is no visible evidence of termite infestation. Trenches in concentric circles, squares or rectangles are dug 150mm to 220mm wide and at least one meter apart and applied with Liquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.
  - Orenching. When soil show termite infestation, this method shall be applied. The building area shall be thoroughly drenched with Liquid Termicide Concentrate working solution at the rate of 24 liters per square meter.

## III. CIVIL / STRUCTURAL WORKS

## A. METAL FABRICATION

## Materials:

- Steel and Iron. If not specified otherwise, use standard miti-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings
- Bolts, Nuts, Studs and Rivets. ASTM A 307 and A 325.
- Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111.
- d. Metal Purkins. High grade galvanized steel with minimum tensile strength of 275 MPa. 1.4mm in thickness or approved equal

## 2. Fabrication:

By mechanics stalled in the trade and in accordance with the manufacturer's directions. Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and brecking of adequate strength and durability, with tight flush joints, dressed smooth and clean. Complete with bolts and durability.

## Metal Surfaces:

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

where they can be avoided; when used, heads shall be countersunk, screwed uptight and threads nicked to prevent loosening

#### 4. Construction:

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

## 5 Welding:

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

#### IV. ARCHITECTURAL WORKS

#### A. FLOOR FINISHES.

- 1 300mm x 300mm Non-Skid Homogeneous Tiles including tile adhesive
- 2. 50mm concrete Topping with Plain Cement Finish.

## B. WALL FINISHES

- 300mm x 300mm Homogeneous Tiles including tile adhesive.
- 2 50mm concrete Topping with Plain Cement Finish

#### C. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology.
- Tirrling Colors. Finting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and linting color to effect good paint body.
- 3 Skim cost. Skim cost shall be fine powder type material like kalsomine that can be mixed into pulty consistency, with oil-based primers and paints to fill minor surface dents and Imperfections.
- 4. Paint Schedule.
  - Exterior Masonry Wall (plain cement plastered finish to be painted)
    - t coat skim coating, 1 coat primer, 2 coats elastomeric paint finish
  - Interior Masonry Wall (plain cement plastered finish to be painted).
    - 1 coat skim coating, 1 coat primer, 2 coats latex paint finish.
  - d. Interior Dry Wall
    - i. 1 coat primer, 2 coats letex paint firesh
  - e. Ceiling Boards
    - 1 cost primer, 2 costs talex paint finish.

## f. Stab Soffit

1 cost primer, 2 costs latex point finish

#### Metal / Steel Surfaces

- 1 coat primer, 2 coats epoxy enamel finish.
- 5. Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hend-sended smooth and dusted clean. All knot-holes prich pockets or seppy portions shall be sealed with natural wood filler. Nail holes, cracks or detects shall be carefully puttled after the first coat, matching the color of paint.

interior woodworks shall be sendpapered between coats. Cracks, holes of imperfections in plaster shall be filted with patching compound and smoothed off to match adjoining surfaces.

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

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

in addition, the Contractor shall undertake the following:

- Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces.
- Married or damaged shop coals on metal shall be spot primed with appropriate metal primer.
- Panting and varnishing works shall not be commenced when it is too hot or cold.
- Allow appropriate ventilation during application and drying period
- Alt hardware will be fitted and removed or protected prior to painting and varnishing works.
- Application. Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out effer application of caint.

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

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

- Application shall be as per point Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- iv All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, puttled, sandpapered, rubbed and polished, masonry wall shall be treated with Neutralizer.
- vi. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- All other surfaces endangered by stains and paint marks should be taped and covered with craft paper

#### D. DOORS & WINDOWS

Follow as per approved plan and specifications.

## E. FABRICATED MATERIALS

Follow as per approved plan and specifications.

#### F. LETTERINGS

Follow as per approved plan and specifications

#### V. SANITARY / PLUMBING WORKS.

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
  - Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittels, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational
  - Storm drainage system complete in all respect including but not limited to connection
    to existing storm drainage, submittate, shop drawings, pipes, fittings, valves,
    cleanout, drains, etc. Complete and operational.
- C Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the regularment of access for maintenance purposes
- G. In selecting makes and types of equipment, the Contractor shall ascertain that fecilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the tayout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.

- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessones shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All senitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. Alt installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydrautic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to take ceilings and other finishes are installed.
- 9. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sandary Contractor must carry out any additional tests required by the end-user and/or approving agency
- U Drainage pipe shall be tested by filling the pipe with 3m. of water higher then the test section and walt for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7
- Y Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion toops, expansion bends, and similar units.
- Instell lateral bracing with pipe hangers and supports to prevent swaying.
- AA, Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers. NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts

- before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- B8. Instell hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

## VI. ELECTRICAL WORKS

## A. CONDUITS, BOXES AND FITTINGS

- 1. This stem shall consist of the furnishing and installation of the complete conduit work consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes, conduit fittings, such as couplings, tocknuts and bushings and other electrical materials needed to complete the conduit roughings in work of this project.
- All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.
- All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer
- 4. The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.
- All lighting fixtures and lamps are as specified and listed on lighting fixture achedule.
- 6. All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods, clamps, connectors, ground wells and ground wire taps as shown in the approved design.
- 7. All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/hurse's call/paging system installations shall be done in accordance with the approved design.
- Upon completion of the electrical construction work, the contractor is shall provide all
  test equipment and personnel and to submit written copies of all test results.
- 9. The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

## B. WARES AND WIRING DEVICES.

- This item shall consist of the furnishing and installation of all wires and wiring devices
  consisting of electric wires and cables, well switches, convenience receptacles, heavy
  duty receptacles and other devices shown on the approved Plans but not mentioned
  in these specifications.
- 2. Wires end cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.

- 3. Conductors or wires shall not be drawn in conduits until after the cement plaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing were into conduits, sufficient slack shall be allowed to permit easy connections for fixtures, switches, receptacles and other wiring devices without the use of additional splices.
- 4. All conductors of convenience outlets and tighting branch circuit homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.
- All wires of 14mm and larger in size shall be connected to panels and apparatus by
  means of approved type lugs or connectors of the solderless type, sufficiently large
  enough to enclose all strands of the conductors and securely fastened. They shall not
  lossen under vibration or normal strain.
- 6 At soints, tape and splices on wires targer than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No splices or joints shall be permitted in either feeder or branch conductors except within autiet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber arid PVC tapes in a manner which will make their insulation as that of the conductor.
- 8. All wall switches and receptacles shall be fitted with standard Bekelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coded wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.
- When more than one switch or device is indicated in a single location, gang plate shall be used

RALPHGREGOR M. MANALO
Planning and Programming Division

JOCEL IN AL NAONG

Planning and Programming Division



## Republic of the Philippines Quezon City

## CITY ENGINEERING DEPARTMENT

Civic Center Building 8, Queson City s-all Compound, E.lipskal Road Diliman, Central 1100 Queson City Transling: +63 7,8988,4742



## TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED REHABILITATION OF PECHAYAN DAYCARE CENTER 
LOCATION: BARANGAY OLD CAPITOL SITE, DISTRICT 4, QUEZON CITY

#### L GENERAL REQUIREMENTS

- e. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shell bear all cost arising therefrom.
- b Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in struct accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- Alt equipment and installations shall meet or exceed minimum requirements of the standards and codes
- Mobilization and Demobilization (if applicable)
  - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site
  - iv. Demobilization shall include all activities and costs for transportation of personnet, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- j. Temporary Facilities and Utilities
  - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
  - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations
  - Ill Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication

- Témporary enclosure shall be provided within the construction sité with adéquate guard lights, railings and proper signages.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon complétion of the work, the temporary facilities shall be démolished, hauledout and disposed property.
- Adequate construction safety and health protection shall be provided at all times during the
  execution of work to both workers and property.
  - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
  - II. The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site
  - Additional safety precautions shall be provided in the observance of pandemic.
     Protocols set-forth by the government shall be strictly followed
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents? accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

## II. SITE WORKS

- A All grades lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B. Removal / demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
- D All backrills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compected wetting, tamping and rolling.

## III. CIVIL / STRUCTURAL WORKS

## A. CONCRETE WORK

- a Delivery, Storage, and Handling: Ail materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before

concrete is placed, embedded items shall have been inspected and lested for concrete appregates and other materials shall have been done.

## Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150)
- ii. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, soids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates", Sand particle shall be course, sharp, clean free from sall, dust, loam, dirt and all foreign matters.
- iv. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars and forms.

#### d Proportioning and Mixing.

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

Cement : Sand : Gravet

Class 'A' - 1 . 2 : 3
Class 'B' - 1 2 : 4
Class 'C' - 1 : 2 ½

- Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

## e Forms

- I. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or morter from the concrete. Forms shall be ¼1 waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface expertections shall be formed at once and siring shall be started as soon as the surface is sufficiently hard to permit it without further damage.

## f Placing Reinforcement:

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

## g. Conveying and Placing Concrete:

- i. Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- ii. Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its finel position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv Consolidation of Concrete in concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set, and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. 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 montar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

## fi Curing

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

## i. Finishino

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii Concrete Stabs on Fill. The concrete stabs on fill shall be taid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

#### B. MASONRY

- a. Mesonry Units (CHB);
  - 100mm thick for all interior walls and 125mm thick for all exterior walls unless otherwise indicated
  - Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.
  - iii. Where full height walks are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide soffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

#### b. Send:

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

#### c. Morter:

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

## d. Plaster bond;

Apply plaster bond to all wall area.

#### C. THÉRMAL AND MOISTURE PROTECTION

## 1. VAPOR BARRIER

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

## D. ROOFING WORKS

- a. Corrugated galvanized iron (G.I.) sheets, including plain stuminum sheets for roofing accessories shall be cold-rolled meeting ASTM A-153 end with spelter coating of zinc of not less than 381 kg/sq.m. (1.25 ounce/sq.ft.) conforming to ASTM A-525 or pns 67.1985. Unless otherwise specified or shown on Plans, roofing sheets shall be gauge 26 (0.48mm thick) and provided in long span sizes to minimize end laps. Sheets shall weigh not less then 3.74 kg/sq.m. and shall be marked or stamped showing the gauge, size emount of zinc coating, brand and name of manufacturer. Test specimens shall stand being bent through 180 degrees that on itself without fracture of the base metal and without flaking of the zinc coating.
- b. Ridge/hip rolls, valleys, flashing and counter flashings, gutters and downspouts, whenever required shall be fabricated from plain G.I. sheets. Ridge/hip rolls, flashings and counter flashings shall be gauge 26. Valleys, gutters and downspouts shall be gauge 24 unless otherwise specified on Plans. Wire basket strainers shall be galvanized, gauge 24.

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

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

- d. Polycarbonate roofing and sunbreakers shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purties with min. 2 ¼′ max. 3′ long Tek screws. Provide all-purpose sealent under the fasteners. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonale sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- e Att rooting sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plant G I. Flashing to extend to the lop and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the rooting sheets to prevent water from standing around the festeners.
- Provide 6mm thick thermal insulation with single-side aluminum foil prior to fastening
  of rooting sheets to serve as thermal protection

#### E. METAL FABRICATION

#### a. Materials:

- Steel and Iron. If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.
- Bolts, Nuts, Studs and Rivets, ASTM A 307 and A 325.
- Screws Fed Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111.
- d Metal Purlins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1,4mm in thickness or approved equal.

## b. Fabrication:

By mechanics skilled in the trade and in accordance with the manufacturer's directions. Metalwork shall be tablicated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, drassed smooth and clean. Complete with bolts and nuts.

## c Metal Surfaces:

Surfaces shall be clean and free from all scale, flake, fust and rust pitting, well-formed and finished to shape and size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

### d. Construction:

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

## e. Welding:

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

## IV. ARCHITECTURAL WORKS

#### A. WALLS AND FLOOR FINISHES

- 300mm x 600mm Unglazed Ceremic Tiles including tile adhesive.
- 50mm Concrete Topping for Tiles
- 300mm x 600mm Ceramic Wall Tiles
- d. 6mm thick Fiber Cement Board on Metal Stude (double wall).
- e. Plastering Guide/ Grooves

#### B. CEILING FINISHES

- a. 12mm thk gypsum board on metal furring.
- 12mm this moisture resistant gypsum board on metal furring

#### C. PAINTING WORKS

- All primers, thinners and putity, also waterproofing for internal and external application, shall be the same brand as the specified material.
- a. Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions: and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, pultied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- k Alt exposed finish herdwere, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting meterials prior to painting works.
- All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

## V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the ublity companies (as applicable)
- B. Supply, installation and testing of the following:
  - 8.1 Potable water suppry system complete in all respects including but not limited to submittale, shop drawings, piping, water meters, valves, bibbs, insulation, all accessones required for complete and operational of the system.
  - 8.2 Water service connections including but not limited to water meters, float valves. Any and all other works envolve in providing the complete operation of the water supply system.
  - B.3 Soll waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
  - 8 4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes. Fittings, valves, cleanout, drains, etc. Complete and operational.
- C Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.

- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations
- F. Physical sizes of all plant and equipment are to be suitable for the space affocated for the accommodation of such plant and equipment taking into account the requirement of access for maintenance purposes.
- G in selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination
  and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Date and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Clearing and flushing shall be carried out in sections as the installation becomes completed.
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- O. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shell be completed before chases in walls and ducts are closed. Also test shall be carried out prior to felse ceilings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to witnestand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.

- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA Install building effectments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers. NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete userts before concrete is placed, fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe alopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

## VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Orawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

## F. PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Enclosures. Flush, Surface, Flush- and surface-mounted cabinets.
  - F.2.1 Rated for environmental conditions at installed location.
    - i. Indoor Dry and Clean Locations NEMA 250, Type 1.
    - Outdoor Locations, NEMA 250, Type 3R.
    - Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
    - Other Wet or Demo Indoor Locations: NEMA 250, Type 4

- Indoor Locations Subject to Dust, Falling Dirt, and Dripping.
   Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
- F.2.2 Front: Secured to box with conceated frim clamps. For surface-mounted fronts, metch box dimensions; for flush-mounted fronts, overlap box.
- F 2.3 Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
- F.2.4 Skirt for Surface-Mounted Panelboards. Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
- F 2.5 Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrenge to isolate individual panel sections.
- F.26 Finishes:
  - Panels and Trim Steel and galvenized steel factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
  - Back Boxes: Galvarazed steet Same finish as panels and trim.
  - Fungus Proofing Permanent fungicidal treatment for overcurrent protective devices and other components.
- F 2.7 Directory Card: Inside panelboard door, mounted in transparent card hotter metal frame with transparent protective cover.
- F 3 Incoming Means Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
  - F 4.1 Material: Hard-drawn copper, 98 percent conductivity.
  - F 4.2 Equipment Ground Bus Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box
  - F.4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

Prepared by:

VERGEL JEROME A. MAPIL

Plenning & Programming Division

Checked by.

Planning & Programming Divation



# Republic of the Whilipposes Quezon City

## CITY ENGINEERING DEPARTMENT



Civic Center Building B. Quezon City Hall Compound, Elliptical Road Diliman, Central 1200 Quezon City Trunk line: +63 7 8488 4242

# TECHNICAL SPECIFICATIONS QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER

LOCATION: BARANGAY U.P. CAMPUS, DISTRICT 4, QUEZON CITY

## I. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and stendards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- c Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Sité vérification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence
- f The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- Mobilization and Demobilization (if applicable)
  - Mobilization shall include all activities and related costs for transportation of personnel equipment, and operating supplies to the site, establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - ii. Demobilization shall include all activities and costs for transportation of personnal, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.

- Execute work in strict accordance with the best practices of the trades in a thorough, substantial workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
  - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
  - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations
  - Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
  - Temporary enclosure shall be provided within the construction site with adequate quard lights, railings and proper signages.
  - Temporary roadways shall be constructed and maintained to sustain loads to be carned on them during the entire construction period.
  - Upon completion of the work the temporary (actities shall be demolished, hauled-out and disposed property.
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
  - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
  - ii. The medical room shall be provided in waterproof, it could be a building or room designered and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - III. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
  - Additional safety precaulions shall be provided in the observence of pandemic. Protocols set-forth by the government shall be strictly followed
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

## II. SITE WORKS

- A All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work
- Removal / demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, dark being taken that the surrounding soil particles are not disturbed or removed.
- O All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted wetting, famping and rolling.

#### III. CMIL/STRUCTURAL WORKS

#### A. CONCRETE WORK

- a. Delivery, Storage, and Handling: All materials shall be so delivered stored and handled as to prevent the inclusion of foreign materials and the damage of materials by weter or breekage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed lembedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

#### c. Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).
- Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deterious to concrete or steel.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Şand particle shall be course, sharp, clean free from salt, dust, loam, durt and all foreign matters.
- iv. Coarse aggregates shall be either natural gravet or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars of between reinforcing bars and forms

d. Proportioning and Mixing

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

Cement : Sand : Gravel

- Class "A" 1 2 3
- Class 'B' 1 2 4
- Class \*C" 1 \* 2 ½
- ii Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

## e. Forms

- General Forms shall be used wherever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caking from adjacent, excavated surfaces. Forms shall have sufficient strength to withstend the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material

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

## Placing Reinforcement

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported 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 desiroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discolaration or deterioration of the concrete.

## g. Conveying and Placing Concrete:

- Conveying -- concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 (weters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- ij Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time Interval between mixing and placing. Concrete shall be placed before mitial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set, and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. 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 cament-sand ratios as used in concrete shall be first deposited to cover the surfaces.

## h. Curing

- 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
- Moist Curring The surface of the concrete shall be kept continuously well by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hasing.

## Finishing

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

ii Concrete Stabs on Fill. The concrete stabs on fill shall be text on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

#### B. MASONRY

- Masonry Units (CHB).
  - 100mm thick for all interior walls and extenor walls unless otherwise indicated.
  - Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required
  - iii. Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or stab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.
- b Sand:
  - S-1, washed, clean and greenish in color.
- c. Mortar.

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

d. Plaster bond

Apply plaster bond to all wall area.

## IV. ARCHITECTURAL WORKS

## A. TILE WORKS

- a Both broken and unbroken old tiles must be chip-off
- b. Surface should be smoothen & clean.
- Homogeneous tiles shall be soaked in clean water prior to installation.
- d. Lay the tites true to profile as specified in the plan.

## B. FABRICATED DOORS

All doors must be in approved quality as specified in the plan and program of works.

## C. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified meterial.
- b. Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- e All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

- All exposed first hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other penting materials prior to painting works.
- g All other surfaces endangered by stains and pauli marks should be taped and covered with craft paper

## V. SANITARY / PLUMBING WORKS

- A. Comply with the current epiticeble codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
  - B 1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - B.2 Water service connections including but not limited to water meters. float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - B.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drams, etc. Complete and operational
  - B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations
- F. Physical sizes of all plent and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, crewings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and errangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.

- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contemination or distortion breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases of under approved protective coverings until required for use
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All senitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debrts.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydrautic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is Installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be retested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m, of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Dramage pressure pipe shall be hydraulic tested at minimum pressure 50 psr.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units
- Install lateral breeing with pipe hangers and supports to prevent swaying.
- AA Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- 98. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections abowed by ASME 831.9 for building services piping.

#### VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The tabel shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

## F. PANELBOARDS

- F.1 Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
  - F.2.1 Rated for environmental conditions at installed location.
    - Indoor Dry and Clean Locations: NEMA 250, Type 1.
    - Outdoor Locations. NEMA 250, Type 3R.
    - iii. Kitchen and Wash-Down Areas NEMA 250, Type 4X, stainless steel
    - Other Wet or Demp Indoor Locations: NEMA 250, Type 4.
    - Indoor Locations Subject to Oust, Falling Out, and Oripping.
       Noncorresive Leguids: NEMA 250, Type 5 or Type 12
  - F 2.2 Front. Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions, for flush-mounted fronts, overlap box.
  - F.2.3 Hinged Front Cover: Entire from from hinged to box and with standard door within hinged from cover.
  - F.2.4 Skirt for Surface-Mounted Parelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
  - F.2.5 Gutter Extension and Barrier: Same gage and finish as panelboard enclosure: integral with enclosure body. Arrange to isolate individual panel sections.

## F.2.6 Finishes:

- Panels and Trim. Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coal, baked-on finish consisting of prime coal and thermosetting topocat.
- Back Boxes: Galvanized steel Same finish as panels and trim.

- Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components
- F.2.7 Directory Card Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
  - F.4.1 Material Hard-drawn copper, 98 percent conductivity
  - F 4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors, bonded to box.
  - F 4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

MIKKI J/ DE ORACIA

Planning and Regramming Division

JOCELYN A MAONG

Planning and Programming Division



## Replublika ng Pilipinas Lungsod ng Quezon

## CITY ENGINEERING DEPARTMENT

5<sup>TH</sup>, 6<sup>TH</sup>, 7<sup>TH</sup> Floors, OC Clwic Center Building "8". Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE

PROPOSED REHABILITATION OF POOK VILLAGE 8 DAY CARE

CENTER

LOCATION: BARANGAY U.P. CAMPUS, DISTRICT 4, QUEZON CITY

## **TECHNICAL SPECIFICATIONS**

#### GENERAL REQUIREMENTS

- A Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- Orawings specifications, codes and standards are minimum requirements. Where
  requirements differ, the more stringent apply.
- C. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- D Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and focation, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict economics with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- H. Mobilization and Demobilization (if applicable).
  - 1 Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
  - 2 Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best prectices of the trades in a thorough, substantial, workmantike manner by competent workman. Provide a competent, experienced, tutt-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities.
  - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types
  - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations

- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication
- Temporary enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly
- K. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
  - 1 A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties
  - 2 The medical room shall be provided with waterproofing; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
  - The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and suitable notices in the site.
  - Additional safety precautions shall be provided in the event of a pandemic. Protocols
    set forth by the government shall be strictly followed.
  - 5 Personal Protective Equipment (PPE) shall consist of safety helmet/hard hat, safety reflectorized vest, safety insulated gloves, dust mask, safety shoes, safety goggles, and safety herness Every skilled and unskilled worker, and the project foremen shall be provided PPE by the Contractor, Consideration of quantity shall be made for the Project Engineer, Materials Engineer, Safety Officer/Practioner (as required) and project driver.
  - Construction safety materials shall consist of safety net, fire extinguisher and safety signage and posters
- E. Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.
- M. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

## II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistences shall be reported before commencing work.
- B. This item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract.
  - Removal and/or demolition of existing structures shall be done in accordance to safety procedures.
- C. Alt excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.

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

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

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

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

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

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

- E. Soit Poisoning. There are two methods usually adopted in soil poisoning which are as follows.
  - 1 Cordoning. This method is usually adopted when there is no visible evidence of termite infestation. Trenches in concentric circles, squares or reclangles are dug 150mm to 220mm wide and at least one meter spen and applied with Liquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.
  - 2 Drenching. When soil show termite infestation, this method shall be applied. The building area shall be thoroughly drenched with Liquid Termicide Concentrate working solution at the raie of 24 liters per square meter.

## III. CIVIL / STRUCTURAL WORKS

## A. ROOFING WORKS

- The roof shall be covered with Ga. 24 pre-painted G.I rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purins with min. 2 1/3" max 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls hip rolls and valleys shall be riveted to the roofing sheets.
- 2. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½' max. 3' long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- 3 All roofing sheets adjacent to concrete hollow block and other masomy walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Plashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners Materials.
  - a. Steel and Iron, if not specified otherwise, use standard mill-firshed structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.
  - Botts, Nuls, Studs and Rivets, ASTM A 307 and A 325.

- Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111.
- d. Metal Purlins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1.4mm in thickness or approved equal.

#### B. MASONRY WORKS

- Masonry Units (Concrete Hollow Blocks):
  - a. 100mm thick for all interior walls and 150mm thick for all extenor walls unless
    otherwise indicated
  - Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.
  - c. Where full height walls are constructed with concrete hotlow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns and lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height and other considerations.

## Sand:

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

#### Mortar:

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

### 4 Reinforcement

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

## Plaster bond:

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

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

## C. METAL FABRICATION

#### Materials

- Steel and Iron. If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design.
   Esbrication and Erection of Structural Steel for buildings
- Bolts, Nuts. Studs and Rivets. ASTM A 307 and A 325.
- g. Screws, Fed Spec FF-S-85 Fed Spec FF-S-92, and Fed Spec. FF-S-111
- Metal Purties. High grade galvanized steel with minimum tensile strength of 275 MPa, 1.4mm in thickness or approved equal.

## 2. Fabrication:

By mechanics skilled in the trade and in accordance with the manufacturer's directions. Metalwork shall be tabricated to allow for expansion and contraction of materials. Provide walding and bracing of adequate strength and durability with tight trush joints, dressed smooth and dean. Complete with bolls and buts.

## 3 Metal Surfaças:

Surfaces shall be clean and free from all scale, flake, rust and rust pitting; welfformed and finished to shape and size, with sharp sines, engle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth or surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

#### Construction:

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

## Welding

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

## IV. ARCHITECTURAL WORKS

## A. FLOOR FINISHES

- 300mm x 300mm Non-Skid Homogeneous Tiles including tile adhesive
- 2. 50mm concrete Topping with Plain Coment Finish

#### **B. WALL FINISHES**

- 1 300mm x 300mm Homogeneous Tiles including tile adhesive
- 400mm x 400mm Homogeneous Titles including title adhesive
- 50mm concrete Topping with Plain Cement Finish.

## C. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject
  to test as to material composition by the Bureau of Research and Standard, OPWH or
  the National Institute of Science and Technology.
- Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.
- 3 Skim coal. Skim coal shall be fine powder type material like kelsomine that can be mixed into pully consistency, with oil-based primers and paints to fill minor surface dents and imperfections.

## 4. Paint Schedule.

- Exterior Masonry Wall (plain cement plastered finish to be painted)
  - t coat skim quating, 1 coat primer, 2 coats etaetomeric paint finish.
- interior Mesonry Wa't (plam cement plastered finish to be painted)
  - i 1 coat skim coating, 1 coat pamer, 2 coats latex paint finish
- d Interior Dry Wall
  - 1 coat primer, 2 coats latex paint finish
- e. Ceihng Boards

- i. I coat primer. 2 coats latex paint finish.
- Slab Soffit
  - 1 cost primer 2 costs latex paint finish.
- g. Metal / Steel Surfaces
  - 1 cost primer, 2 costs epoxy enamel firesh
- 5 Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sanded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be sealed with natural wood filler. Nail holes, cracks or defects shall be carefully puttied after the first coat, matching the color of paint.

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

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

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

In addition, the Contractor shall undertake the following:

- Voids, cracks, nickletc will be repaired with proper patching material and finished flushed with surrounding surfaces
- b. Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer.
- c. Panting and varnishing works shall not be commenced when it is too hollor cold.
- Allow appropriate ventilation during application and drying period.
- All hardwere will be fitted and removed or protected prior to painting and varnishing works.
- i Application. Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out after application of paint.

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

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

- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications
- All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer

- vi. All exposed firesh hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- yıı All other surfaces endangered by stains and paint marks should be taped and covered with craft paper

## D. DOORS & WINDOWS

Follow as per approved plan and specifications

## E. FABRICATED MATERIALS

Follow as per approved plan and specifications.

## F. LETTERINGS

Follow as per approved plan and specifications

## V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- Supply, installation and testing of the following:
  - Potable water supply system complete in all respects including but not limited to submittels, shop drawings, piping, water maters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
  - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
  - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, filtings, valves, cleanout, drains, etc. Complete and operational.
  - 4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals shop crawings, pipes fittings, valves cleanout, drains, etc. Complete and operational
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation recessitates a different

quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.

- Equipment catalogue and manufacturer's specifications must be submitted for examination
  and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, property packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M. All sanitary fittings and pipework shall be deaned after installation and keep them in a new condition
- N. Alt instalted pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debns.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure poing applied.
- R. Hydrautic tests shall be carried out as the pipework is installed and shall be completed before chases in walks and ducts are closed. Also lest shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Senitary Contractor must carry out any additional tests required by the end user and/or approving agency
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Orainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7
- Y Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe enchars, and to fedilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z install lateral bracing with pipe hangers and supports to prevent sweying.

- AA Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- 88. Install hangers and supports so that piping five and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping

## VI. ELECTRICAL WORKS

## A. CONDUITS, BOXES AND FITTINGS

- 1 This item shall consist of the furnishing and installation of the complete conduit work, consisting of electrical conduits, conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes; conduit fittings, such as couplings, locknuts and bushings and other electrical materials needed to complete the conduit roughing-in work of this project.
- All materials shall be brand new and shall be of the approved type meeting all the
  requirements of the Philippine Electrical Code and bearing the Philippine Standard
  Agency (PSA) mark.
- 3 All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.
- 4. The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.
- 5 All lighting fixtures and lamps are as specified and listed on lighting fixture schedule.
- 6. All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires ground rods, ctamps, connectors, ground wells and ground wire taps as shown in the approved design.
- 7. All auxiliary systems such as telephone and intercom system, time clock system, fire atams system and public address/hurse's call/paging system installations shall be done in accordance with the approved design.
- Upon completion of the electrical construction work, the contractor shall provide alltest equipment and personnel and to submit written copies of all test results.
- The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are tree from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense

## B. WIRES AND WIRING DEVICES

- 1 This Item shall consist of the furnishing and installation of all wires and wring devices consisting of electric wires and cables, wall switches, convenience receptacles, heavy duty receptacles and other devices shown on the approved Plans but not mentioned in these specifications.
- Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark Unless specified or indicated otherwise, all power and lighting conductors shall be

insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.

- Conductors or wires shall not be drawn in conduits until after the cement plaster is dry
  and the conduits are thoroughly cleaned and free from dirt and mosture. In drawing
  wres into conduits, sufficient slack shall be allowed to permit easy connections for
  flixtures, switches receptacles and other wiring devices without the use of additional
  splices.
- 4. All conductors of convenience outlets and lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.
- 5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- 6. All joints, taps and splices on wires targer than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No aplices or joints shall be permitted in either feeder or branch conductors except within outlet baxes or accessible junction boxes or pull boxes. All joints in branch circuit wring shall be made mechanically and electrically secured by approved splicing devices and laped with rubber arid PVC lapes in a manner which will make their insulation as that of the conductor.
- 8. All wall switches and receptacles shall be fitted with standard Baketite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet tocations shall be gasketed.
- When aware then one switch or device is indicated in a single location, gang plate shelf be used.

RALPHOREGOR M. MANALO
Planning and Programming Division.

Planning and Programming Division

# Section VII. Drawings

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



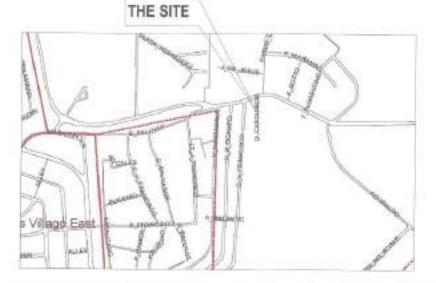


TABLE OF CONTENTS

| ARCHITECTURAL |  |  |
|---------------|--|--|
| AHI           | EDGALORIMO VEZNELIMES RESIDENT DEMONSTRA   |  |
| A8-82         | EXISTING PLOCESSAN   |  |
| -A843         | SHIOPOSES FLORE FLORE  |  |
| ABOR          | PERSONDERS NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRESS O |  |
| 1000          | PRINT EURINATION   |  |
| ANOS          | DATTERNALISMALS  |  |
|               | HERDALE OF DOORS   |  |
|               | BROOK SMALS JETALE   |  |
|               | WIDDH SAFE DETAILS   |  |
| 2.1.1.        | TORRET DETAIL  |  |
| ARC6          | SECURE   |  |

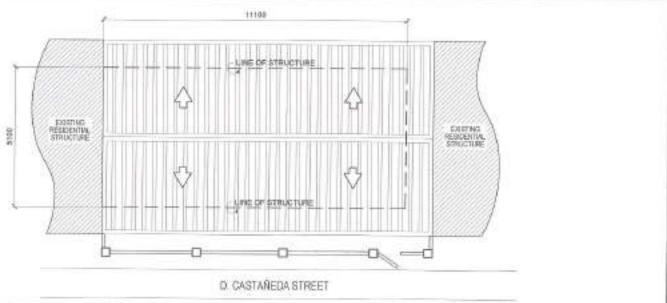
## PLUMBING / SANITARY

| PLOI: | GROUPELING SA                         |
|-------|---------------------------------------|
| 166   | SUCCESSION AND STOREGUE               |
|       | PLEASE OF THE R.                      |
| 75,42 | DECAMP PRODUCTION OF LAKE LAKE TO     |
| Pt-05 | CORCURD RECORD MATERIARY LAWS IN      |
| 75.04 | DECEMBER OF LEELINGS.                 |
| PL05  | SECOND FLOCK SAME SHOW LITTLE LATERAL |

SCALE: ATTS

VICINITY MAP

GOALE: MITE



3 SITE DEVELOPMENT PLAN

BOALE HTS

HON, MA. JOSEFINA U. BELMONTE

CITY MAYOR: GWISSA COY



Republika ng Pilipinar Lungsoding Quesno. CITY ENGINEERING DEPARTMENT PROJECT TITLE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF AMORSOLO II DAYCARE CENTER

BARANGAY M.F. DAMPUS, DESTRICT & GUEZONICTY



HECKED BY: PK REVISION NO.



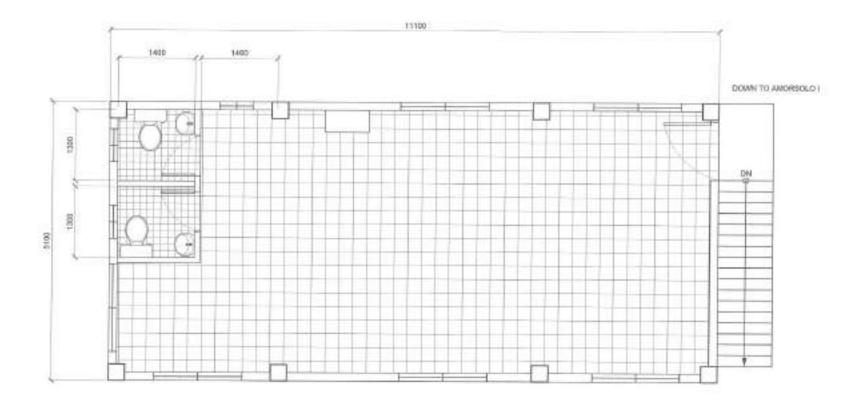


LOCATION MAP VACINITY MAP SERVE DEWELD/MENT PLAN

AR-01

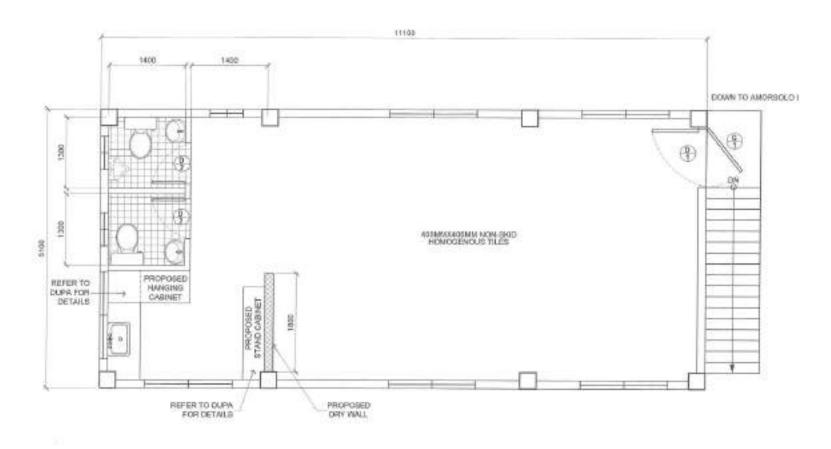
HH17.90

**QUEST CONTINUE** 



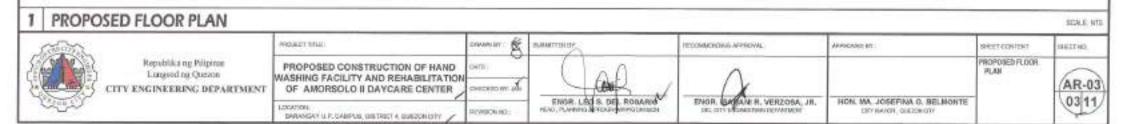
DOORS TO BE REPLACED
 PLOORS AND WALLS TILES TO BE REPLACED

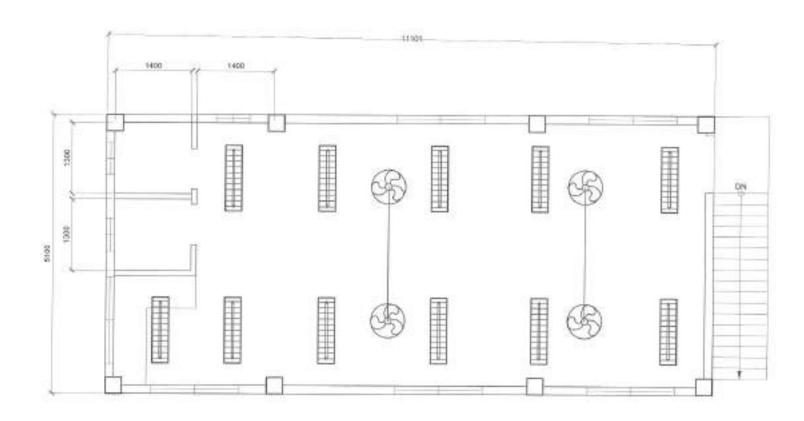
#### **EXISTING FLOOR PLAN** SCALE T.100M DRIVER BY B PRESCRIPTION: PETCHATHORIG SPROVAL APPROVIDED BY SHEET CONTINUE BEST NO. Republika ng Pilipinas EXISTING FLOOR PLAN PROPOSED CONSTRUCTION OF HAND Langsoding Quacon WASHING FACILITY AND REHABILITATION AR-02 CHECKED IN AL CITY ENGINEERING DEPARTMENT OF AMORSOLO II DAYCARE CENTER ENGR. LIND S. DEL ROSARIO ENGL JOHNAHI R. VEHZOSA, JR. HON, MA, JOSEFINA G, BELMONTE CETY MAYOR, IEEE/OH DEV. BARAKONY IJ P. CAMPUS, DETRICT 4, DUEZCH CITY



#### MOTES

- . INTERESH WALLE TO BE REPARTED
- EXTERIOR WALLS TO BE REPAINTED
   PROVISION OF WINDOW GRILLES



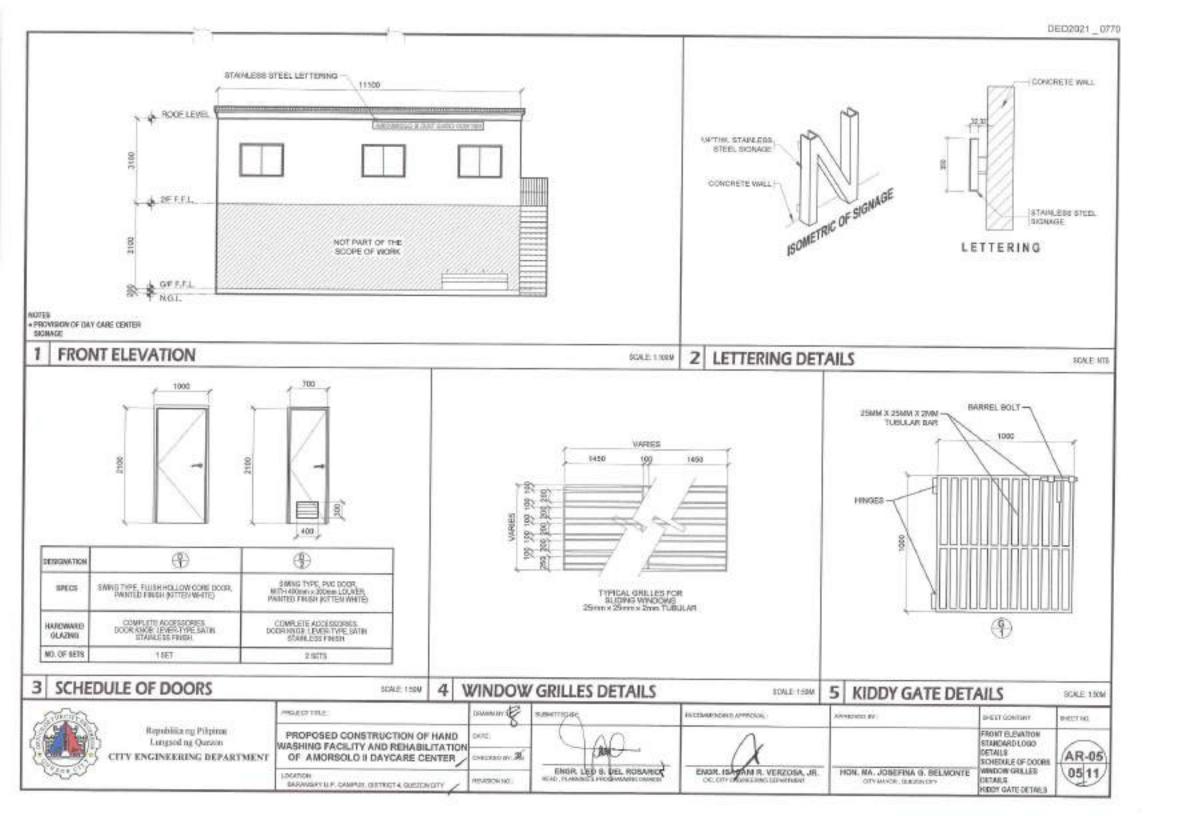


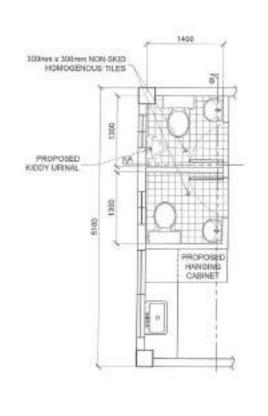
#### MOTES

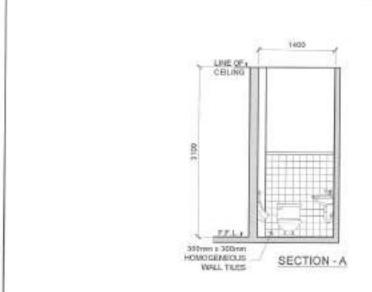
. COILING EQUADO AND TROFFER LIGHTS TO BE RETAINED.

+ ADDITIONAL CEILING FARS TAP TO EXISTING.

#### REFLECTED CEILING PLAN SCALE MYS PROJECT TOLE : SUBMITTO/OF ACCOMMISSION SPHEOMS ARRESTA DOM: THITMCC/THE BHEET NO. REFLECTIO CELMG PLAN Republika ng Pilipinas PROPOSED CONSTRUCTION OF HAND Langsod ng Queyon WASHING FACILITY AND REHABILITATION AR-04 CITY ENGINEERING DEPARTMENT ж, ув ответян OF AMORSOLO II DAYCARE CENTER ENGR. LIED 8. DEL ROSANIO ENGR. BANAM R. VERZOSA, JR. HON, NA. JOSEPINA G. BELMONTE DEVERON NO. DITHOUS BEOMITT TAYANGAT IF A GAMPUS, DISTRICT & GUIGES OFF

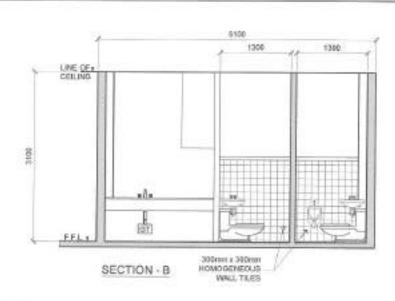






2 SECTION - A

SCALE 190M



**TOILET DETAIL** 3 SECTION - B SCALE: 1:50W SCALE 150M PRODUCT THUS SERBITTED BY RECOMMENDING APPROVAL APPROVED BY SHEET CONTENT BERTING Republika ng Pilipinas PROPOSED CONSTRUCTION OF HAND Langsoding Queenn TURLEY DETAILS WASHING FACILITY AND REHABILITATION

CTTY ENGINEERING DEPARTMENT

OF AMORSOLO II DAYCARE CENTER

DOVERNOON NO. BARANGAY SIA DAMPIN, DISTRICT & QUESTIA CITY

онооно ак ай ENSIL LAD S. DEL ROSARIO HERE PLANSING FROM MINISTRAL

ENGRUSAGAM R. VERZOSA, JH.

SECTION - A SECTION - B HOW, MA. JOSEPHA G. BELMONTE CITY MAYOR - QUESTINIOTY

AR-06 06 11

- 1 All plumbing works and materials indicated herein shall be compliant to the provisions of the intest edition of National Plumbing Code, the rules and regulations of local authorities concerned, the rules and regulations of local all ity companies and the provisions of the land developer when and where applicable.
- 2 The plumbing layout is only diagrammatic; pipes, clearcuts and check valves shall be conceeded as much as possible. It is not intended to abow the actual dimension of the pipes and flatures in the drawing but all the pipes are fixures shall be tretailed as and where imitirated. Any relocation will require proper execution in relation with other hades.
- 2 The plumbing contractor shall waitly all existing utilities at the site and shall poordinate the work with other bades.
- A Piper shall not be embedded in elructural members unless otherwise specified or allowed.
- 5 Minimum alope for horizontal sewer lines shall be 1% and for drain lines shall be 5%.
- 6 Proposed plumbing utilities what conform with the school location, depth and invertible elevation of all existing pipoclutilities
- 7 Connection of fixtures to pipes and fittings shall be according to manufacturer's specifications.
- BAII floor drains shall be vented individually.
- 9 All clean out femilies shall be flush-recorded to wall and shall be provided with polished cover caps. Do not install floor clean outs except at lines on grade and sevice ereas not subject to traffic.
- 18 All underground G.I. pipes in direct contact with soil shall be growided with two (2) costs of protective as covering and enapped with jute cloth thoroughly scaled in far or applicit.
- 11 Provide vent stack and vent pipe thru reaf of cast iron service weight as required.
- 12 All crest iron pipes shall be of approved quality and G.I. pipes for water distribution lines shall be Schedule 40 U.S. standard weight.
- 13 Provide gate valves to all water supply lines to fetures.
- 14 All hot water lines shall be provided with proper insulation where exposed.
- 15 All individual branches to fixtures or group of fixtures and/or equipments shall be provided with air chambers or capped vertical pipe externions of dimensions as shows:
- H = 450 mm for 19 mm Ø and larger
- H = 300 mm for 12 mm (2 and smaller
- 16 All hose bibbs shall be 12 mm 8 (347 8) unless otherwise indicated.
- 17 Inlet pipe of septic tank is 50 mm higher than the siphor pipe which is 30 mm higher than the cutief pipe.
- 18 All plumbing works and manner of construction shall be under the direct supervision of an able and duly iscensed. Moster Plumber or Registered Sanitary Engineer, Any discrepancies found in pion shall be notified to the same person.

| dehed | No. or which charts  |
|-------|--|
| 10    | -D-000 SNAN  |
| 160   | 79207 (9646)   |
| 860   | 3903299  |
| PK.   | WHITE DUSING   |
| 100   | LAWRENCE   |
| 945   | 175849   |
| 10.   | SOTOMIN Blok   |
| - 61  | R012167-2016   |
| 10    | CLINIC SEASE THOSE SEASE THOSE SEASE SECURE USE SECURE USE SEASE EXCENSION E |
| 150   | THE RECOGNIST  |
| Hm    | H.Diskswoonscawer  |
| 186   | DOMESTICAL.  |
| -     | niodinacións comes<br>compression<br>extende   |
| 18    | AN HARDY   |
| 1400  | SHORES SHALL   |
| 18    | SRIGHTERS.   |
| 181   | ANNAGE   |
| -     | BACKET SHAD<br>DATASET SHAD<br>DATASET SHAD<br>DATASET SHAD<br>DATASET SHADE   |
|       |  |

|       | SHOWING  |
|-------|--|
| 0.000 | Trial Robins   |
|       | Date See   |
|       | - State of the sta |
| -     | SCHOOLSER  |
|       | Science Advanced   |
| 200   | AMSDROVINGS  |
| -     | HOW THAT   |
|       | The same   |
|       | CHEST  |
|       | 9750.00  |
| -     | SERVICE .  |
| -     | GWGE   |
| -     | DOCUME   |
| -     | Chiadra  |
|       | CHICK  |
| -     | COLUMN .   |
| -     | TYPE P   |
| -     | SALLEY ST  |
| - 60  | SATEME   |
| 10.0  | 20112000 1001000   |
|       | 44787100F  |
|       | LAURING .  |
|       | 17000  |
| -     | MEHELY   |
| -     | 0.1110   |
| -     | DOMOGRAM AND ADDRESS OF THE PARTY OF THE PAR |
|       | PRESIDE  |
| 100   | TWO SANCTAR SANCTAR  |
| 1000  | THE WAY SHE WAS A STATE OF   |
| 100   | THE RESERVE AND PARTY AND PARTY.   |
|       | PERSONAL PROPERTY.   |
| - 604 | MALLOLINE IN COSE PURSE  |
|       |  |

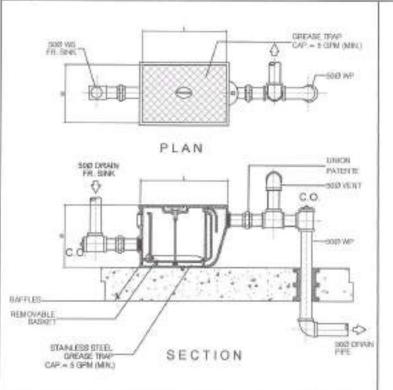
Oranio S

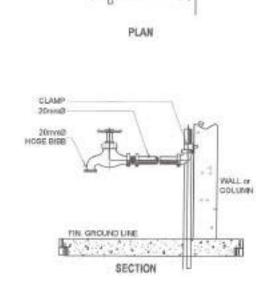
20mmg

HOSE BIBB

### 2 LEGENDS AND SYMBOLS

BCALE: MTB





## 1 GENERAL NOTES



3 GREASE TRAP DETAIL

SOME HIS

HOSE BIBB DETAIL

SCALE: NIS

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION-OF AMORSOLO II DAYCARE CENTER

BARANGAY U.P. CAMPUS, BISTRICT A QUEZON OFF

DEMONSTRATED BY

RACK:

CHECKED BY JAN

ENGR. LEGO 8. DEL ROSASSO

TEXT TAXABLE PROSPERATED STREET

ENGH DATANI H, VERZOSA, JR.

