

**PHILIPPINE BIDDING DOCUMENTS**

**Procurement of  
INFRASTRUCTURE  
PROJECTS**

Government of the Republic of the Philippines

**PROPOSED REHABILITATION OF DAY CARE CENTER AT  
DISTRICT 5 / AREA VIII (CLUSTER 1)**

**Project number:  
22-00030**

**Sixth Edition  
July 2020**

# Preface

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

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

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

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

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

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

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

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# *Glossary of Terms, Abbreviations, and Acronyms*

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

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

**BAC** – Bids and Awards Committee.

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

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

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

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

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

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

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

**CPI** – Consumer Price Index.

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

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

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

**GFI** – Government Financial Institution.

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

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

**GOP** – Government of the Philippines.

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

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

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

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

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**UN** – United Nations.



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

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

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

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

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

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



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



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

February 8, 2022

### Invitation to Bid

No.	Project No.	Project Name	Location	Amount	Durati on Cal. Days	Office	Source Fund
<b><u>Buildings – Small B</u></b>							
1	21-00157B	Proposed Construction of Hand Washing Facility at Payatas C Elementary School	Payatas	1,278,401.32	60	Engineering Dept.	Special Education Fund
2	22-00020	Proposed Upgrading of Electrical System at San Vicente Elementary School	San Vicente	1,520,269.09	90	Engineering Dept.	Special Education Fund
3	22-00021	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 1 Area V and VI	Balingasa, Manresa and Sta. Tersita	1,935,806.59	60	Engineering Dept.	Engineering Department
4	22-00022	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 1 Area IV	Mariblo and Talayan	3,338,152.13	75	Engineering Dept.	Engineering Department
5	22-00023	Proposed Rehabilitation of Electrical System at Diosdado P. Macapagal Elementary School	Tatalon	3,363,516.00	90	Engineering Dept.	Special Education Fund
6	22-00024	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 1 Area I	Bagong Pag-Asa, Project 6 and Sto. Cristo	3,881,427.69	90	Engineering Dept.	Engineering Department
7	22-00025	Proposed Rehabilitation of Electrical System at Pugad Lawin High School	Bahay Toro	4,405,341.15	120	Engineering Dept.	Special Education Fund
8	22-00026	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 1 Area II	Bahay Toro, Katipunan and San Antonio	6,205,275.26	90	Engineering Dept.	Engineering Department
9	22-00027	Proposed Rehabilitation of of SDEC Building at Barangay Milagrosa	Milagrosa	6,375,076.19	120	Engineering Dept.	Engineering Department
10	22-00028	Proposed Rehabilitation of Electrical System at Pura V. Kalaw Elementary School	Milagrosa	6,421,965.23	120	Engineering Dept.	Special Education Fund
11	22-00029	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 1 Area III	Bungad, Nayon Kanluran, Paltok, Sta. Cruz and Veterans Village	9,489,328.13	90	Engineering Dept.	Engineering Department

12	22-00030	Proposed Rehabilitation of Day Care Center at District 5 / Area VIII (Cluster 1)	Greater Lagro, Fairview and North Fairview	9,857,947.75	90	Engineering Dept.	Engineering Department
13	22-00031	Proposed Construction of Additional two (2) storey and Improvement of Existing two (2) storey Multi-Purpose Livelihood Center, Barangay Kaunlaran, Quezon City	Kaunlaran	24,800,293.60	270	Engineering Dept.	20% CDF
<b><u>Flood Control – Small B</u></b>							
14	22-00032	Proposed Rehabilitation of Alley and Construction of Reinforced Concrete Retaining Wall at Odelco Riverside	San Bartolome	9,364,427.28	150	Engineering Dept.	Local Disaster Risk Reduction and Management Fund
<b><u>Roads – Small B</u></b>							
18	22-00033	Proposed Rehabilitation of Manhole Covers and Surface Improvement at M. Agoncillo Street	Novaliches Proper	1,262,339.58	60	Engineering Dept.	20% CDF
19	22-00034	Proposed Rehabilitation of Road and Drainage at Tandoc Property Urban HOA, Inc.	Gulod	1,619,893.25	90	Engineering Dept.	20% CDF
19	22-00035	Proposed Rehabilitation (Surface Improvement) at Camarin Avenue	Kaligayahan	2,716,606.23	20	Engineering Dept.	20% CDF

1. The **QUEZON CITY LOCAL GOVERNMENT**, through *funding source of various years* intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to payments under the contract *for the above stated Projects*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **QUEZON CITY LOCAL GOVERNMENT** now invites bids for the above Procurement Project. Completion of the Works is required *as stated above*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from **QUEZON CITY LOCAL GOVERNMENT – BAC Secretariat** and inspect the Bidding Documents at the address given below *weekdays from 8:00 am. – 5:00 p.m.*
5. A complete set of Bidding Documents may be acquired by interested bidders on **9 February 2022 (Wednesday)** from given address and website/s below *and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *presented in person*.

**STANDARD RATES:**

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

The following are the requirements for purchase of Bidding Documents;

1. PhilGEPS Registration Certificate (Platinum – 3 Pages)
2. Document Request List (DRL)
3. Authorization to purchase bidding documents
  - 3.1 Secretary's Certificate (for corporation)
  - 3.2 Special Power of Attorney (for sole proprietorship)
4. Notarized Joint Venture Agreement (if applicable)
5. Letter of Intent

It must be duly received by the BAC Secretariat at 2<sup>nd</sup> Floor, Procurement Department, Finance Building, Quezon City Hall Compound on or before **February 16, 2022 - 5:00PM.**

6. The **QC- BAC- INFRASTRUCTURE & CONSULTANCY** will hold a Pre-Bid Conference<sup>1</sup> on **February 17, 2022 at 10:00 AM at 2<sup>nd</sup> Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound** or we encourage the prospective bidders to join through our **Virtual Conference (ZOOM APP)** which shall be open to prospective bidders.

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

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before **March 2, 2022 – 9:00AM.** Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB Clause 16.**
9. Bid opening shall be on **March 2, 2022 - 10:00 AM at 2<sup>nd</sup> Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound** and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

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

10. The **Quezon City Local Government** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

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


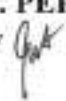
11. For further information, please refer to:

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

12. You may visit the following websites:

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

By:

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

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

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

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



## 1. Scope of Bid

The Procuring Entity, **Quezon City Government** invites Bids for the **PROPOSED REHABILITATION OF DAY CARE CENTER AT DISTRICT 5 / AREA VIII (CLUSTER 1)**, with Project Identification Number **22-00030**.

*[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 **2022** in the amount of **Nine Million Eight Hundred Fifty-Seven Thousand Nine Hundred Forty-Seven Pesos & 75/100 Cts. (P 9,857,947.75)**.

2.2. The source of funding is:

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

## 3. Bidding Requirements

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

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

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

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and

obstructive practices defined under Annex “P” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

## 5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA’s CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.  
  
A contract is considered to be “similar” to the contract to be bid if it has the major categories of work stated in the **BDS**.
- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

## 6. Origin of Associated Goods

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

## 7. Subcontracts

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

The Procuring Entity has prescribed that:

- a. **Subcontracting is not allowed.**

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



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

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

## **8. Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address on **February 17, 2022, 10:00 A.M. at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound** and/or we encourage the prospective bidders to join through our Virtual Conference (**ZOOM APP**) Meeting ID: **854 9489 0133** Password: **273320**

## **9. Clarification and Amendment of Bidding Documents**

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## **10. Documents Comprising the Bid: Eligibility and Technical Components**

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their

complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

## **11. Documents Comprising the Bid: Financial Component**

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## **12. Alternative Bids**

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

## **13. Bid Prices**

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

## **14. Bid and Payment Currencies**

- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 14.2. *Payment of the contract price shall be made in:*
  - a. Philippine Pesos.

## **15. Bid Security**

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security **in no case shall exceed One Hundred Twenty (120) calendar days from the date of opening of bids, unless duly extended by the bidder upon the request of the Head of the Procuring Entity (HoPE) of the Quezon City Local Government**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

## **16. Sealing and Marking of Bids**

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

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

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

## **17. Deadline for Submission of Bids**

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 5 of the **IB**.

## **18. Opening and Preliminary Examination of Bids**

- 18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

## **19. Detailed Evaluation and Comparison of Bids**

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC

shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

## **20. Post Qualification**

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

## **21. Signing of the Contract**

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

## ***Section III. Bid Data Sheet***

### **Notes on the Bid Data Sheet (BDS)**

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

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

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

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

# Bid Data Sheet

ITB Clause																																													
5.2	For this purpose, similar contracts shall refer to contracts which have the same major categories of work.																																												
7.1	<b>Subcontracting is not allowed.</b>																																												
10.3	<p><i>No additional contractor license or permit is required</i></p> <p><b><i>In addition, eligible bidders shall qualify or comply with the following:</i></b></p> <p>1. Bidders with valid Philippine Contractors Accreditation Board (PCAB)</p> <p style="padding-left: 40px;">Type</p> <p style="text-align: center;"><b>Building - Small B</b></p>																																												
10.4	<p>The minimum work experience requirements for key personnel are the following:</p> <p style="text-align: center;"><b>PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Qty.</th> <th style="text-align: center;">Key Personnel</th> <th style="text-align: center;">General Experience</th> <th style="text-align: center;">Relevant Experience</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Project Engineer</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">1</td> <td>DPWH duly accredited Materials Engineer</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">1</td> <td>Safety Officer</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">1</td> <td>Foreman</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">16</td> <td>Skilled Worker</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">1</td> <td>Driver</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">8</td> <td>Laborer</td> <td style="text-align: center;">1 year</td> <td style="text-align: center;">3 months</td> </tr> </tbody> </table> <p style="text-align: center;"><b>PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Qty.</th> <th style="text-align: center;">Key Personnel</th> <th style="text-align: center;">General Experience</th> <th style="text-align: center;">Relevant Experience</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Project Engineer</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> <tr> <td style="text-align: center;">1</td> <td>Safety Officer</td> <td style="text-align: center;">3 years</td> <td style="text-align: center;">3 years</td> </tr> </tbody> </table>	Qty.	Key Personnel	General Experience	Relevant Experience	1	Project Engineer	3 years	3 years	1	DPWH duly accredited Materials Engineer	3 years	3 years	1	Safety Officer	3 years	3 years	1	Foreman	3 years	3 years	16	Skilled Worker	3 years	3 years	1	Driver	3 years	3 years	8	Laborer	1 year	3 months	Qty.	Key Personnel	General Experience	Relevant Experience	1	Project Engineer	3 years	3 years	1	Safety Officer	3 years	3 years
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1	Foreman	3 years	3 years
6	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
5	Laborer	1 year	3 months

**PROPOSED REHABILITATION OF AVON DAY 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
6	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
8	Laborer	1 year	3 months

**PROPOSED REHABILITATION OF MMTC DAY CARE CENTER**

Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years
1	DPWH duly accredited Materials Engineer	3 years	3 years
1	Safety Officer	3 years	3 years
1	Foreman	3 years	3 years
6	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
4	Laborer	1 year	3 months

**PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER**

Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years

1	DPWH duly accredited Materials Engineer	3 years	3 years
1	Safety Officer	3 years	3 years
1	Foreman	3 years	3 years
8	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
15	Laborer	1 year	3 months

*In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing personnel shall perform work exclusively for the project until its completion. Please see attached bid forms.*

10.5	The minimum major equipment requirements are the following:		
<b>PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER</b>			
	Equipment	Capacity	Number of Units
	Elf Truck		1
	Scaffolding		as needed
	Power Tools		as needed
	Minor Tools		as needed
<b>PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER</b>			
	Equipment	Capacity	Number of Units
	Elf Truck		1
	Scaffolding		as needed
	Power Tools		as needed
	Minor Tools		as needed
<b>PROPOSED REHABILITATION OF AVON DAY CARE CENTER</b>			
	Equipment	Capacity	Number of Units
	Elf Truck		1
	Scaffolding		as needed
	Power Tools		as needed
	Minor Tools		as needed



	<p style="text-align: center;"><b>PROPOSED REHABILITATION OF MMTC DAY CARE CENTER</b></p> <table border="0"> <thead> <tr> <th style="text-align: left;">Equipment</th> <th style="text-align: left;">Capacity</th> <th style="text-align: left;">Number of Units</th> </tr> </thead> <tbody> <tr> <td>Bar Cutter</td> <td></td> <td style="text-align: center;">1</td> </tr> <tr> <td>Elf Truck</td> <td></td> <td style="text-align: center;">1</td> </tr> <tr> <td>Welding Machine</td> <td></td> <td style="text-align: center;">1</td> </tr> <tr> <td>Power Tools</td> <td></td> <td style="text-align: center;">as needed</td> </tr> <tr> <td>Minor Tools</td> <td></td> <td style="text-align: center;">as needed</td> </tr> <tr> <td>Cut-Off Machine</td> <td></td> <td style="text-align: center;">as needed</td> </tr> </tbody> </table> <p style="text-align: center;"><b>PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER</b></p> <table border="0"> <thead> <tr> <th style="text-align: left;">Equipment</th> <th style="text-align: left;">Capacity</th> <th style="text-align: left;">Number of Units</th> </tr> </thead> <tbody> <tr> <td>Elf Truck</td> <td></td> <td style="text-align: center;">1</td> </tr> <tr> <td>Scaffolding</td> <td></td> <td style="text-align: center;">as needed</td> </tr> <tr> <td>Power Tools</td> <td></td> <td style="text-align: center;">as needed</td> </tr> <tr> <td>Minor Tools</td> <td></td> <td style="text-align: center;">as needed</td> </tr> </tbody> </table> <p><i>In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing equipment shall be used exclusively for the project until its completion. Please see attached bid forms.</i></p>	Equipment	Capacity	Number of Units	Bar Cutter		1	Elf Truck		1	Welding Machine		1	Power Tools		as needed	Minor Tools		as needed	Cut-Off Machine		as needed	Equipment	Capacity	Number of Units	Elf Truck		1	Scaffolding		as needed	Power Tools		as needed	Minor Tools		as needed
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12	<i>[Insert Value Engineering clause if allowed.]</i>																																				
15.1	<p>The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:</p> <p style="margin-left: 40px;">a) The amount of not less than Php 197,158.96 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or</p> <p style="margin-left: 40px;">b) The amount of not less than Php 492,897.39 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.</p>																																				
19.2	<b>Partial bid is not allowed.</b> The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.																																				
20	No additional requirement.																																				
21	<p><b>Additional Contract Documents relevant to the Project as required:</b></p> <ol style="list-style-type: none"> <li><b>1. Construction Schedule and S-curve,</b></li> <li><b>2. Manpower Schedule,</b></li> <li><b>3. Construction Methods,</b></li> <li><b>4. Equipment Utilization Schedule,</b></li> <li><b>5. PERT/CPM or other acceptable tools of project scheduling, shall be included in the submission of Technical Proposal.</b></li> </ol>																																				

## ***Section IV. General Conditions of Contract***

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

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

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

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

## 1. **Scope of Contract**

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

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

## 2. **Sectional Completion of Works**

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

## 3. **Possession of Site**

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

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

## 4. **The Contractor's Obligations**

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

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

## 5. **Performance Security**

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

## **6. Site Investigation Reports**

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

## **7. Warranty**

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

## **8. Liability of the Contractor**

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

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

## **9. Termination for Other Causes**

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

## **10. Dayworks**

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

## **11. Program of Work**

11.1. The Contractor shall submit to the Procuring Entity’s Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.

11.2. The Contractor shall submit to the Procuring Entity’s Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

## **12. Instructions, Inspections and Audits**

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

## **13. Advance Payment**

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

## **14. Progress Payments**

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

## **15. Operating and Maintenance Manuals**

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

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

## ***Section V. Special Conditions of Contract***

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

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

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

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

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

# Special Conditions of Contract

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



## ***Section VI. Specifications***

### **Notes on Specifications**

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

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

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

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

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

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are

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

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



*Republic of the Philippines*  
**Quezon City**  
**CITY ENGINEERING DEPARTMENT**  
 Civic Center Building B, Quezon City Hall Compound, Elliptical Road  
 Diliman, Central 1100 Quezon City  
 Trunk line: +63 2 8988 4242



**TECHNICAL SPECIFICATIONS**  
**QUEZON CITY INFRASTRUCTURE PROJECT**

**PROJECT TITLE:** PROPOSED REHABILITATION OF AVON DAY CARE CENTER ✓  
**LOCATION:** BARANGAY NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY ✓

**I. 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.
- 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)
  - 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.
  - ii. 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.
- i. 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
  - i. 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.
  - iii. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
  - iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
  - v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
  - vi. 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.
- i. 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.
  - 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.
  - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- 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 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.

## iii. CIVIL / 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 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 tested for concrete aggregates and other materials shall have been done.
- c. Materials

- i. 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, acids, 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 coarse, sharp, clean free from salt, 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 or 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
  - iii. 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 wherever 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 of mortar from the concrete. Forms shall be ¼" waterproof plywood and form lumber.
  - ii. Cleaning of Forms – before placing the concrete, the contact surfaces of the forms shall 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 curing 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 ties, 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 discoloration 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 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 imbedded 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 – 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 courses that have commenced initial set; and reinforcement imbedded in concrete beginning to set or already set shall not be disturbed by vibrators. Consolidation around major imbedded parts shall be 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 cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.
- h. Curing
- i. 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. 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 a finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be ground to a smooth surface to remove all joint marks of the form works.
  - ii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

## B. MASONRY WORKS

- a. Masonry Units (CMU):  
100mm thick for all interior walls and 150mm 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.

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.

b. Sand:

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

c. Mortar:

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. METAL WORKS

a. Description

Metal works shall conform to the approved plans and to the Standard Specifications.

b. Reference Standards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 1978. Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges; Specification for Architecturally Exposed Structural Steel
2. AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2 068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC)
3. RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joints using ASTM A-325-78s Bolts.
4. STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual, Vol. 2; Systems and Specifications.

c. Source Quality Control

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

d. Product Delivery, Handling and Storage

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

**e. Protection**

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

**f. Field Quality Control**

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

**g. Materials**

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- c) SCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

**h. 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

**i. Measurements**

Before fabrication, provide necessary field measurements and verify all measurements.

**j. Metal 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, angles 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.

**k. 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.

**l. Shop Fabrication**

Fabrication and assembly shall be done in the shop to the greatest extent possible.



m. **Submittals**

Shop Drawings. Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

n. **Delivery and Storage**

Protect from corrosion, deformation and other types of damage. Store items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

o. **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 lack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

p. **Metal Purlins**

Metal purlins shall be of high grade galvanized steel with minimum tensile strength of 275 MPA, 1.4mm in thickness.

#### D. ROOFING WORKS

- a. 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 purlins with min. 2 1/4" 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.
- b. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

### IV. ARCHITECTURAL WORKS

#### A. WALLS AND FLOOR FINISHES

- a. 50mm Concrete Topping for Tiles
- b. 400mm x 400mm Non-skid Homogeneous Tiles including tile adhesive
- c. 600mm x 600mm Non-skid Homogeneous Tiles including tile adhesive
- d. 400mm x 400mm Non-skid Homogeneous Wall Tiles

#### B. CEILING FINISHES

- a. 6mm thk Fiber Cement Board including framing and accessories

#### C. DOORS & WINDOWS

- a. Follow as per approved plan and specifications.

#### D. PAINTING WORKS

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.

- b. Application shall be as per paint Manufacturer's specification and recommendation.
- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- d. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- e. All surfaces including masonry wall shall be thoroughly cleaned, putied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer
- f. 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.
- g. 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 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, drains, 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 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 install any such additional materials and equipment's required by the system at no additional cost
- I. Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered

- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. 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.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/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/SEI 7.
- 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 bands and similar units.
- Z. Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.

- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.


## 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 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
  - ii. Outdoor Locations: NEMA 250, Type 3R.
  - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
  - iv. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
  - v. 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 concealed trim 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 with hinged trim cover.
- F.2.4 Skirt for Surface-Mounted Panel boards: Same gage and finish as panel board front with flanges for attachment to panel board wall, and ceiling or floor
- F.2.5 Gutter Extension and Barrier: Same gage and finish as panel board enclosure, integral with enclosure body. Arrange to isolate individual panel sections.
- F.2.6 Finishes
- i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
  - ii. Back Boxes: Galvanized steel Same finish as panels and trim.

- iii Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
  - F.2.7 Directory Card: Inside panel board 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, 99 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.

  
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*Republic of the Philippines*  
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## **CITY ENGINEERING DEPARTMENT**

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## **TECHNICAL SPECIFICATIONS**

### **QUEZON CITY INFRASTRUCTURE PROJECT**

**PROJECT TITLE: PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER**

**LOCATION: BARANGAY GREATER LAGRO, DISTRICT 5, QUEZON CITY**

#### **I. 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.
- 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):
  - 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.
  - ii. 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.

- i. 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**
  - i. 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.
  - iii. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
  - iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
  - v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
  - vi. 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.
  - i. 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.
  - 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.
  - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- 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 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.

## **III. CIVIL / 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 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 tested for concrete aggregates and other materials shall have been done.
- c. **Materials**
  - i. 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, acids, 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 coarse, sharp, clean free from salt, 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 or 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.
  - iii. **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 of mortar from the concrete. Forms shall be ¼" waterproof plywood and form lumber.
  - ii. **Cleaning of Forms** – before placing the concrete, the contact surfaces of the forms shall 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 curing 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 ties, 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 discoloration 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 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
- 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 cured that have commenced initial set; and reinforcement embedded in concrete beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall 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 cement-sand ratio as used in concrete shall be first deposited to cover the surfaces

h. Curing

- i. 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 fosing

i. 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 a finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be ground to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

**B. WATERPROOFING****a. Waterproofing:**

Furnish all labor, materials, equipment, plant and other facilities required to complete all waterproofing work as shown on the drawings and herein specified. All applications shall be strictly performed by an approved waterproofing Contractor.

**b. Testing:**

Test waterproofed area by seventy-two (72) hours and check for any seepages

Note: Thickness should be as per Manufacturers Specifications and Installation depending on the Areas to be applied with.

**IV. ARCHITECTURAL WORKS****A. TILE WORKS**

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

**B. PROVISION OF CABINET**

- a. Good Lumber must be 2" x 2" x 10' for support frames and main frames
- b. 1/2" thick Plywood must be used.
- c. Countertop must be finished with 300mm x 300mm Tiles.

**C. FABRICATED DOORS & WINDOWS**

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

**D. PAINTING WORKS**

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- b. Application shall be as per paint Manufacturer's specification and recommendation.
- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works
- d. 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.
- f. 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.
- g. 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 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, drains, 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 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 install any such additional materials and equipment's required by the system at no additional cost.
- I. Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.

- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/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/SEI 7.
- 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.
- Z. Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping

## 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 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 panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively
- 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.
    - ii. Outdoor Locations: NEMA 250, Type 3R.
    - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel
    - iv. Other Wet or Damp Indoor Locations. NEMA 250, Type 4.
    - v. 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 concealed trim 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 Barrier: Same gage and finish as panelboard enclosure, integral with enclosure body. Arrange to isolate individual panel sections.
  - F.2.6 Finishes:
    - i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat
    - ii. Back Boxes: Galvanized steel Same finish as panels and trim.
    - iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
  - 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.



KHENRETTE CHAN

Planning and Programming Division



JOCELYN A. NAONG

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## TECHNICAL SPECIFICATIONS

### QUEZON CITY BARANGAY PROJECT

**PROJECT TITLE: PROPOSED REHABILITATION OF MMTG DAY CARE CENTER**

**LOCATION: BARANGAY FAIRVIEW, DISTRICT 5, QUEZON CITY**

#### I. 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.
- 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)**
  - 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.
  - ii. 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.

- s. 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
  - i. 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
  - iii. Temporary utilities shall be sufficiently provided until the completion of the project such as water power and communication
  - iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
  - v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
  - vi. 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.
  - i. 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
  - 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.
  - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- 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 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 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. MASONRY

- a. Masonry Units (CHB):
  - i. 100mm thick for all interior walls and exterior walls unless otherwise indicated.
  - ii. 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 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.
- b. Sand:
 

S-1, washed, clean and greenish in color
- c. Mortar:
 

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

#### B. ROOFING WORKS

- a. 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 purlins with min. 2 1/2" 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.
- b. 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 1/2" 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.
- c. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

#### C. WATERPROOFING

- a. Waterproofing
 

Furnish all labor, materials, equipment, plant and other facilities required to complete all waterproofing work as shown on the drawings and herein specified. All applications shall be strictly performed by an approved waterproofing Contractor
- b. Testing:

Test waterproofed area by seventy-two (72) hours and check for any seepages.

Note. Thickness should be as per Manufacturers Specifications and Installation depending on the Areas to be applied with.

#### IV. ARCHITECTURAL WORKS

##### A. TILE WORKS

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

##### B. PROVISION OF CABINET

- a. Good Lumber must be 2' x 2" x 10' for support frames and main frames.
- b. 1/2" thick Plywood must be used.
- c. Countertop must be finished with 300mm x 300mm Tiles

##### C. FABRICATED DOORS & WINDOWS

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

##### D. PAINTING WORKS

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- b. Application shall be as per paint Manufacturer's specification and recommendation
- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass finishes and other works.
- d. 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
- f. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that those are not stained with paint and other painting materials prior to painting works.
- g. 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, and 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, drains, 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 manufacturer's written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such 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.
- I. Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. 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 pipework shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.

- R Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/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/SEI 7.
- 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
- Z Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

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

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.
- ii. Outdoor Locations: NEMA 250, Type 3R.
- iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X stainless steel.
- iv. Other Wet or Damp Indoor Locations: NEMA 250, Type 4
- v. 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 concealed trim 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 Barrier: Same gage and finish as panelboard enclosure, integral with enclosure body. Arrange to isolate individual panel sections.

F.2.6 Finishes

- i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
- ii. Back Boxes: Galvanized steel. Same finish as panels and trim.
- iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.

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.

  
ANDRAE-RENZ B. LEE

Planning and Programming Division

  
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*Republic of the Philippines*  
*Quezon City*  
**CITY ENGINEERING DEPARTMENT**

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**TECHNICAL SPECIFICATIONS**  
**QUEZON CITY INFRASTRUCTURE PROJECT**

**PROJECT TITLE:** PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER ✓  
**LOCATION:** BARANGAY NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY ✓

**I. 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.
- 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)
  - 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
  - ii. 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
- i. 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
  - i. 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.
  - iii Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
  - iv Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
  - v Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
  - vi 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
- i. 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.
  - 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.
  - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- 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 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.

## III. CIVIL / 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 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 tested for concrete aggregates and other materials shall have been done.
- c. Materials

- i. 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, acids, 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 coarse, sharp clean free from salt, 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 or 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
  - iii. 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 of mortar from the concrete. Forms shall be ½" waterproof plywood and form lumber.
  - ii. Cleaning of Forms – before placing the concrete, the contact surfaces of the formed shall 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 curing 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 ties, 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 discoloration 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 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.
  - 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 courses that have commenced initial set, and reinforcement embedded in concrete beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall be 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 cement-sand ratio as used in concrete shall be first deposited to cover the surfaces.
- h. Curing
- i. 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. 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 mortar, or can be ground to a smooth surface to remove all joint marks of the form works
  - ii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated

## **B. MASONRY WORKS**

- a. Masonry Units (CHB):  
100mm thick for all interior walls and 150mm 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.

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.

b. Sand:

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

c. Mortar:

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. METAL WORKS

a. Description

Metal works shall conform to the approved plans and to the Standard Specifications

b. Reference Standards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 1978: Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges, Specification for Architecturally Exposed Structural Steel
2. AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2.058; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC)
3. RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRB): Specification for Structural Joists using ASTM A-325-76s Bolts.
4. STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual Vol. 1. Good Painting Practice, Painting Manual, Vol. 2; Systems and Specifications

c. Source Quality Control

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

d. Product Delivery, Handling and Storage

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

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

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

g. Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- c) SCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. 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.

i. Measurements

Before fabrication, provide necessary field measurements and verify all measurements.

j. Metal 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, angles 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.

k. 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

l. Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. **Submittals**

Shop Drawings. Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

n. **Delivery and Storage**

Protect from corrosion, deformation and other types of damage. Store items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

o. **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 lack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

p. **Metal Purlins**

Metal purlins shall be of high grade galvanized steel with minimum tensile strength of 275 MPA, 1.4mm in thickness

#### D. ROOFING WORKS

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

### IV. ARCHITECTURAL WORKS

#### A. WALLS AND FLOOR FINISHES

- a. 600mm x 600mm Nonskid Homogeneous Tiles
- b. 400mm x 400mm Non-Skid Homogeneous Tiles
- c. 400mm x 400mm Homogeneous Tiles

#### B. CEILING FINISHES

- a. 6mm thk Fiber Cement Board including framing and accessories

#### C. DOORS & WINDOWS

- a. Follow as per approved plan and specifications

#### D. PAINTING WORKS

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material
- b. Application shall be as per paint Manufacturer's specification and recommendation.

- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- d. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications
- e. All surfaces including masonry wall shall be thoroughly cleaned, puffed, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- f. 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.
- g. 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 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, drains, 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 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 install any such additional materials and equipment's required by the system at no additional cost
- I. Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.

- J This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use
- L Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition
- N All installed pipelines shall be flushed through with water, rudded when necessary to ensure clearance of debris.
- O Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure
- T The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency
- U Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min. then check for leakage at every joints
- V Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/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/SEI 7.
- 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 bands, and similar units
- Z. Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers. NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment

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

## 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 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
    - ii. Outdoor Locations: NEMA 250, Type 3R.
    - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel
    - iv. Other Wet or Damp Indoor Locations: NEMA 250, Type 4
    - v. 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 concealed trim 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 Panel boards: Same gage and finish as panel board front with flanges for attachment to panel board, wall, and ceiling or floor
  - F.2.5 Gutter Extension and Barrier: Same gage and finish as panel board enclosure, integral with enclosure body. Arrange to isolate individual panel sections
  - F.2.6 Finishes:
    - i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
    - ii. Back Boxes: Galvanized steel Same finish as panels and trim

- III Fungus Proofing. Permanent fungicidal treatment for overcurrent protective devices and other components
- F.2.7 Directory Card: Inside panel board 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.

  
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### **TECHNICAL SPECIFICATIONS** **QUEZON CITY INFRASTRUCTURE PROJECT**

**PROJECT TITLE : PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER**

**LOCATION : BARANGAY FAIRVIEW, DISTRICT 5, QUEZON CITY**

#### **I. 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.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulators, 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)**
  - 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.
  - ii. **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.
- t. 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.

i Temporary Facilities and Utilities

- i 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
  - iii Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication
  - iv Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
  - v Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period
  - vi 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.
- i 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.
  - 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
  - iv Additional safety precautions shall be provided in the observance of pandemic Protocols set-forth by the government shall be strictly followed.
- 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 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 backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted wetting, tamping and rolling
- E Excavation shall be shored and braced by members of suitable sizes where necessary to prevent danger to persons, injurious caving or erosions. Shoring bracing and sheathing shall be removed, as the excavations are backfilled, in a manner such as to prevent injurious caving. The contractor shall keep all excavations free from water while construction is in progress

### III. CIVIL / 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 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 tested for concrete aggregates and other materials shall have been done.
- c. Materials
  - i. 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, acids, 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 coarse, sharp, clean free from silt, 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 or between reinforcing bars and forms.
5. 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.
  - iii. 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 whenever 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 of mortar from the concrete. Forms shall be ¾" waterproof plywood and form lumber.

- ii. **Cleaning of Forms** – before placing the concrete the contact surfaces of the forms shall 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 curing 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 ties, 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 discoloration 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 embedded items without permitting the material to segregate. concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and 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** – 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 courses that have commenced initial set, and reinforcement embedded in concrete beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall be 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 cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

#### h. **Curing**

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

#### i. **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 a finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be ground to a smooth surface to remove all joint marks of the form works.
7. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

## B. MASONRY

- a. Masonry Units (CHB).
  1. 100mm thick for all interior walls and exterior walls unless otherwise indicated.
  1. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.
  - 1.1 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 ensure a stabilized wall due to height & other considerations.
- b. Sand:
 

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

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. ROOFING WORKS

- a. 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 purlins with min. 2 1/2" 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.
- b. 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 1/2" 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.
- c. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

**IV. ARCHITECTURAL WORKS****A. TILE WORKS**

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

**B. PROVISION OF CABINET**

- a. Good Lumber must be 2" x 2" x 10' for support frames and main frames.
- b. 18mm thick Plywood must be used
- c. Countertop must be finished with 300mm x 300mm Tiles.

**C. FABRICATED DOORS & WINDOWS**

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

**D. PAINTING WORKS**

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- b. Application shall be as per paint Manufacturer's specification and recommendation
- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works
- d. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications
- e. All surfaces including masonry wall shall be thoroughly cleaned, puttyed, sanded, rubbed and polished; masonry wall shall be treated with Neutralizer.
- f. 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.
- g. 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, b.bbs, insulation, all accessories required for complete and operational of the system.
- B.2 Water service connections including but not limited to water meters, foot 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, drains, 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 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 install any such additional materials and equipment's required by the system at no additional cost.
- I Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydraulic tests shall be carried out as the pipework is installed and shall be completed before cranes in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.

- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min. then check for leakage at every joints
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/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/SEI 7.
- 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.
- Z. Install lateral bracing with pipe hangers and supports to prevent swaying
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

## 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 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 panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively
- 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
    - ii. Outdoor Locations: NEMA 250, Type 3R.
    - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel



- iv Other Wet or Damp Indoor Locations NEMA 250, Type 4.
  - v 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 concealed trim clamps. For surface-mounted fronts match box dimensions; for flush-mounted fronts over-ap 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. Arrange to isolate individual panel sections.
- F.2.6 Finishes:
  - i Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
  - ii Back Boxes: Galvanized steel Same finish as panels and trim.
  - iii Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- 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.

  
**CHRISTIAN A. CLEOFE**  
 Planning and Programming Division

  
**JOCELYN A. NAONG**  
 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.]*

THE SITE



## 1 LOCATION MAP

SCALE NTS.

THE SITE

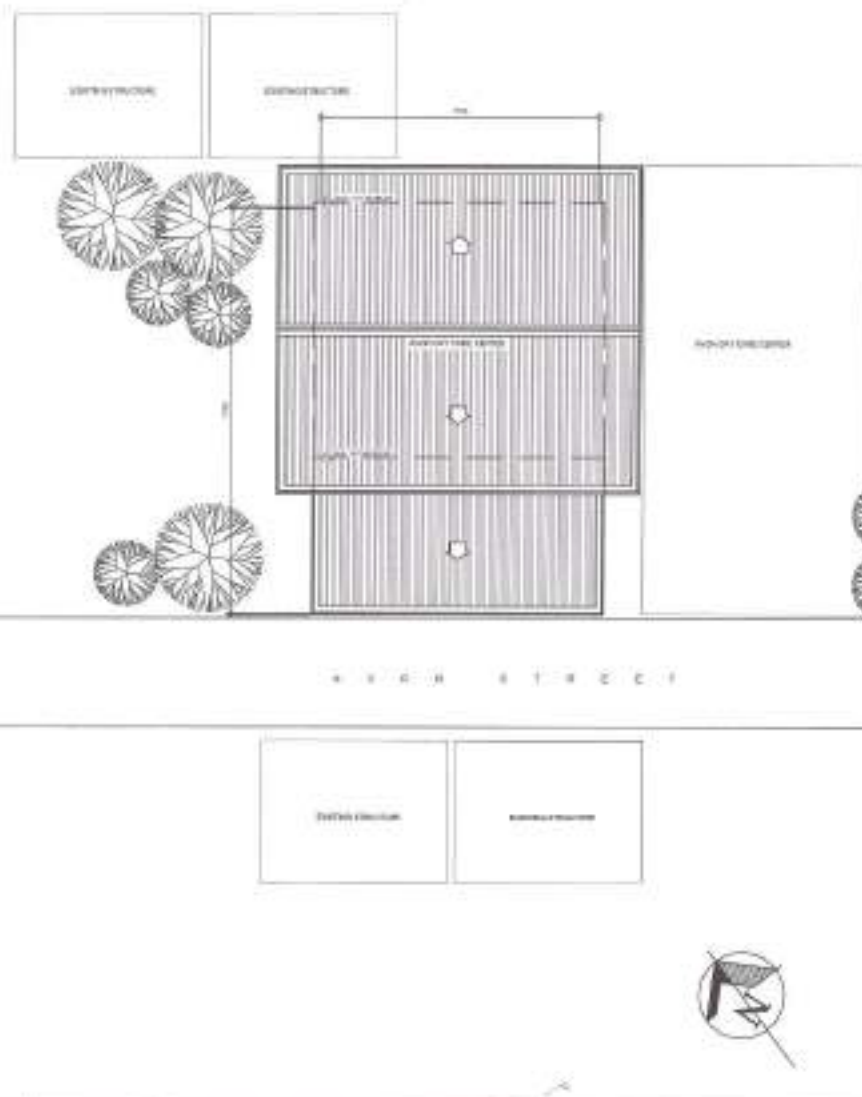


## 2 VICINITY MAP

SCALE NTS.

## 3 SITE DEVELOPMENT PLAN

SCALE NTS.