RECEIVACIONE REPROVAL

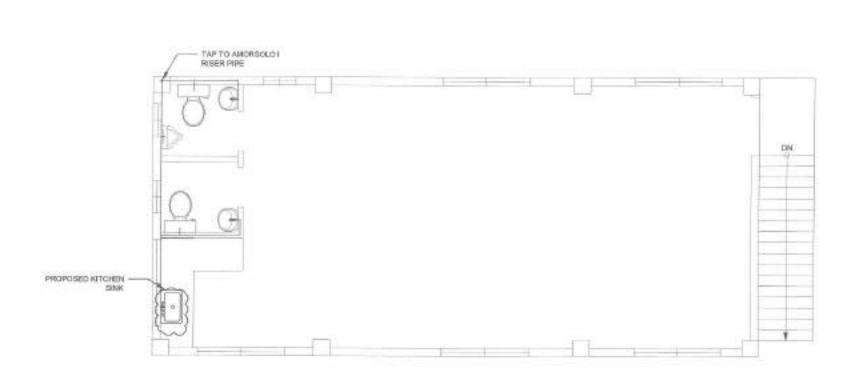
HON, MA. JOSEFINA G. BELMONTE CTYMYTH, GREEKCTY

HECONODYNA

SENERAL NOTES LEGEND AND SYMBOLS PLUMBING DETAILS

BARTE CONTINUE

PL-01 07 11



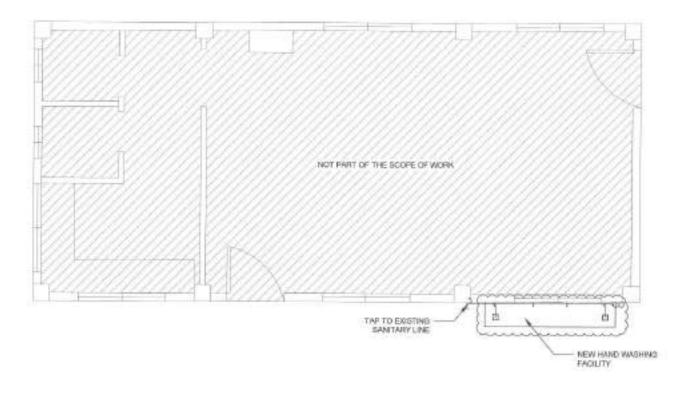
8007975

. PLUMBING FOTURES TO BE REPLACED.

. PROVISION OF KITCHEN SINK.

SCALE 11004

#### SECOND FLOOR WATER LINE LAYOUT PROJECT TITLE: DRAWN Dr.: RECOMMENDING APPROVAL. APPROVEDED: DARRAGO DESAR 194677.00 Republika ng Pilipinas SECOMO FLOOR WATER PROPOSED CONSTRUCTION OF HAND LINE LAYOUT Lungsoning Queson WASHING FACILITY AND REHABILITATION PL-03 A. VII DENDELD CITY ENGINEERING DEPARTMENT OF AMORSOLO II DAYCARE CENTER ENGR. LED S. DEL ROSARIO ENGR ISASAN R. VERZOBA, JR. HON, MA. JOSEFINA G. BELMONTE REWINDA NO. CELLMANDE DOESDHOLLS SARANGAY U.F. CAMPUS, DISTRICT 4, QUICZON OITY.



SOME 1100M

# GROUND FLOOR SANITARY LINE LAYOUT

Republika ng Pilipinas Langsoding Queson CITY ENGINEERING DEPARTMENT.

PROJEST WILE:

PROPOSED CONSTRUCTION OF HAND D476 WASHING FACILITY AND REHABILITATION OF AMORSOLO II DAYCARE CENTER

LOCKSON SAFANGAPULP, CAMPUS, DISTRICT 4, QVEZON GTY

BURNETTHE BE DHENE BY WE

DEMANDS:

ENGR. LEG S. DEL ROSARIO PERO

ENGR. RESERVE R. VERZOSA, JR.

FROOMMENDING APPROVAL

HON, MA. JOSEFINA G. BELMONTE CITY MARON, CHEZONERY

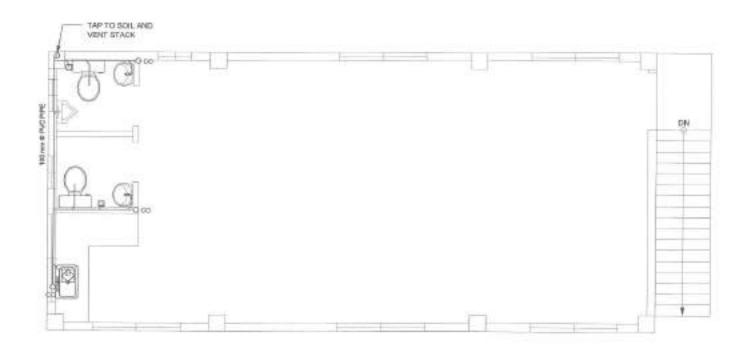
APPROVED BY

SOUTH CHILDSE SANTTARY LINE LANGUT

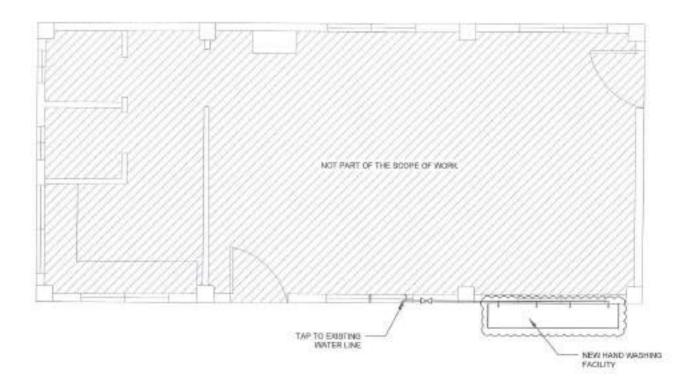
тистиро тезне

PL-04

DHOTHO



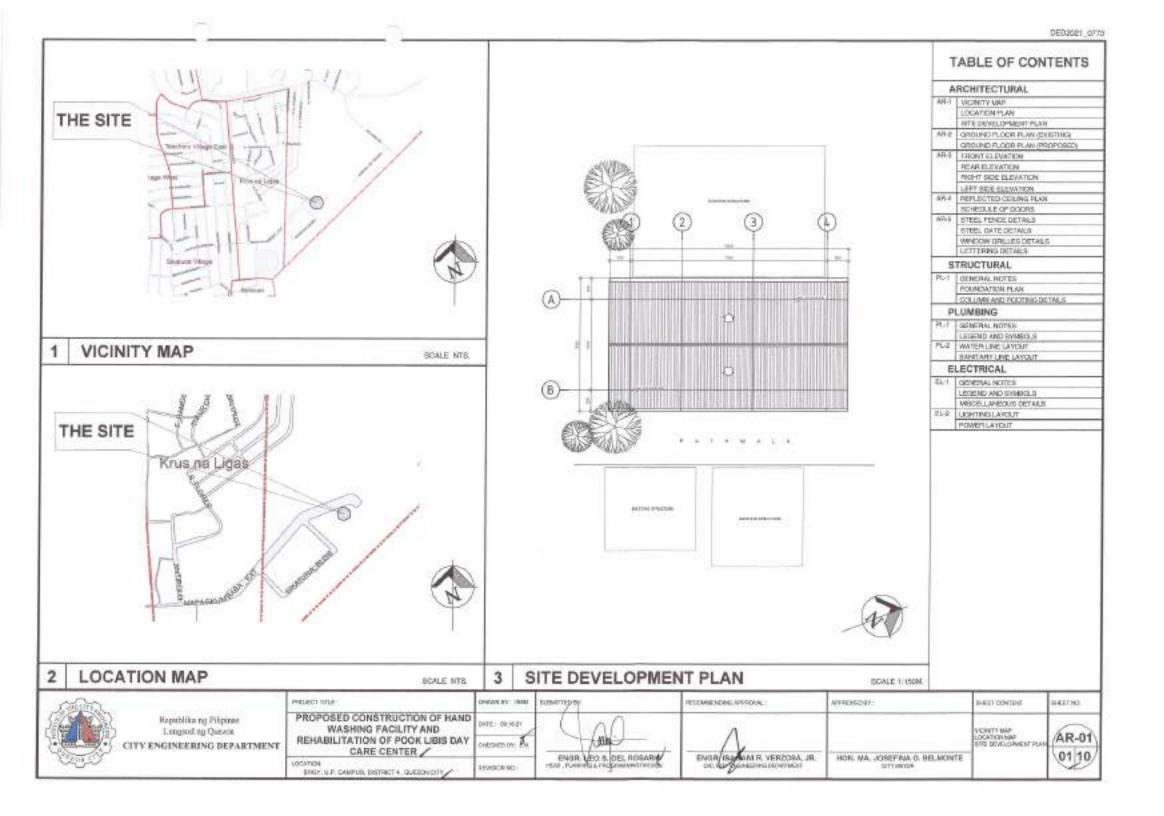


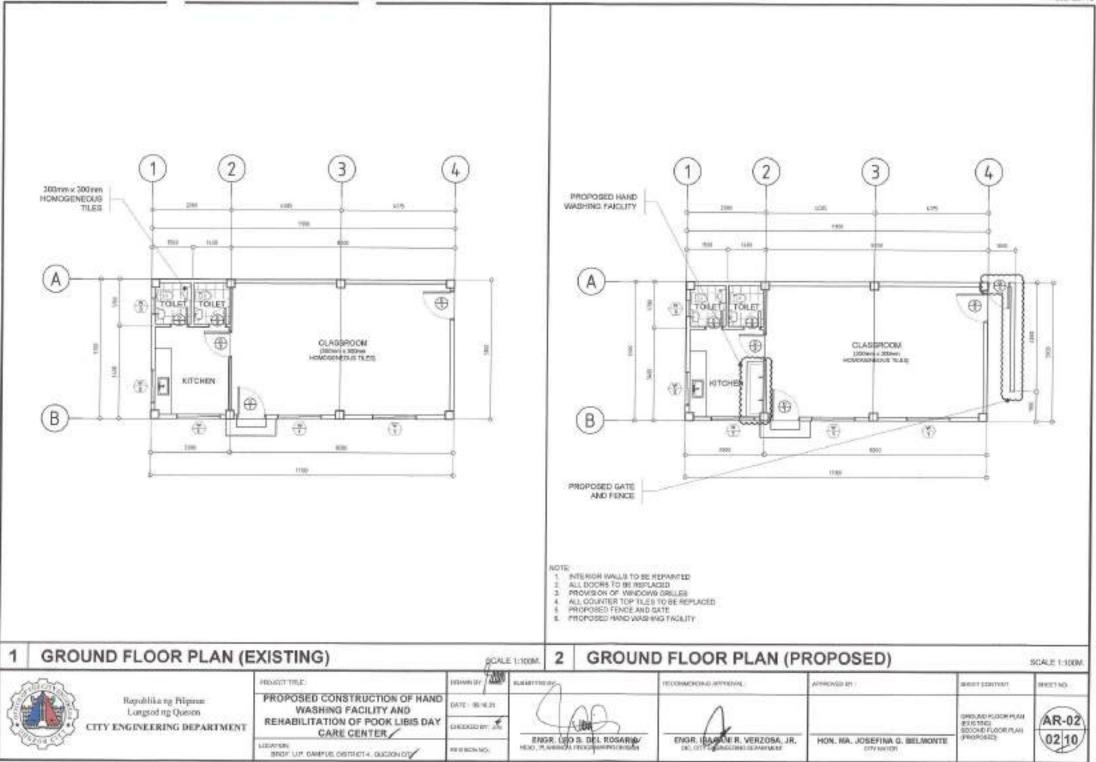


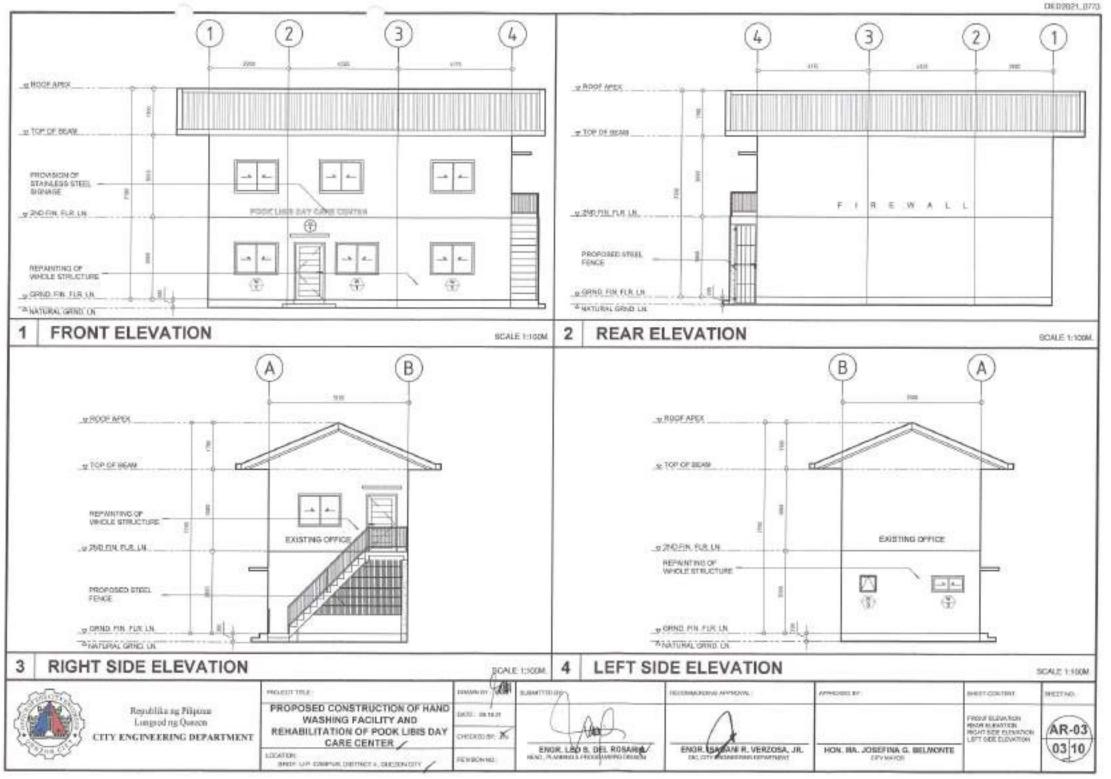
....

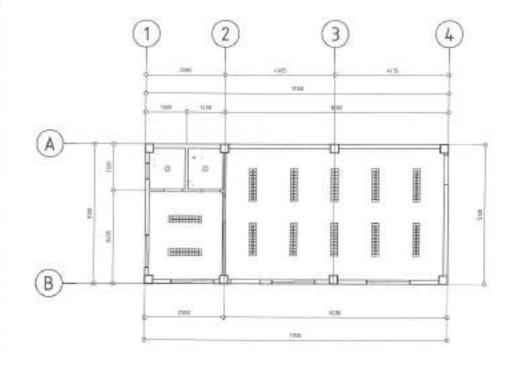
. CONSTRUCTION OF BOX TYPE HAND WASHING FACILITY

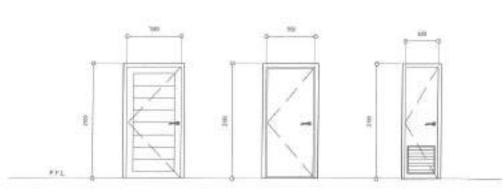
#### GROUND FLOOR WATER LINE LAYOUT MODEL: GLACIE DRAWNING & DEMICEDIN RECOMMISSION OFFICERS. WALKER BY: THEFT CONTINUE BHEST MIL Republika ng Phipetas LINE LAYOUT PROPOSED CONSTRUCTION OF HAND Lungsoding Quezon WASHING FACILITY AND REHABILITATION PL-02 CITY ENGINEERING DEPARTMENT OF AMORSOLO II DAYCARE CENTER DHICKED OF AN ENGR. ISANANI R. VERZOSA, JR. ENGR. DEO S. DEL ROSANTO HOM, MA, JOSEFINA G, BELWONTE REPORTED IN STYMOVER, GENORITY BARANSAY U.P. GAMPLIN, DISTRICT 4, GLEZON CITY











| HAME        | <b>(D)</b>        | <b>⊕</b>       | <b>⊕</b>             |
|-------------|-------------------|----------------|----------------------|
| NO, OF SETS | 18                | *              | 177                  |
| DESCRIPTION | PANEL DODE        | PANELOCOR      | PVC DODA WTH LOLWERS |
| (digittion) | DIASSROOM/STORAGE | R/TCHEH        | TORRY                |
| REMARKS     | TO BE REPLACED    | TO BE REPLACED | TO BE REPLACED.      |

REFLECTED CEILING PLAN

BCALE 1:100M.

SCHEDULE OF DOORS

SCALE 1 TOW. Design Ball

Republika ng Pilipinas Lungsad og Queron CITY ENGINEERING DEPARTMENT PROJECT YES

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK LIBIS DAY CARE CENTER /

BROW OF CAMPUS DISTRICT 4. BUCZON CITY,



EMBR, LVO S. DEL ROSARIO

ENGR. BAGAN R. VERZOSA, JR.

AND SECURITY OF SECURITY SECUR

HON, MA. JOSEFINA G. BELMONTE

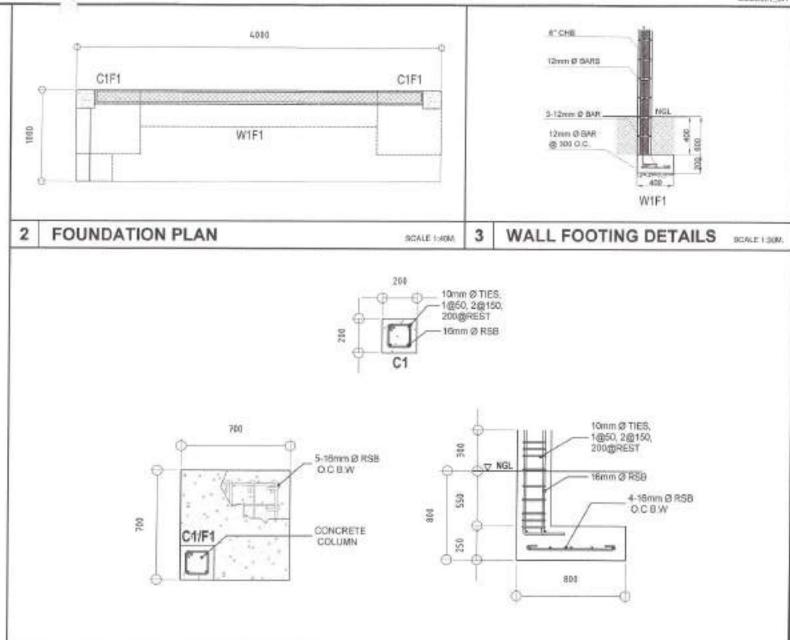
ACTIONED BY

REPLECTED CELLING PLA 90-NEGLE OF DOORS

THEFT CONTRACT

AR-04 04 10

#### CONTRACTION HIS BOARD THOSE DESIGNATION TO ALL ENAMAGE VALUES OF REPORTED AND THOSE DESIGNATION OF THE RESERVE OF THE PROPERTY OF THE RESERVE INCO BOMESIA MONERATION AND PLACEMENTAL PROPERTY AND INCOME. FOR DAGAÇIES ARROYAL BIZOLE HARCOTEN CONTROLON OUR PREVIOLA CHIRACOTEN \$1554004 AND RECEIVAL CHIRACOTEN \$1554004 AND RECEIVAL standard a cotroir to THIS IN THE COMPLETING REPROSESTS TO PROVIDE ARTICLE'S INSTRUCTION. MEACHES BY THE ESPECIALNY POSSALL WAS CIVED ANY EXPERIMENTAL CONTRACTOR. HONE OF CLESTON AND GREEN THE BEHAND WORK FOR CONFIDENCE OF CO. NOWERS, TREATBEOKY HE ONE WHO WHEN THAT IS CALLD HAVE IN CONCRETE & REINFORCEMENT THE BATTERNS AND REPRESENTATION SHELL TOWNSHIP FRE LOCKED IS A DRIVE DOOR OF ARRESTMENDING WITH SETTING WITHOUT WITH E HAL CONCRETE BHILL BOYELOW A BRANCH CORPORATE A PROPERTY AT THE GIRL OF THE HEIL. THE DESIGNATION OF THE PROPERTY OF THE PROPERT MAX. BISSLOE Most michael + 9300×0300 1000 THE LOCAL MICHIGAN THE STORE 94 (1994) CORN NUMBER HICEBIA WALL RICEBIA S BREEK COLUMN 2000 PG (2010) No. Margaret And Colleges BUDDINGS HAR F. TUNKCONDECK 2000 7017511664 to (See THE REPORT OF MAIN HARL CONTRACT TO AN AUGUST THE FOR Dank & dred SANLASH RATE 100 (SWIST FOR Filler & AND LARCEST SWIS A RESISTANCE OF LITTER TREATMENT ACTIVE ANNUAL OF STANDARD PRACTICE OF THE REAL RESISTANCE OF STANDARD TO SELECT OF SELECTION ASSESSMENT OF SELECTION OF SELECTION ASSESSMENT OF SELECTION OF SELECTION ASSESSMENT OF SELECT A SAMENA MISSIAN CONDUCTS COMPRISON OF SECUROSTICS, IN FINE OWN. CONCRETE BEFORED BRIDGE HOURS GROWN 200 STARTON GRACE WHALE EXCHA DRIVE Stee 100510006 I SUCCESSAL E CEDIES NOTE DIESPENAS SINULAR DE FREGUENACIONALE UNITARE TUTRE DA LOS DECEMBRAS DISCUSSOS DIESE DIAGNOSALE UNITARE DE MAL DE MATERIA DICUNE DISSO, DIESE DIAGNOS SICONO UNITARE DE MAL DE MATERIA DI COMPANIO DE CONTROLO DIAGNOS DE UNITARE DE MATERIA DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE CONTROLO DE UNITARE DE CONTROLO DE UNITARE DE CONTROLO DE CONTR BULBERS KALLPRES TURADRODY CHORES. E CONTROCKE SHILL KOT HO FROM LALI MICELLANDISCOPRE SLUI SOCIEL REPRIMERE. AND MECHANICA SHIES THE ARCHEOLOGY IN THE HONTOCHEAU ELLE FROM AND secounts oraning IL ILL TOKONETE DIALL DE ROTEMONT FOR HANNAM DE LIDION DI CONSCIU. DALS MINICIPALICIE APTER FOLINGEY THE USE OF MET BURGLY, FEG STRAFASS, DURING COUNTY MES ON USING is streeting of Kitletonic profess 15.09/97 **50166** EM/S WESTERN LOCK HIS BYOST TIMES Di Divis TO DESTRUCTION SUPPRESSOR AS INVESTIGATION SHARE BY A MANAGEMENT AND ADMITTED CONTRACT HER PROPERTY. STRUCTURAL STEEL AND PLATES. ALLEPACTURE STATE SHALL CORRORS TO HEM PARENTS PARENTS AND MANAGEMENT CONNECTION OF THE 2 MAZNERIA REETERN RELETA ALL BOUTE BIALL CONFORM TO ARTWICA DESCRIPTIONS. I WE SHE FORE, ALL WELSHE HERE WHEL BY BUT YOUR SUCCESSIVE ASSESSMENT OF BUILDING WHILE WATERS STREET, SHOWING THE PROPERTY OF T POHMOATING PORPATOR K ELYGRE BASE OF WHICH, SALE ROOSE CF THE PARTY SERVICE ANALYSIS SERVICE. BOLDENBLY GARGOTY OF SERVICE T PROMONDE BALL RESTON WITHIN ANY CALIFORNIA PROPERTY. HE ENGREED ASSESSMENT THE POLYMENT OF LARCE SHIPS. 1 NE CONTRICTOR SHALL BOTHY THE RISSING HUMAN COMPUNION IN REPRESENTATION FRANCIS, 500, CONDITION WHEN DO NOT CONTORE TO THE YEAR AND DESIGN TO KNOW WHEN THE CONTORE TO THE PROPERTY OF THE PROPERTY 1 R.J. MATERIAL EXCENSIONERS SHALL BE INCOMPRISED BY THE REPLANDED STANDARD A STRUCK OF THE SPECIALISM, CODE OF THE PRESENCE & UNIT ON MELIZING CODE. MOREWE'S GROET FOR ALL COSCINES SAVONET SHIEL CONFORM FOREMEDIC THROUGH THREE PROFESSION OF THE BASS (FREQUENCY CONTROLLERS STORTED AS THE BASS (FREQUENCY CONTROLLERS). S ALL CHESSAL, ACLASS OF MYS. THE COLLEGE MASS PROPERTY OF CHESSAN. AL SIUS ESPECALY TROSENS REPRENDICIONES SONLINE FILIES NES RESERVA CREATURESHEET, AS THE OUTER DOMESTICAL AS PROVIDED UNLESS THE ENVIRENMENT OF THE REPORT. EACHMONN HALD THAT IS TRENTED WHITTINGS IDMINISTER INTERTHER IS REQUEST. The PORTOR PROFESSION ASSESSMENT SERVICE AS COLUMN SECURITY OF SERVICE CONTRACT. AS FOR DRONG A SEMBOWN OPENHEIPIEDING LATEL SEW SWIZ AS STREET, MAN BLOCK STOPENIO DEAM SLOCK STREETS COLUMN DETAIL





SCALE NTS.

## COLUMN AND FOOTING DETAILS

9CALE 1:20M. SHEET HEL



Republika ng Pilipinus Langsod ng Quazen

CITY ENGINEERING DEPARTMENT

**HORATION** 

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK LIBIS DAY CARE CENTER

BROWN OF CAMPUS DISTRICT A GUESTINGS OF

historicay. DATE: DRIES онерхаран: "Ж ENGR. LEO S. DEL ROSARIO REVINOR NO.

ENGR. ISAKAN R. VERZOSA, JR.

APPROVED BY:

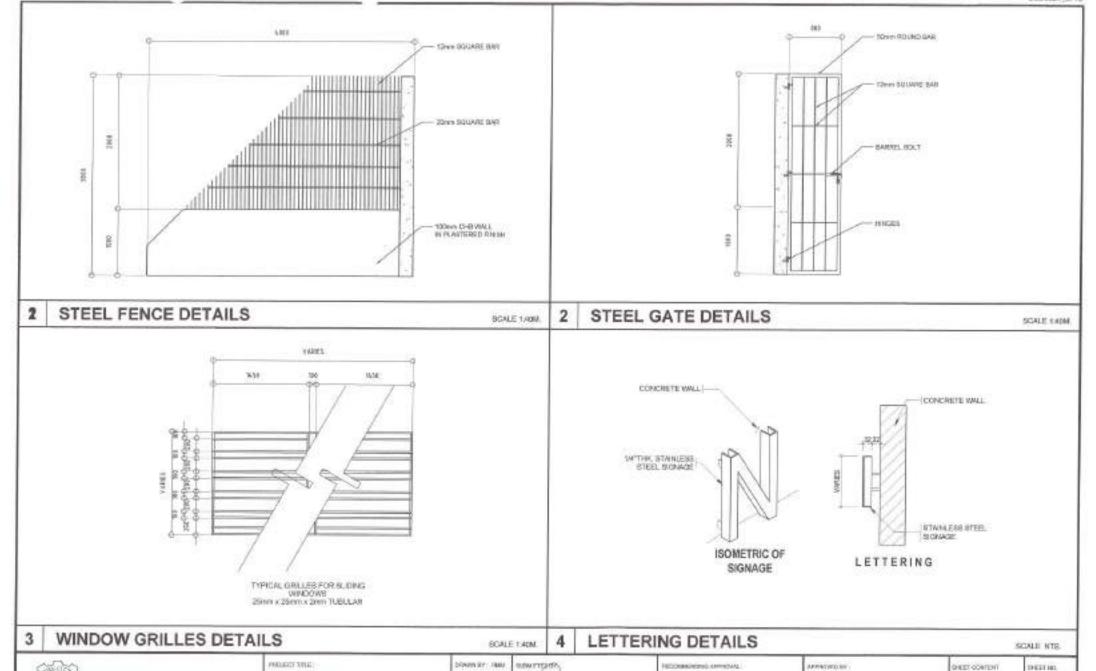
CETT BUNYOR

ANYON SPECIMANESSES

NAMED AND POST OF FOLINGSTRONGS PLANS MAL PODTING DETAILS DOLUMN AND POOTING HON, MA, JOSEFINA G, BELMONTE

MEDICAL TERM

ST-01 06 10



Republika ng Pilipinas Language ng Quezon. CITY ENGINEERING DEPARTMENT CARE CENTER

PROPOSED CONSTRUCTION OF HAND DATE: DOTEIN. WASHING FACILITY AND REHABILITATION OF POOK LIBIS DAY

BRITCH F CAMPUS DISTRICT 4 DESCRIPTION OFF

DECREE IN THE CHRONIS

ENSR. LEO B. DEL ROBANDO TEXO, TUMBRIO E PRODUMENTO DIVIGOR

ENDR. ISLANDER R. VERZOSA, JR.

HON. MA, JOSEFINA G. BELMONTE

ETHEL PENCH DETWILD STREET GATE DETWILD MINESON SPELLED SETWILD LETTERNS DETWILD

AR-05 05 10

- 1 All plumbing works and materials indicated herein shall be complient to the provisions of the latest edition of National Plumbing Code, the rules and regulations of local authorities concerned, the rules and regulations of local utility companies and the provisions of the land developer when and where applicable.
- 2 The plumbing layout is only diagrammatic; pipes, cleanouts and check valves shall be concasied as much as possible. It is not intended to show the actual dimension of the pipes and fixtures in the drawing but all the pipes and fixtures shall be installed as and where indicated. Any election will require proper execution in relation with other trades.
- 3 The plumbing contractor shall verify all existing utilities at the site and shall coordinate the work with other bades.
- 4 Pipes shall not be embedded in structural members unless otherwise specified or allowed.
- 5 Minimum slope for horizontal sewer lines shall be 1% and for drain lines shall be 5%.
- 6 Proposed planting utilities shall conform with the actual location, depth and invertible relation of all existing pipes/utilities.
- 7 Connection of fixtures to pipes and fittings shall be according to manufacturer's specifications.
- 8 All floor drains shall be vented individually.
- 9 All clean out femules shall be flush-mounted to wall and shall be provided with polished cover caps. Do not install floor clean outs except at lines on grade and sevice areas not subject to traffic.
- 10 All underground G.I. pipes in direct contact with soil shall be provided with two (2) costs of protective tar covering and wrapped with jute cloth thoroughly socked in tar or asphalt.
- 11 Provide your stack and yerk pipe thru roof of cast iron service weight as required.
- 12 All cast ion pipes shall be of approved quality and G.i. pipes for water distribution lines shall be Schedule 40 U.S. standard weight.
- 13 Provide gate valves to all water supply lines to fotures.
- 14 All hot water lines shall be provided with proper insulation where exposed.
- 15 All individual branches to futures or group of fixtures and/or equipments shall be provided with air chambers or capped vertical pipe extensions of dimensions as shown:
- H = 450 mm for 19 mm Ø and larger
- H = 300 mm for 12 mm Ø and smaller
- 16 All hose bibbs shall be 19 mm & (3/4" Ø) unless otherwise indicated.
- 17 Inlet pipe of septic tank is 50 mm higher than the siphon pipe which is 30 mm higher than the outlet pipe.
- 18 All plumbing works and manner of construction shall be under the direct supervision of an able and duly licensed. Master Plumber or Registered Sanitary Engineer. Any discrepancies found in plan shall be notified to the same person.

# I. FIXTURES AND OTHER LEGENO

| RD  | ROOF DRAIN            |
|-----|-----------------------|
| SHO | SHOWER                |
| WO  | WATER CLOSET          |
| LAV | LAVATORY              |
| URI | URINAL                |
| KS  | RITCHEN SINK          |
| BO  | BUILDING DRAIN        |
| DD  | DECK DRAIN            |
| 000 | CEILING CLEANOUT      |
| FCD | FLOOR/GROUND CLEANOUT |
| DS  | DOWNSPOUT             |
| mm  | millimeter            |
| 0   | mm CIAMETER           |
| SHD | SHOWER DRAIN          |
| CB  | CATCH BASIN           |
| MH  | MANHOLE               |
| -   | DIRECTION OF FLOW     |
|     | GREASE TRAP           |
|     |                       |

| -+-     | LINON PATENT                      |
|---------|-----------------------------------|
| -       | CHECK VALVE                       |
| 00      | BUILDING SEVER                    |
| 80      | BUILDING DRAIN                    |
| PT      | WASTELNE                          |
| 60:08   | AREA DRAIN/ CATCH BASIN           |
| 70      | FLOOR DRAIN                       |
| 10      | DIAMETER                          |
|         | WASTELINE                         |
|         | WATERLINE                         |
|         | GATE VALVE                        |
| 50      | DECK DRAIN                        |
| 00      | CLEANOUT                          |
|         | PIPE DOWN                         |
| _       | PPEUP                             |
| 190     | MILLIMETER                        |
| 007     | DATE VALVE                        |
| ä       | AREA DRAIN/CATCH BABIL            |
| MC      | WATER CLOSET                      |
| LW      | LAVATORY                          |
| Min     | WARROLE                           |
| 165     | HOSE BIBS                         |
| -       | STORW DRAIN LINE                  |
|         | VENTUNE                           |
| ioio.   | VENT ABOVE CELLING                |
| SF IROF | CONCRETE PIPE I REINF, CONC. PIPE |
| V18     | VENT THRU BOOF                    |
|         | DIRECTION OF FLOW/ SLOPE          |

GENERAL NOTES

....

2 LEGEND AND SYMBOLS

SCALE NTS.

Republika ng Pilipinus Lungsod ng Queson TTY ENGINEERING DEPARTMENT PROPOSED CONST

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK LIBIS DAY GARE CENTER /

TOTALION TOTAL TRANSPORT OF THE COLUMN COLUM

DESCRIPTION OF THE PROPERTY OF

SCALE NTH.

ENGR. LISO S. DEL HOSARIO

ENGR. ISAGON R. VITRZOSA, JR.

AUGRESS DACHMACH

HON, MA, JOSEFINA C. BELMONTE

CETT ROAKSON

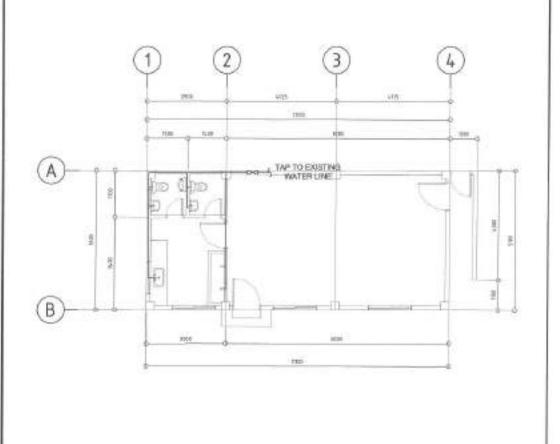
APPROVED BY

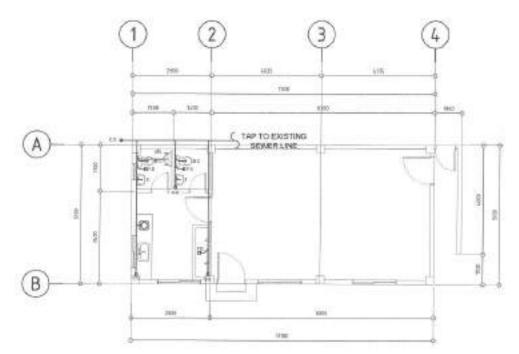
GENERAL MOTES LESSEND AND PHIROLE

никт сругам

PL-01 07 10

SHEET NO.





NOTE:

1. PUMBING FIXTURES TO BE REPLACED.



- 1. WILL FLECTBICAL WORKS SHALL BE DOSE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL DODE. THE LAWS AND ORDINANCES OF THE LOCAL CODE EMPORCING AUTHOR/TES AND THE REQUIREMENTS OF THE LOCAL POWER AND TRUSTNOVE.
- 2. THE CONTRACTOR SHINLL SECURE ALL PERMITS AND PAY ALL FEED REQUIRED FOR THE WORK AND SHALL FLERNISH THE DWINER THROUGH THE ENGINEERS, THAT CERTIFICATES OF ELECTRICAL INSPECTION AND ADDROVAL FROM PROPER GOVERNMENT AUTHORITIES AND COMPLETION OF
- 8. WILLESS DISCORDANCE CRICIATE SHALL SE PIC CONDUITS MID FOR SPROSO WITH LATION SHALL SE SIGNUFFORTED BY CONDUIT CLASMS. EVERY 700 MUNICIPAL
- 4 PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR VIHENBYER RECEIVING TO FACE DATA WAR PLULIES INTO THESE ARE NOT REDICATED ON THE PLANS. SIGNIE OF ALL PULLBOXES SHALL SE COMPUTED BASED ON THE CODE REQUIREMENTS SUBJECT SHAPE DRAWMERS TO THE ENGINEER FOR APPROVAL PRIOR TO PARMICATION LOCATION OF PULLBOKES SHALL BE APPROVED BY THE AND VIDEO ENGINEER AND MUST BE KEPLECTED ON THE WARRENT PLAN.
- 8. ALL POWER DUTLETS, AND SWITCHES SHALL BE GRISLINGING TYPE WITH DAWLER, SLOTS FOR 500 V.
- 8. PROVIDE GROUND FALL! CLARENT INTERRUPTER CIRCUIT RESACER FOR LOADS GARGED TOPOT ON THE PLAN.
- 7. ALL METALLIC CONDUITS, CARRIETS AND EQUIPMENT BHAIL BE PROPERLY GROUNDED AND EDUCED
- 8. UNLOSS OTHERWISE HOTED, MOUNTING HERBIT FOR WALL MOUNTED OF YOUR SHALL BE AS FOLLOWS.

RECEPTAGLE DUTLET - 305 MM APP., HOMM ABOVE WORKING COUNTER. THE EPHONE ORTHOT - SOCIONARY DKTV OUTLET - 900 MIN AFF LIGHTING BINTON: 1400MILAFE PANELBOARD + 1600 IBM AFF

- B. REPER TO MECHANICAL, FUNDENCE AND THE PROTECTION DRAWNOD FOR BATHOS AND LOCATIONS OF CONFIDENT AS WELL AS THOSE CONTROL. SEQUENCES AS REPOSPED AND OR RECOVELUNCER THEIR RESPECTIVE SECTIONS.
- HE. ALL MAYER WLS TO BE LIFED SHALL BE OF THE REST QUALITY, BASHD SHIVAN SPECIFIED.
- 1). THE DRAWINGS AND SPECIFICATIONS ARE INTO/DED TO PRESENT BENEAULAYOUT AND BROAD CUTUME DESCRIPTION OF THE PROJECT BUT OG NOT NECESSARILY INDICATE DESCRIBED ACTUAL LOCATIONS, LEVEL AND DISTANCES OF THE EDISPMENT THE CONTRACTOR IS HERSEN RECURRED TO MAKE SUCH ADJUSTMENT AT THE JOBSITE AS LOCATION JOSTANCES AND LEVELS ARE GOVERNED BY AUTUAL FIELD CONDITIONS.
- 12. ANY DESCRIPTION OF SETWING THE PLANS AND EPECIFICATIONS SHALL BE DROKEN TO THE ATTENTION OF THE PROMEEN FOR QUARTICATION. DECISION.
- 13. ALL LIGHTED AND CONVENENCE CUTLET CRICLIFE SHALL BE 30 SQ, MR. THANK COPPER WIRE MUSIC OF FEMALS NOTED INMINISTRATED IN WIRE SHALL BE 3.5 GO, MM, DOPPER WIRE, ALL WIRES AND CARLES SHALL BE COLOR CODED AS FOLLOWS.

MART-RED THRES - VELICAN NEXTRAL-WHITE GROUND GREEN

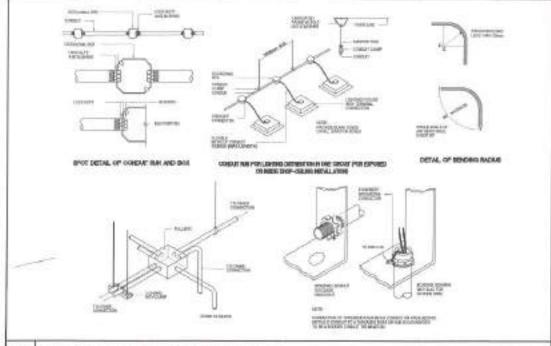
14. BOXES, WIRE, GUTTERS, ENDUGUES SYNLESS FARRICATED PROJECTED, WITH THICKNESS AS FOLLOWS: MIXINUM WIDTH OF THE WIDERT AUREAGE STREET

UP TO INCLUDING 152.40 MM GA 16 PWATED WITH BETAL PRIMER EPOKY AND TOPCOAT DVER 152 40 MM BUT NOT OVER 457.00 GA 14 PAINTED WITH METAL PRINCH EPOXY AND TOPCOAT TIVER 457 30 MIN BUT NOT QUEST RESIDA GA 12 EVINTED WITH METAL PRINCIP EPIXY AND TOPODAT DIVER YES MIR

OA TO PWINTED WITH METAL PRINCIP & PROVY AND TOPODAT 18. ALL RESCRIPTA, BORRES HEREIN BRALL BE EXSCURED BY EXPERIENCED MEN LINDER THE ERRECT SUPERVISION OF A FULL TIME LICENSES. STECTRICAL ENGINEER AND A DUST ADDRESSED SURCESCAL CONTINUES BY PLAK WORLD BY ALL BE SENTLY PLACED. REQUIRELY CASTENETY AND DOVED BY

FIRESHED.

- 16. TYPE OF SERVICE SHTWAYCE SHALL BE BIRCUS PHASE. TWO-MAR PLUS GROUND, 60 HERTZ 2007 AC ROMINAL
- 17 CONDUITS ALAD CASE SHALL THERE HE MORE THAN THE EQUIVALENT OF FOUR QUARTER BOXOS IN ANY ONE HIM. ALL CONDUIT BOXOS SHALL BE FELD MADE BY USING HYDRAULIC BERGERS. MINIMUM BENCHIO HADRIS MILIET BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- 15. UPON COMPLETION OF SLECTRICAL SCHIEF RUCTION WORK, INSULATION RESISTANCE TEST AND PLANCISHAUTY TEST SHALL BE PERFORMING BY THE CONTRACTOR INCLUSIVE OF THE HISTALLATION TO BE REPORTED AN DETAILS ON FORMS APPROXID BY THE QUEZON CITY ENGINEERING. DEPARTMENT REPROSENTATIVE, THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BY BORE THAN 5 OHIS COMMUNICATION DECUMPRISH RESISTANCE: SHALL NOT EXCESS 3 CHARL



## MISCELLANEOUS DETAILS

SCALE NTS.

- SINGLE GANG SWITCH (FOR REPLACEMENT)
- THREE GANG SWITCH (FOR REPLACEMENT)
- E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)
- E27 RECEPTACLE WITH LED BULB (ADDITIONAL)

TOFFER TYPE WITH 1X18W LED TUBE LIGHT (EXISTING)

TOFFER TYPE WITH 1X18W LED TUBE LIGHT (FOR REPLACEMENT)

DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)

APPROVIDED BY

PANEL BOARD

# **GENERAL NOTES**

Rupublika ng Pilipinas Lungsod up Queron CITY ENGINEERING DEPARTMENT SOCIETY TITLE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK LIBIS DAY CARE CENTER ,

BROW, U.F. CAMPUS, DISTRICT 4 , QUEZON O'FY

BCALE WIS.

organism Mr. Mr.

ENDR. LED S. DEL HOSARIO

AND PERSONAL PROPERTY.

LEGEND AND SYMBOLS

EMOR. ISAMASE R. VERZOSA, JR.

OIC, CITY IS COMPETEND DESVITATION

INVESTMENT AND THE ISOCILANEOUS CETW. DOEND AND SYMBOLD

BRITT COVERN

EL-01 09 10

SHC03160

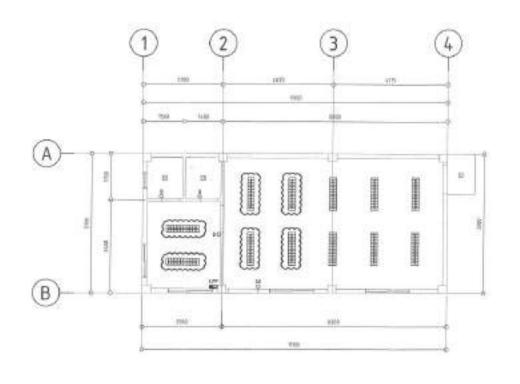
BOALE NTS.