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AR-4	FRONT ELEVATION RIGHT SIDE ELEVATION REAR ELEVATION SECTION THROUGH
AR-5	SCHEDULE OF DOORS AND WINDOWS
AR-6	LETTERING DETAILS HANGING CABINET DETAILS UNDER COUNTER CABINET DETAILS
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Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	DESIGNED BY:
PROPOSED REHABILITATION OF AVON DAY CARE CENTER	DATE: 06/28/21
LOCATION:	CHECKED BY:
STREET: NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY	PERSON NO.:

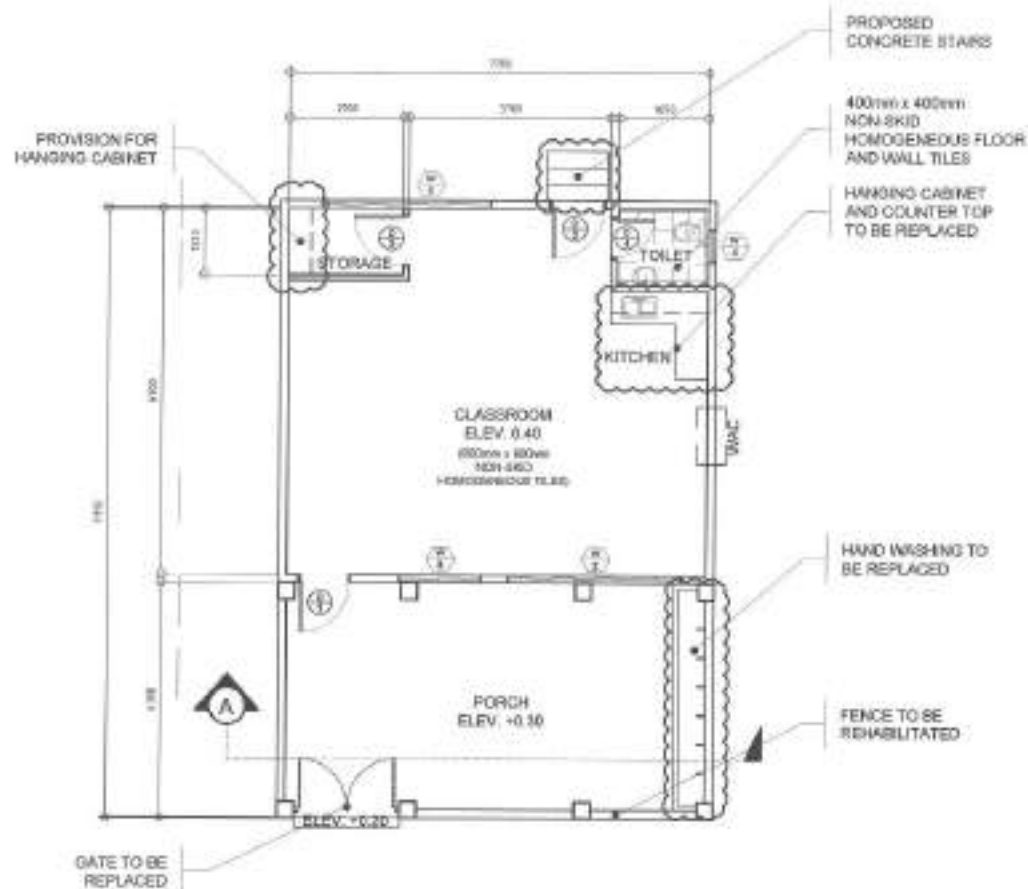
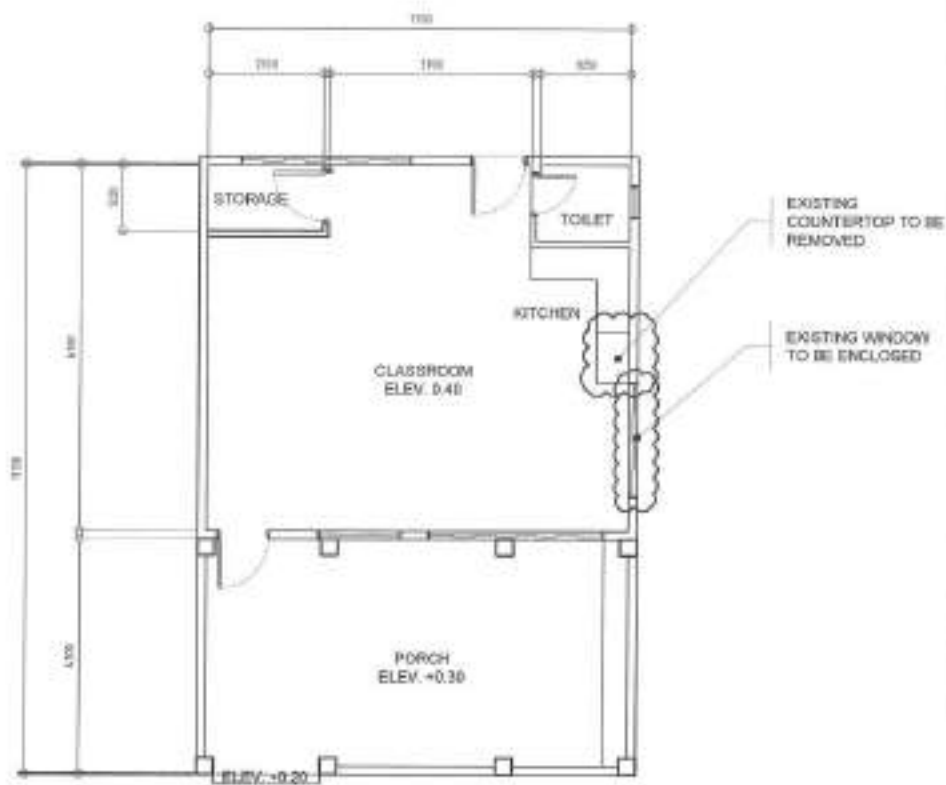
SUBMITTED BY:
ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMS DIVISION

RECOMMENDING APPROVAL:
ENGR. EDUARDO R. VERZOSA, JR. DC, CITY ENGINEERING DEPARTMENT

APPROVED BY:
HON. MR. JOSEFINA G. BELMONTE CITY ENGINEER

SHEET CONTENT:
LOCATION MAP VICINITY MAP SITE DEVELOPMENT PLAN

SHEET NO.:
AR-01 01/14



NOTE

1. INTERIOR WALLS TO BE REPAINTED
2. ALL DOORS AND WINDOWS TO BE REPLACED
3. CLEANING AND RETOUCHING OF PAINTING WITH SIMPLE DESIGN AT FRONT ELEVATION

1 FLOOR PLAN (EXISTING)

SCALE 1:100M

2 FLOOR PLAN (PROPOSED)

SCALE 1:100M



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CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
AVON DAY CARE CENTER**

LOCATION:  
INDY. NORTH FARVIEW, DISTRICT 8, QUEZON CITY

DESIGNED BY:  
DATE: 06/09/21  
CHECKED BY:  
REGISTERED NO.:

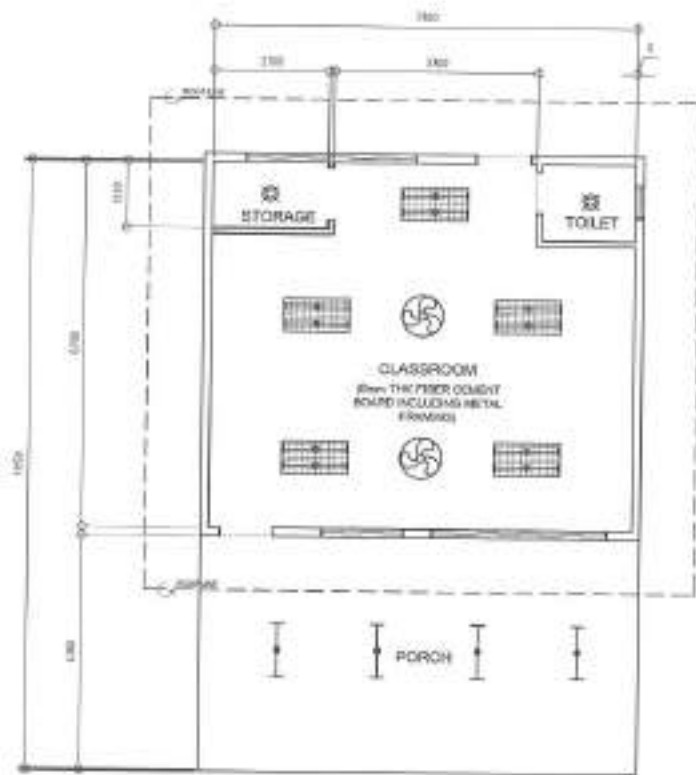
SUBMITTED BY:  
  
**ENGR. LEO S. DEL ROSARIO**  
HEAD, PLANNING & PROGRAMING DIVISION

RECOMMENDING APPROVAL:  
  
**ENGR. ISADOR R. VERZOSA, JR.**  
DIR. CITY ENGINEERING DEPARTMENT

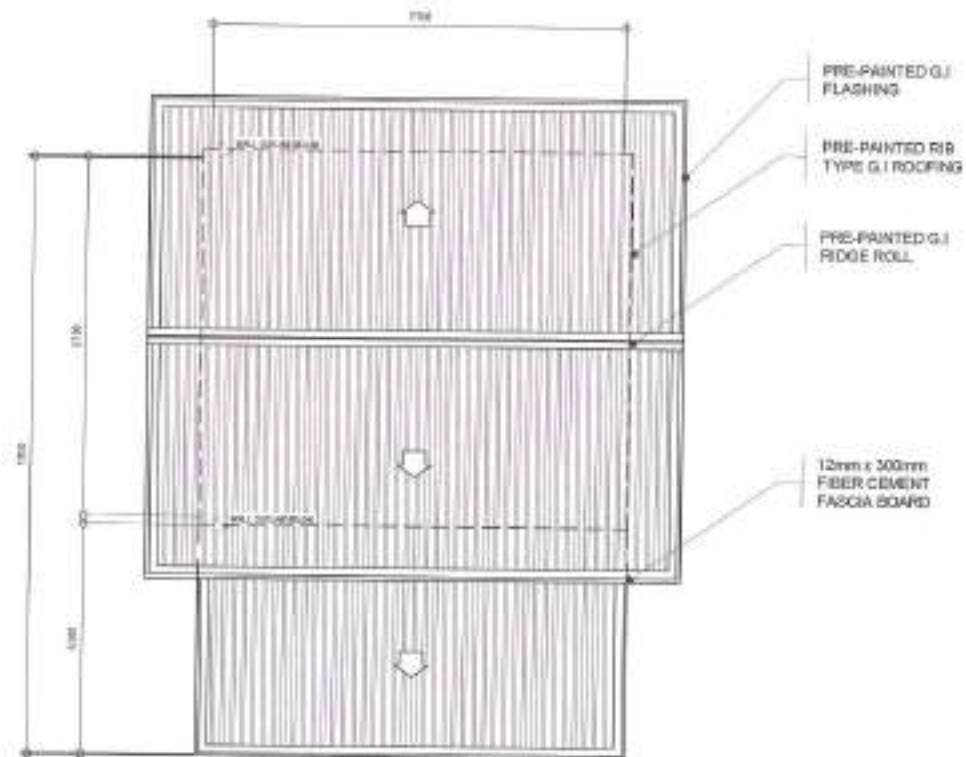
APPROVED BY:  
  
**HON. MA. JOSEFINA G. BELMONTTE**  
CITY MAYOR

SHEET CONTENT:  
FLOOR PLAN  
EXISTING  
FLOOR PLAN  
(PROPOSED)

SHEET NO:  
**AR-02**  
**02/14**



NOTE:  
1. CEILING INCLUDING ROOF DAVES TO BE REPLACED



NOTE:  
1. ROOFING AND ACCESSORIES TO BE REPLACED

**1 REFLECTED CEILING PLAN**

SCALE 1:100M

**2 ROOF PLAN**

SCALE 1:100M



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CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF AVON DAY CARE CENTER**

LOCATION:  
BAGY, NORTH HANNAW, DISTRICT 3, QUEZON CITY

DRAWN BY: *[Signature]*  
DATE: DECEMBER 2014  
CHECKED BY: *[Signature]*  
REVISION NO:

SUBMITTED BY:  
*[Signature]*  
**ENGR. LEO S. DEL ROSARIO**  
HEAD, PLANNING & PROGRAM DIVISION

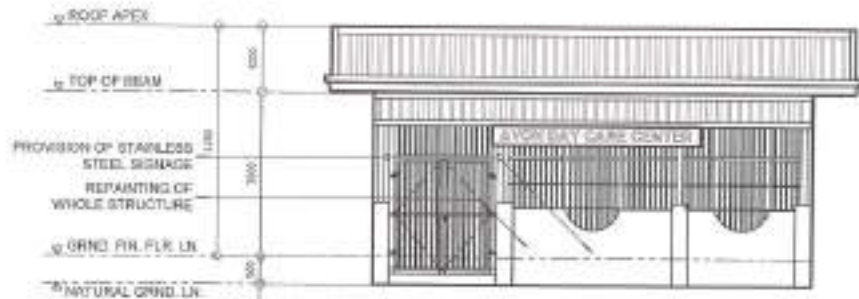
RECOMMENDATION APPROVAL:  
*[Signature]*  
**ENGR. ISACON R. VERZOSA, JR.**  
DC, CITY ENGINEERING DEPARTMENT

APPROVED BY:  
*[Signature]*  
**NON. MA. JOSEFINA G. BELMONTE**  
CITY MANOR

SHEET CONTENT:  
REFLECTED CEILING PLAN  
ROOF PLAN

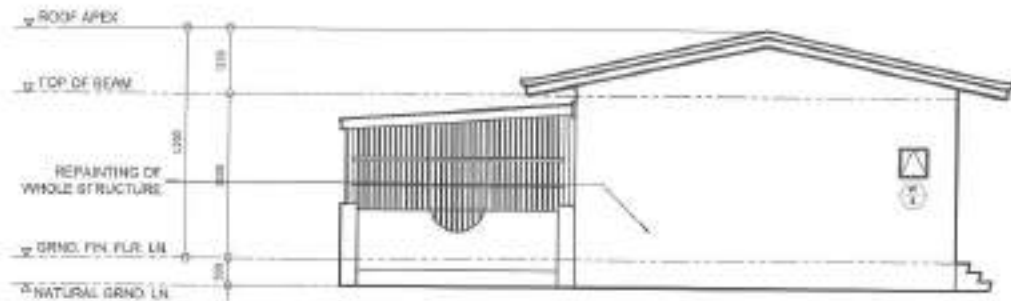
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**03/14**





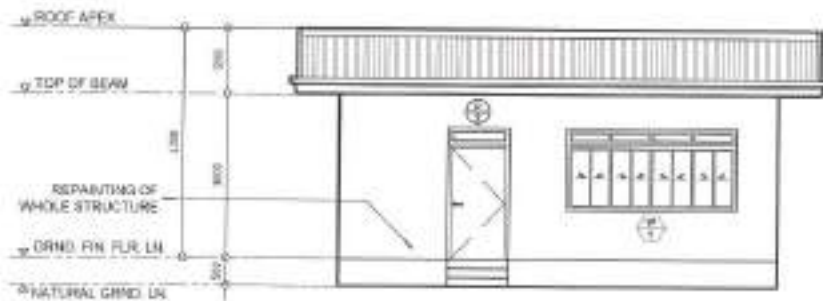
1 FRONT ELEVATION

SCALE 1:100M.



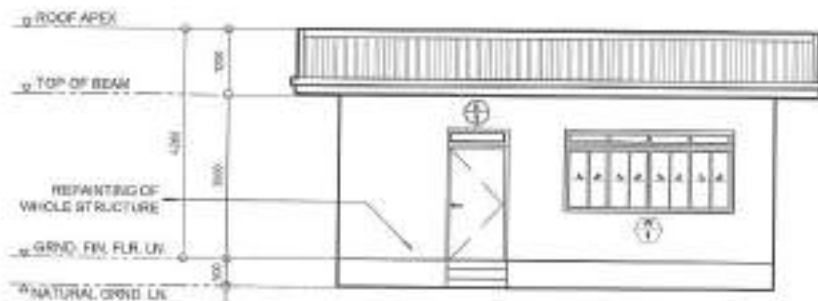
2 RIGHT SIDE ELEVATION

SCALE 1:100M.



3 REAR ELEVATION

SCALE 1:100M.



4 SECTION THRU "A"

SCALE 1:100M.



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CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
AVON DAY CARE CENTER**

LOCATION:  
BPOZ, NORTH EASTERN DISTRICT 5, QUEZON CITY

DRAWN BY:  
DATE: 08.2021  
CHECKED BY:  
REVISION NO.:

SUBMITTED BY:  
  
ENGR. DED S. DEL ROSARIO  
HEAD, PLANNING & PROGRAM DIVISION

RECOMMENDING APPROVAL:  
  
ENGR. SA RENE R. VERZOSA, JR.  
TIC OFFICE ENGINEERING DIVISION

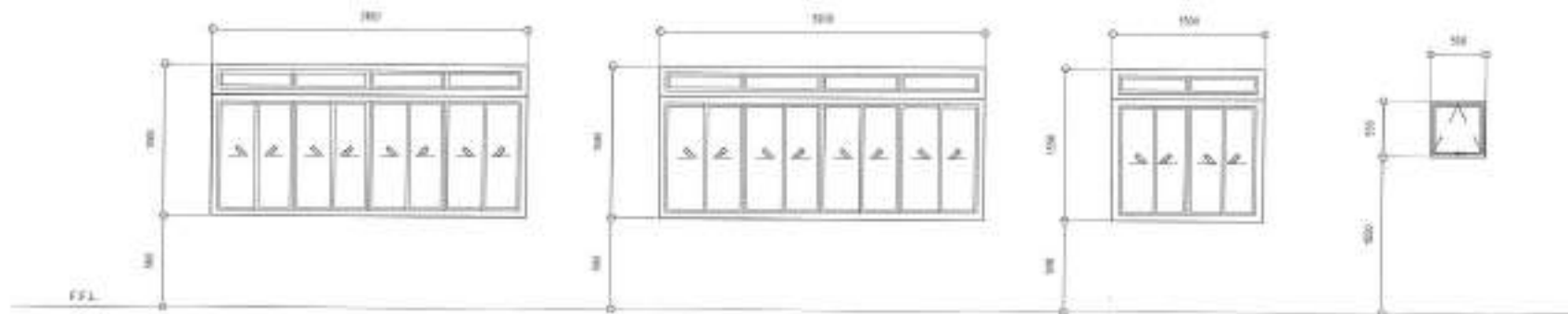
APPROVED BY:  
  
HON. MA. JOSEFINA G. BELMONTE  
CITY MAYOR

SHEET CONTENT:  
FRONT ELEVATION  
RIGHT SIDE  
ELEVATION  
REAR ELEVATION  
SECTION THRU "A"

SHEET NO.:  
**AR-04**  
04 | 14



NAME	⊕	⊕	⊕	⊕
NO. OF SETS	1	1	1	1
DESCRIPTION	WOODEN PANEL DOOR	WOODEN PANEL DOOR	FLUSH DOOR	PVC DOOR WITH LOUVER
LOCATION	FRONT DOOR	BACK DOOR	STORAGE	TOILET
HARDWARE	COMPLETE ACCESSORIES DOOR KNOB LEVER TYPE, SATIN STAINLESS FINISH	COMPLETE ACCESSORIES DOOR KNOB LEVER TYPE, SATIN STAINLESS FINISH	COMPLETE ACCESSORIES DOOR KNOB LEVER TYPE, SATIN STAINLESS FINISH	COMPLETE ACCESSORIES DOOR KNOB LEVER TYPE, SATIN STAINLESS FINISH



NAME	⊕	⊕	⊕	⊕
NO. OF SETS	1	1	1	1
DESCRIPTION	ALUMINUM FRAME, POWDER COATED SLIDING WINDOW WITH 8mm THK CLEAR GLASS	ALUMINUM FRAME, POWDER COATED SLIDING WINDOW WITH 8mm THK CLEAR GLASS	ALUMINUM FRAME, POWDER COATED SLIDING WINDOW WITH 8mm THK CLEAR GLASS	ALUMINUM FRAME, POWDER COATED SLIDING WINDOW WITH 8mm THK CLEAR GLASS
LOCATION	CLASSROOM	CLASSROOM	CLASSROOM	TOILET

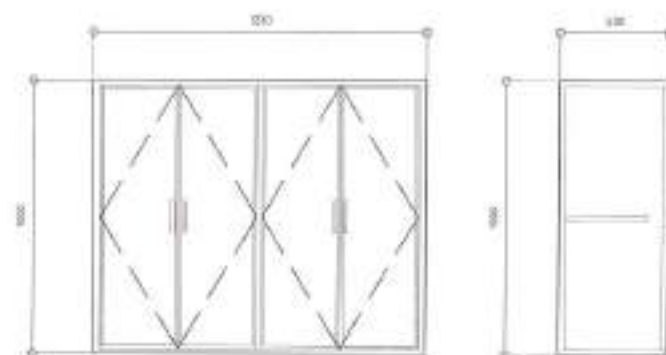
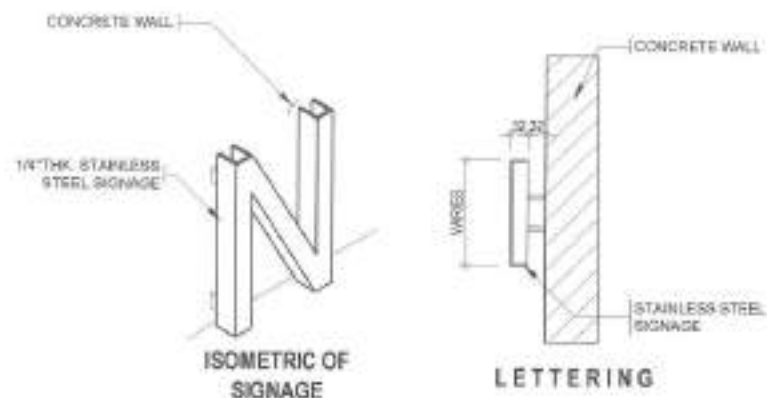
## 1 SCHEDULE OF DOORS AND WINDOWS

SCALE 1/50M.



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Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	DRAWN BY:	DESIGNED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
PROPOSED REHABILITATION OF AVON DAY CARE CENTER	DATE: 05/20/21	CHECKED BY:	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	ENGR. HUGO R. VERZOSA, JR. CIC, CITY ENGINEERING DEPARTMENT	HON. NA. JOSEFINA G. BELMONTE CITY MAYOR	SCHEDULE OF DOORS AND WINDOWS
LOCATION: BQY, NORTH FAIRVIEW, DISTRICT 3, QUEZON CITY	REVISION NO.:					AR-05 05/14

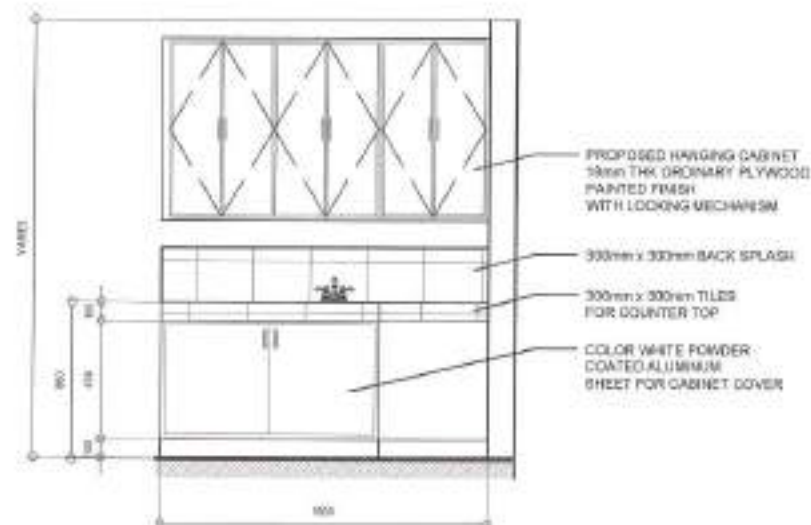
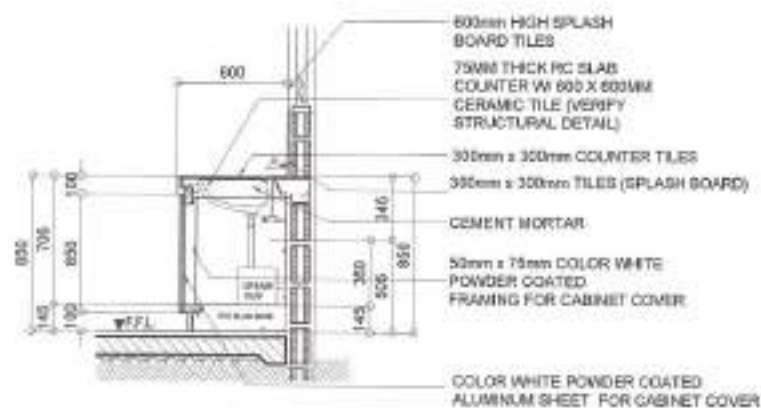


## 1 LETTERING DETAILS

SCALE 1:30M

## 2 HANGING CABINET DETAILS

SCALE 1:30M



## 3 UNDER COUNTER CABINET DETAILS

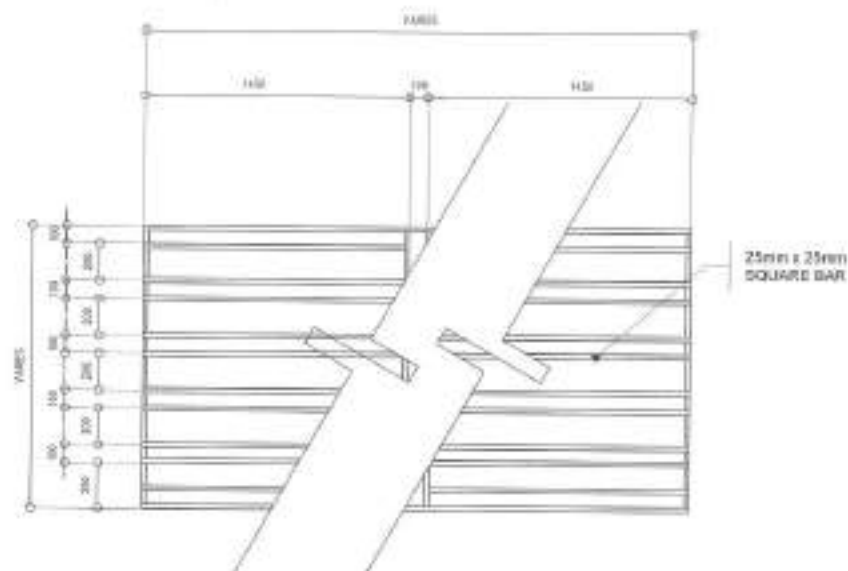
SCALE 1:30M



Republika ng Pilipinas  
Lungsod ng Cebu  
CITY ENGINEERING DEPARTMENT

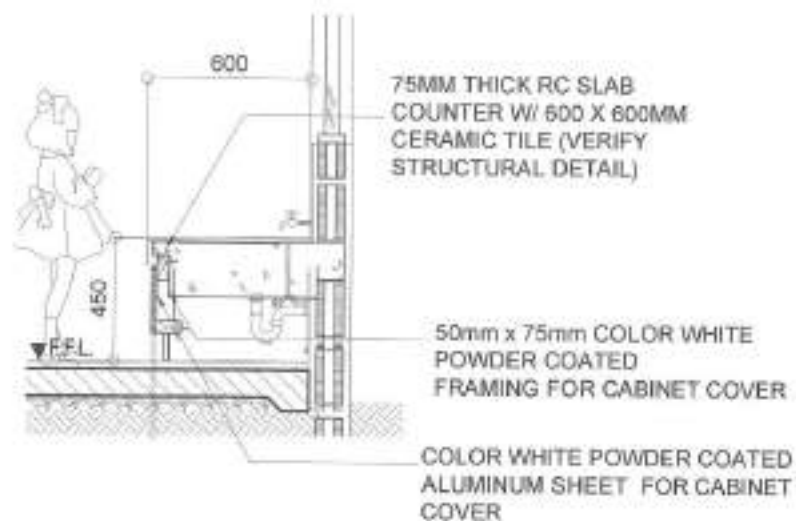
PROJECT TITLE	DRAWN BY	DESIGNED BY	RECOMMENDING APPROVAL	APPROVED BY	SHEET CONTENT	SHEET NO.
PROPOSED REHABILITATION OF AVON DAY CARE CENTER	DATE: 06/20/21 DRAWN BY: J.A.	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING PROGRAMMING DIVISION	ENGR. MARVIN R. VERZOSA, JR. DCC CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA O. BELMONTE CITY MAYOR	LETTERING DETAILS HANGING CABINET DETAILS UNDER COUNTER CABINET	AR-06 06/14
LOCATION: Bldg. NORTH FABRICATION DISTRICT 5, QUEZON CITY	REVISED NO.:					





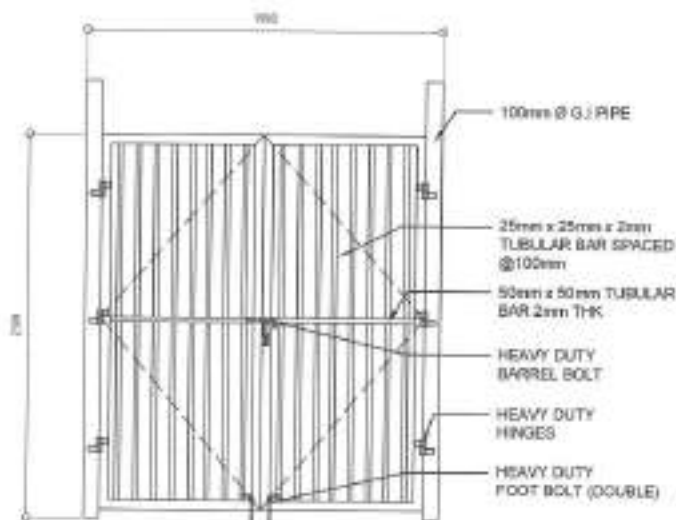
## 1 TYPICAL GRILLES DETAILS

SCALE 1:30M



## 2 KIDDY HAND WASHING DETAILS

SCALE 1:30M



## 3 GATE AND FENCE DETAILS

SCALE 1:50M



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE	DRAWN BY	SUBMITTED BY	RECOMMENDING APPROVAL	APPROVED BY	DIST. CONTACT	SHEET NO.
PROPOSED REHABILITATION OF AVON DAY CARE CENTER	DATE: 08/20/21 CHECKED BY: JH	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	ENGR. ISMAEL R. VERZOSA, JR. CE, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTZ CITY MAJOR	TYPICAL GRILLES DETAILS KIDDY HAND WASHING DETAILS GATE AND FENCE DETAILS	AR-07 07/14
LOCATION: SAGAY, NORTH HAVEN, DISTRICT 1, QUEZON CITY	REVISION NO.					

**GENERAL**

- CONSTRUCTION NOTES AND SPECIAL DETAILS SHALL COMPLY WITH THE LATEST REVISIONS UNLESS OTHERWISE NOTED OR NOTED OTHERWISE. SPECIAL DETAILS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
- IF THERE IS A DISCREPANCY BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE SPECIFICATIONS SHALL PREVAIL UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
- IN CASE OF CONFLICT, THE DRAWINGS SHALL PREVAIL UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.

**CONCRETE & REINFORCEMENT**

- ALL CONCRETE AND REINFORCEMENT SHALL COMPLY WITH THE LATEST REVISIONS UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
- ALL CONCRETE SHALL BE OF A MINIMUM COMPRESSIVE STRENGTH OF 28 MPa UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
- ALL CONCRETE SHALL BE CAST AND CURED IN ACCORDANCE WITH THE LATEST REVISIONS UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
- ALL REINFORCEMENT SHALL BE OF A MINIMUM TENSILE STRENGTH OF 485 MPa UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.

LOCATION	ITEMS	MIN. SIZE OF REINFORCEMENT	MAX. SPACING
4. SUB-CHORDS, CHORD ENDMENTS, POINING, WALL FORMS	200mm Ø (20mm dia)	1 in (25mm)	4 in (100mm)
5. BEAMS, COLEMS, SUB-FRAMING	200mm Ø (20mm dia)	1 in (25mm)	4 in (100mm)
6. DECKING	200mm Ø (20mm dia)	1 in (25mm)	4 in (100mm)

- ALL REINFORCEMENT SHALL BE CAST AND CURED IN ACCORDANCE WITH THE LATEST REVISIONS UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
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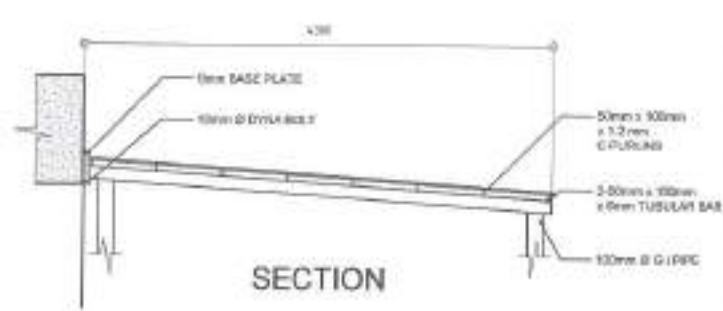
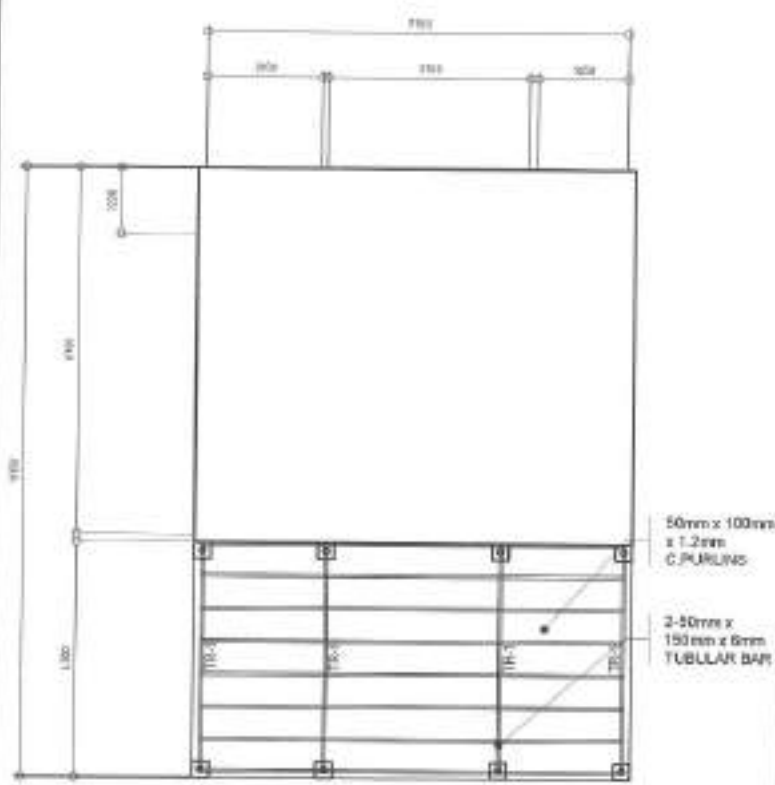
ITEMS	MIN. SIZE OF REINFORCEMENT
CONCRETE DECKING	7 mm
SUB-FRAMING	2 mm
SLAB DECKING	8 mm
WALL & ARCH FORMS	2 mm
BEAMS & COLUMNS	8 mm

- REINFORCEMENT SHALL BE CAST AND CURED IN ACCORDANCE WITH THE LATEST REVISIONS UNLESS OTHERWISE NOTED OR NOTED OTHERWISE.
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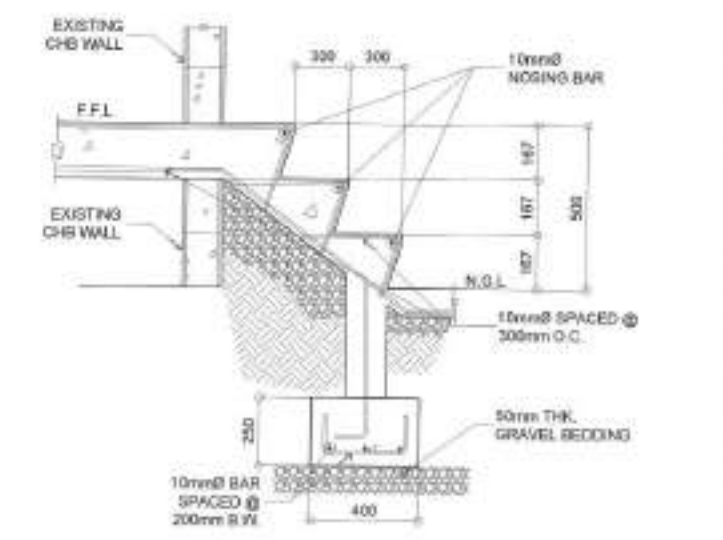
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**3 CANOPY TRUSS DETAILS SCALE 1:50M**



**1 GENERAL NOTES SCALE NTS**

**2 CANOPY ROOF FRAMING PLAN SCALE 1:100M**

**4 CONCRETE STAIRS DETAILS SCALE 1:20M**

Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE: **PROPOSED REHABILITATION OF AVON DAY CARE CENTER**

DATE: 06.06.21

DESIGNED BY: [Signature]

LOCATION: BRGY. NORTH FARWELL DISTRICT 5, QUEZON CITY

REVISION NO.:

DRAWN BY: [Signature]

SUBMITTED BY: [Signature]

ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAMS DIVISION

RECOMMENDING APPROVAL: [Signature]

ENGR. JESAMIN R. VERZOSA, JR.  
C.E. CITY ENGINEERING DEPARTMENT

APPROVED BY: [Signature]

HON. MA. JOSEFINA G. BELMONTÉ  
CITY MAYOR

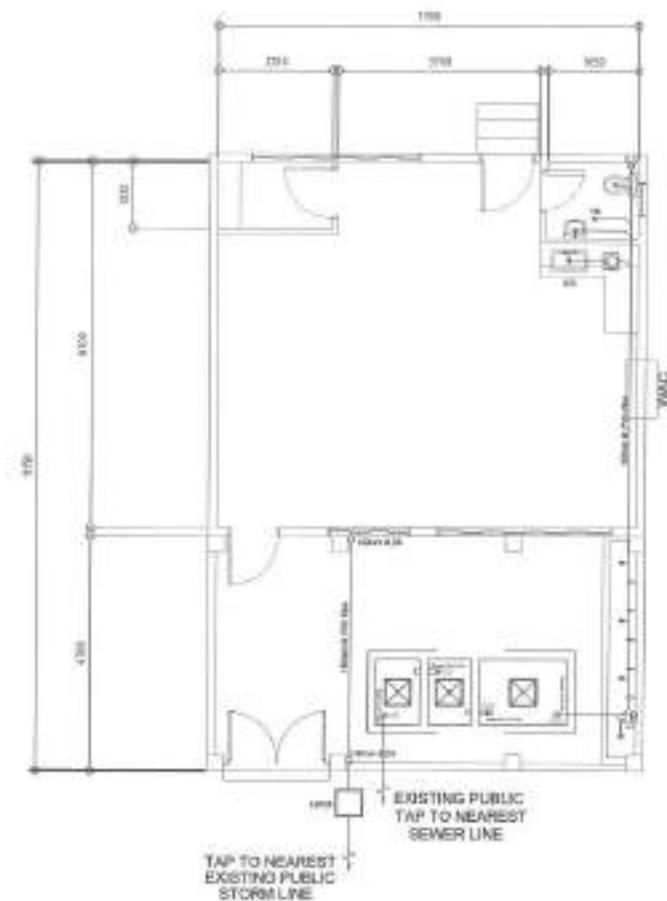
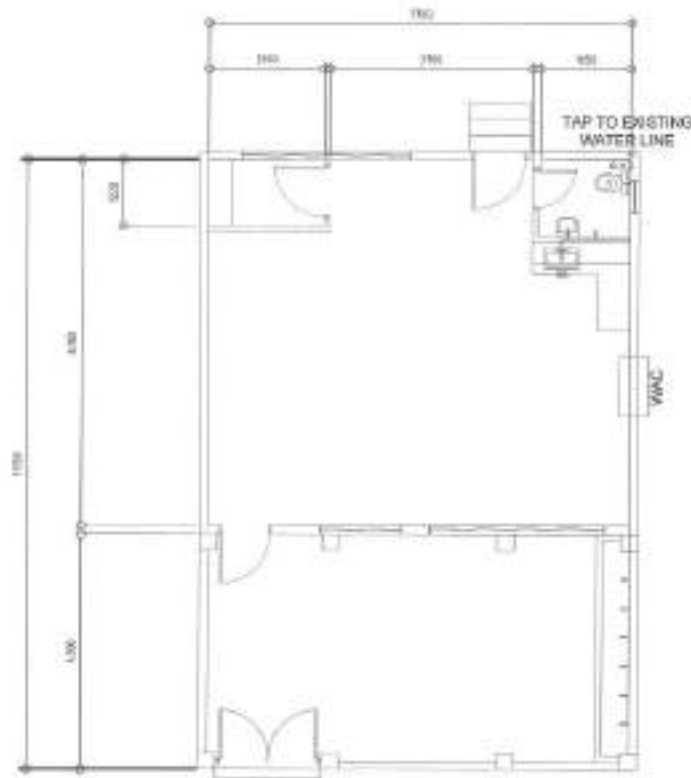
DRAWN BY: [Signature]

PROJECT CONTENT: GENERAL NOTES, CANOPY ROOF FRAMING PLAN, CANOPY TRUSS DETAILS, CONCRETE STAIRS DETAILS

SHEET NO.: **ST-01**  
08/14







**1 WATER LINE LAYOUT**

SCALE 1:100M.

**2 STORM/SEWER LINE LAYOUT**

SCALE 1:100M.



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	DRAWN BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
PROPOSED REHABILITATION OF AVON DAY CARE CENTER	DATE: 06/01/21 DRAWN BY: [Signature]	[Signature] ENGR. LEO S. DEL ROSARIO HEAD, PLANNING PROGRAM DIVISION	[Signature] ENGR. BRUNO R. VERZOSA, JR. DC, CITY ENGINEERING DEPARTMENT	[Signature] HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	WATER LINE LAYOUT STORM/SEWER LINE LAYOUT	PL-02 10/14
LOCATION: BRGY. NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY	REVISION NO.:					

- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEER, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL EMBEDDED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE RIG SUPPORTED BY CONDUIT CLAMPS EVERY 300MM CENTER.
- PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON THE PLANS. SIZES OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SLUMP SHEET DRAWINGS TO THE ENGINEER FOR APPROVAL. PRIOR TO FABRICATION, LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE 'AS-BUILT' PLAN.
- ALL POWER OUTLETS AND SWITCHES SHALL BE ENCLOSURE TYPE WITH PARALLEL SLOTS FOR 220V.
- PROVIDE GROUND FAULT CURRENT INTERRUPTER CIRCUIT BREAKER FOR LOADS MARKED 'GFI' ON THE PLAN.
- ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED.
- UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 300 MM AFT. 1000MM ABOVE FINISHED FLOOR  
 TELEPHONE OUTLET - 300 MM AFT  
 DATA OUTLET - 300 MM AFT  
 LIGHTING SWITCH - 1400 MM AFT  
 PANELBOARD - 1800 MM AFT

- REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NEW AS SPECIFIED.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND BRACK-OUT LINE DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY INDICATE DESCRIBED ACTUAL LOCATIONS, LEVELS AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOBSITE AS LOCAL CONDITIONS AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION OR CORRECTION.
- ALL LIGHTING AND COMMERCIAL OUTLET CIRCUITS SHALL BE 2.5 SQ. MM THIN WALL COPPER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 2.5 SQ. MM COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

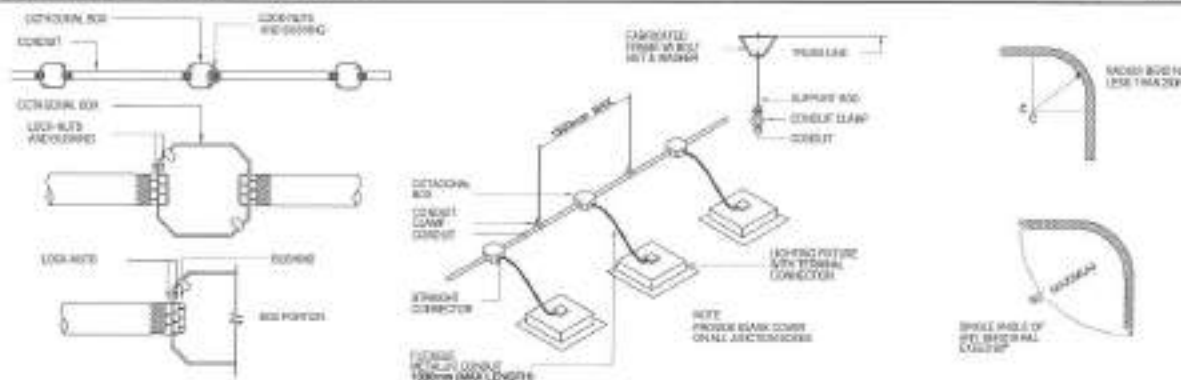
LIN 1 - RED  
 LINE 2 - YELLOW  
 NEUTRAL - WHITE  
 GROUND - GREEN

- BOXES, WIRS, GUTTERS, ENCLOSURE SHALL BE FABRICATED FROM STEEL WITH THICKNESS AS FOLLOWS:  
 MAXIMUM WIDTH OF THE BOXES SURFACE & THK.  
 UP TO INCLUDING 152.4MM GA 15 PAINTED WITH METAL PRIMER EPOXY AND TOPOCOAT  
 OVER 152.40 MM BUT NOT OVER 305 GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPOCOAT  
 OVER 305.08 MM BUT NOT OVER 457 GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPOCOAT  
 OVER 457.14 MM GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPOCOAT  
 OVER 762 MM GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPOCOAT
- ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL TIME LICENSED ELECTRICAL ENGINEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR BY PCAB. WORKS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
- TYPE OF SERVICE DISTANCE SHALL BE SINGLE-PHASE, TWO-WIRE PLUS GROUND, 60-HERTZ, 220V AC 1Ø/Ø/Ø/Ø.
- CONDUITS IN NO CASE SHALL THERE BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BOUNDS IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE FIELD MADE BY USING HYDRAULIC BENDING. MECHANICAL BENDING PROCESSES MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE QUEZON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN 5 OHMS. COMMUNICATION GROUNDING RESISTANCE SHALL NOT EXCEED 2 OHMS.