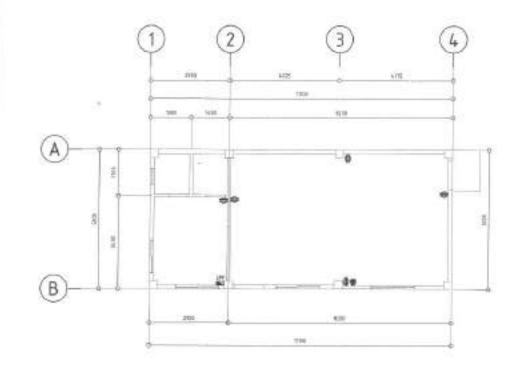
DERNIS EN BURN DATE: CO.WILL

STATE WITH STATE OF

HEAD, PLANSON & PROVINCES BY TRANSPORT

HON, MA, JOSEPHA G, BELMONTE



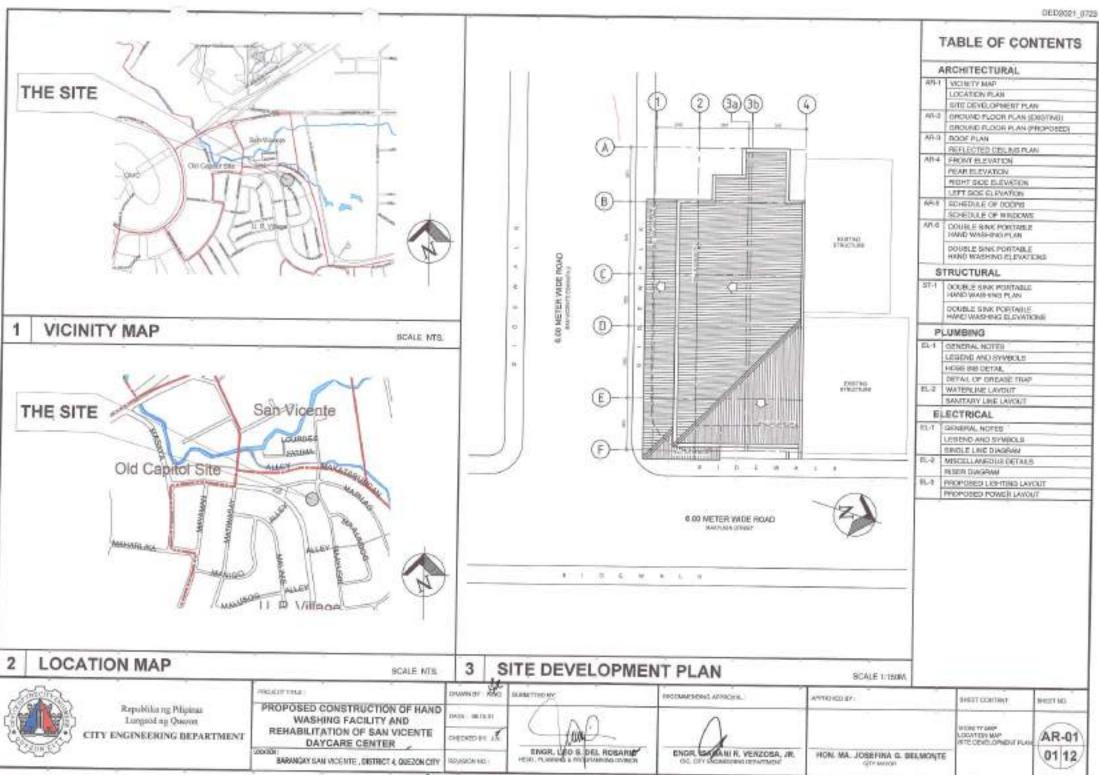


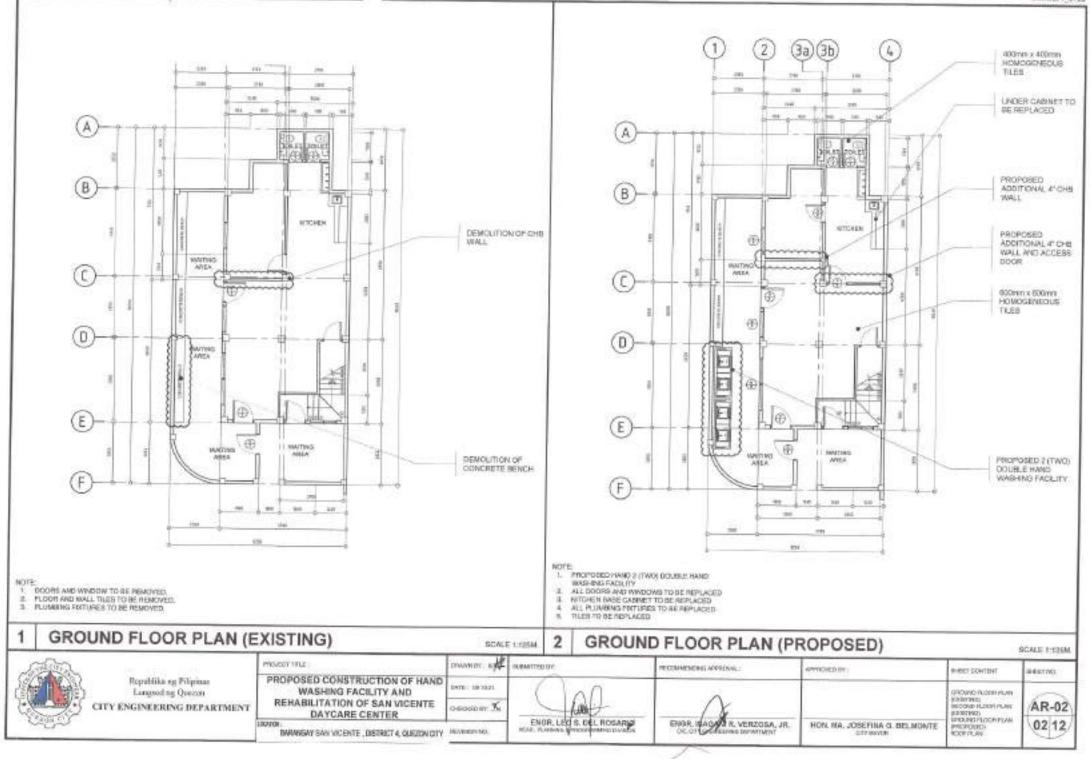
HEPLACEMENT OF USHTING PRITURES AND SWITCHES

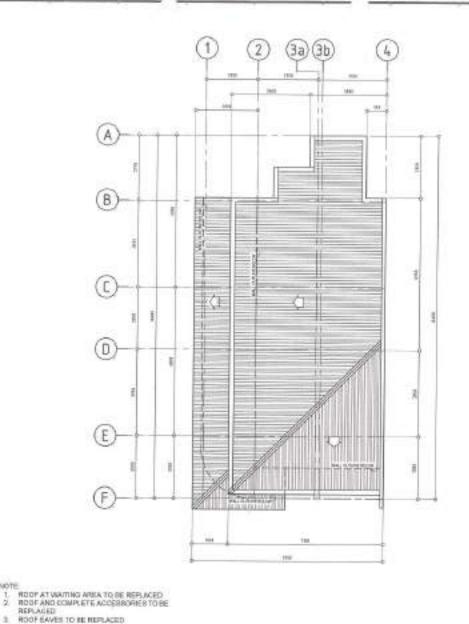
HOTE.

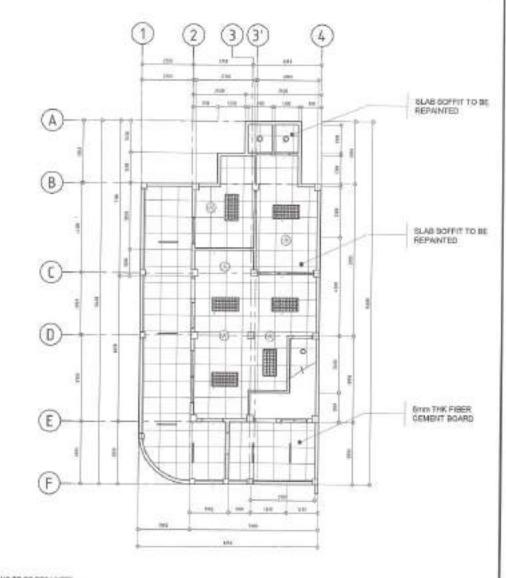
I. REPLACEMENT OF CONVENIENCE OUTLETS AND ACCIOUTLET.

LIGHTING LAYOUT POWER LAYOUT BEIALE NTS. SCALE NTS. process or 1880 BARMITTED BY: HICCOMMISSION APPROVAL: arresonn av SHEET CONTENT SHEET NO. PROPOSED CONSTRUCTION OF HAND Republika ng Pilipinas DALES BEINGE WASHING FACILITY AND Lungsod ng Quazon EL-02 REHABILITATION OF POOK LIBIS DAY DIGHNIS LAVOUT CITY ENGINEERING DEPARTMENT GROOM BY. A. CARE CENTER 1010 ENGR. LEO S. DEL ROSARIO ENGR. JERGAM H. VERZOSA, JR. HON, MA. JOSEFINA G. BELVIONTE NORMON PEYEOHIO. SELECTION BROVILLE CAMPUS, TREMCT L. GUERNICTY









AVERDADILIEF.

- 1. OF EING TO BE REPAINTED.
- 2 ROOF EAVES TO BE REPWRITED

**ROOF PLAN** 

Republika ng Pilipirus Lungsed ng Quezon CITY ENGINEERING DEPARTMENT 200,001105

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF SAN VICENTE DAYCARE CENTER

Tables In Chica GUIDANTED DE DATE: DATE: December 16 BARANGAY BAN VICENTE, DISTRICT 4, QUEZON CITY REVISION NO.

SCALE STEEM.

ENGR. LEG S. DEL ROSARIO

RECOMMERCIAL APPROVAL ENGIL BADAN R. VERZOSA, JR.

REFLECTED CEILING PLAN

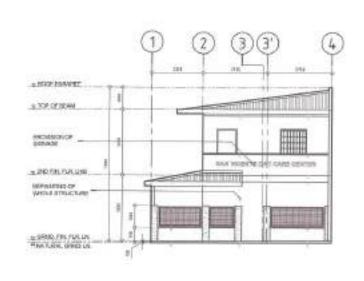
HOUSE NOOSTAN CHATTINGS CHICONO PLOCIS PLACE (SCRIPTING) SHOUND PLOCIS PLACE HON, MA. JOSEFINA G. BELMONTE PROPOSEDI ROOF PLAN CITY MAYOR

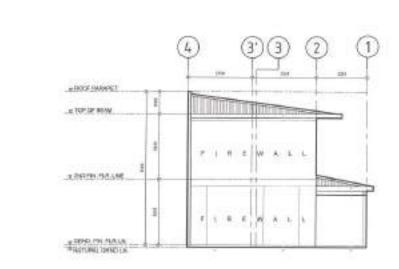
SHEET CONTENT

AR-03 03 12

SCALE 1:126M

CRITING.



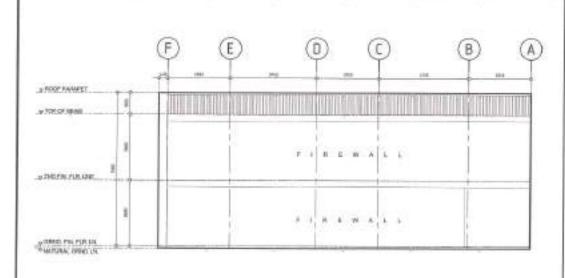


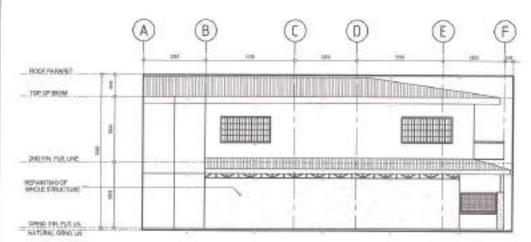
1 FRONT ELEVATION

SCALE 1:129M

REAR ELEVATION

SCALE 1:125M





HTTOWOOD BY

3 RIGHT SIDE ELEVATION

SCALE THISM.

LEFT SIDE ELEVATION

SCALE 1:120M.

Republika ng Pilipinas Lungsod ng Queson CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF SAN VICENTE DAYCARE CENTER

BARWAGAY SAN VICENTE , DISTRICT 4, QUEZON CITY

STMARLET INTEL SUSMITTED BY.

SHEET DE SELST

CHECKED HY JA

ENGR. LED S. DEL ROSANIO

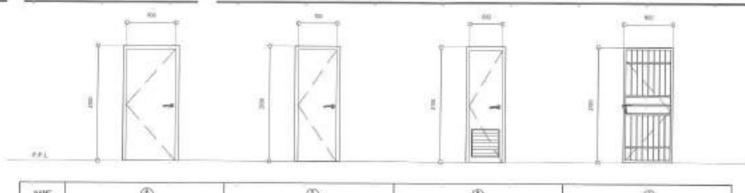
HELPS LANGE L PRESENTIANNES DESIGNATION

ENGIL IBADAN R. VERZOGA, JR.

GROUND FLOORFUNG
(EXCEPTING)

SHEET CONTRICT

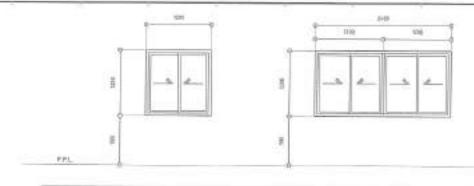
AR-04 04 12



| NAME (F)   |                       | <b>D</b>       | 4)                  | •                    |  |
|------------|-----------------------|----------------|---------------------|----------------------|--|
| NG OF RETS | 3                     | 3              | 9                   | FANEL DOOR           |  |
| оерая Ртан | PAREL DOOR            | PANEL DOOR     | NAC DOOR NEDATORNER |                      |  |
| LOCATION   | ENTRANCE / CLASSICKOW | втоправилоом   | 701218              | EMTRANCE / CLASSROOM |  |
| REMARKS    | TO BE REPLACED        | NI SC REPLACED | TO BE REPLACED      | TOBEREPWINED         |  |

# 1 SCHEDULE OF DOORS

SCALE 1:50M.



| SAME        | ⊕   | <b>(b)</b>   |
|-------------|---|--|
| NO OF BETS  | 2   | 33   |
| DESCRIPTION | AUGMINIAM PRAME POMDER CICATED<br>BUIDING MISSION<br>WITH Brish THE CLEAR GLASS | ALLMANIA FRAME POWDER CONTEN<br>SUDMOVMENOW<br>WITH BUSH THE CLEAR OLARS |
| DODATION    | CLASSICON I STORAGE ROOM  | DARRIDOR   |
| KENNEG      | TO BE REPLACED  | TO BE REPLACED   |

## 2 SCHEDULE OF WINDOWS

SCALE 1.50M.



Republika ng Pilipinan Lungsod ng Quaton CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF SAN VICENTE DAYCARE CENTER

BANANGAY SAN VICENTE, DISTRICT 4, QUEZON CITY

DATE: DE 13291

DEPOSIDENT À

ENGR. LED 8. DEL ROSAUS P

HEAD-PLANSING ANTICIPISMENT COURSE

HEAD-PLANSING ANTICIPISMENT COURSE

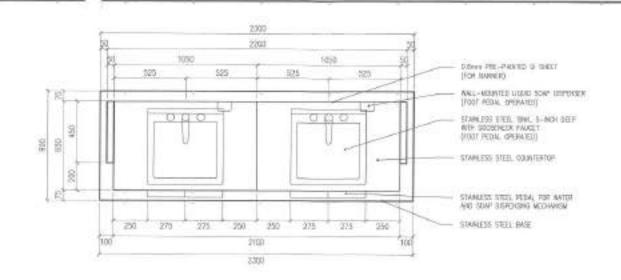
ENGR. JENGANI R. VERZOGA, JR.
OK. (17) ONNICEDING CONTINUE

HON, MA. JOSEFFINA G. SELBONTE
CITAMON

REPET CONTENT

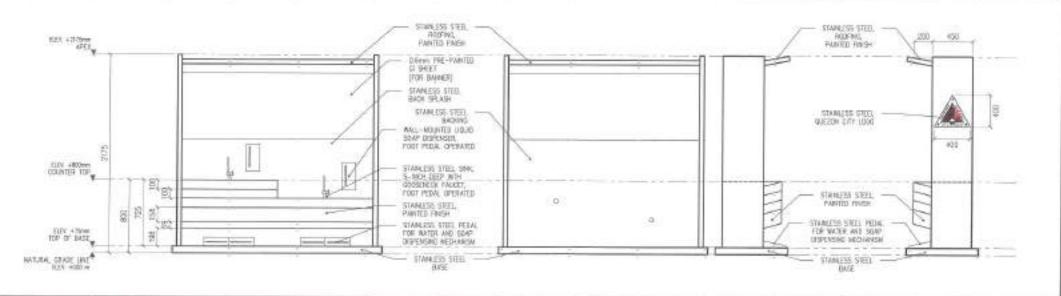
APPROVIDED OF

AR-05 05 12



# 1 DOUBLE SINK PORTABLE HAND WASHING PLAN

SCALE 1:30 M



## 2 DOUBLE SINK PORTABLE HAND WASHING ELEVATIONS

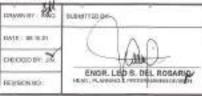
SCALE 1:39 M



Republika og Pilipinas Lungsod og Oucom CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF SAN VICENTE
DAYCARE CENTER

WASHING FACILITY AND
REHABILITATION OF SAN VICENTE
DAYCARE CENTER

WASHING FACILITY AND
REHABILITATION OF SAN VICENTE
REMOVED



| THE LANGE TELEVISION OF THE ATM. |
|----------------------------------|
| Λ.                               |
| FNOR IKADAN R VERZORA IR         |
| OK, OT PERONEICHHO GENVINNER     |

HON, MA, JOSEFINA G, SELMONTE

BUILD USE POPTIVALE
HON, MA, JOSEFINA G, SELMONTE

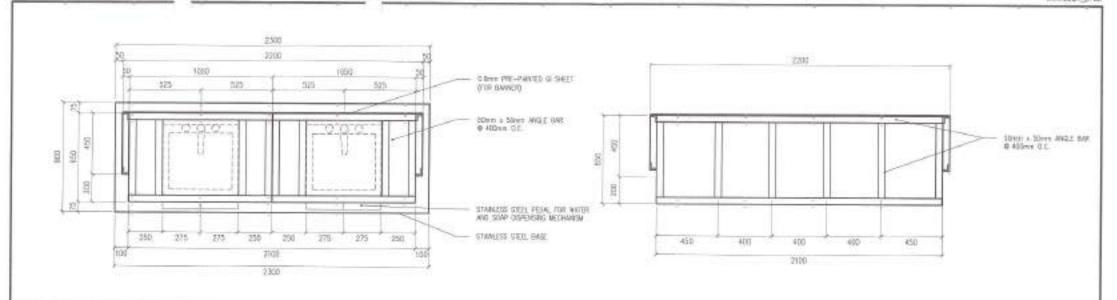
BUILD USE POPTIVALE
BUILD USE BUIL

AUTO MATORIAL

SHEET CONTRACT

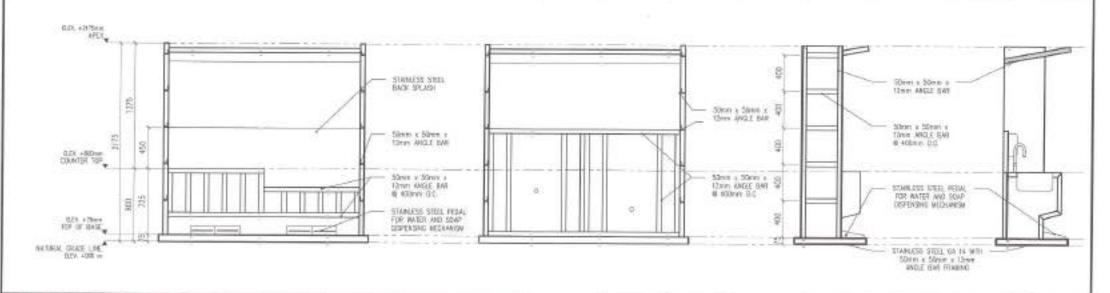
YTRONED BY

AR-06 06 12



# 1 DOUBLE SINK PORTABLE HAND WASHING PLAN

SCALE 1:20 M



# 2 DOUBLE SINK PORTABLE HAND WASHING ELEVATIONS

SCALE 120 M



Republika ng Pripinas Lungsod ng Queren CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF SAN VICENTE
DAYCARE CENTER
PION
SARWSAY SAN VICENTE, DISTRICT & QUEZONCTIT

| rewayer rate   | mediament  |
|----------------|--|
| DATE: M. H. ST | DAA  |
| околови ж      | (m)  |
| FETFECKING:    | ENGR. LIND S. DEL ROSARIO<br>MAI. PLARSON PERMANDO CANDO |

| THE COMMENDES APPROVAL.      | APPROVED BY |
|------------------------------|-------------|
|                              |             |
| ENGR. ISANAM R. VERZOBA, JR. | HON, IEA, J |

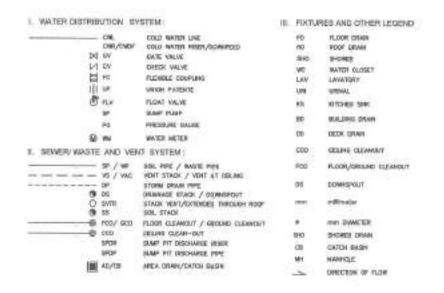
HON, RIA, JOSEFINA G, BELMONTE
COTTRACTOR
CO

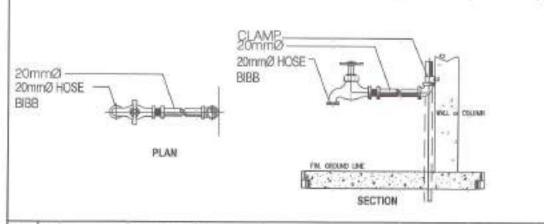
SPEET CONTENT

ST-01 07 12

- 1. ALL THE PLUNBING/SAWL / WORKS INCLUDED HEREIN SHALL BE EXEC. D ACCORDING TO THE PROVISION OF THE PHILIPPINE PLUMBING CODE, THE NATIONAL BUILDING CODE, BULES AND RECULATION OF THE CITY.
- COORDINATE THE DRAWNGS MITH OTHER RELATED DRAWNGS AND SPECIFICATION REQUIRED, THE ENGINEER AND ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
- 3. ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS, ANY RELOCATION REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE ENGINEER OR ARCHITECT.
- PROPOSED SANITARY LITETIES SHALL BE CONFORM TO THE ACTUAL LOCATION, DEPTH, AND INVEST ELEVATION OF ALL EXISTING STRUCTURES AND PIPES AS VERIFIED BY THE CONTRACTOR.
- 5. ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 1% MIN, UNLESS OTHERWISE SPECIFED.
- 6. SIZES OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION.
- 7. THE CONTRACTOR SHALL MERFY ALL EDISTING LITLLITIES AT SITE AND COORDINATE THE WORKS WITH THE SEWER LINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT.
- ALL WATER PIPE AND WATER TANKS SHALL BE THOROUGHLY FLUSHED AND DISINFECTED WITH LIQUID CHOLORINE OR HYDROCHLORIDE SOLUTION.
- ALL WATER PIPES SHALL BE HYDROSTATICALLY TESTED TO A PRESSURE 1-1/2 THE DESIGNED WORKING PRESSURE OF THE SYSTEM.
- 10. ALL SANTARY AND STORM DRAINAGE PIPES SHALL BE HYDROSTATICALLY TESTED AT LEAST 3.0 NTS, HEAD TO ENSURE THAT THE SYSTEM IF IT IS WATER TIGHT.
- 11. ALL DIMENSIONS ARE IN METERS AND ALL PIPES SIZES ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 12. EVERY PLUMBING FOOTURES INDICATED ON PLANS SHOULD BE PROPERLY VENTS ATED.

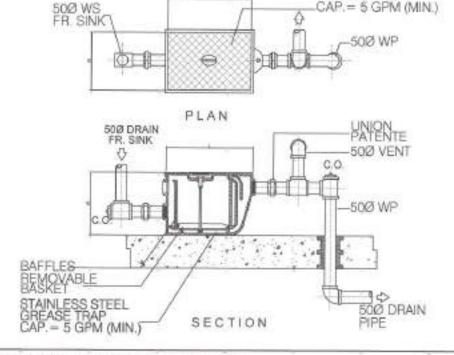
# **GENERAL NOTES**





# HOSE BIB DETAIL

SCALE: NTS.



HECONOMINA

## LEGEND AND SYMBOLS

SCALE: NTS.

DETAIL OF GREASE TRAP

SCALE: NTS



Republika ng Pilipinas Lungsoding Quasion CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF SAN VICENTE DAYCARE CENTER

DESCRIPTION OF THE SATE: 08.49.24 A. sensoner BARWANGAY SAIN VICENTE, DISTRICT & QUEZON CITY TEVENOVAKE

BARBATTED BY

ENGR. LED 8. DEL ROSARIO



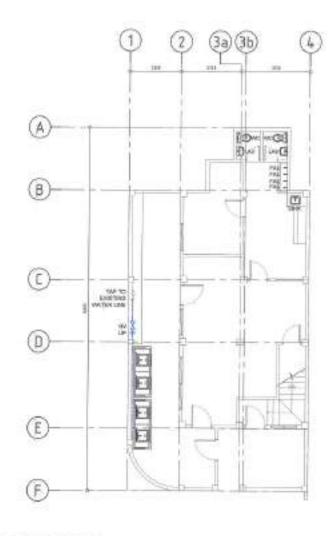
GENERAL HOTEL LOGERO AND SYMBOLE HOSE WEDSTAN DETAIL OF GREASE THE HON, MA, JOSEFINA G. BELMONTE ESYMMON

DESTRUCTIONS

GREASE TRAP

PL-01 08 12

ONTESNE



TAP TO-EXCHANG. SANTARY UNC

ноте

1. ALL PILLMONG FIXTURES TO SE REPLACED

WY

1. ALL PLANSING FIXTURES TO BE REPLACED.

WATERLINE LAYOUT SANITARY LINE LAYOUT SCALE 1:128M. SCALE 1:125M mount at the SHEATTED BY: ANDRESS GROUNDANCOUR WHEN SHEET IN SHEET CONTENT SHEET NO. PROPOSED CONSTRUCTION OF HAND Republika ng Pilipinas DATE: 80 30.81 WASHING FACILITY AND Lungsoding Queixin PL-02 REHABILITATION OF SAN VICENTE CITY ENGINEERING DEPARTMENT WATERLINE LAYOUT гнекоокинг. Ж. DAYCARE CENTER ENGR. ISAON R. VERZOBA, JR. 09 12 ENGR. LED S. DEL ROSARIO HON, MA. JOSEFINA G. BELMONTE BARANGAY SAN VICENTE , DISTRICT 4, QUEZON CITY REVISION NO. DITYMENTER

#### **GENERAL NOTES:**

- ALL LLCOTHOUR WORKS SHALL BE DOTHERN ACCOMPANIES WITH THE INCOMPANIES OF THE LATER SOCIETY THE PRESENT. ELECTRON, TODA, THE LANSE HIS DROMANICE OF THE LOCAL CITY REPORTED ALTHOUGH AND THE RELADING TO THE LOCAL PROPERTIES THE PROPERTY LITERATURE.
- 2. THE CONTRACTOR BHALL RECLIFE ALL PERH TRIAND FAN ALL FORS RECEIVED FOR THE HORSE AND SHALL REPORT HE. COMBINE THROUGH THE ENGAGERS, FRAIL CENTIFICATES OF SLOCTHICAL ASSECTION AND ARROYAL PROMISEDINGS. COMPRESENT ALTHORITIES FOR CONFLITION OF WORK.
- 1. ALOMODO BANCHO CAQUIN SINUAL INCIDENTE RECEPTIVAMENTE BEALLIFES BEALLIFES CHEMICAL PROCESSION. CONCUST CLAWPS EVERY XXVALLABITER.
- 4. ALL DOCT SHALL BE PROVISED OF THE CONTINCTOR OR MINISTER DECEMBER TO PROJUGE WHE RALL-CONTINCTOR WICHOT ROBOTED OF THE RUNG. BURNING ALL RELEASES WALL WE COMPUTED MIRED ON THE COLD ROBUSTON. MARY HOW PARRIED TO THE INCHESS TO PARRIED APPEARS. PROF TO PARRIED TO LIGHT DAYS TO A DESCRIPTION OF THE PROPERTY OF THE PARRIED TO A DESCRIPTION OF THE PARR WERE DIED BY THE ARCHITECTURAL BURBLE BURBLE WITH THE THE CONTROL WAS ALL TO SHE
- ALL FOWER GUTLETS. AND ENTOYER SHALL BE ONCURED BY THE WITH REWLIE OLD PROPORTION.
- 4 HIG/ER SESSIO FILLT CLERENT APPRINTED CROST MEDICE FOR SHOULD BARRIED OF CHILE FURN
- 1. ALL WITALIE CONSUME CHARLES HAT COUPREY BYALL BY MORDLY GROWING WO SONSE.
- A . HALES CHIEFWES SCOTE MICHTER RESITTION WILL MONITORING BELLIN MICHTELISM.

RESEPTAGLE OFFILE? - 100 MM AFF, CHIMM ADDRESSORING COUNTRIE. LICENTING SWITCH - MICHINEAUT PARKS BOARD - 1000/000 AND

- 1. HETER TO NEO WARDS. PLUMBAS ANY TITS PROFESTION DISAMAGE FOR RETROSHED LOCATIONS PROJECTED AND ALL ANT INFORMATION REQUIRES AN INCOMED WISHON MARKET HAR REPRESTANTACTORS.
- 19. ALL SWITSHALS TO DE LIBED SHALL BE OF THE BEN' QUALITY. IMPREDIMENTAL PRICE.
- 11. THE GRAMMER AND SPECIFICATIONS ARE WITHOUT TO WEIGHT OBSIDES. LANCET MICHESTER THAT REPORTS THAT IS NOT THE CONTRACT OF TH THE PROJECT BUT DU NOT NECKNOWN A REPORT NORSON MEDICAL LOCATION LIGHT AND DETAMORATION OF BUSINESS OF THE SECOND PARTY OF THE PROPERTY O WILL DIVING AND COMPARED BY SCILLIE, THEIR CONCENTIONS.
- 11. WAY DISCREPANCE STANDARD THE PLANS AND SPECIFICATIONS SHALL SE BROAD TO THE ACTION DISCREPANCE THE DAMPING FOR
- TO THE CONTRACT OF THE PROPERTY OF THE CONTRACT OF THE PROPERTY OF THE PROPERT MEDICAL STEE OF WHILE SHALL BE 5.5.50, WK COPPUT HIRE INLL WINDS INC CARLIES SHALL BE COLDE CORDS AS PELLINSS.

1,000 1 - 8902 LARCE VILLOW NOVTRAL - WRITE OWNERS - DANSES

14 - RODER WAY, OVITERS, DISCOSURE BALL SE, FABRICATED FROM BUIL WAY THOOREMAINTELLISIS. MINIMUM WITH OF THE WOULT BURNAGE LTIES.

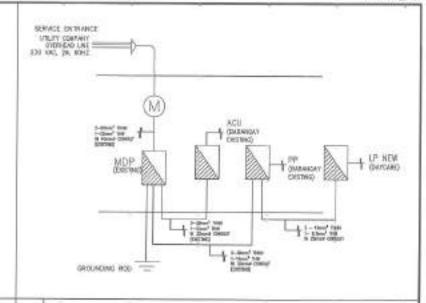
UP TO WOLLOWIG YELKING

DIVERSI MO AN MAN DUT WOT CHICK-ME WE OVER 457-31 RM DUT NOT OVER 165 NM DOUBLE THE MAY

NO. 18 PARTIES WITH MESAL PRIMER SPICKS AND SOFTCH. DA 15 PARTIES HATH METHS, REMAIN INCOMPLISHED TOPCOUT GA DI MARTISTI PICTH BETH, PRINER SPOKT AND TOPODAT DAY OF PARKING HIGH METAL PRINCH FORGET AND TOYOUT

- 15. ACLELECTRON, MORROL HARRIST SHALL BE RESCUTED BY SOMERHERCED MER UNDER THE DIRECT QUICEMENT OF A HULL IT BE LESSURES BLECTRICAL. INVESTMENT MICH A SULF MODRESTED BLECTRICAL CONTRACTORSY FOR WORKS BALL. BY HEART FLADE: WICLIFE FRATEING AND PROFESSION BY AND
- III. TYPE OF REPVICE ENTENDED SHALL BE SAIGLE PHAGE THO-HIRE PLZY MICHORD. SEHERTE SENAE MOREAU
- IT CONDUMN HIS OWN SHILL THERE SE WORL THAN THE SELECTION OF YEAR SEMPLEMBER RESPONSE ALL CONCHE ORNOR SHALL SECTION DESIGNATIONS OF LIBROR OF DRIVING MICHIGAN MINIMAN INVESTOR AND ADDRESS MANY SECTION DE TO THE DOOR PERMITTING
- White to experience of suppliences, considerations, where insulating resembles that with any resemble; in right supplies. SE REPORTED IN THE CERTIFICATION ACCURAGE OF THE WILLIAM TO BE REPORTED IN STRAIG OF COMMUNICATION. BY THE CLEECH CITY INCOMESSES CONSTRUCT REPRESENTATIVE, THE CHOCKET PERSON OF DECIMAL PROFESSION. BHALL REFEE WORLDWIN THAN FORME COMMUNICATION ORDERING RESIDENCE SHALL HOT OXICED J DHAN

| -Ò-  | MAKTIS LED BLUB                   |
|------|-----------------------------------|
|      | ZXIBW SURFACE MINTO, TROFFER TYPE |
| -    | TS, 28WATTS LED TUBE LIGHT        |
| of l | SINGLE GANG SWITCH (LIGHTS)       |
| 2006 | THREE GANG SWITCH (UGHTS)         |
| m*   | SELECTOR SWITCH (FAN)             |
| Φ    | BUFLEX CONVENENCE DUTLET          |
|      | AOU OUTLET                        |
| 8    | CELING PAN                        |
|      | PANEL BOARD                       |



2 LEGEND AND SYMBOLS SCALEINTS 3

SINGLE LINE DIAGRAM

APPROVED BY

SCALE: WIS

LP NEW (DAYCARE)

|         | LDAP DISCRIPTION                                 |                  | 100     | 400 0000cm | CHICUIT BILLANCE                     |          |       | WIRES AND CONDUCT      |            |   |    |    |  |        |        |
|---------|--|------------------|---------|------------|--------------------------------------|----------|-------|------------------------|------------|---|----|----|--|--------|--------|
| CKT.NO. |  | шар овонитов усл | VOLT PO | VOLT:      | LDAP DISCRIPTION VOLT POWER CLAMPERE | LT POWER | POWER | (AMPERE)               |            |   | AT | At |  | UNGRNO | GROUND |
| _       | A report management                              |                  |         |            | ACK!!!                               | 0.00     |       | THOM                   | TW         | TYNE                                    |    |    |  |        |        |
| 3       | 6 - TROPTER, 3 - PINLIGHT,<br>6 - TS, 5 - C, FAN | 230              | 3238    | 146#       | 20                                   | 50       | 2     | 2 - 3.5mm <sup>4</sup> | 1 - 3.5mm² | 20 mm @ PVC                             |    |    |  |        |        |
| 2       | 6 - CONVENIENCE DUTLET                           | 290              | 9080    | 430        | 20                                   | 50       | 2     | 2 - 3.5mm <sup>3</sup> | 1:35m²     | 20 mm \$ 1740                           |    |    |  |        |        |
| 1       | ACU EXSTRAG                                      | 230              | 2300    | 10.00      | 30                                   | 56       | 2     | 2 - 5 5mm²             | 1-3.5mm    | 20 mes il Pvi                           |    |    |  |        |        |
| 4       | SPARS  | 230              | 135000  |            | 30                                   | 55       | 2     |                        | -          | 111111111111111111111111111111111111111 |    |    |  |        |        |
| . 3     | SPACE  | 230              | +       |            | 2-1                                  | 325.3    | 100   | -                      |            |   |    |    |  |        |        |
| - 6     | SMACE  | 250              | 7+      |            | -                                    | 14-1     |       |                        | -          | -                                       |    |    |  |        |        |
| 10      | TAL CONSECTED LOAD                               |                  | 6758    | 29.38      |                                      |          |       |                        |            |   |    |    |  |        |        |

CIRCUIT PROTECTION COMPUTATION:

I==(6758 / 230 V) \* 125%

1-=36.72 ampere

OVER CURRENT PROTECTION:

USE: 40 AT, 2P CB BOLT-ON

MAIN FEEDER!

USE 2-14mm3 THHN WIRE & 1 - 8.0mm3 TW GROUND WIRE

IN 25mm Ø HAC TYPE

## **GENERAL NOTES**

SCALE: NTS

LOAD SCHEDULE

munin. Ha

DOUBLE SERVER

CHECKED BY TO

REVISION NO.:

SCALE: NTS DHOUT NO.

Republika ng Pilipings Langsoding Quazzn CITY ENGINEERING DEPARTMENT PRODUCT TITLE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF SAN VICENTE DAYCARE CENTER

BARRANGAY SAN VICENTE , DISTRICT & QUEZON GITY

SUBMITTED SIX

ENGR. LED S. TEL ROSARYO

ECOMPENSION APPROVAL

ENGR. HAGAN R. VERZOBA, JR.

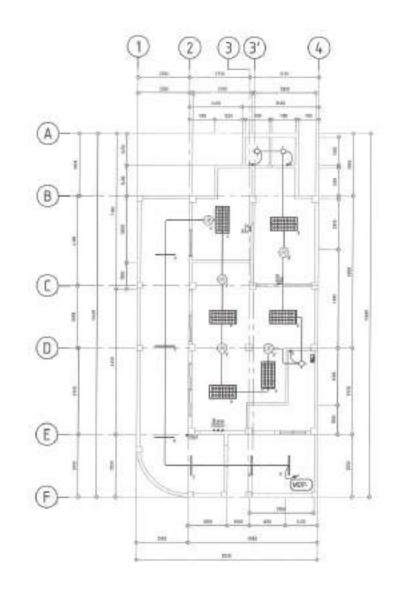
HON, MA, JOSEFINA G. BELMONTE

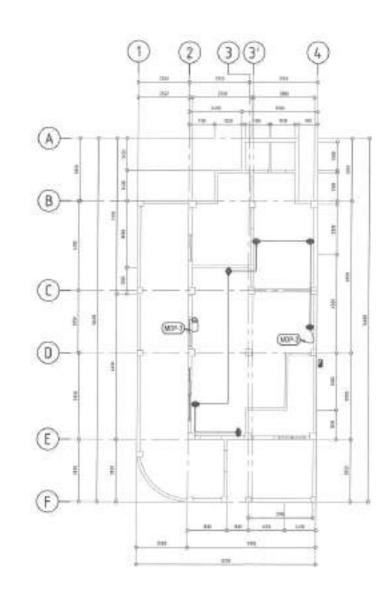
12JA WHYOR

GENERAL NOTES LIGHTED AND STREOUS SHOLE USE DWOTWIS LOAD SCHEDULE

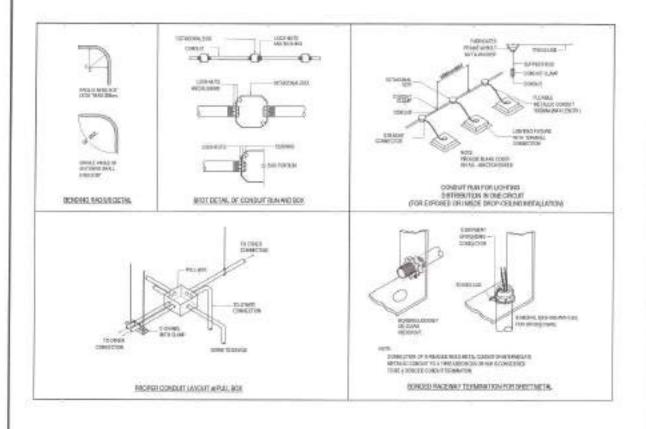
THIRDOGRAM

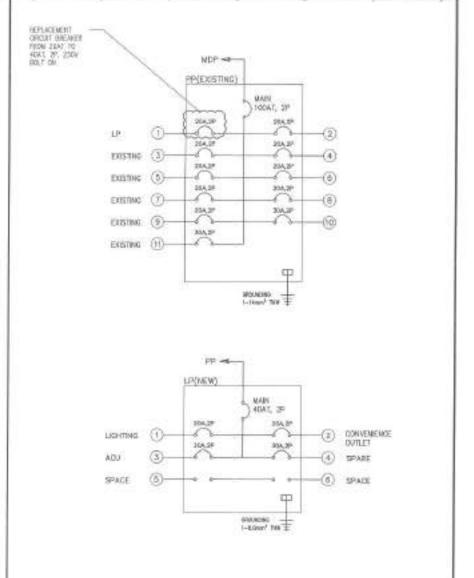
EL-01 10 12



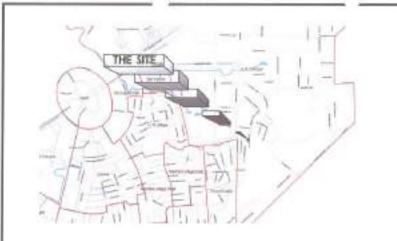


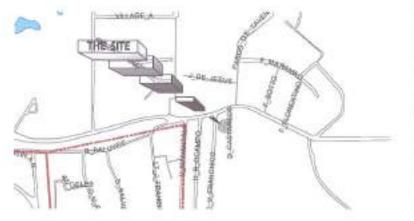
#### PROPOSED LIGHTING LAYOUT PROPOSED POWER LAYOUT SCALE 1:129M. SCALE 1:125W. Distances The SUBSTITUTED BY. RECEMBEROWS APPROVIS: APPROVIDERY: DEST GOMENT 19 (ECT 140) PROPOSED CONSTRUCTION OF HAND Republika og Pilipinæ DATE: OR HELD WASHING FACILITY AND Lungsoding Quezon DONTING LAYOUT POINTRY LEYOUT EL-03 REHABILITATION OF SAN VICENTE DECEMBER N CITY ENGINEERING DEPARTMENT DAYCARE CENTER 12 12 ENGR. LEGS. DEL ROSARIO ENGR. ISAGAM R. VERZOSA, JR. HON, MA, JOSEFINA G, BELMONTE BARANGAY SAN VICENTE, DISTRICT 4, QUEZON CITY PRIVISION NO. GEV MAYOR











#### TABLE OF CONTENT

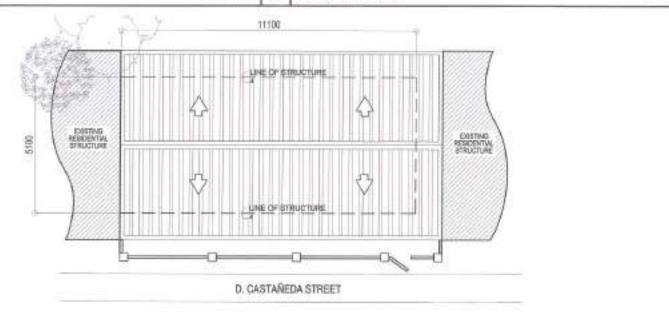
| AR-01 | STERROLOPHRATELAN<br>LOCATOR MAP   |
|-------|--|
| AR-02 | DROUGH LOWER PROVIDED BY THE P |
| AR-10 | PETILETIED DELENG FLAN<br>CARNAT JETALE  |
| PL-01 | GESRA NUTS<br>LEGAN MOSTAMOLII<br>ANTEN LECLINOLII<br>SANTAN LECLINOLII  |

VICINITY MAP

SCALE: NTS

LOCATION MAP

SCALE: NTS



SITE DEVELOPMENT MAP

SCALE: NTS

APPROVED BY:



Republika ng Plipinas Lungsoding Quezoni CITY ENGINEERING DEPARTMENT

| OJECT ITTLE:  | 1 |
|---|---|
| PROPOSED REHABILITATION                                   | a |
| OF AMORSOLO I DAYCARE CENTER                              | 9 |
| CATION:<br>BARGAICAY UP CHAPLES, DISTRICT 4, QUESCIN-CITY | 8 |

| 6.3                 | A CONTRACTOR OF THE PROPERTY O |
|---------------------|--|
| ATC: Dept. 15, 0001 | ()00   |
| HOUSE THE           | Charles on the process   |
| D/008161.11         | are vines undersome  |
|                     | ENGR. LEG S. DEL RO  |

SUBMITTED BY:

| ı | $\wedge$                       |
|---|--------------------------------|
| ı | ENGR. ISAMANI R. VERZOSA , JR. |
| 1 | SO MY DICHETTHIS LONG VICES    |

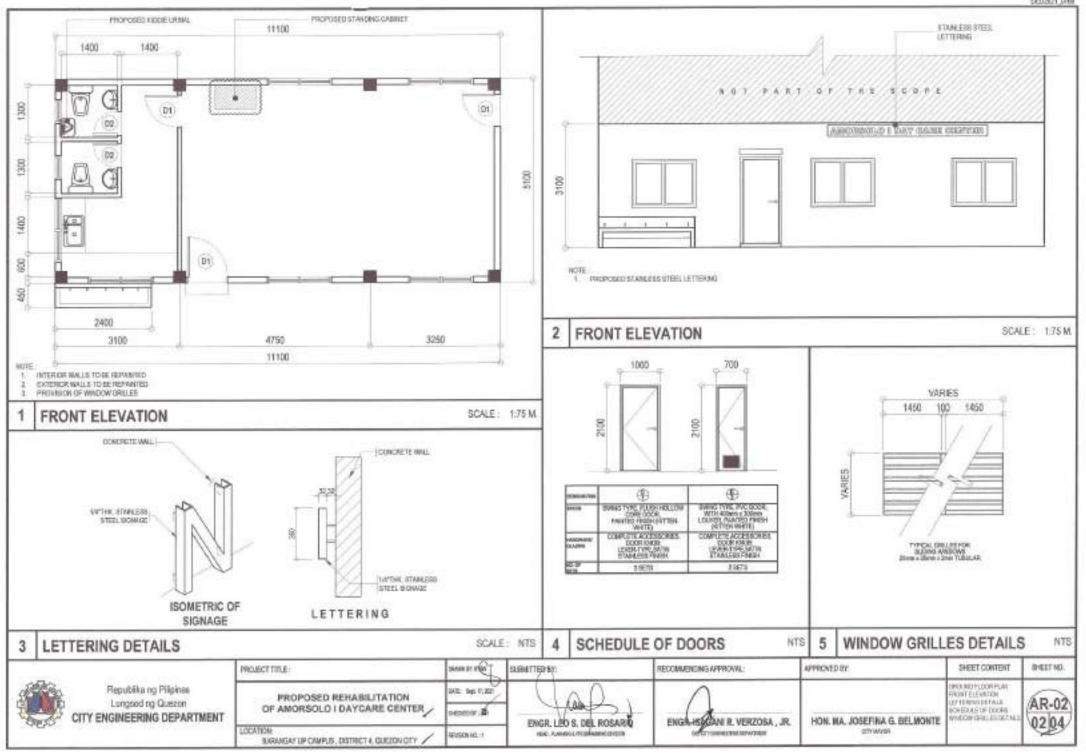
RECOMMENDING APPROVAL.

HON, MA. JOSEFINA G. BELMONTE

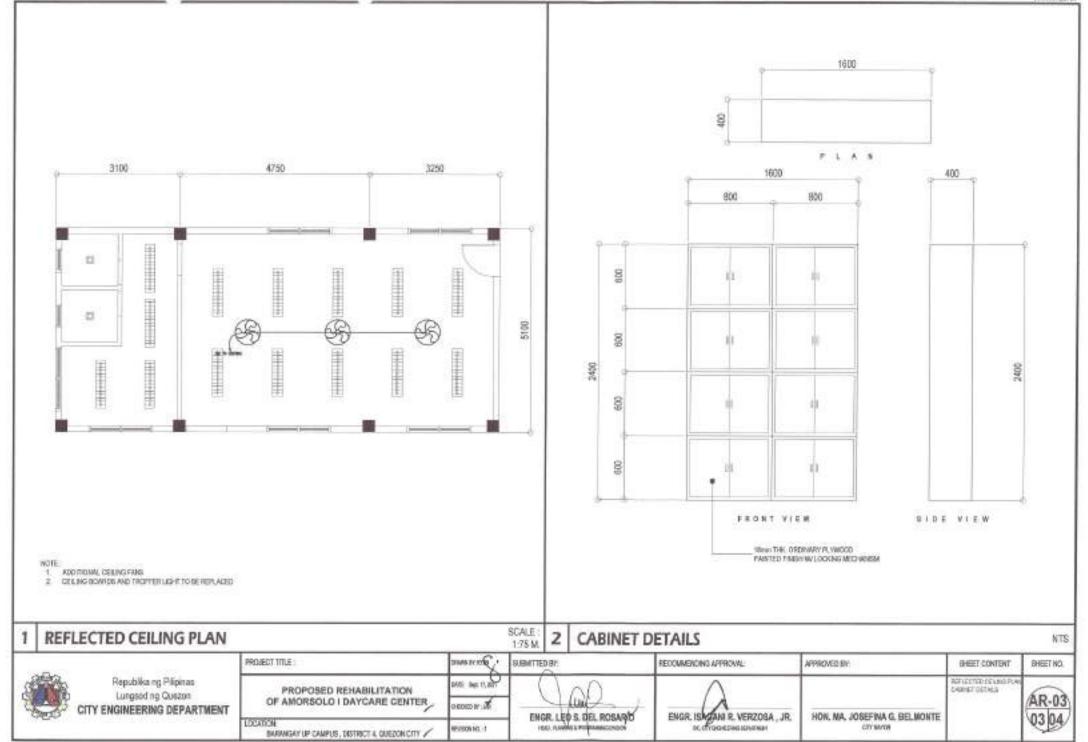
VCREY NA LOCATON HAP LOCATON HAP AR-01 01 04

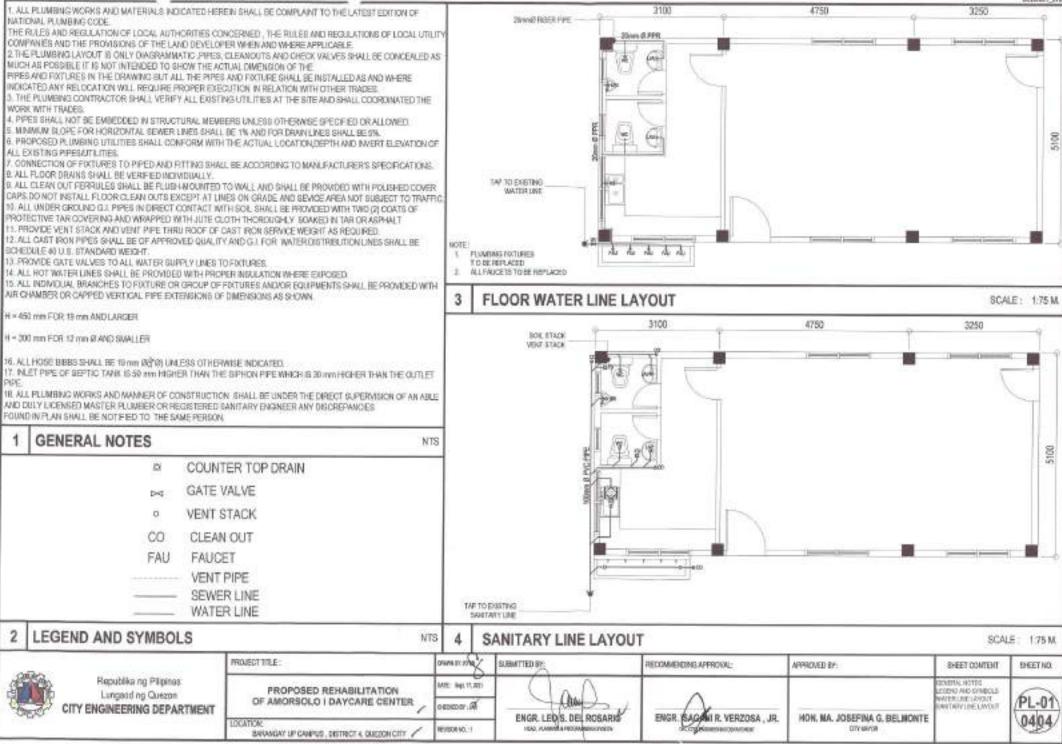
SHEET NO.