	ACU Outlet		Orbit Fan with Selector Switch
	Duplex Convenience Outlet		One Gang Switch
	1200mm x 600mm LED tube in Troffer Fixture		Two Gang Switch
	1x18W T8 LED Tube Box Type Lighting Fixture		Three Gang Switch
	14w LED Light Bulb in Plastic Receptacle		

## 2 LEGEND AND SYMBOLS

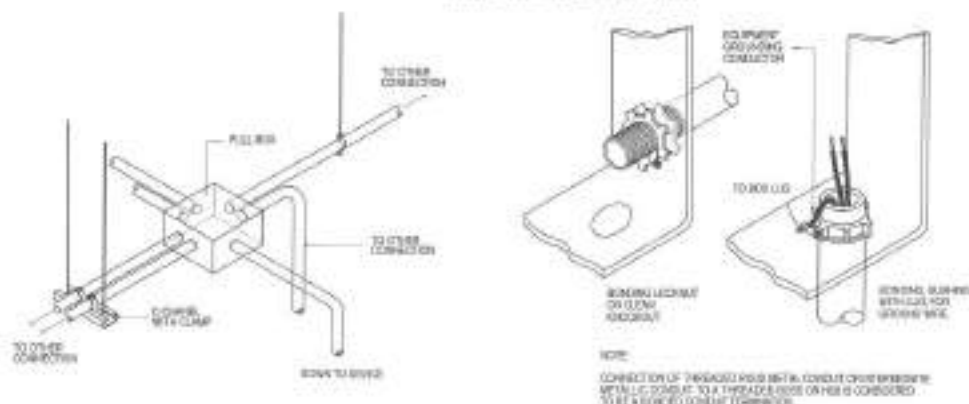
SCALE NTS



SPOT DETAIL OF CONDUIT RUN AND BOX

CONDUIT RUN FOR LIGHTING DISTRIBUTION IN ONE CIRCUIT (FOR EXPOSED OR IN/DROP-CEILING INSTALLATION)

DETAIL OF BENDING RADIUS




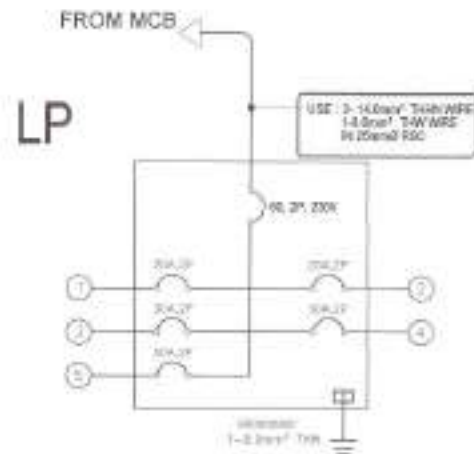
## 1 GENERAL NOTES

SCALE NTS

## 3 MISCELLANEOUS DETAILS

SCALE NTS

 <p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DRAWN BY:	SUBMITTED BY:	RECOMMENDING AGENCY:	APPROVED BY:	SHEET CONTENT:	SHEET NO.
	PROPOSED REHABILITATION OF AVON DAY CARE CENTER	DATE: 06.09.21	DESIGNED BY:	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING PROGRAM MANAGEMENT	ENGR. ISABELA R. VERZOSA, JR. DIO, CITY ENGINEERING DEPARTMENT	HON. NA. JOSEFINA G. BELMONTÉ CITY Mayor	GENERAL NOTES LEGENDS AND SYMBOLS MISCELLANEOUS DETAILS
LOCATION:	REVISION NO.:						
PROJ. NORTH PARKER, DISTRICT 5, QUEZON CITY							



PANEL NAME: LP		RATING: 60AT, 100AF, 2P, 230VAC											
CIR. NO.	DESCRIPTION	LOAD		RATING			OVER-CURRENT PROTECTION				SIZE OF WIRE	CONDUIT	
		L.G.	C.G.	VA	V	A	AF	AP	F	TYPE		SIZE	TYPE
1	LIGHTING OUTLET	11		1100	220	4.78	30	300	3	SCOT-ON	2-1.5mm² THHN + 1-2.0mm² THW(E)	30	PVC
2	COMMERCIAL OUTLET		8	2000	200	4.70	30	300	2	SCOT-ON	2-1.5mm² THHN + 1-2.0mm² THW(E)	30	PVC
3	REFRIGERATOR			400	230	3.41	30	300	2	SCOT-ON	2-1.5mm² THHN + 1-2.0mm² THW(E)	30	PVC
4	ACU OUTLET			3040	230	8.00	30	300	2	SCOT-ON	2-5.0mm² THHN + 1-8.0mm² THW(E)	35	PVC
5	SWALE			2000	230	4.91	30	300	2	SCOT-ON			
<b>TOTAL</b>						3020		24.43					

**COMPUTATION:**  
 $I_L = \frac{5000}{230} = (N \times 25A)$   
 $I_L = 26.43 A$   
 $I_{Lc} = 26.43 \times 125\%$   
 $I_{Lc} = 33.04 A$

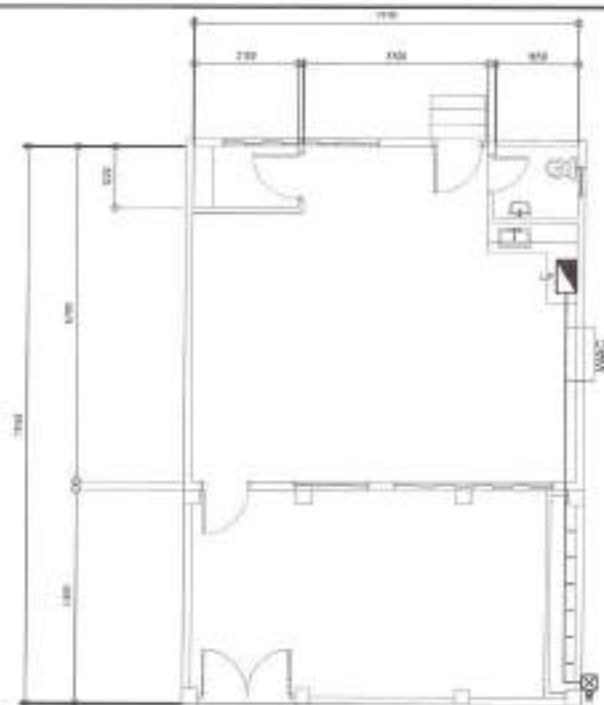
**NOTE:**  
 RATED: 60AT, 100AF, 2P, 230VAC  
 RECOMMEND: 3-14.0mm² THHN + 1-8.0mm² THW(E)  
 1-25mm² EGC

## 1 PANEL BOARD DIAGRAM

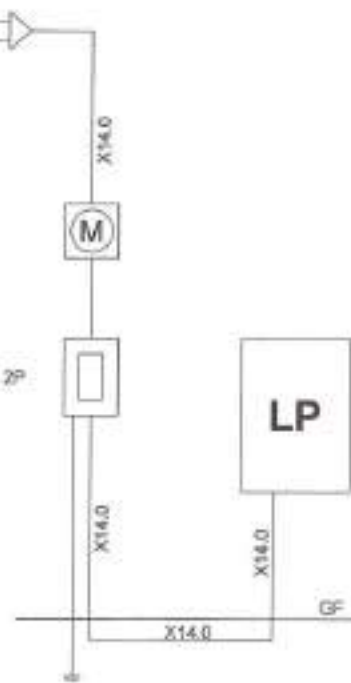
SCALE: NTS.

## 2 SCHEDULE OF LOADS

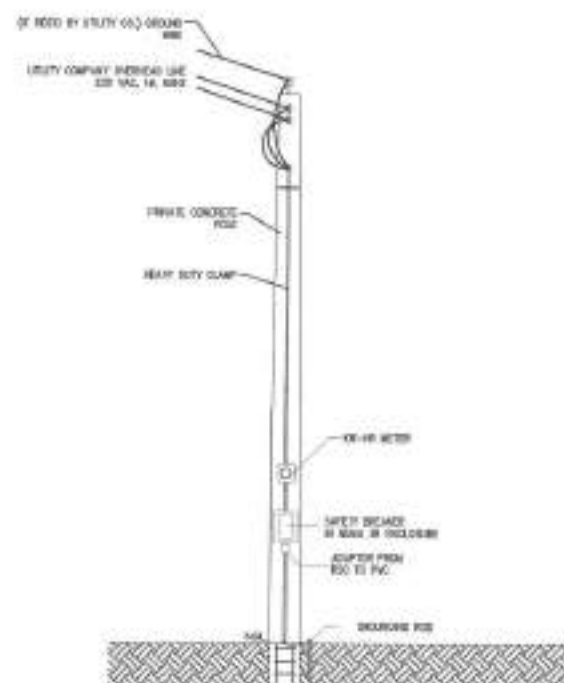
SCALE: NTS.



SERVICE ENTRANCE  
230VAC, 2P, 80Hz  
2W + G



NOTE:  
X14.0 - 3-14.0mm² THHN +  
1-8.0mm² THW



## 3 SITE DEVELOPMENT PLAN

SCALE: NTS.

## 4 SINGLE LINE DIAGRAM

SCALE: NTS.

## 5 SERVICE ENTRANCE DETAILS

SCALE: NTS.



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
AVON DAY CARE CENTER**

LOCATION:  
BRGY. NORTH PARKVIEW, DISTRICT 3, QUEZON CITY

DRAWN BY: [Signature]  
DATE: 08/28/21  
CHECKED BY: [Signature]  
REVISION NO:

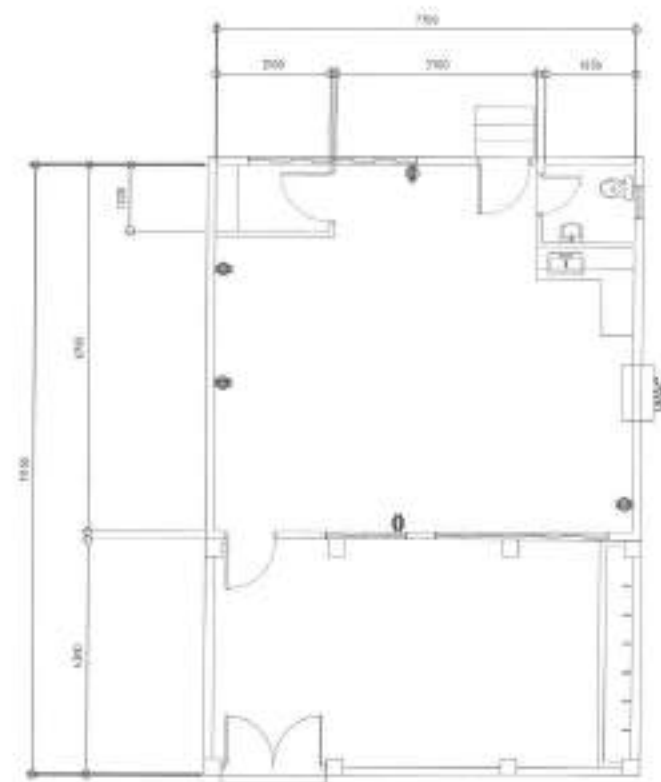
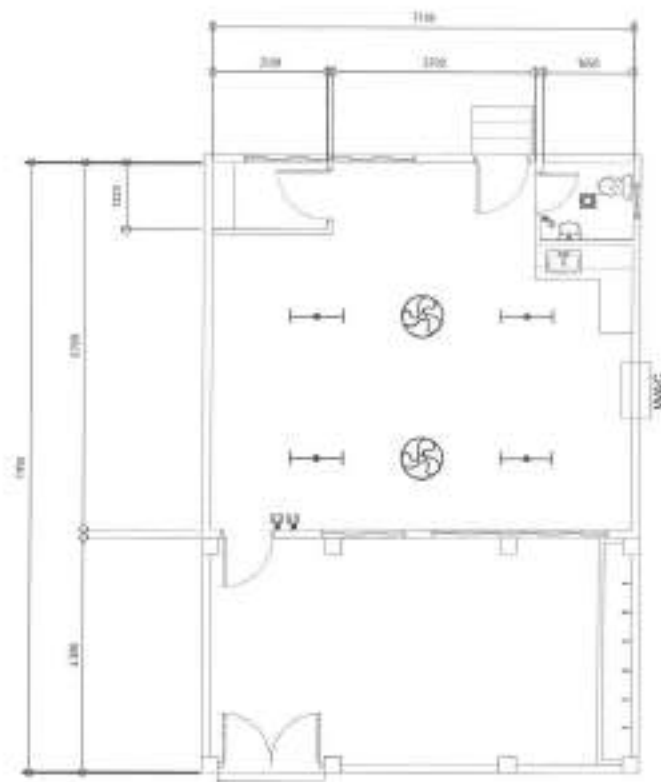
SUBMITTED BY:  
[Signature]  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING PROGRAMMING DIVISION

RECOMMENDING APPROVAL:  
[Signature]  
ENGR. RAMON R. VERZOSA, JR.  
SEC. CITY ENGINEERING DEPARTMENT

APPROVED BY:  
[Signature]  
NON. MA. JOSEFINA G. BELMONTE  
CITY MAOR

SHEET CONTENT:  
PANEL BOARD DIAGRAM  
SCHEDULE OF LOADS  
SITE DEVELOPMENT PLAN  
SINGLE LINE DIAGRAM  
SERVICE ENTRANCE  
DETAILS

SHEET NO.  
**EL-02**  
**12/14**



## 1 LIGHTING LAYOUT (EXISTING)

SCALE 1:100M

## 2 POWER LAYOUT (EXISTING)

SCALE 1:100M



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	PROPOSED REHABILITATION OF AVON DAY CARE CENTER
LOCATION:	BRGY. NORTH FARWER, DISTRICT 1, QUEZON CITY

DRAWN BY:	DATE: 08/2021
CHECKED BY:	REVISION NO.:

SUBMITTED BY:	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING PROGRAMS DIVISION
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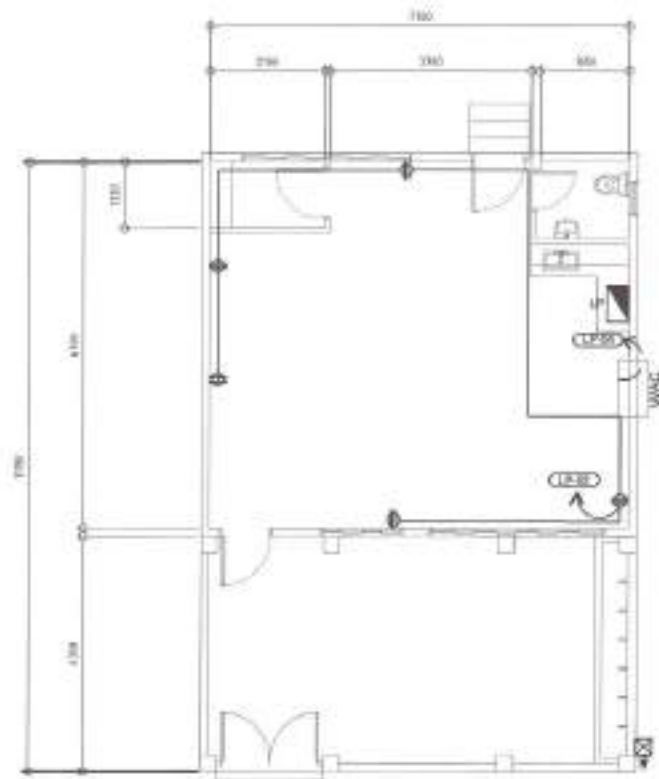
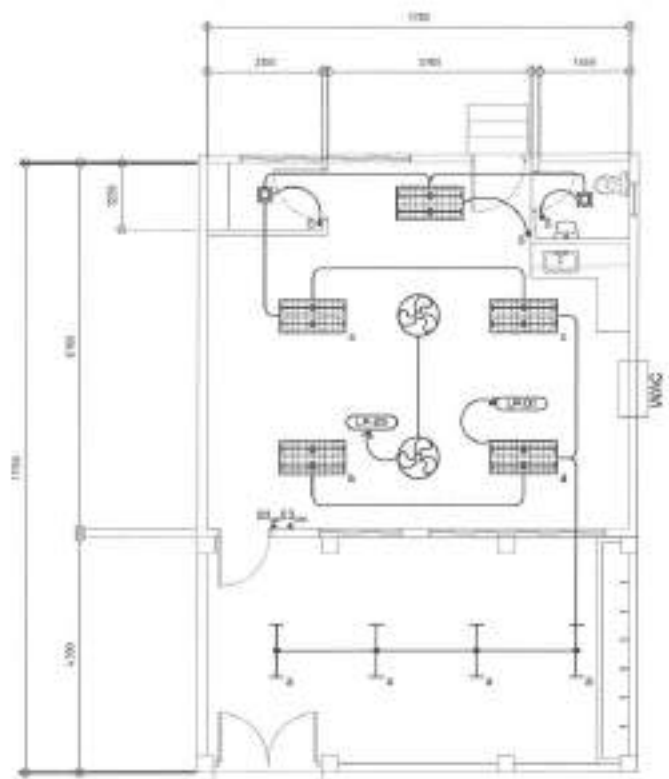
RECOMMENDING APPROVAL:	ENGR. ISADANI R. VERZOSA, JR. DC, CITY ENGINEERING DEPARTMENT
------------------------	--

APPROVAL BY:	HON. MA. JOSEFINA G. BELMONTTE CITY MAYOR
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SHEET CONTENT:	LIGHTING LAYOUT (EXISTING) POWER LAYOUT (EXISTING)
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SHEET NO.:	EL-03 13/14
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**1 LIGHTING LAYOUT (PROPOSED)**

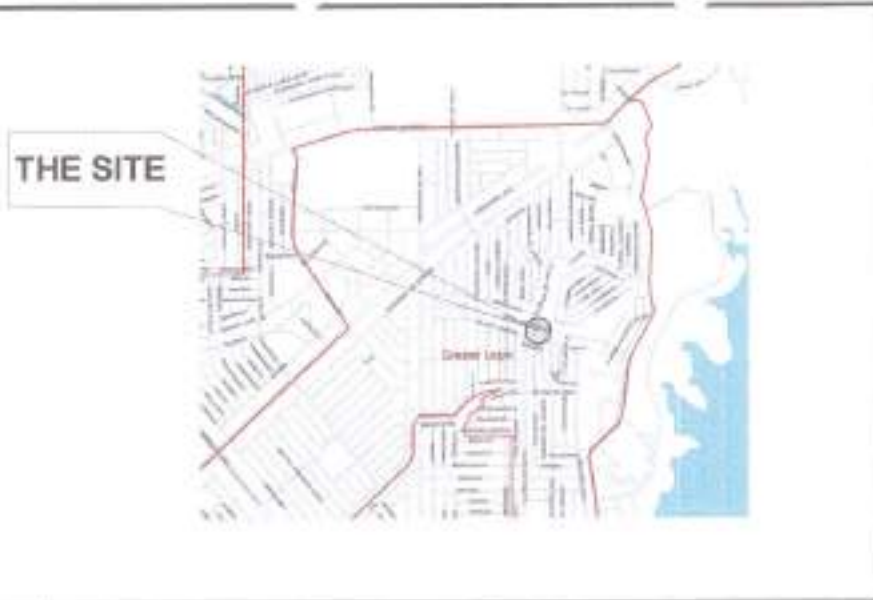
SCALE 1:100M

**2 POWER LAYOUT (PROPOSED)**

SCALE 1:100M

 <p>Republika ng Pilipinas Lungsod ng Quezon <b>CITY ENGINEERING DEPARTMENT</b></p>	PROJECT TITLE	DRAWN BY: 	SUBMITTED BY: 	RECOMMENDING APPROVAL: 	APPROVED BY:	PROJECT CONTENT	PROJECT NO.
	<p><b>PROPOSED REHABILITATION OF AVON DAY CARE CENTER</b></p> <p>LOCATION: BRGY. NORTH HARPER, DISTRICT 8, QUEZON CITY</p>	<p>DATE: 09/01/21</p> <p>CHECKED BY: </p> <p>REVISION NO.:</p>	<p><b>ENGR. LEO S. DEL ROSARIO</b> HEAD, PLANNING &amp; PROJECT MANAGEMENT DIVISION</p>	<p><b>ENGR. BASIL R. VERZOSA, JR.</b> C.E. CITY ENGINEERING DEPARTMENT</p>	<p><b>HON. MA. JOSEFINA G. BELMONTTE</b> CITY MAYOR</p>	<p>LIGHTING LAYOUT (PROPOSED) POWER LAYOUT (PROPOSED)</p>	<p><b>EL-04</b> <b>14/14</b></p>

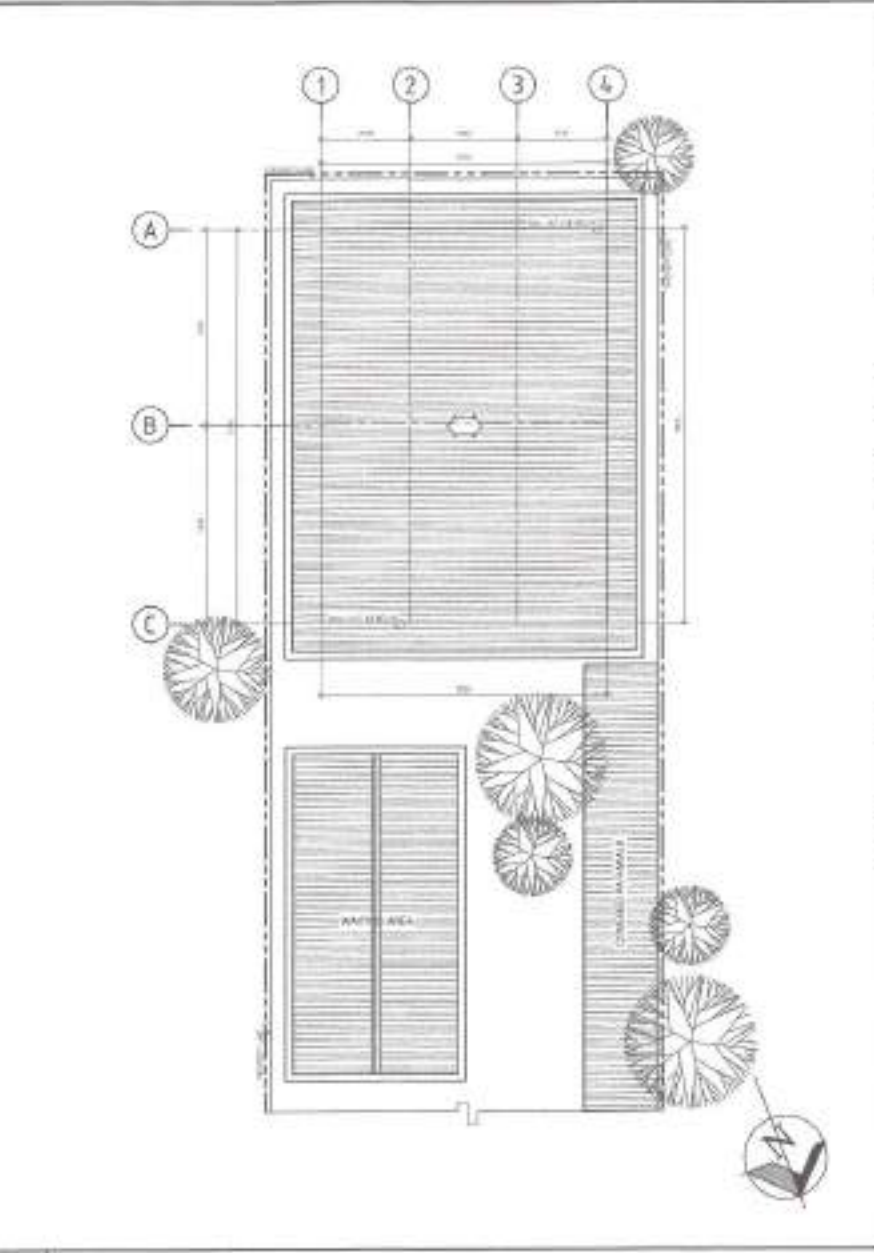




**1 VICINITY MAP** SCALE NTS



**2 LOCATION MAP** SCALE NTS



**3 SITE DEVELOPMENT PLAN** SCALE 1:100M

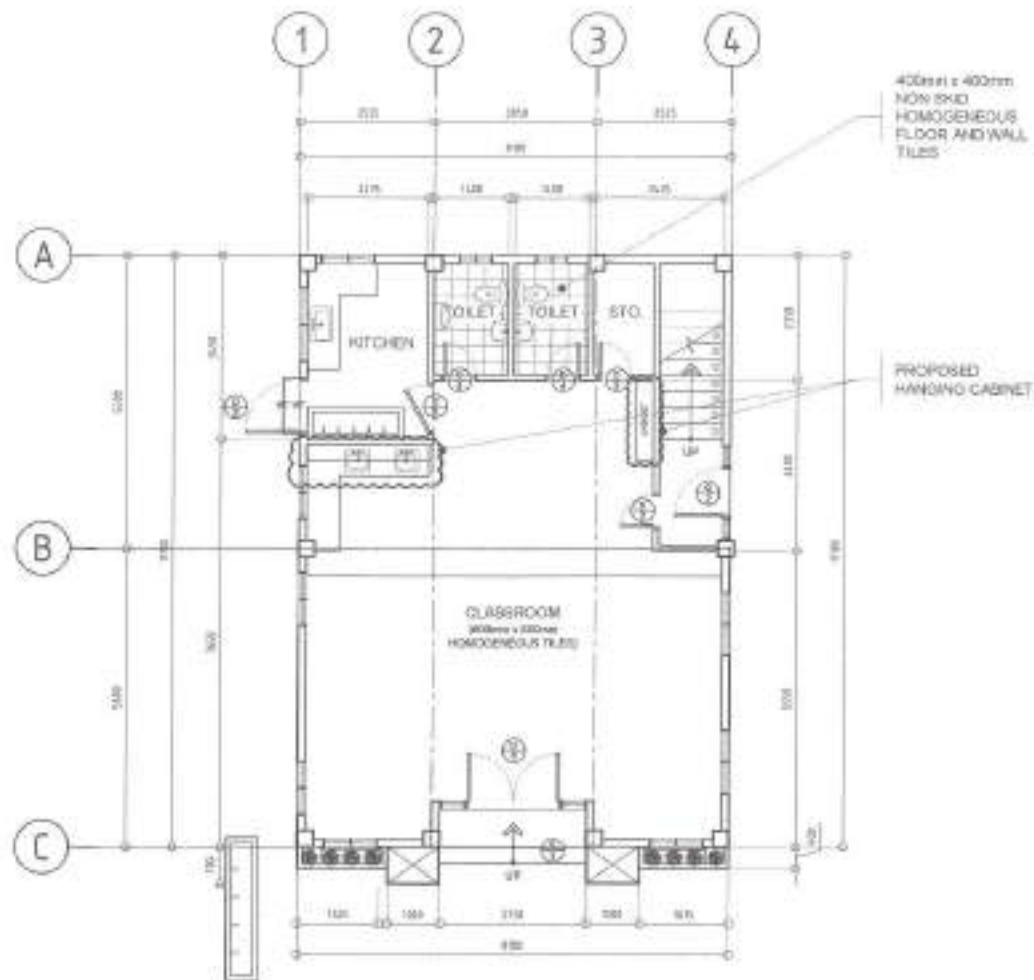
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AR-2	GROUND FLOOR PLAN
AR-3	EXISTING SECOND FLOOR PLAN PROPOSED SECOND FLOOR PLAN
AR-4	GROUND FLOOR REFLECTED CEILING PLAN SECOND FLOOR REFLECTED CEILING PLAN
AR-5	FRONT ELEVATION REAR ELEVATION RIGHT SIDE ELEVATION LEFT SIDE ELEVATION
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EL-3	GROUND FLOOR POWER LAYOUT SECOND FLOOR LIGHTING LAYOUT
EL-4	SECOND FLOOR POWER LAYOUT

Republic of Philippines  
 Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE:	DESIGNED BY:	APPROVED BY:
<b>PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER</b>	DATE: 06.21.21	
LOCATION:	CHECKED BY:	REVISIONS:
Dist. 2717/2812/1880A District 8, Quezon City		

RECOMMENDING OFFICER:	APPROVED BY:
ENGR. ISABELLA VERZOSA, JR. OC. CITY ENGINEER (REHABILITATION)	HON. MA. JOSEFINA C. BELMONTÉ CITY MAYOR

SHEET CONTENT	SHEET NO.
VICINITY MAP LOCATION MAP SITE DEVELOPMENT PLAN	<b>AR-01</b> 01/14

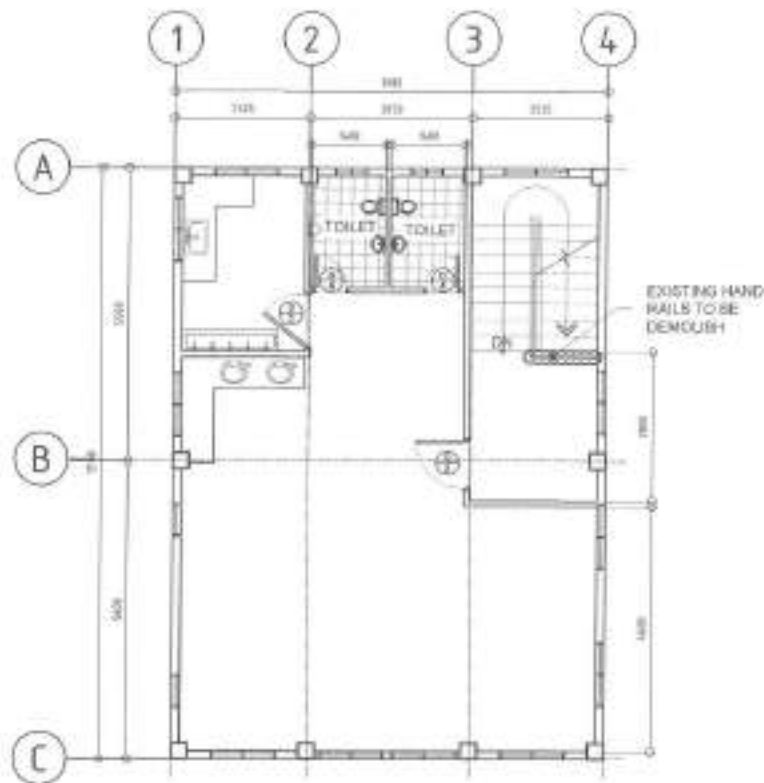


- NOTE:  
 1. INTERIOR WALLS TO BE REPAIRED  
 2. ALL DOORS TO BE REPLACED  
 3. PROPOSED HANGING CABINETS  
 4. REPLACEMENT OF GATE - 1

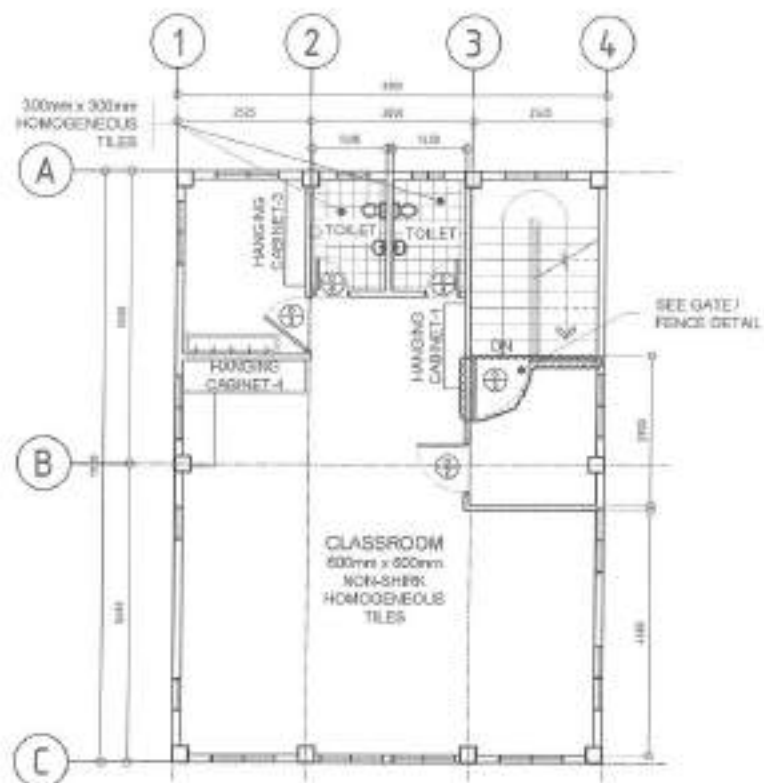
**1 GROUND FLOOR PLAN (PROPOSED)**

SCALE: 1:100M

 <p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DESIGNED BY:	SUBMITTED BY:	COORDINATING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER  LOCATION: BRGY. GREATER LAGRO, DISTRICT 1, BUEZON CITY	DATE: 06/21 CHECKED BY: [Signature] REVISIONS:	[Signature] ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAM DIVISION	[Signature] ENGR. DANIEL R. VERZOSA, JR. CH. CITY ENGINEER/DEPUTY CHIEF	[Signature] HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	GROUND FLOOR PLAN	AR-02 0214



- NOTE:
1. CHIPPING OF EXISTING FLOOR AND WALL TILES
  2. REMOVAL OF SECOND FLOOR HAND RAILS



- NOTE:
1. INTERIOR WALLS TO BE REPAINTED
  2. ALL DOORS TO BE REPLACED
  3. STAIR TILES TO BE REPLACED
  4. PROPOSED GATE
  5. HAND WASHING FAUCETS TO BE REPLACED
  6. CONSTRUCTION OF HANGING CABINETS

**1 EXISTING SECOND FLOOR PLAN**

SCALE 1:100N

**2 PROPOSED SECOND FLOOR PLAN**

SCALE 1:100N



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
GREATER LAGRO I AND GREATER  
LAGRO II DAY CARE CENTER**

LOCATION:  
BAGY, BRICKER LAKAS, DISTRICT 5, QUEZON CITY

DESIGNED BY:  
DATE: 04/12/20  
CHECKED BY:  
REVISION NO:

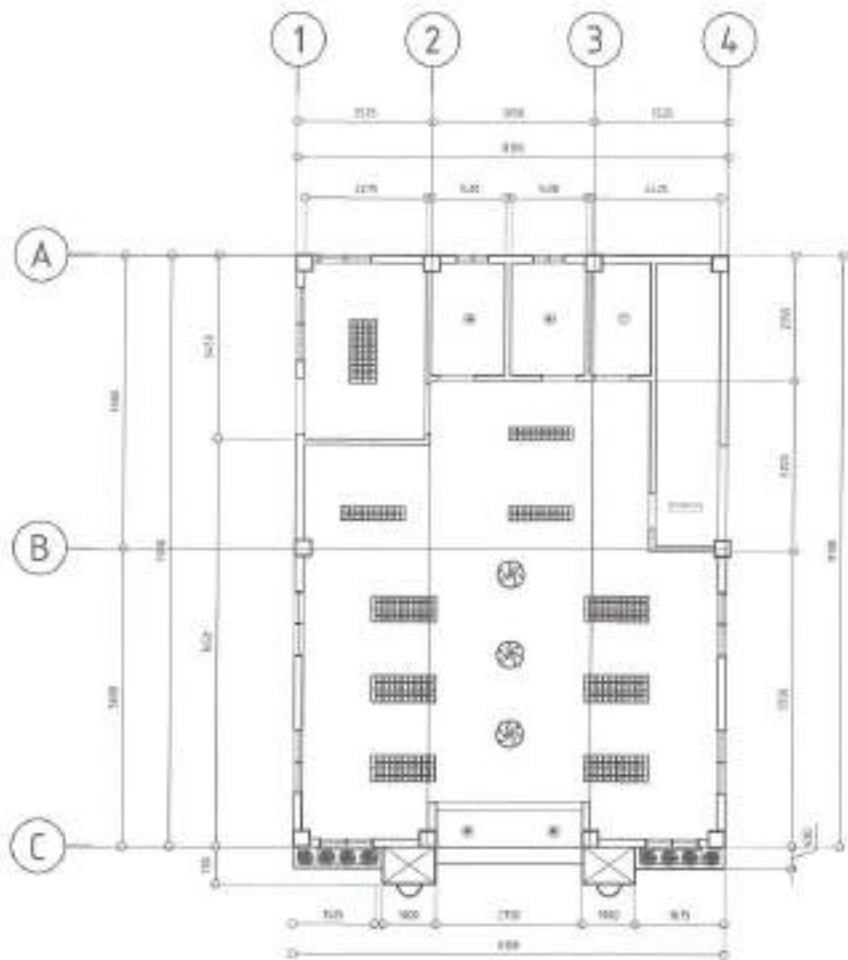
DESIGNED BY:  
  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING PROGRAM DIVISION

RECOMMENDING APPROVAL:  
  
ENGR. MARIANI R. VERZOSA, JR.  
O.C. DIVISION CHIEF/ENGINEER

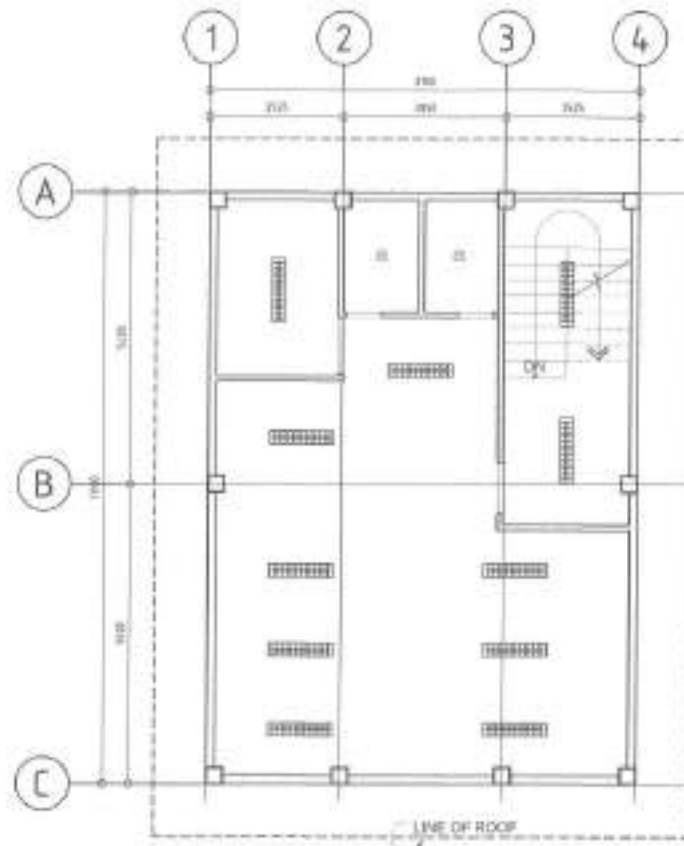
APPROVED BY:  
HON. MA. JOSEFINA G. BELMONTÉ  
CITY ALCORN

BEST COPY ON:  
EXISTING SECOND FLOOR  
PLAN  
PROPOSED SECOND  
FLOOR PLAN

SHEET NO:  
**AR-03**  
**03/14**



NOTE:  
1. REPLACEMENT OF 6mm THICK FIBER CEMENT BOARD INCLUDING ROOF EAVES



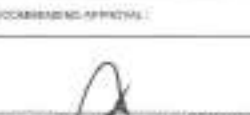
NOTE:  
1. REPLACEMENT OF 6mm THICK FIBER CEMENT BOARD INCLUDING ROOF EAVES.  
2. REPLACEMENT OF 12mm THICK FASCIA BOARD

**1 GROUND FLOOR REFLECTED CEILING PLAN**

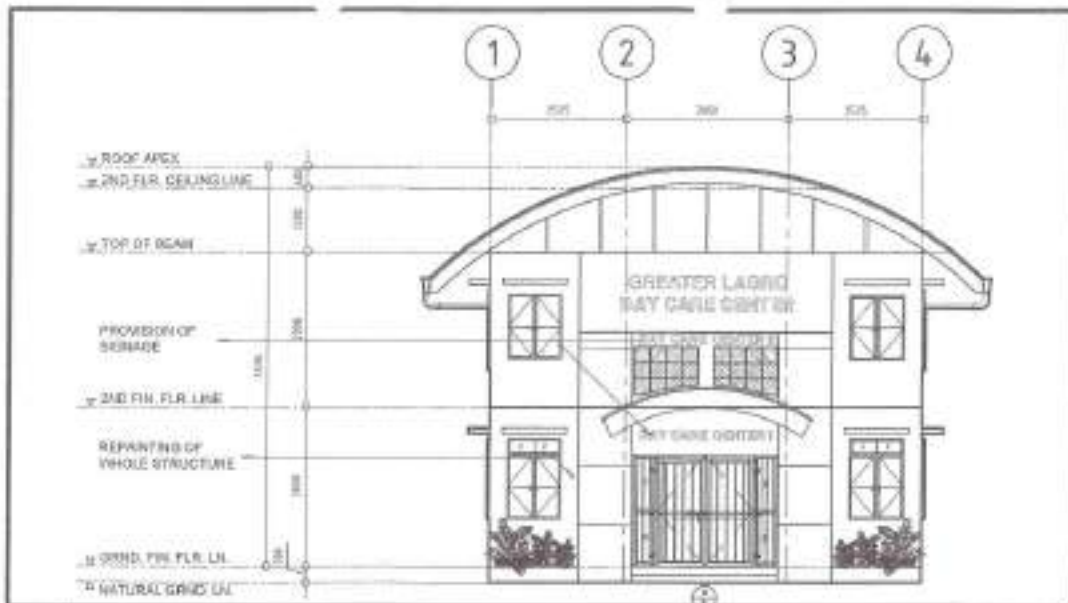
SCALE 1:100M

**2 SECOND FLOOR REFLECTED CEILING PLAN**

SCALE 1:100M

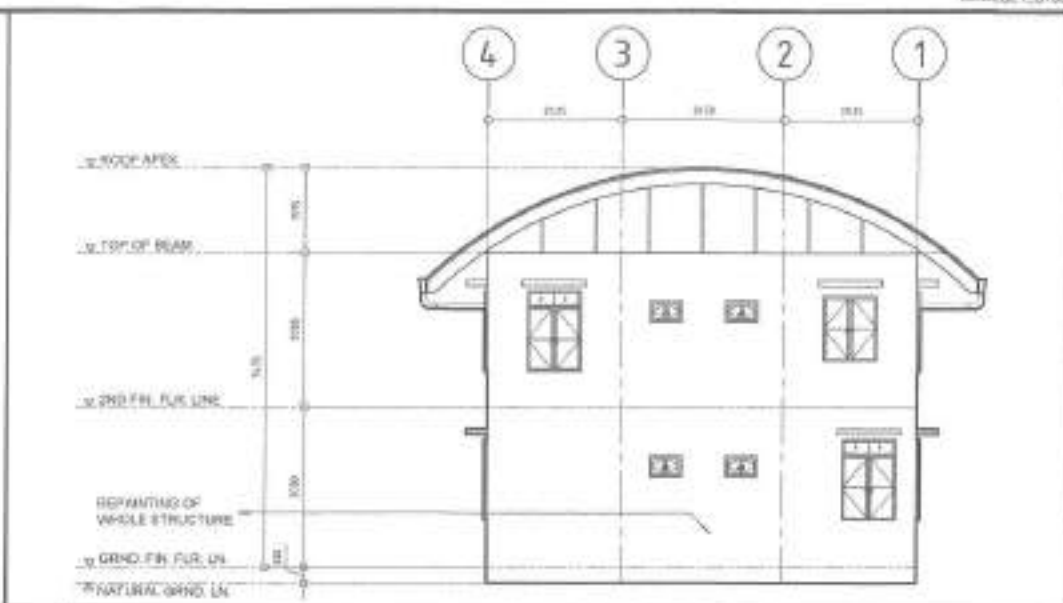
 <p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DRAWN BY:	SUBMITTED BY:	RECOMMENDING OFFICIAL:	APPROVED BY:	SHEET CONTENT:	PROJECT NO.
	PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER	DATE: 09-21-21				GROUND FLOOR REFLECTED CEILING PLAN SECOND FLOOR REFLECTED CEILING PLAN	AR-04 04/14
	LOCATION: BNDP, GREATER LAGRO, DISTRICT 1, QUEZON CITY	DRAWING NO.:	ENGR. LEO S. DEL ROSARIO HEAD, BUREAU OF PROJECTS/INSPECTION	ENGR. EDGARDO N. VERZOSA, JR. D.C. CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR		





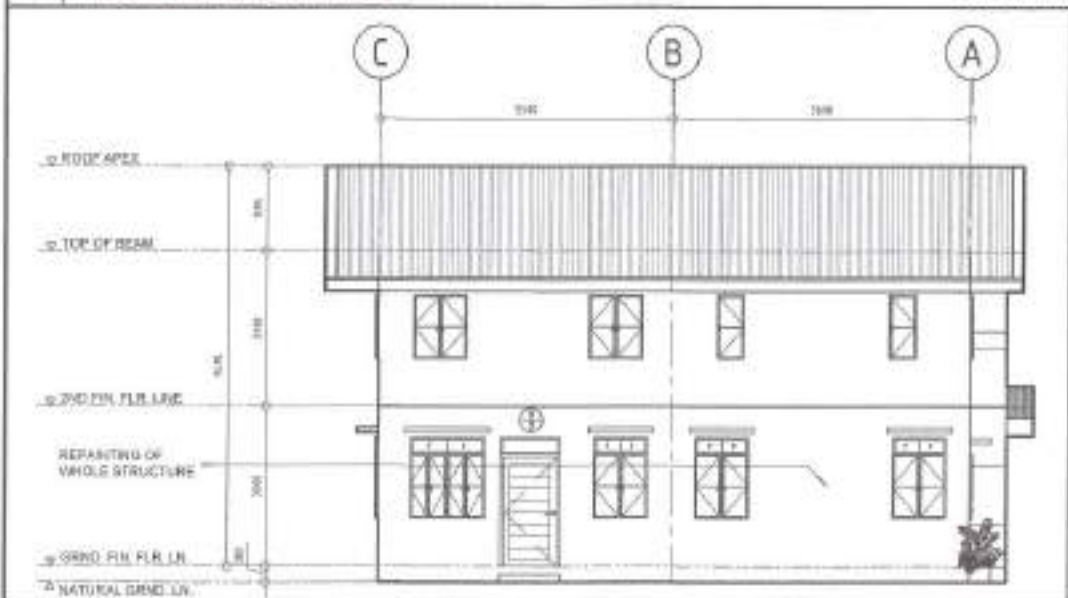
1 FRONT ELEVATION

SCALE 1:100M



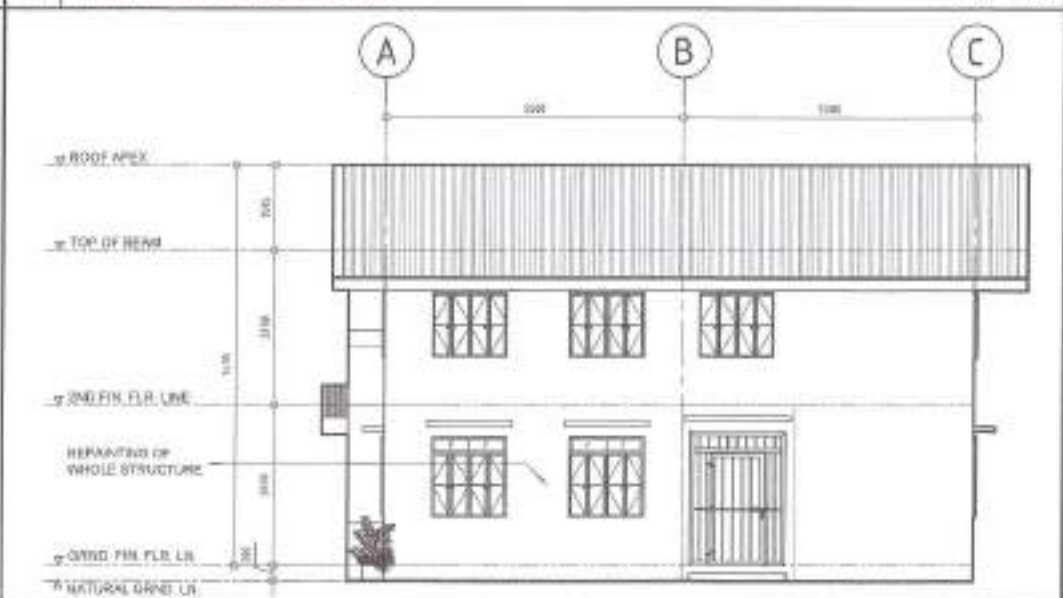
2 REAR ELEVATION

SCALE 1:100M



3 RIGHT SIDE ELEVATION

SCALE 1:100M



4 LEFT SIDE ELEVATION

SCALE 1:100M



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
GREATER LAGRO I AND GREATER  
LAGRO II DAY CARE CENTER**

LOCATION:  
BAGY. SEKTOR LAGRO DISTRICT 8, BACORCAY

DRAWN BY: *[Signature]*  
DATE: 04-12-21  
CHECKED BY: *[Signature]*  
REVISION NO:

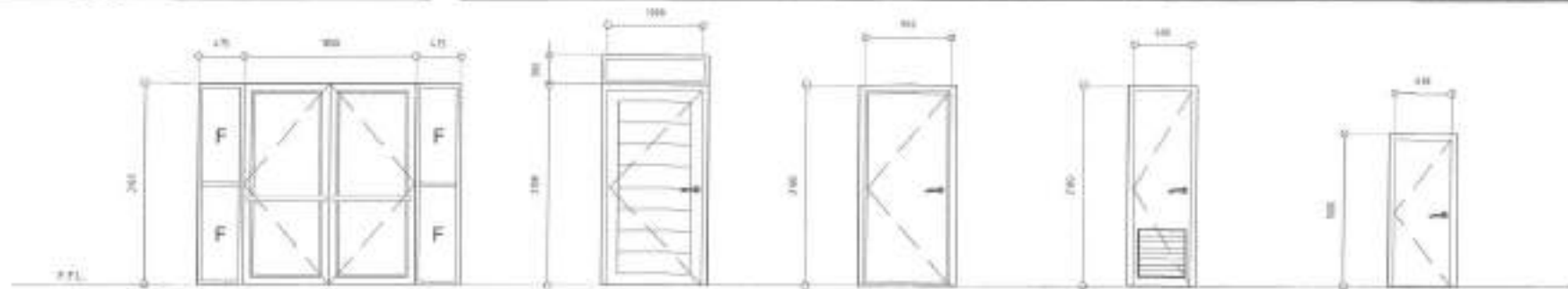
SUBMITTED BY:  
*[Signature]*  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAM DIVISION

RECOMMENDING APPROVAL:  
*[Signature]*  
ENGR. BASIL R. VERZOSA, JR.  
DCC CITY ENGINEERING DEPARTMENT

APPROVED BY:  
*[Signature]*  
HON. MA. JOSEFINA G. BELMONTE  
CITY MAOR

SHEET CONTENT:  
FRONT ELEVATION  
REAR ELEVATION  
RIGHT SIDE ELEVATION  
LEFT SIDE ELEVATION

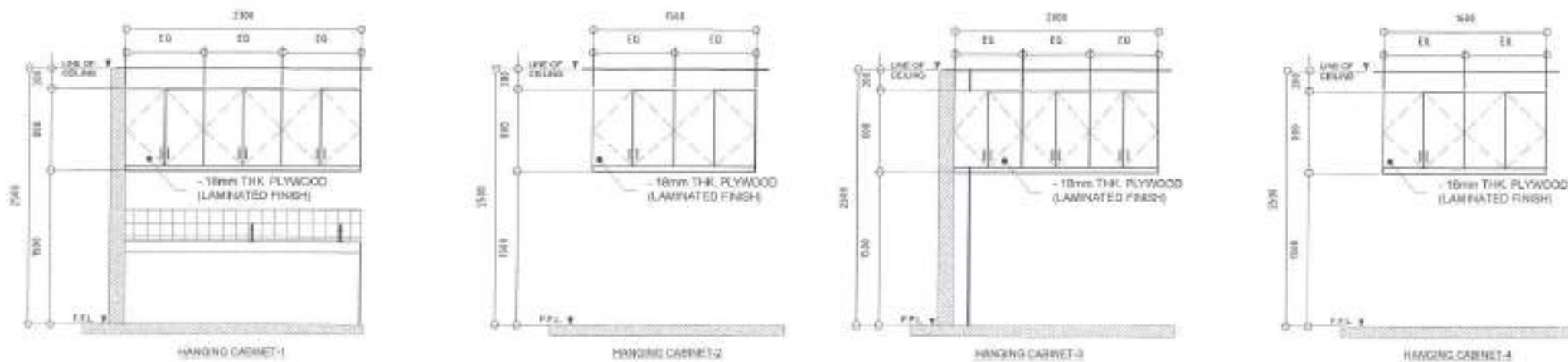
SHEET NO:  
**AR-05**  
**05/14**



NO.	1	2	3	4	5
NO. OF SETS	1	2	2	4	1
DESCRIPTION	GLASS DOOR	PANEL DOOR	PANEL DOOR	PVC DOOR WITH LOUVERS	PVC DOOR
LOCATION	ENTRANCE / CLASSROOM	KITCHEN / BACK DOOR	KITCHEN	TOILETS	STORAGE
REMARKS	TO BE REPLACED	TO BE REPLACED	TO BE REPLACED	TO BE REPLACED	TO BE REPLACED

**1 SCHEDULE OF DOORS**

SCALE 1:40M



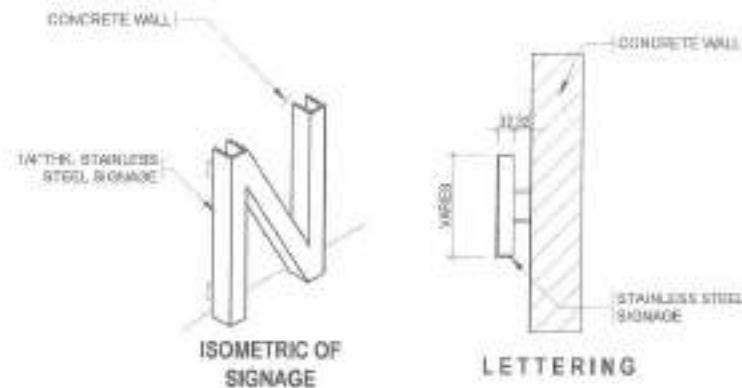
**2 HANGING CABINET DETAILS**

SCALE 1:50M



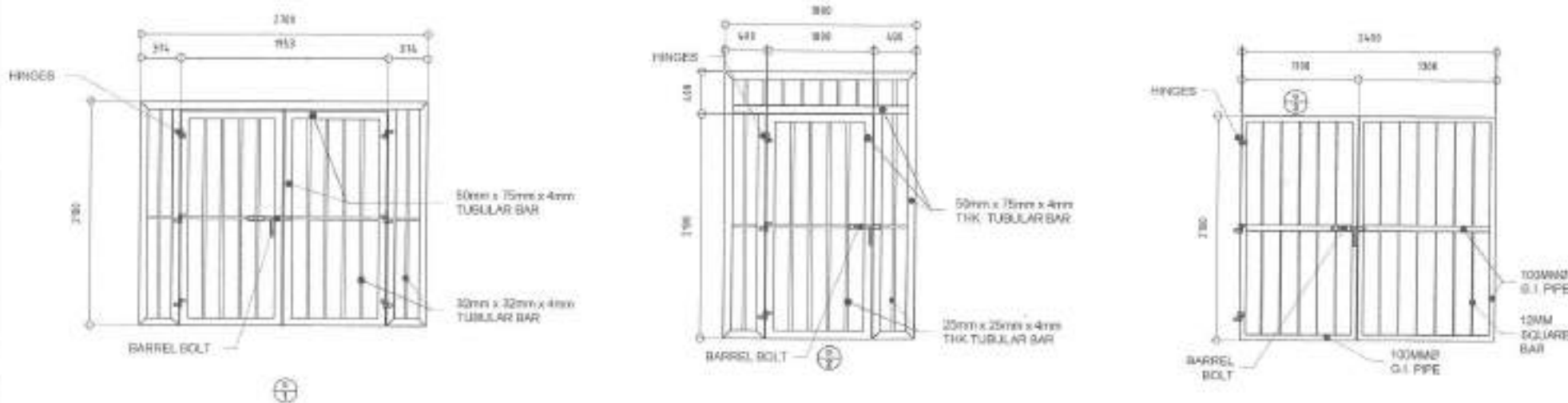
Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE: <b>PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER</b>	DESIGNED BY: <i>[Signature]</i>	CHECKED BY: <i>[Signature]</i>	DATE: 05.21.21	RECOMMENDED APPROVAL:	APPROVED BY:	SHEET CONTENT: SCHEDULE OF DOORS HANGING CABINET DETAILS	SHEET NO. <b>AR-06</b> <b>06 14</b>
LOCATION: 8907, GREATER LAGRO I DISTRICT 8, QUEZON CITY	REVISION NO.:	ENGR. LEO S. DEL ROSARIO HEAD, PLUMBING & MECHANICAL DIVISION		ENGR. ISAAC A. VERZOSA, JR. CIC CITY ENGINEERING DEPARTMENT	ENR. MA. JOSEFINA G. BELMONTE CITY MGR.		



**1 LETTERING DETAILS**

SCALE: NTS



**2 GATE DETAILS**

SCALE: 1:100

<p>                 Republika ng Pilipinas                  Lungsod ng Quezon                  CITY ENGINEERING DEPARTMENT             </p>	PROJECT TITLE: <b>PROPOSED REHABILITATION OF                  GREATER LAGRO I AND GREATER                  LAGRO II DAY CARE CENTER</b>	DRAWN BY: DATE: 06/11/21 CHECKED BY:	SUBMITTED BY:  ENGR. LEO S. DEL ROSARIO RMR - PLANNING & PROGRAMS DIVISION	RECOMMENDING APPROVAL:  ENGR. ISIBANG M. VERZOSA, JR. ICL - CITY ENGINEERING DEPARTMENT	APPROVED BY:  HON. MA. JOSEFINA G. BELMONTE CITY BAYAN	SHEET CONTENT: LETTERING DETAILS GATE DETAILS	SHEET NO. <b>AR-07</b> <b>07/14</b>
	LOCATION: PROJ. GREATER LAGRO DISTRICTS, QUEZON CITY	REVIEWED:					



1 All plumbing works and materials indicated herein shall be compliant 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, clearouts and check valves shall be concealed 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 relocation will require proper consultation in relation with other trades.

3 The plumbing contractor shall verify all existing utilities at the site and shall coordinate the work with other trades.

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 3%.

6 Proposed plumbing utilities shall conform with the actual location, depth and invert elevation 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 females 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 service areas not subject to traffic.

10 All underground G.I. pipes in direct contact with soil shall be provided with two (2) coats of protective tar coating and wrapped with jute cloth thoroughly soaked in tar or asphalt.

11 Provide vent, stack and vent pipe thru roof of cast iron service weight as required.

12 All cast 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 fixtures.

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 extensions of dimensions as shown:

H = 400 mm for 19 mm Ø and larger

H = 300 mm for 12 mm Ø and smaller

16 All hose bibbs shall be 19 mm Ø (¾" 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.

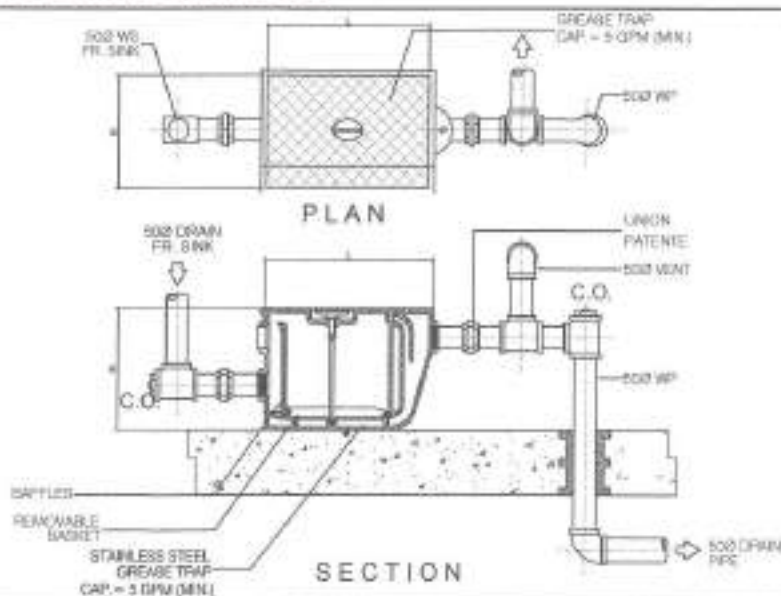
4. FIXTURES AND OTHER LEGEND

FD	FLOOR DRAIN
RD	ROOF DRAIN
SHD	SHOWER
WC	WATER CLOSET
LAV	LAVATORY
UR	URINAL
KS	KITCHEN SINK
BD	BUILDING DRAIN
DD	DECK DRAIN
CCO	CEILING CLEANOUT
FCO	FLOOR/GROUND CLEANOUT
DS	DOWNSPOUT
mm	millimeter
Ø	mm DIAMETER
SHD	SHOWER DRAIN
CB	CATCH BASIN
MH	MANHOLE
→	DIRECTION OF FLOW
	GREASE TRAP

	UNION PATENT
	CHECK VALVE
	BUILDING DRAIN
	BUILDING DRAIN
	WASTE LINE
	AREA DRAIN/CATCH BASIN
	FLOOR DRAIN
	WASTE LINE
	WASTE LINE
	GATE VALVE
	DECK DRAIN
	CLEANOUT
	RISE DOWN
	RISE UP
	NIPPLE
	GATE VALVE
	AREA DRAIN/CATCH BASIN
	WATER CLOSET
	LAVATORY
	MANHOLE
	HOSE BIBB
	STORM DRAIN LINE
	VENT LINE
	VENT ABOVE CEILING
	CONDUCTS PIPE (NEAR) COND. PIPE
	VENT THRU ROOF
	DIRECTION OF FLOW/SLOPE

2 LEGEND AND SYMBOLS

SCALE: 1:4000



1 GENERAL NOTES

3 GREASE TRAP DETAILS

SCALE: NTS



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	DATE: 08-21-21
DESIGNED BY:	DRAWN BY:
LOCATION:	REVISIONS:
PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER	
BRYD, GREATER LAGRO, DISTRICT 8, QUEZON CITY	

SCALE: NTS	RECOMMENDING APPROVAL:
ENGR. ED S. DEL ROSARIO HEAD, PLANNING & REGULATIONS DIVISION	ENGR. ISABELLA R. VERGOSA, JR. CH. CIV. ENGR. DEPARTMENT

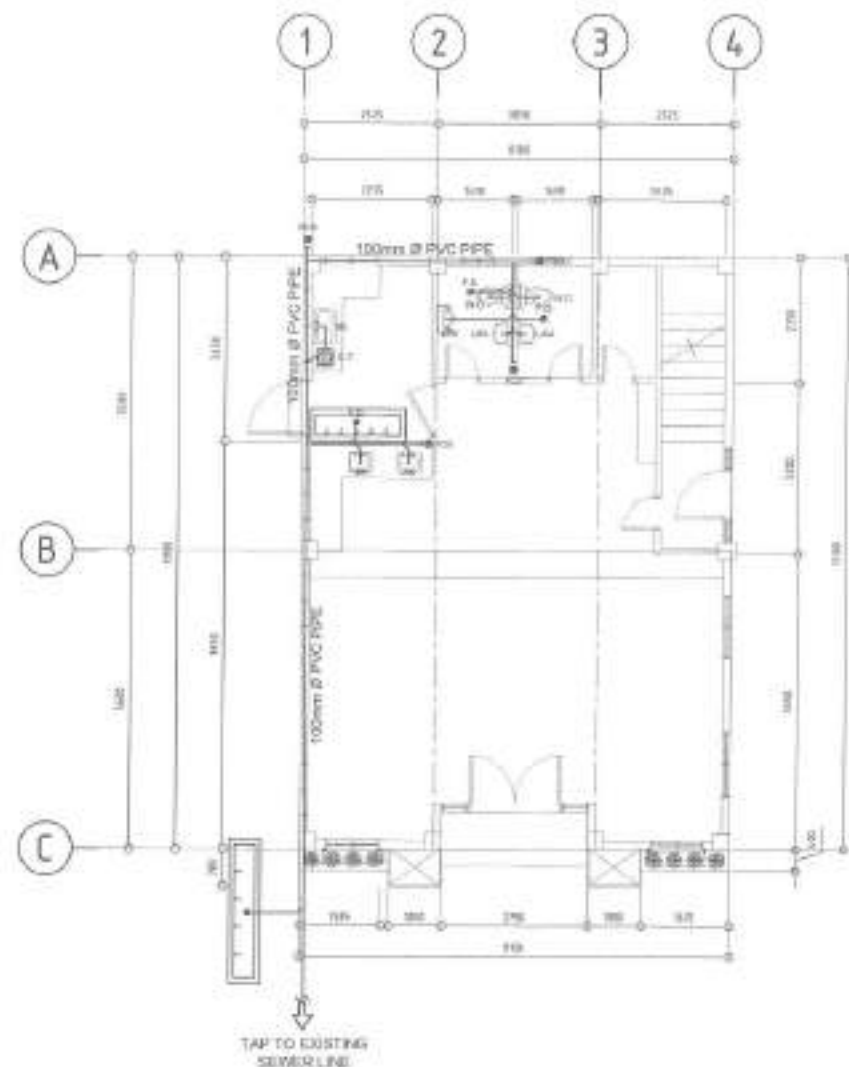
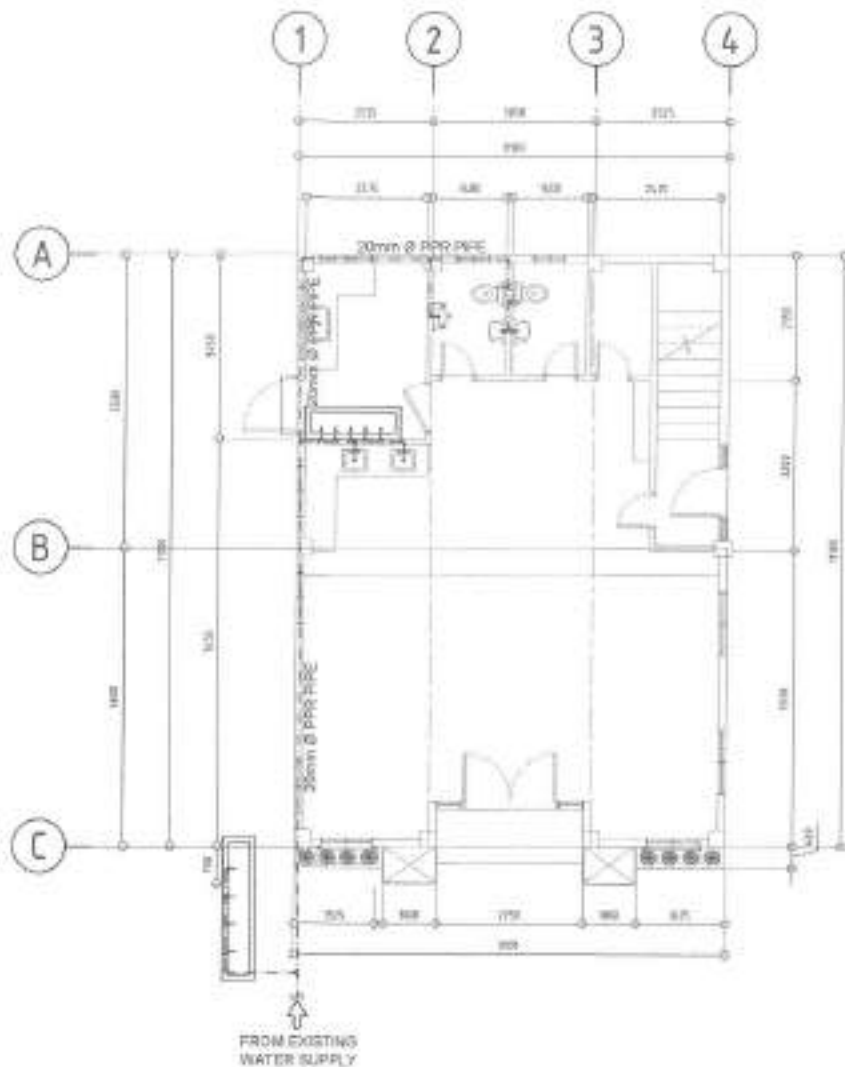
APPROVED BY:
ENGR. ISABELLA R. VERGOSA, JR. CH. CIV. ENGR. DEPARTMENT

CHEET CHECKED BY:
ENGR. ISABELLA R. VERGOSA, JR. CH. CIV. ENGR. DEPARTMENT

SHEET NO.:
08 14

PROJECT NO.:
PL-01





1 GROUND FLOOR WATER LINE LAYOUT

SCALE: NTS.

2 GROUND FLOOR SANITARY LINE LAYOUT

SCALE: NTS.



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
GREATER LAGRO I AND GREATER  
LAGRO II DAY CARE CENTER**

LOCATION:  
BRGY. GREATER LAGRO, DISTRICT 5, DAGupan CITY

DRAWN BY: *[Signature]*  
DATE: 08/1/21  
CHECKED BY: *[Signature]*  
REVISIONS:

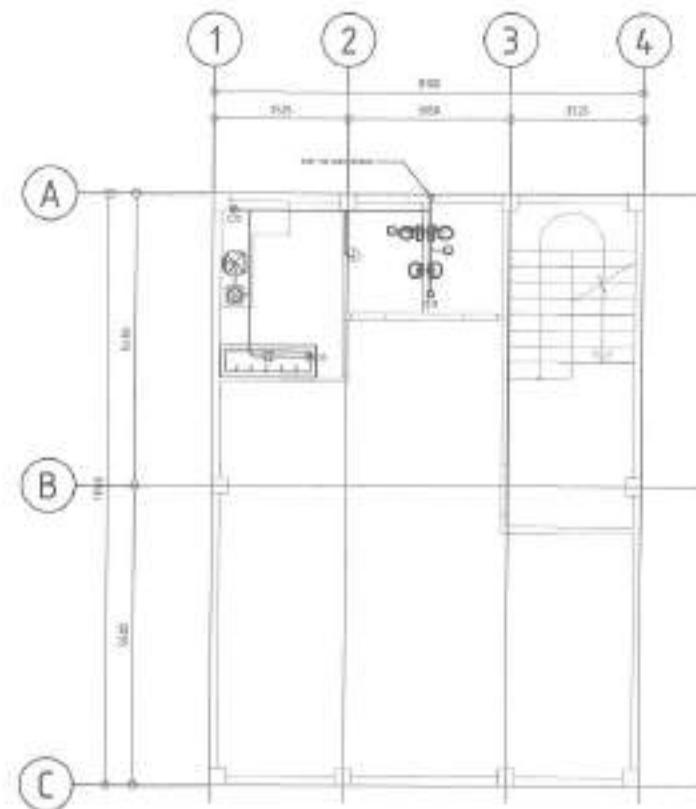
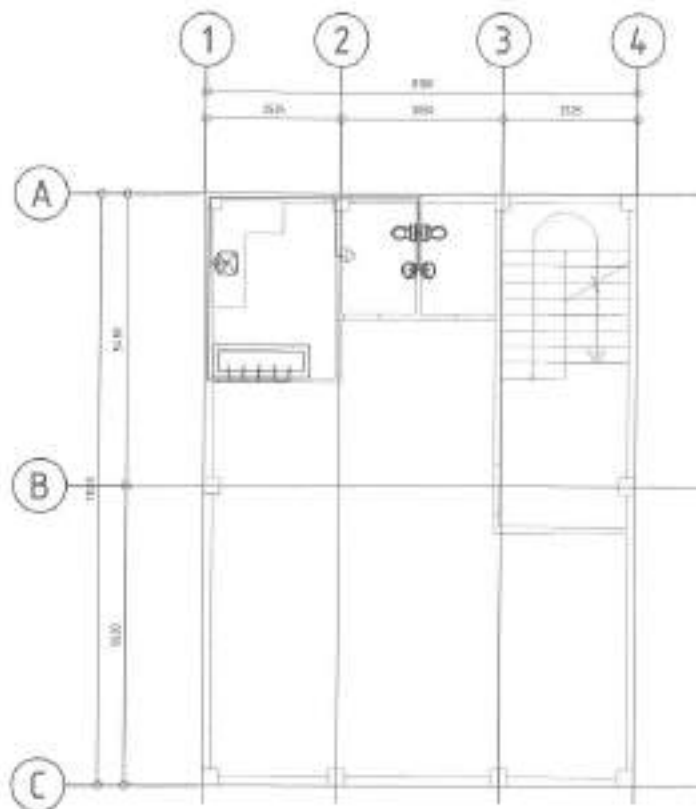
SUBMITTED BY:  
*[Signature]*  
ENGR. LEO S. DEL ROSARIO  
YEAR: 1998 (A) PROFESSIONAL ENGINEER

RECOMMENDING APPROVAL:  
*[Signature]*  
ENGR. ISIDORO L. VERZOSA, JR.  
C.E.C. CITY ENGINEERING DEPARTMENT

APPROVED BY:  
*[Signature]*  
HON. RA. JOSEFINA D. BELMONTÉ  
CITYMayor

SHEET CONTENT:  
GROUND FLOOR WATER  
LINE LAYOUT  
GROUND FLOOR SANITARY  
LINE LAYOUT

SHEET NO.  
**PL-02**  
09/14



NOTE:  
1. ALL PLUMBING FIXTURES TO BE REPLACED

**1 SECOND FLOOR WATER LINE LAYOUT**

SCALE: NTS.

**2 SECOND FLOOR SANITARY LINE LAYOUT**

SCALE: NTS.



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
GREATER LAGRO I AND GREATER  
LAGRO II DAY CARE CENTER**

LOCATION:  
BNGY. GREATER LAGRO, DISTRICT 8, QUEZON CITY

DESIGNED BY: *[Signature]*  
DATE: 06.21.11  
CHECKED BY: *[Signature]*  
REVISIONS:

SCALE: NTS.  
SUBMITTED BY:  
*[Signature]*  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:  
*[Signature]*  
ENGR. ISABELA R. VERZOSA, JR.  
DCL, CITY ENGINEERING DEPARTMENT

APPROVED BY:  
HON. MA. JOSEFINA G. BELMONTÉ  
CITY MGR.

SHEET CONTENT:  
SECOND FLOOR WATER  
LINE LAYOUT  
SECOND FLOOR SANITARY  
LINE LAYOUT

SHEET NO.  
**PL-03**  
**10/14**

- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEER, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL EMBEDDED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE MC SUPPORTED BY CONDUIT CLAMPS EVERY 750MM CENTER.
- PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVENT THESE ARE NOT INDICATED ON THE PLANS. SIZES OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL. PRIOR TO FABRICATION, LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE "AS-BUILT" PLAN.
- ALL POWER OUTLETS AND SWITCHES SHALL BE GROUNDING TYPE WITH WALL MOUNTED SLOTS FOR 220V.
- PROVIDE GROUND FAULT CURRENT INTERRUPTER (GFCI) FOR LOADS MARKED "GFCI" ON THE PLAN.
- ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED.
- UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 500 MM AFF. (200MM ABOVE WORKING SURFACE)  
 TELEPHONE OUTLET - 300 MM AFF.  
 CITY OUTLET - 300 MM AFF.  
 LIGHTING SWITCH - 1400 MM AFF.  
 PANEL BOARD - 300 MM AFF.

- REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SCHEDULES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NAME AS SPECIFIED.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND BRING OUT DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY INDICATE DIMENSIONS, ACTUAL LOCATIONS, LEVELS, AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOB SITE AS LOCATIONS, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DECISIONS.
- ALL LIGHTING AND CONVENIENCE OUTLET CIRCUITS SHALL BE 25 SQ. MM. THINWALD COPPER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 20 SQ. MM. COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

LINE 1 - RED  
 LINE 2 - YELLOW  
 NEUTRAL - WHITE  
 GROUND - GREEN

- BORES, WIRE CUTTERS, ENCLOSURE SHALL BE THROUGHED FROM STEEL WITH THICKNESS AS FOLLOWS:  
 MAXIMUM WIDTH OF THE HOLEST SURFACE STEEL:  
 UP TO INCLUDING 100 MM GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 100 MM BUT NOT OVER 457.50 GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 457.50 MM BUT NOT OVER 914.50 GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 914.50 MM GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
- ALL ELECTRICAL WORKS WHICH SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A QUALIFIED ELECTRICIAN CONTRACTOR BY TRADE. WORK SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
- TYPE OF SERVICE ENTRANCE SHALL BE SINGLE-PHASE, TWO-WIRE PLUS GROUND, 20 AMPERE, 220V AC SINGLE.
- CONDUITS AND CABLES SHALL THERE BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE MADE BY USING HYDRAULIC BENDING. MINIMUM BENDING RADIUS SHALL BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE SUBMITTAL TO BE APPROVED BY THE CITY ENGINEER APPROVED BY THE QUEZON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN 1 OHM. COMMUNICATION CIRCUIT RESISTANCE SHALL NOT EXCEED 1 OHM.

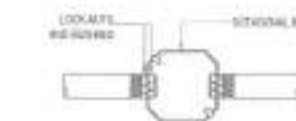
- SINGLE GANG SWITCH (FOR REPLACEMENT)
- TWO GANG SWITCH (FOR REPLACEMENT)
- SINGLE GANG THREE-WAY SWITCH (FOR REPLACEMENT)
- E27 RECEPTACLE WITH LED BULB (EXISTING)
- E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)
- \* ROUND FINLIGHT (FOR REPLACEMENT)
- SIGN LED TUBE LIGHT (EXISTING)
- SIGN LED TUBE LIGHT (FOR REPLACEMENT)
- 1.50M LED TUBE LIGHT (EXISTING)
- TOPPER TYPE WITH 10186 LED TUBE LIGHT (FOR REPLACEMENT)
- TOPPER TYPE WITH 22326 LED TUBE LIGHT (FOR REPLACEMENT)
- WALL LAMP (FOR REPLACEMENT)
- ADDITIONAL OILING FAN
- DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
- ADJ. OUTLET (ADDITIONAL)
- PANEL BOARD

## 2 LEGEND & SYMBOLS

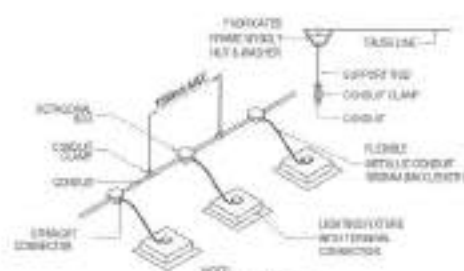
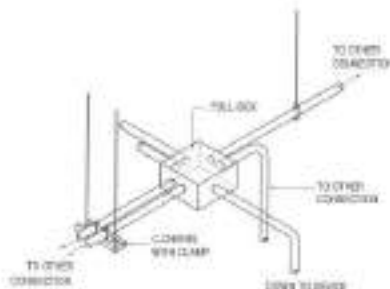
SCALE NTS

SIGNALLING WIRE  
1/2" x 3/16"SINGLE HOLE IF  
3/4" (1/2")

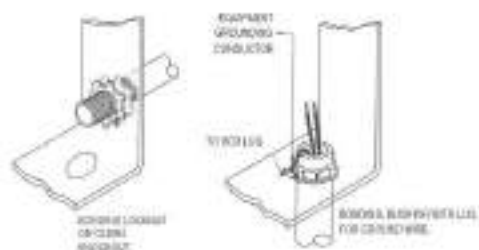
SIGNING WIRE AND DETAIL



SPOT DETAIL OF CONDUIT RUN AND BOX

CONDUIT RUN FOR LIGHTING  
DISTRIBUTION IN ONE CIRCUIT  
(FOR EXPOSED OR INSIDE DROP CEILING INSTALLATION)

PROPER CONDUIT LAYOUT @ PULL BOX



BONDED RACEWAY TERMINATION FOR SHEET METAL

## 1 GENERAL NOTES

SCALE NTS

## 3 MISCELLANEOUS DETAILS

SCALE NTS



Republika ng Pilipinas  
 Lungsod ng Quezon  
 CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
 GREATER LAGRO I AND GREATER  
 LAGRO II DAY CARE CENTER**

LOCATION:  
 BRGY. GREATER LAGRO, DISTRICT 5, QUEZON CITY

DESIGNED BY:  
 DATE: 06.21.21  
 CHECKED BY:  
 REVISIONS:

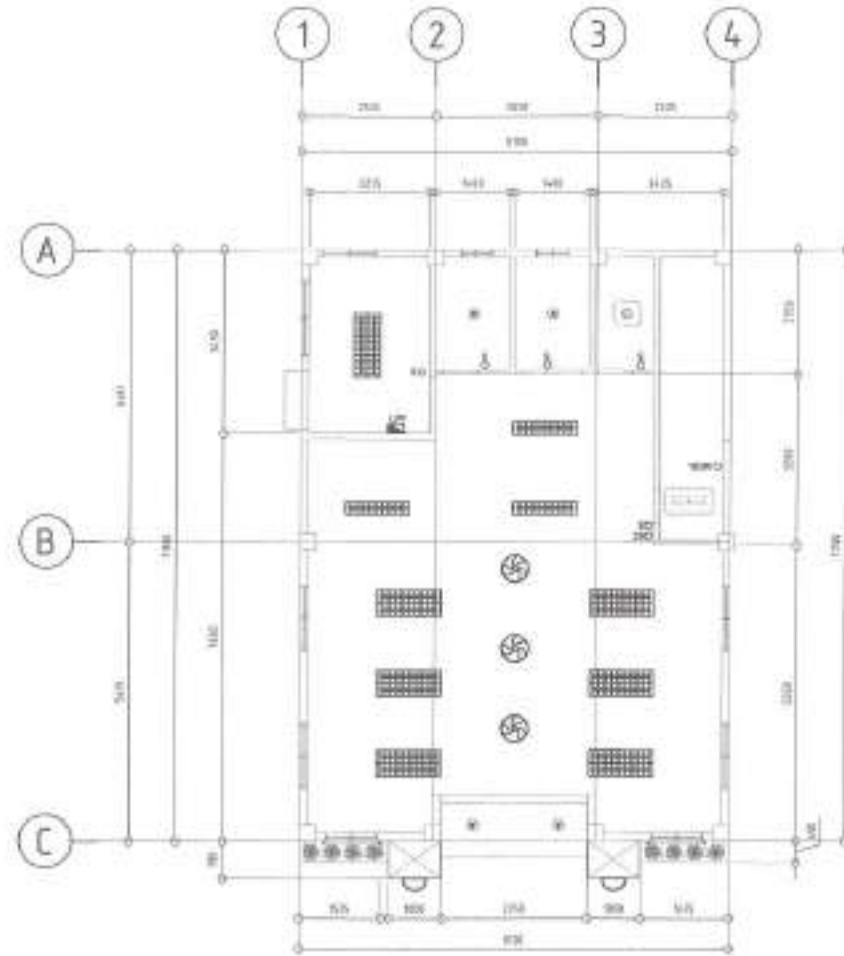
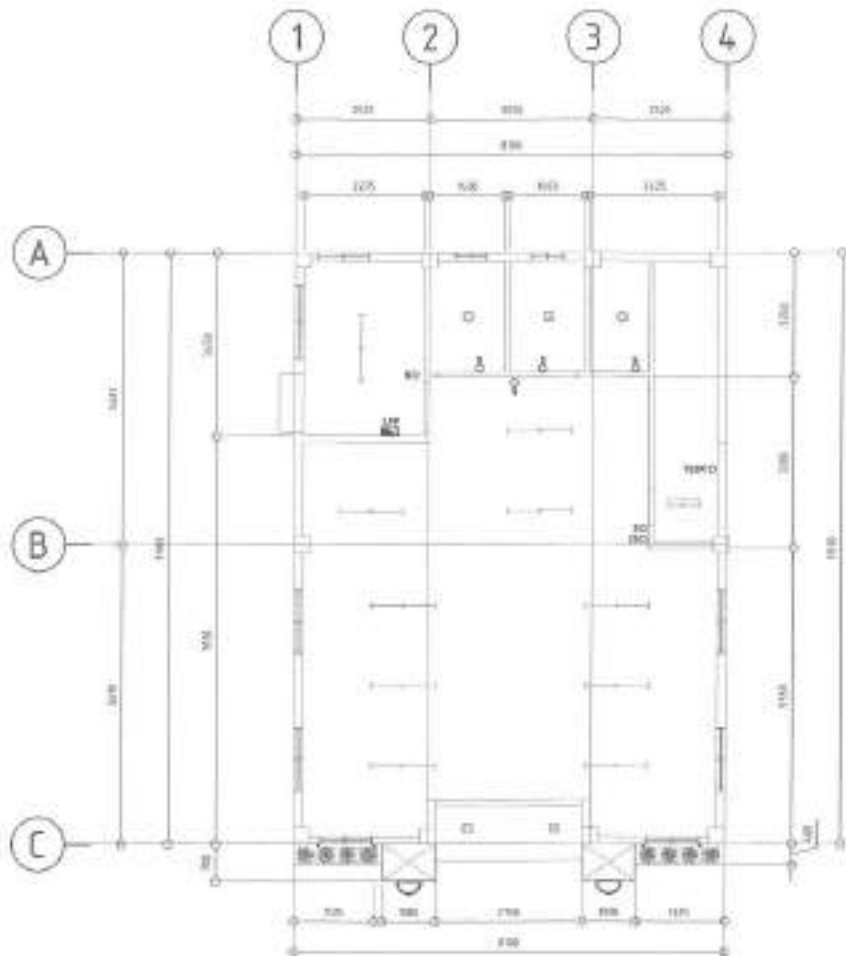
SUBMITTED BY:  
  