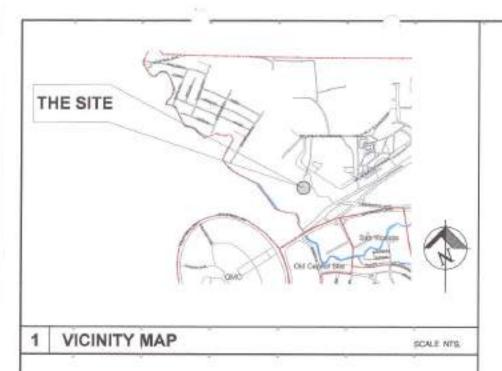
SHEET CONTENT



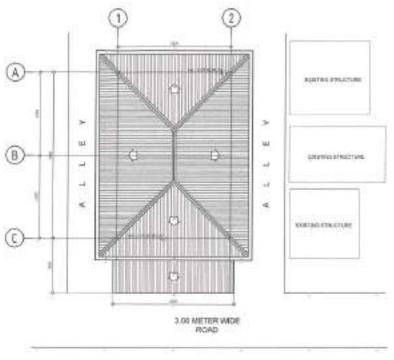






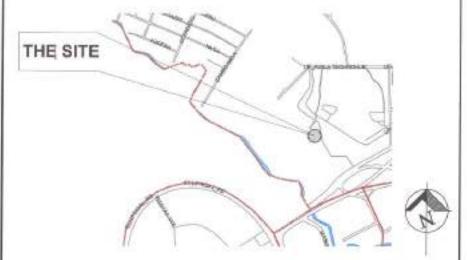


RESETVE PRESTURE (B) promounted time. SOUTH OF THE PARTY AND THE PAR



# TABLE OF CONTENTS

| A     | RCHITECTURAL                 |
|-------|------------------------------|
| AR-I  | VICIPITY WAT                 |
|       | LOCATION PLAN                |
|       | SITE DEVELOPMENT PLAN        |
| AB-2  | BROUND PLOOP PLAN            |
|       | REPLECTED CEILING PLAN       |
| AR-9  | PRONT (ELEWITION)            |
|       | REAR ELEVATION               |
| Att-4 | LIFF SIDE ELEVATION          |
|       | RIGHT SIDE SLEWITION         |
| AR-5. | SCHEOULE OF DODES            |
|       | SCHEDULE OF WINDOWS          |
|       | STANDARD LOGO DEYALS         |
| 8     | TRUCTURAL                    |
| 17-1  | (IENGHAL NOTES               |
|       | BOOF PRAMING DETALS          |
|       | PERHETER FENDE DETALS        |
| ST8   | FOUNDATION PLAG              |
|       | WALL FOOTING DETAIL          |
|       | COLLANS AND POCITING DETAILS |
| E     | LECTRICAL                    |
| 1/1   | GENERAL NOTES                |
|       | LEGEND AND SYMBOUS           |
|       | MISCELLANEOUS SETALS         |
| 1.4   | PROPOSED LIGHTING LAYOUT     |
|       | PROPOSED POWER LAYOUT        |



LOCATION MAP

BCALE NTS.

SITE DEVELOPMENT PLAN

SCALE 1:150M

Republika ny Filipinas Lungsod ng Queyon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF PECHAYAN DAYCARE CENTER

PROJECT TITLE:

SHOY COMMONWEALTH, DISTRICT \$, QUESON SITT /

courter: Mis-19,49,69,12040 ж мажен

DAMESHOUSE

ENGR. LED S. DEL ROSARIO

MARKETTER INC.

ENGR. BAGEN R. VERZOSA, JR.

RECOVERDING MERCHAL

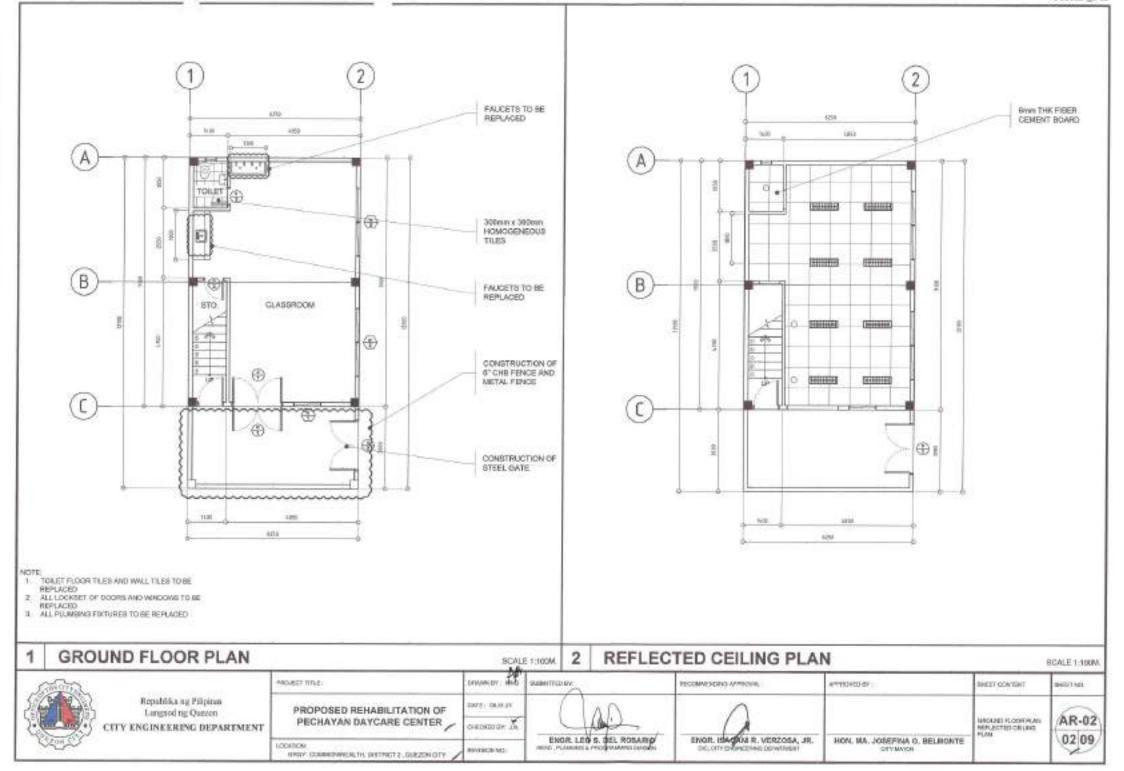
WALKARD SAL

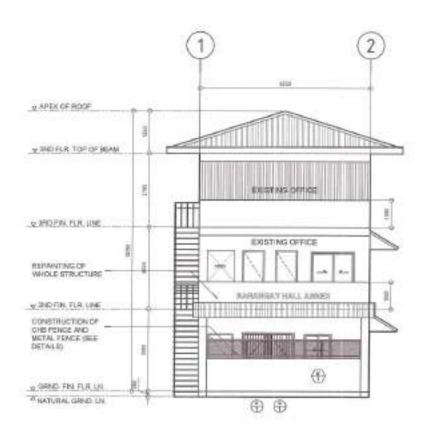
VIONETS MAP LOCKTION MAP BUTE DEVELOPMENT PLAN HON, NA. JOSEFINA G. BELMONTE

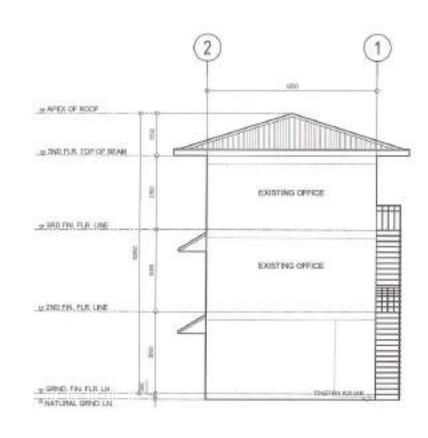
THE THOU TESNS

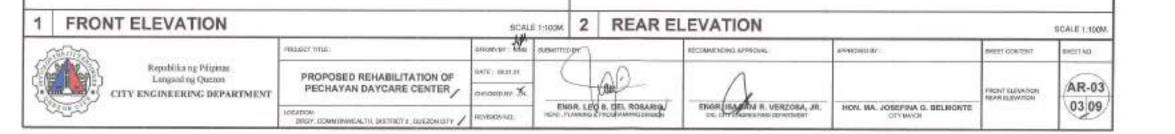
AR-01 01 09

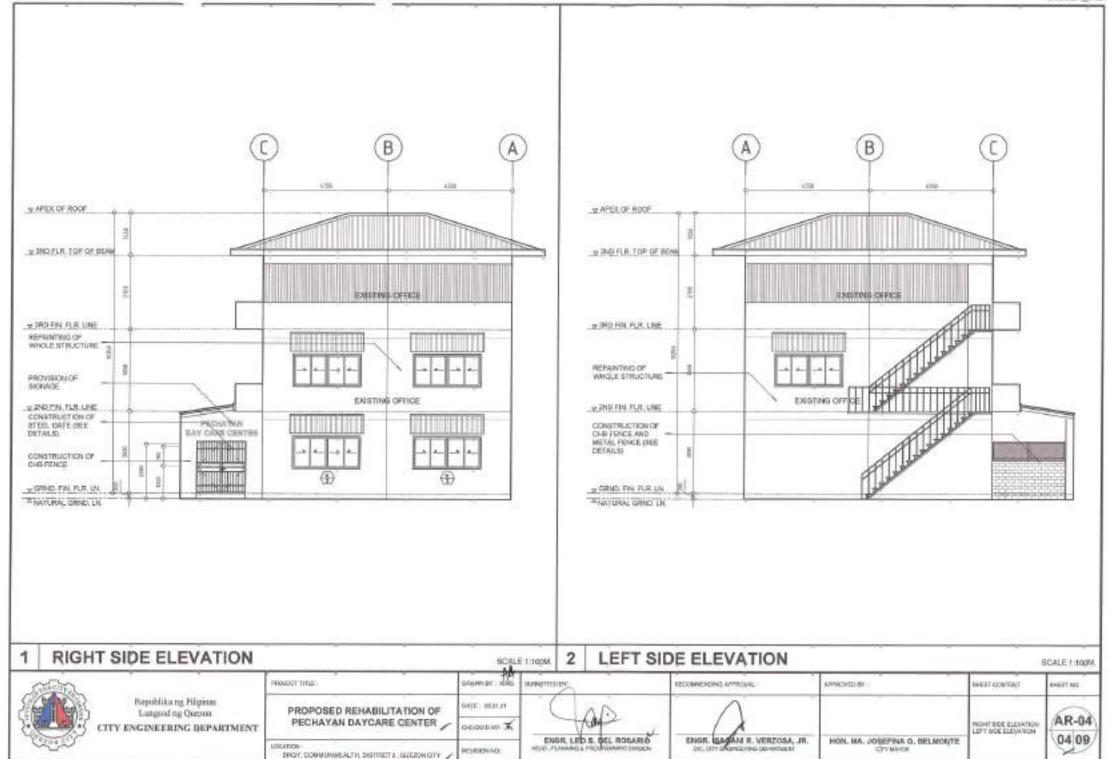
DHITTING:

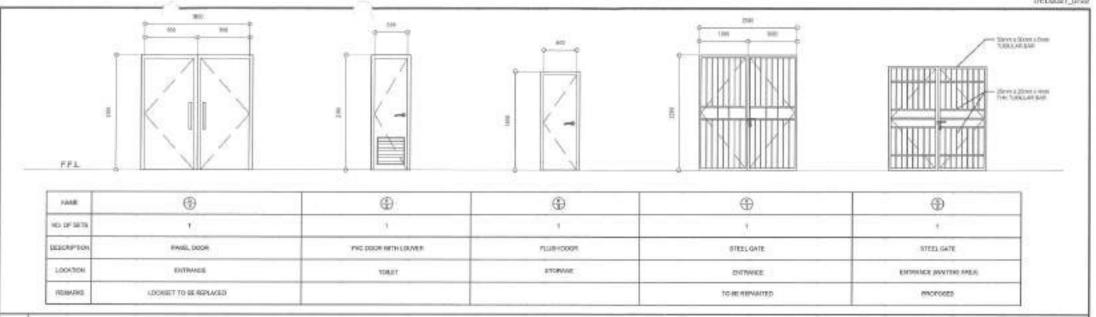






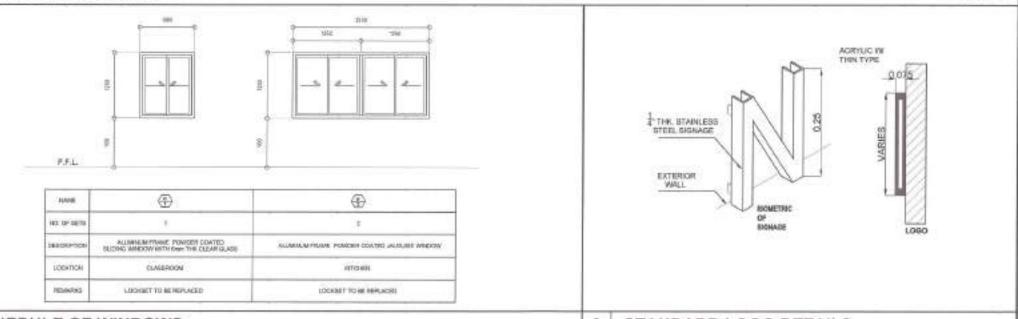






## 1 SCHEDULE OF DOORS

SCALE 1:50M.



2 SCHEDULE OF WINDOWS

SCALE 150M

#### STANDARD LOGO DETAILS

APPRICATION IN

SCALE I SOM



Republiks ng Pilipinas Lungsod ng Queson CETY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF PECHAYAN DAYCARE CENTER

BHSY COMMONMENTAL DISTRICT S. CARZON SITY

PROJECT TITLE

CHECKOOSH: AF.

ENGR. LEG S. DEL ROSARIO

ENOR. ISAGAMA, VERZOSA, JR. DC, CTY MYSERSON DEVENUE I

GO-GOALS OF GOORE GO-GOALS OF GOORE GO-GOALS OF WINDOWS OF WINDOWS

DETERMINATION.

TRETACKS TERMS

AR-05 05 09

#### GENERAL

- COMPACTOR RETRO FIRE THYOM DETAILS AFFLY TO ALL CRAINESS IN ESSENCE PHONE CHARTES MODEL THYOM, SERVICE AND ASSISTED TO TOWER SHEET SHEET, CONDITION.
- IN-CATURATION WITH EFFECTION AND IT ACTRICATED BY ALL STRUCTURAL TIPE BY MACROS A THROUGH, SECOND PARTICULAR SHOWS
- CONTINUED REPORT AND AND DATE OF THE ALL WORK BY TO SOURL CHECK WITH MEGNANIAL AND STATEMENT OF THE PROPERTY AND THE PROPERTY OF TH
- IN CASE OF CLEDITOR ARRIVE FACE THE RESPONDENCE ON CONTICT WITHOUTH ECCEPATE THE ATTEMPORATOR THE OWNERANGMERNSHIP, BE CALLED INVESTIGO. CONCRETE & REINFORGEMENT
- HA, MATCHALS AND ADDRESSABLED SHELL CONFORM HTV THE LITTLE BALLETING
- COSE OF HIGH CONCRETE PROPERTY OF PROPERTY
- E PLL DERORCHE MANUEDRYSLOF A MEMBLER COMPRESSOR EMBRECHAY FAR FROM THREST

| LOCATION   | a (HUNDTH           | NAX SATE OF<br>AGGRESSATES | mit smal       |
|--|---------------------|----------------------------|----------------|
| a dumentarionale,<br>cuming processing,<br>mountain,<br>work processing. | 300 F9 (X-00 No.)   | 11(1289)                   | 4 tr. (Miller) |
| A REVINE COLUMN<br>MONDICCOSING  | man u.b. harve abet | Municipal                  | 10 lapat       |

16 (2004)

- 5 ALL ROW DROMG DWYS WALL DOWN ON TO Prove SIDERLYS 758 TIMES AND REALIST WARD WISH COMES ON FOR THEIR AND LINESS BATH.
- A RESIDENCE THE LATEST EDITIONED ACCURA, MAKING POPRISHED PRACTICE SETALING PERFORCES CONCRETE STRUCTURES BYALL BY ADMINISTO MATERIAL MOMENT

2007017724966

IL MARTINA MEMARANCONCRETE COVER FOR REMYOTERIO STEEL AS FOLLOWS.

| CONFERENCE PRODUCTION OF THE PROPERTY OF THE P | 75 mps |
|--|--------|
| 9x97cR0c0 5UK65  | 20mm   |
| REAL PROPERTY.   | 40 (4) |
| WHILE-MOVE DONNE   | 25 mm  |
| AD-MG A COLUMNS  | E. ann |

- # 3PLOSA NACAL RE-RECEIVED TO SEACH MAD RECORDED TO BE SEACH CONTROLLED TO SEACH AND RECORDED TO SEACH AND REC DEFENSION OF LOCKS IN MALL BY STRONGSELF IN ADMINISTRATIONAL
- 7 ALL KNOWER SOLTS, DOWNER, KNO-27 KIR NAMED WHICH WHILL BE PROPERLY POSTSORED AND SCOUNCE IN PLACE PRIOR TO PLACE UP CONCRETE.
- IF CONTRACTOR SHIEL, NOTE AND PROVIDE MIL MODELLINEDUS DURING SHIEL STYCKS LEGISHADISES. MINIMEDIA SHOULD SHIELD AND PROJUNES OF THE ARCHITECTURE. BLICTHESS. MINIMEDIA.
- K ALL DONORSTE SHALL BE ARPT MOST POR A MINIOUN OF BEYOND GOAGGO/FING DIVISIONGDISTELY. APTER/FOLDING BY THE LISE OF MET BUPLIER FOG STRAYING OLDING COMPOSITION OF AN
- IS DITEMAS OF YORKS HID SCHOOL

6 DEMILITARITY

| DOMERETE.   | QUENO   |
|---|---------|
| FOLINDIYTOM:  | 341400. |
| ACREMATE SURFERCET WENT ACRES OF THE PROPERTY | MARK    |
| FEDERAL ROLLING MALES   | 204%    |
| NAME .  | 21,000  |

- IN SOMEOPHICA INSCRIPTION OF THE BURK BURK DAY OF A MARKET OF BURKLESHOOT DISCONSISSION OF THE BURKLESHOOT O STRUCTURAL STREET, AND PLATES.
- ALL ETRUTIONS (FIRE SHALL CORPORATE WITH A MEDICAL PLOSS WITH WARRANT REPORTED IN SORRE
- 2 ANCHOR & PARTENER BOLTS, ALL BOLTS SHALL CONFORM TO NOTING-187 (\$F42500/1080).
- S MILENO FOZO, ALL MILENO FOZO BIBLE HE BILD STREETING FOZO LOS HOROCOS DIE SAND ARREST YEAR STREET, - CONFI

#### FOUNDAIDON

- I FORMERATION IS SESSENCED INVESTIGATIONAL EVALUAGE CODE OF THE PHILAPPRICAPINAL CONTRACTOR AND DISC DEARING CHEADTY OF 200 BY
- 2. FOLKER TON SHIPL REST ON AN LANS SIZE. INSESSO FREE SECTION BY
- THE ENGINEER HOWART OF THE POLICY/FORWARD WAY DEPOLE
- A THE YORK THAT OF EMAL MOTIFY THE ENGINEER APPLY COMPLETION OF FOLLOW FOR EMPLOYMENT HER ACTUAL SCI. CONDITIONS READY DO NOT CONFORM TO THE YOUR SERVICE OF NOT YOU PROPERTIES.

#### HAROURY MALLS

- ( N.) MATERIALIS IS INCREMENTED IN THE OUTCOME AND WITH A PROCESSING
- A SPECIFICATION OF THE STRUCTURE CODE OF THE PELPPHAN & LAW CHARLES GODE.
- Z MORTARA ORGATICOS ALL EQUESPETE MAJOREY SALL CONCOSATO ASTAGRA-TANGAS. SHALL HAVE A AMBROM OF DICKNESSTY ICAGE CHARGOS COMPRESSED ADMINISTRATE OF STRUMENTS POLICE.
- SALLOW SHALL WELAPOUT WITH THE CELLS HUNORSTRUCKS HESTIGAL COVERAGE.
- ALL OBJUD ESPECIALLY THOSE WITH PELAPOPOEDIME SHALL BETTER DINTH MISHTIKE
- IN THE MEDICAL PROPERTY AND AND ADDRESS OF THE PROPERTY OF THE
- IS ALL MASONIN WHEN DIRECTORY OF PROVIDED BY IT THESE RELIMINATION ASSETTEMEN AS RELIMINED. La PORTAGA MALLO A RIGREY SERVING A TOU ARROYN TAT SOCIAN DE CRISTES.

**GENERAL NOTES** 

SO FOR BUILDING & WHISTONE OPENING PROVIDE LIVES ARRANGED A CENTER OF THE MELLOC.



### PERIMETER FENCE DETAILS

SCALE 1:40M. DALL THE



Republika ng Pilipinas Langsoding Queson

PROPOSED REHABILITATION OF PECHAYAN DAYCARE CENTER /

SHOY DOWNSWEALTH, DISTRICT & GUEZONICTY

DATE: DESIGN AL MIRRORO

HUYERON NO.

enumer blo

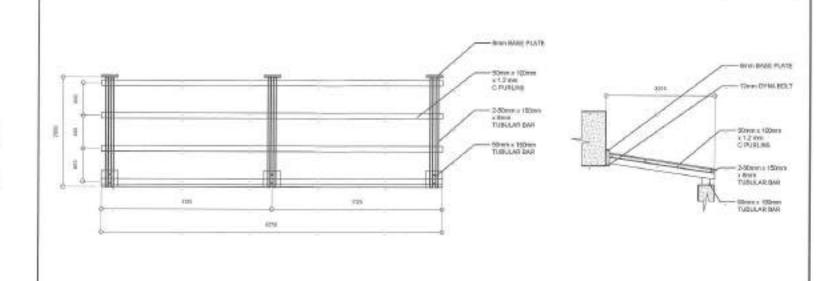
SUBMITTED INC. ENGR. LED 8, DEL ROSANO.



appropriate the

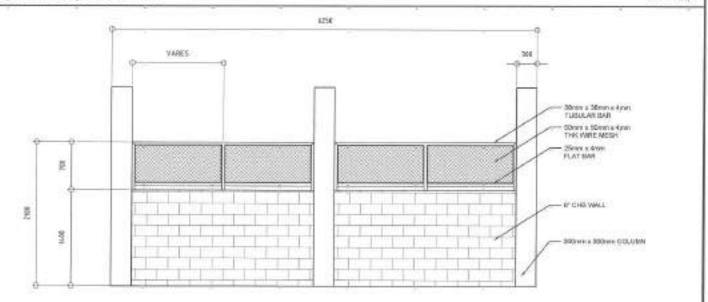
DEPUBLICAL MOTER ROOF PERIORS PLAN PERMITTEN PENCE DETAILS

ST-01 06 09



### ROOF FRAMING PLAN

SCALE 1:50M



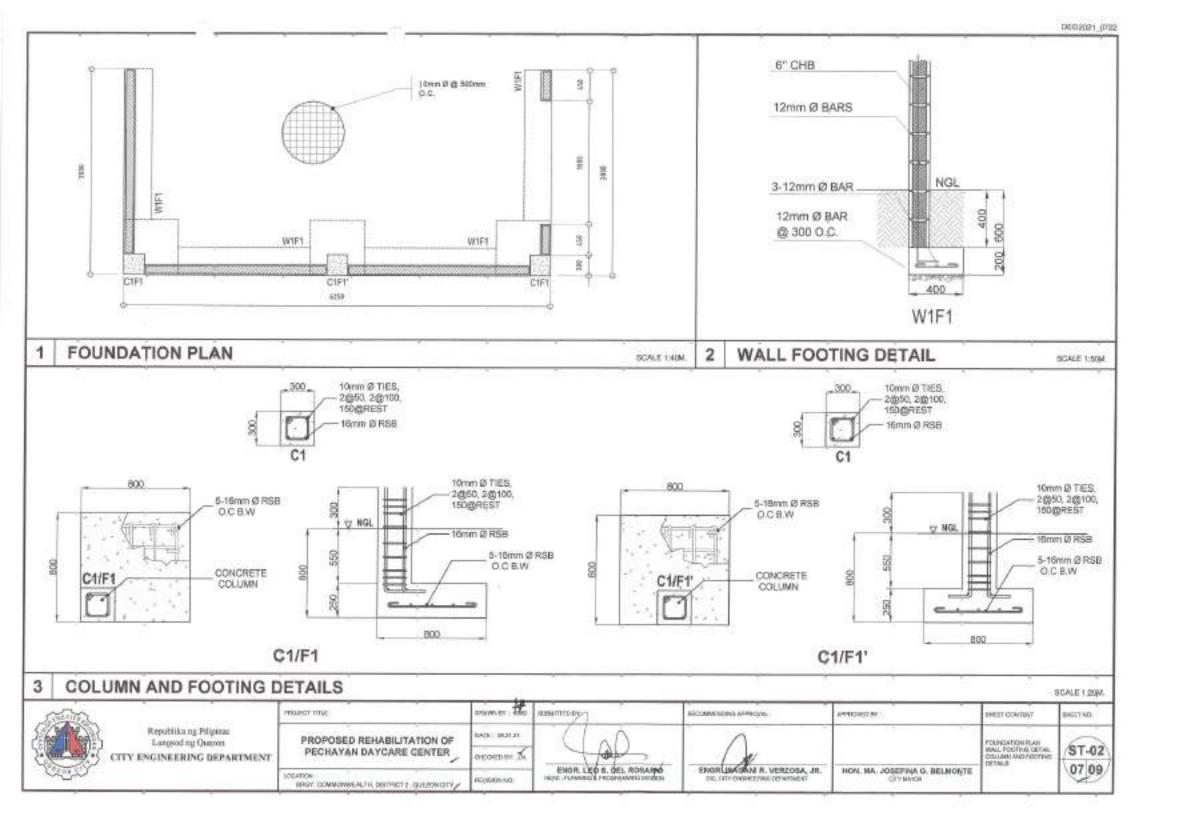
PROJECT TITLE

RECOMMENDING APPROVIL

EMBET GOWTENT

HON, MA. JOSEFINA G. BELMONTE CITY MAYOR

# CITY ENGINEERING DEPARTMENT



#### **GENERAL NOTES:**

- ALL (LECTRICAL MORE) SHALL BE DODE IN ACCORDANCE WITH THE PROPERTIES OF THE LATEST EDITION OF THE PRESENCE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LICAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LICAL POWER AND TELEPHONE LITERTY COMPANY.
- THE CONTRACTOR SHALL EXCLUSE ALL PRIMETS AND PAY ALL PESS REQUIRED FOR THE MORK AND GAVLE PUSHESH THE CHRISE THROUGH THE EXISTRERAY, HINLL CERTIFICATES OF ELECTRICAL PUSPECTION AND ARTRIQUAL ITION PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL SMBCDED BRANCH CINCUTES SHALL BY PHYC CONDUTES AND PUR EXPOSED REPALATION SHALL BE INCREPRENTED BY CONDUCT CLARIFIE SYSTEM TRANSLIGHTERS.
- 4 PLL, DOBES SHALL SE PROVISIONES THE CONTRACTOR WHEREVER PROCESSARY TO FACULTATE WHICE PLLING EXCHIPT THESE
  ARE NOT TREACH TO SHE THE PLANE. SURES OF ALL PILL PROCESS SHALL BE CONFUCED AWARD ON THE CODE RECOMMENDES.
  AND SHAPE DEVIAWABLE TO THE ENGINEET FOR APPROVING PRIOR TO FACHECISTOL LOCATION OF PILLEGOES SHALL BE
  APPROVIDED BY THE ARCHITECTURE MARKET AND AWARD REPORTS ON THE THE SHAPE PLANE.
- 5. ALL POWER OUTLIETS AND SWITCHES IN BUILDING TYPE WITH LINEAULD, SLOTS FOR 150 V.
- 6. PROJECT RECISION AND T CURRENT INTERPREPTING DISCUSS BREAKS FOR LONG MARKED SPOT ON THE RUNG.
- 7. ALL DIETALLIC CONDUCTS, CARRETT AND EQUIPMENT SHALL BE PROPERLY GROUNDSONIO BOXDED.
- IL. LANGUE DEHERMINE HOTEL, MOUNTING HEIGHT FOR HALL MOUNTED DEVICES GHALL BE AS FOLLOWS:

DESIRENCE CHESTON SHORT, FOR MY SEE - TELTUS SLIGHTED

HERHTING SWITCH - 1400 NW APP PANELSOAND - 1600 NM APP

- B. PEPER TO INCHARGOL, PURGING AND FIRE PROJECTION DISAMAGE FOR REFIELD AND LOCATIONS OF COLUMNOT AS SKILL. AS THEIR CONTROL SCOUDINES AS SPECIFIED AND CHIRAMAGEN THEIR RESPECTIVE SECTIONS.
- 18. ALL WATERALD TO BE USED BOILL BOOF THE BEST QUALITY. SHARD NEW AS SPECIFED.
- 11 THE PROVING AND GROUP ON YOME ARE INTERESTED TO PRESENT OWNERS. LAYOUT MEDITION COLLEGE DESCRIPTION OF THE PROJECT BUT DO NOT ADDISINATE Y ABOUT \$100 MEDITION ACTION. LIDEATERS, LID
- ANY DISORDIANSY ESTINGENTIAL PLANS AND EPECIFICATIONS SHALL BE INFORMED TO THE ATTENTIONOR THE ENGINEER FOR GLASPICATION DECISION.
- 13 ALL JOHNAS AND CONVENIENCE CUTLET CREATE SHALL SE 18 KG. MIL THINLY CONVENIENCE UNLESS OTHERWISE NOTED.
  MARIAN DZC OF MINE SHALL SE 1500 MIL COPESS WAS ALL WASS AND CREATERS SHALL BE COLOR CODED AS FOLLOWS:

LANC F - RED LINE E - YELLOW WESTRAL - WHITE GROUNG - GREEN

14 BODES, WHE INSTERN, ENCURENCE SHALL BE PARRICATED PROMISTED, WITH THOMESIS AS FOLLOWS INVADIGN MOTHER THE ARCHITECTURY STREET.

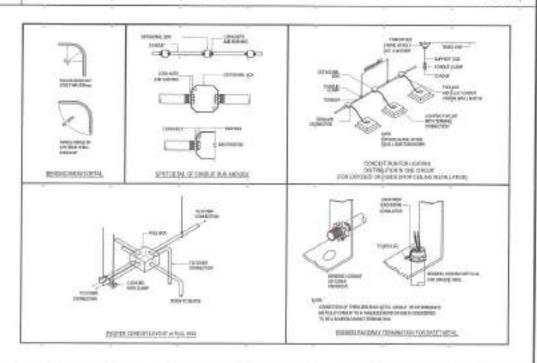
UP TO INCLUDING TELEVINAL
OVER TELEVINAL RECT NOT CHARGE SETTO ON A SET PARTICIONETH SETSE PROVINCE SETTO ON A SET PARTICIONETH SETSE PROVINCE SETTO ON A SET PARTICIONETH SETSE PROVINCE SED TOPOCONETH SETSE PROVINCE

- 16. ALL PLECTRICAL WORKS HERER BHALL BE EXECUTED BY EXPERIMENTAL DIRECT SLECK SLECKMEN OF A FULL-TIME LICENSED BLECTRICAL. ENGINEER AND A DULY ACCREDITED (LECTRICAL CONTRACTORIES FOAR WORKS SHALL BE NEATLY PLACED, MICHIEL Y PARTITION AND PROPERTY PROPED.
- 16. TYPE OF SERVICE ENTRINCE SHALL RE SHOLE PHISE. TWO WAS PLIC GROUND, SPIERTZ 30V AC SEMBAL
- 17. CONCLUTS IN HIS CASH RHALL THERE BY MORE THAN THE EQUIVALENT OF FOUR QUARTER GOING WARM ONE FAIL ALL CONCLUT WHICH SHALL HE FIELD WINDS BY JORNA HYSRIGHTON ARMANISTERS FRANCIS MAINT BE IN ACCOMPANIES TO THE COOR REQUIREMENTS.
- THE SPECIAL PROPERTY OF THE CONTRACTOR HOLLAND REPORT HE REPORTED HIS REPORT OF THE PROPERTY OF THE REPORT OF THE

| φ-      | 150MM≠ LED BULB 18 WATTS  |
|---------|---------------------------|
| (HHHHH) | 1X18W TROFFER LIGHT       |
| 0       | LED PINLIGHT              |
| Ф       | DUPLEX CONVENIENCE OUTLET |
| 0       | ACU QUILET                |
|         | PANEL BOARD               |

## LEGEND AND SYMBOLS

SCALE NTS





SCALE: NTS

SUBMITTED AND

## MISCELLANEOUS DETAILS

ANTENNA SURGISHADAS

SCALE:NES

SHEET CONTEAU



Republika ng Pilipinas Lingsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF PECHAYAN DAYCARE CENTER

BPGY DOMANNING A.TH. DISTRICT 2, ISSECONGTY

SURETTERACE?

Cere: seasur

YOUNGED

ENGR. LDD B. DES. ROBARDO

ENGIN JERGANI R. VERZOSA, JR.

COMENC. HOTE LEGISLAND SPRINGS. HON. MA. JOSEFINA O, BELMONTE

DETALA

MINORE

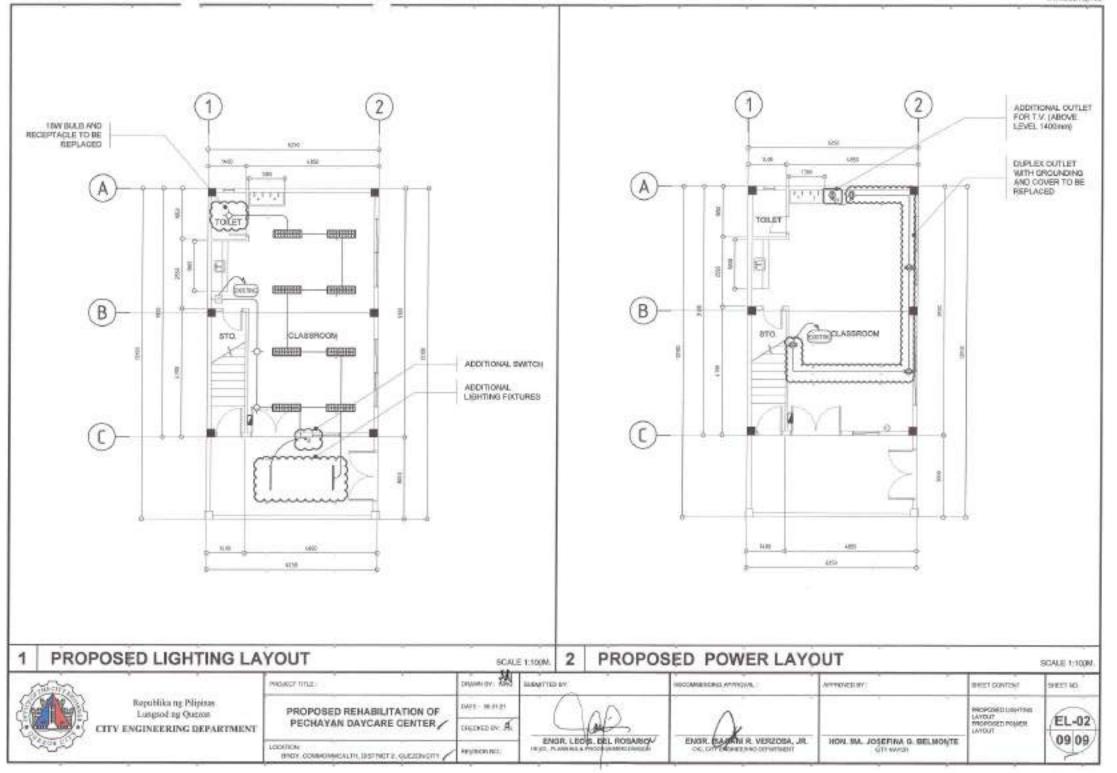
LEGISLAND

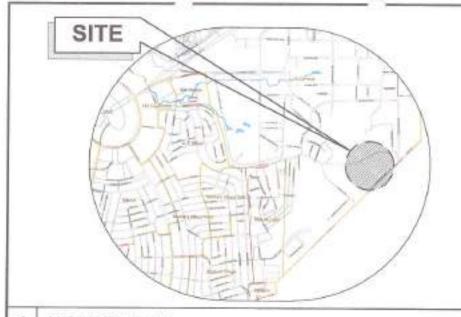
DETALA

OPTALA

APPROVED BY:

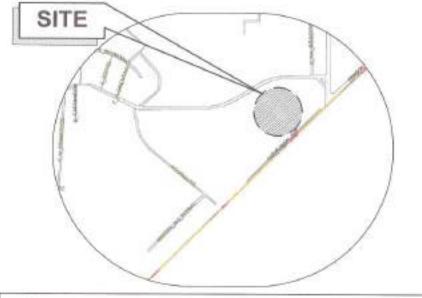
EL-01 08 09





1 VICINITY MAP

SCALE: NTS



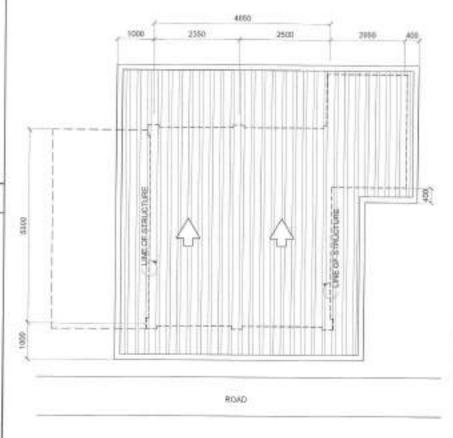


TABLE OF CONTENTS

ARCHITECTURAL

ABOY LOCATION PLAN
VICHITY MAP
SITE DEVELOPMENT PLAN
OFFICE DEVELOPMENT PLAN
PROPOSED GROUND FLOORPLAN
PROPOSED GROUND FLOORPLAN
ARUTI GROUND FLOOR REPLECTED CELLING PLAN
ROOF PLAN
ARUTI GROUND FLOOR REPLECTED CELLING PLAN
ROOF PLAN
HIGHT SKIE VIEW
LEFT BUTE YEW
ARES STANDARD LOOD DYTALS
TOLET SCEAL

PLUMBING / SANITARY

WINDOWS AND ORLLS SCHEDULE

PLOT CONCRAL NOTES
LEGENCS AND RYMBOLE
GRASS TOAP OCINA.
HOSE BBS CETAL
PLOC. WATERLINE LAYOUT
SANTARY LINE LAYOUT

ELECTROCAL

ARIOS DOORS SCHEDULE

EL-IIT GENERAL NOTEE
LEGENOS AND SYMBOLIS
MISCELLANDOUS DETALS
SCHEDULE OF LOADS
EL-III LOATING LAYOUT
POWER LAYOUT

LOCATION PLAN

BCALE: NTS

3 SITE DEVELOPMENT PLAN

SCALE: NTS

\*\*\*\*\*\*\*\*\*\*

Republika ng Filipinan Longsod ng Queson CTTY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER /

PRODUCT TYPE

LIZUTERN EARANEJAY LI P. CAMPLIS, OSSTRETT 4, QUEZORICTY

ON CHEERED BY AND CHE

ENGR. USO S. DEL. ROSASSO

ENGRISA DEL R. VERZOSA, JR.

ANDRESS RESONANCES

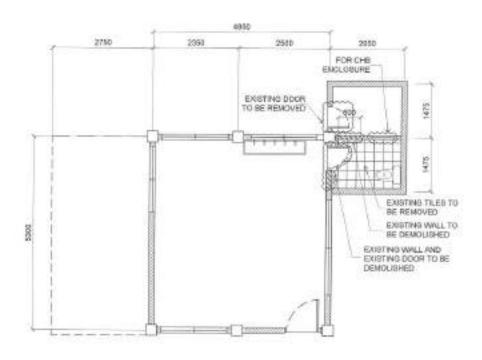
HON, MA. JOBEFINA G. BELMONTE

OTI MYON, BARRISTOFF

BHILL CONTENT



SHEET NO.



4850 2750 2380 2500 2000 300mm x 300mm PROPOSED HOWOGENEOUS PLUMBING -NON-SKID FLOOR FOITURES TILES REPLACEMENT OF FAUCETS 600mm x 600mm NON-SKID HOMOGENEOUS FLOOR TILES

NOTE: EXISTING DODRS AND WINDOWS TO BE REPLACED.



SCALE: 1:100M

## 2 PROPOSED GROUND FLOOR PLAN

BCALE: 1:100M

Republika ng Pilipism Langsod ng Quezon CITY ENGINEERENG DEPARTMENT PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER

EDDATOR: BARANGAY U.F. CHMPUS, DISTRICT 4 QUEZQWICHT DATE SEPT TO SEPT

DESCRIPTION

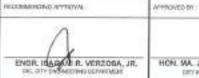
DESCRIPTION

DESCRIPTION

ENOR.

REVISION NO. 1

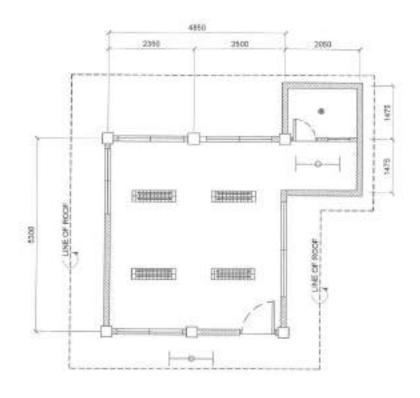
ENOR LEO S. DEL ROSARDO



EXISTING GROUND FLOORPLANS PROPERTY OF CHOLIND PLOOR PLANS PLANS PLOOR PLANS PLOOR PLANS P

DESTRUCTIONS





4650 1000 2360 2500

WYFOWD IT

EXISTING CITLING TO BE REPLACE OF BINN THICK FISER CIBMENT BOARD INCLUDING ROOF GAVES

NOTE: ROOF AND ROOF BAVES TO BE REPLACED.

# REFLECTED CEILING PLAN

SCALE: 1:100M

DATE: BETT, 17,000

CHECKED IN: JA

HIVERONING: 1

**ROOF PLAN** 

SCALE: T.100M meeting:

Republika ng Pilipinas Lungsod ny Quasan CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER /

- BANNASAV VIP. EMIRUS, DISTRICT I, DIRECTOR OTTO

CHARGE.

COMMITTED ASSESSED IN ENGR. LED S. DEL ROSARIO

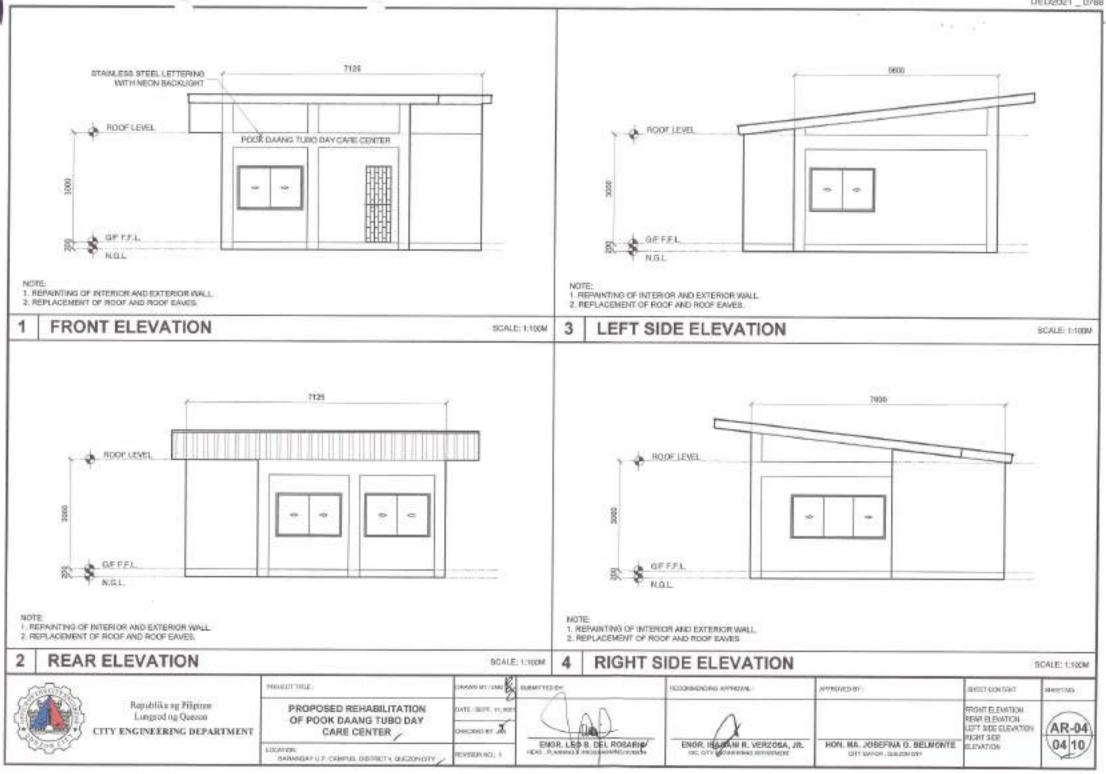
ENGR ISACIANI R. VERZOSA, JR.

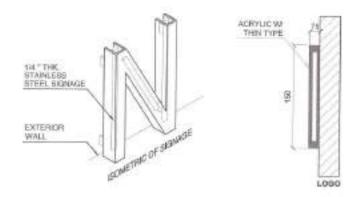
несомистения плитения.

PROTESTED CITEDIO ROOF FLAN HON, MA, JOSEFINA O, BELMONTE OTT SAPOR, BLEEDINGEY

SHITT CONTRACT

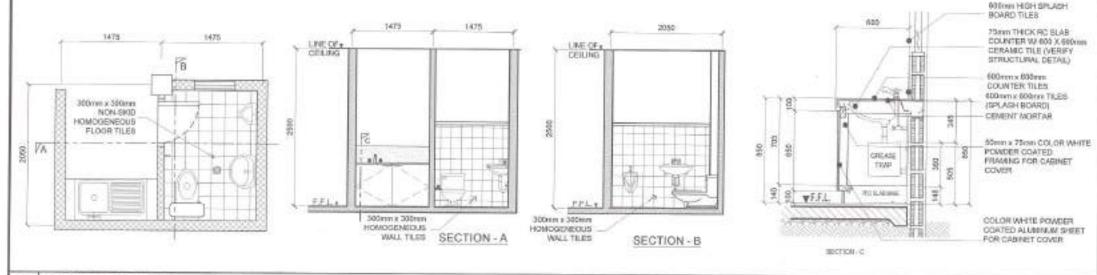
AR-03 03 10





## 1 STANDARD LOGO DETAILS

SCALE: NTS



## 2 TOILET DETAIL

SCALE 1:40M

BEST NO.