 ENGR. LEO S. DEL ROSARIO  
 HEAD, PLANNING & DESIGN DIVISION

RECOMMENDING OFFICIAL:  
  
 ENGR. ISIDRO R. VERZOSA, JR.  
 DCL CITY ENGINEERING DEPARTMENT

APPROVED BY:  
  
 HON. MA. JOSEFINA S. BELMONTE  
 CITY MAOR

SHEET CONTENT:  
 GENERAL NOTES  
 MISCELLANEOUS DETAILS  
 LEGEND AND SYMBOLS

SHEET NO.  
**EL-01**  
**11/14**



NOTE:  
 1. ADDITIONAL LIGHTS  
 2. REPLACEMENT OF EXISTING LIGHTS

**1 EXISTING GROUND FLOOR LIGHTING LAYOUT**

**2 PROPOSED GROUND FLOOR LIGHTING LAYOUT**

SCALE: 1:100M

SCALE: 1:100M



Republika ng Pilipinas  
 Lungsod ng Olongapo  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
 GREATER LAGRO I AND GREATER  
 LAGRO II DAY CARE CENTER**  
 LOCATION:  
 1850V GREATER LAGRO DISTRICT, AGENCENCY

DRAWN BY:  
 DATE: 09/21/21  
 CHECKED BY:  
 REVISION NO.:

SUBMITTED BY:  
  
**ENGR. LEO S. DEL ROSARIO**  
 (SEAL, PLASTER & PROFESSIONAL ENGINEER)

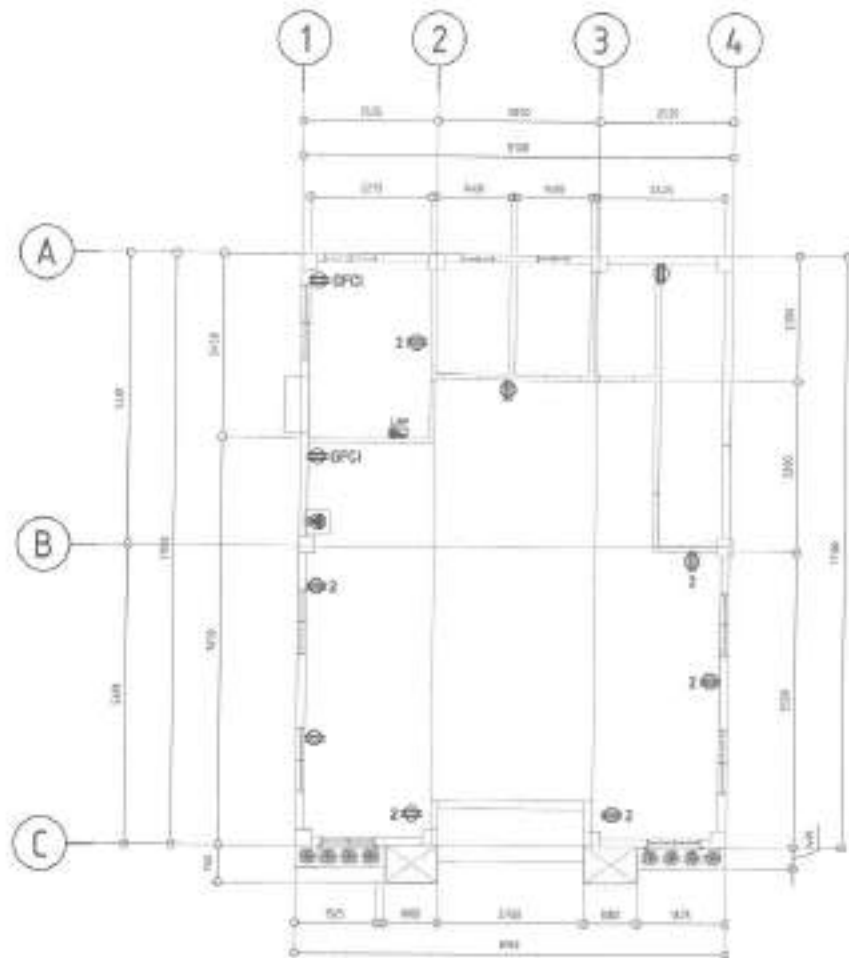
RECOMMENDING OFFICIAL:  
  
**ENGR. BALDO R. VERTOSA, JR.**  
 (SEAL, CIVIL ENGINEERING DEPARTMENT)

APPROVED BY:  
**HON. MA. JOSEFINA G. BELMONTE**  
 CITY MAYOR

SHEET CONTENT:  
 EXISTING GROUND FLOOR  
 LIGHTING LAYOUT  
 PROPOSED GROUND  
 FLOOR LIGHTING LAYOUT

SHEET NO.  
**EL-02**  
**1214**





NOTE:  
L - ADDITIONAL WINDOW OUTLETS

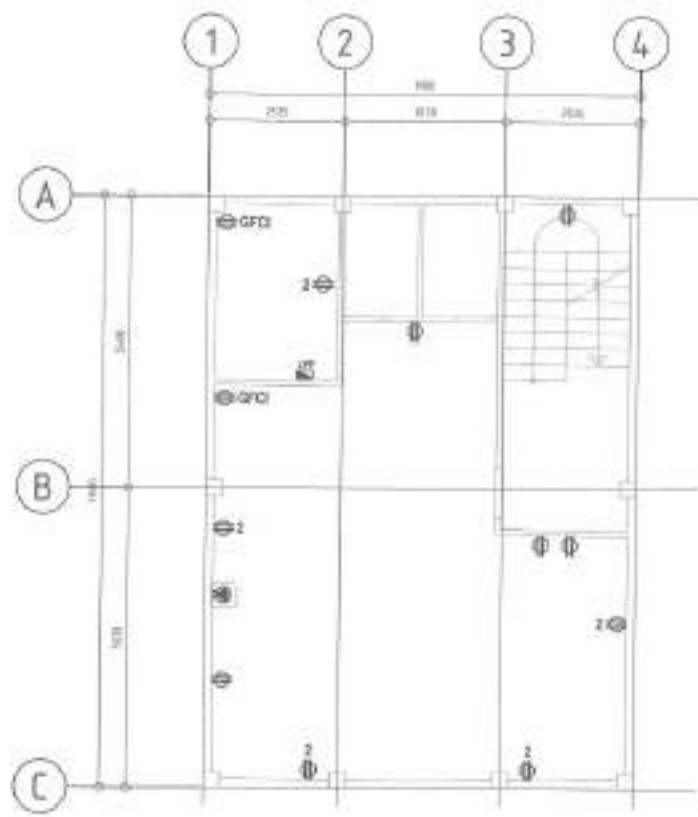
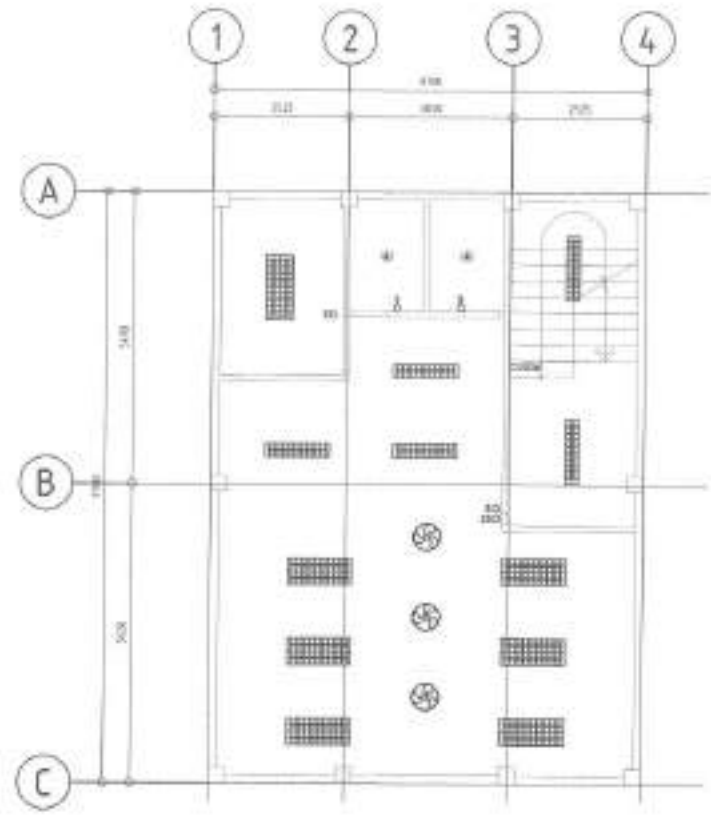
**1 GROUND FLOOR POWER LAYOUT**

SCALE 1:100M




Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE: <b>PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER</b>	DRAWN BY: SITE: BELLINI CHECKED BY: REVISION NO.:	DESIGNED BY: 	RECOMMENDING APPROVAL: 	APPROVED BY: 	SHEET CONTENT: GROUND FLOOR POWER LAYOUT	SHEET NO. <b>EL-03</b> <b>13/14</b>
LOCATION: 3RD FLOOR, GREATER LAGRO, DISTRICT 1, QUEZON CITY		ENGR. LEO S. DEL ROSARIO MEMO, PLANNING & PROGRAMMING DIVISION	ENGR. ISMAEL R. VERZOSA, JR. SEC. CITY ENGINEERING DEPARTMENT	HON. RA. JOSEFINA S. BELMONTE CITY MARCH		



1 SECOND FLOOR LIGHTING LAYOUT

2 SECOND FLOOR POWER LAYOUT

 <p>Republika ng Pilipinas Lungsod ng Davao CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE	DRAWN BY	SUBMITTED BY	RECOMMENDING APPROVAL	APPROVED BY	SHEET CONTENT	SHEET NO.
	PROPOSED REHABILITATION OF GREATER LAGRO I AND GREATER LAGRO II DAY CARE CENTER	DATE	ENGR. LEO S. DEL ROSARIO	ENGR. ISAAC M. R. VERZOSA, JR.	HOW. MA. JOSEFINA B. BELMONTE	SECOND FLOOR LIGHTING LAYOUT SECOND FLOOR POWER LAYOUT	EL-04
	LOCATION BVD, GREATER LAGRO DISTRICT, DAVAO CITY	DESIGNED BY	REVISIONS	CC. B. (CITY ENGINEERING DEPARTMENT)	CITY ENGINEER	14   14	

THE SITE



## 1 VICINITY MAP

SCALE NTS

THE SITE



## 2 LOCATION MAP

SCALE NTS

## 3 SITE DEVELOPMENT PLAN

SCALE 1:150M

## TABLE OF CONTENTS

## ARCHITECTURAL

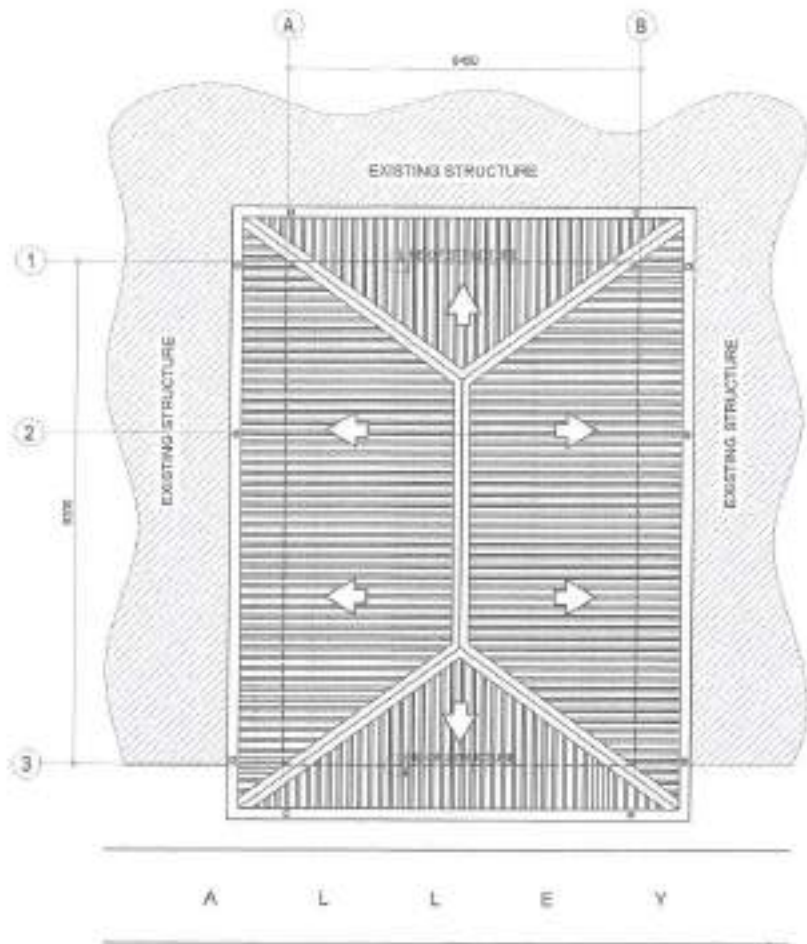
AR-01	VICINITY MAP
	LOCATION PLAN
	SITE DEVELOPMENT PLAN
AR-02	GROUND FLOOR PLAN (EXISTING)
	GROUND FLOOR PLAN (PROPOSED)
AR-03	REFLECTED CEILING PLAN
	ROOF PLAN
AR-04	FRONT ELEVATION
	RIGHT SIDE ELEVATION
	LEFT SIDE ELEVATION
	LETTERING DETAILS
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	CABINET DETAILS
	LETTERING DETAILS
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	SCHEDULE OF WINDOWS

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	PLUMBING LAYOUT

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	LEGEND AND SYMBOLS
	MISCELLANEOUS DETAILS
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	POWER LAYOUT



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:

PROPOSED REHABILITATION OF  
MMTC DAY CARE CENTER

LOCATION:  
DARAWAY PARKVIEW DISTRICT 3, QUEZON CITY

DRAWN BY: EM

DATE: 10/01/2011

CHECKED BY: JM

REVISION NO:

SUBMITTED BY:

ENGR. LEO S. DEL ROSARIO  
HEAD, PLUMBING & PROVISIONING DIVISION

RECOMMENDING APPROVAL:

ENGR. JERAM R. VERZOSA, JR.  
SIC, CIVIL ENGINEERING DIVISION

APPROVED BY:

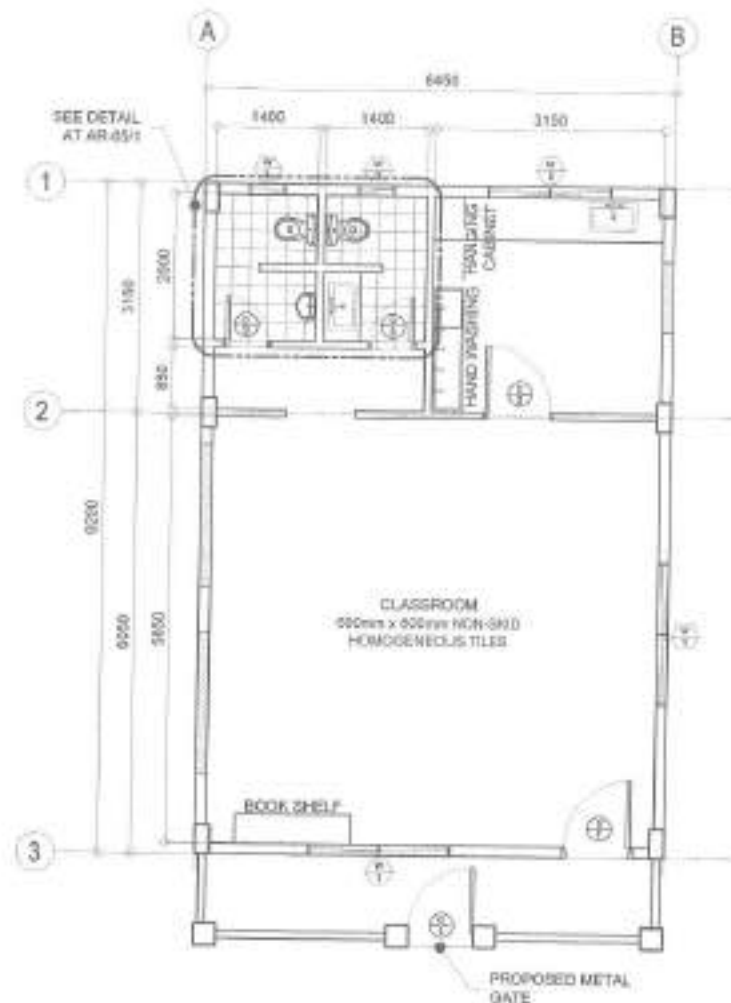
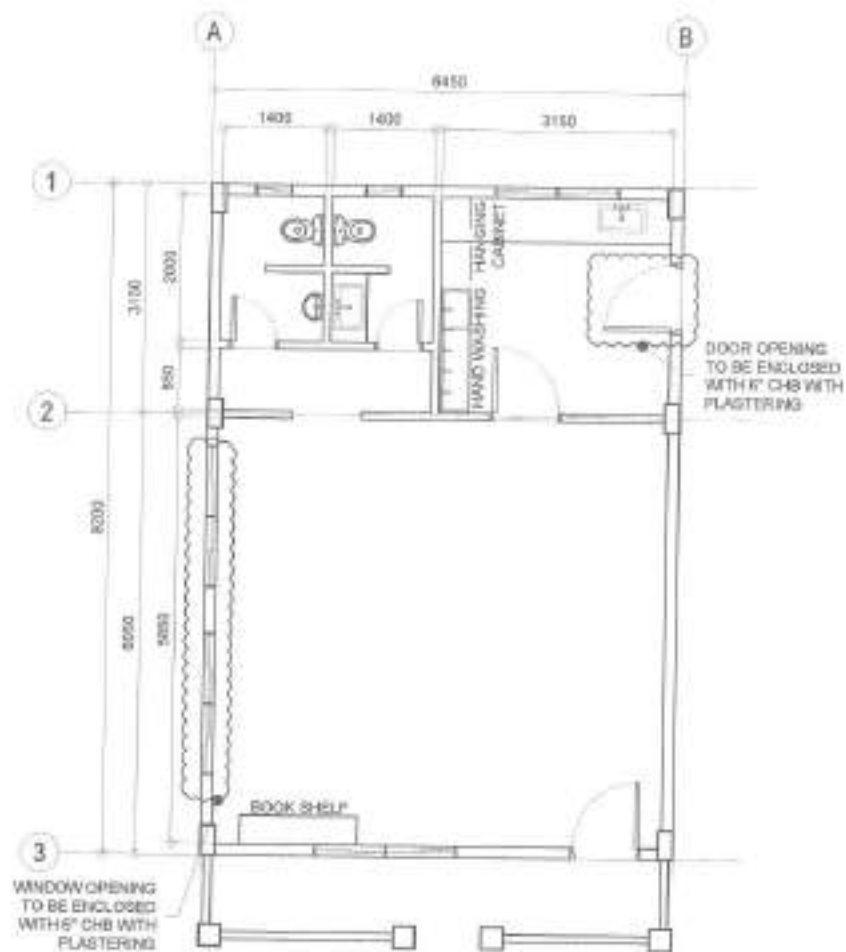
HON. MA. JOSEFINA G. BELMONTE  
CITY MAYOR

SHEET CONTENT:

VICINITY MAP  
LOCATION MAP  
SITE DEVELOPMENT PLAN

SHEET NO.

AR-01  
01/09



## NOTES:

1. DOORS AND WINDOWS TO BE REPLACED.
2. WHOLE STRUCTURE TO BE REPAINTED.
3. COUNTERTOP TILES TO BE REPLACED.
4. FLOOR AND WALL TILES TO BE REPLACED.
5. HANGING CABINET AND BOOK SHELF TO BE REPLACED.
6. PROPOSED GATE AND PERIMETER FENCE TO BE REPAINTED.

## 1 GROUND FLOOR PLAN (EXISTING)

SCALE 1:100M

## 2 GROUND FLOOR PLAN (PROPOSED)

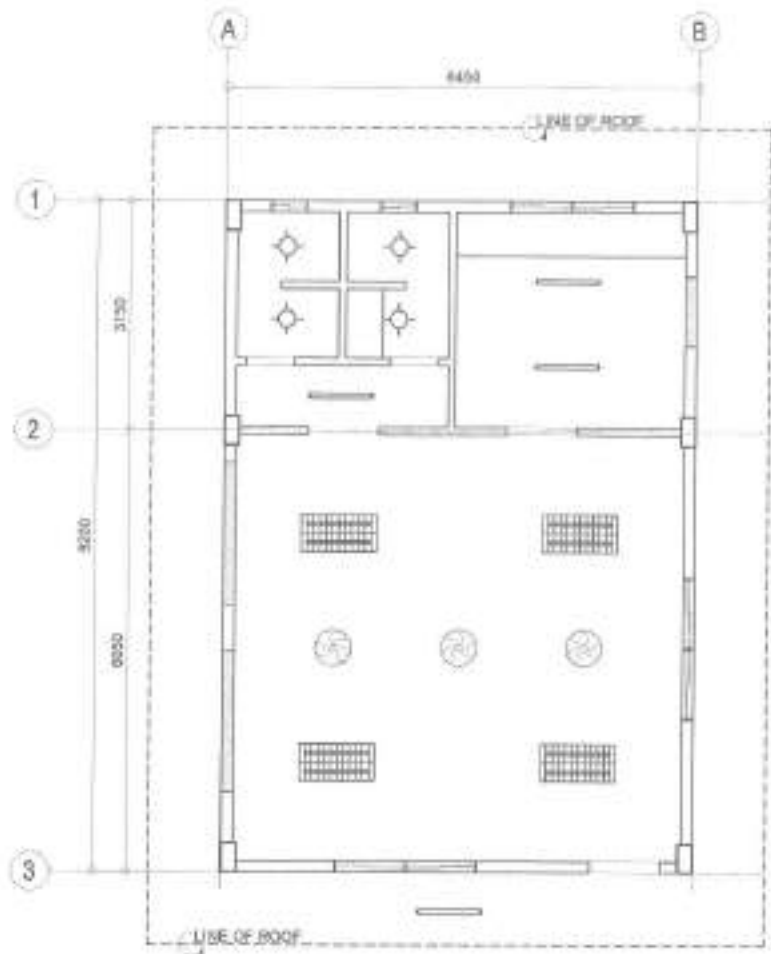
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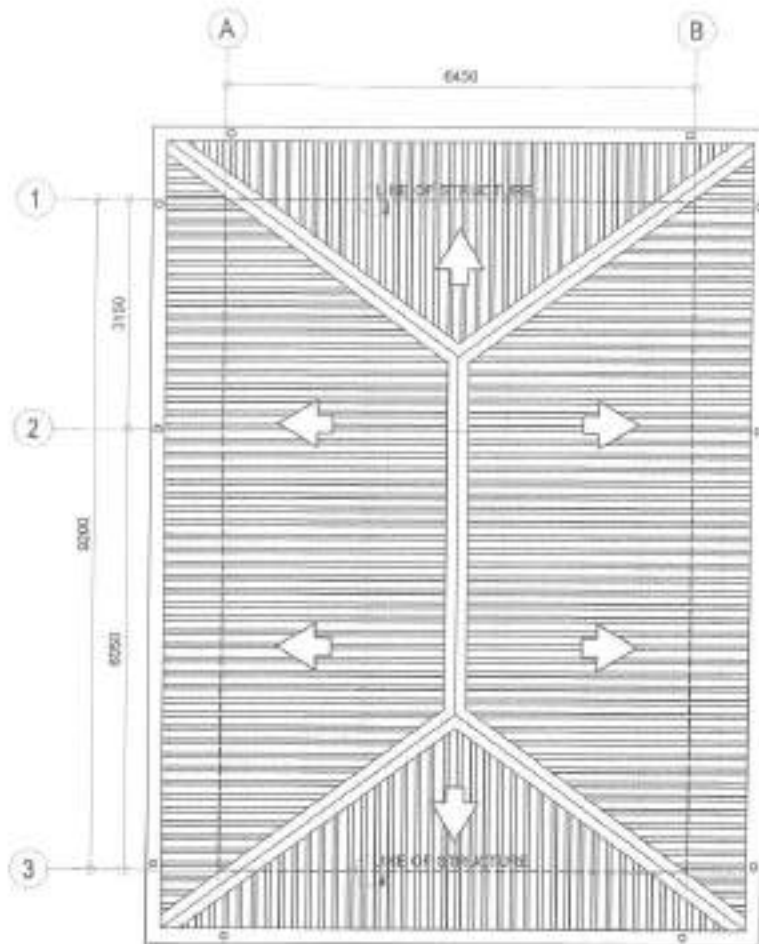
Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	DESIGNED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.
PROPOSED REHABILITATION OF MMTC DAY CARE CENTER	ENR. LEO S. DEL ROSARIO DATE: 10/21/2011 CHECKED BY: J.M.	ENR. JOSE AN R. VERZOSA, JR. CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. DELMONTE CITY MAOR	GROUND FLOOR PLAN EXISTING GROUND FLOOR PLAN PROPOSED	AR-02 02/09
LOCATION: DARANGAY FASHION DISTRICT 1, QUEZON CITY	PERSON NO.:				





NOTE:  
1. EXISTING CEILING TO BE REPLACED WITH 6mm THICK FIBER CEMENT BOARD INCLUDING ROOF EAVES.



NOTE:  
1. REPLACEMENT OF ROOFING AND ACCESSORIES.

**1 REFLECTED CEILING GROUND**

SCALE 1:100M

**2 ROOF PLAN**

SCALE 1:100M



Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
MNTC DAY CARE CENTER**

LOCATION:  
DREKNGAY CARRIAGE HOUSE 1 & 2, DREKNGAY

DRAWN BY: ENG. *[Signature]*  
DATE: 12/18/09  
CHECKED BY: *[Signature]*  
REVISION NO:

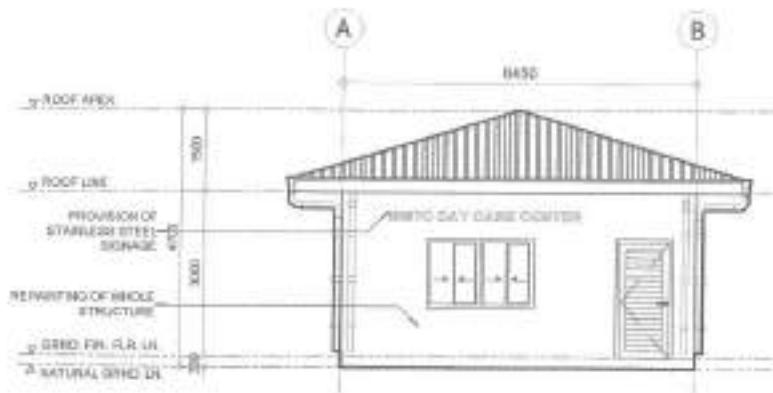
SUBMITTED BY:  
*[Signature]*  
**ENGR. LEO S. DEL ROSARIO**  
ASST. PLANNING & ZONING DIVISION CHIEF

RECOMMENDING AGENCY:  
*[Signature]*  
**ENGR. JOSE AN R. VERZOSA, JR.**  
OFF. CHIEF, ENGINEERING DEPARTMENT

APPROVED BY:  
*[Signature]*  
**HON. MA. JOSEFINA G. BELMONTÉ**  
CITY MAJOR

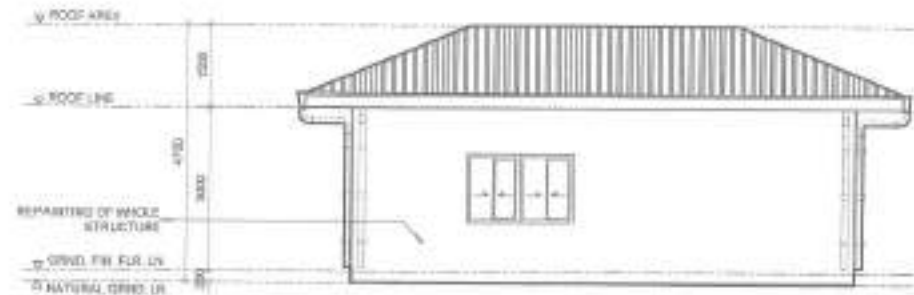
SHEET CONTENT:  
ROOF PLAN  
TOILET DETAILS

SHEET NO:  
**AR-03**  
**03/09**



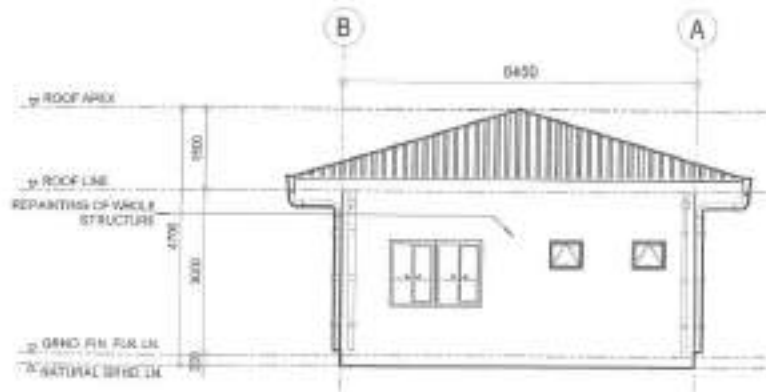
1 FRONT ELEVATION

SCALE 1:100M



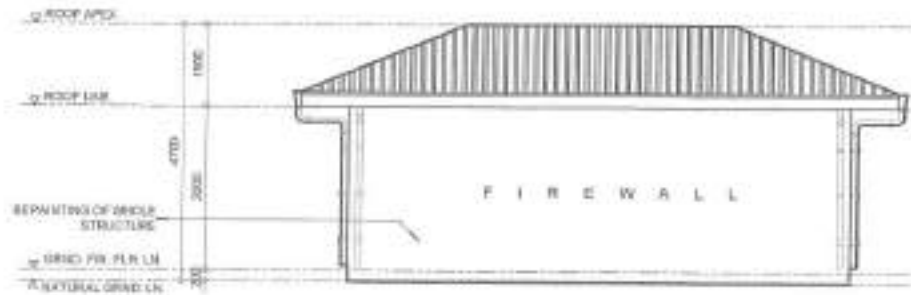
2 RIGHT SIDE ELEVATION

SCALE 1:100M



3 REAR ELEVATION

SCALE 1:100M



4 LEFT SIDE ELEVATION

SCALE 1:100M



Republic of the Philippines  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
MRTC DAY CARE CENTER**

LOCATION:  
DARANGAL TOWNSHIP DISTRICT 1, QUEZON CITY

DRAWN BY: **ENG. LEO S. DEL ROSARIO**  
DATE: 10/21/2021  
CHECKED BY: **J. J.**  
REVISION NO.:

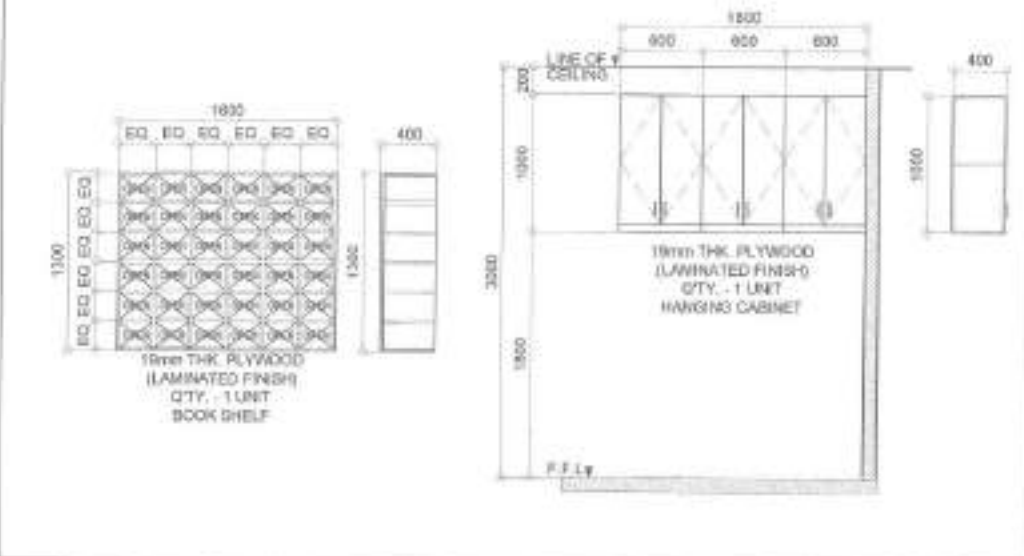
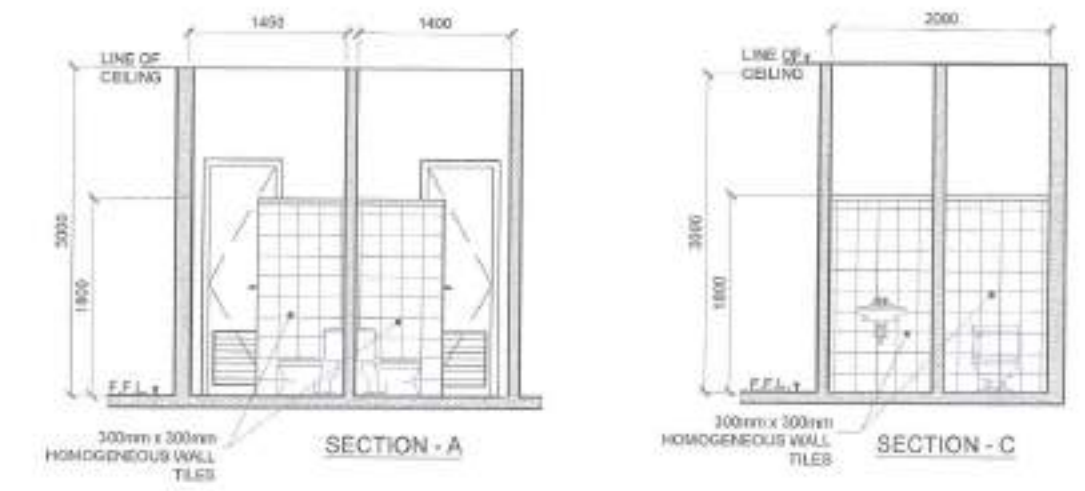
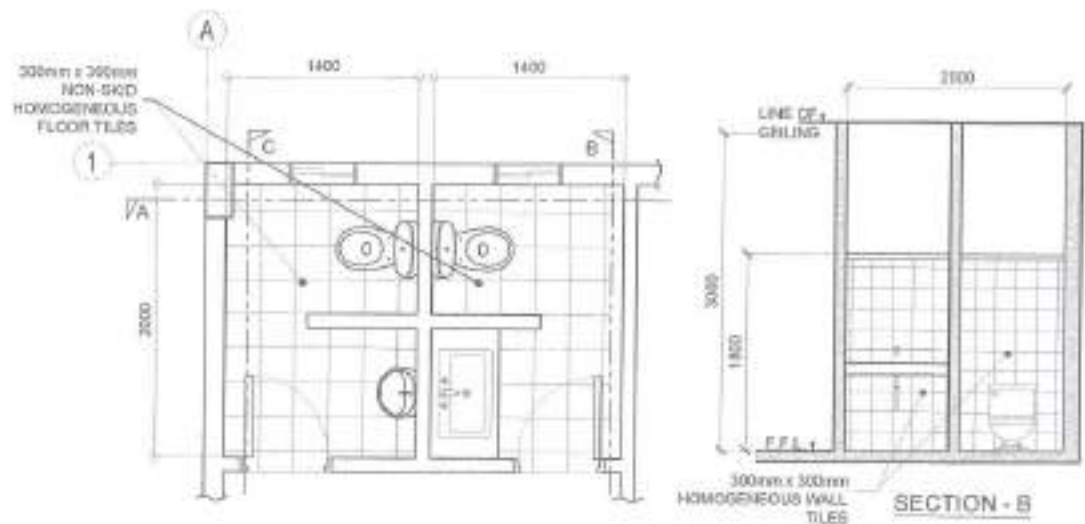
ENGR. LEO S. DEL ROSARIO  
PERM. PLANNING & PROGRAM DIVISION

RECOMMENDING APPROVAL:  
ENGR. JOSE AN R. VERZOSA, JR.  
CIC CITY ENGINEERING DEPARTMENT

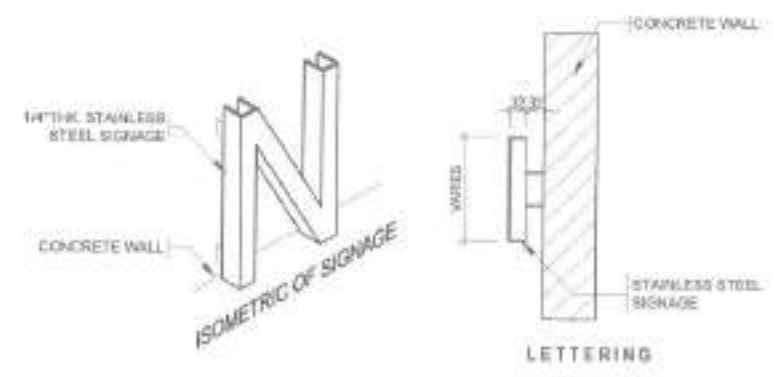
APPROVED BY:  
RON. NA. JOSEFINA G. BELMONTE  
CITY MAYOR

SHEET CONTENT:  
FRONT ELEVATION  
REAR ELEVATION  
RIGHT SIDE ELEVATION  
LEFT SIDE ELEVATION

SHEET NO.:  
**AR-04**  
**04/09**



**2 CABINET DETAILS** SCALE 1:50M



**3 LETTERING DETAILS** SCALE: NTS

**1 TOILET DETAILS**

REPUBLIC OF THE PHILIPPINES  
 Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE:	DRAWN BY: <i>ONE</i>	REVISIONS:
<b>PROPOSED REHABILITATION OF MMTC DAY CARE CENTER</b>	DATE: 05.11.2017	
LOCATION: SARAWAY FARMVIEW, DISTRICT 2, QUEZON CITY	DESIGNED BY:	
	REVISION NO.:	

ENGR. LEO S. DEL ROSARIO  
 HEAD, PLANNING, PROGRAMMING DIVISION

ENGR. JOSEAN R. VERZOSA, JR.  
 CH. CITY ENGINEERING DEPARTMENT

RECOMMENDATION APPROVAL:	APPROVED BY:	SHEET COUNT:	SHEET NO.
		TOILET DETAILS, CABINET DETAILS, LETTERING DETAILS	<b>AR-05</b> <b>05/09</b>

ENGR. MA. JOSEFINA G. BELMONTÉ  
 CITY ENGINEER

NAME	⊕	⊕	⊕	NAME	⊕
NO. OF SETS	1	1	1	NO. OF SETS	1
DESCRIPTION	PANEL DOOR	PANEL DOOR	PVC DOOR WITH LOUVERS	DESCRIPTION	50mm x 50mm x 5mm TUBULAR IRON (MMS FRAME), 20mm x 30mm TUBULAR IRON W/ BARNET POLY AND BRASS
LOCATION	CLASSROOM	STORAGE	TOILET	LOCATION	PERIMETER FENCE IRON GATE
HARDWARE / GLAZING	COMPLETE ACCESSORIES DOOR FINISH: SATIN STAINLESS FINISH	COMPLETE ACCESSORIES DOOR FINISH: SATIN STAINLESS FINISH	COMPLETE ACCESSORIES DOOR FINISH: SATIN STAINLESS FINISH		

### 1 SCHEDULE OF DOORS AND GATE

SCALE 1:50M

NAME	⊕	⊕	⊕
NO. OF SETS	2	1	2
DESCRIPTION	ALUMINUM FRAME POWDER COATED SLIDING WINDOW WITH 6mm THK CLEAR GLASS	ALUMINUM FRAME POWDER COATED SLIDING WINDOW WITH 6mm THK CLEAR GLASS	ALUMINUM FRAME POWDER COATED SLIDING WINDOW WITH 6mm THK CLEAR GLASS
LOCATION	CLASSROOM	KITCHEN	TOILET

### 3 SCHEDULE OF WINDOWS

SCALE 1:50M

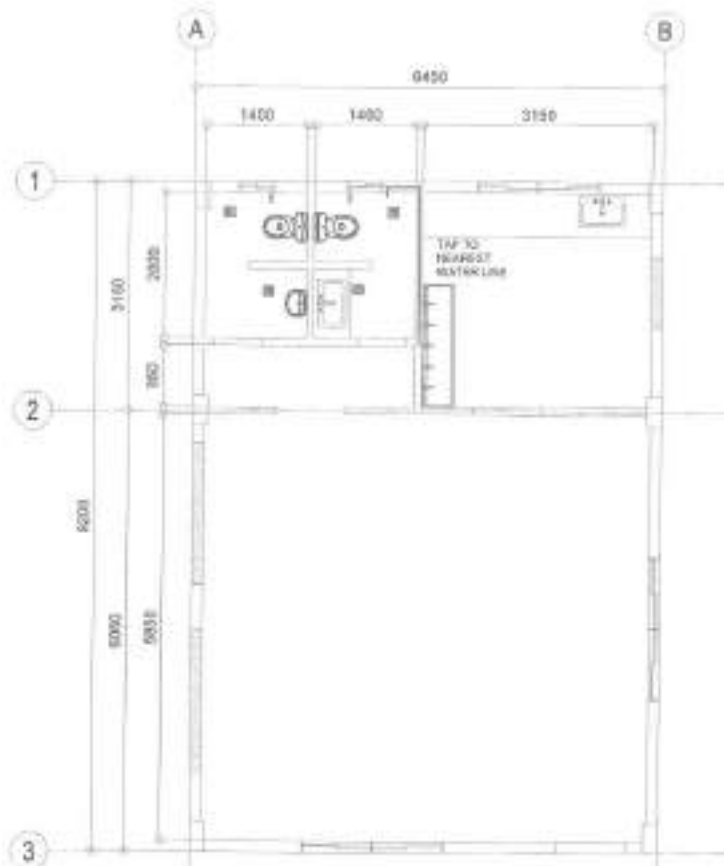


Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE	DRAWN BY: <i>EM</i>	SUBMITTED BY:	RECOMMENDED BY APPROVAL:	APPROVED BY:	SHEET NO. / TOT.	REVISION NO.
PROPOSED REHABILITATION OF MMTC DAY CARE CENTER	DATE: 10.01.2021	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	30-SCHEDULE OF DOORS AND GATE	06/09
LOCATION: BARANGAY FARWELL DISTRICT 8, QUEZON CITY	DATE: 10.01.2021	ENGR. LEO S. DEL ROSARIO NAT. PLANNING & PROGRAM DEVELOPMENT	ENGR. ISAAC R. VERZOSA, JR. OC, CIVIL ENGINEERING	HON. MA. JOSEFINA G. BELMONTE CITY MAOR	30-SCHEDULE OF WINDOWS	AR-06




1. All plumbing works and materials indicated herein shall be compliant 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 concealed 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 relocation 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 trades.
4. Pipes shall not be embedded in structural members unless otherwise specified or allowed.
6. Minimum slope for horizontal sewer lines shall be 1% and for drain lines shall be 5%.
6. Proposed plumbing utilities shall conform with the actual location, depth and invert elevation 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.
  - a. All clean out females 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 service areas not subject to traffic.
10. All underground G.I. pipes in direct contact with soil shall be provided with two (2) coats of protective tar covering and wrapped with jute cloth thoroughly soaked in tar or asphalt.
11. Provide vent stack and vent pipe thru roof of cast iron service weight as required.
12. All cast 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 fixtures.
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 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 Ø (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.