Republika ng Pilipinar Langsod ng Quason CITY ENGINEERING DEPARTMENT

| ROPOSED REHABILITATION<br>IF POOK DAANG TUBO DAY<br>CARE CENTER |
|---|

BATHANGAY IUT, GAMPUS, DISTRICT A QUEZON CRYY

DATE SEPT OF SET

DATE SEPT OF SET

ENGR. US S. DEL ROSAFROJ

NEASON NEL 1

|   | PEGIMPENDING APRICHIL |
|---|-----------------------|
| 7 | ENGRASSION R. VE      |

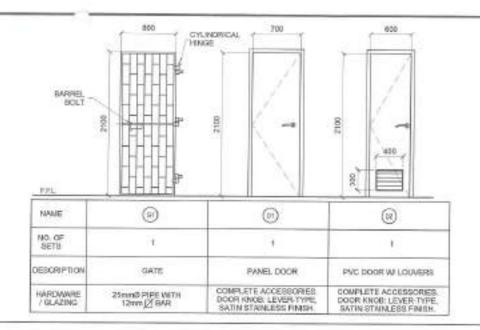
HON MA. JOBEFINA G. BELNONTE

ATTRIBUTED BY

STANDARD LOGG DITALIS TISLET DETAIL

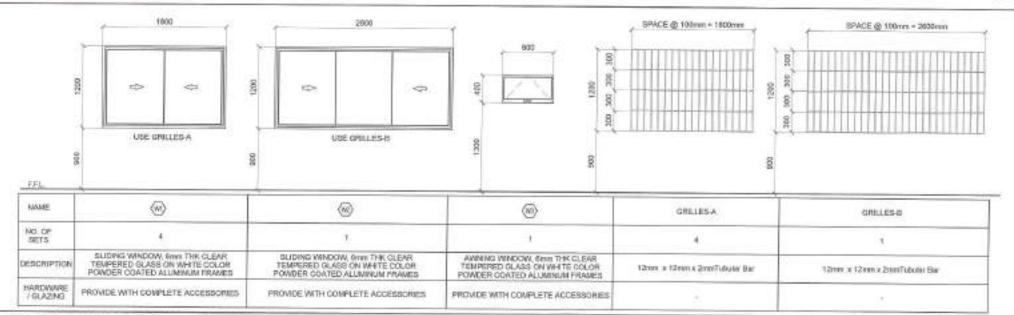
THE PART HANG

AR-05 05 10



## 1 DOORS SCHEDULE

SCALE: 1:40M



## 2 WINDOWS AND GRILLS SCHEDULE

SCALE 1:80M

HELTHO.



Republika ng Pilipina Lungood ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER

SAYONGAY U.F. DAMPUS, DISTRICT 4, GLEZON CITY

DATE SERT 17, MET

CHECKED OF MA

ENGR. LEG S. DEL ROSANNO

WAR, HARRING STREET, AND CONTROL OF THE CONTROL OF

ENGR. SMANI R. VERZOBA, JR.

HON, MA, JOSEFINA G, BELMONTE

OTYMHOR, GRIEBICTY

DOORS SCHEDULE MINIOUNS AND GRILLS GOVERNUE

TREFTICO, 19998

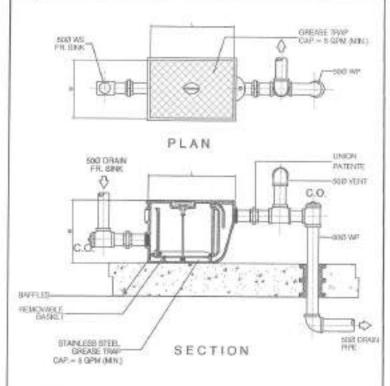
AR-06 06 10

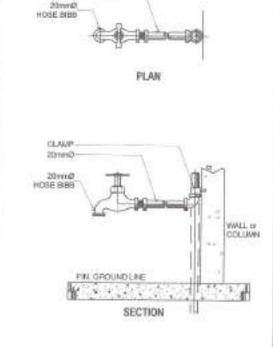
- 1 AJ plumbing warks and netwisk indicated herein shall be complicated to the produces of the latest efficient of Malichael Plumbing Gode, the number regulations of local subportion control to the professions of the professions of the tend developer when and where applicable.
- 2 The planting layout is only diagrammatic, ploss, thorrouts and check releasing the conceived as much as possible. It is not intended to show the extent discussion of the pipes and futures in the drawing but all the pipes and futures shall be installed as and when indicated. Any relocation will require proper execution in relation with offer trades.
- 3 The plumiting contractor shall verify all existing affilias at the site and shall exceditude the work with other tracins.
- 4 Plans shall not be enthabled in structural recedens unless of service specified or allowed.
- 5 Minimum slope for hartcostal sensor less shall be 1% and for drain lines shall be 5%.
- # Projected planting utilities small continue with the setual location, depth and invert planetion of all existing pipes/utilities.
- If Consection of Entures to pipes and fittings shall be according to manufacturar's specifications.
- 1.40 floor drains shall be varied individually.
- 9.44 claim nut females shall be flust-executed to well and shall be provided with political power caps.
  De not install floor clean outs except at lines on grade and service areas, not quitied to halfe.
- 18 At anderground G.I. place in direct contact with mill shall be provided with two (2) could of prolocitive for covering and wrapped with jule shift thereupting content in terms exchall.
- TS Provide yard stock and west pipe thru roof of cast too sametos extent as required.
- 12 All cost time pipes shall be of approved quality and G.I. pipes for water distribution lines shall be Schadule 40 U.S. standard weight.
- 13 Provide gate volves to all mater supply lines to fixtures.
- 54 All but water tisss shall be provided with proper insulation where exposed.
- 15.43 infletious breaches to fickness or group of fishines and/or equipments shall be provided with all chambles or copped vertical pige extensions of dimensions or shows:
- H + 453 mm for 19 mm 2 and larger
- H = 300 nm for 12 nm Ø and smaller
- 16 All home bibbs shall be 19 non 65 (SAF 35) unless otherwise indicated.
- 17 Inlet alpe of explicitant is 50 mm higher than the siption pipe which is 30 mm higher than the audin pipe.
- 18 All plantiling works and manner of construction shall be under the rieset separation of an able and duty located Master Plantier or Regulared. Sanitary Engineer. Any discrepancies found in plan shall be notified to the came person.



## 2 LEGENDS AND SYMBOLS

SCALE: WTS







SCALE HTS

3 GREASE TRAP DETAIL

DICALE NO

MERCASS BY

HOSE BIBB DETAIL

SCALE ME

Republika ng Pilipinas Lungsod ng Quaxon TTY ENGINEERING DEPARTMENT mount me

PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER /

BATCHICAN U.P. CAMPAUS DISTRICT 4, GLEZON CITY

DANNERS SEE CONSTITUTE

SPECIAL SEAT SEATS SEATS

ENGRI SATAMIR. VERZOSA, JR.

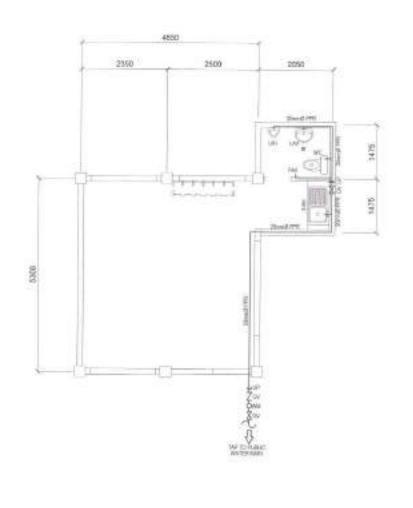
HON. MA. JOSEFINA G. BELWONTE

20mm3

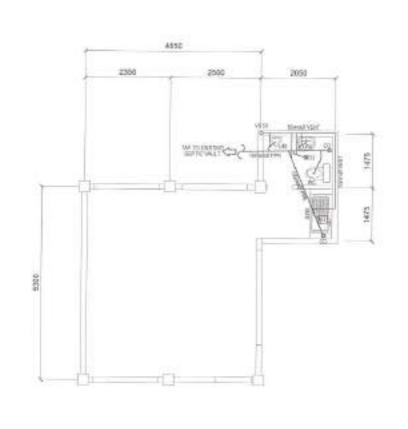
GENERAL HOTES
LEGENDS AND
SYMBOLS
CHEASE TRAP
DETAIL
HOSE BERN DETAIL

RESTORNERS.

PL01 07 10



PROJESS WISE



ACTIONED BY

WATERLINE LAYOUT

SCALE STOOM

DATE: SEPT. 17, 900 6

SANITARY LINE LAYOUT

SCALE, 1-180M SHEETING

Republika ng Plipinos Langsod ng Quaren CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF POOK DAANG TUBO DAY GARE CENTER

CHICKES IN ME FOR ADDRESS BARKANSAY U.P. GAMPUS, DISTRICT 4, SUEZDA CITY,

RAMATEV SHE 👸 RESISTING R ENGR. LEG S. DEL ROSANO HERE, FLIRING VICOSSIMMIC SYMPON

ENGRUSASANI R. VERZOSA, JH.

HOOGMENI NE REPRIMA

WATERLINE LAYOUT BANITARY LINE LAYOUT HON, MA. JOSEFINA G. BELMONTE

CELL MALCON CONTROL CONTROL COLOR

SHOW! CONTRACT

PL-02 08 10

#### GENERAL NOTES:

- 1. ALL ELECTRON, WORKERING, BY DOME THAT CONCURSE WITH THE PROPERTY OF THE LATEST DISTRICT THE PROPERTY. ELECTRICAL DODG. THE LAND WIS CREMINANCES OF THE LOCKLING SUCK DATA SCHOOL BUT HORSTON AND THE RESIDENCE SUF THE LOCAL POWER AND TELEPHONE SITUATY COMPANY
- 3. THE CONTINUESOR DIVID, SECURE ALL PERMITS AND ANY ALL PROS REQUIRED FOR THE WORK AND SHALL FURNISH THE OWIER THEOLOGY THE ENGAGERS. RINAL OWNERCED OF SLUCTRICAL REPROTOR AND APPROVAL FROM PROVIDE. GENERALISM NUTHERN THE FOR COMPLETION OF WORK
- 2. ALL SIMBLERS MANYO CONCURS SHALL BE INVOCABLISTS AND FOR EXPOSED INSTALLATION AND, I'M THE TAIL SUPPORTED BY CONESTY CLAMPS HISBYY THE BULLMETTER
- 4 PULL BOXCO BANK L BE PROVIDED BY THE CHRYMATTER WHEN EXCENDED AND YOUR WOLLT LETE WHEN MALLIND BANKS IN THESE MRE WOT MODIFIED DO THE PLANE. STREET OF ALL WILLISTONS SHALL SE COMPLITED GASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWNES TO THE BROWNER FOR APPROXIS, PROX TO PARRICATION LOCATION OF PULLBOXED SHALL BE APPROVED BY THE ARCHITECTENORIZER AND MAST BE REPLECTED ON THE YOR BUILTING AN
- 5 ALL PENSINGUE, ETC. AND ENTERING THALL BE OPPOUNDED THREE WITH PARALLEL SLOTE FOR 200 K.
- IN PROVIDE ORGANIC HALL T CORREST INTERNATION CRICAL SPEAKER FOR LOADS MARKED TORY ON THE PLAN.
- 7. ALL MITALUC CONDUCTS, CHARGEST AND EQUIPMENT BHALL BY PROPERLY GROUNDED AND ROSIGIS IN
- A LALCOS DITIERWINE HOTEL, MOUNT MIT HEIGHT FIRM WHILL MOUNTED DEVICES BYALLISE AS FOLLOWS:

PRESPRACE SUPLET - 166 HW AFF , FIGHIN ABOVE NORMAD COLUMN

TRAINING CUTLET - 308 MIX AFT

CATY OUTLIET - 308 888 APP LIGHTME IMPTON - 1,000 MW APP

PARKERIMEN - 1800 MW NAM

- 8. REFER TO SECHNICAL PLUMBICS ARE FREE PROTECTION DISJURIES FOR NATINGS AND LOCATIONS OF RELIGIOUS AS WELL. All THEIR CONTROL SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE MECHANIC
- HE ALL SWITEPALS TO BE USED BHILL IN OF THE WEST QUALITY, BROAD HOW AS INFORMED.
- 11. THE DISWARDS WID DREDIT CATIONS WE WITHOUT TO PRESENT OFFICEN, LAYOUT AND SHOULD OUT LINE DESCRIPTION OF THE PROJECT OUT DO NOT HEXCESSARY OF RESCAPELISHOCHMENT ACTUAL LOCKTONIC, LEVEL, WILD DISTANCES OF THE ECUPAGES. THE CONTRACTOR IS REMAIN REQUESTS TO MAKE SUCH ADJUSTMENT AT THE JORGEST AS LICENTEN, DISTRACTOR AND LEVILS ARE HOVERHED BY ACTUAL PELD COND TONS.
- 12. ANY DISERPORT RETAINS THE PLANS AND DIRECTION OF SHIPL BE DROUGHT TO THE ATTENTION OF THE EMBRESS FOR DUARFICATION OSCINION.
- 15. ALL DISHRISS AND CONVENENCE CURLET CRRCIPTE SHALL BE 3.0 EQ. AMIL THERE 2.0 CONFOT WISC LINE DISHRISS RETTED. WHINNAH SIZE OF WHITE SHALL SEEDS ON COPPER WHILE ALL WHEN AND CARREST SHALL BE COLOR COCCE AS FOLLOWS:

Last Y. Peter DME # - WILDSWI MINTHAL -WHITE ORGANO-GREEN

14. BOXES, WIRE, GUTTERS, INVOLVELENS SHALL BE PREPIORIED WOM STEEL WITH THOMASSICAS POLLONIC.

MAJERIUM MIGTH OF THE WIDEST SURFIACE STREET

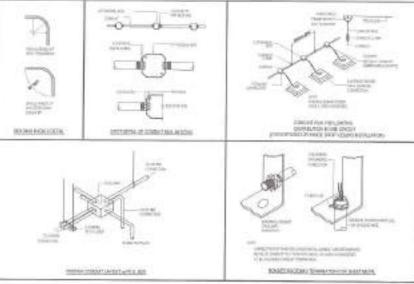
DESTRUMENTATION OF STREET DX THEARTEST INTH WICH. PROMIN RESOLVAND TOPOGAT.

DOSE TRUE MODBLE NOT OVER MET TO DWR-01139 SHIBERT WIT OVER THE MIS. GAL HERWICED WITH METAL PRIMER EPROKY AND TOPODAT. GA SERVICED WITH WETAL PRIMER SPOKE MISITIPODAT.

GA. W PANIFED WITH METAL PREMIER EPOXY AND TENCENT.

15. ALL ELECTRICAL WORKS HEREO SHALL BE EXXCUTED BY EXPENSION MENURORS THE ORGOT IN PRINCIPOLOGY A PLAIL THE LIGHTED GLOCTHOUS. CHOINGER AND A CULTY ACCREPATED IN STOTEM, ODWITHLOTOR BY PLAN WORKS INVAL THE FACETULE PLACES. RECURRELY PASTENGS AND PROPERTY FRISHED

- THE TYPE OF REPOYDE ENTRENCE CHILL BE SHILLD FINAL. TWO WHE PLUS DECUME. STHERTZ, DOV ACHOMINA.
- 17. COMMUNICATION CARS SHALL, THERE BE MORE THAN THIS COLUMN SHALL OF YOUR COMMON MINUSE IN ANY CASE THAN THE CONDUCT RESIDES SHALL BK. MINELT INCIDENCE MY LICHIES HYDRICALD GENERALIS MINIMUM SENDING HIDREST BK. HE ACKNOWLEDGE. TO THE CODE REQUIREMENTS.
- 5. VPGH COMPLETION OF BLECTRICAL CORRESPONDED WORK, INSULATION PROSTRICE TOUT AND PUNCTURALITY THAT BHILL. DEPENDENCE BY THE CONTRACTOR RELIENCE OF THE BETTALLATION TO BE REPORTED IN CEPALS DIVIDING APPROVAGE BY THE CORSON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE DISCUSS RESISTANCE FOR CLECTRICAL SHETSING SHALL NOT BE MORE THAN SOME DOWNERS DOWNERS AS IN GROUNDING HEIGHT MADE SHALL NOT EXCRED 3 OWNER.



TATSW, LED TUBE LIGHT TROFFER TYPE

DATEN, LED THRE LIGHT TROFFER TYPE

FIN LIGHT

CONVENENCE DUTLET, TWO GANG

THREE GANG SWITCH

ONE, GANG SWITCH

ORBIT FAN

SELECTOR SWITCH

PANEL BOARD

## MISCELLANEOUS DETAILS

SCALE NTS

LEGENDS

SCALE NTS

#### PROPOSED LIGHTING POWER PANEL (FOR REPLACEMENT)

WOUNTIME: WERLAY, RECESSED WITH GRAY POMOGRED COATED FWISH WITH MULTI-TERMINAL BLOCK FOR SOLID GROUNG BUS

| CKT.        | LIDAD DESCRIPTION                 | volts | VX.  | AMP  | AT   | 813E 0#                      |                    |  |
|-------------|-----------------------------------|-------|------|------|------|------------------------------|--------------------|--|
| CKT.<br>MO, |                                   | 100   |      |      |      | WHEL                         | CONDUITS           |  |
| 1           | 7-LIESTING CAYGOT<br>2-DECING FAN | 235   | 1000 | 4.35 | 20   | N -3 from the opposite white | III 20mm# PVC PIFE |  |
| 2           | 14-CONVENENCE BUTLET (ENITTING)   | 230   | 900  | 3.91 | .70  | -2 Orner TW GROUND WATE      | IN 200 HE PER PER  |  |
| 1           | SPARE                             | 230   |      |      | - 30 |                              | -                  |  |
| 4           | SPARE                             | 136   | -    | -    | - 25 | -                            |                    |  |
|             | -                                 |       | 1900 | 8.26 |      |                              |                    |  |

COMPUTATION

OVER CHEMENT ENDIRCHON USE: 60AT, 3P, 230V MODB

F - 1900 VA 230V IT = 8.29 AMPS.

USE: 2 - 14.0mm\* THHN COPPER WIRE & 1-B.0mm\* TW GROUND MARE IN 25mm@ IMC PIPE

APPROVED BY

# **GENERAL NOTES**

BCALE NTS

# SCHEDULE OF LOADS

SCALE NTS.

DESCRIPTION

SHEET CONTENT

SENERAL MODEL



Republika ng Pilgunu Lungsoding Queson CITY ENGINEERING DEPARTMENT PERSONAL PROPERTY.

LOGATION

PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER

SATURBAY ILP CAMPLE BETTER & DESWOTE

DATE: SEPT. YV 100 CHECKED BY A

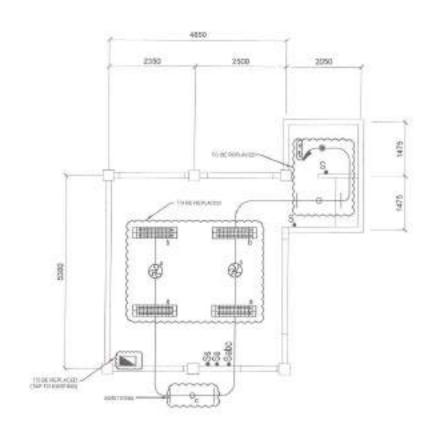
RESIDENCE I

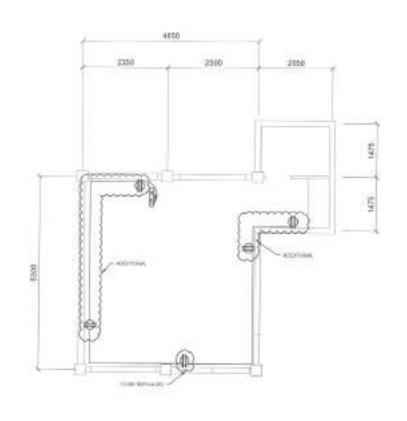
SAWARE SEE STREET ENGR. LED S. DEL ROSARION



HON, WA. JOSEFINA B. BELMONTE SCHOOLS OF LOADS OFF WOODS, ONLIDWORN

EL-01 LEDGREDS AND EXPRIENCES 09 10





LIGHTING LAYOUT

SCALE L'HOM

POWER LAYOUT

SCALE 1:180W

EL-02

10 10

SHEET NO.



Ropublika ng Pikpinas Langsod ng Quazon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER

LOSKTOR BARANDAY OF CAMPUL DISTRICT LIBERSHOP DATE BUT 17,000

OHSORISET WAS
FENCIONAL!

ENGR. LED S. DEL ROSANIO/

ENGR. BARAN R. VERZOSA, JR.

TECOMMETERS APPROVE

HON, MA. JOSEFFINA G. BELMONTE

CTTT MARCH, GRAZOW CTTS

#THOYED BY:

LIGHTING LAYOUT POWER LAYOUT

петина теня

TABLE OF CONTENTS

SCHEDULE OF DOORS, WINDOWS

ARCHITECTURAL AREA LOCATION MAP

VICINITY MAP SITT DEVELOPMENT PLAN AR-S EXISTING PLOOR PLAN. ARIG PHOPOSED PLOOR PLAN ARE PERCETED CELNOPLAN

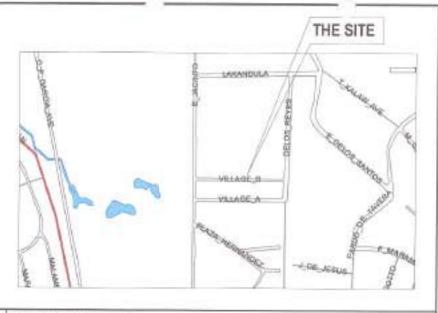
AND GRELIES

PS-T GENERAL MOTES Legende WATER LINE LAYOUT SANITARY LAYOUT ELECTRICAL EL-1 SIEVERAL NOTES LIDENDS AND SYMBOLS MISCELLANEOUS DETAILS

\$2.42 LIGHTING LAYOUT POWER LAYOUT

LETTERNIG DETAILS PLUMBING

AHS ROOF PLAN ARI-R FRONT ELEVATION



POOK VILLAGE B BASKET BALL COURT

VILLAGE B STREET

#### LOCATION MAP

BCALE: NTS

THE SITE

### VICINITY MAP

SCALE: NTS

DENVIN BY: THE

BATE I BASSORS

CHEEKED BY JAN

FERRING.

## SITE DEVELOPMENT PLAN

SCALE: NTG

Republika ng Pilipinus Largeoding Queion CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF POOK VILLAGE B DAY CARE CENTER

SPOY, LOS CAMPUR, DETRUCT A. DARRESS CITY

FROJETT 991.1

SECURITIES OF

ENGR. LIVO S. CEL ROSARIO HOR. R. MINISTER PROGRAMMIS CONTROL



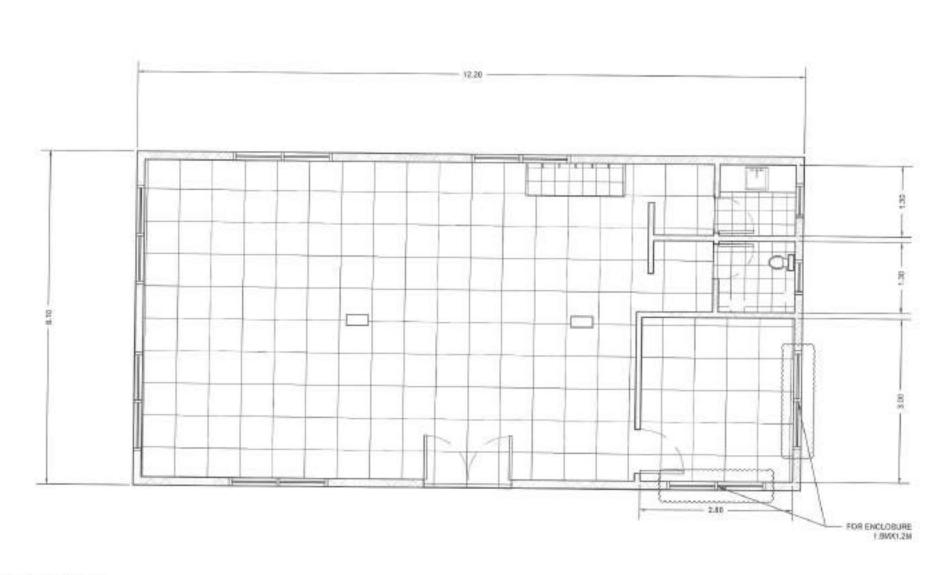
инсомменено илтеруац:

WEBSTY MAP LOCATION NAP SITE DEVELOPMENT TUAN HOW MA. JOSEFINA O. BELMONTE THE MODEL PROVINCE

INSTRUCT CONTENT

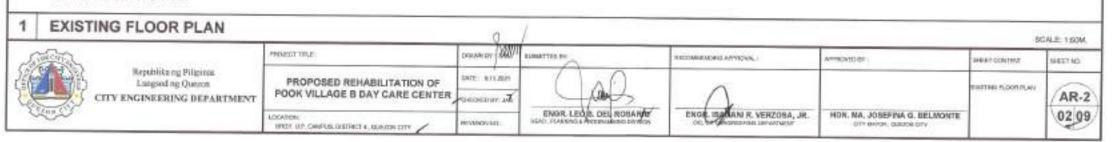
AR-1 01 09

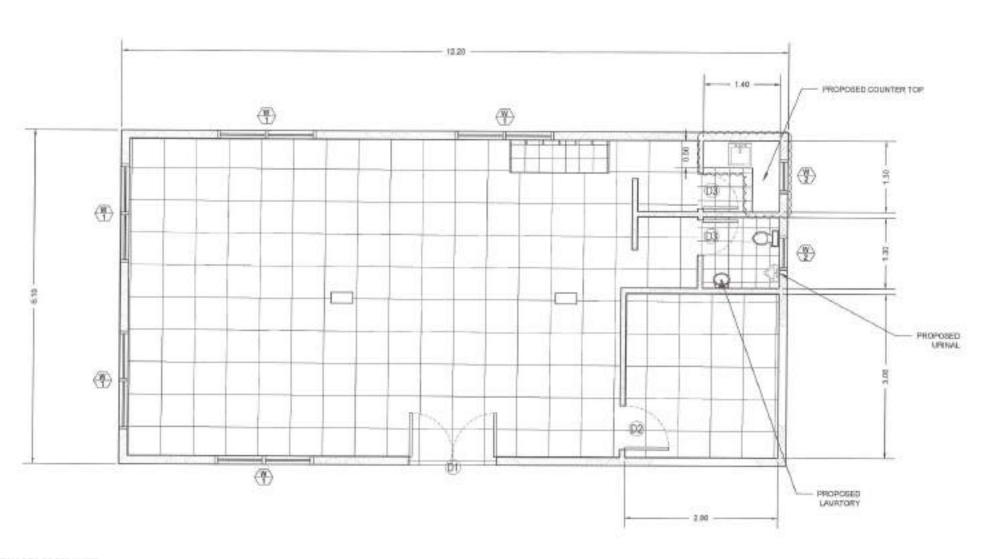
DESCRIPTION.



#### NOTES:

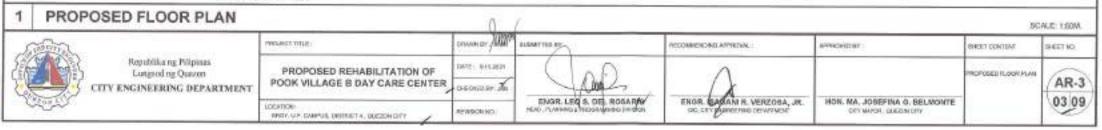
- DOORS & WINDOWS FOR REMOVAL
- TOILET FLOOR TILES FOR CHIPPING.
- TOILET WALL TILES FOR CHIPPING

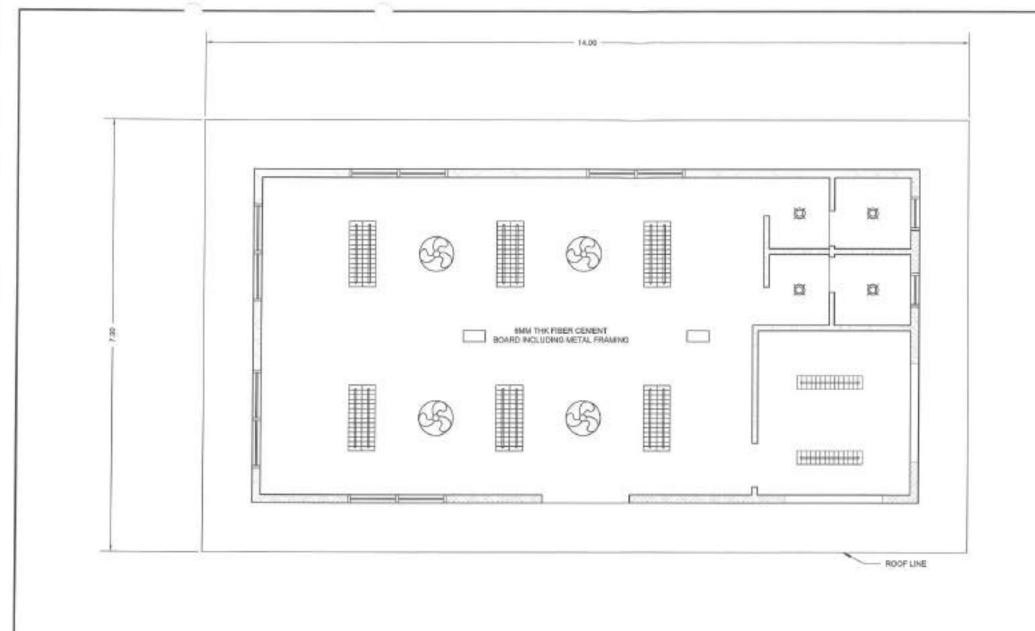


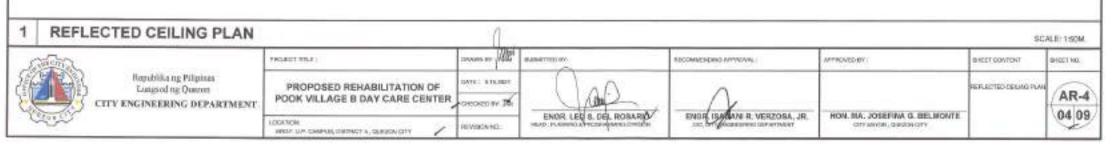


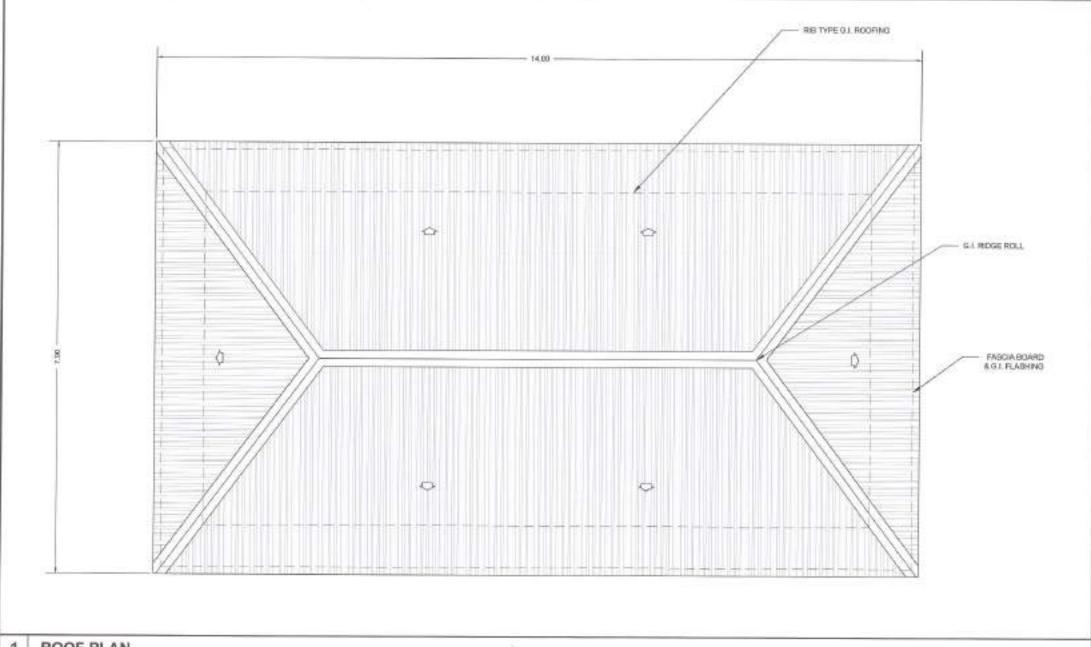
#### NOTES

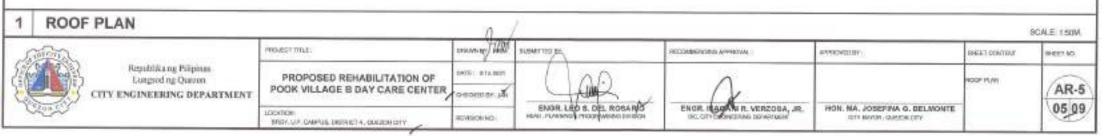
- . INTERIOR WALLS TO BE REPAINTED
- . DOORS AND WINDOWS TO BE REPLACED
- \* TOILET FLOOR/WALL TILES TO BE REPLACED WITH 300MM X 300MM NON-SKID HOMOGENEOUS TILES
- \* FLOORR TILES TO BE REPLACED W/ 600MM x 600MM HOMOGENEOUS TILES

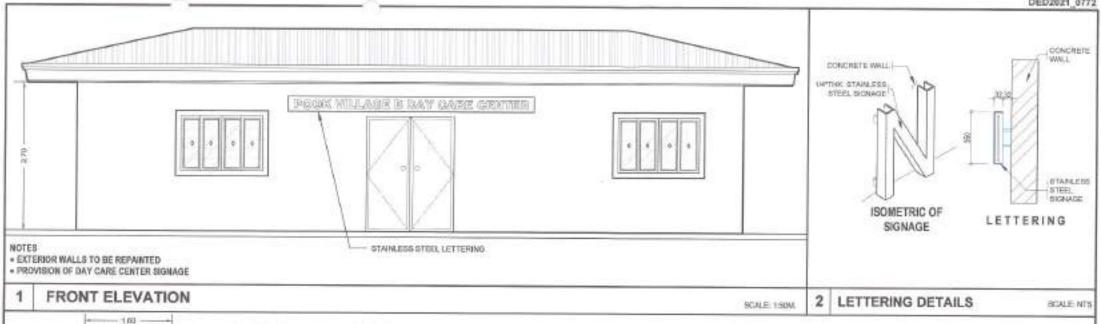


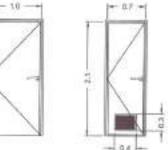






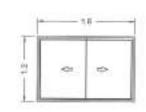






|                    | 0.4  |   |   |
|--------------------|--|---|---|
| DEBISMATICAL       | (1)  | ⊕   | <b>(1)</b>  |
| SPEE               | SWING TYPE, FLUSHHOLLÓW<br>CORE DOOR,<br>PAINTED FINISH (AUTTEN<br>WHITE)  | SWING TYPE, FLUSH HOLLOW<br>CORE DOOR,<br>PAINTED FINISH (XITTEN<br>WHITE)  | SWING TIPE, PVC DOCK,<br>WITH 400mm x 300mm<br>LOUVER, PAINTED FINISH<br>(KITTEN WHITE) |
| HIMOWWE!<br>QLAZHG | COMPLETE ACCESSORIES,<br>DOCK INCO<br>LEVER-TYPE SATIN<br>STAINLESS FINISH | COMPLETE ACCESSORIES.<br>DOOR KNOB<br>LEVER-TYPE SATIN<br>STAINLESS FINISH. | COMPLETE ACCESSORIES.<br>DOOR KNOB.<br>LEVER TYPE SATIN<br>STAINLESS FINISH.            |

1.8ET



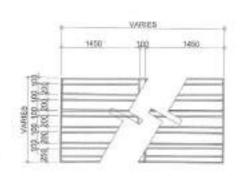
DESCRIPTION STEEDS.

HATOWARE BLASSING

\$0.0F

9519

| ⊕  | ₩  |
|--|--|
| SLIDING WINDOW, 6mm THK<br>CLEAR TEMPERED GLASS ON<br>WHITE COLOR POWDER<br>COATED ALUMINUM FRAMES | AWAINS WINDOW, Soon THK<br>CLEAR TEMPERED GLASS OF<br>WHITE COLOR POWDER<br>COATED ALLWINOW FRAMES |
| PROVIDE WITH COMPLETE ACCESSORIES  | PROVIDE WITH COMPLETE ACCESSORIES  |
| 5 SETS   | 2 SETS   |



TYPICAL GRILLES FOR SUDING WINDOWS 25mm x 25mm x 2mm TUBULAR

THERT COMTENT

## SCHEDULE OF DOORS, WINDOWS AND GRILLES

SCALE 150M.

SHEET RES

Bapublika ng Pilipinas Longsoding Queven TTY ENGINEERING DEPARTMENT

- 0.8 -- 1.8 --

TRET

2.6ET5:

| PRODUCT TITLE   | COVER ST. FAM   | DAMESTORIS.    |  |  |
|---|-----------------|----------------|--|--|
| PROPOSED REHABILITATION OF POOK VILLAGE B DAY CARE CENTER | DATE : ILITADE! |                |  |  |
|   | DECOUDE #       | Colo           |  |  |
| LOCATON  POY UP COMPLE SERVET & GAZZING UPV               | reviewen wo.    | ENGR. LEG S. O |  |  |





PRONTINUMTEDS SOMEDLE OF DOORS. WYDOMS MICHOLLES HON, MA, JOBEFINA O. BELMONTE.

OTY MYON, QUILLIST CITY

WYNOVEDSY:

AR-6 06 09 If it planting units now elected introductioner and be original to the process of the intercedient of teament frameling Cole, the research application of occi sufficiency constraint, the value and against authors affiliations was sent the province of Selectronivolegic wave undertwo quotation

A "his plackary report script diagnost rate; passe, thousand a receiver value and his comment on more an passible (Tourist Inhested to dress the orbit describes of the page and follow in the theory but of the class and before afted the bredshift on both after the belieff, boy introduce and interior proper compression relation with

If They bridge production shall write all entiring all that at the state and shall conclude the was not come beauty.

A Post that conservations is challed the beautiful experience without about

Billioner stage to hatcomic power less and but the policy discress and or other

Biftspreigheding allianuted softworth for what basins, digit underest stoylist of all address possessing.

Title region of feature in place and fillings and his accomply promobilished yearhouses

WAY from the end of the common department of the

\$ At inter-out harvier of all localizations and wide and state the procedure of publisher cover upon. To me that all local pass was secure of rets or professor more were out upon to walk.

18 of anterigrant CT part in their content with control occasions that the \$2 code of promotion by coverigench responsible. job and throught posterio to a agrical

TO PROVIDE ADDITIONAL problem? State that and of contract denine weight an income?

12 Wat to application Digital and orbit power was disposition and to School W.S. Historywegis.

15 Private pierument of eterograph hants bases.

16 M hat made their shall be provided self-proper inschale system expensive

TO AM INDIVIDUAL Exercision to fed later or group of fed more unable or approximated for perceival with air characters or appear. VPEN production different risk than

11 + 800 synche 10 and (hard larger

H - BEN HAVE TO SEND HAVE KNOWN

Will be seen the disk to find at \$100 ft; when the was referred to

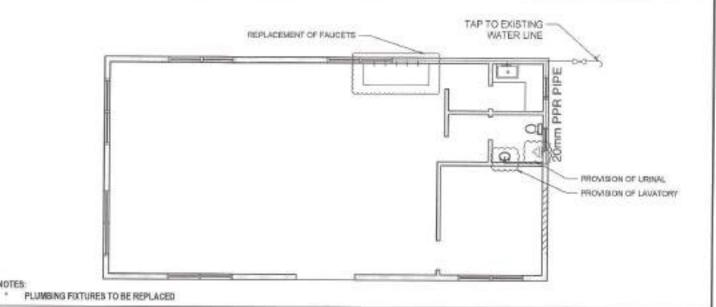
The perfector of the special property and the

III All printing Arms accommon of remaind an algorithm cook to doed adjustment of an ethic locality business. Herein Franchin to Registers Copings Englosse: Any discognished hand in plan attaches without to the servicing co-

## **GENERAL NOTES**

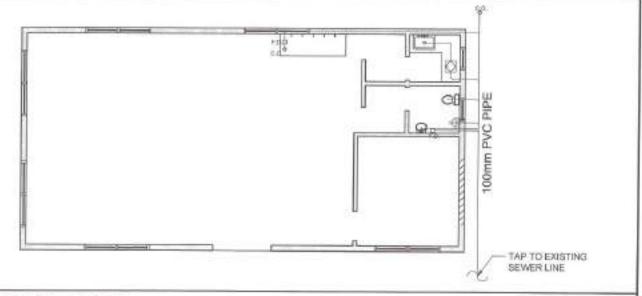
SCALE: NTS

| PIETUR   | GS AND OTHER LEBEND  | -4-      | UNICKENTONE                |
|----------|--|----------|----------------------------|
| 60       | FLOOR DRWN   | mergen.  | CHOOL DEAL.                |
| AD.      | ROOF DRAIN   | 88       | BUILDING/SEWER             |
| SHO      | 1. (1990) 1. (1900) 11 | 461      | BUNDAGTAUN                 |
|          | SHOWER   | Pl.      | MODURE                     |
| WG       | VWTER CLOSET   | AN/OK    | ARCADRAN (CATCH MADE)      |
| LAW      | LAVATORY   | - 86     | EVOCAL CONTRA              |
| 1,099    | UMINAL   | - 4      | DWEITH                     |
| NS:      | NUCHES SHE   | _        | WASTE LINE                 |
| 200      |  | -        | WATER LINE<br>CATE WANT    |
| 80       | SUM DING DRAIN   | - 11     | SECROPANI<br>SECROPANI     |
| 00       | DECK DRAW  | 50       | CLEORDIT                   |
| 335      | 11000000000000000000000000000000000000   |          | PRESCRIP                   |
| 000      | CELING CLEANOUT  | -        | PERSON                     |
| FDO      | FLOORIONO CLEWIOUT   | -        | RECEIVE                    |
| 1000     | LEGERALIZAÇÃO CALENDAR   | -        | OKSEVIEVE                  |
| DS.      | DOMANGPOUT   | 100      | AREA DIVERY CATCH BASIN    |
|          | 1.00   | 96       | MALEA CLOSE (              |
| 10.1     | cediment   | 1,60     | DWEIDEY:                   |
|          |  | - 400    | WWFOLE                     |
| at .     | INITEDIAMETER  | 160      | H06E 988                   |
| 940      | SHOWER DRAIN   | _        | STORM DRAW THE             |
|          |  |          | VOV. UNE                   |
| 68       | CATCH BASIN  | tele     | VBVFABRECBLIKG             |
| MH       | MANNOLE  | 3797/884 | CONTRACTOR INTO COLO. PARE |
| -        | DIFFECTION OF PLOYS  | V11      | DRECTOVICE FLOW VSLOVE     |
| 122-2511 |  | -0.00    | Description (Controller    |
| 63       | SPEASE FRAD  |          |                            |
| IS-21    |  |          |                            |



WATER LINE LAYOUT

BCALE 1:79M.



APPROVED BY

OTF BRYON, GLESCHICTY

### LEGENDS AND SYMBOLS

BCALE: NTS

BRIST UP CARPUS DESTRUCTS DUCKNICTY

PROJECT TITLE:

SANITARY LINE LAYOUT

execute const

DICONDO DE JA

CHADWARK

SCALE: 1:75M. Anders sea



Republikang Pilipinas Langsoding Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF POOK VILLAGE B DAY CARE CENTER

DEMONSTRUCTURE SAMPLED BY ENGR. LED S. DEL ROSARIO

PECCHARISTONS APPROVAL

ENGR. ISA CAN'R. VERZOSA, JR.

MATERIAL LANDLY DUDNIES THIS PRINCING HON, MA. JOSEFINA 6, BELMONTE

TYGONOG TESHE

PL-1

- 1. M.L.ELECTRICAL VIOLED SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EISTING OF THE HALL PRISE SLACTRICAL DODE. THE LAWS AND ORDINANCES OF THE LOCAL DOOR INFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND VELEPHONE
- 3. THE CONTRACTOR SHALL SECURE ALL PERSITS AND PAY ALL FEEZ REQUISED FOR THE WORK AND SHALL FURNISH THE CHARSE THROUGH THE ENGINEERS, FRIAL CONTINUATES OF ELECTRICAL INSPECTION AND APPROVAL PROMPTION GOVERNMENT AUTHORITIES FOR COMPLICION OF MACON A
- 3. ALL EMBEDDED BRANCH CRICHITE SHALL BE PAC CONDUITS AND FOR EXPOSED HISTALLATION SHALL BE SUC SUPPORTED BY COMBUST OF AURIE. RVINITY TOO MILLIANTERS
- 4 PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHISTERS RECEIVED BY TO PACIFIATE WIRE PULLING EVEN IF THESE ARE NOT INTERFED ON THE PLAND. SIGNIE OF ALL PILLEDVIDS SHALL BE COMPLIED BASED ON THE COLD REQUIREMENTS. SUBJECT SHOP: DRAWINGS TO THE BINGBRIEF FOR APPROVAL PRICE TO PARRICATION, LOCATION OF PULLBOUGH SHALL BE ARRESTNED BY THE ARCHITECTERIORISES AND MIGHT BE REFLECTED ON THE "HE-BUILT" PCAR.
- 8. ALL POWER OUTLETS, AND SWITCHES SHALL BE BROUNDING TYPE WITH PARALLEL GLODE FOR 200 V.
- 8. PROVED GROUND PAIL 1 CLIRICENT INTERPREPTIES CIRCUIT BEPARDS FOR LOADS MARKED GROUND FAIL PLAN.
- 7. ALL METALLIC CONCRETE, CARMITE AND COLFRIGHT SHALL BE PROPERLY GROUNDED AND RONDED.
- 8. UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WINLL MOUNTED DRUCKE SHALL BE AS POLLOWS.

RECEPTACLE OUTLET - 200 BM AFF , ISOMIN KNOWN WICH KIND COURTER. TELEPHOSE OUTLET - 900 MILLARY CATVICUTARY - SOCIMMAPP LIGHTING DWITCH - 1400 MM AFF PARTICIDATO - 1808 MM JUST

- 8. REFER TO MICHINICAL PLUMBING ANY RIVE PROTECTION DENNINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL. REMIENCES AS EFECTIVED AND OF CHOMIN LINGSY, THESE RESPECTIVE SECTIONS.
- 10. ALL MATERIALS TO ME LISSS SHALL ME OF THE MIST GUALITY, MANAP ASWAYS SPECIFICS.
- FIL. THE DRAWINGS AND SPECIFICATIONS ARE INTERDED TO PRESENT DESIGNAL LAYOUT AND BROAD OUTUNEDSSORPTION OF THE PROJECT BUT DO NOT INDICATE AND LY INDICATE DESIGNABED ACTUAL LOCATIONS. LEVEL AND DISTANCES OF THE SQUIPMENT. THE CONTRACTOR IS HERBIT REQUIRED TO MAKE DOCK ADJUSTMENT AT THE JOSETH AS LICEATION, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- 12. ANY DISCRESSAROY SETWICES THE PLANS AND SPECIFICATIONS SHALL BE SECURED TO THE ATTEMPOR OF THE ESCURED FOR CLASSIFICATION
- 13. ALL DONTING AND CONVENIENCE CUTTET CRICUTS SHALL BE 3.3-SQ, MILL THYM-2 COPPET WIRE UNLESS OTHERWISE HOTED, MINISHING AGE CO WATER SHALL THE SISSIS ARE COPPER WAS ALL WISES AND DANLES SHALL BE DOLOK ODDED AS FOLLOWS

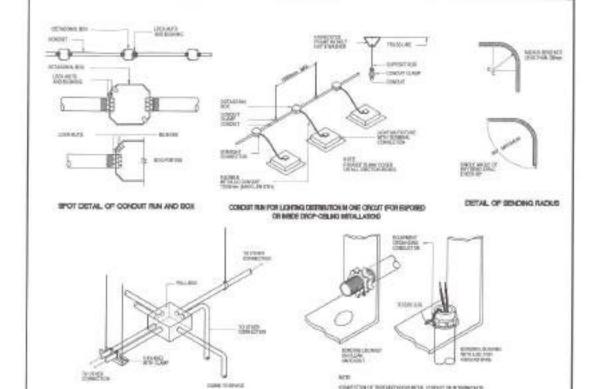
LINE T-RED LINES-YELLOW NEUTRAL-WHITE GROUND - SREEN

14. SCAZE, WIRE, GUTTERS: ENCLOSESS SHALL SHI FASIFICATED PROBLETTES, SITTLY THORSESS AS YOU DWIS MAXIBILIM WIDTH OF THE WIDEST SURPACE STEEL

UP TO INCLUDING HE AS GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPODAY CHIER 150 AC ABI BUT BUT CHIER BUT IN THE WANTED WITH METAL PRIMER CHOSY AND TOROGRAP OVER 457.30 MW BUT NOT OVER 782 MM GA TO PARKED WITH METAL PRIMER BACKY AND TOPOCAT. GA 10 PALETED WITH METAL PRIMER IPOKY AND TOPCOM!