NOTE:  
 1. REPLACEMENT OF PLUMBING FIXTURES  
 2. RE-LAYOUT OF WATER LINE

**1 GENERAL NOTES**

**2 PLUMBING LAYOUT**

 <p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DRAWN BY: <i>ES</i>	QUANTIFIED BY:	RECOMMENDED APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	PROPOSED REHABILITATION OF MMTC DAY CARE CENTER	DATE: 06/21/2021	CHECKED BY: <i>ES</i>	ENGR. LEO S. DEL ROSARIO HEAD, PLUMBING PROGRAM DIVISION	ENGR. JOSEMAN R. VERZOSA, JR. OFF. CH. PLUMBING DIVISION	HON. MA. JOSEFINA G. BELMONTE CITY MAOR	GENERAL NOTE PLUMBING LAYOUT
	LOCATION: BAYANGYAN FARMS DISTRICT 8, QUEZON CITY	REVISIONS:					

**GENERAL NOTES:**

1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL GOVERNMENT AUTHORIZED AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
2. THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEER, FINAL CERTIFICATION OF ELECTRICAL INSTALLATION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
3. ALL EMERGED BRANCH CIRCUITS SHALL BE THE CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE SECURELY SUPPORTED BY CONDUIT CLAMPS EVERY 300MM CENTER.
4. PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING. ALL THESE ARE NOT INDICATED ON THE PLANS. 25% OF ALL PULLBOXES SHALL BE COMPLETED BASED ON THE CODE REQUIREMENTS. SHEET DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO PROVISION. LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE INDICATED ON THE "AS-BUILT" PLAN.
5. ALL POWER OUTLETS AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLITS FOR 200V.
6. PROVIDE GROUND FAULT CURRENT INTERRUPTER (GFCI) BREAKER FOR LOADS MARKED "GFCI" ON THE PLAN.
7. ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED.
8. UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 150 MM AFF. (100MM ABOVE ROWING COUNTER)  
 LIGHTING SWITCH - 1400 MM AFF  
 RANSELBOARD - 1500 MM AFF

9. REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL REQUIREMENTS AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
10. ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NAME AS SPECIFIED.
11. THE DRAWINGS ARE SPECIFICATIONS AND INTEND TO PRESENT GENERAL LAYOUT AND BROAD OUTLINE DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY DEFINE DIMENSIONS, ACTUAL LOCATIONS, LEVELS AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOBSITE AS LOCALITY DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
12. ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION ON DRAWING.
13. ALL LIGHTING AND COMMUNICATION OUTLET CONDUITS SHALL BE 3/8" O.D. 1/2" THICK COVER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 1/2" O.D. MIN. COPPER WIRE. ALL WIRING AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

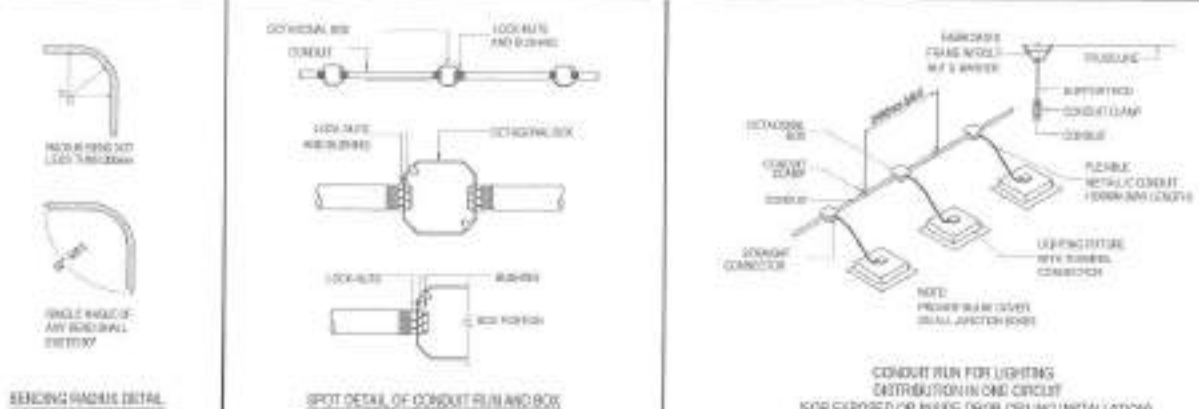
LINE 1 - RED  
 LINE 2 - YELLOW  
 NEUTRAL - WHITE  
 GROUND - GREEN

14. BOXES, WIRE, GUTTERS, ENCLOSURES SHALL BE FABRICATED FROM STEEL WITH THICKNESS AS FOLLOWS:  
 MAXIMUM WIDTH OF THE WIDEST SURFACE (DIN):  
 UP TO INCLUDING 150 MM GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 150 MM BUT NOT OVER 400 GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 400 MM BUT NOT OVER 900 GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 900 MM GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
15. ALL ELECTRICAL WORKMEN SHALL BE EDUCATED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR BY NAME WORKERS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
16. TYPE OF SERVICE ENTRANCE SHALL BE: SINGLE-PHASE, TWO-WIRE PLUS GROUND, 60 HERTZ, 230V AC TERMINAL.
17. CONDUITS AND CABLE SHALL HAVE AN AREA NOT LESS THAN THE EQUIVALENT OF FOUR QUARTER BENDS IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE FOLD BACK BY USE OF HYDRAULIC BENDING. MINIMUM BEND RADIUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
18. UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR. RESULT OF THE INSTALLATION TO BE REPORTED IN CASE FALLS ON FORM APPROVED BY THE CLEA/CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN 5 OHMS. COMMUNICATION GROUNDING RESISTANCE SHALL NOT EXCEED 3 OHMS.

	150MMØ LED BULB 10 WATTS		PANEL BOARD
	2X18W TROFFER LIGHT		SELECTOR SWITCH (FAN)
	T5 LED 1200MM, 25 WATTS		ONE GANG SWITCH (LIGHTS)
	DUPLEX CONVENIENCE OUTLET (HEIGHT 1400MM)		TWO GANG SWITCH (LIGHTS)
	ACU OUTLET (HEIGHT 1400MM)		HOME RUN CIRCUIT BREAKER
			ORBIT FAN WITH SELECTOR SWITCH

**2 LEGEND & SYMBOLS**

SCALE NTS



**1 GENERAL NOTES**

SCALE NTS

**3 MISCELLANEOUS DETAILS**

SCALE NTS



PROJECT TITLE:  
**PROPOSED REHABILITATION OF MUTC DAY CARE CENTER**

LOCATION:  
 BAKURAGAY PARKVIEW, DISTRICT 8, QUEZON CITY

DESIGNED BY: *[Signature]*  
 CHECKED BY: *[Signature]*  
 REVISION NO.:

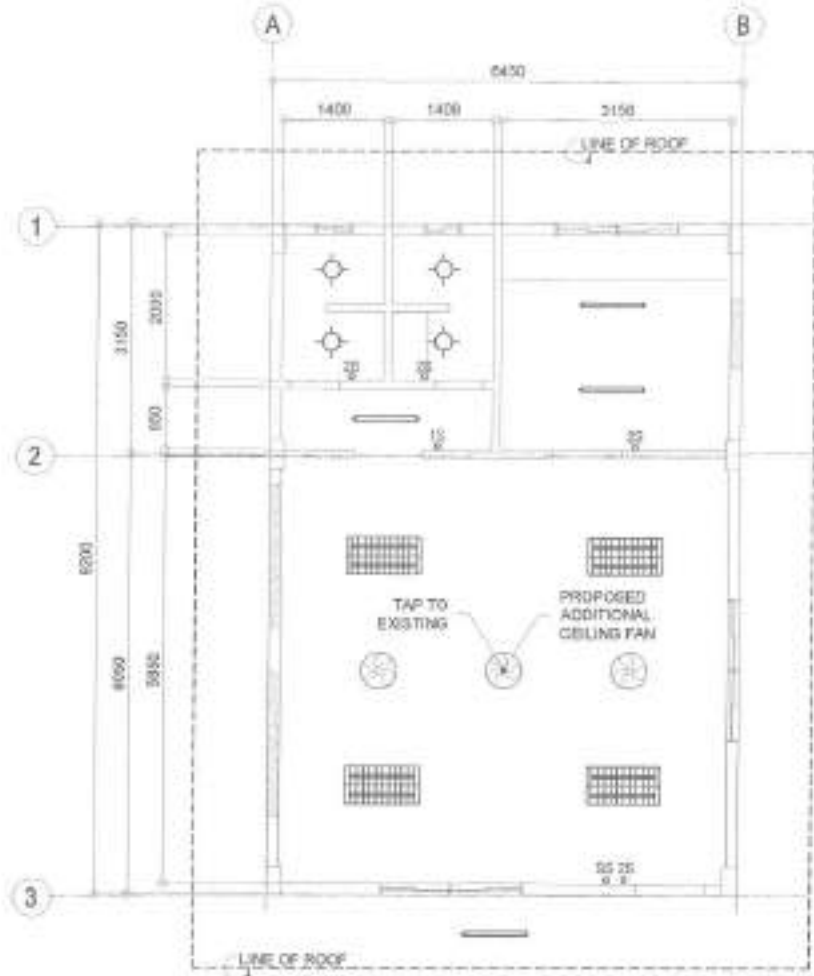
ENGR. LEO S. DEL ROSARIO  
 HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:  
*[Signature]*  
 ENGR. MARIAN R. VERZOSA, JR.  
 CH. CITY ENGINEERING DIVISION

APPROVED BY:  
 HON. MA. JOSEFINA G. BELMORTE  
 CITY MAYOR

SHEET CONTENT:  
 GENERAL NOTES, LEGEND AND SYMBOLS, MISCELLANEOUS DETAILS

SHEET NO:  
**EL-01**  
**08/09**



NOTE:

1. REPLACEMENT OF LIGHTING FIXTURES AND SWITCHES
2. REPLACEMENT OF CEILING ORBIT FAN.

1 LIGHTING LAYOUT (PROPOSED)

SCALE: 1:100M



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
MMTC DAY CARE CENTER**

LOCATION:  
SARANGAY PARITEN, DISTRICT 8, QUEZON CITY

DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
REVISION NO.:

DESIGNED BY:  
**ENGR. LEO S. DEL ROSARIO**  
HEAD, ELECTRICAL ENGINEERING DIVISION

RECOMMENDING APPROVAL:  
*[Signature]*  
**ENGR. ISAAC R. VERZOSA, JR.**  
SEC. OF THE CITY ENGINEERING DEPARTMENT

APPROVED BY:  
*[Signature]*  
**HON. MA. JOSEFINA G. BELMONTE**  
CITY MAYOR

DATE: 08/01/2024  
DRAWN BY: *[Signature]*  
LIGHTING LAYOUT  
PROPOSED

SHEET NO.  
**EL-02**  
09/09



THE SITE



1 VICINITY MAP

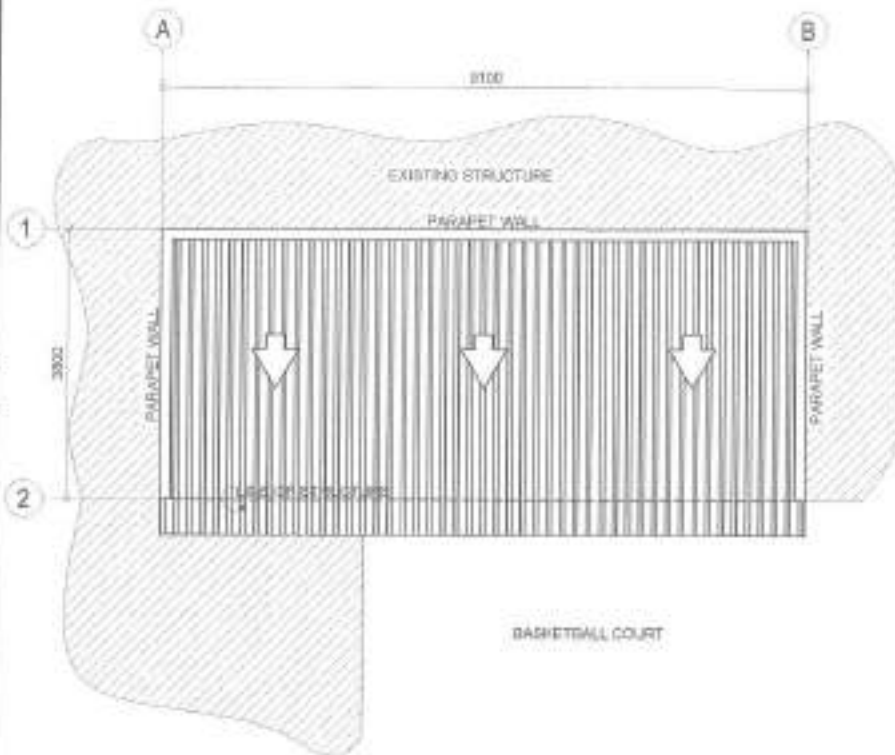
SCALE NTS

THE SITE



2 LOCATION MAP

SCALE NTS



2

3 SITE DEVELOPMENT PLAN

SCALE 1:150M

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AR-03	FRONT ELEVATION LETTERING DETAILS COUNTERTOP DETAIL
AR-04	TOILET DETAILS SCHEDULE OF DOORS GATE AND WINDOWS WINDOW GRILLES DETAIL

PLUMBING / SANITARY

PL-01	GENERAL NOTES LEGEND AND SYMBOLS WREATH TRAP DETAILS
PL-02	GROUND FLOOR WATER LINE LAYOUT GROUND FLOOR SANITARY LINE LAYOUT

ELECTRICAL

EL-01	GENERAL NOTES LEGEND AND SYMBOLS MISCELLANEOUS DETAILS
EL-02	SINGLE LINE DIAGRAM PANEL BOARD DIAGRAM SCHEDULE OF LOADS
EL-03	LIGHTING LAYOUT (EXISTING) POWER LAYOUT (EXISTING)
EL-04	LIGHTING LAYOUT (PROPOSED) POWER LAYOUT (PROPOSED)

MECHANICAL

ME-01	GENERAL NOTES AND LEGENDS SCHEDULE OF EQUIPMENT GROUND FLOOR EQUIPMENT LAYOUT
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Republic of the Philippines  
Lampayan Division  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
NAMAPA DAY CARE CENTER**

LOCATION:  
DWARIGAY NORTH PARVEY, DISTRICT 5, QUEZON CITY

DRAWN BY: EMB  
CHECKED BY: [Signature]  
DATE: 10/18/21  
REVISIONS:

RECOMMENDING OFFICIAL:  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAMS DIVISION

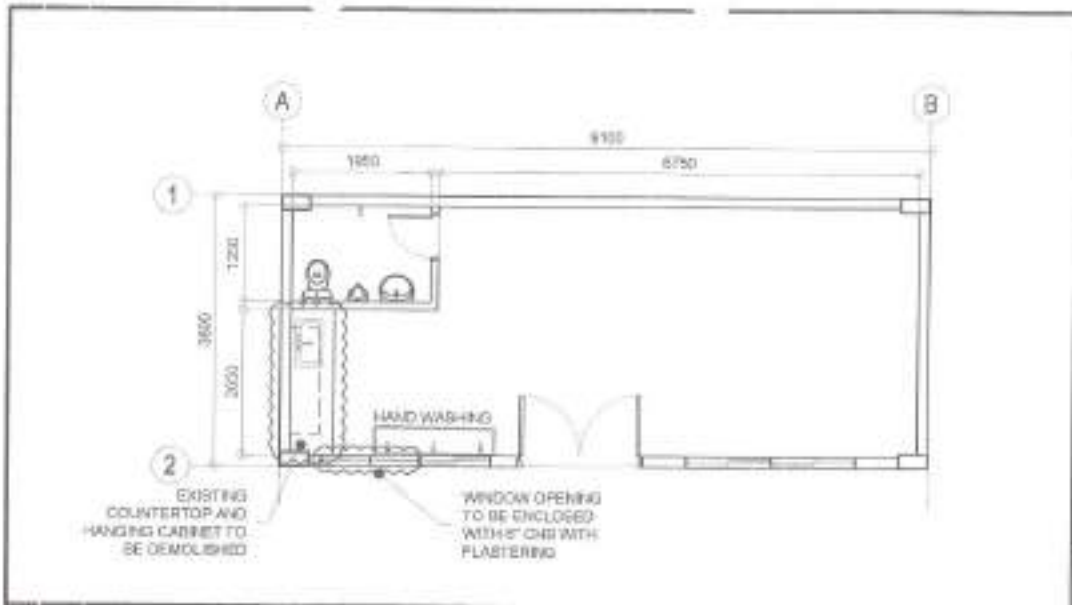
RECOMMENDING OFFICIAL:  
ENGR. JOSE ANI R. VERZOSA, JR.  
CITY ENGINEER

APPROVED BY:  
HON. RA. JOSEFINA G. BELMONTE  
CITY MAYOR

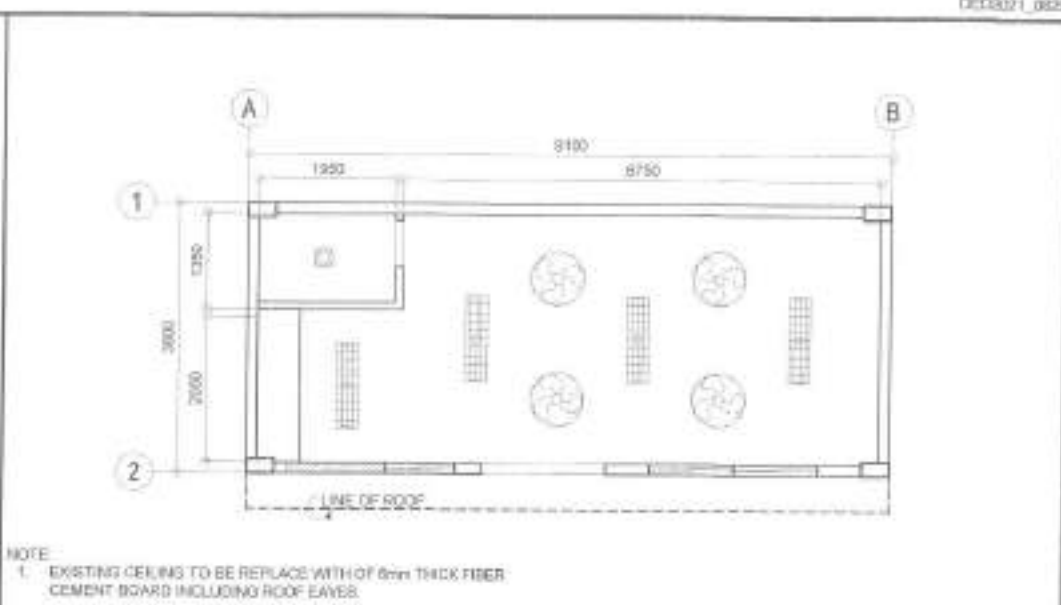
SHEET NUMBER:  
SOMTY MAP  
LOCATION MAP  
SITE DEVELOPMENT PLAN

SHEET NO:  
AR-01  
01/11

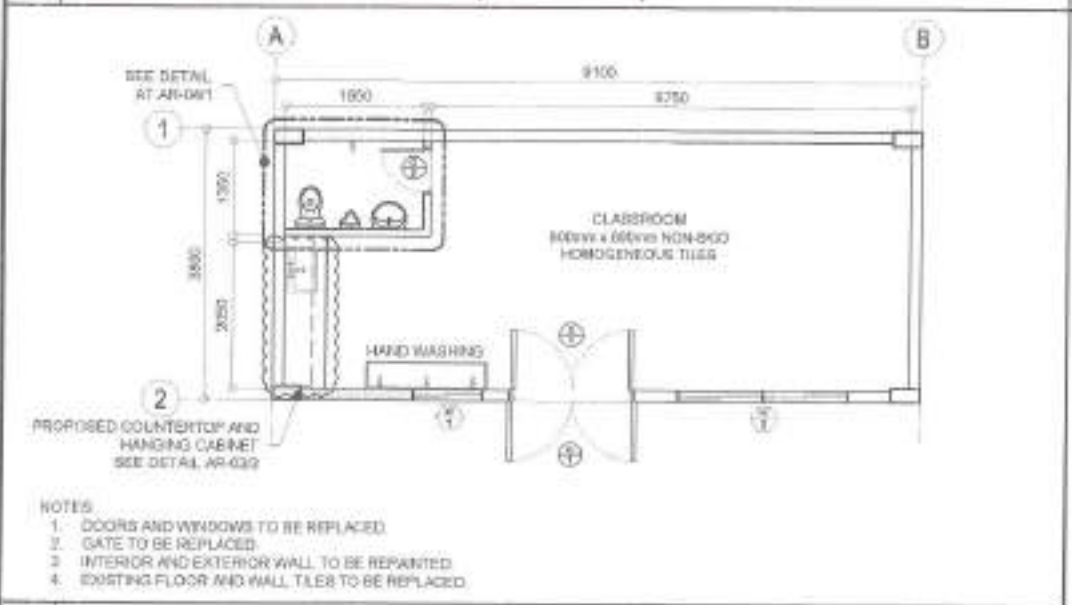




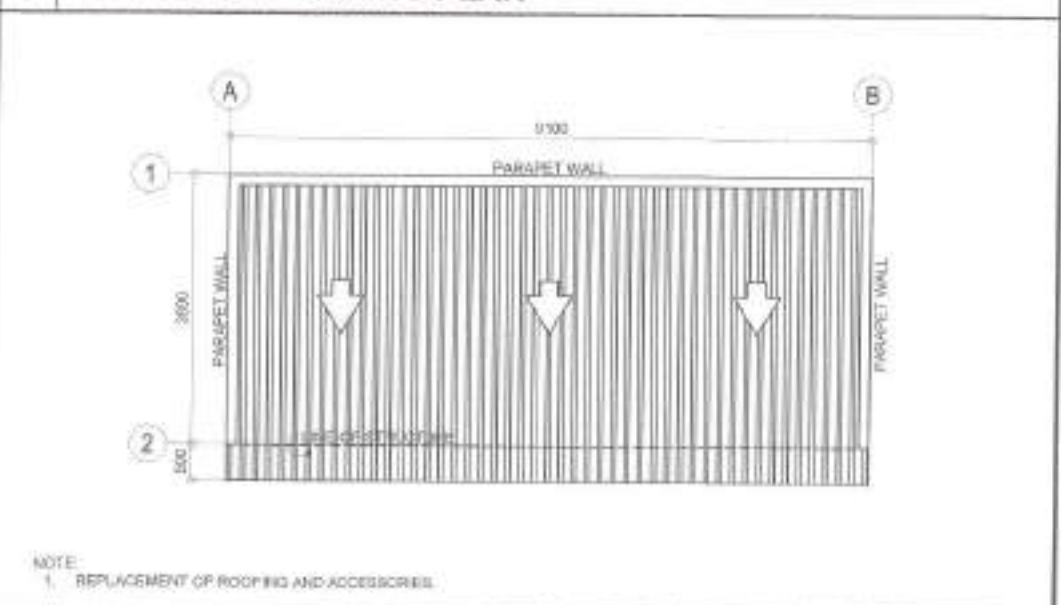
1 GROUND FLOOR PLAN (EXISTING)




3 REFLECTED CEILING PLAN



2 GROUND FLOOR PLAN (PROPOSED)



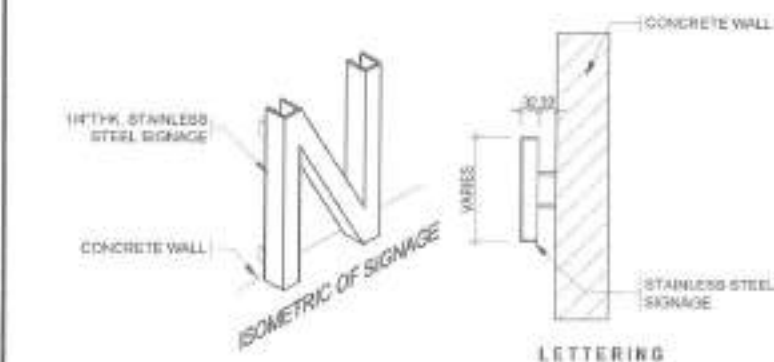
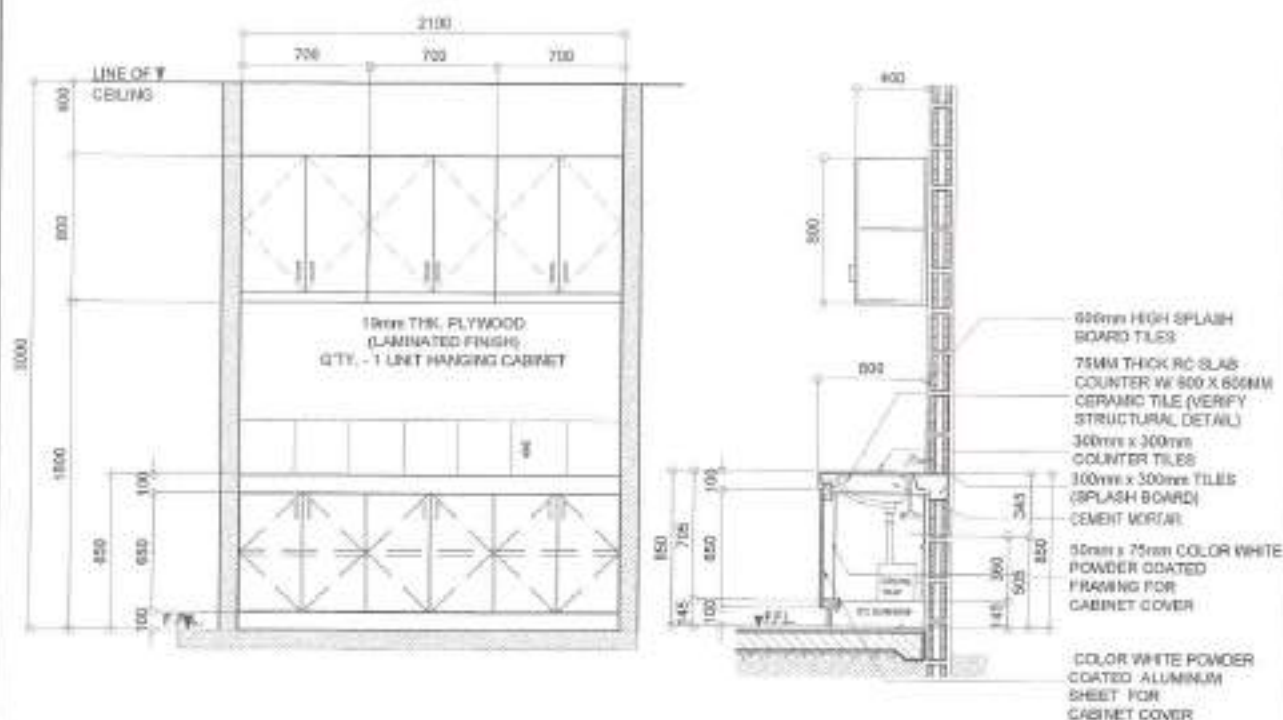
4 ROOF PLAN

 <p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	<p>PROJECT TITLE: <b>PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER</b></p>	<p>DATE: 10.01.2021</p>	<p>DATE: 10.01.2021</p>	<p>RECOMMENDING APPROVAL:</p>	<p>APPROVED BY:</p>	<p>DRAWN BY:</p>	<p>SHEET NO.:</p>
	<p>LOCATION: BUNYANAY NORTH FARMVIEW, CEBRETA, QUEZON CITY</p>	<p>CHECKED BY: JM</p>	<p>PERSON NO.:</p>	<p>ENGR. LEO S. DEL ROSARIO PRAC. PLANNING &amp; ENGINEERING</p>	<p>ENGR. BASIL R. VERZOSA, JR. CC, CIVIL ENGINEER</p>	<p>ENGR. WA. JOSEFINA G. BELMONTE (CITY ENGINEER)</p>	<p>ENGR. FLORENCE S. DEL ROSARIO PRAC. PLANNING &amp; ENGINEERING</p>



1 FRONT ELEVATION

SCALE 1:100M



2 LETTERING DETAILS

SCALE: NTS

3 COUNTERTOP DETAILS

SCALE 1:50M



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE  
**PROPOSED REHABILITATION OF  
NAMAPA DAY CARE CENTER**

LOCATION  
BATAWAG NORTH PARKVIEW, DISTRICT 8, QUEZON CITY

DRAWN BY: JRM  
DATE: 06/18/2017  
CHECKED BY: JRM  
REVISIONS:

SUBMITTED BY: [Signature]  
ENGR. LEON DEL ROSARIO  
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:  
ENGR. EDUARDO R. VERZOSA, JR.  
DCL, CHIEF ENGINEERING OFFICER

APPROVED BY:  
HOW MA. JOSEFINA G. BELMONTE  
CITY MANG

SHEET CONTENT  
FRONT ELEVATION  
LETTERING DETAILS  
COUNTERTOP DETAILS

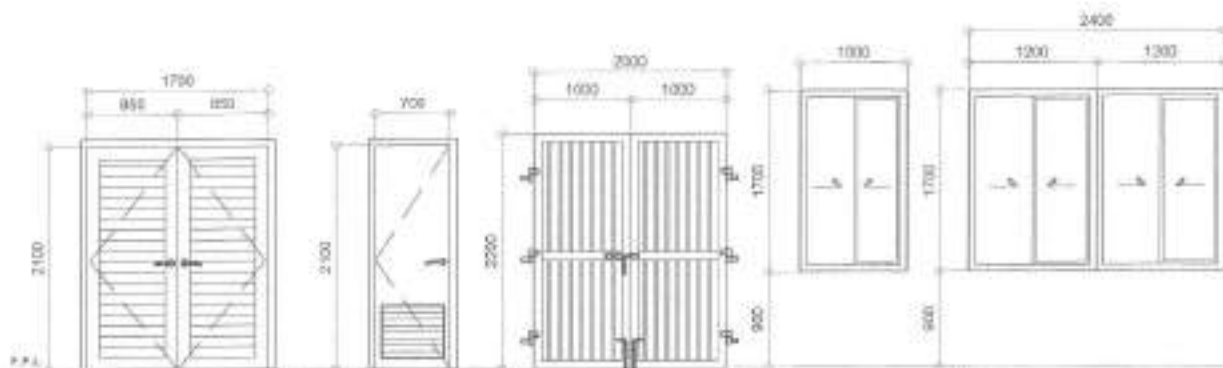
SHEET NO.  
AR-03  
03/11

400mm x 400mm  
NON-SKID  
HOMOGENEOUS  
WALL TILES

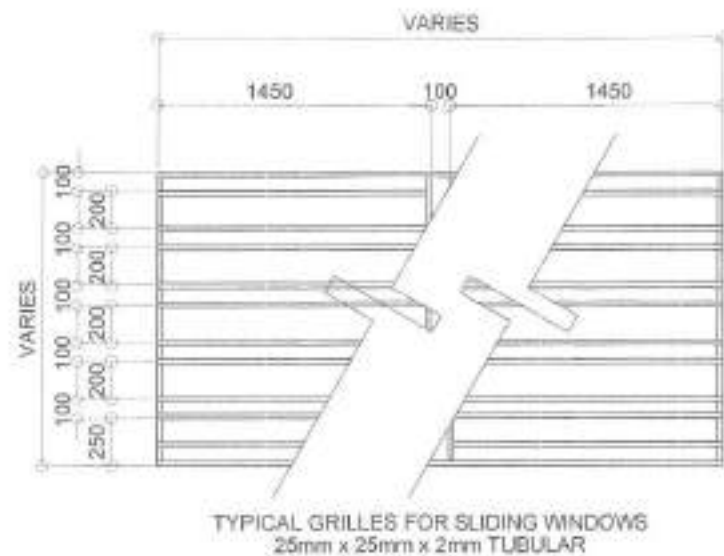


**1 TOILET DETAILS**

SCALE: 1:40M



NO.	1	2	3	4	5
NAME	Panel Door	PVC Door with Lock	20mm x 25mm x 2.5mm Tubular Bar (Main Frame)	Aluminum Frame, Powder Coated Sliding Window with Green Tinted Clear Glass	Aluminum Frame, Powder Coated Sliding Window with Green Tinted Clear Glass
NO. OF SETS	1	1	1	1	1
DESCRIPTION	Panel Door	PVC Door with Lock	20mm x 25mm x 2.5mm Tubular Bar w/ Spigot Bolt and Footbolt	Aluminum Frame, Powder Coated Sliding Window with Green Tinted Clear Glass	Aluminum Frame, Powder Coated Sliding Window with Green Tinted Clear Glass
WINDOW/SLIDE NO.	COMPLETE ACCESSORY DOOR BRICK LEVER TYPE SATIN STAINLESS FINISH	COMPLETE ACCESSORY DOOR BRICK LEVER TYPE SATIN STAINLESS FINISH			






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

**2 SCHEDULE OF DOORS, GATE AND WINDOWS**

SCALE: 1:40M

**3 WINDOW GRILLES DETAIL**

SCALE: NTS

 <p>Republic of the Philippines Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DRAWN BY: ENG. [Signature]	RECOMMENDED APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:	
	PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER	DATE: 10.01.2024	 ENGR. LEO S. DEL ROSARIO HEAD, PLANNING AND DESIGN DIVISION	 ENGR. EUSEBIO R. VERZOSA, JR. CH. OF PLANNING AND DESIGN DIVISION	HOW MA. JOSEFINA G. BELMONTE CITY MGR.	TOILET DETAILS SCHEDULE OF DOORS, GATES AND WINDOWS WINDOW GRILLES DETAIL	AR-04 04/11
	LOCATION: MUNICIPALITY NORTH PARKWAY, DISTRICT 7, QUEZON CITY	CHECKED BY: [Signature]					



1 All plumbing works and materials indicated herein shall be compliant 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 co-located 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 relocation will require proper resolution in relation with other trades.

3 The plumbing contractor shall verify all existing utilities at the site and shall coordinate the work with other trades.

4 Pipes shall not be embedded in structural members unless otherwise specified or allowed.

5 Minimum slope for hot/cold sewer lines shall be 1% and for drain lines shall be 1/8%.

6 Proposed plumbing utilities shall conform with the actual location, depth and invert elevation of all existing pipe/ducts.

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 females 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 not on areas not subject to traffic.

10 All underground D.I. pipes in direct contact with soil shall be provided with two (2) coats of protective coating and wrapped with jute cloth thoroughly soaked in tar or asphalt.

11 Provide vent stack and vent pipe thru roof of cast iron service weight as required.

12 All cast iron pipes shall be of approved quality and D.I. pipes for water distribution lines shall be Schedule 40 U.S. standard weight.

13 Provide gate valves to all water supply lines to fixtures.

14 All hot water lines shall be provided with proper insulation when exposed.

15 All individual branches to fixtures or group of fixtures and/or equipments shall be provided with air chambers or capped vertical pipe extensions of dimension 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 Ø (3/4" Ø) unless otherwise indicated.

17 Inlet pipe of siphon tank is 50 mm higher than the siphon pipe which is 30 mm higher than the outlet pipe.

18 All plumbing works and material 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.

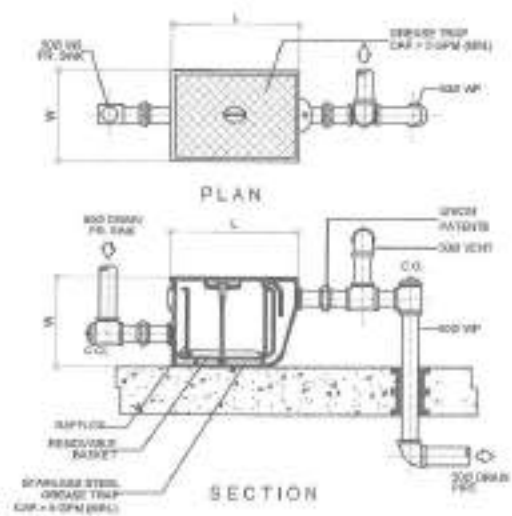
I. FIXTURES AND OTHER LEGEND

FD	FLOOR DRAIN
RD	ROOF DRAIN
SH	SHOWER
WC	WATER CLOSET
LAV	LAVATORY
UR	URNAL
KS	KITCHEN/SINK
BD	BUILDING DRAIN
DD	DECK DRAIN
CCD	CEILING CLEANOUT
FCO	FLOOR/GROUND CLEANOUT
DS	DOWNSPOUT
mm	mm DIAMETER
Ø	Ø DIAMETER
SH	SHOWER DRAIN
CS	CATCH BASIN
MH	MANHOLE
→	DIRECTION OF FLOW
☒	GREASE TRAP

II. SEWER, WASTE AND VENT SYSTEM

—	SP/WP	SOIL PIPE / WASTE PIPE
- - -	VS/WC	VENT STACK / VENT AT CEILING
- - -	DP	STORM DRAIN PIPE
⊙	DS	DRAINAGE STACK / DOWNSPOUT
⊙	SVTR	STACK VENT EXTENDED THROUGH ROOF
⊙	SS	SOIL STACK
⊙	FCO/CCO	FLOOR CLEANOUT / CEILING CLEANOUT
⊙	CCO	CEILING CLEANOUT
⊙	SPDR	SUMP PIT DISCHARGE (RIBBI)
⊙	SPDR	SUMP PIT DISCHARGE PIPE
■	ADCB	AREA DRAIN CATCH BASIN
⊙	DD	DECK DRAIN

2 LEGENDS AND SYMBOLS

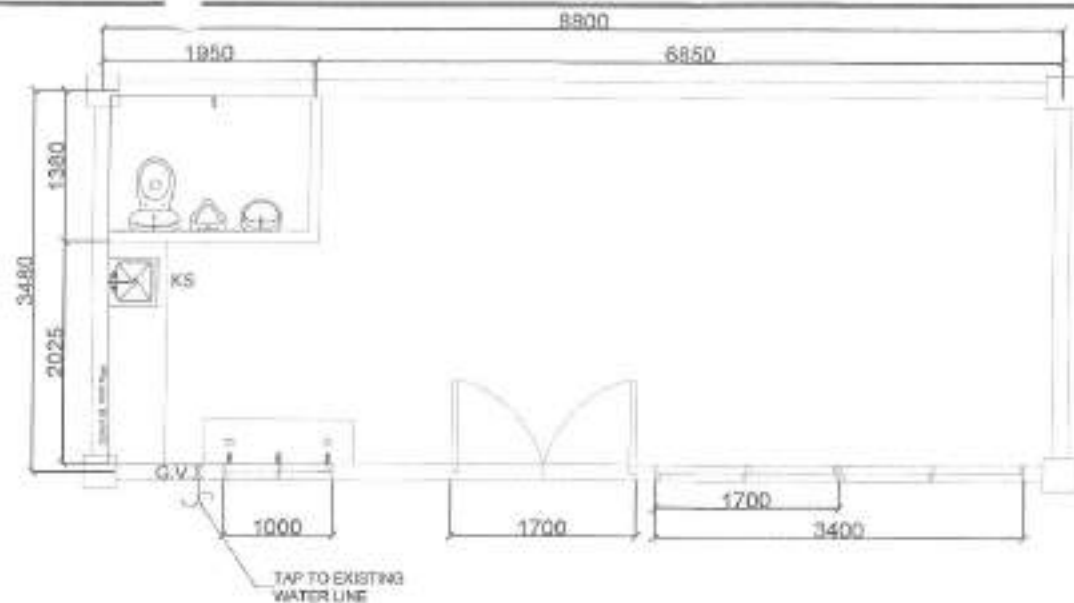


1 GENERAL NOTES

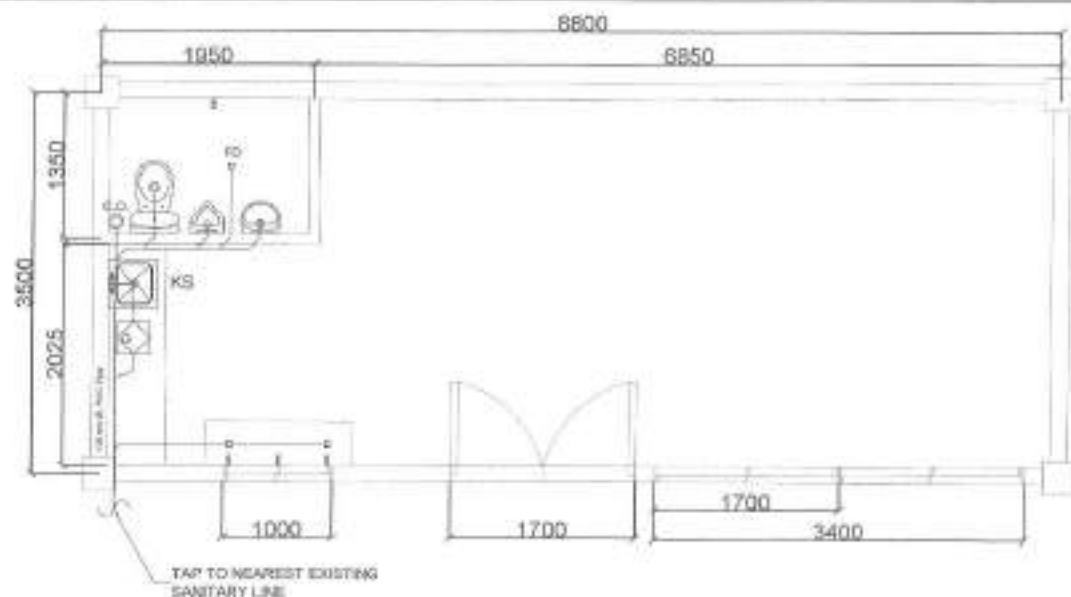
3 GREASE TRAP DETAIL

SCALE: 1:50 M

<p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DRAWN BY: <b>AK</b>	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER	DATE: <b>10/10/2021</b>				GENERAL NOTES LEGENDS & SYMBOLS	
	LOCATION: BARANGAY NORTH BARANG, DISTRICT 8, SQUID CITY	CHECKED BY: <b>AK</b>	PERSON NO.:	ENGR. <b>LEO S. DEL ROSARIO</b> RNL, ALABANG & PETERMAN BARRIO	ENGR. <b>R. VERZOSA, JR.</b> DCL, CITY ENGINEERING DEPARTMENT	RON, MA. JOSEFINA G. BELMONTE CITY ENGINEER	



1 | GROUND FLOOR WATER LINE LAYOUT



2 | GROUND FLOOR SANITARY LINE LAYOUT

SCALE: 1:50 M



Republic of the Philippines  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE: <b>PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER</b>	DRAWN BY: <i>[Signature]</i> DATE: 06/11/2021 CHECKED BY: <i>[Signature]</i>	SUBMITTED BY: <i>[Signature]</i> ENGR. LEY S. DEL ROSARIO SENIOR PLANNING & PROGRAM DEVELOPMENT	RECOMMENDING APPROVAL: <i>[Signature]</i> ENGR. BASILAN R. VERZOSA, JR. SEC. CHIEF, CIVIL ENGINEERING DEPARTMENT	APPROVED BY: <i>[Signature]</i> HON. MA. JOSEFINA G. BELMONTE CITY MAYOR, QUEZON CITY	SHEET CONTENT: GROUND FLOOR WATER LINE LAYOUT GROUND FLOOR SANITARY LINE LAYOUT	SHEET NO: <b>PL-02</b> <b>06/11</b>
LOCATION: BARANGAY NORTH FARVIEW, DISTRICT 6, QUEZON CITY	REVISION NO.:					

**GENERAL NOTES:**

- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEER, FINAL CERTIFICATE OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL ENNEDED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE AND SUPPORTED BY CONDUIT CLAMPS EVERY 305MM APART.
- PULLBOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON THE PLANS. SIZES OF ALL PULLBOXES SHALL BE COMPLIED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE "AS-BUILT" PLAN.
- ALL POWER OUTLETS AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLOTS FOR 200V.
- SHOW OR WIRELESS CURRENT INTERRUPTER (CIRCUIT BREAKER) FOR LOADS MARKED "HOT" ON THE PLAN.
- ALL METALLIC CONDUITS, COVERS AND EQUIPMENT SHALL BE PROPERLY GROUNDING AND BONDING.
- UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 180 MM AFF. (180MM ABOVE WORKING COUNTERTOP)  
 LIGHTING SWITCH - 1400 MM AFF.  
 PANELBOARD - 1800 MM AFF.

- REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NAME AS SPECIFIED.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND BROAD-OUTLINE DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY INDICATE DESCRIBED ACTUAL LOCATIONS, LEVEL AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOBSITE AS LOGICAL DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DECISION.
- ALL LIGHTING AND CONVENIENCE OUTLET CIRCUITS SHALL BE 22.8KV 18A THREE PHASE WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 3.0 SQ. MM. COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

LINE 1 - RED  
 LINE 2 - YELLOW  
 NEUTRAL - WHITE  
 GROUND - GREEN

- BOXES, WIRE CUTTERS, DYSOLUBLE SHALL BE FABRICATED FROM STEEL WITH THICKNESS AS FOLLOWS:  
 MINIMUM BOTH OF THE WOOD SURFACE STEEL:  
 UP TO 150MM (150MM) OR PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 150MM (150MM) BUT NOT OVER 300MM OR PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 300MM (300MM) BUT NOT OVER 450MM OR PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 450MM (450MM) BUT NOT OVER 600MM OR PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 600MM (600MM) BUT NOT OVER 750MM OR PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
- ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A QUALIFIED ELECTRICAL CONTRACTOR BY LOCAL WORKS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
- TYPE OF SERVICE ENTRANCE SHALL BE SINGLE-PHASE, TWO-WIRE PLUS GROUND, 200V/277V, 20A/30A/40A/50A.
- CONDUITS AND CABLES SHALL BE MORE THAN THE EQUIVALENT OF FOUR (4) LANTERNS BUNDLES IN ANY ONE RUN. ALL CONDUIT BUNDLES SHALL BE FIELD MADE BY USING HYDRAULIC BENDERS. MINIMUM BENDING RADIUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE QUEZON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE CIRCUIT RESISTANCE FOR ELECTRICAL SYSTEM SHALL NOT BE MORE THAN 5 OHMS. COMMUNICATION INCLUDING RESISTANCE SHALL NOT EXCEED 10 OHMS.

	ACU Outlet		Orbit Fan with Selector Switch
	Duplex Convenience Outlet	S1	One Gang Switch
	1200mm x 300mm LED tube in Troffer Fixture	S2	Two Gang Switch
	1x18W T8 LED Tube Box Type Lighting Fixture	S3	Three Gang Switch
	14w LED Light Bulb in Plastic Receptacle		

**2 LEGEND & SYMBOLS**

SCALE NTS

**BENDING RADIUS DETAIL**

**SPOT DETAIL OF CONDUIT RUN AND BOX**

**CONDUIT RUN FOR LIGHTING DISTRIBUTION IN ONE CIRCUIT (FOR EXPOSED OR INSIDE DROP CEILING INSTALLATION)**

**PROPER CONDUIT LAYOUT IN WALL BOX**

**BONDED FACEWAY TERMINATION FOR SHEET METAL**

NOTE: CONNECTIONS OF THREE (3) OR MORE METAL CONDUITS OR FIBER OPTIC METALLIC CONDUIT TO A THROUGH HOLE OR HUB IS CONSIDERED TO BE A BUNDLED CONDUIT TERMINATION.

**1 GENERAL NOTES**

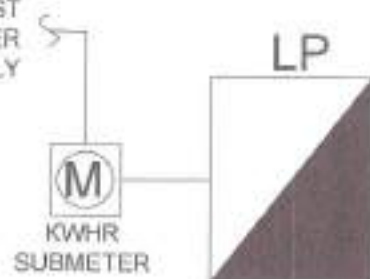
SCALE NTS

**3 MISCELLANEOUS DETAILS**

SCALE NTS

<p>Republika ng Pilipinas Lungsod ng Quezon <b>CITY ENGINEERING DEPARTMENT</b></p>	PROJECT TITLE:	ENGINEER / ENGINEER-IN-CHARGE:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:	
	<b>PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER</b>	DATE: 10/23/2021				GENERAL NOTES LEGEND AND SYMBOLS MISCELLANEOUS DETAILS	<b>EL-01</b> 07/11
	LOCATION: BANKHAWAY NORTH PARKVIEW, DISTRICTS, QUEZON CITY	CHECKED BY: J.A.	<b>ENGR. LED B. DEL ROSARIO</b> RECORD, PLUMBING & PROJECT ENGINEER	<b>ENGR. GERSON R. VERZOSA, JR.</b> C.E., CITY ENGINEERING DEPARTMENT	<b>HON. MA. JOSEFINA G. BELMONTE</b> CITY MGR.		

TAP TO NEAREST EXISTING POWER SUPPLY

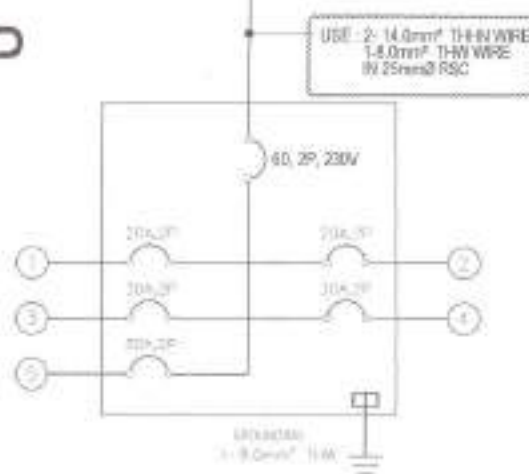


**1 SINGLE LINE DIAGRAM**

SCALE NTS

TAP TO NEAREST EXISTING POWER SUPPLY

LP



**2 PANELBOARD DIAGRAM**

SCALE NTS

**3 SCHEDULE OF LOADS**

SCALE NTS

PANEL BOARD		MAIN: 60A, 100A, 2P, 230VAC											
CCT NO.	DESCRIPTION	LOAD		RATING			OVC CURRENT PROTECTION				SIZE OF WIRE	CONDUIT	
		L.D.	C.D.	VA	V	A	AT	AF	F	TYPE		SIZE (mm)	TYPE
1	LIGHTING OUTLET	1		300	230	2.17	30	300	1	BOLT-ON	2-3.5mm² THHN + 1-2.0mm² THW(G)	30	PVC
2	CONVENIENCE OUTLET		4	720	230	3.13	30	300	1	BOLT-ON	2-3.5mm² THHN + 1-2.0mm² THW(G)	30	PVC
3	4-CIRCUIT SW			1200	230	5.22	30	300	1	BOLT-ON	2-3.5mm² THHN + 1-2.0mm² THW(G)	30	PVC
4	ACU OUTLET			1040	230	6.00	35	300	1	BOLT-ON	2-5.5mm² THHN + 1-2.0mm² THW(G)	38	PVC
5	SWR			1000	230	4.35	30	300	1	BOLT-ON			
		TOTAL				5240		23.87					

<p>COMPUTATION</p> $I_L = \frac{5240}{230} + (3 \times 10\%)$ $I_L = 24.67 \text{ A}$ $I_{Lb} = 24.67 \times 125\%$ $I_{Lb} = 30.84 \text{ A}$	<p>USE:</p> <p>WIRE:</p> <p>60A, 100A, 2P, 230VAC</p> <p>FEEDER SIZE:</p> <p>3-14mm² THHN + 1-2.0mm² THW(G) in 25mm² RSC</p>
--	--

**2 PANELBOARD DIAGRAM**

SCALE NTS

**3 SCHEDULE OF LOADS**

SCALE NTS

Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE:  
**PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER**

LOCATION:  
BARANGAY NORTH FAIRVIEW, DISTRICT 15, QUEZON CITY

DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
SUBMITTED BY: *[Signature]*  
REVISION NO:

**ENGR. LEO S. DEL ROSARIO**  
HEAD, PLANNING & DESIGN DIVISION

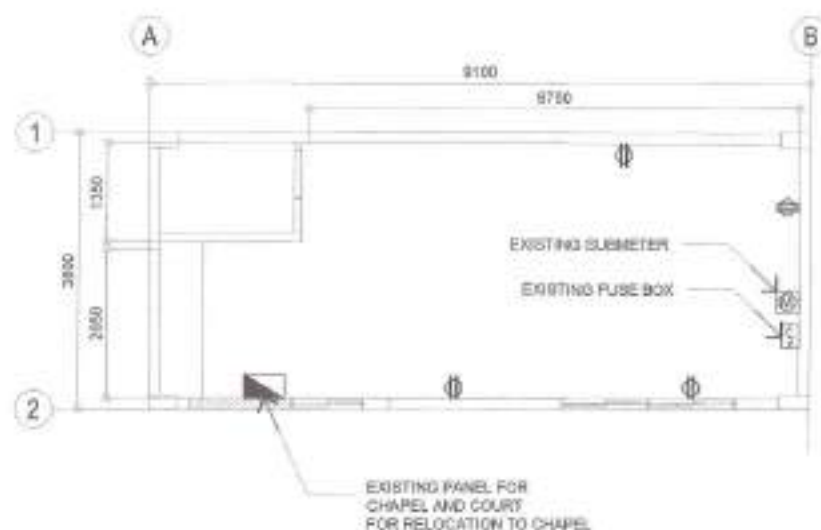
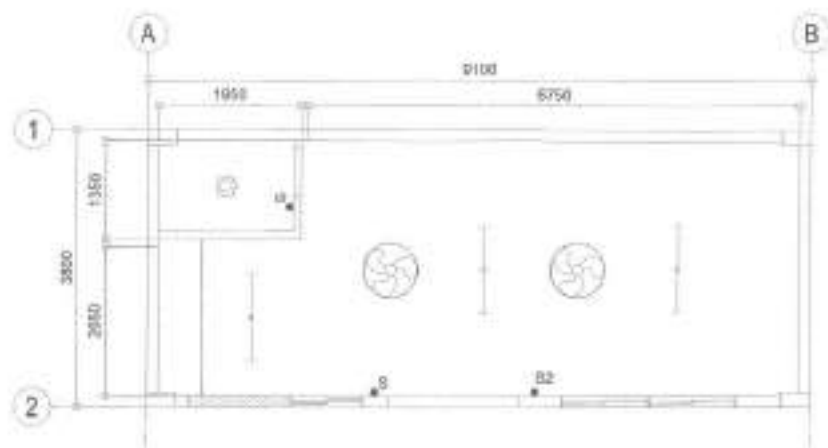
RECOMMENDATION APPROVAL:  
*[Signature]*  
**ENGR. ISMAEL R. VERZOSA, JR.**  
DIR., CITY ENGINEERING DEPARTMENT

APPROVED BY:  
*[Signature]*  
**HON. MA. JOSEFINA G. BELMONTE**  
CITY ENGINEER

SHEET CONTENT:  
SINGLE LINE DIAGRAM  
PANELBOARD DIAGRAM  
SCHEDULE OF LOADS

SHEET NO:  
**EL-02**  
08/11





## 1 LIGHTING LAYOUT (EXISTING)

SCALE: 1/750

## 2 POWER LAYOUT (EXISTING)

SCALE: NTS



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF  
NAMAPA DAY CARE CENTER**

LOCATION:  
BATAANGAY NORTH FARMS/W, DISTRICT 8, QUEZON CITY

DRAWN BY: **SEEK**DATE: **09/11/2011**CHECKED BY: **JR**

REVISION NO:

SUBMITTED BY:

**EMOR LEO S. DEL ROSARIO**  
HEAD, PLANNING & PROGRAM DIVISION

RECOMMENDING APPROVAL:

**ENGR. IRIGANI R. VERZOSA, JR.**  
DIR., CIVIL ENGINEERING DEPARTMENT

APPROVED BY:

**HON. MA. JOSEFINA G. BELMONTE**  
CITY MAYOR

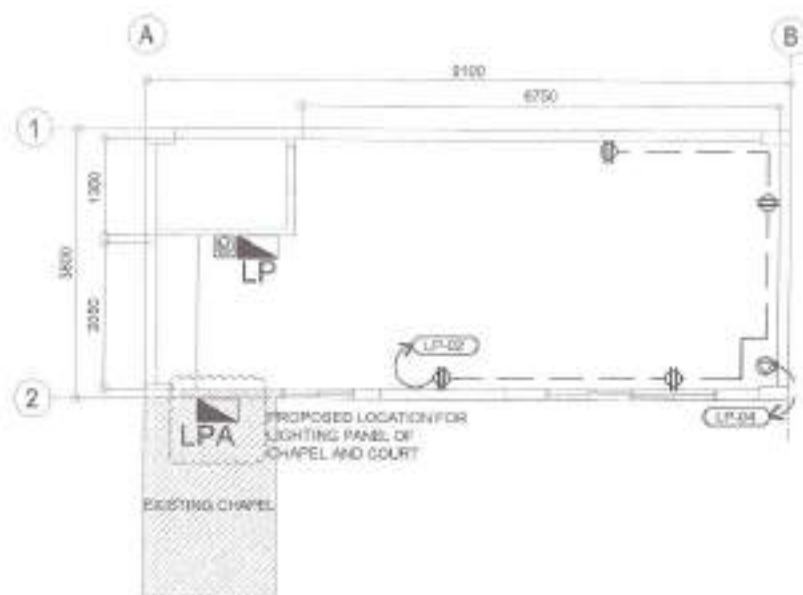
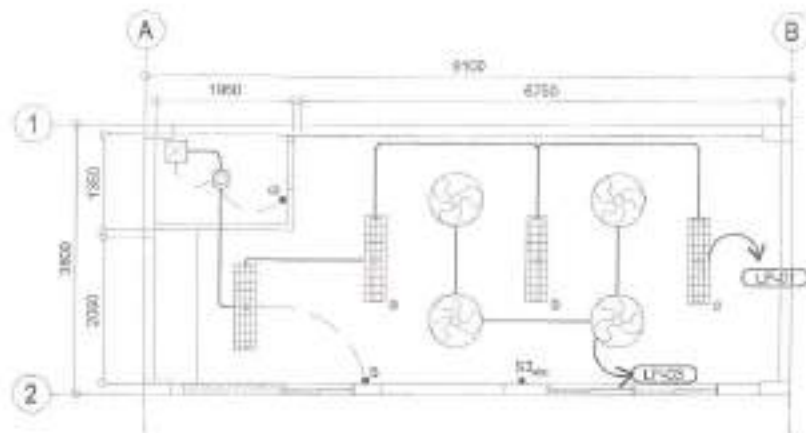
SHEET CONTENT:

LIGHTING LAYOUT  
EXISTING  
POWER LAYOUT  
EXISTING

SHEET NO:

**EL-03**  
**09/11**





## 1 LIGHTING LAYOUT (PROPOSED)

SCALE: 1:75M

## 2 POWER LAYOUT (PROPOSED)

SCALE: 1:75M



Republika ng Pilipinas  
Lungsod ng Cebu  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:

PROPOSED REHABILITATION OF  
NAMAPA DAY CARE CENTER

LOCATION:

SARANAP NORTH PARISH, DISTRICT 1, CEBU CITY

DRAWN BY:

EMR

DATE:

10/20/21

CHECKED BY:

JM

REVISIONS:

DESIGNED BY:

ENGR. LOUIS DEL ROSARIO

HEAD, PLANNING AND MANAGEMENT

ENGR. SAM R. VERZOSA, JR.

DC, CITY ENGINEERING DEPARTMENT

RECOMMENDING APPROVAL:

ENGR. SAM R. VERZOSA, JR.

DC, CITY ENGINEERING DEPARTMENT

ATTACHED BY:

HON. MA. JOSEFINA D. BELMONTE

CITY MAOR

SHEET COVER:

LIGHTING LAYOUT  
PROPOSED  
POWER LAYOUT  
PROPOSED

SHEET NO.:

EL-04

10/11

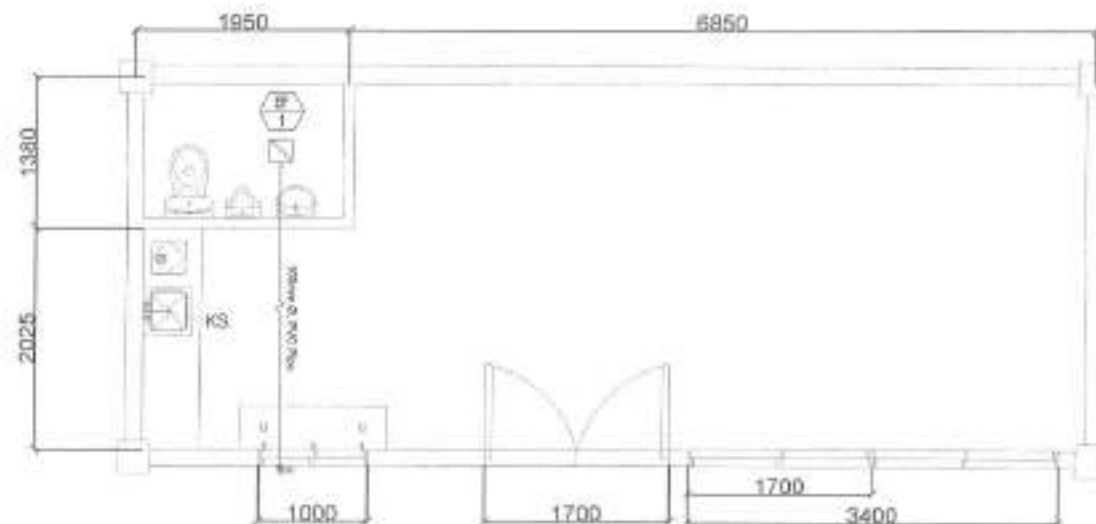
- ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE NATIONAL BUILDING CODE, PDME CODE AND THE RULES AND REGULATIONS OF QUEZON CITY.
- THE SCOPE OF WORK SHALL INCLUDE ALL WORKS DESCRIBED IN PLANS.
- THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION WITH ALL OTHER TRADES.
- ALL AIRCONDITIONED SPACES SHALL BE MAINTAINED AT 24°C DB AND 50% RH.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, MANUFACTURERS CATALOGUE, SPECIFICATIONS, SAMPLES, INCLUDING VIBRATION ISOLATORS BEFORE EXECUTION OF WORK.
- ALL FLOOR SLAB MOUNTED VIBRATING EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATORS TO PREVENT VIBRATIONS AND NOISE TRANSMISSION.
- EXHAUST FAN SHALL BE PROVIDED WITH SUITABLE FLEXIBLE CONNECTIONS TO DISCHARGE DUCT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF THE WHOLE VENTILATION AND AIRCONDITIONING SYSTEM AND INSTALLATION.
- ALL POWER WIRING SHALL BE ELECTRICAL AND TERMINATION TO EQUIPMENT SHALL BE MECHANICAL.
- PROVIDE CONTROL WIRING FOR AIRCONDITIONING EQUIPMENT.
- PROVIDE THERMOSTAT FOR ALL INDOOR UNITS / FAN COIL UNITS.
- VERIFY LOCATION OF CONTROLLERS AND SWITCHES ON ELECTRICAL PLANS.
- ALL PIPE EQUIPMENT CONDENSATE DRAIN SHALL BE CONNECTED TO THE NEAREST FLOOR DRAIN / A/D/C/B.
- PROVIDE GLIDES, HANGERS, AND SUPPLEMENTAL STEEL SUPPORT FOR ALL PIPING, DUCTING AND EQUIPMENTS.
- PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THRU BUILDING STRUCTURE.
- ALL PIPE DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE NOTED.

	- EQUIPMENT DESIGNATION		- AIR COOLED CONDENSING UNIT
	- REFRIGERANT PIPE		- ELBOW UP
	- WALL MOUNTED INDOOR UNIT		- ELBOW DOWN
	- WINDOW TYPE AIR CONDITIONER		- FAN COIL UNIT

## EXHAUST FAN

DESIGNATION	LOCATION	QUANTITY	TYPE	AIR VOLUME CMM	POWER INPUT WATTS	ELECTRICAL SUPPLY			REMARKS
						VOLTS	PHASE	HERTZ	
	AS SHOWN ON PLANS	1 SET	CEILING MOUNTED	10.00	21	200	3Ø	60	UNITS SHALL BE EQUIPPED WITH DISCHARGE OUTLET TAPERED OUT ADAPTOR ONE-TWO HUNG TYPE LOUVER & MAKEUP AIR CONTAINING A REVERSE FLOW PREVENTION FILTER

## 2 SCHEDULE OF EQUIPMENT



## 1 GENERAL NOTES AND LEGENDS

## 3 GROUND FLOOR EQUIPMENT LAYOUT

SCALE: 1:125 M



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	PROPOSED REHABILITATION OF NAMAPA DAY CARE CENTER
LOCATION:	BARANGAY NORTH FARVIEW, DISTRICT 5, QUEZON CITY

DRAWN BY: ENG  
DATE: 19.01.2021  
CHECKED BY: JFB  
REVISION NO:

DESIGNED BY: JFB  
ENGR. LEO S. DEL ROSARIO  
HEAD, PLANNING & PROGRAM DIVISION

RECOMMENDING APPROVAL:  
ENGR. ISAAC R. VERZOSA, JR.  
CIC CITY ENGINEERING DEPARTMENT

APPROVED BY:  
HON. MA. JOSEFINA G. BELMONTTE  
CITY MAYOR, QUEZON CITY

SHEET CONTENT  
GENERAL NOTES  
LEGENDS & SYMBOLS  
SCHEDULE OF EQUIPMENT

SHEET NO.  
ME-01  
11/11

THE SITE



1 VICINITY MAP

SCALE NTS

THE SITE



2 LOCATION MAP

SCALE NTS

3 SITE DEVELOPMENT PLAN

SCALE 1:100M

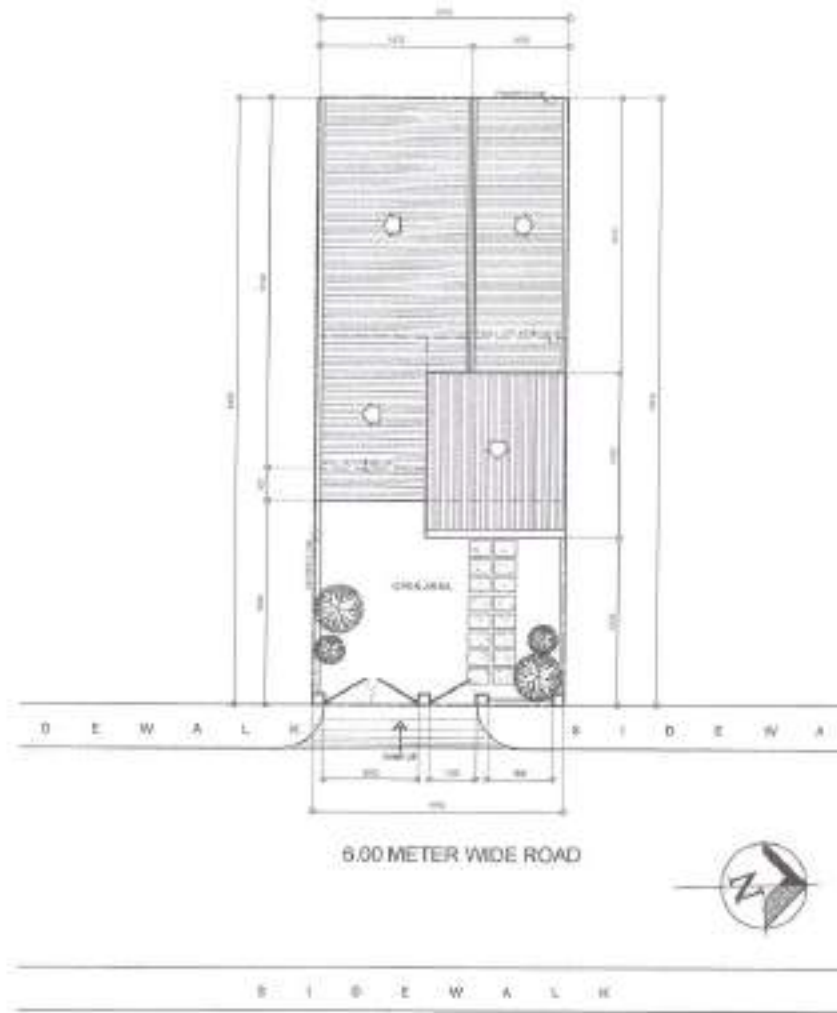


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Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER**

LOCATION:  
BREF FAIRVIEW, DISTRICT 5, QUEZON CITY

DESIGN BY: [Signature]  
DATE: 02.14.21  
CHECKED BY: [Signature]  
REVISION NO.

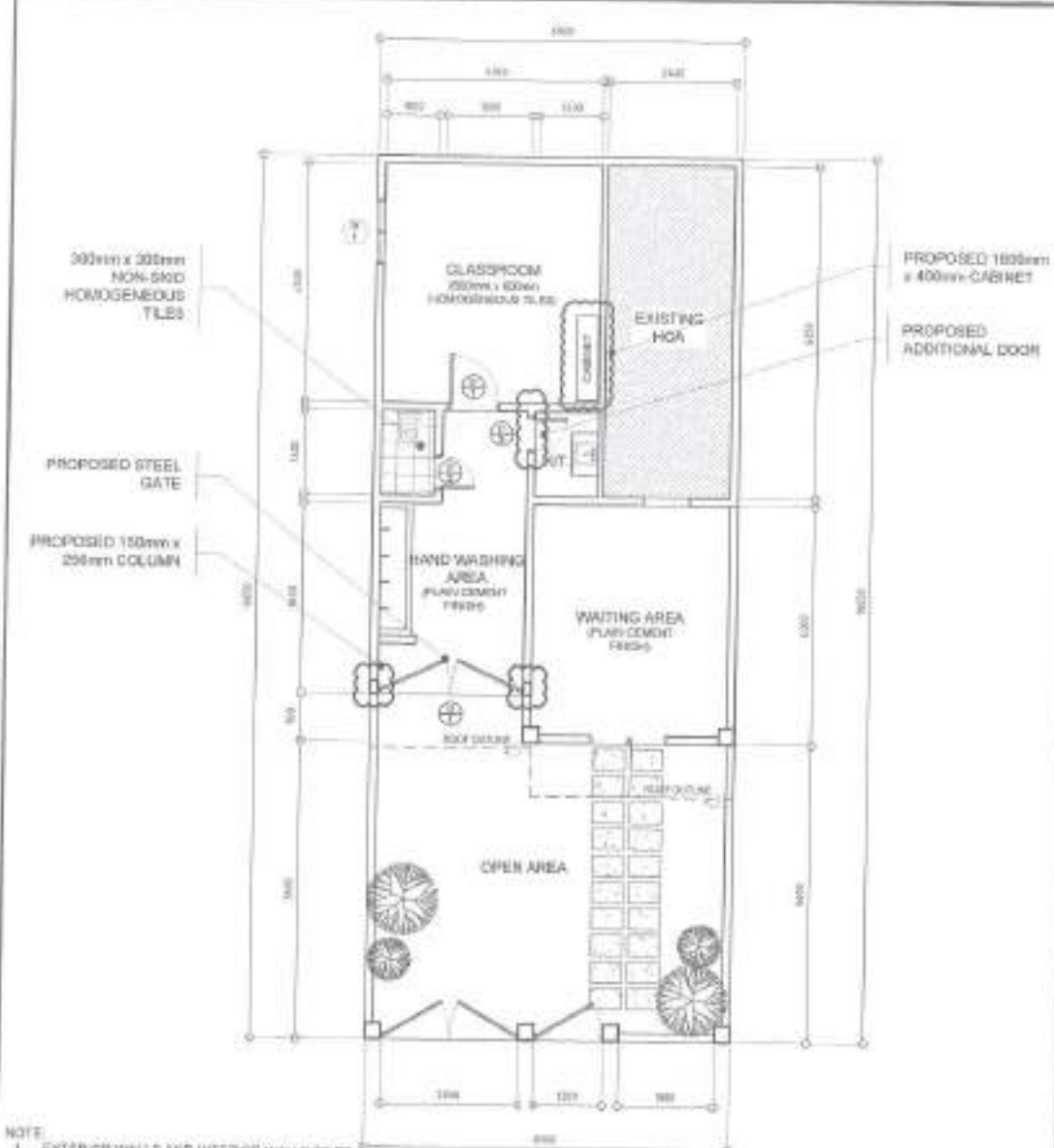
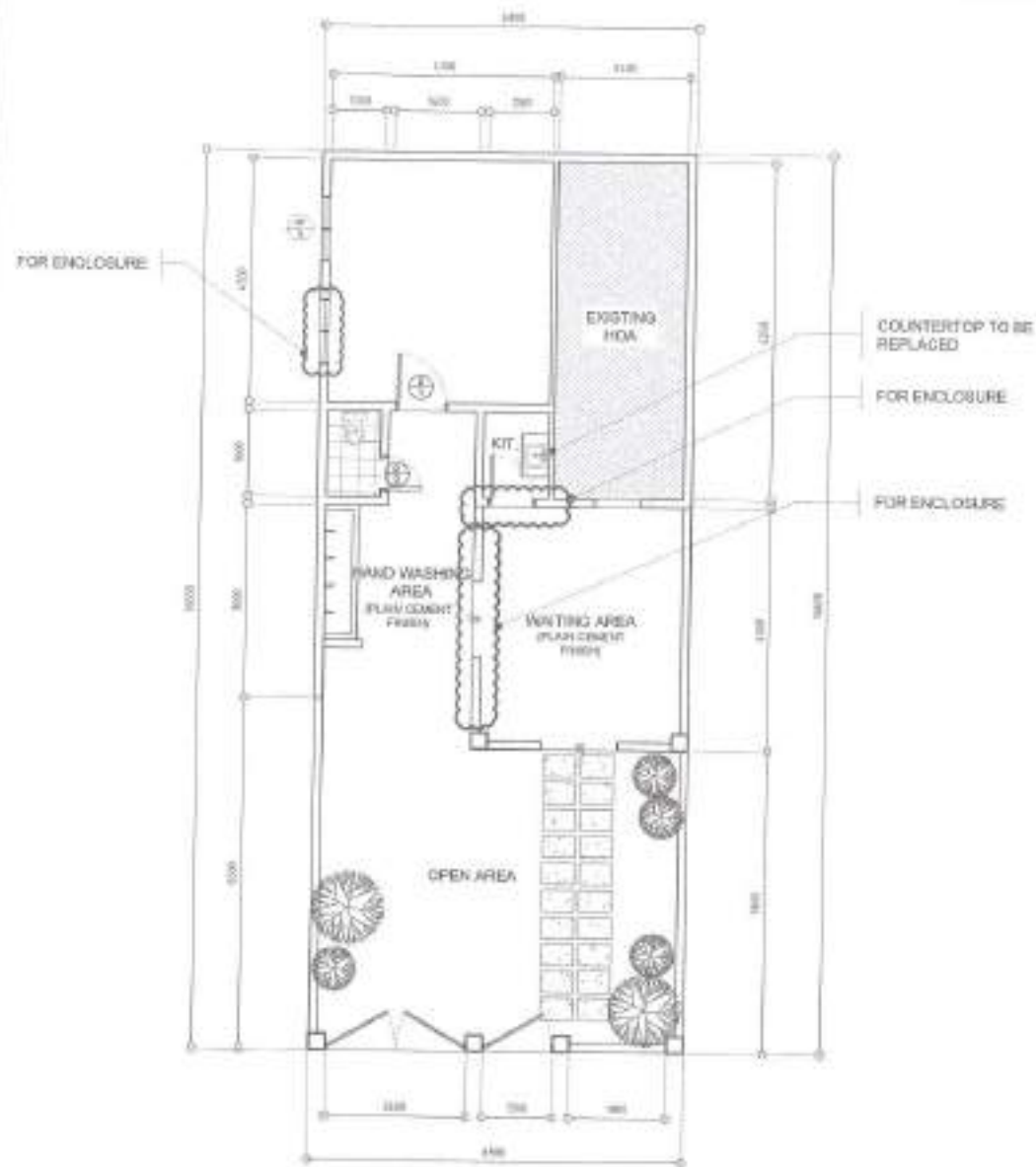
SUBMITTED BY:  
[Signature]  
**ENGR. LEO S. DEL ROSARIO**  
HEAD, PLANNING & PROGRAM SERVICES

RECOMMENDED APPROVAL:  
**ENGR. ISAGANI R. VERZOSA, JR.**  
D/C, CITY ENGINEERING SECTION

APPROVED BY:  
**HON. RA. JOSEFINA O. BELMONTE**  
CITY ENGINEER

SHEET CONTENT:  
VICINITY MAP  
LOCATION MAP  
SITE DEVELOPMENT PLAN

SHEET NO.  
**AR-01**  
**01/11**



- NOTE:
1. EXTERIOR WALLS AND INTERIOR WALLS TO BE REPAINTED
  2. FLOOR TILES AND WALL TILES TO BE REPLACED
  3. ALL DOORS TO BE REPLACED
  4. ALL WINDOWS TO BE REPLACED

**1 FLOOR PLAN (EXISTING)**

**2 FLOOR PLAN (PROPOSED)**

SCALE 1:100M

SCALE 1:100M



Republikang Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE:  
**PROPOSED REHABILITATION OF SITIO  
URLINA DAY CARE CENTER**

LOCATION:  
5201, FARVER, DISTRICT 4, QUEZON CITY

DRAWN BY: *AK*  
DATE: 02.11.21  
CHECKED BY: *JK*  
REVISIONS:

SUBMITTED BY:  
*[Signature]*  
**ENGR. LEO S. DEL ROSARIO**  
HEAD, PLANNING & PROGRAMS DIVISION

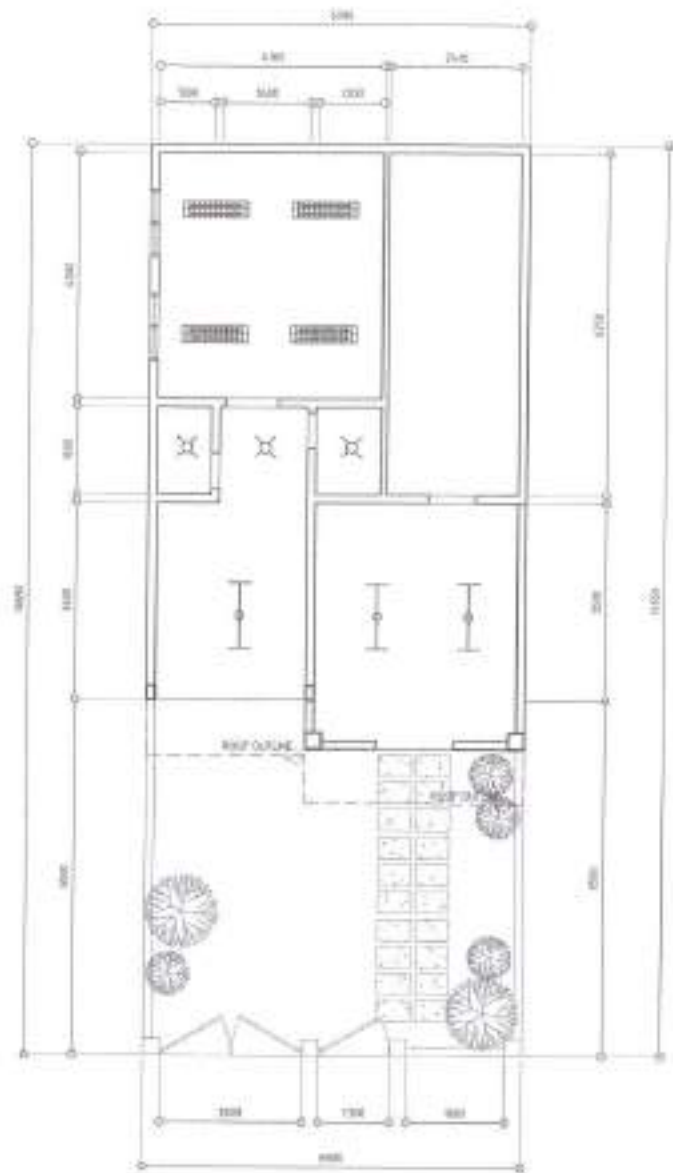
RECOMMENDED APPROVAL:  
**ENGR. ISAGAN R. VERZOSA, JR.**  
DEPUTY CITY ENGINEERING SUPERVISOR

APPROVED BY:  
**HON. MA. JOSEFINA O. BELMONTE**  
CITY MAJOR

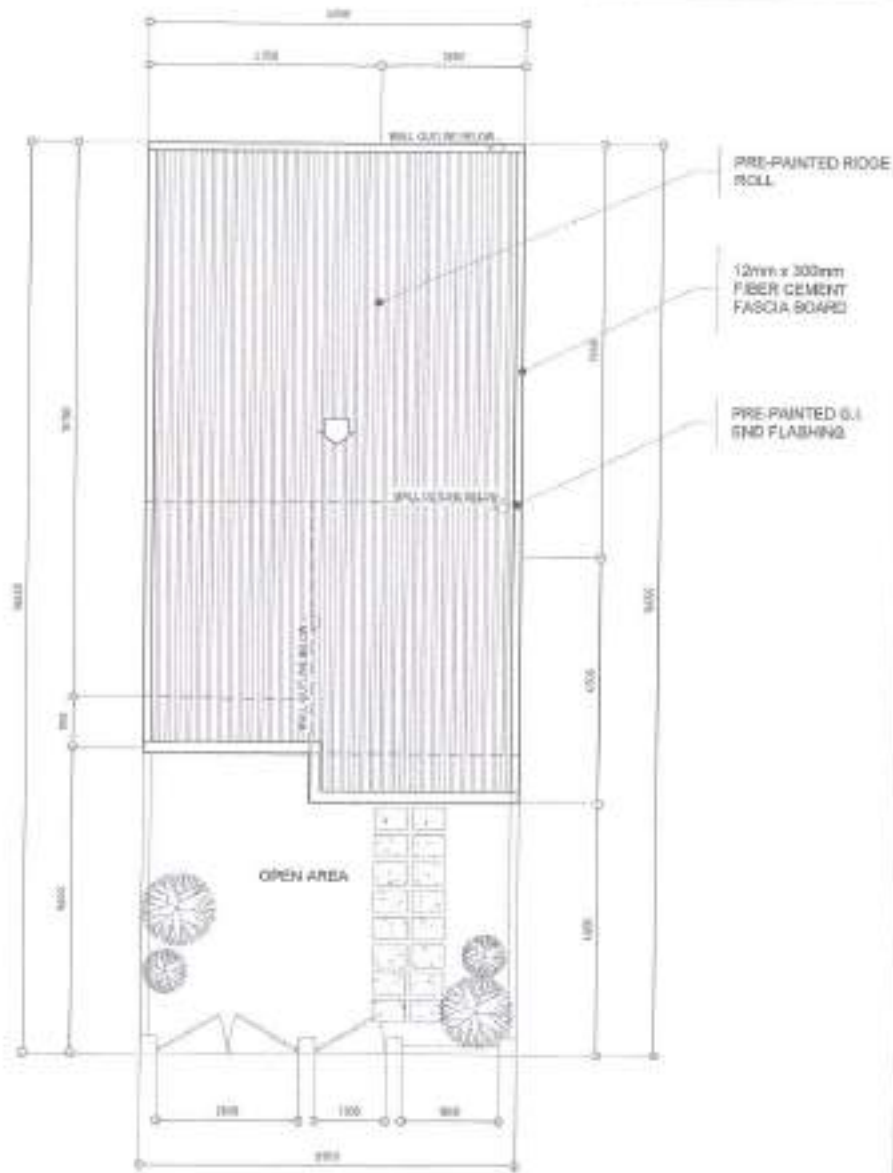
SHEET CONTENT:  
FLOOR PLAN (EXISTING)  
FLOOR PLAN (PROPOSED)

SHEET NO:  
**AR-02**  
**0211**





NOTE:  
1. EXISTING CEILING AND ROOF EAVES TO BE REPLACED WITH 12mm x 300mm FIBER CEMENT BOARD INCLUDING METAL FRAMING





NOTE:  
1. ROOFING AND ACCESSORIES TO BE REPLACED

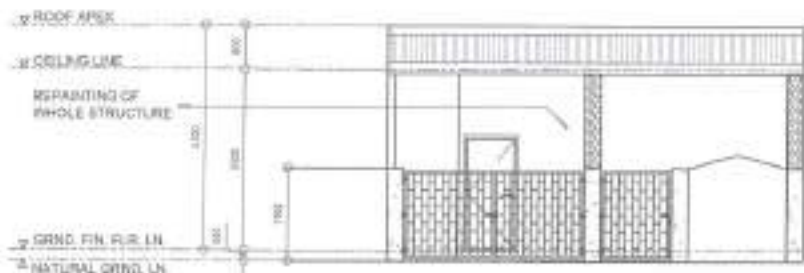
**1 REFLECTED CEILING PLAN**

SCALE 1:100M

**2 ROOF PLAN**

SCALE 1:100M

 <p>Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DESIGNED BY: <i>JR</i>	IDENTIFIED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER	DATE: 10/11/21				REFLECTED CEILING PLAN ROOF PLAN	AR-03 03/11
	LOCATION: BISTY, PAMPANAW DISTRICT 3, QUEZON CITY	DRAWN BY: <i>JR</i>	ENGR. LITO S. DEL ROSARIO HEAD, PLANNING & RECORDS DIVISION	ENGR. ISAGAN R. VERZOSA, JR. CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA O. BELMONTTE CITY MAJOR		



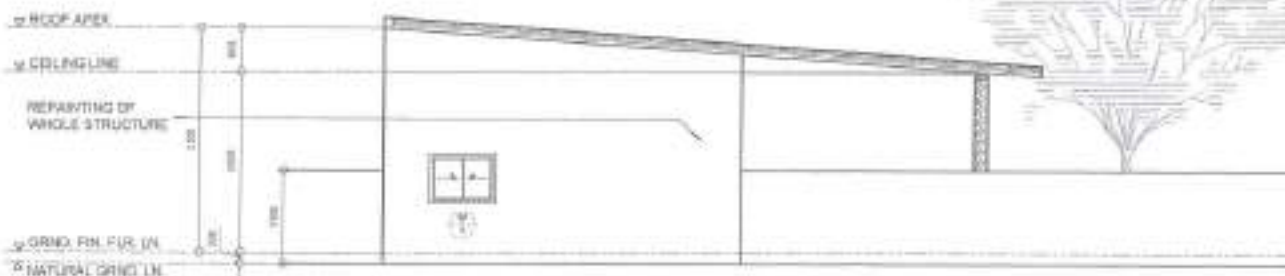
1 FRONT ELEVATION

SCALE 1:100M



2 CROSS SECTION THRU-A

SCALE 1:100M



3 LEFT SIDE ELEVATION

SCALE 1:100M

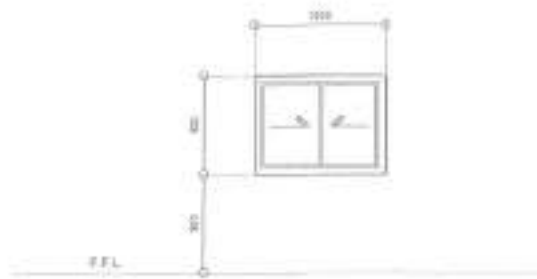


Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE	DRAWN BY	SUBMITTED BY	RECOMMENDING APPROVAL	APPROVED BY	DWG. CONTENT	DWG. NO.
PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER	DATE: 10/11/21 CHECKED BY: JAC	ENGR. LEO S. DEL ROSARIO HEAT, PLUMBING & PROGRAMMING DIVISION	ENGR. ISAGAN R. VERZOSA, JR. CE, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	FRONT ELEVATION LEFT SIDE ELEVATION CROSS SECTION THRU-A	AR-04 0411
LOCATION: BAGY. FARVIEW, DISTRICT 1, QUEZON CITY	PROJECT NO.:					



NAME			
NO. OF SETS	1	1	1
DESCRIPTION	PANEL DOOR	PVC DOOR WITH LOUVER	PANEL DOOR
LOCATION	ENTRANCE / CLASSROOM	TOILET	KITCHEN



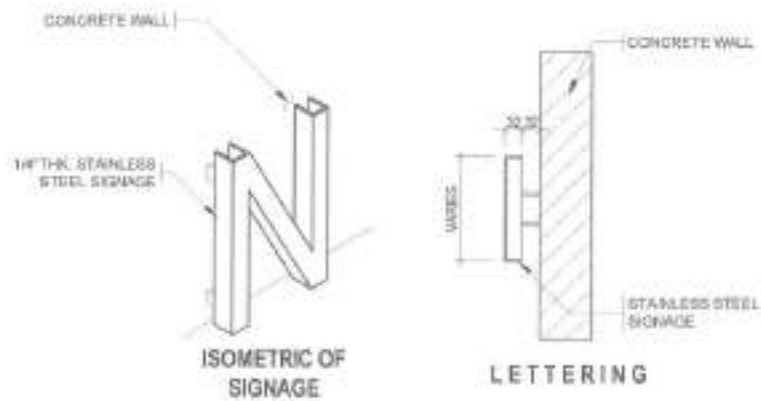
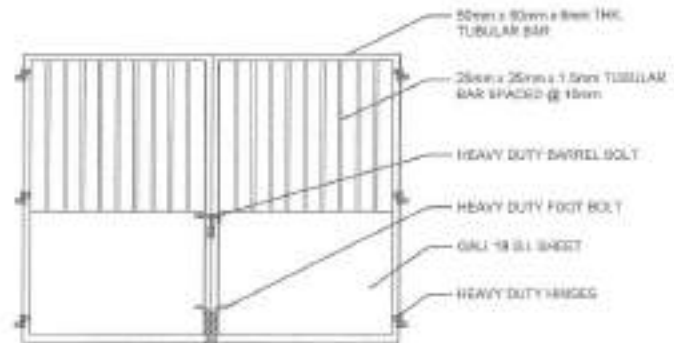
NAME	
NO. OF SETS	1
DESCRIPTION	ALUMINUM FRAME POWER COATED SLIDING WINDOW WITH 6mm THK CLEAR GLASS
LOCATION	CLASSROOM

**1 SCHEDULE OF DOORS**

SCALE 1:100M

**1 SCHEDULE OF WINDOWS**

SCALE 1:100M



**3 STEEL GATE DETAILS**

SCALE 1:140M

**4 LETTERING DETAILS**

SCALE NTS.