15 ALL BLECTRICAL WORKE HUNERS SHALL SE DISCOTED BY EXPENSIVED HER LINCER THE DIRECT SUPCRISION OF A FULL-TIME LICENSED. ELECTRICAL ENGAGERS AND A DILLY ACCIDENTED GLECTRICAL CONTRACTOR BY PICAR WORLD BHALL BE SELTLY IN ACRD. SPOLIETLY PARTENED AND PROPERLY

- 16 TYPE OF SERVICE ENTERNES SHALL BE SINGLE PHASE. TWO-WER PLUS GROUND, SO HERTE, 218V AC HOMBAS.
- 17. CONDUSTS IN NO CASE SHALL THERE IS MORE THAN THE CONSIDER OF POUR QUARTER BOYDS IN ANY DISCRUM, ALL CONDUST BEYON GRALL ISS. PICLO MADE BY USING INVORAGED BERGERS, MANAGER SERVICE RADIUS MUST AS ACCORDANCE TO THE CODE FED LINEWESTS.
- 15. UPON COMPLETION OF SLEETING ALCOHORS CONTRACTION WORK, INSULATION RESISTANCE TEST AND PUNCTIONALITY TEST SHALL BE PERFORMED BY THE DONTRACTOR HIGUIDAYS OF THE INSTAULATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE GUSSON CITY ENGAGERING DEPARTMENT REPRODUCTORY. THE GRIGHOUS RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN DIGHES. COMMERCIATION GROUNDING RESIDENWICE SHALL NOT EXCENDED CHAIR



#### MISCELLANEOUS DETAILS

SCALE NTS

- SINGLE GANG SWITCH 628 (FOR REPLACEMENT)
- THREE GANG SWITCH 0.6 (FOR REPLACEMENT)
- E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)
- E27 RECEPTACLE WITH LED BULB 10 (ADDITIONAL)

TOFFER TYPE WITH 1X18W LED **HISTORY** TUBE LIGHT (FOR REPLACEMENT)

LEGENDS AND SYMBOLS



TOFFER TYPE WITH 2X18W LED TUBE LIGHT (FOR REPLACEMENT)



TOFFER TYPE WITH 2X18W LED TUBE LIGHT (ADDITIONAL)



DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)

SHEET CONTENT



ADDITIONAL CEILING FAN



APPROVED BY

PANEL BOARD

# **GENERAL NOTES**

Republika ng Prapinsa Lungsoding Quezon CITY ENGINEERING DEPARTMENT

MICH. U.P. CAMPUS, DRITINGT 4 . QUEZON DTY

A SCALE NTS.

ENGR. LEG IL GEL ROSARO! насего сучения депостанамную почения. Окан

RECOMMENDATE LIPPROVING

ENGR. ISAGANA R. VERZOSA, JR.

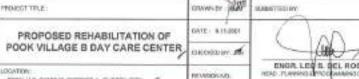
MINERAL NOTES MINOSILAVEDAS CETALS ECCNOS AND ENVIROLS

HON, MA. JOSEFINA G. BELINDNITE

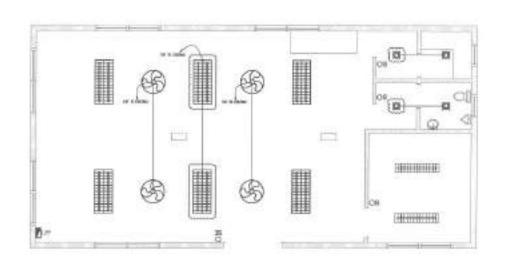
EXTY BUSYON, DIJECTIN OTTY

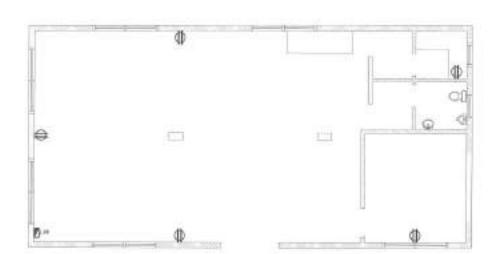
SCALE: NTS.

BHEET MAL



EL-1 08 09





- . EXISTING LIGHTING FIXTURES TO BE REPLACED
- . ADDITIONAL TROFFER TYPE WITH 2 LED TUBE LIGHT
- \* ADDITIONAL RECEPTACLE WITH LED BULB
- . ADDITIONAL CELLING FANS
- . REPLACEMENT OF SWITCHES

\* REPLACEMENT OF OUTLETS

LIGHTING LAYOUT POWER LAYOUT BOALE: 1:75M. BCALE: 1:75M. DHAWK BY 1497 PROJECTIMA DESMITTED BY TEGORNEHONG APPROVAL: APPROVED BY SHEET CONTENT SHEET NO. Republika ng Pilipinas DATE: B HARRY PROPOSED REHABILITATION OF HIGHWIG LAYOUT Longsod ng Quezon EL-2 POOK VILLAGE B DAY CARE CENTER CITY ENGINEERING DEPARTMENT CHICOKOED BY: JAN. EVOR. ISAN AN R. VERZOSA, JR. 09 09 ENGR. LEG 8. DEL ROSARIO HON, MA. JOSEFINA G. BELMONTE DITY NAYON: QUEDON DITY FATARION (NCL) WHOY, SUP, GAMPUB, DESTRICT A. GUESTON CITY

# Section VIII. Bill of Quantities

## **Notes on the Bill of Quantities**

#### **Objectives**

The objectives of the Bill of Quantities are:

- a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and
- b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

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

#### **Daywork Schedule**

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

- a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.
- b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

#### **Provisional Sums**

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

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

#### **Signature Box**

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

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

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF DAY CARE CENTER AT DISTRICT 4 / AREA XXIII

LOCATION : BARANGAY OLD CAPITOL SITE, SAN VICENTE AND U.P. CAMPUS,

**DISTRICT 4, QUEZON CITY** 

PROJECT NO. : 21 - 00170

**DURATION**: Ninety (90) Calendar Days

#### **BREAKDOWN OF COST**

| ITEM |  | MATERIALS | LABOR COST | INDIRECT COST   | AGGREGATE |
|------|--|-----------|------------|-----------------|-----------|
| NO.  | (DESCRIPTION) PECHAYAN DAYCARE CENTER, BRGY. OLD     | COST      | EABOR GGG! | 1110111201 0001 | COST      |
|      | CAPITOL SITE   |           |            |                 |           |
| ı    | GENERAL REQUIREMENTS                                 |           |            |                 |           |
| II   | SITE WORKS   |           |            |                 |           |
| III  | CIVIL / STRUCTURAL WORKS                             |           |            |                 |           |
| IV   | ARCHITECTURAL WORKS                                  |           |            |                 |           |
| V    | SANITARY / PLUMBING WORKS                            |           |            |                 |           |
| VI   | ELECTRICAL WORKS                                     |           |            |                 |           |
|      | SAN VICENTE DAYCARE CENTER                           |           |            |                 |           |
| I    | GENERAL REQUIREMENTS                                 |           |            |                 |           |
| II   | DAYCARE CENTER I                                     |           |            |                 |           |
| III  | DAYCARE CENTER II                                    |           |            |                 |           |
|      |  |           |            |                 |           |
|      | POOK VILLAGE B DAYCARE CENTER, BRGY.<br>U.P. CAMPUS  |           |            |                 |           |
| ı    | GENERAL REQUIREMENTS                                 |           |            |                 |           |
| П    | SITE WORKS   |           |            |                 |           |
| III  | CIVIL / STRUCTURAL WORKS                             |           |            |                 |           |
| IV   | ARCHITECTURAL WORKS                                  |           |            |                 |           |
| V    | SANITARY / PLUMBING WORKS                            |           |            |                 |           |
| VI   | ELECTRICAL WORKS                                     |           |            |                 |           |
|      | POOK LIBIS DAYCARE CENTER, BRGY. U.P. CAMPUS         |           |            |                 |           |
| I    | GENERAL REQUIREMENTS                                 |           |            |                 |           |
| П    | DAYCARE CENTER I                                     |           |            |                 |           |
| III  | DAYCARE CENTER II                                    |           |            |                 |           |
|      | POOK DAANG TUBO DAYCARE CENTER, BRGY.<br>U.P. CAMPUS |           |            |                 |           |
| I    | GENERAL REQUIREMENTS                                 |           |            |                 |           |

| ITEM<br>NO. |                  | ITEM OF WORK<br>(DESCRIPTION) | MATERIALS<br>COST | LABOR COST | INDIRECT COST | AGGREGATE<br>COST |
|-------------|------------------|-------------------------------|-------------------|------------|---------------|-------------------|
| II          | SITE WORK        | (S                            |                   |            |               |                   |
| III         | CIVIL / STR      | UCTURAL WORKS                 |                   |            |               |                   |
| IV          | ARCHITECT        | TURAL WORKS                   |                   |            |               |                   |
| V           | SANITARY /       | PLUMBING WORKS                |                   |            |               |                   |
| VI          | ELECTRICAL WORKS |                               |                   |            |               |                   |
|             |                  |                               |                   |            |               |                   |
|             | AMORSOLO CAMPUS  | DI DAYCARE CENTER, BRGY. U.P. |                   |            |               |                   |

| ITEM<br>NO. |                   | ITEM OF WORK<br>(DESCRIPTION)   | MATERIALS<br>COST | LABOR COST | INDIRECT COST | AGGREGATE<br>COST |
|-------------|-------------------|---------------------------------|-------------------|------------|---------------|-------------------|
| Ì           | GENERAL           | REQUIREMENTS                    |                   |            |               |                   |
| Ш           | SITE WOR          | KS                              |                   |            |               |                   |
| III         | CIVIL / STR       | RUCTURAL WORKS                  |                   |            |               |                   |
| IV          | ARCHITEC          | TURAL WORKS                     |                   |            |               |                   |
| V           | SANITARY          | / PLUMBING WORKS                |                   |            |               |                   |
| VI          | ELECTRICA         | AL WORKS                        |                   |            |               |                   |
|             |                   |                                 |                   |            |               |                   |
|             | AMORSOL<br>CAMPUS | O II DAYCARE CENTER, BRGY. U.P. |                   |            |               |                   |
| I           | GENERAL           | REQUIREMENTS                    |                   |            |               |                   |
| П           | DAYCARE           | CENTER I                        |                   |            |               |                   |
| Ш           | DAYCARE           | CENTER II                       |                   |            |               |                   |

| TOTAL COST | P |
|------------|---|
|            |   |

| LUMP SUM BID IN WORDS | · I | <br> | <br> |
|-----------------------|-----|------|------|
| -                     |     |      |      |
| Contractor :          |     |      |      |
| Contractor:           |     |      |      |

Bid Form Page 3 of 3

#### **BILL OF QUANTITIES**

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF PECHAYAN DAY CARE CENTER

LOCATION : BARANGAY OLD CAPITOL SITE, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

#### **SCOPE OF WORKS:**

- 1. General Requirements include billboard, scaffolding, construction safety and health, temporary enclosure and clearing, hauling and disposal of construction materials and debris.
- 2. Site works include site clearing and preparation, layout and staking, cleaning / clearing for painting preparation, demolition/removal works and earthworks.
- 3. Civil works include concrete works, masonry works, metal works and roofing works.
- Architectural Works include floor finishes, wall partitioning and finishes, ceiling finishes, installation of doors and window lockset, painting works and letterings.
- 5. Sanitary/Plumbing Works include installation of roughing-ins, fixtures and accessories.
- 6. Electrical Works include installation of roughing-ins, wiring, devices, fixtures and accessories.
- 7. All necessary testing and commisioning shall be performed in accordance to standards.

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                                 | QTY | UNIT  | UNIT COST     | TOTAL COST |
|------------|---|-----|-------|---------------|------------|
| ı          | GENERAL REQUIREMENTS  |     |       |               |            |
|            | Billboard   | 1   | unit  | ₱             | ₱          |
|            | Cleaning, Hauling and Disposal of Construction Materials and Debris | 1   | t.l.  |               |            |
|            | Construction Safety and Health                                      | 1   | unit  |               |            |
|            | Scaffolding (Rental)  | 22  | sq.m. |               |            |
|            | Temporary Enclosure Around the Construction Area (h=2.4m)           | 19  | l.m.  |               |            |
|            |   |     |       | Direct Cost I | ₱          |
| II         | SITE WORKS  |     |       |               |            |
|            | Removal / Demolition Works  |     |       |               |            |
|            | Demolition of Existing Structure                                    | 2   | cu.m. | ₱             | ₱          |
|            | Removal of Dilapidated Ceiling                                      | 3   | sq.m. |               |            |
|            | Removal of Dilapidated Tiles  | 15  | sq.m. |               |            |
|            | Removal of Existing Doors   | 2   | set   |               |            |
|            | Removal of Existing Water Closet                                    | 1   | set   |               |            |
|            | Removal of Existing Lavatory  | 1   | set   |               |            |
|            | Chipping of Concrete (Electrical Works)                             | 4   | sq.m  |               |            |
|            | Site Clearing and Preparation                                       | 19  | sq.m  |               |            |
|            | Layout and Staking  | 19  | sq.m. |               |            |
|            | Excavation for Structures (Wall Footing)                            |     |       |               |            |
|            | Footing   | 2   | cu.m. |               |            |
|            | Wall Footing  | 3   | cu.m. |               |            |
|            | Backfill and Compaction   | 4   | cu.m. |               |            |
|            | Cleaning / Clearing for Painting Preparation                        | 74  | sq.m  |               |            |
|            |   |     |       | Subtotal      | ₱          |
|            |   |     |       |               |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                   | QTY | UNIT  | UNIT COST         | TOTAL COST |
|------------|---|-----|-------|-------------------|------------|
|            | Gravel Bedding  | 1   | cu.m  | ₽                 | ₱          |
|            |   |     |       | Materials Cost    | ₱          |
|            |   |     |       | Labor Cost        |            |
|            |   |     |       | Subtotal          | ₱          |
|            |   |     |       |                   |            |
|            |   |     |       | Materials Cost II | ₱          |
|            |   |     |       | Labor Cost II     |            |
|            |   |     |       | Direct Cost II    | ₱          |
| III        | CIVIL / STRUCTURAL WORKS                              |     |       |                   |            |
|            | Concreting  |     |       |                   |            |
|            | On Site Mix Concrete 21 MPa, 3/4" Gravel, @ 28 days   |     |       |                   |            |
|            | Footing   | 1   | cu.m. | ₱                 | ₱          |
|            | Wall Footing  | 1   | cu.m. |                   |            |
|            | Reinforcing Bars                                      |     |       |                   |            |
|            | Grade 40 Reinforcing Steel Bar with G.I. Tie Wire #16 |     |       |                   |            |
|            | 10mm Ø Reinforcing Steel Bar                          |     |       |                   |            |
|            | Column Ties   | 63  | kg    |                   |            |
|            | Slab on fill  | 59  | kg    |                   |            |
|            | 12mm Ø Reinforcing Steel Bar (Wall Footing)           | 51  | kg    |                   | _          |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                       | QTY | UNIT  | UNIT COST          | TOTAL COST |
|------------|---|-----|-------|--------------------|------------|
|            | Grade 60 Reinforcing Steel Bar with G.I. Tie Wire #16     |     |       |                    |            |
|            | 16mm Ø Reinforcing Steel Bar                              |     |       |                    |            |
|            | Footing   | 40  | kg    |                    |            |
|            | Column  | 70  | kg    |                    |            |
|            | Formworks   |     |       |                    |            |
|            | Footing   | 2   | sq.m. |                    |            |
|            | Wall Footing  | 5   | sq.m. |                    |            |
|            | Column  | 1   | sq.m. |                    |            |
|            | Scaffolding and Shoring                                   |     |       |                    |            |
|            | Column  | 9   | l.m.  |                    |            |
|            | Masonry Works   |     |       |                    |            |
|            | 150mm CHB Laying including Mortar, Reinforcement          | 16  | sq.m. |                    |            |
|            | and Two-Face Plastering                                   |     |       |                    |            |
|            | Metal Works   |     |       |                    |            |
|            | Steel Gate  |     |       |                    |            |
|            | 50mm x 50mm x 6mm thk Tubular Bar                         | 111 | kg    |                    |            |
|            | 25mm x 25mm x 4mm thk Tubular Bar                         | 235 | kg    |                    |            |
|            | Steel Fence   |     |       |                    |            |
|            | 38mm x 38mm x 4mm thk Tubular Bar                         | 116 | kg    |                    |            |
|            | 25mm x 4mm thk Flat Bar                                   | 22  | kg    |                    |            |
|            | 50mm x 50mm x 4mm thk Wire Mesh                           | 6   | sq.m. |                    |            |
|            | Roof Truss  |     |       |                    |            |
|            | 50mm x 150mm x 6mm thk Tubular Bar                        | 257 | kg    |                    |            |
|            | 50mm x 100mm x 1.2mm thk C Purlin                         | 67  | kg    |                    |            |
|            | 6mm thk Steel Plate                                       | 26  | sq.m. |                    |            |
|            | Accessories   |     |       |                    |            |
|            | 12mm Ø Dyna Bolt  | 24  | piece |                    |            |
|            | 20mm Ø Barrel Bolt  | 1   | set   |                    |            |
|            | 20mm Ø Foot Bolt  | 1   | set   |                    |            |
|            | Cylindrical Hinge, Heavy Duty                             | 3   | piece |                    |            |
|            | Miscellaneous & Consumables                               |     |       |                    |            |
|            | Acetylene Tank Refill                                     | 2   | tank  |                    |            |
|            | Assorted Metal Drill Bit                                  | 10  | piece |                    |            |
|            | Cut Off Blade   | 5   | piece |                    |            |
|            | Grinding Disc Metal                                       | 5   | piece |                    |            |
|            | Oxygen Tank Refill  | 3   | tank  |                    |            |
|            | Welding Rod   | 2   | box   |                    |            |
|            | Roofing Works   |     |       |                    |            |
|            | Pre-Painted Rib Type G.I Roofing Ga. 20                   | 14  | sq.m. |                    |            |
|            | Pre Painted Flashing                                      | 7   | l.m.  |                    |            |
|            | 6mm Thick Thermal Insulation (Single Sided Aluminum Foil) | 14  | sq.m. |                    |            |
|            | Tekscrew  | 140 | piece |                    |            |
|            | Silicon Sealant   | 2   | tube  |                    |            |
|            |   |     |       | Materials Cost III | ₽          |
|            |   |     |       | Labor Cost III     |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                 | QTY | UNIT  | UNIT COST       | TOTAL COST |
|------------|---|-----|-------|-----------------|------------|
|            |   |     |       | Direct Cost III | ₽          |
| IV         | ARCHITECTURAL WORKS                                 |     |       |                 |            |
|            | Floor Finishes                                      |     |       |                 |            |
|            | 400mm x 400mm Non-skid Homogeneous Floor Tiles      | 3   | sq.m. | ₱               | ₽          |
|            | Floor Topping for Preparation of Tiles              | 3   | sq.m. |                 |            |
|            | Wall Partitioning and Finishes                      |     |       |                 |            |
|            | 400mm x 400mm Homogeneous Wall Tiles                | 12  | sq.m. |                 |            |
|            | Ceiling Finishes                                    |     |       |                 |            |
|            | 6mm thk. Fiber Cement Board including Metal Framing | 1   | sq.m. |                 |            |
|            |   |     |       | Materials Cost  | ₱          |
|            |   |     |       | Labor Cost      |            |
|            |   |     |       | Subtotal        | ₱          |
|            | Installation of Doors & Window Lockset              |     |       |                 |            |
|            | D2 - 0.6m x 2.1m PVC Door with Louver               | 1   | set   |                 |            |
|            | D3 - 0.6m x 1.8m Flush Door                         | 1   | set   |                 |            |
|            | Door Jamb   |     |       |                 |            |
|            | D3 - 0.6m x 1.8m Wooden Door Jamb                   | 1   | set   |                 |            |
|            | Hardwares and Accessories                           |     |       |                 |            |
|            | Door Hinge, Heavy Duty, Stainless                   | 6   | piece |                 |            |
|            | Door Knob, Lever Type, Stainless                    | 2   | piece |                 |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                                      | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|--|-----|-------|------------------|------------|
|            | Door Lockset   | 1   | set   |                  |            |
|            | Window Lockset   | 10  | set   |                  |            |
|            |  |     |       | Materials Cost   | ₱          |
|            |  |     |       | Labor Cost       |            |
|            |  |     |       | Subtotal         | ₱          |
|            | Painting Works   |     |       |                  |            |
|            | Epoxy Enamel Paint Finish (Steel Members)                                | 6   | sq.m. | ₱                | ₱          |
|            | Elastomeric Paint Finish   |     |       |                  |            |
|            | Exterior Wall  | 86  | sq.m. |                  |            |
|            | Flat Latex Paint Finish  |     |       |                  |            |
|            | Interior Wall  | 7   | sq.m. |                  |            |
|            | Ceiling  | 3   | sq.m. |                  |            |
|            | Letterings   |     |       |                  |            |
|            | 250mm x 250mm Stainless Steel Lettering                                  | 21  | set   |                  |            |
|            | "PECHAYAN DAYCARE CENTER"  | 21  | 361   |                  |            |
|            |  |     |       | Materials Cost   | ₽          |
|            |  |     |       | Labor Cost       |            |
|            |  |     |       | Subtotal         | ₽          |
|            |  |     |       |                  |            |
|            |  |     |       |                  | ₽          |
|            |  |     |       | Labor Cost IV    |            |
|            |  |     |       | Direct Cost IV   | ₽          |
| V          | SANITARY / PLUMBING WORKS  |     |       |                  |            |
|            | Fixtures & Accessories   |     |       |                  |            |
|            | Floor Drain, 100mm x 100mm, Stainless                                    | 1   | piece | ₱                | ₱          |
|            | Kitchen Sink Faucet, Lever-type Stainless Steel (Water Efficient)        | 1   | set   |                  |            |
|            | Hose Bibb, Stainless, Lever Type (Water Efficient)                       | 4   | set   |                  |            |
|            | Lavatory, Wall-hung, Kiddy   | 1   | set   |                  |            |
|            | Lavatory Faucet, Lever-type Heavy Duty Stainless Steel (Water Efficient) | 1   | set   |                  |            |
|            | Water Closet, Tank Type, Kiddy (Water Efficient)                         | 1   | set   |                  |            |
|            | Accessories & Hardwares  |     |       |                  |            |
|            | Angle Valve, Single-Way, Stainless                                       | 1   | piece |                  |            |
|            | Angle Valve, Two-Way, Stainless  | 1   | piece |                  |            |
|            | Facial Mirror, 450mm x 600mm x 6mm                                       | 1   | piece |                  |            |
|            | Flexible Hose, Stainless   | 2   | piece |                  |            |
|            | Miscellaneous and Consumables  |     |       |                  |            |
|            | 400cc Solvent Cement   | 2   | can   |                  |            |
|            | All Around Sealant   | 2   | can   |                  |            |
|            | Hacksaw Blade  | 2   | piece |                  |            |
|            | Teflon Tape  | 4   | roll  |                  |            |
|            | Waste Cloth  | 2   | kg    |                  |            |
|            |  |     |       | Materials Cost V | ₽          |
|            |  |     |       | Labor Cost V     |            |
|            |  |     |       | Direct Cost V    | ₽          |
| VI         | ELECTRICAL WORKS   | 1   |       |                  |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                             | QTY | UNIT  | UNIT COST         | TOTAL COST |
|------------|---|-----|-------|-------------------|------------|
|            | Roughing-ins, Pipes and Fittings                                |     |       |                   |            |
|            | 25mm x 16mm x 2.44m Rectangular PVC Moulding                    | 6   | piece | ₽                 | ₱          |
|            | Fittings and Accessories  |     |       |                   |            |
|            | 2" x 4" PVC Amco box  | 2   | piece |                   |            |
|            | 100mm x 100mm PVC Junction Box with cover                       | 2   | piece |                   |            |
|            | Wires and Cables  |     |       |                   |            |
|            | 3.5mm² THHN Wire  | 30  | l.m.  |                   |            |
|            | 3.5mm² TW Wire  | 15  | l.m.  |                   |            |
|            | Lighting Fixtures ( Energy Efficient )                          |     |       |                   |            |
|            | 18W, 100mmØ LED bulb with receptacle                            | 1   | piece |                   |            |
|            | T5, 28W LED Tube Light  | 2   | piece |                   |            |
|            | Wiring Devices & Appliances                                     |     |       |                   |            |
|            | Weatherproof Convenience Outlet With Ground and Cover, Two-gang | 5   | piece |                   |            |
|            | Switch with Plate & Cover, One Gang                             | 1   | piece |                   |            |
|            | Miscellaneous & Consumables                                     |     |       |                   |            |
|            | Electrical Tape   | 2   | roll  |                   |            |
|            |   |     |       | Materials Cost VI | P          |
|            |   |     |       | Labor Cost VI     |            |
|            |   |     |       | Direct Cost VI    | P          |
|            |   |     |       |                   |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS | QTY | UNIT | UNIT COST | TOTAL COST |
|------------|-------------------------------------|-----|------|-----------|------------|
|------------|-------------------------------------|-----|------|-----------|------------|

| ITEM<br>NO                            | WORK DE   | TOTAL COST  |   |
|---------------------------------------|---|---|---|
| <br>  <br>  <br> V<br> <br> <br> <br> | GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS |   | ₽ |
|                                       | enforce health protocols relative to the latest<br>able DPWH memorandum   | TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT  TOTAL ESTIMATED COST |   |

### (Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

SAN VICENTE DAY CARE CENTER

LOCATION : BARANGAY SAN VICENTE, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

#### **SCOPE OF WORKS:**

#### I GENERAL REQUIREMENTS

1. General Requirements include billboard, construction safety and health, scaffolding, temporary enclosure and clearing, hauling & disposal of construction materials and debris.

### II CONSTRUCTION OF HANDWASHING FACILITY

- 1. Construction of Handwashing Facility includes installation of Double Sink Hand washing Facility.
- 2. Site Works include demolition/removal works.
- 3. Civil Works include restoration of concrete.
- 4. Sanitary/Plumbing Works include installation of roughing-ins and accessories.

#### III REHABILITATION OF SAN VICENTE DAYCARE CENTER

- 1. Site Works include demolition/removal works, and cleaning and clearing for painting preparation.
- 2. Civil/Structural works include masonry works and roofing works
- Architectural Works include floor finishes, wall finishes, ceiling finishes, installation of doors and windows, painting works fabricated materials.
- 4. Sanitary/Plumbing Works include installation of roughing-ins, fixtures and accessories.
- 5. Electrical Works include installation of roughing-ins, wiring, devices, fixtures and accessories.

# IV TESTING AND COMMISSIONING

1. All necessary testing and commissioning shall be performed in accordance to standards.

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                                 | QTY | UNIT  |   | UNIT COST        | TO | OTAL COST  |
|------------|---|-----|-------|---|------------------|----|------------|
| I          | GENERAL REQUIREMENTS  |     |       |   |                  |    |            |
|            | Billboard   | 1   | unit  | ₱ | 4,644.00         | ₽  | 4,644.00   |
|            | Clearing, Hauling and Disposal of Construction Materials and Debris | 3   | t.l.  |   | 3,500.00         |    | 10,500.00  |
|            | Construction Safety and Health                                      | 1   | unit  |   | 61,072.00        |    | 61,072.00  |
|            | Scaffolding (Rental)  | 87  | sq.m. |   | 250.00           |    | 21,750.00  |
|            | Temporary Enclosure Around the Construction Area (h=2.4m)           | 37  | l.m.  |   | 730.00           |    | 27,010.00  |
|            |   |     |       |   | Direct Cost I    | ₽  | 124,976.00 |
| II.        | CONSTRUCTION OF HANDWASHING FACILITY                                |     |       |   |                  |    |            |
| Α          | Double Sink Portable Hand Washing Facility                          | 2   | unit  | ₱ | 221,067.90       | ₱  | 442,135.80 |
|            |   |     |       |   | Direct Cost A    | ₱  | 442,135.80 |
| В          | SITE WORKS  |     |       |   |                  |    |            |
|            | Demolition / Removal Works  |     |       |   |                  |    |            |
|            | Chipping of Concrete (Plumbing Works)                               | 5   | sq.m. | ₱ | 250.00           | ₱  | 1,250.00   |
|            |   |     |       |   | Direct Cost B    | ₽  | 1,250.00   |
| С          | CIVIL WORKS   |     |       |   |                  |    |            |
|            | Restoration of Concrete (Plumbing Works)                            | 5   | sq.m. | ₱ | 309.00           | ₱  | 1,545.00   |
|            |   |     |       | N | Materials Cost C | ₱  | 1,545.00   |
|            |   |     |       |   | Labor Cost C     |    | 540.75     |
|            |   |     |       |   | Direct Cost C    | ₱  | 2,085.75   |
| D          | SANITARY & PLUMBING WORKS   |     |       |   |                  |    |            |
|            | Sewer Line System   |     |       |   |                  |    |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS | QTY | UNIT  | UNIT COST | TOTAL COST |
|------------|-------------------------------------|-----|-------|-----------|------------|
|            | 50mm Ø PVC Pipe with Hub            | 5   | piece | ₱ 480.00  | ₱ 2,400.00 |
|            | 50mm Ø x 50mm Ø PVC Tee             | 1   | piece | 50.00     | 50.00      |
|            | 50mm Ø x 100mm Ø PVC Wye            | 1   | piece | 110.00    | 110.00     |
|            | 50mm Ø x 50mm Ø PVC Tee             | 1   | piece | 50.00     | 50.00      |
|            | 50mm Ø x 50mm Ø PVC 1/4 Bend        | 3   | piece | 40.00     | 120.00     |
|            | 50mm Ø x 50mm Ø PVC 1/8 Bend        | 1   | piece | 50.00     | 50.00      |
|            | 50mm Ø PVC Coupling                 | 5   | piece | 20.00     | 100.00     |
|            | 50mm Ø PVC Cleanout                 | 1   | piece | 30.00     | 30.00      |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                                      | QTY   | UNIT  | UNIT COST         | T | OTAL COST  |
|------------|--|-------|-------|-------------------|---|------------|
|            | Water Line System  |       |       |                   |   |            |
|            | 20mm Ø PPR Pipe, PN 16   | 5     | piece | ₱ 360.00          | ₽ | 1,800.00   |
|            | 20mm Ø x 20mm Ø PPR Tee Equal  | 1     | piece | 50.00             |   | 50.00      |
|            | 20mm Ø PPR Elbow   | 5     | piece | 40.00             |   | 200.00     |
|            | 20mm Ø PPR Union Patente   | 1     | piece | 280.00            |   | 280.00     |
|            | 20mm Ø, Female Tee, Threaded   | 2     | piece | 160.00            |   | 320.00     |
|            | 20mm Ø PPR Coupling  | 5     | piece | 30.00             |   | 150.00     |
|            | 20mm Ø PPR Male Adaptor  | 2     | piece | 330.00            |   | 660.00     |
|            | Valves and Appurtenances   |       |       |                   |   |            |
|            | 20mm Ø PPR Gate Valve  | 1     | piece | 720.00            |   | 720.00     |
|            | Miscellaneous and Consumables  |       |       |                   |   |            |
|            | 400cc Solvent Cement   | 3     | can   | 413.00            |   | 1,239.00   |
|            | All Around Sealant   | 1     | can   | 705.00            |   | 705.00     |
|            | Hacksaw Blade  | 3     | piece | 80.00             |   | 240.00     |
|            | Teflon Tape  | 5     | roll  | 40.00             |   | 200.00     |
|            | Waste Cloth  | 2     | kg    | 100.00            |   | 200.00     |
|            |  |       |       | Materials Cost D  | ₽ | 9,674.00   |
|            |  |       |       | Labor Cost D      |   | 3,385.90   |
|            |  |       |       | Direct Cost D     | ₱ | 13,059.90  |
|            |  |       |       |                   |   |            |
|            |  |       |       | Materials Cost II | ₽ | 453,354.80 |
|            |  |       |       | Labor Cost II     |   | 5,176.65   |
|            |  |       |       | Direct Cost II    | ₱ | 458,531.45 |
| III        | REHABILITATION OF SAN VICENTE DAYCARE CENTER                             |       |       |                   |   |            |
| Α          | SITE WORKS   |       |       |                   |   |            |
|            | Demolition / Removal Works   |       |       |                   |   |            |
|            | Demolition of Existing Structure   | 10    | sq.m. | ₱ 250.00          | ₱ | 2,500.00   |
|            | Removal of Existing Roof   | 169   | sq.m. | 250.00            |   | 42,250.00  |
|            | Removal of Ceiling   | 43    | sq.m. | 250.00            |   | 10,750.00  |
|            | Removal of Doors   | 5     | set   | 200.00            |   | 1,000.00   |
|            | Removal of Windows   | 6     | sq.m. | 250.00            |   | 1,500.00   |
|            | Removal of Tiles   | 121   | sq.m. | 200.00            |   | 24,200.00  |
|            | Removal of Plumbing Fixtures   | 4     | sets  | 250.00            |   | 1,000.00   |
|            | Chipping of Concrete (Electrical Works)                                  | 3     | sq.m. | 250.00            |   | 750.00     |
|            | Cleaning and Clearing for Painting Preparation                           | 657   | sq.m. | 20.00             |   | 13,140.00  |
|            |  |       |       | Direct Cost A     | ₱ | 97,090.00  |
| В          | CIVIL / STRUCTURAL WORKS   |       |       |                   |   |            |
|            | Masonry Works  |       |       |                   |   |            |
|            | 100mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering | 16    | sq.m. | ₱ 830.00          | ₽ | 13,280.00  |
|            | Roofing Works  |       |       |                   |   |            |
|            | Pre-Painted Rib Type G.I Roofing Ga. 24                                  | 137   | sq.m. | 650.00            |   | 89,050.00  |
|            | Pre Painted G.I. Flashing  | 38    | l.m.  | 270.00            |   | 10,260.00  |
|            | Pre Painted G.I. Ridge Roll  | 12    | l.m.  | 270.00            |   | 3,240.00   |
|            | 12.5mm x 300mm Fascia Board  | 32    | l.m.  | 500.00            |   | 16,000.00  |
|            | 6mm Thick One-Sided Aluminum Foil Thermal Insulation                     | 137   | sq.m. | 250.00            |   | 34,250.00  |
|            | Tekscrew   | 1,370 | piece | 4.00              |   | 5,480.00   |
|            | Silicon Sealant  | 8     | tube  | 200.00            | 1 | 1,600.00   |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                | QTY | UNIT  | UNIT COST        | Т | OTAL COST  |
|------------|--|-----|-------|------------------|---|------------|
|            |  |     |       | Materials Cost B | ₱ | 173,160.00 |
|            |  |     |       | Labor Cost B     |   | 60,606.00  |
|            |  |     |       | Direct Cost B    | ₽ | 233,766.00 |
| С          | ARCHITECTURAL WORKS                                |     |       |                  |   |            |
|            | Floor Finishes                                     |     |       |                  |   |            |
|            | 400mm x 400mm Non-Skid Homogeneous Floor Tiles     | 4   | sq.m. | ₱ 1,110.00       | ₽ | 4,440.00   |
|            | 600mm x 600mm Non-Skid Homogeneous Floor Tiles     | 71  | sq.m. | 1,200.00         |   | 85,200.00  |
|            | Floor Topping for Preparation of Tile Works        | 74  | sq.m. | 309.00           |   | 22,866.00  |
|            | Wall Finishes                                      |     |       |                  |   |            |
|            | 300mm x 300mm Homogeneous Wall Tiles               | 4   | sq.m. | 1,000.00         |   | 4,000.00   |
|            | 400mm x 400mm Homogeneous Wall Tiles               | 13  | sq.m. | 1,110.00         |   | 14,430.00  |
|            | Ceiling Finishes                                   |     |       |                  |   |            |
|            | 6mm thk Fiber Cement Board including Metal Framing | 73  | sq.m. | 850.00           |   | 62,050.00  |
|            |  |     |       | Materials Cost   | ₱ | 192,986.00 |
|            |  |     |       | Labor Cost       |   | 67,545.10  |
|            |  |     |       | Subtotal         | ₽ | 260,531.10 |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS        | QTY  | UNIT  | UNIT COST        |   | TOTAL COST   |
|------------|--|------|-------|------------------|---|--------------|
|            | Installation of Doors                      |      |       |                  |   |              |
|            | D1 - (0.9m x 2.1m) Solid Panel Door        | 2    | set   | ₱ 8,505.00       | ₽ | 17,010.00    |
|            | D2 - (0.7m x 2.1m) Solid Panel Door        | 2    | set   | 6,615.00         |   | 13,230.00    |
|            | D3 - (0.6m x 2.1m) PVC Door with Louver    | 2    | set   | 3,442.32         |   | 6,884.64     |
|            | Door Jambs                                 |      |       |                  |   |              |
|            | D1 - (0.9m x 2.1m) Panel Door              | 2    | set   | 2,040.00         |   | 4,080.00     |
|            | D1 - (0.7m x 2.1m) Panel Door              | 2    | set   | 1,960.00         |   | 3,920.00     |
|            | Hardware and Accessories                   |      |       |                  |   |              |
|            | Door Knob, Lever Type, Stainless           | 6    | piece | 1,000.00         |   | 6,000.00     |
|            | Door Hinge, Heavy Duty, Stainless          | 18   | piece | 200.00           |   | 3,600.00     |
|            | Installation of Windows                    |      |       |                  |   |              |
|            | W1 - 1.2m x 1.2m Aluminum Sliding Window   | 2    | set   | 12,240.00        |   | 24,480.00    |
|            | W2 - 2.4m x 1.2m Aluminum Sliding Window   | 1    | set   | 24,480.00        |   | 24,480.00    |
|            |  |      |       | Materials Cost   | ₱ | 103,684.64   |
|            |  |      |       | Labor Cost       |   | 20,736.93    |
|            |  |      |       | Subtotal         | ₱ | 124,421.57   |
|            | Painting Works                             |      |       |                  |   |              |
|            | Epoxy Enamel Paint Finish (Steel Members)  | 12   | sq.m. | ₱ 258.00         | ₱ | 3,096.00     |
|            | Elastomeric Paint Finish (Exterior Wall)   | 1386 | sq.m. | 390.00           |   | 540,540.00   |
|            | Flat Latex Paint Finish                    |      |       |                  |   |              |
|            | Interior Wall                              | 160  | sq.m. | 304.00           |   | 48,640.00    |
|            | Ceiling (Slab Soffit)                      | 76   | sq.m. | 304.00           |   | 23,104.00    |
|            | Ceiling                                    | 46   | sq.m. | 160.00           |   | 7,360.00     |
|            |  |      |       | Materials Cost   | ₱ | 622,740.00   |
|            |  |      |       | Labor Cost       |   | 217,959.00   |
|            |  |      |       | Subtotal         | ₱ | 840,699.00   |
|            | Fabrication Works                          |      |       |                  |   |              |
|            | Aluminum Cover (Undercounter Cabinet)      | 3    | l.m.  | ₱ 2,743.00       | ₱ | 8,229.00     |
|            |  |      |       | Materials Cost   | ₱ | 8,229.00     |
|            |  |      |       | Labor Cost       |   | 2,880.15     |
|            |  |      |       | Subtotal         | ₱ | 11,109.15    |
|            |  |      |       |                  |   |              |
|            |  |      |       | Materials Cost C | ₽ | 927,639.64   |
|            |  |      |       | Labor Cost C     |   | 309,121.18   |
| D          | SANITARY / PLUMBING WORKS                  |      |       | Direct Cost C    | ₽ | 1,236,760.82 |
|            | Sewer Line / Storm Drainage System         |      |       |                  |   |              |
|            | 50mm Ø, PVC Pipe with Hub                  | 2    | piece | ₽ 480.00         | ₽ | 960.00       |
|            | 50mm Ø, P-Trap                             | 7    | piece | 125.00           |   | 875.00       |
|            | 50mm Ø, 1/8 Bend                           | 4    | piece | 50.00            |   | 200.00       |
|            | 100mm Ø x 50mm Ø, Wye                      | 4    | piece | 110.00           |   | 440.00       |
|            | Waterline System                           |      |       |                  |   |              |
|            | 20mm Ø PPR Pipe, PN 16                     | 2    | piece | 360.00           |   | 720.00       |
|            | 20mm Ø x 12mm Female Tee, Threaded         | 9    | piece | 50.00            |   | 450.00       |
|            | 20mm Ø x 20mm Ø PPR Tee Equal              | 4    | piece | 50.00            |   | 200.00       |
|            | 20mm Ø PPR Elbow                           | 4    | piece | 40.00            |   | 160.00       |
|            | Plumbing Fixtures                          |      |       |                  |   |              |
|            | Flat Floor Drain, Stainless, 100mm x 100mm | 2    | piece | 150.00           |   | 300.00       |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS                                      | QTY | UNIT  | UNIT COST        | TOTAL COST  |
|------------|--|-----|-------|------------------|-------------|
|            | Grease Trap 5 GPM, Stainless, Heavy Duty                                 | 1   | set   | 5,400.00         | 5,400.00    |
|            | Hose Bibb, Stainless, Lever Type (Water Efficieant)                      | 4   | piece | 310.00           | 1,240.00    |
|            | Kitchen Sink Faucet, Lever Type Stainless Steel (Water Efficient)        | 1   | piece | 650.00           | 650.00      |
|            | Kitchen Sink, Single Tub   | 1   | set   | 4,800.00         | 4,800.00    |
|            | Lavatory Faucet, Lever Type Heavy Duty Stainless Steel (Water Efficient) | 2   | unit  | 450.00           | 900.00      |
|            | Lavatory, Wall-Hung, Kiddy (Water Efficient)                             | 2   | unit  | 3,500.00         | 7,000.00    |
|            | Water Closet, Tank Type, Kiddy (Water Efficient)                         | 2   | unit  | 5,575.00         | 11,150.00   |
|            | Accessories & Hardwares  |     |       |                  |             |
|            | Angle Valve, Stainless Single Way  | 5   | piece | 300.00           | 1,500.00    |
|            | Flexible Hose, Stainless   | 1   | piece | 240.00           | 240.00      |
|            | Miscellaneous & Consumables  |     |       |                  |             |
|            | 400cc Solvent Cement   | 3   | can   | 413.00           | 1,239.00    |
|            | All Around Sealant   | 3   | can   | 705.00           | 2,115.00    |
|            | Hacksaw Blade  | 3   | piece | 60.00            | 180.00      |
|            | Teflon Tape  | 5   | roll  | 40.00            | 200.00      |
|            | Waste Cloth  | 1   | kg    | 100.00           | 100.00      |
|            |  |     |       | Materials Cost D | ₱ 37,014.00 |
|            |  |     |       | Labor Cost D     | 12,954.90   |
|            |  |     |       | Direct Cost D    | ₱ 49,968.90 |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS  | QTY | UNIT  | UNIT COST          | T | OTAL COST    |
|------------|--|-----|-------|--------------------|---|--------------|
| Е          | Electrical Works   |     |       |                    |   |              |
|            | Roughing-ins, Pipes and Fittings   |     |       |                    |   |              |
|            | 20mmØ PVC Pipe   | 50  | piece | ₱ 120.00           | ₱ | 6,000.00     |
|            | 25mmØ IMC Pipe   | 5   | piece | 1,410.00           |   | 7,050.00     |
|            | Fittings and Accessories   |     |       |                    |   |              |
|            | 20mmØ PVC Adaptor  | 100 | piece | 12.00              |   | 1,200.00     |
|            | 20mmØ PVC Locknut and Bushing  | 100 | pair  | 18.00              |   | 1,800.00     |
|            | 20mmØ PVC Elbow  | 15  | pair  | 30.00              |   | 450.00       |
|            | 25mmØ IMC Coupling   | 4   | piece | 79.00              |   | 316.00       |
|            | 25mmØ IMC Elbow  | 2   | piece | 395.00             |   | 790.00       |
|            | 50mm x 100mm PVC Utility Box   | 25  | piece | 36.00              |   | 900.00       |
|            | 100mm x 100mm PVC Junction Box with cover  | 25  | piece | 55.00              |   | 1,375.00     |
|            | Wires and Cables   |     |       |                    |   |              |
|            | 3.5mm² THHN Wire   | 2   | roll  | 4,110.00           |   | 8,220.00     |
|            | 14mm² THHN Wire  | 100 | l.m.  | 117.00             |   | 11,700.00    |
|            | 3.5mm² TW Wire   | 1   | roll  | 24.00              |   | 24.00        |
|            | 8.0mm² TW Wire   | 50  | l.m.  | 60.00              |   | 3,000.00     |
|            | Lighting Fixtures ( Energy Efficient )   |     |       |                    |   |              |
|            | 600mm x 1200mm, 2 x 18w LED, Troffer Type, With Complete Accessories, Surface type | 6   | piece | 3,000.00           |   | 18,000.00    |
|            | 18W LED Bulb With Receptacle   | 3   | piece | 430.00             |   | 1,290.00     |
|            | T5, 28W LED Tube Light   | 6   | piece | 1,680.00           |   | 10,080.00    |
|            | Wiring Devices & Appliances  |     |       |                    |   |              |
|            | Orbit Fan, Heavy Duty With Selector Switch   | 5   | piece | 5,000.00           |   | 25,000.00    |
|            | Weatherproof Outlet With Ground And Cover, Two-Gang                                | 6   | piece | 565.00             |   | 3,390.00     |
|            | Switch with Plate & Cover, One Gang  | 6   | piece | 180.00             |   | 1,080.00     |
|            | Switch with Plate & Cover, Two Gang  | 1   | piece | 240.00             |   | 240.00       |
|            | Aircon Outlet, Multipurpose outlet 250V/20A  | 1   | piece | 620.00             |   | 620.00       |
|            | Panelboard   |     |       |                    |   |              |
|            | LP   | 1   | assy  | 20,000.00          |   | 20,000.00    |
|            | PP   | 1   | piece | 2,500.00           |   | 2,500.00     |
|            | Pipe Hangers & Supports  |     |       |                    |   |              |
|            | Horizontal layout of pipe  | 30  | l.m.  | 109.00             |   | 3,270.00     |
|            | Vertical layout of pipe  | 2   | l.m.  | 1,050.00           |   | 2,100.00     |
|            | Miscellaneous & Consumables  |     |       |                    |   |              |
|            | 400cc Solvent Cement   | 1   | can   | 413.00             |   | 413.00       |
|            | All around Sealant   | 1   | can   | 705.00             |   | 705.00       |
|            | Electrical Tape  | 10  | roll  | 56.00              |   | 560.00       |
|            | G.I Tie Wire   | 3   | kg    | 65.00              |   | 195.00       |
|            | Hacksaw Blade  | 3   | piece | 60.00              |   | 180.00       |
|            | Masking Tape   | 3   | roll  | 50.00              |   | 150.00       |
|            | Rubber Tape  | 3   | roll  | 190.00             |   | 570.00       |
|            |  |     |       | Materials Cost E   | ₱ | 133,168.00   |
|            |  |     |       | Labor Cost E       |   | 46,608.80    |
|            |  |     |       | Direct Cost E      | ₱ | 179,776.80   |
|            |  |     |       | Materials Cost III | ₽ | 1,270,981.64 |
|            |  |     |       | Labor Cost III     |   | 526,380.88   |
|            |  |     |       | Direct Cost III    | ₽ | 1,797,362.52 |

| ITEN<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS | QTY | UNIT | UNIT COST | TOTAL COST |
|------------|-------------------------------------|-----|------|-----------|------------|
|            |                                     |     |      |           |            |

| ITEM<br>NO | WORK DESCRIPTION AND SCOPE OF WORKS | QTY | UNIT | UNIT COST | TOTAL COST |
|------------|-------------------------------------|-----|------|-----------|------------|
|------------|-------------------------------------|-----|------|-----------|------------|

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS  |  |   |  |  |  |  |
|------------|--|--|---|--|--|--|--|
| <br>  <br> | GENERAL REQUIREMENTS CONSTRUCTION OF HANDWASHING REHABILITATION OF SAN VICENTE I |  | ₽ | 124,976.00<br>458,531.45<br>1,797,362.52                               |  |  |  |
|            | y enforce health protocol relative to the applicable DPWH Memorandum.            | TOTAL DIRECT COST  Overhead, Contingencies and Miscellaneous Expenses (OCM)  Profit  VAT  TOTAL ESTIMATED COST | ₽ | 2,380,869.97<br>357,130.50<br>238,087.00<br>148,804.37<br>3,124,891.84 |  |  |  |

# (Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF POOK VILLAGE B DAY CARE CENTER

LOCATION : BARANGAY U. P. CAMPUS, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

### **SCOPE OF WORK:**

General Requirements include temporary enclosure, billboard, scaffolding, construction safety and health and clearing, hauling and disposal of construction materials and debris.

- II Site Works include removal works, cleaning and clearing for painting preparation and termite treatment.
- III Civil / Structural Works include masonry works, metal works and roofing works.
- Architectural Works include floor finishes, wall finishes, ceiling works, painting works, installation of doors and windows, fabricated materials and letterings.
- V Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- VI Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                   | QTY | UNIT  | UNIT COST         | TOTAL COST |
|------------|---|-----|-------|-------------------|------------|
| ı          | GENERAL REQUIREMENTS  |     |       |                   |            |
|            | Billboard   | 1   | unit  | ₱                 | ₽          |
|            | Clearing, Hauling and Disposal of Construction Materials and Debris | 3   | t.l.  |                   |            |
|            | Construction Safety and Health                                      | 1   | unit  |                   |            |
|            | Scaffolding (Rental)  | 44  | sq.m. |                   |            |
|            | Temporary Enclosure Around the Construction Area (h= 2.4)           | 37  | l.m.  |                   |            |
|            |   |     |       | DIRECT COST I     | ₱          |
| II         | SITE WORKS  |     |       |                   |            |
|            | Removal Works   |     |       |                   |            |
|            | Removal of Dilapidated Door   | 4   | set   | ₱                 | ₱          |
|            | Removal of Dilapidated Window                                       | 16  | sq.m. |                   |            |
|            | Removal of Tiles  | 10  | sq.m. |                   |            |
|            | Removal of Counter Top  | 1   | sq.m. |                   |            |
|            | Removal of Ceiling  | 111 | sq.m. |                   |            |
|            | Removal of Roofing and Accessories                                  | 111 | sq.m. |                   |            |
|            | Removal of Water Closet   | 1   | set   |                   |            |
|            | Cleaning and Clearing for Painting Preparation                      | 243 | sq.m. |                   |            |
|            |   |     |       | Subtotal          | ₽          |
|            |   |     |       |                   |            |
|            | Termite Treatment   | 2   | gal   | ₱                 | ₽          |
|            |   |     |       | Materials Cost    | ₽          |
|            |   |     |       | Labor Cost        |            |
|            |   |     |       | Subtotal          | ₱          |
|            |   |     |       |                   |            |
|            |   |     |       | MATERIALS COST II | ₱          |
|            |   |     |       | LABOR COST II     |            |
|            |   |     |       | DIRECT COST II    | ₽          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS  | QTY | UNIT  | UNIT COST | TOTAL COST |
|------------|--|-----|-------|-----------|------------|
| Ш          | CIVIL / STRUCTURAL WORKS   |     |       |           |            |
|            | Masonry Works  |     |       |           |            |
|            | 150mm CHB Wall Laying, Including Mortar, Reinforcement and Two-Face Plastering | 5   | sq.m  | ₽         | ₽          |
|            | Metal Works  |     |       |           |            |
|            | Window Grilles   |     |       |           |            |
|            | 25mm X 25mm X 2mm Tubular Bar  | 182 | kg    |           |            |
|            | Miscellaneous & Consumables  |     |       |           |            |
|            | Acetylene Tank (Refill)  | 1   | tank  |           |            |
|            | Cut Off Blade  | 3   | piece |           |            |
|            | Grinding Disc for Metal  | 3   | piece |           |            |
|            | Oxygen Tank (Refill)   | 1   | tank  |           |            |
|            | Welding Rod  | 1   | box   |           |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                | QTY   | UNIT  | UNIT COST          | TOTAL COST |
|------------|--|-------|-------|--------------------|------------|
|            | Roofing Works  |       |       |                    |            |
|            | Pre-painted G.I. Rib Type Roofing                                | 118   | sq.m. |                    |            |
|            | Pre-painted G.I. End Flashing                                    | 46    | l.m.  |                    |            |
|            | Pre-Painted G.I.Ridge Roll                                       | 30    | l.m.  |                    |            |
|            | 12mm x 300mm Fiber Cement Fascia Board                           | 46    | l.m.  |                    |            |
|            | 6mm Thk One-sided Aluminum Foil Thermal Insulation               | 118   | sq.m. |                    |            |
|            | Tekscrew   | 228   | piece |                    |            |
|            | Blind Rivets   | 232   | piece |                    |            |
|            | Silicon Sealant  | 5     | tube  |                    |            |
|            |  |       |       | MATERIALS COST III | ₽          |
|            |  |       |       | LABOR COST III     |            |
|            |  |       |       | DIRECT COST III    | ₽          |
| IV         | ARCHITECTURAL WORKS  |       |       |                    |            |
|            | Floor Finishes   |       |       |                    |            |
|            | Floor Topping Preparation of Tile Works                          | 2     | sq.m  | ₽                  | ₽          |
|            | 300mm x 300mm Non-Skid Homogeneous Tiles                         | 2     | sq.m  |                    |            |
|            | Wall Finishes  |       |       |                    |            |
|            | 300mm x 300mm Homogeneous Tiles                                  | 8     | sq.m  |                    |            |
|            | Ceiling Works  |       |       |                    |            |
|            | 6mm thk Fiber Cement Board including Metal Framing               | 117   | sq.m  |                    |            |
|            |  |       |       | Materials Cost     | ₽          |
|            |  |       |       | Labor Cost         |            |
|            |  |       |       | Subtotal           | ₽          |
|            | Installation of Doors  |       |       |                    |            |
|            | D1 - (1.60m x 2.10m) Swing Type Flush Hollow Core Painted Finish | 1     | set   | ₱                  | ₽          |
|            | D2 - (1.00m x 2.10m) Swing Type Flush Hollow Core Painted Finish | 1     | set   |                    |            |
|            | D3 - (0.70m x 2.10m) Swing Type PVC Door                         | 2     | set   |                    |            |
|            | Painted Finish (Kitten White) w/ 400mm X 300mm Louver            |       |       |                    |            |
|            | Door jamb  |       |       |                    |            |
|            | D1 - (1.60m x 2.10m) Swing Type Flush Hollow Core Do             |       | set   |                    |            |
|            | D2 - (1.00m x 2.10m) Swing Type Flush Hollow Core Do             | 1     | set   |                    |            |
|            | Hardware and Accessories   |       |       |                    |            |
|            | Door Hinges, Heavy Duty, Stainless                               | 12    | set   |                    |            |
|            | Door Knob, Lever Type, Stainless                                 | 4     | set   |                    |            |
|            | Installation of Windows  |       |       |                    |            |
|            | W1 -(1.80m x 1.20m) Sliding Window, 6mm Thk,                     | 5     | set   |                    |            |
|            | Clear Tempered Glass White Color Powder Coated Alur              | minum |       |                    |            |
|            | Frame with Complete Accessories                                  |       |       |                    |            |
|            | W2 -(0.5m x 0.60m) Awning Window, 6mm Thk,                       | 2     | set   |                    |            |
|            | Clear Tempered Glass White Color Powder Coated Alur              | minum |       |                    |            |
|            | Frame with Complete Accessories                                  |       |       |                    |            |
|            |  |       |       | Materials Cost     | ₱          |
|            |  |       |       | Labor Cost         |            |
|            |  |       |       | Subtotal           | ₱          |
|            | Painting Works   |       |       |                    |            |
|            | Elastomeric Paint Finish (Exterior Wall)                         | 103   | sq.m  | ₱                  | ₱          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS          | QTY | UNIT | UNIT COST         | TOTAL COST |
|------------|--|-----|------|-------------------|------------|
|            | Flat Latex Paint Finish                    |     |      |                   |            |
|            | Ceiling                                    | 117 | sq.m |                   |            |
|            | Interior Wall                              | 113 | sq.m |                   |            |
|            | Epoxy Enamel Paint Finish (Metal Surfaces) | 1   | sq.m |                   |            |
|            | Fabricated Materials                       |     |      |                   |            |
|            | Hanging Cabinet (Day Care Center)          | 4   | sq.m |                   |            |
|            | Counter Top                                | 3   | l.m. |                   |            |
|            | Letterings                                 |     |      |                   |            |
|            | 200mm Stainless Steel Lettering            | 25  | set  |                   |            |
|            | "POOK VILLAGE B DAY CARE CENTER"           |     |      |                   |            |
|            |  |     |      | Material Cost     | ₽          |
|            |  |     |      | Labor Cost        |            |
|            |  |     |      | Subtotal          | ₽          |
|            |  |     |      |                   |            |
|            |  |     |      | MATERIALS COST IV | ₽          |
|            |  |     |      | LABOR COST IV     |            |
|            |  | ·   |      | DIRECT COST IV    | ₽          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                            | QTY | UNIT  | UNIT COST | TOTAL COST |
|------------|--|-----|-------|-----------|------------|
| V          | SANITARY / PLUMBING WORKS                                    |     |       |           |            |
| _          | Sewer Line / Storm Drainage System                           |     |       |           |            |
|            | Roughing-Ins   |     |       |           |            |
|            | 50 mm Ø, PVC Pipe with Hub                                   | 3   | piece | ₽         | ₽          |
|            | 75 mm Ø, PVC Pipe with Hub                                   | 4   | piece | Г         | Г          |
|            | 100mm Ø, PVC Pipe with Hub                                   | 5   | piece |           |            |
|            | 50mm Ø, P-Trap   | 4   | piece |           |            |
|            | 75mm Ø, P-Trap   | 1   | piece |           |            |
|            | 50mm Ø, 1/8 Bend   | 6   | piece |           |            |
|            | 75mm Ø, 1/8 Bend   | 2   | piece |           |            |
|            | 75mm Ø, 1/4 Bend   | 2   | piece |           |            |
|            | 75mm Ø x 75mm Ø, Tee   | 2   | piece |           |            |
|            | 100mm Ø x 75mm Ø, Tee  | 3   | piece |           |            |
|            | 100mm Ø x 50mm Ø, Wye  | 5   | piece |           |            |
|            | 100mm Ø x 75mm Ø, Wye  | 1   | piece |           |            |
|            | 50mm Ø, Cleanout with Adapter                                | 1   | piece |           |            |
|            | 100mm Ø, Cleanout with Adapter                               | 1   | piece |           |            |
|            | Waterline System   | 1   | pioco |           |            |
|            | Roughing-Ins   |     |       |           |            |
|            | 20mm Ø, PPR Pipe   | 3   | piece |           |            |
|            | 20mm Ø, Elbow  | 12  | piece |           |            |
|            | 20mm Ø, Coupling   | 3   | piece |           |            |
|            | 20mm Ø, Tee Equal  | 7   | piece |           |            |
|            | 20mm Ø, Female Threaded, Tee                                 | 5   | piece |           |            |
|            | Valves and Appurtenances                                     |     | Picco |           |            |
|            | 20mm Ø Gate Valve, PPR                                       | 1   | piece |           |            |
|            | Fixtures   |     | †     |           |            |
|            | Bidet with Complete Accessories, Stainless (Water Efficient) | 1   | set   |           |            |
|            | Floor Drain, 100mm x 100mm, Stainless                        | 2   | piece |           |            |
|            | Grease Trap, 5GPM, Stainless                                 | 1   | set   |           |            |
|            | Hose Bibb, Lever Type, Stainless, Heavy Duty (Water          | _   | set   |           |            |
|            | Efficient) Kitchen Sink, Single Tub, Stainless               | 5   | sot   |           |            |
|            | Lavatory, Faucet, Lever Type, Stainless Heavy Duty           | 1   | set   |           |            |
|            | (Water Efficient)  | 1   | set   |           |            |
|            | Lavatory, Kiddy, Wall Hung                                   | 1   | set   |           |            |
|            | Urinal, Kiddy, Flush Valve-Type (Water Efficient)            | 1   | set   |           |            |
|            | Water Closet, Kiddy, Tank-Type (Water Efficient)             | 1   | set   |           |            |
|            | Accessories  |     |       |           |            |
|            | Angle Valve, Single Way, Stainless Steel                     | 2   | piece |           |            |
|            | Angle Valve, Two Way, Stainless Steel                        | 1   | piece |           |            |
|            | Flexible Hose, Stainless Steel                               | 3   | piece |           |            |
|            | Miscellaneous & Consumables                                  |     |       |           |            |
|            | 400cc Solvent Cement   | 2   | can   |           |            |
|            | All Around Sealant   | 2   | can   |           |            |
|            | Hacksaw Blade  | 2   | piece |           |            |
|            | Teflon Tape  | 2   | roll  |           |            |
|            | Waste Cloth  | 1   | kg    |           |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                    | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|--|-----|-------|------------------|------------|
|            |  |     |       | MATERIALS COST V | ₽          |
|            |  |     |       | LABOR COST V     |            |
|            |  |     |       | DIRECT COST V    | ₽          |
| VI         | ELECTRICAL WORKS   |     |       |                  |            |
|            | Roughing-ins   |     |       |                  |            |
|            | 20mmØ PVC Pipe   | 15  | piece | ₱                | ₽          |
|            | 20mmØ PVC Flexible Hose  | 60  | l.m.  |                  |            |
|            | Fittings and Accessories   |     |       |                  |            |
|            | 20mmØ PVC Adaptor  | 36  | piece |                  |            |
|            | 20mmØ PVC Locknut & Bushing  | 36  | piece |                  |            |
|            | 50mm x 100mm PVC Utility Box   | 6   | piece |                  |            |
|            | 100mm x 100mm PVC Junction Box with Cover                            | 12  | piece |                  |            |
|            | Wires and Cables   |     |       |                  |            |
|            | 3.5mm² THHN Wire   | 180 | l.m.  |                  |            |
|            | Lighting Fixtures (Energy Efficient)                                 |     |       |                  |            |
|            | 18W LED Bulb   | 4   | set   |                  |            |
|            | 300mm x 1200mm, 1 x 18w LED, Troffer Type,                           | 2   | set   |                  |            |
|            | with Complete Accessories  |     |       |                  |            |
|            | 600mm x 1200mm, 2 x 18w LED, Troffer Type, with Complete Accessories | 6   | set   |                  |            |
|            | E27 Receptacle   | 2   | set   |                  |            |
|            | Wiring Devices and Other Fixtures                                    |     |       |                  |            |
|            | Orbit Fan with Selector Switch                                       | 4   | set   |                  |            |
|            | Outlet with Grounding, Two Gang                                      | 5   | set   |                  |            |
|            | Switch with Plate and Cover, One Gang                                | 3   | set   |                  |            |
|            | Switch with Plate and Cover, Three Gang                              | 1   | set   |                  |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS | QTY | UNIT  | UNIT COST         | TOTAL COST |
|------------|-----------------------------------|-----|-------|-------------------|------------|
|            | Miscellaneous & Consumables       |     |       |                   |            |
|            | 400cc Solvent Cement              | 1   | can   |                   |            |
|            | Electrical Tape                   | 5   | roll  |                   |            |
|            | Hacksaw Blade                     | 2   | piece |                   |            |
|            | Torch with Butane                 | 1   | set   |                   |            |
|            |                                   |     | ı     | MATERIALS COST VI | ₽          |
|            |                                   |     |       | LABOR COST VI     |            |
|            |                                   |     |       | DIRECT COST VI    | ₽          |
|            |                                   |     |       |                   |            |

| ITEM<br>NO. | WORK DESCRIPTION & SCOPE OF WORKS  | TOTAL COST |
|-------------|--|------------|
| - = = > >   | GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS  | <b>-</b>   |
|             | TOTAL DIRECT COST  E: Overhead, Contin gencies and Miscellaneous Expenses (OCM)  Profictly enforce Health Protocols relative to the est applicable DPWH Memorandum  TOTAL ESTIMATED COST |            |

## (Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF POOK LIBIS DAY CARE CENTER

LOCATION : BARANGAY U. P. CAMPUS, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

#### **SCOPE OF WORK:**

General Requirements include temporary enclosure, billboard, scaffolding, construction safety & health and clearing, hauling and disposal of construction materials and debris.

- II Construction of Hand Washing Facility.
- a Installation of hand washing facility.
- b Site Works include chipping of concrete for sanitary / plumbing works.
- c Civil / Structural Works include restoration of concrete for sanitary / plumbing works.
- d Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- III Rehabilitation of Day Care Center
- a Site Works include earthworks, removal works and cleaning and clearing for painting preparation.
- b Civil / Structural Works include concrete works, masonry works and metal works.
- c Architectural Works include floor finishes, wall finishes, painting works, installation of doors and letterings.
- d Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- e Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                   | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|---|-----|-------|------------------|------------|
| ı          | GENERAL REQUIREMENTS  |     |       |                  |            |
|            | Billboard   | 1   | unit  | ₽                | <b>#</b>   |
|            | Clearing, Hauling and Disposal of Construction Materials and Debris | 2   | t.l.  |                  |            |
|            | Construction Safety and Health                                      | 1   | unit  |                  |            |
|            | Scaffolding (Rental)  | 39  | sq.m. |                  |            |
|            | Temporary Enclosure Around the Construction Area (h= 2.4m)          | 17  | l.m.  |                  |            |
|            |   |     |       | DIRECT COST I    | ₽          |
| II         | CONSTRUCTION OF HAND WASHING FACILITY                               |     |       |                  |            |
| Α          | HAND WASHING FACILITY   |     |       |                  |            |
|            | Kiddie Countertop   | 2   | l.m.  | ₱                | ₱          |
|            |   |     |       | MATERIALS COST-A | ₱          |
|            |   |     |       | LABOR COST-A     |            |
|            |   |     |       | DIRECT COST-A    | ₱          |
| В          | SITE WORKS  |     |       |                  |            |
|            | Removal Works   |     |       |                  |            |
|            | Chipping of Concrete (Sanitary / Plumbing Works)                    | 3   | sq.m. | ₱                | ₽          |
|            |   |     |       | DIRECT COST-B    | P          |
| С          | CIVIL / STRUCTURAL WORKS  |     |       |                  |            |
|            | Masonry Works   |     |       |                  |            |
|            | Restoration of Concrete (Sanitary / Plumbing Works)                 | 3   | sq.m. | ₽                | ₽          |
|            |   |     |       | MATERIALS COST-C | ₽          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS | QTY | UNIT | UNIT COST     | TOTAL COST |
|------------|-----------------------------------|-----|------|---------------|------------|
|            |                                   |     |      | LABOR COST-C  |            |
|            |                                   |     |      | DIRECT COST-C | ₱          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                              | QTY | UNIT   | UNIT COST         | TOTAL COST |
|------------|--|-----|--------|-------------------|------------|
| D          | SANITARY / PLUMBING WORKS                                      |     |        |                   |            |
|            | Sewer Line / Storm Drainage System                             |     |        |                   |            |
|            | Roughing-Ins   |     |        |                   |            |
|            | 50 mm Ø, PVC with Hub  | 2   | piece  | ₱                 | ₽          |
|            | 50mm Ø, P-Trap   | 1   | piece  |                   |            |
|            | 75 mm Ø, PVC with Hub  | 2   | piece  |                   |            |
|            | 50mm Ø, 1/8 Bend   | 2   | piece  |                   |            |
|            | 100mm Ø, 1/8 Bend  | 2   | piece  |                   |            |
|            | 75mm Ø x 75mm Ø, Tee   | 1   | piece  |                   |            |
|            | 75mm Ø, 1/4 Bend   | 1   | piece  |                   |            |
|            | 100mm Ø x 50mm Ø, Wye  | 1   | piece  |                   |            |
|            | Waterline System   |     |        |                   |            |
|            | Roughing-Ins   |     |        |                   |            |
|            | 20mm Ø, Pipe PPR   | 2   | piece  |                   |            |
|            | 20mm Ø, Elbow  | 2   | piece  |                   |            |
|            | 20mm Ø, Coupling   | 2   | piece  |                   |            |
|            | 20mm Ø, Tee Equal  | 2   | piece  |                   |            |
|            | 20mm Ø, Female Threaded, Tee                                   | 1   | piece  |                   |            |
|            | Fixtures   |     | Piece  |                   |            |
|            | Floor Drain, 100mm x 100mm, Stainless                          | 1   | piece  |                   |            |
|            | Hose Bibb, Lever Type, Stainless, Heavy Duty (Water Efficient) | 2   | set    |                   |            |
|            | Miscellaneous & Consumables                                    |     |        |                   |            |
|            | 400cc Solvent Cement   | 1   | can    |                   |            |
|            | All-Around Sealant   | 1   | can    |                   |            |
|            | Hacksaw Blade  | 1   | piece  |                   |            |
|            | Teflon Tape  | 1   | roll   |                   |            |
|            | Waste Cloth  | 1   | kg     |                   |            |
|            |  |     |        | MATERIALS COST-D  | ₽          |
|            |  |     |        | LABOR COST-D      |            |
|            |  |     |        | DIRECT COST-D     | ₽          |
|            |  |     |        | DIRECT COOT D     | 1          |
|            |  |     |        | MATERIALS COST II | ₽          |
|            |  |     |        | LABOR COST II     |            |
|            |  |     |        | DIRECT COST II    | ₽          |
| Ш          | REHABILITATION OF DAY CARE CENTER                              |     |        |                   |            |
| Α          | SITE WORKS   |     |        |                   |            |
|            | Removal Works  |     |        |                   |            |
|            | Removal of Dilapidated Door                                    | 5   | set    | ₽                 | ₽          |
|            | Removal of Tiles   | 21  | sq.m.  |                   |            |
|            | Removal of Water Closet  | 2   | set    |                   |            |
|            | Removal of Lavatory  | 2   | set    |                   |            |
|            | Removal of Sink  | 1   | set    |                   |            |
|            | Cleaning and Clearing for Painting Preparation                 | 208 | sq.m.  |                   |            |
|            | Excavation for Structures                                      | 3   | cu.m   |                   |            |
|            | Backfill and Compaction  | 1   | cu.m   |                   |            |
|            | Баскіні ани Сотпрасцоп   | '   | ou.iii | DIDECT COCT A     | ₽          |
| В          | CIVIL / STRUCTURAL WORKS                                       |     |        | DIRECT COST-A     | ľ          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                           | QTY | UNIT  | UNIT COST | TOTAL COST |
|------------|---|-----|-------|-----------|------------|
|            | Concrete Works  |     |       |           |            |
|            | On-Site Mix Concrete, 21 Mpa, 3/4" Gravel @ 28 Days         | 1   | cu.m  | ₽         | ₱          |
|            | Reinforcing Steel Bars                                      |     |       |           |            |
|            | Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16 |     |       |           |            |
|            | 10mm Ø Column   | 108 | kg    |           |            |
|            | 12mm Ø Wall Footing   | 27  | kg    |           |            |
|            | Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 16 |     |       |           |            |
|            | 16mm Ø Footing  | 40  | kg    |           |            |
|            | 16mm Ø Column   | 60  | kg    |           |            |
|            | Formworks   |     |       |           |            |
|            | Wall Footing  | 3   | sq.m  |           |            |
|            | Footing   | 2   | sq.m  |           |            |
|            | Column  | 4   | sq.m  |           |            |
|            | Masonry Works   |     |       |           |            |
|            | 100mm CHB Wall Laying, including mortar, reinforcement      | 8   | sq.m  |           |            |
|            | and two-face plastering                                     |     |       |           |            |
|            | Metal Works   |     |       |           |            |
|            | Fence   |     |       |           |            |
|            | 12mm Square Bar   | 141 | kg    |           |            |
|            | 20mm Square Bar   | 25  | kg    |           |            |
|            | Gate  |     |       |           |            |
|            | 12mm Square Bar   | 13  | kg    |           |            |
|            | 50mm Ø X 2mm Round Bar                                      | 19  | kg    |           |            |
|            | 38mm Ø Barrel Bolt  | 1   | set   |           |            |
|            | Cylindrical Hinge, Heavy Duty                               | 3   | piece |           |            |
|            | Window Grilles  |     |       |           |            |
|            | 25mm X 25mm X 2mm Tubular Bar                               | 122 | kg    |           |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                | QTY | UNIT   | UNIT COST        | TOTAL COST |
|------------|--|-----|--------|------------------|------------|
|            | Miscellaneous & Consumables                                      |     |        |                  |            |
|            | Acetylene Tank (Refill)  | 1   | tank   |                  |            |
|            | Cut Off Blade  | 5   | piece  |                  |            |
|            | Grinding Disc for Metal  | 5   | piece  |                  |            |
|            | Oxygen Tank (Refill)   | 1   | tank   |                  |            |
|            | Welding Rod  | 1   | box    |                  |            |
|            |  |     |        | MATERIALS COST-B | ₽          |
|            |  |     |        | LABOR COST-B     |            |
|            |  |     |        | DIRECT COST-B    | ₽          |
| С          | ARCHITECTURAL WORKS  |     |        |                  |            |
|            | Floor Finishes   |     |        |                  |            |
|            | Floor Topping Preparation of Tile Works                          | 5   | sq.m   | ₽                | ₽          |
|            | 300mm x 300mm Non-Skid Homogeneous Tiles                         | 5   | sq.m   |                  |            |
|            | Wall Finishes  |     | - 1    |                  |            |
|            | 300mm x 300mm Homogeneous Tiles                                  | 18  | sq.m   |                  |            |
|            | COSTILITA COSTILITA FIGUROSCO FILOS                              | 1.0 | 24     | Materials Cost   | ₽          |
|            |  |     |        | Labor Cost       | 1          |
|            |  |     |        | Subtotal         | ₽          |
|            | Installation of Doors  |     |        | Subtotal         | Г          |
|            | D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Painted Finish | 2   | set    | ₽                | ₽          |
|            | D2 - (0.90m x 2.10m) Swing Type Flush Hollow Core Painted Finish | 1   | set    |                  |            |
|            | D3 - (0.60m x 2.10m) Swing Type PVC Door                         | 2   | set    |                  |            |
|            | Painted Finish (Kitten White) w/ 400mm X 300mm Louver            |     |        |                  |            |
|            | Door jamb  |     |        |                  |            |
|            | D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Door           | 2   | set    |                  |            |
|            | D2 - (0.90m x 2.10m) Swing Type Flush Hollow Core Door           | 1   | set    |                  |            |
|            | Hardware and Accessories   | 1 ' | 001    |                  |            |
|            | Door Hinges, Heavy Duty, Stainless                               | 15  | set    |                  |            |
|            | Door Knob, Lever Type, Stainless                                 | 5   | set    |                  |            |
|            | Boot Milos, Lover Type, Glaimose                                 |     | 001    | Materials Cost   | ₽          |
|            |  |     |        | Labor Cost       | Г          |
|            |  |     |        | Subtotal         | ₽          |
|            | Painting Works   |     |        | Subiolal         | 1          |
|            | Elastomeric Paint Finish (Exterior Wall)                         | 103 | sq.m   | ₽                | ₽          |
|            | Flat Latex Paint Finish (Interior Wall)                          | 116 | sq.m   |                  |            |
|            | Epoxy Enamel Paint Finish (Metal Surfaces)                       | 5   | sq.m   |                  |            |
|            | Letterings   |     | 54.111 |                  |            |
|            | 200mm Stainless Steel Lettering                                  | 22  | set    |                  |            |
|            | "POOK LIBIS DAY CARE CENTER"                                     |     | 361    |                  |            |
|            | FOOR LIBIS DAT CARE CENTER                                       |     |        | Matarial Ocat    | _          |
|            |  |     |        | Material Cost    | ₽          |
|            |  |     |        | Labor Cost       | _          |
|            |  |     |        | Subtotal         | ₽          |
|            |  |     |        | MATERIALS COST-C | ₽          |
|            |  |     |        | LABOR COST-C     |            |
|            |  |     |        | DIRECT COST-C    | ₽          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS  | QTY | UNIT  | UNIT COST | TOTAL COST |
|------------|------------------------------------|-----|-------|-----------|------------|
| D          | SANITARY / PLUMBING WORKS          |     |       |           |            |
|            | Sewer Line / Storm Drainage System |     |       |           |            |
|            | Roughing-Ins                       |     |       |           |            |
|            | 50 mm Ø, PVC Pipe with Hub         | 4   | piece | ₽         | ₱          |
|            | 75 mm Ø, PVC Pipe with Hub         | 4   | piece |           |            |
|            | 100mm Ø, PVC Pipe with Hub         | 2   | piece |           |            |
|            | 50mm Ø, P-Trap                     | 5   | piece |           |            |
|            | 75mm Ø, P-Trap                     | 2   | piece |           |            |
|            | 50mm Ø, 1/8 Bend                   | 5   | piece |           |            |
|            | 75mm Ø, 1/8 Bend                   | 2   | piece |           |            |
|            | 75mm Ø, 1/4 Bend                   | 2   | piece |           |            |
|            | 75mm Ø x 75mm Ø, Tee               | 2   | piece |           |            |
|            | 100mm Ø x 75mm Ø, Tee              | 2   | piece |           |            |
|            | 100mm Ø x 50mm Ø, Wye              | 6   | piece |           |            |
|            | 100mm Ø x 75mm Ø, Wye              | 2   | piece |           |            |
|            | 50mm Ø, Cleanout with Adapter      | 1   | piece |           |            |
|            | 100mm Ø, Cleanout with Adapter     | 1   | piece |           |            |
|            | Waterline System                   |     |       |           |            |
|            | Roughing-Ins                       |     |       |           |            |
|            | 20mm Ø, PPR Pipe                   | 3   | piece |           |            |
|            | 20mm Ø, Elbow                      | 14  | piece |           |            |
|            | 20mm Ø, Coupling                   | 3   | piece |           |            |
|            | 20mm Ø, Tee Equal                  | 5   | piece |           |            |
|            | 20mm Ø, Female Threaded, Elbow     | 6   | piece |           |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                     | QTY | UNIT     | UNIT COST        | TOTAL COST |
|------------|---|-----|----------|------------------|------------|
|            | Valves and Appurtenances  |     |          |                  |            |
|            | 20mmØ PPR Gate Valve  | 1   | piece    |                  |            |
|            | Fixtures  |     |          |                  |            |
|            | Bidet with Complete Accessories, Stainless (Water Efficient)          | 2   | set      |                  |            |
|            | Floor Drain, 100mm x 100mm, Stainless                                 | 2   | piece    |                  |            |
|            | Grease Trap, 5GPM, Stainless  | 1   | set      |                  |            |
|            | Kitchen Faucet Lever Type, Stainless (Water Efficient)                | 1   | set      |                  |            |
|            | Kitchen Sink, Single Tub, Stainless                                   | 1   | set      |                  |            |
|            | Lavatory, Faucet, Lever Type, Stainless, Heavy Duty (Water Efficient) | 2   | set      |                  |            |
|            | Lavatory, Kiddy, Wall Hung  | 2   | set      |                  |            |
|            | Urinal, Kiddy, Flush Valve-Type (Water Efficient)                     | 1   | set      |                  |            |
|            | Water Closet, Kiddy, Tank-Type (Water Efficient)                      | 2   | set      |                  |            |
|            | Accessories   |     |          |                  |            |
|            | Angle Valve, Single Way, Stainless Steel                              | 4   | piece    |                  |            |
|            | Angle Valve, Two Way, Stainless Steel                                 | 2   | piece    |                  |            |
|            | Flexible Hose, Stainless Steel  | 6   | piece    |                  |            |
|            | Miscellaneous & Consumables   |     | <u> </u> |                  |            |
|            | 400cc Solvent Cement  | 2   | can      |                  |            |
|            | All Around Sealant  | 2   | can      |                  |            |
|            | Hacksaw Blade   | 2   | piece    |                  |            |
|            | Teflon Tape   | 2   | roll     |                  |            |
|            | Waste Cloth   | 2   | kg       |                  |            |
|            |   |     |          | MATERIALS COST-D | ₽          |
|            |   |     |          | LABOR COST-D     |            |
|            |   |     |          | DIRECT COST-D    | ₽          |
| Е          | ELECTRICAL WORKS  |     |          |                  |            |
|            | Roughing-ins  |     |          |                  |            |
|            | 20mmØ PVC Pipe  | 5   | piece    | ₽                | ₽          |
|            | 20mmØ PVC Flexible Hose   | 20  | l.m.     |                  |            |
|            | Fittings and Accessories  | 1   |          |                  |            |
|            | 20mmØ PVC Adaptor   | 20  | piece    |                  |            |
|            | 20mmØ PVC Locknut & Bushing   | 10  | piece    |                  |            |
|            | 50mm x 100mm PVC Utility Box  | 5   | piece    |                  |            |
|            | 100mm x 100mm PVC Junction Box with Cover                             | 5   | piece    |                  |            |
|            | Wires and Cables  |     | F        |                  |            |
|            | 3.5mm² THHN Wire  | 50  | l.m.     |                  |            |
|            | Lighting Fixtures (Energy Efficient)                                  |     |          |                  |            |
|            | 18W LED Bulb  | 3   | set      |                  |            |
|            | E27 Receptacle  | 3   | set      |                  |            |
|            | 300mm x 1200mm, 1 x 18w LED, Troffer Type                             | 6   | set      |                  |            |
|            | with Complete Accessories   |     |          |                  |            |
|            | Wiring Devices and Other Fixtures                                     |     |          |                  |            |
|            | Aircon Outlet, Multipurpose outlet 250V/20A                           | 1   | set      |                  |            |
|            | Outlet with Grounding, Two-Gang                                       | 5   | set      |                  |            |
|            | Switch with Plate and Cover, One-Gang                                 | 3   | set      |                  |            |
|            | Switch with hate and Cover, One-Cang                                  | 3   | 361      |                  |            |
|            | Switch with Plate and Cover, Three-Gang                               | 1   | set      |                  |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS | QTY | UNIT  | UNIT COST          | TOTAL COST |
|------------|-----------------------------------|-----|-------|--------------------|------------|
|            | 400cc Solvent Cement              | 1   | can   |                    |            |
|            | Electrical Tape                   | 5   | roll  |                    |            |
|            | Hacksaw Blade                     | 2   | piece |                    |            |
|            | Torch with Butane                 | 1   | set   |                    |            |
|            |                                   |     |       | MATERIALS COST-E   | ₱          |
|            |                                   |     |       | LABOR COST-E       |            |
|            |                                   |     |       | DIRECT COST-E      | ₱          |
|            |                                   |     |       |                    |            |
|            |                                   |     |       | MATERIALS COST III | ₱          |
|            |                                   |     |       | LABOR COST III     |            |
|            |                                   |     |       | DIRECT COST III    | P          |
|            |                                   |     |       | -                  | _          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS | QTY | UNIT | UNIT COST | TOTAL COST |
|------------|-----------------------------------|-----|------|-----------|------------|
|------------|-----------------------------------|-----|------|-----------|------------|

| ITEM<br>NO. | WORK DESCRIPTION & SCOPE OF WORKS   | TOTAL COST |
|-------------|---|------------|
| -<br>=<br>= | GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER  | Þ          |
|             | TOTAL DIRECT COST  Overhead, Contingencies and Miscellaneous Expenses (OCM  Profictly enforce Health Protocols relative to the est applicable DPWH Memorandum  TOTAL ESTIMATED COST |            |

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF POOK DAANG TUBO DAY CARE CENTER

LOCATION : BARANGAY U.P. CAMPUS, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

#### **SCOPE OF WORK:**

- General Requirements include temporary enclosure, billboard, scaffolding, construction safety and health, and clearing, hauling and disposal of construction materials and debris.
- 2 Site Works include demolition/removal works, and cleaning and cleaning for painting preparation
- 3 Civil / Structural Works include masonry works, moisture protection, metal works and roofing works.
- 4 Architectural Works include floor finishes, wall finishes, ceiling finishes, painting works, and installation of doors, windows fabricated materials, and lettering.
- 5 Sanitary / Plumbing Works include installation of roughing-ins, equipment, fixtures and accessories.
- 6 Electrical Works include installation of roughing-ins, wirings, devices, fixtures, panelboard and accessories.
- 7 All necessary testing and commissioning shall be performed in accordance to standards.

| ITEM<br>NO. | GENERAL REQUIREMENTS  | QTY. | UNIT  | UNIT COST      | TOTAL COST |
|-------------|---|------|-------|----------------|------------|
| I           | GENERAL REQUIREMENTS  |      |       |                |            |
|             | Billboard   | 1    | unit  | ₱              | ₱          |
|             | Clearing, Hauling and Disposal of Construction Materials and Debris | 1    | t.l.  |                |            |
|             | Construction Safety and Health                                      | 1    | unit  |                |            |
|             | Scaffolding (Rental)  | 38   | sq.m. |                |            |
|             | Temporary Enclosure Around the Construction Area (h=2.4)            | 26   | l.m.  |                |            |
|             |   |      |       | DIRECT COST I  | ₱          |
| II          | SITE WORKS  |      |       |                |            |
|             | Removal / Demolition Works  |      |       |                |            |
|             | Removal of Water Closet   | 1    | set   | ₱              | ₱          |
|             | Removal of Floor Drain  | 1    | set   |                |            |
|             | Removal of Urinal   | 1    | set   |                |            |
|             | Removal of Dilapidated Tiles  | 43   | sq.m. |                |            |
|             | Removal of Ceiling  | 44   | sq.m. |                |            |
|             | Removal of Doors  | 3    | set   |                |            |
|             | Removal of Roofing and Accessories                                  | 62   | sq.m. |                |            |
|             | Chipping of Concrete Wall   | 8    | sq.m. |                |            |
|             | Demolition of CHB Wall  | 3    | sq.m. |                |            |
|             | Cleaning and Clearing for Painting Preparation                      | 173  | sq.m. |                |            |
|             |   |      |       | DIRECT COST II | ₱          |
| III         | CIVIL / STRUCTURAL WORKS  |      |       |                |            |
|             | Masonry Works   |      |       |                |            |
|             | Restoration of Concrete (Electrical Works)                          | 3    | sq.m  | ₱              | ₱          |
|             | 150mm CHB Laying include Mortar, Reinforcement and                  | 5    | sq.m  |                |            |
|             | Two-Face Plastering   |      |       |                |            |
|             | Moisture Protection   |      |       |                |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS                           | QTY. | UNIT  | UNIT COST | TOTAL COST |
|-------------|--|------|-------|-----------|------------|
|             | Waterproofing Works                            |      |       |           |            |
|             | Cementitious Capillary Type Waterproofing (CR) | 8    | sq.m. |           |            |
|             | Metal Works                                    |      |       |           |            |
|             | Gate   |      |       |           |            |
|             | 25mmØ G.I. Pipe                                | 22   | kg    |           |            |
|             | 12mm x 12mm Square Bar                         | 26   | kg    |           |            |
|             | 38mmØ Barrel Bolt                              | 1    | piece |           |            |
|             | Cylindrical Hinge                              | 3    | piece |           |            |
|             | Window Grilles                                 |      |       |           |            |
|             | 12mm x 12mm x 2mm Tubular Bar                  | 126  | kg    |           |            |
|             | Miscellaneous and Consumables                  |      |       |           |            |
|             | Acetylene Tank Refill                          | 2    | tank  |           |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS                                | QTY. | UNIT  | UNIT COST          | TOTAL COST |
|-------------|---|------|-------|--------------------|------------|
|             | Assorted Metal Drill Bit                            | 5    | piece |                    |            |
|             | Cut Off Blade                                       | 5    | piece |                    |            |
|             | Grinding Disc Metal                                 | 5    | piece |                    |            |
|             | Oxygen Tank Refill                                  | 4    | tank  |                    |            |
|             | Welding Rod   | 2    | box   |                    |            |
|             | Roofing Works                                       |      |       |                    |            |
|             | Pre-painted Rib Type G.I. Roofing                   | 73   | sq.m. |                    |            |
|             | Pre-painted G.I. End Flashing                       | 34   | l.m.  |                    |            |
|             | 12mm x 300mm Fiber Cement Fascia Board              | 34   | l.m.  |                    |            |
|             | 6mm thk. One Sided Aluminum Foil Thermal Insulation | 73   | sq.m. |                    |            |
|             | Tekscrew  | 840  | piece |                    |            |
|             | Blind Rivets  | 340  | piece |                    |            |
|             | Silicon Sealant                                     | 17   | tube  |                    |            |
|             |   |      |       | Materials Cost III | ₱          |
|             |   |      |       | Labor Cost III     |            |
|             |   |      |       | Direct Cost III    | ₽          |
| IV          | ARCHITECTURAL WORKS                                 |      |       |                    |            |
|             | Floor Finishes                                      |      |       |                    |            |
|             | 600mm x 600mm Non-Skid Homogeneous Tiles            | 31   | sq.m. | ₽                  | ₽          |
|             | 300mm x 300mm Non-Skid Homogeneous Tiles            | 5    | sq.m. |                    |            |
|             | Floor Topping Preparation for Tile Works            | 36   | sq.m. |                    |            |
|             | Wall Finishes and Partitions                        |      |       |                    |            |
|             | 300mm x 300mm Homogeneous Tiles                     | 12   | sq.m. |                    |            |
|             | Ceiling Finishes                                    |      |       |                    |            |
|             | 6mm Fiber Cement Board including Metal Framing      | 68   | sq.m. |                    |            |
|             | Fabricated Materials                                |      | -     |                    |            |
|             | Countertop with Cabinet                             | 2    | l.m.  |                    |            |
|             |   |      |       | Materials Cost     | ₱          |
|             |   |      |       | Labor Cost         |            |
|             |   |      |       | Subtotal           | ₱          |
|             | Installation of Doors                               |      |       |                    |            |
|             | D1 - (0.7m x 2.1m) Wooden Panel Door                | 1    | set   | ₱                  | ₽          |
|             | D2 - (0.6m x 2.1m) PVC Door with Louver             | 1    | set   |                    |            |
|             | Wooden Door Jamb                                    |      |       |                    |            |
|             | D1 - (0.7m x 2.1m) Wooden Panel Door                | 1    | set   |                    |            |
|             | Hardware and Accessories                            |      |       |                    |            |
|             | Door Hinge, Heavy Duty, Stainless                   | 6    | set   |                    |            |
|             | Door Knob, Lever Type, Stainless                    | 2    | set   |                    |            |
|             | Installation of Windows                             |      |       |                    |            |
|             | W1- (1.8m x 1.2m) Sliding Window on Aluminum        | 4    | set   |                    |            |
|             | Powder Coated Framing with Complete Accessories     |      |       |                    |            |
|             | W2- (2.6m x 1.2m) Sliding Window on Aluminum        | 1    | set   |                    |            |
|             | Powder Coated Framing with Complete Accessories     |      |       |                    |            |
|             | W3- (0.6m x 0.4m) Awning Window on Aluminum         | 1    | set   |                    |            |
|             | Powder Coated Framing with Complete Accessories     | '    |       |                    |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS                          | QTY. | UNIT  | UNIT COST      | TOTAL COST |
|-------------|---|------|-------|----------------|------------|
|             |   |      |       | Materials Cost | ₱          |
|             |   |      |       | Labor Cost     |            |
|             |   |      |       | Subtotal       | ₱          |
|             | Painting Works                                |      |       |                |            |
|             | Elastomeric Paint Finish (Exterior Wall)      | 91   | sq.m. | ₱              | ₱          |
|             | Epoxy Enamel Paint Finish (Steel Surface)     | 32   | sq.m. |                |            |
|             | Quick Dry Enamel Finish (Cabinet and Shelves) | 13   | sq.m. |                |            |
|             | Flat Latex Paint Finish                       |      |       |                |            |
|             | Ceiling                                       | 68   | sq.m. |                |            |
|             | Interior Wall                                 | 90   | sq.m. |                |            |
|             |   |      |       | Materials Cost | ₱          |
|             |   |      |       | Labor Cost     |            |
|             |   |      |       | Subtotal       | ₱          |
|             |   |      |       |                |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS                                   | QTY. | UNIT  | UNIT COST         | TOTAL COST |
|-------------|--|------|-------|-------------------|------------|
|             | Cleaning and Retouching of Painting with Simple Design | 33   | sq.m. | ₱                 | ₱          |
|             |  |      |       | Subtotal          | ₽          |
|             | Letterings   |      |       |                   |            |
|             | 200mm Stainless Steel Lettering with Neon Backlights   | 26   | set   | ₽                 | ₱          |
|             | "POOK DAANG TUBO DAY CARE CENTER"                      |      |       |                   |            |
|             |  |      |       | Materials Cost    | ₱          |
|             |  |      |       | Labor Cost        |            |
|             |  |      |       | Subtotal          | ₽          |
|             |  |      |       |                   |            |
|             |  |      |       | Materials Cost IV | ₱          |
|             |  |      |       | Labor Cost IV     |            |
|             |  |      |       | Direct Cost IV    | ₱          |
| ٧           | PLUMBING WORKS   |      |       |                   |            |
|             | Sewer Line System / Storm Drainage System              |      |       |                   |            |
|             | 50mmØ PVC Pipe with Hub                                | 8    | piece | ₽                 | ₱          |
|             | 100mmØ PVC Pipe with Hub                               | 4    | piece |                   |            |
|             | 50mmØ x 100mmØ Wye                                     | 5    | piece |                   |            |
|             | 100mmØ x 100mmØ Wye                                    | 2    | piece |                   |            |
|             | 50mmØ x 50mmØ Tee                                      | 6    | piece |                   |            |
|             | 100mmØ x 50mmØ Tee                                     | 5    | piece |                   |            |
|             | 50mmØ 1/4 Bend   | 5    | piece |                   |            |
|             | 50mmØ 1/8 Bend   | 5    | piece |                   |            |
|             | 100mmØ 1/4 Bend  | 2    | piece |                   |            |
|             | 100mmØ 1/8 Bend  | 2    | piece |                   |            |
|             | 100mmØ Cleanout  | 2    | piece |                   |            |
|             | 50mmØ P-Trap   | 5    | piece |                   |            |
|             | Waterline System                                       |      |       |                   |            |
|             | 20mmØ PPR Pipe   | 6    | piece |                   |            |
|             | 25mmØ PPR Pipe   | 2    | piece |                   |            |
|             | 20mmØ x 20mmØ Tee Equal                                | 4    | piece |                   |            |
|             | 20mmØ 90° Elbow  | 10   | piece |                   |            |
|             | 20mmØ x 12mm Ø Female Threaded Tee                     | 5    | piece |                   |            |
|             | 20mmØ End Cap  | 5    | piece |                   |            |
|             | 20mmØ Union Patent                                     | 1    | piece |                   |            |
|             | 25mmØ Union Patent                                     | 1    | piece |                   |            |
|             | 20mmØ Male Adaptor                                     | 2    | piece |                   |            |
|             | 25mmØ Male Adaptor                                     | 6    | piece |                   |            |
|             | Valve and Appurtenances                                |      |       |                   |            |
|             | 20mmØ Gate Valve                                       | 1    | piece |                   |            |
|             | 25mmØ Gate Valve                                       | 1    | piece |                   |            |
|             | 25mmØ Check Valve                                      | 1    | piece |                   |            |
|             | 25mmØ Water Meter                                      | 1    | piece |                   |            |
|             | Fixtures   |      |       |                   |            |
|             | Bidet, Heavy-Duty, Stainless Steel (Water Efficient)   | 1    | set   |                   |            |
|             | Floor Drain, 100mm x 100mm Stainless Steel             | 1    | piece |                   |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS                              | QTY. | UNIT  | UNIT COST | TOTAL COST |
|-------------|---|------|-------|-----------|------------|
|             | Grease Trap, 5GPM, Stainless                      | 1    | set   |           |            |
|             | Hose Bibb, Lever Type, Stainless Heavy Duty       | 6    | set   |           |            |
|             | (Water Efficient)                                 |      |       |           |            |
|             | Kitchen Sink Faucet Lever Type, Heavy Duty        | 1    | piece |           |            |
|             | (Water Efficient)                                 |      |       |           |            |
|             | Kitchen Sink, Stainless Single                    | 1    | set   |           |            |
|             | Lavatory Faucet, Lever Type, Stainless Heavy Duty | 1    | set   |           |            |
|             | Lavatory, Wall Hung (Kiddy)                       | 1    | set   |           |            |
|             | Urinal, Kiddy, Flush Valve Type (Water Efficient) | 1    | set   |           |            |
|             | Water Closet, Kiddy, Tank Type (Water Efficient)  | 1    | set   |           |            |
|             | Hardware and Accessories                          |      |       |           |            |
|             | Angle Valve, Single-Way Stainless Steel           | 2    | piece |           |            |
|             | Angle Valve, Two-Way Stainless Steel              | 1    | piece |           |            |
|             | Flexible Hose                                     | 3    | piece |           |            |
|             | Metal Door Hook                                   | 1    | piece |           |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS   | QTY. | UNIT  | UNIT COST        | TOTAL COST |
|-------------|--|------|-------|------------------|------------|
|             | Miscellaneous  |      |       |                  |            |
|             | 400cc Solvent Cement   | 3    | can   |                  |            |
|             | Hacksaw Blade  | 2    | piece |                  |            |
|             | Teflon Tape  | 10   | roll  |                  |            |
|             | Waste Cloth  | 2    | kg    |                  |            |
|             |  |      |       | Materials Cost V | ₱          |
|             |  |      |       | Labor Cost V     |            |
|             |  |      |       | Direct Cost V    | ₽          |
| VI          | ELECTRICAL WORKS   |      |       |                  |            |
|             | Roughing-ins   |      |       |                  |            |
|             | 20mmØ PVC Pipe   | 38   | piece | ₽                | ₱          |
|             | 25mmØ IMC Pipe   | 2    | piece |                  |            |
|             | Fittings and Accessories   |      |       |                  |            |
|             | 20mmØ PVC Adaptor  | 40   | piece |                  |            |
|             | 20mmØ PVC Locknut and Bushing  | 40   | pair  |                  |            |
|             | 25mmØ IMC Coupling   | 4    | piece |                  |            |
|             | 25mmØ IMC Elbow  | 2    | piece |                  |            |
|             | 25mmØ Weatherproof Entrance Cap  | 1    | piece |                  |            |
|             | 50mm x 100mm PVC Utility Box   | 10   | piece |                  |            |
|             | 100mm x 100mm PVC Junction Box with Cover  | 10   | piece |                  |            |
|             | Wires and Cables   |      |       |                  |            |
|             | 3.5mm² THHN Wire   | 2    | roll  |                  |            |
|             | 14.0mm <sup>2</sup> THHN Wire  | 46   | l.m.  |                  |            |
|             | 2.0mm <sup>2</sup> TW Wire   | 80   | l.m.  |                  |            |
|             | 8.0mm² TW Wire   | 23   | l.m.  |                  |            |
|             | Lighting Fixtures (Energy Efficient ) 300mm x 1200mm, 2 x 18w LED, Troffer Type, with complete accessories, recessed type Accessories, Recessed Type | 4    | piece |                  |            |
|             | 1x18W LED Tube Light, Box Type   | 2    | piece |                  |            |
|             | 150mmØ Round Recessed Pinlight with 10W LED Bulb   | 1    | set   |                  |            |
|             | Wiring Devices and Other Fixtures  |      |       |                  |            |
|             | Orbit Fan, Heavy Duty with Selector Switch   | 2    | set   |                  |            |
|             | Convenience Outlet with Ground, Two-Gang   | 5    | piece |                  |            |
|             | Switch with Plate & Cover, One Gang  | 2    | piece |                  |            |
|             | Switch with Plate & Cover, Three Gang  | 1    | piece |                  |            |
|             | Panelboard   |      |       |                  |            |
|             | MDP  |      |       |                  |            |
|             | Main: 60AT, 2P, 230V, MCCB   | 1    | assy  |                  |            |
|             | Branches: 2 - 20AT, 2P, 230V   |      |       |                  |            |
|             | 2 - 30AT, 2P, 230V, Spare  |      |       |                  |            |
|             | Enclosure: NEMA 1 with Ground Terminals  |      |       |                  |            |
|             | Pipe Hangers & Supports  |      |       |                  |            |
|             | Horizontal Layout of Pipe  | 10   | l.m.  |                  |            |
|             | Vertical Layout of Pipe  | 5    | l.m.  |                  |            |
|             | Miscellaneous & Consumables  |      |       |                  |            |

| ITEM<br>NO. | GENERAL REQUIREMENTS                  | QTY. | UNIT  | UNIT COST      | TOTAL COST   |
|-------------|---------------------------------------|------|-------|----------------|--------------|
|             | 400cc Solvent Cement                  | 1    | can   |                |              |
|             | All around Sealant                    | 1    | can   |                |              |
|             | Electrical Tape                       | 10   | roll  |                |              |
|             | G.I Tie Wire (for Wire/Cable Pulling) | 1    | kg    |                |              |
|             | Hacksaw Blade                         | 2    | piece |                |              |
|             | Masking Tape                          | 5    | roll  |                |              |
|             | Pulling Lubricant                     | 1    | gal   |                |              |
|             | Rubber Tape                           | 5    | roll  |                |              |
|             |                                       |      |       | Labor Cost VI  | 29,443.05    |
|             |                                       |      |       | Direct Cost VI | ₱ 113,566.05 |
|             |                                       |      |       |                |              |

| ITEM |                      |      |      |           |            |
|------|----------------------|------|------|-----------|------------|
|      | GENERAL REQUIREMENTS | QTY. | UNIT | UNIT COST | TOTAL COST |
| NO.  |                      |      |      |           | i i        |

| ITEM<br>NO    | WORK DESCRIPTION AND SCOP  | TOTAL COST   |   |
|---------------|--|--|---|
| <br> -<br>    | GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS                               | ₽  |   |
| IV<br>V<br>VI | ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS                         |  |   |
| NOT           | E: Strictly enforce health protocols relative to the latest applicable DPWH memorandum | TOTAL DIRECT COST  Overhead, Contingencies and Miscellaneous and Consumables Expenses (OCM)  Profit  VAT |   |
|               |  | TOTAL ESTIMATED COST   | ₽ |