Republika ng Pilipinas  
Lungsod ng Quezon  
**CITY ENGINEERING DEPARTMENT**

PROJECT TITLE: <b>PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER</b>	DESIGN BY: <i>JAC</i>	DATE: 10.11.23
LOCATION: BRGY. FAIRVIEW, DISTRICT 5, QUEZON CITY	CHECKED BY: <i>JAC</i>	REVISIONS:

APPROVED BY:  <b>ENGR. LEO S. DEL ROSARIO</b> HEAD, PLANNING & DESIGN DIVISION	RECOMMENDING APPROVAL:  <b>ENGR. ISAGANI R. VERZOSA, JR.</b> DC, CITY ENGINEERING DEPARTMENT
---	---

APPROVED BY:  <b>HON. MA. JOSEFINA G. BELMONTE</b> CITY MAOR
---

SHEET CONTENT: SCHEDULE OF DOORS SCHEDULE OF WINDOWS STEEL GATE DETAILS LETTERING DETAIL	SHEET NO: <b>AR-05</b> <b>05/11</b>
--	---

**GENERAL**

1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CITY ENGINEER'S OFFICE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CITY ENGINEER'S OFFICE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CITY ENGINEER'S OFFICE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CITY ENGINEER'S OFFICE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CITY ENGINEER'S OFFICE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CITY ENGINEER'S OFFICE.

**CONCRETE & REINFORCEMENT**

1. ALL CONCRETE SHALL BE PLACED AND COMPACTED TO THE FULL DESIGN STRENGTH.
2. ALL CONCRETE SHALL BE PLACED AND COMPACTED TO THE FULL DESIGN STRENGTH.
3. ALL CONCRETE SHALL BE PLACED AND COMPACTED TO THE FULL DESIGN STRENGTH.

LOCATION	STRENGTH	MAX. SIZE OF AGGREGATES	MAX. SLUMP
SLAB ON GRADE	20 MPa (29000 PSI)	19mm (3/4")	75mm (3")
BEAM & COLUMN	25 MPa (36000 PSI)	19mm (3/4")	75mm (3")
WALL	20 MPa (29000 PSI)	19mm (3/4")	75mm (3")

1. ALL REINFORCEMENT SHALL CONFORM TO THE LATEST BUILDING CODE.
2. ALL REINFORCEMENT SHALL CONFORM TO THE LATEST BUILDING CODE.
3. ALL REINFORCEMENT SHALL CONFORM TO THE LATEST BUILDING CODE.

ITEM	REQUIREMENT
CONCRETE	20 MPa
FOUNDATION	25 MPa
WALL	20 MPa
SLAB	20 MPa
BEAM & COLUMN	25 MPa

**STRUCTURAL STEEL AND PLATES**

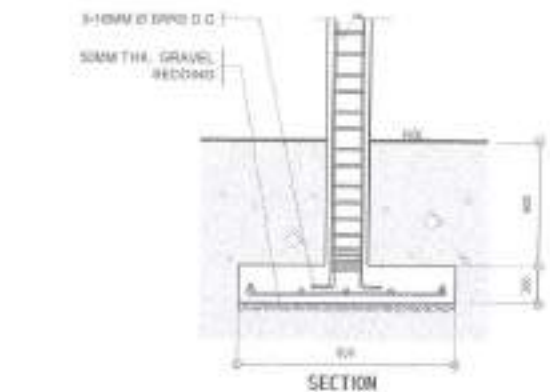
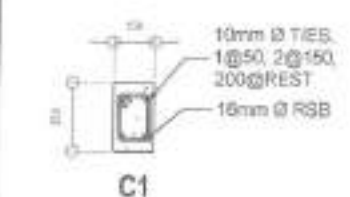
1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE LATEST BUILDING CODE.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE LATEST BUILDING CODE.
3. ALL STRUCTURAL STEEL SHALL CONFORM TO THE LATEST BUILDING CODE.

**FOUNDATION**

1. FOUNDATION SHALL BE PLACED ON A BEARING CAPACITY OF NOT LESS THAN 100 KPa.
2. FOUNDATION SHALL BE PLACED ON A BEARING CAPACITY OF NOT LESS THAN 100 KPa.
3. FOUNDATION SHALL BE PLACED ON A BEARING CAPACITY OF NOT LESS THAN 100 KPa.

**REINFORCING WALLS**

1. ALL REINFORCING WALLS SHALL CONFORM TO THE LATEST BUILDING CODE.
2. ALL REINFORCING WALLS SHALL CONFORM TO THE LATEST BUILDING CODE.
3. ALL REINFORCING WALLS SHALL CONFORM TO THE LATEST BUILDING CODE.



**2 COLUMN AND FOOTING DETAILS**

SCALE 1:20M



**1 GENERAL NOTES**

SCALE: NTL

**3 WALL FOOTING DETAILS**

SCALE 1:20M

Republic of the Philippines  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER**

LOCATION:  
BUREAU, CALAPAN, DISTRICT 3, QUEZON CITY

DESIGNED BY: *AS*  
DATE: 05.11.21  
CHECKED BY: *JN*  
REVISIONS:

APPROVED BY:  
*[Signature]*  
ENGR. LEO S. DEL ROSARIO  
CITY ENGINEER

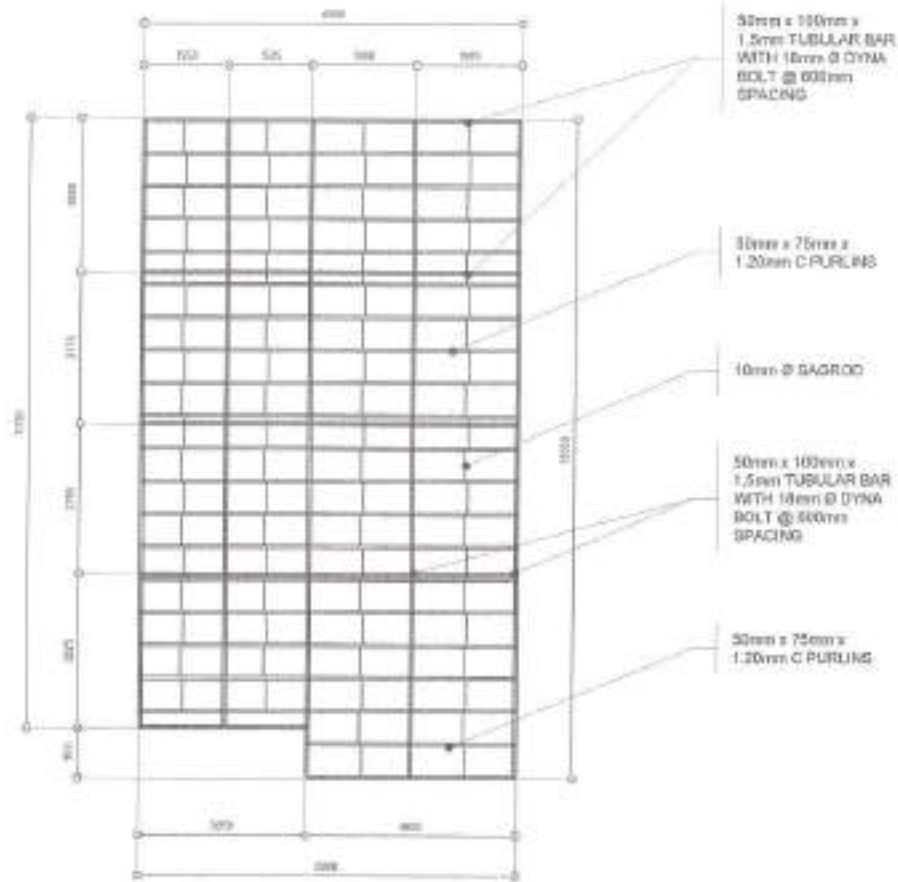
RECOMMENDING APPROVAL:  
ENGR. ISAGAN R. VERZOSA, JR.  
CITY ENGINEER (SUPERVISOR)

APPROVED BY:  
ENR. MA. JOSEFINA O. BELMONTÉ  
CITY ENGINEER

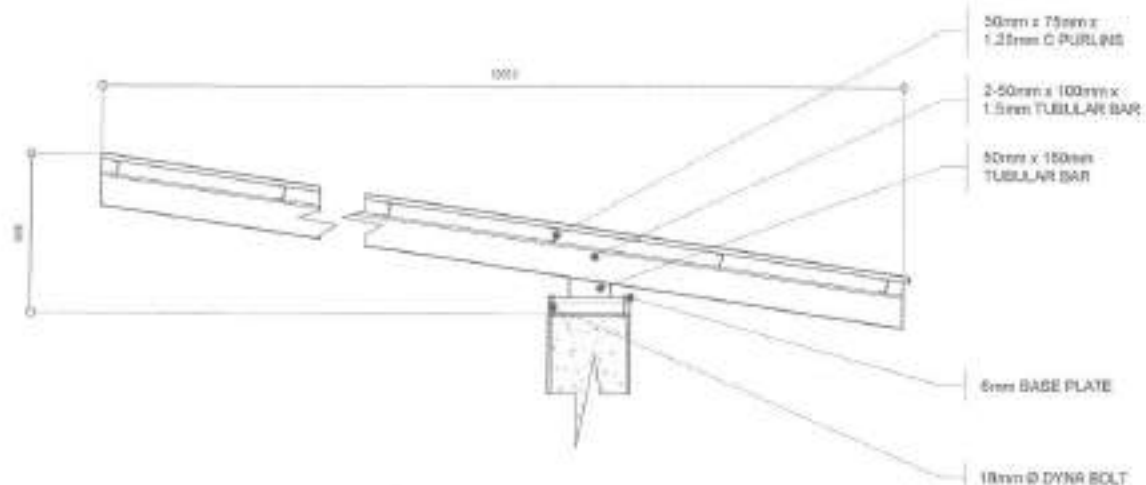
SHEET NO. 01  
SHEET TOTAL 01  
GENERAL NOTES  
COLUMN AND FOOTING  
DETAILS  
WALL FOOTING DETAILS

SHEET NO.  
**ST-01**  
06/11





PLAN



1 ROOF FRAMING DETAILS

SCALE: NTS.



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER**

LOCATION:  
BAGY PAVVIEW, DISTRICT 9, LUNGSOD NG QUEZON CITY

OWNER BY: *[Signature]*  
DATE: 10/11/21  
CHECKED BY: *[Signature]*  
REFERENCE:

SUBMITTED BY:  
*[Signature]*  
**ENGR. LEO S. DEL ROSARIO**  
HEAD PLANNING & PROGRAM DIVISION

RECOMMENDED APPROVAL:  
**ENGR. ISAGAN R. VERZOSA, JR.**  
OC, CITY ENGINEERING DEPARTMENT

APPROVED BY:  
**HON. MA. JOSEFINA G. BELMONTE**  
CITY MAYOR

SHEET CONTENT:  
ROOF FRAMING DETAILS

SHEET NO:  
**ST-02**  
**07/11**

1 All plumbing works and materials indicated herein shall be compliant 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 concealed 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 relocation will require proper excavation in relation with other trades.

3 The plumbing contractor shall verify all existing utilities at the site and shall coordinate the work with other trades.

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 plumbing utilities shall conform with the actual location, depth and invert elevation 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 females 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 service areas not subject to traffic.

10 All underground G.I. pipes in direct contact with soil shall be provided with two (2) coats of protective tar covering and wrapped with jute cloth thoroughly soaked in tar or asphalt.

11 Provide vent stack and vent pipe thru roof of cast iron service weight as required.

12 All cast 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 fixtures.

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 extensions of dimensions as shown:

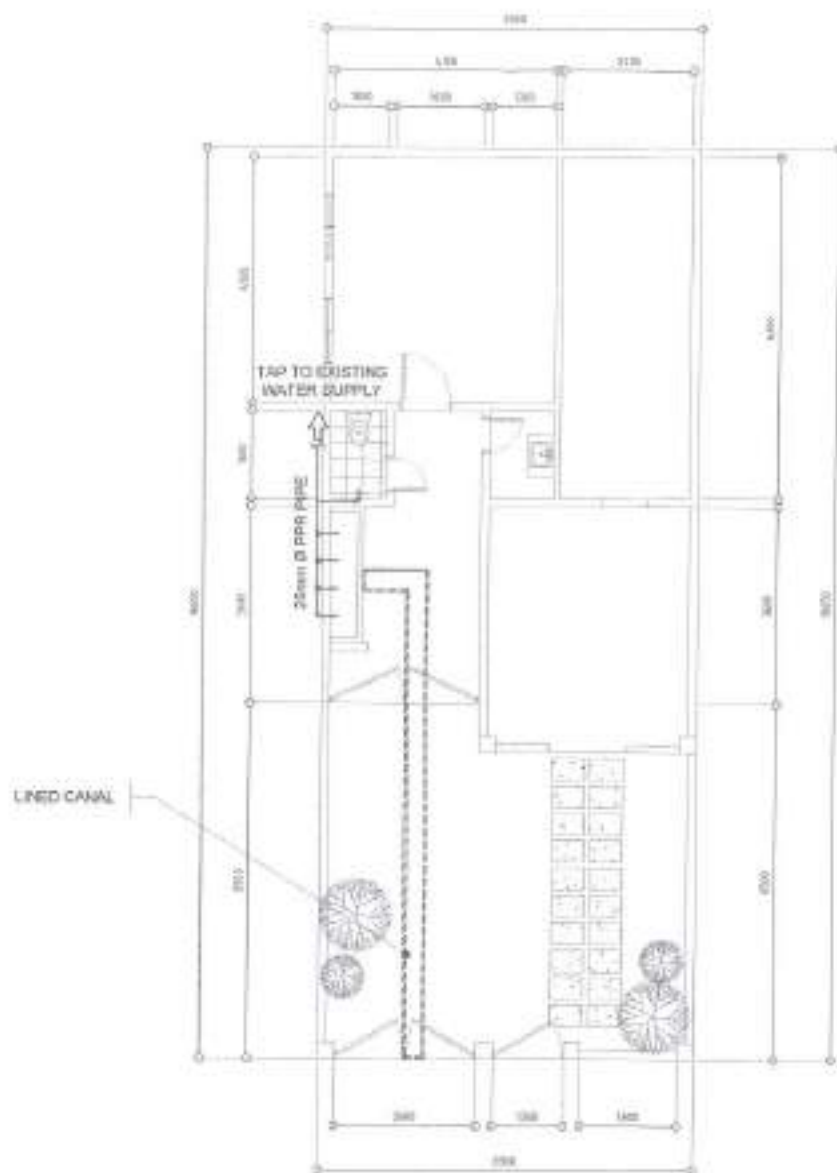
H = 450 mm for 19 mm Ø and larger

H = 300 mm for 12 mm Ø and smaller

16 All hose bibbs shall be 19 mm Ø (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.



NOTE:

1. ALL PLUMBING FIXTURES TO BE REPLACED

## 1 GENERAL NOTES

SCALE: NTS.

## 2 WATERLINE LAYOUT

SCALE: 1:100M.



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:  
**PROPOSED REHABILITATION OF SITIO  
URLINA DAY CARE CENTER**

LOCATION:  
BAGY, PATTISON, DISTRICT 5, QUEZON CITY

DRAWN BY: *AK*  
DATE: 08/11/21  
CHECKED BY: *JM*  
REVISIONS:

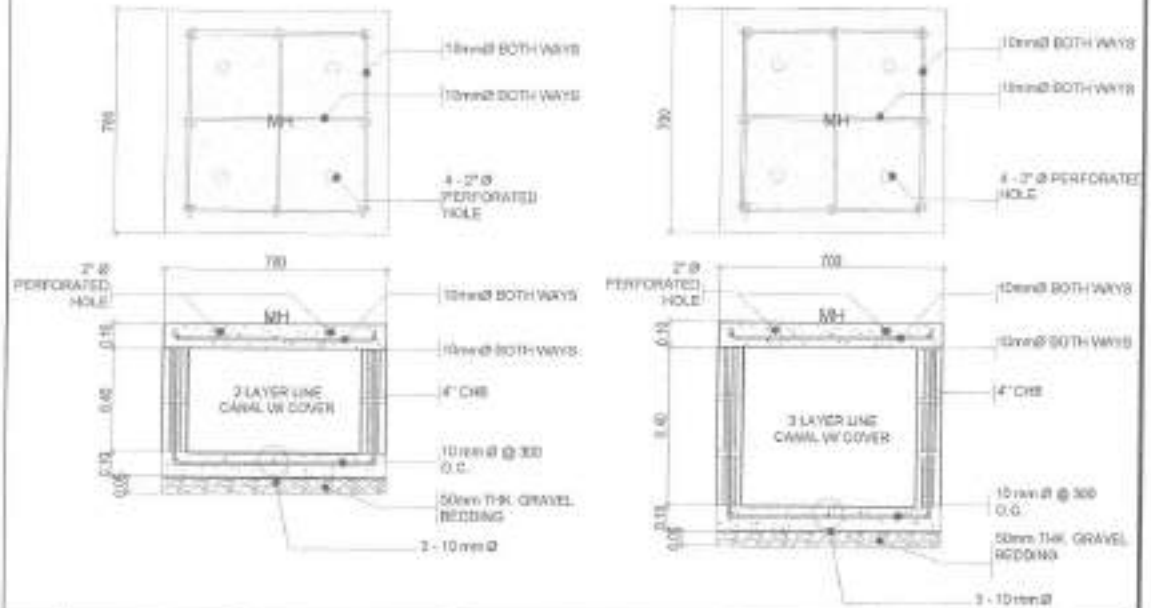
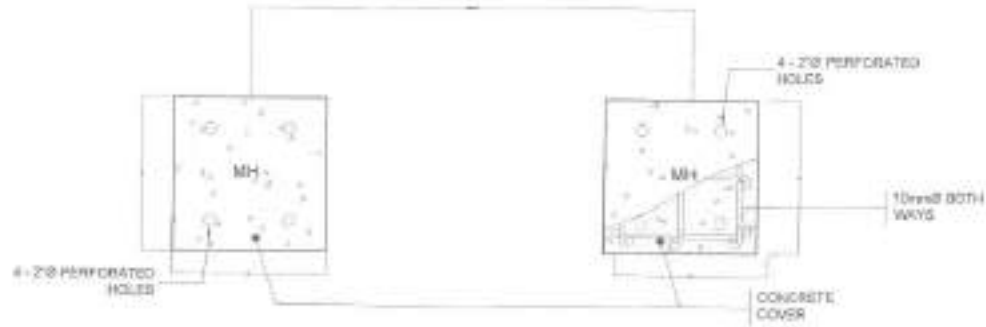
SUBMITTED BY:  
*[Signature]*  
ENGR. SJO S. DEL ROSARIO  
HEAD, PLUMBING PROGRAM DIVISION

RECOMMENDING OFFICIAL:  
ENGR. ISAGAN R. VERZOSA, JR.  
DC, CITY ENGINEERING DEPARTMENT

APPROVING OFFICIAL:  
HON. MA. JOSEFINA G. BELMONTE  
CITY MAOR

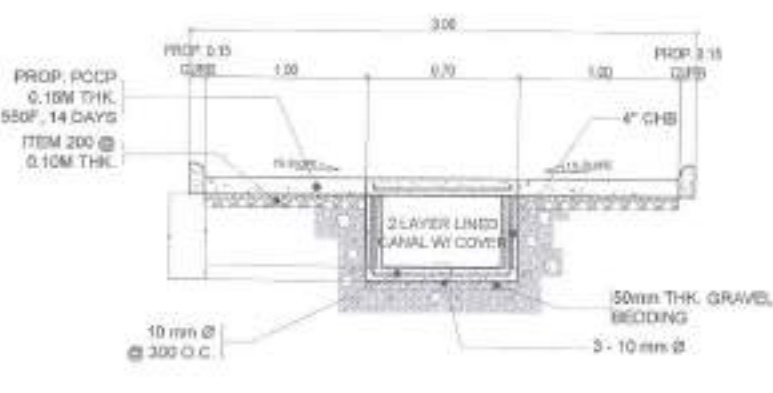
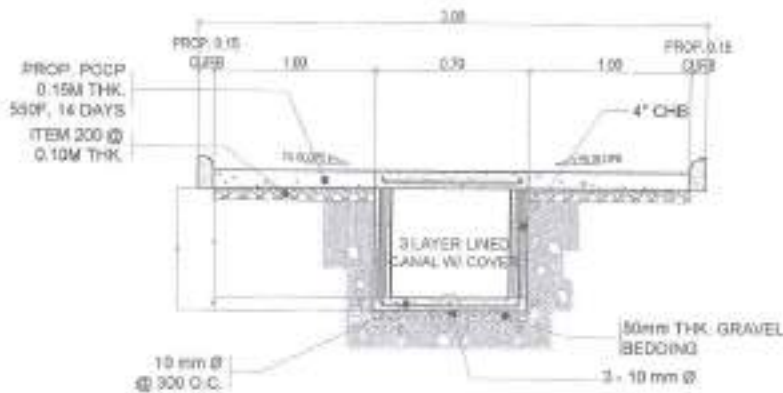
SHEET CONTENT:  
GENERAL NOTES  
WATERLINE LAYOUT

SHEET NO.:  
**PL-01**  
**08/11**



**1** 2 LAYER & 3 LAYER LINED CANAL CONCRETE COVER DETAIL SCALE: NTS

**2** TYPICAL DETAIL FOR 2-LAYER & 3-LAYER LINED CANAL SCALE: NTS



**3** ROADWAY SECTION OF A SCALE: NTS

**4** ROADWAY SECTION OF B SCALE: NTS



Republika ng Pilipinas  
Lungsod ng Quezon  
CITY ENGINEERING DEPARTMENT

PROJECT TITLE: <b>PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER</b>	DRAWN BY: <i>[Signature]</i>	SUBMITTED BY: <i>[Signature]</i>
DATE: 05/11/21	CHECKED BY: <i>[Signature]</i>	ENGR. LEY S. DEL ROSARIO HEAD, PLANNING PROGRAM DIVISION
LOCATION: SECTOR FARMER DISTRICT 1, QUEZON CITY	REVISION NO.:	ENGR. ISAGANI R. VERZOSA, JR. CIC, CITY ENGINEERING DEPARTMENT

RECOMMENDED APPROVAL:	APPROVED BY:
ENGR. ISAGANI R. VERZOSA, JR. CIC, CITY ENGINEERING DEPARTMENT	HOW. MA. JOSEFINA G. BELMONTE CITY ENGINEER

PROJECT CONTROL:	REVISION:
CHANGE & QUANTITY LIMIT CANAL, CONCRETE COVER REBAR TYPICAL SECTION FOR 2-LAYER & 3-LAYER LINED CANAL ROADWAY SECTION OF A ROADWAY SECTION OF B	PL-02 0911



- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODES APPLICABLE AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE, UTILITY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEER, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL EXPOSED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE INSULATED BY CONDUIT CLAMPS EVERY 100 MILLIMETER.
- PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVENTIF THERE ARE NOT INDICATED ON THE PLANS. SIZES OF ALL PULL BOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. URGENT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE "AS-BUILT" PLAN.
- ALL POWER OUTLETS AND SWITCHES SHALL BE BRONZING TYPE WITH PARALLEL SLOTS FOR 220V.
- PROVIDE BRONZING FULLY CURRENT INTERRUPTER CIRCUIT BREAKER FOR LOADS MARKED "CBO" ON THE PLAN.
- ALL METALLIC CONDUITS, CABINETS AND EQUIPMENT SHALL BE PROPERLY GROUNDING AND BONDED.
- UNLESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 300 MM AFF, 1500MM ABOVE WORKING CLEARANCE  
 TELEPHONE OUTLET - 150 MM AFF  
 CABLE OUTLET - 120 MM AFF  
 LIGHTING SWITCH - 1400 MM AFF  
 PANEL BOARD - 1800 MM AFF

- REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATION OF EQUIPMENT AS WELL AS THEIR CONTROL SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY, BRAND NAMES AS SPECIFIED.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND BROAD OUTLINE DESCRIPTION OF THE PROJECT BUT DO NOT NECESSARILY INDICATE DETAILED ACTUAL LOCATIONS, LEVELS AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOB SITE AS LOCATION, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DECISION.
- ALL LIGHTING AND COMMUNICATION OUTLET CIRCUITS SHALL BE 3.0 SQ. MM. THWMS COPPER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 1.5 SQ. MM. COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

LINE 1 - RED  
 LINE 2 - YELLOW  
 NEUTRAL - WHITE  
 GROUND - GREEN

- BOXES, WIRE GUTTERS, ENCLOSURE SHALL BE FABRICATED FROM STEEL WITH THICKNESS AS FOLLOWS:  
 MINIMUM THICKNESS OF THE WIRELESS SURFACE STEEL:  
 UP TO INCLUDING 152.40 MM      GA 16 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 152.40 MM BUT NOT OVER 407.30      GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 407.30 MM BUT NOT OVER 762.00      GA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT  
 OVER 762.00      GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT
- ALL ELECTRICAL WORKS HEREBY SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR IF POWER WORKS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
- TYPE OF SERVICE ENTRANCE SHALL BE SINGLE PHASE, TWO WIRE PLUS GROUND, 60 HERTZ, 220V AC NOMINAL.
- CONDUITS IN NO CASE SHALL THERE BE MORE THAN THE EQUIVALENT OF FOUR QUARTER SIZES IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE MADE BY USING HYDRAULIC BENDERS. MINIMUM BEND RADIUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, ISOLATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUDING THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE QUEZON CITY ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MORE THAN 5 OHMS. COMMUNICATION GROUNDING RESISTANCE SHALL NOT EXCEED 1 OHM.

	1x18W, LED TUBE LIGHT BOX TYPE	So	ONE GANG SWITCH
	2x15W, LED TUBE LIGHT TROFFER TYPE	Sob	TWO GANG SWITCH
	RECEPTACLE WITH 10W BULB		CONVENIENCE OUTLET, TWO GANG
	WALL FAN		MULTI PURPOSE OUTLET

## 2 LEGEND & SYMBOLS

SCALE: NTS.

BENDING RADIUS DETAIL

SPOT DETAIL OF CONDUIT RUN AND BOX

DON'T RELY FOR LIGHTING DISTRIBUTION IN ONE CIRCUIT (FOR EXPOSED OR INSIDE DROP CEILING INSTALLATION)

PROPER CONDUIT LAYOUT IN PULL BOX

BONDED RACEWAY TERMINATION FOR SHEET METAL

## 1 GENERAL NOTES

SCALE: NTS.

## 3 MISCELLANEOUS DETAILS

SCALE: NTS.

<p>Republic of the Philippines Lungsod ng Quezon CITY ENGINEERING DEPARTMENT</p>	PROJECT TITLE:	DRAWN BY: <i>MS</i>	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.
	PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER	DATE: 10/11/21	 ENGR. L. S. DEL ROSARIO CHIEF, PLUMBING PROFESSIONAL ENGINEER	 ENGR. ISAGANI R. VERZOSA, JR. CH. CITY ENGINEERING DEPARTMENT	 HON. MA. JOSEFINA G. BELMONTÉ CITY MAYOR	GENERAL NOTES LEGENDS AND SYMBOLS MISCELLANEOUS DETAILS	
	LOCATION: PROY. PARRAW, DISTRICT 3, QUEZON CITY	CHECKED BY: <i>ES</i>					



## ***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 REHABILITATION OF DAY CARE CENTER AT DISTRICT 5 / AREA VIII  
(CLUSTER 1)**

**LOCATION : BARANGAY GREATER LAGRO, FAIRVIEW & NORTH FAIRVIEW,  
DISTRICT 5, QUEZON CITY**

**PROJECT NO. : 22 - 00030**

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

***BREAKDOWN OF COST***

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
<b>GREATER LAGRO I AND GREATER LAGRO II DAYCARE CENTER, BRGY. GREATER LAGRO</b>					
I	GENERAL REQUIREMENTS				
II	DAYCARE CENTER I				
III	DAYCARE CENTER II				
<b>NAMAPA DAYCARE CENTER, BRGY. NORTH FAIRVIEW</b>					
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
VII	MECHANICAL WORKS				
<b>AVON DAYCARE CENTER, BRGY. NORTH FAIRVIEW</b>					
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
VII	UTILITY AND ANCILLARY WORKS				
<b>MMTC DAYCARE CENTER, BRGY. FAIRVIEW</b>					
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
<b>SITIO URLINA DAYCARE CENTER, BRGY. FAIRVIEW</b>					
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
VII	UTILITY AND ANCILLARY WORKS				

**TOTAL COST** ₱ \_\_\_\_\_

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

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

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

**PROJECT TITLE :** PROPOSED REHABILITATION OF GREATER LAGRO 1 AND GREATER LAGRO II DAY CARE CENTER

**LOCATION :** BARANGAY GREATER LAGRO, DISTRICT 5, QUEZON CITY

**PROJECT NO. :** 22 - 00030

**SCOPE OF WORK :**

I General Requirements include temporary facilities and utilities, billboard, construction safety and health, and clearing, hauling and disposal of construction materials and debris.

**II DAY CARE CENTER 1**

A Site Works include removal works, cleaning and clearing for painting preparation and termite treatment.

B Civil/ Structural Works include moisture protection and metal works.

C Architectural Works include floor finishes, wall finishes, ceiling works, installation of doors, painting works, fabricated materials and letterings.

D Plumbing Works including installation of roughing-ins, fixtures and accessories.

E Electrical Works include installation roughing-ins, wirings, devices, fixtures, panelboard and accessories.

**III DAY CARE CENTER 2**

A Site Works include removal works, termite protection and cleaning and clearing for painting preparation.

B Civil/ Structural Works include moisture protection, metal works and roofing works.

C Architectural Works include floor finishes, wall finishes, installation of doors, ceiling works, painting works, fabrication of materials and letterings.

D Plumbing Works including installation of roughing-ins, equipment, fixtures and accessories.

E Electrical Works include installation roughing-Ins, wirings, devices, fixtures, panelboard and accessories.

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

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	17	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	140	sq.m.		
	Temporary Electrical and Water Facilities	90	day		
	Temporary Enclosure Around the Construction Area (h=2.4)	14	l.m.		
				<b>Direct Cost I</b>	₱
<b>II</b>	<b>DAY CARE CENTER 1</b>				
A	Site Works				
	Removal Works				
	Removal of Ceiling	90	sq.m.	₱	₱
	Removal of Tiles	118	sq.m.		
	Removal of Doors	7	set		
	Removal of Kitchen Sink	1	set		

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	Removal of Lavatory	2	set		
	Removal of Urinal	1	set		
	Removal of Water Closet	2	set		
	Chipping of Concrete (Plumbing and Electrical Works)	7	sq.m.		
	Clearing and Cleaning for Painting Preparation	280	sq.m.		
				Subtotal	₱
	Termite Treatment	5	gal	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				Materials Cost A	₱
				Labor Cost A	
				Direct Cost A	₱
B	Civil/ Structural Works				
	Moisture Protection				
	Cementitious Capillary Type	12	sq.m.	₱	₱
	Restoration of Concrete (Plumbing and Electrical Works)	6	sq.m.		
	Metal Works				
	Gate 1				
	50mm x 75mm x 4mm Tubular Pipe	186	kg		
	32mm x 32mm x 4mm Tubular Pipe	210	kg		
	Cylindrical Hinges, Heavy Duty	6	piece		
	38mmØ Barrel Bolt	1	set		
	38mmØ Foot Bolt	1	set		
	Miscellaneous				
	Acetylene Tank (Refill)	1	tank		
	Assorted Metal Drill Bit	5	piece		
	Cut Off Blade	2	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	₱
C	Architectural Works				
	Floor Finishes				
	Floor Topping For Preparation of Tiles Works	95	sq.m.	₱	₱
	400mm x 400mm Non-Skid Homogeneous Floor Tiles	7	sq.m.		
	600mm x 600mm Non-Skid Homogeneous Floor Tiles	88	sq.m.		

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	Wall Finishes				
	400mm x 400mm Homogenous Wall Tiles	31	sq.m.		
	Ceiling Works				
	6mm Thk Fiber Cement Board Including Metal	95	sq.m.		
	Fabricated Materials				
	Hanging Cabinet	4	sq.m.		
	Painting Works				
	Epoxy Enamel Paint Finish (Steel Surfaces)	14	sq.m.		
	Elastomeric Paint Finish (Exterior Walls)	121	sq.m.		
	Flat Latex Paint Finish				
	Interior Walls	173	sq.m.		
	Ceiling	95	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D1 - (2.75m x 2.1m) Two Leaf Glass Door on Aluminum Frame	1	set	₱	₱
	D2 - (1.0m x 2.10m) Panel Door with Transom Window	2	set		
	D3 - (0.9m x 2.10m) Panel Door	1	set		
	D4 - (0.60m x 2.10m) PVC Door with Louver	2	set		
	D5 - (0.60m x 1.60m) Flush Door	1	set		
	Door Jambs				
	D2 - Panel Door Wooden Jamb	2	set		
	D3 - Panel Door Wooden Jamb	1	set		
	D5 - Flush Door Wooden Jamb	2	set		
	Hardware and Accessories				
	Door Hinges, Heavy Duty, Stainless	18	set		
	Door Knob, Lever Type, Stainless	6	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Letterings				
	200mm Stainless Steel Lettering	14	set	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>Materials Cost C</b>	₱
				<b>Labor Cost C</b>	
				<b>Direct Cost C</b>	₱
D	Sanitary/ Plumbing Works				

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	3	piece	₱	₱
	75 mm Ø, PVC Pipe with Hub	3	piece		
	100mm Ø, PVC Pipe with Hub	5	piece		
	50mm Ø, P-Trap	8	piece		
	75mm Ø, P-Trap	2	piece		
	50mm Ø, 1/8 Bend	34	piece		
	75mm Ø, 1/8 Bend	9	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	8	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	1	piece		
	100mm Ø, Cleanout with Adapter	3	piece		
	50mm Ø No Hub Coupling	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	5	piece		
	20mm Ø, Elbow	18	piece		
	20mm Ø, Coupling	5	piece		
	20mm Ø, Tee Equal	10	piece		
	20mm Ø, Female Threaded, Tee	8	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		
	Fixtures				
	Bidet with Complete Accessories, Stainless (Water	2	set		
	Floor Drain, 100mm x 100mm	2	set		
	Grease Trap, 5GPM, Stainless	1	set		
	Hose Bibb, Lever-Type, Stainless, Heavy-Duty (Water Efficient)	9	set		
	Kitchen Sink, Single Tub, Stainless	1	set		
	Kitchen Sink Faucet, Stainless, Heavy Duty (Water Efficient)	1	set		
	Lavatory, Wall Hung, Kiddy	2	set		
	Lavatory Faucet Lever Type, Stainless Steel Heavy Duty (Water Efficient)	2	set		
	Urinal, Flush Valve-Type, Kiddy (Water Efficient)	1	set		
	Water Closet, Tank Type w/ Accessories, Kiddy (Water Efficient)	2	set		
	Accessories				
	Angle Valve, Single Way, Stainless	7	piece		
	Angle Valve, Two Way, Stainless	2	piece		
	Flexible Hose, Stainless Steel	9	piece		
	Miscellaneous & Consumables				

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	400cc Solvent Cement	4	can		
	All-Around Sealant	4	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	3	rolls		
	Waste Cloth	2	kgs		
				<b>Materials Cost D</b>	<b>₱</b>
				<b>Labor Cost D</b>	
				<b>Direct Cost D</b>	<b>₱</b>
E	Electrical Works				
	Roughing-ins				
	20mmØ PVC Pipe	12	piece	₱	₱
	25mmØ PVC Pipe	15	piece		
	20mmØ PVC Flexible Hose	60	l.m.		
	Fittings and Accessories				
	20mmØ PVC Adaptor	20	piece		
	20mmØ PVC Locknut & Bushing	20	piece		
	25mmØ PVC Adaptor	10	piece		
	25mmØ PVC Locknut & Bushing	10	piece		
	50mm x 100mm PVC Utility Box	10	piece		
	100mm x 100mm PVC Junction Box with cover	25	piece		
	Wires and Cables				
	3.5mm² THHN Wire	210	l.m.		
	5.5mm² THHN Wire	60	l.m.		
	Lighting Fixtures (Energy Efficient)				
	150mm Ø Round Recessed Pinlight (case)	4	piece		
	18W LED