#### **BILL OF QUANTITIES**

#### (Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF AMORSOLO I DAY CARE CENTER

LOCATION : BARANGAY U. P. CAMPUS, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

#### SCOPE OF WORK:

- General Requirements include temporary enclosure, billboard, scaffolding, construction safety and health and clearing, hauling and disposal of construction materials and debris.
- II Site Works include removal works and cleaning and clearing for painting preparation.
- III Civil / Structural Works include metal works.
- IV Architectural Works include floor finishes, wall finishes, painting works, installation of doors, fabricated materials and letterings.
- V Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- VI Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                   | QTY | UNIT  | UNIT COST          | TOTAL COST |
|------------|---|-----|-------|--------------------|------------|
| I          | GENERAL REQUIREMENTS  |     |       |                    |            |
|            | Billboard   | 1   | unit  | ₱                  | ₽          |
|            | Clearing, Hauling and Disposal of Construction Materials and Debris | 2   | t.l.  |                    |            |
|            | Construction Safety and Health                                      | 1   | unit  |                    |            |
|            | Scaffolding (Rental)  | 39  | sq.m. |                    |            |
|            | Temporary Enclosure Around the Construction Area (h= 2.5m)          | 22  | l.m.  |                    |            |
|            |   |     |       | DIRECT COST I      | ₽          |
| II         | SITE WORKS  |     |       |                    |            |
|            | Removal Works   |     |       |                    |            |
|            | Removal of Dilapidated Door   | 5   | set   | ₱                  | ₱          |
|            | Removal of Tiles  | 21  | sq.m. |                    |            |
|            | Removal of Water Closet   | 2   | set   |                    |            |
|            | Removal of Lavatory   | 1   | set   |                    |            |
|            | Cleaning and Clearing for Painting Preparation                      | 208 | sq.m. |                    |            |
|            |   |     |       | DIRECT COST II     | ₱          |
| III        | CIVIL / STRUCTURAL WORKS  |     |       |                    |            |
|            | Metal Works   |     |       |                    |            |
|            | Window Grilles  |     |       |                    |            |
|            | 25mm X 25mm X 2mm Tubular Bar                                       | 208 | kg    | ₱                  | ₱          |
|            | Miscellaneous & Consumables   |     |       |                    |            |
|            | Acetylene Tank (Refill)   | 1   | tank  |                    |            |
|            | Cut Off Blade   | 3   | piece |                    |            |
|            | Grinding Disc for Metal   | 3   | piece |                    |            |
|            | Oxygen Tank (Refill)  | 1   | tank  |                    |            |
|            | Welding Rod   | 1   | box   |                    |            |
|            |   |     |       | MATERIALS COST III | ₱          |
|            |   |     |       | LABOR COST III     |            |
|            |   |     |       | DIRECT COST III    | ₱          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                             | QTY | UNIT | UNIT COST      | TOTAL COST |
|------------|---|-----|------|----------------|------------|
| IV         | ARCHITECTURAL WORKS   |     |      |                |            |
|            | Floor Finishes  |     |      |                |            |
|            | Floor Topping Preparation of Tile Works                       | 4   | sq.m | ₽              | ₽          |
|            | 300mm x 300mm Non-Skid Homogeneous Tiles                      | 4   | sq.m |                |            |
|            | Wall Finishes   |     |      |                |            |
|            | 300mm x 300mm Homogeneous Tiles                               | 19  | sq.m |                |            |
|            |   |     |      | Materials Cost | ₽          |
|            |   |     |      | Labor Cost     |            |
|            |   |     |      | Subtotal       | ₱          |
|            | Installation of Doors   |     |      |                |            |
|            | D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Painted Fin | 3   | set  | ₱              | ₱          |
|            | D2 - (0.70m x 2.10m) Swing Type PVC Door                      | 2   | set  |                |            |
|            | Painted Finish (Kitten White) w/ 400mm X 300mm Louver         |     |      |                |            |

| ı    | Door jamb D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Door Hardware and Accessories Door Hinges, Heavy Duty, Stainless Door Knob, Lever Type, Stainless  Painting Works Elastomeric Paint Finish (Exterior Wall) Flat Latex Paint Finish Interior Wall Epoxy Enamel Paint Finish (Metal Surfaces) Fabricated Materials Standing Cabinet Letterings 200mm Stainless Steel Lettering "AMORSOLO I DAY CARE CENTER" | 3<br>15<br>5<br>103<br>116<br>1 | set set set sq.m sq.m sq.m | Materials Cost Labor Cost Subtotal | P<br>P |
|------|---|---------------------------------|----------------------------|------------------------------------|--------|
| ı    | Hardware and Accessories  Door Hinges, Heavy Duty, Stainless  Door Knob, Lever Type, Stainless  Painting Works  Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 15<br>5<br>103<br>116<br>1      | set<br>set<br>sq.m<br>sq.m | Labor Cost<br>Subtotal             | ₽      |
| ı    | Door Hinges, Heavy Duty, Stainless Door Knob, Lever Type, Stainless  Painting Works Elastomeric Paint Finish (Exterior Wall) Flat Latex Paint Finish Interior Wall Epoxy Enamel Paint Finish (Metal Surfaces) Fabricated Materials Standing Cabinet Letterings 200mm Stainless Steel Lettering  | 103                             | sq.m<br>sq.m<br>sq.m       | Labor Cost<br>Subtotal             | ₽      |
| ı    | Painting Works Elastomeric Paint Finish (Exterior Wall) Flat Latex Paint Finish Interior Wall Epoxy Enamel Paint Finish (Metal Surfaces) Fabricated Materials Standing Cabinet Letterings 200mm Stainless Steel Lettering   | 103                             | sq.m<br>sq.m<br>sq.m       | Labor Cost<br>Subtotal             | ₽      |
| ı    | Painting Works  Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 103                             | sq.m<br>sq.m<br>sq.m       | Labor Cost<br>Subtotal             | ₽      |
| ı    | Painting Works  Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 116                             | sq.m<br>sq.m               | Labor Cost<br>Subtotal             | ₽      |
| ı    | Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 116                             | sq.m<br>sq.m               | Subtotal                           |        |
| ı    | Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 116                             | sq.m<br>sq.m               |                                    |        |
| ı    | Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 116                             | sq.m<br>sq.m               | P                                  | ₽      |
| ı    | Elastomeric Paint Finish (Exterior Wall)  Flat Latex Paint Finish  Interior Wall  Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials  Standing Cabinet  Letterings  200mm Stainless Steel Lettering   | 116                             | sq.m<br>sq.m               | P                                  | ₽      |
|      | Flat Latex Paint Finish Interior Wall Epoxy Enamel Paint Finish (Metal Surfaces) Fabricated Materials Standing Cabinet Letterings 200mm Stainless Steel Lettering   | 1                               | sq.m<br>sq.m               |                                    |        |
|      | Epoxy Enamel Paint Finish (Metal Surfaces)  Fabricated Materials Standing Cabinet  Letterings 200mm Stainless Steel Lettering   | 1                               | sq.m                       |                                    |        |
|      | Fabricated Materials Standing Cabinet Letterings 200mm Stainless Steel Lettering  |                                 | sq.m                       |                                    |        |
|      | Fabricated Materials Standing Cabinet Letterings 200mm Stainless Steel Lettering  | 2                               |                            |                                    |        |
|      | Standing Cabinet Letterings 200mm Stainless Steel Lettering   | 2                               | sa.m                       |                                    | I      |
| I    | Letterings 200mm Stainless Steel Lettering  |                                 |                            |                                    |        |
|      | 200mm Stainless Steel Lettering   |                                 | 1 ***                      |                                    |        |
|      |   | 22                              | set                        |                                    |        |
|      | "AMORSOLOTDAY CARE CENTER"  |                                 | 001                        |                                    |        |
|      | AMONOSES I BAN GARLE GENTER   |                                 |                            | Material Cost                      | ₽      |
|      |   |                                 |                            | Labor Cost                         | 1      |
|      |   |                                 |                            | Subtotal                           | ₽      |
|      |   |                                 |                            | Odbiolai                           | I      |
|      |   |                                 |                            | MATERIALS COST IV                  | Ð      |
|      |   |                                 |                            | LABOR COST IV                      | Г      |
|      |   |                                 |                            | DIRECT COST IV                     | ₽      |
| v SA | ANITARY / PLUMBING WORKS  |                                 |                            | DIRECT COOT IV                     | •      |
|      | Sewer Line / Storm Drainage System  |                                 |                            |                                    |        |
|      | Roughing-Ins  |                                 |                            |                                    |        |
|      | 50 mm Ø, PVC Pipe with Hub  | 3                               | piece                      | ₽                                  | ₽      |
|      | 75 mm Ø, PVC Pipe with Hub  | 4                               | piece                      | 1                                  | 1      |
|      | 100mm Ø, PVC Pipe with Hub  | 2                               | piece                      |                                    |        |
|      | 50mm Ø, P-Trap  | 4                               | piece                      |                                    |        |
|      | 75mm Ø, P-Trap  | 2                               | piece                      |                                    |        |
|      | 50mm Ø, 1/8 Bend  | 7                               | piece                      |                                    |        |
|      | 75mm Ø, 1/8 Bend  | 2                               | piece                      |                                    |        |
|      | 75mm Ø, 1/4 Bend  | 2                               | piece                      |                                    |        |
|      | 75mm Ø x 75mm Ø, Tee  |                                 | piece                      |                                    |        |
|      | 100mm Ø x 75mm Ø, Tee   | 3                               | piece                      |                                    |        |
|      | 100mm Ø x 50mm Ø, Wye   | 2                               | piece                      |                                    |        |
|      | 100mm Ø x 75mm Ø, Wye   | 7                               | piece                      |                                    |        |
|      | 50mm Ø, Cleanout with Adapter   | 2                               | piece                      |                                    |        |
|      | 100mm Ø, Cleanout with Adapter  | 1                               | piece                      |                                    |        |
| 1    | Waterline System  | 1                               | piece                      |                                    |        |
| - '  | Roughing-Ins  |                                 |                            |                                    |        |
|      | 20mm Ø, PPR Pipe  | +                               | nieco                      |                                    |        |
|      | 20mm Ø, Elbow   | 5                               | piece                      |                                    |        |
|      |   | 15                              | piece                      |                                    |        |
|      | 20mm Ø, Coupling 20mm Ø, Tee Equal  | 9                               | piece<br>piece             |                                    |        |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                    | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|--|-----|-------|------------------|------------|
|            | 20mm Ø, Female Threaded, Tee   | 6   | piece |                  |            |
|            | Valves and Appurtenances   |     |       |                  |            |
|            | 20mm Ø Gate Valve, PPR   | 1   | piece |                  |            |
|            | Fixtures   |     |       |                  |            |
|            | Bidet with Complete Accessories, Stainless (Water Efficient)         | 2   | set   |                  |            |
|            | Floor Drain, 100mm x 100mm, Stainless                                | 4   | piece |                  |            |
|            | Hose Bibb, Lever Type, Stainless, Heavey Duty (Water Efficient)      | 5   | set   |                  |            |
|            | Lavatory, Faucet, Lever Type, Stainless Heavy Duty (Water Efficient) | 2   | set   |                  |            |
|            | Lavatory, Kiddy, Wall Hung   | 2   | set   |                  |            |
|            | Urinal, Kiddy, Flush Valve-Type (Water Efficient)                    | 1   | set   |                  |            |
|            | Water Closet, Kiddy, Tank-Type (Water Efficient)                     | 2   | set   |                  |            |
|            | Accessories  |     |       |                  |            |
|            | Angle Valve, Single Way, Stainless Steel                             | 3   | piece |                  |            |
|            | Angle Valve, Two Way, Stainless Steel                                | 2   | piece |                  |            |
|            | Flexible Hose, Stainless Steel                                       | 5   | piece |                  |            |
|            | Miscellaneous & Consumables  |     |       |                  |            |
|            | 400cc Solvent Cement   | 2   | can   |                  |            |
|            | All Around Sealant   | 2   | can   |                  |            |
|            | Hacksaw Blade  | 2   | piece |                  |            |
|            | Teflon Tape  | 2   | roll  |                  |            |
|            | Waste Cloth  | 2   | kg    |                  |            |
|            |  |     |       | MATERIALS COST V | ₽          |
|            |  |     |       | LABOR COST V     |            |
|            |  |     |       | DIRECT COST V    | ₽          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS            | QTY | UNIT  | UNIT COST         | TOTAL COST |
|------------|--|-----|-------|-------------------|------------|
| VI         | ELECTRICAL WORKS                             |     |       |                   |            |
|            | Roughing-ins                                 |     |       |                   |            |
|            | 20mmØ PVC Pipe                               | 10  | piece | ₱                 | ₱          |
|            | 20mmØ PVC Flexible Hose                      | 20  | l.m.  |                   |            |
|            | 16mm x 16mm x 2.44m Rectangular PVC Moulding | 10  | piece |                   |            |
|            | Fittings and Accessories                     |     |       |                   |            |
|            | 20mmØ PVC Adaptor                            | 10  | piece |                   |            |
|            | 20mmØ PVC Locknut & Bushing                  | 10  | piece |                   |            |
|            | 100mm x 100mm PVC Junction Box with Cover    | 5   | piece |                   |            |
|            | Wires and Cables                             |     |       |                   |            |
|            | 3.5mm² THHN Wire                             | 60  | l.m.  |                   |            |
|            | Wiring Devices and Other Fixtures            |     |       |                   |            |
|            | Orbit Fan with Selector Switch               | 3   | set   |                   |            |
|            | Miscellaneous & Consumables                  |     |       |                   |            |
|            | 400cc Solvent Cement                         | 1   | can   |                   |            |
|            | Electrical Tape                              | 2   | roll  |                   |            |
|            | Hacksaw Blade                                | 2   | piece |                   |            |
|            | Torch with Butane                            | 1   | set   |                   |            |
|            |  |     |       | MATERIALS COST VI | ₱          |
|            |  |     |       | LABOR COST VI     |            |
|            |  |     |       | DIRECT COST VI    | ₽          |
|            |  |     |       |                   |            |

#### **SUMMARY**

| ITEM<br>NO. | WORK DESC   | TOTAL COST |  |   |
|-------------|---|------------|--|---|
|             | GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS |            |  | P |
|             | :<br>tly enforce Health Protocols relative to the<br>st applicable DPWH Memorandum                                      | Overhead   | TOTAL DIRECT COST d, Contingencies and Miscellaneous Expenses (OCM) Profit VAT  TOTAL ESTIMATED COST |   |

#### **BILL OF QUANTITIES**

#### (Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

**AMORSOLO II DAY CARE CENTER** 

LOCATION: BARANGAY U. P. CAMPUS, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00170

#### SCOPE OF WORK:

General Requirements include temporary enclosure, billboard, scaffolding, construction safety & health and clearing, hauling and disposal of construction materials and debris.

- II Construction of Hand Washing Facility.
- a Installation of hand washing facility.
- b Site Works include chipping of concrete for sanitary / plumbing works.
- c Civil / Structural Works include restoration of concrete for sanitary / plumbing works.
- d Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- III Rehabilitation of Day Care Center
- a Site Works include removal works and cleaning and clearing for painting preparation.
- b Civil / Structural Works include metal works.
- Architectural Works include floor finishes, wall finishes, painting works, installation of doors and windows, fabricated materials and letterings.
- d Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- e Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                   | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|---|-----|-------|------------------|------------|
| I          | GENERAL REQUIREMENTS  |     |       |                  |            |
|            | Billboard   | 1   | unit  | ₽                | ₽          |
|            | Clearing, Hauling and Disposal of Construction Materials and Debris | 4   | t.l.  |                  |            |
|            | Construction Safety and Health                                      | 1   | unit  |                  |            |
|            | Scaffolding (Rental)  | 39  | sq.m. |                  |            |
|            | Temporary Enclosure Around the Construction Area (h= 2.4m)          | 22  | l.m.  |                  |            |
|            |   |     |       | DIRECT COST I    | ₽          |
| II         | CONSTRUCTION OF HAND WASHING FACILITY                               |     |       |                  |            |
| Α          | HAND WASHING FACILITY   |     |       |                  |            |
|            | Kiddie Countertop   | 3.5 | l.m.  | ₱                | ₱          |
|            |   |     |       | MATERIALS COST-A | ₽          |
|            |   |     |       | LABOR COST-A     |            |
|            |   |     |       | DIRECT COST-A    | ₽          |
| В          | SITE WORKS  |     |       |                  |            |
|            | Removal Works   |     |       |                  |            |
|            | Chipping of Concrete (Sanitary / Plumbing Works)                    | 3   | sq.m. | ₱                | ₽          |
|            |   |     |       | DIRECT COST-B    | ₽          |
| С          | CIVIL / STRUCTURAL WORKS  |     |       |                  |            |
|            | Masonry Works   |     |       |                  |            |
|            | Restoration of Concrete (Sanitary / Plumbing Works)                 | 3   | sq.m. | ₽                |            |
|            |   |     |       | MATERIALS COST-C | ₽          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS | QTY | UNIT | UNIT COST     | TOTAL COST |
|------------|-----------------------------------|-----|------|---------------|------------|
|            |                                   |     |      | LABOR COST-C  |            |
|            |                                   |     |      | DIRECT COST-C | ₱          |

| D   SANITARY / PLUMBING WORKS   Sewer Line / Storm Drainage System   Roughing-Ins   P   P   P   P   Somm Ø, PVC with Hub   2   piece   P   P   P   Somm Ø, PVC with Hub   2   piece   P   P   P   Somm Ø, PVC with Hub   2   piece   Somm Ø, 1% Bend   3   piece   Somm Ø, 1% Bend   1   piece   Somm Ø, 1% Bend   1   piece   Somm Ø, 1% Bend   1   piece   Somm Ø, Tee   1   piece   Somm Ø, Tee   1   piece   Somm Ø, Wye   1   piece   Somm Ø, Wye   1   piece   Somm Ø, Wye   1   piece   Somm Ø, Piep PPR   1   piece   Somm Ø, Piece   Piece   Piece   Somm   | AL COST |
|---|---------|
| Roughing-ins  |         |
| 50 mm Ø, PVC with Hub   |         |
| 50mm Ø, P-Trap  |         |
| 75 mm Ø, PVC with Hub 50mm Ø, 1/8 Bend 3 piece 100mm Ø, 1/8 Bend 75mm Ø, 75mm Ø, Tee 75mm Ø, 174 Bend 11 piece 75mm Ø, 174 Bend 11 piece 1100mm Ø x 50mm Ø, Wye 11 piece 1100mm Ø x 50mm Ø, Wye 11 piece 120mm Ø, Pipe PPR 120mm Ø, Elbow 22 piece 20mm Ø, Coupling 20mm Ø, Tee Equal 20mm Ø, Tee Equal 33 piece 15xtures 15loro Drain, 100mm x 100mm, Stainless 15loro Drain, 100mm x 100mm, Stainless 1400cc Solvent Cement 15 can 16 can 17 can 18 can 19 cee 17 cflon Tape 19 cee 10 can 10 can 11 piece 11 can 11 can 12 can 13 piece 14 can 15 can 16 can 17 can 18 can 19 cee 19 cee 10 can 19 cee 10 can 10 can 11 piece 11 roll 11 kg 12 can 13 piece 14 can 15 can 16 can 17 can 18 can 19 can 19 can 19 can 19 can 19 can 19 can 10 can 10 can 11 can 11 can 12 can 13 can 14 can 15 can 16 can 17 can 18 can 19 can 19 can 19 can 10 can 10 can 11 can 11 can 12 can 13 can 14 can 15 can 16 can 17 can 18 can 19 can 19 can 19 can 10 can 10 can 11 can 11 can 11 can 12 can 13 can 14 can 15 can 16 can 17 can 18 can 19 can 19 can 19 can 10 can 10 can 11 can 11 can 11 can 12 can 13 can 14 can 15 can 16 can 17 can 18 can 19 can 19 can 10 can 10 can 11 can 11 can 11 can 12 can 13 can 14 can 15 can 16 can 17 can 18 can 19 can 18 can 19 can 19 can 10 can 10 can 10 can 11 can |         |
| Somm Ø, 1/8 Bend  |         |
| 100mm Ø, 1/8 Bend   |         |
| 75mm Ø x 75mm Ø, Tee  |         |
| 75mm Ø, 1/4 Bend  |         |
| 1   |         |
| Waterline System   Roughing-ins   Roughing-ins   Pipe PPR   1 piece   Pipe PPR   1 piece   Pipe PPR   20mm Ø, Pipe PPR   1 piece   Pipe PPR   20mm Ø, Elbow   2 piece   Pipe PPR   20mm Ø, Coupling   1 piece   Pipe PPR    |         |
| Waterline System   Roughing-ins   Roughing-ins   Pipe PPR   1 piece   Pipe PPR   1 piece   Pipe PPR   20mm Ø, Pipe PPR   1 piece   Pipe PPR   20mm Ø, Elbow   2 piece   Pipe PPR   20mm Ø, Coupling   1 piece   Pipe PPR    |         |
| Roughing-Ins   20mm Ø, Pipe PPR   |         |
| 20mm Ø, Pipe PPR  |         |
| 20mm Ø, Elbow   2 piece   20mm Ø, Coupling   1 piece   20mm Ø, Coupling   1 piece   20mm Ø, Tee Equal   3 piece   3 piece   3 piece   4 piece     |         |
| 20mm Ø, Coupling  |         |
| 20mm Ø, Tee Equal   3 piece   |         |
| Fixtures  |         |
| Floor Drain, 100mm x 100mm, Stainless   2   piece   |         |
| Hose Bibb, Stainless (Water Efficient)  |         |
| Miscellaneous & Consumables         1         can   |         |
| All-Around Sealant  |         |
| All-Around Sealant  |         |
| Hacksaw Blade   |         |
| Teflon Tape   |         |
| Waste Cloth   |         |
| MATERIALS COST-D   P   LABOR COST-D   DIRECT COST-D   P   |         |
| LABOR COST-D   DIRECT COST-D   P  |         |
| DIRECT COST-D   P   |         |
| MATERIALS COST  |         |
| LABOR COST   I   DIRECT COST   I   P  |         |
| LABOR COST   I   DIRECT COST   I   P  |         |
| DIRECT COST   |         |
| III REHABILITATION OF DAY CARE CENTER  A SITE WORKS  Removal Works  Removal of Dilapidated Door  Removal of Tiles  69 sq.m.  Removal of Water Closet  Removal of Lavatory  2 set  |         |
| A       SITE WORKS         Removal Works       SITE WORKS         Removal of Dilapidated Door       3 set         Removal of Tiles       69 sq.m.         Removal of Water Closet       2 set         Removal of Lavatory       2 set   |         |
| Removal Works  Removal of Dilapidated Door  Removal of Tiles  Removal of Water Closet  Removal of Lavatory  Removal of Lavatory  Set  Set  Removal of Lavatory  |         |
| Removal of Dilapidated Door 3 set ₱   Removal of Tiles 69 sq.m.   Removal of Water Closet 2 set   Removal of Lavatory 2 set   |         |
| Removal of Tiles     69     sq.m.       Removal of Water Closet     2     set       Removal of Lavatory     2     set   |         |
| Removal of Water Closet 2 set  Removal of Lavatory 2 set  |         |
| Removal of Lavatory 2 set   |         |
|   |         |
| Cidating and Cidating for Landing Frequencial [ 100   30,111, 1   |         |
| DIRECT COST-A ₱   |         |
| B CIVIL / STRUCTURAL WORKS  |         |
| Metal Works   |         |
| Window Grilles  |         |
| 25mm X 25mm X 2mm Tubular Bar 239 kg P P  |         |
| Kiddy Gate  |         |
| 25mm X 25mm X 2mm Tubular Bar 26 kg   |         |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS  | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|--|-----|-------|------------------|------------|
|            | 38 mm Ø Barrel Bolt  | 1   | set   |                  |            |
|            | Cylindrical Hinge, Heavy Duty, Stainless                                     | 2   | piece |                  |            |
|            | Miscellaneous & Consumables  |     |       |                  |            |
|            | Acetylene Tank (Refill)  | 1   | tank  |                  |            |
|            | Cut Off Blade  | 3   | piece |                  |            |
|            | Grinding Disc for Metal  | 3   | piece |                  |            |
|            | Oxygen Tank (Refill)   | 1   | tank  |                  |            |
|            | Welding Rod  | 1   | box   |                  |            |
|            |  |     |       | MATERIALS COST-B | ₱          |
|            |  |     |       | LABOR COST-B     |            |
|            |  |     |       | DIRECT COST-B    | ₱          |
| С          | ARCHITECTURAL WORKS  |     |       |                  |            |
|            | Floor Finishes   |     |       |                  |            |
|            | Floor Topping Preparation of Tile Works                                      | 4   | sq.m  | ₽                | ₽          |
|            | 300mm x 300mm Non-Skid Homogeneous Tiles                                     | 4   | sq.m  |                  |            |
|            | 400mm x 400mm Non-Skid Homogeneous Tiles                                     | 51  | sq.m  |                  |            |
|            | Wall Finishes  |     |       |                  |            |
|            | 300mm x 300mm Homogeneous Tiles  | 19  | sq.m  |                  |            |
|            | 6mm thk Double Wall Fiber Cement Board with Complete Framing and Accessories | 5   | sq.m  |                  |            |
|            |  |     |       | Materials Cost   | ₽          |
|            |  |     |       | Labor Cost       |            |
|            |  |     |       | Subtotal         | ₱          |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                | QTY | UNIT  | UNIT COST        | TOTAL COST |
|------------|--|-----|-------|------------------|------------|
|            | Installation of Doors  |     |       |                  |            |
|            | D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Painted Finish | 1   | set   | ₽                | P          |
|            | D2 - (0.70m x 2.10m) Swing Type PVC Door                         | 2   | set   |                  |            |
|            | Painted Finish (Kitten White) w/ 400mm X 300mm Louver            |     |       |                  |            |
|            | Door jamb  |     |       |                  |            |
|            | D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Door           | 1   | set   |                  |            |
|            | Hardware and Accessories   |     |       |                  |            |
|            | Door Hinges, Heavy Duty, Stainless                               | 9   | set   |                  |            |
|            | Door Knob, Lever Type, Stainless                                 | 3   | set   |                  |            |
|            |  |     |       | Materials Cost   | ₽          |
|            |  |     |       | Labor Cost       |            |
|            |  |     |       | Subtotal         | ₽          |
|            | Painting Works   |     |       |                  |            |
|            | Elastomeric Paint Finish (Exterior Wall)                         | 103 | sq.m  | ₽                | ₱          |
|            | Flat Latex Paint Finish  |     |       |                  |            |
|            | Dry Wall   | 5   | sq.m  |                  |            |
|            | Interior Wall  | 93  | sq.m  |                  |            |
|            | Epoxy Enamel Paint Finish (Metal Surfaces)                       | 1   | sq.m  |                  |            |
|            | Fabricated Materials   |     |       |                  |            |
|            | Standing Cabinet   | 4   | sq.m  |                  |            |
|            | Hanging Cabinet  | 2   | sq.m  |                  |            |
|            | Countertop with Aluminum Cover                                   | 2   | l.m.  |                  |            |
|            | Letterings   |     |       |                  |            |
|            | 200mm Stainless Steel Lettering "AMORSOLO II DAY CARE CENTER"    | 23  | set   |                  |            |
|            |  |     |       | Material Cost    | ₽          |
|            |  |     |       | Labor Cost       |            |
|            |  |     |       | Subtotal         | ₽          |
|            |  |     |       |                  |            |
|            |  |     |       | MATERIALS COST-C | ₱          |
|            |  |     |       | LABOR COST-C     |            |
|            |  |     |       | DIRECT COST-C    | ₱          |
| D          | SANITARY / PLUMBING WORKS  |     |       |                  |            |
|            | Sewer Line / Storm Drainage System                               |     |       |                  |            |
|            | Roughing-Ins   |     |       |                  |            |
|            | 50 mm Ø, PVC Pipe with Hub                                       | 3   | piece | ₱                | ₱          |
|            | 75 mm Ø, PVC Pipe with Hub                                       | 4   | piece |                  |            |
|            | 100mm Ø, PVC Pipe with Hub                                       | 1   | piece |                  |            |
|            | 50mm Ø, P-Trap   | 3   | piece |                  |            |
|            | 75mm Ø, P-Trap   | 2   | piece |                  |            |
|            | 50mm Ø, 1/8 Bend   | 3   | piece |                  |            |
|            | 75mm Ø, 1/8 Bend   | 2   | piece |                  |            |
|            | 75mm Ø, 1/4 Bend   | 2   | piece |                  |            |
|            | 75mm Ø x 75mm Ø, Tee   | 3   | piece |                  |            |
|            | 100mm Ø x 75mm Ø, Tee  | 2   | piece |                  |            |
|            | 100mm Ø x 50mm Ø, Wye  | 6   | piece |                  |            |
|            | 100mm Ø x 75mm Ø, Wye  | 2   | piece |                  |            |
|            | 50mm Ø, Cleanout with Adapter                                    | 1   | piece |                  |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS                                     | QTY | UNIT  | UNIT COST | TOTAL COST |
|------------|---|-----|-------|-----------|------------|
|            | 100mm Ø, Cleanout with Adapter  | 1   | piece |           |            |
|            | Waterline System  |     |       |           |            |
|            | Roughing-Ins  |     |       |           |            |
|            | 20mm Ø, PPR Pipe  | 3   | piece |           |            |
|            | 20mm Ø, Elbow   | 12  | piece |           |            |
|            | 20mm Ø, Coupling  | 3   | piece |           |            |
|            | 20mm Ø, Tee Equal   | 3   | piece |           |            |
|            | 20mm Ø, Female Threaded, Elbow  | 5   | piece |           |            |
|            | Fixtures  |     |       |           |            |
|            | Bidet with Complete Accessories, Stainless (Water Efficient)          | 2   | set   |           |            |
|            | Floor Drain, 100mm x 100mm, Stainless                                 | 2   | piece |           |            |
|            | Grease Trap, 5GPM, Stainless  | 1   | set   |           |            |
|            | Kitchen Faucet Lever Type, Stainless (Water Efficient)                | 1   | set   |           |            |
|            | Kitchen Sink, Single Tub, Stainless                                   | 1   | set   |           |            |
|            | Lavatory, Faucet, Lever Type, Stainless, Heavy Duty (Water Efficient) | 2   | set   |           |            |
|            | Lavatory, Kiddy, Wall Hung  | 2   | set   |           |            |
|            | Urinal, Kiddy, Flush Valve-Type (Water Efficient)                     | 1   | set   |           |            |
|            | Water Closet, Kiddy, Tank-Type (Water Efficient)                      | 2   | set   |           |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS            | QTY | UNIT  | UNIT COST          | TOTAL COST |
|------------|--|-----|-------|--------------------|------------|
|            | Accessories                                  |     |       |                    |            |
|            | Angle Valve, Single Way, Stainless Steel     | 3   | piece |                    |            |
|            | Angle Valve, Two Way, Stainless Steel        | 2   | piece |                    |            |
|            | Flexible Hose, Stainless Steel               | 5   | piece |                    |            |
|            | Miscellaneous & Consumables                  |     |       |                    |            |
|            | 400cc Solvent Cement                         | 2   | can   |                    |            |
|            | All Around Sealant                           | 2   | can   |                    |            |
|            | Hacksaw Blade                                | 2   | piece |                    |            |
|            | Teflon Tape                                  | 2   | roll  |                    |            |
|            | Waste Cloth                                  | 2   | kg    |                    |            |
|            |  |     |       | MATERIALS COST-D   | ₽          |
|            |  |     |       | LABOR COST-D       |            |
|            |  |     |       | DIRECT COST-D      | ₽          |
| Е          | ELECTRICAL WORKS                             |     |       |                    |            |
|            | Roughing-ins                                 |     |       |                    |            |
|            | 20mmØ PVC Pipe                               | 15  | piece | ₱                  | ₽          |
|            | 20mmØ PVC Flexible Hose                      | 20  | l.m.  |                    |            |
|            | 16mm x 16mm x 2.44m Rectangular PVC Moulding | 10  | piece |                    |            |
|            | Fittings and Accessories                     |     |       |                    |            |
|            | 20mmØ PVC Adaptor                            | 12  | piece |                    |            |
|            | 20mmØ PVC Locknut & Bushing                  | 12  | piece |                    |            |
|            | 100mm x 100mm PVC Junction Box with Cover    | 6   | piece |                    |            |
|            | Wires and Cables                             |     |       |                    |            |
|            | 3.5mm² THHN Wire                             | 80  | l.m.  |                    |            |
|            | Wiring Devices and Other Fixtures            |     |       |                    |            |
|            | Orbit Fan with Selector Switch               | 4   | set   |                    |            |
|            | Miscellaneous & Consumables                  |     |       |                    |            |
|            | 400cc Solvent Cement                         | 1   | can   |                    |            |
|            | Electrical Tape                              | 2   | roll  |                    |            |
|            | Hacksaw Blade                                | 2   | piece |                    |            |
|            | Torch with Butane                            | 1   | set   |                    |            |
|            |  |     |       | MATERIALS COST-E   | ₽          |
|            |  |     |       | LABOR COST-E       |            |
|            |  |     |       | DIRECT COST-E      | ₽          |
|            |  |     |       |                    |            |
|            |  |     |       | MATERIALS COST III | P          |
|            |  |     |       | LABOR COST III     |            |
|            |  |     |       | DIRECT COST III    | ₽          |
|            |  |     |       |                    |            |

| ITEM<br>NO | WORK DESCRIPTION & SCOPE OF WORKS | QTY | UNIT | UNIT COST | TOTAL COST |
|------------|-----------------------------------|-----|------|-----------|------------|
|------------|-----------------------------------|-----|------|-----------|------------|

#### SUMMARY

| ITEM<br>NO. | WORK DESCRIPTIO  | TOTAL COST  |  |
|-------------|--|---|--|
| _ = =       | GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER | ₽   |  |
|             | Etly enforce Health Protocols relative to the est applicable DPWH Memorandum                 | TOTAL DIRECT COST nead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT  TOTAL ESTIMATED COST |  |

# Section IX. Checklist of Technical and Financial Documents

#### **Notes on the Checklist of Technical and Financial Documents**

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

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

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

## **Checklist of Technical and Financial Documents**

#### I. TECHNICAL COMPONENT ENVELOPE

#### Class "A" Documents

| <u>Leg</u> | al Do      | <u>cuments</u>  |
|------------|------------|---|
|            | (a)        | Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);  |
|            |            | <u>and</u>  |
|            | (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;   |
| _          | (a)        | and Mayor's or Dysinoss normit issued by the city or municipality where the   |
| Ш          | (c)        | Mayor's or Business permit issued by the city or municipality where the<br>principal place of business of the prospective bidder is located, or the |
|            |            | equivalent document for Exclusive Economic Zones or Areas;  |
|            |            | and   |
| П          | (e)        | Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by  |
|            | ` /        | the Bureau of Internal Revenue (BIR).   |
|            |            |   |
| <u>Tec</u> | hnica      | l 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   |
|            | (g)        | and Consultancy); and Statement of the bidder's Single Largest Completed Contract (SLCC) similar  |
| Ш          | (5)        | 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;  |
|            |            | <u>or</u>   |
|            |            | Special PCAB License in case of Joint Ventures;   |
|            | <b>(1)</b> | 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;   |
|            |            | original copy of Notarized Bid Securing Declaration; and  |
|            | (j)        | Project Requirements, which shall include the following:  |
| П          | (J)        | a. Organizational chart for the contract to be bid;   |
|            |            | b. List of contractor's key personnel (e.g., Project Manager, Project   |
| ш          |            | 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   |

see attached prescribed form required by the QC - BAC for Infrastructure and Consultancy); and Original duly signed Omnibus Sworn Statement (OSS);  $\sqcap$  (k) 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 (1) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and The prospective bidder's computation of Net Financial Contracting Capacity П (m) (NFCC) (please see attached prescribed form required by the QC – BAC for *Infrastructure and Consultancy*). Class "B" Documents If applicable, duly signed joint venture agreement (JVA) in accordance with  $\square$  (n) 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 Original of duly signed Bid Prices in the Bill of Quantities; and П (p)

lessor/vendor for the duration of the project, as the case may be (please

rentals used in coming up with the Bid; and

Cash Flow by Quarter.

Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipmen

(q)

(r)

### Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

| BID FORM                               |  |
|--|--|
| Date :<br>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:

- 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:
- 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 guidelines¹ for this purpose;
- 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;
- 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
- We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

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

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

#### Bid Securing Declaration Form

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

| REPUBLIC OF THE PHILIPPINES) |        |
|------------------------------|--------|
| CITY OF                      | ) S.S. |

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

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

I/We, the undersigned, declare that:

- 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.
- I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
  - Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - 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
  - 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]

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

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

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

[Jurat]

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

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

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

#### CONTRACT AGREEMENT

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

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

#### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 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.
- 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);
    - Drawings/Plans:
    - ii. Specifications;
    - iii. Bill of Quantities:
    - iv. General and Special Conditions of Contract;
    - v. Supplemental or Bid Bulletins, if any;
  - 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. <u>Winning bidder agrees that</u> 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.
- 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]

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]

| REPUBLIC OF THE PHILIPPINES) |       |
|------------------------------|-------|
|                              | ) 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:

- I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/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.
- 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;
- 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:
    - 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
  - 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]

| NAME OF CONTRACTOR: |  |
|---------------------|--|
|                     |  |

| PROJECT TITLE [Name of the Contract] S. EXACT PROJECT LOCATION | PROJECT TITLE       |          | 9220-22292  | 100000000000000000000000000000000000000 | CONTRACTOR'S ROLE<br>(SOLE CONTRACTOR, SUBCONTRACTOR, | TOTAL                   | DATE OF                  | TOTAL                                 | PERCE | NTAGE |  |
|--|---------------------|----------|---|---|---|-------------------------|--------------------------|---------------------------------------|-------|-------|--|
|  | DATE OF<br>CONTRACT | DURATION | CONTRACT PROJECT GWINER & MATURE OF WORK RATE OF CONTRACT COMPLETION OF | E AT ESTIMATED                          | VALUE AT<br>COMPLETION<br>IF APPLICABLE               | ACTUAL<br>ACCOMPUSHMENT | PLANNED<br>ACCOMPUSHMENT | VALUE OF OUTSTANDIN<br>WORKS (IN PHP) |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          |                                       |       |       |  |
|  |                     |          |   |   |   |                         |                          | TOTAL AMOUNT<br>OUTSTANDING V         |       |       |  |

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page of

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

OF CONTRACT (Php)

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

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page\_\_\_of\_\_\_

# NAME OF CONTRACTOR: PROJECT TITLE:

| PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION | DATE OF<br>CONTRACT | CONTRACT | PROJECT OWNER & POSTAL<br>ADDRESS | NATURE OF WORK | CONTRACTOR'S ROLE SOLE CONTRACTOR, SURCONTRACTOR, PARTHNER IN A JVI and PERCENTAGE OF PARTICIPATION | TOTAL<br>CONTRACT<br>VALUE AT<br>AWARD | DATE OF<br>COMPLETION OF<br>ESTIMATED<br>COMPLETION TIME | TOTAL CONTRACT VALUE AT COMPLETION IF APPLICABLE |
|---|---------------------|----------|-----------------------------------|----------------|---|--|--|--|
|   |                     |          |                                   |                |   |  |  |  |
|   |                     |          |                                   |                |   |  |  |  |
|   |                     |          |                                   |                |   |  |  |  |
|   |                     |          |                                   |                |   |  |  |  |
|   |                     |          |                                   |                |   |  |  |  |

|          | - 6 |  |
|----------|-----|--|
| Page     | 454 |  |
| F 94.60/ |     |  |

#### LIST OF MAJOR EQUIPMENT TO BE USED FOR THE PROJECT

| NAME OF CONTRACTOR: | 0-2 |  |  |
|---------------------|-----|--|--|
| DDO ISCT TITLE      |     |  |  |
| PROJECT TITLE:      |     |  |  |

| ТҮРЕ | DESCRIPTION / CAPACITY | SERIAL NO. | YEAR<br>ACQUIRED | PRESENT LOCATION<br>(SPECIFIC ADDRESS) | STATUS OF<br>AVAILABILITY<br>(OWNED/LEASED) |
|------|------------------------|------------|------------------|--|---|
|      |                        |            |                  |  |   |
|      |                        |            |                  |  |   |
|      |                        |            |                  |  |   |
|      |                        |            |                  |  |   |
|      |                        |            |                  |  |   |
|      |                        |            |                  |  |   |

| Page  |     |  |
|-------|-----|--|
| 1 one | OI. |  |

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

| NAME OF CONTRACTOR: |  |  |  |
|---------------------|--|--|--|
|                     |  |  |  |
| PROJECT TITLE:      |  |  |  |

| NAME | POSITION | AGE | EDUCATIONAL<br>ATTAINMENT | TYPE OF<br>CONSTRUCTION<br>EXPERIENCE | NO.OF YEARS<br>WITH THE<br>CONTRACTOR | PROFESSION | PRC NO. |
|------|----------|-----|---------------------------|---------------------------------------|---------------------------------------|------------|---------|
|      |          |     |                           |                                       |                                       |            |         |
|      |          |     |                           |                                       |                                       |            |         |
|      |          |     |                           |                                       |                                       |            |         |
|      |          |     |                           |                                       |                                       |            |         |
|      |          |     |                           |                                       |                                       |            |         |

| Page   | of  |  |
|--------|-----|--|
| F HELD | 174 |  |

# COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

| NAME OF BIDDER: |  |        |     |  |
|-----------------|--|--------|-----|--|
|                 | CURRENT ASSETS*  |        | PHP |  |
|                 | (LESS) CURRENT LIABILITIES*  | (LESS) | РНР |  |
|                 | 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                                     |        | РНР |  |
|                 |  |        | -   |  |

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

| KELO                                     |   |                             |      |
|--|---|-----------------------------|------|
| 58                                       | AFFIDAVIT OF UNDERTAKING  |                             |      |
| REPR                                     | I, of legal age, Filipino,  | OFFICER                     | OF   |
| with o                                   | office address at<br>g been duly sworn to in accordance with law, hereby voluntary depose and state   |                             | afte |
| лачиц                                    |   | :<br>_to execute            | this |
|  | That [Name of Bidder] bidding for the (Name of Project)   |                             |      |
|  | That relative to the aforementioned Project, the <u>[Name of Bidder]</u> hereby that the equipment to be use and the key personnel to be assign shall exclusive will only perform to the said project until its completion. | y undertake<br>ly be used a | and  |
|  | That I am executing this affidavit to attest to the truth of the foregoing and in c<br>with the submission of the technical requirements for the public bidding of the  | ompliance<br>said projec    | t.   |
| of                                       | IN WITNESS HEREOF, I have hereunto signed my name below thisat,   |                             | day  |
|  | AFFIANT FURTHER SAYETH NAUGHT.  |                             |      |
|  | Affiant   |                             |      |
|  | SUBSCRIBED AND SWORN TO BEFORE ME this day of   |                             | _    |
| affiant                                  |   | _ issued                    | at   |
| Doc. No<br>Page No<br>Book N<br>Series o | D. ;<br>O. ;  |                             |      |

Notary Public

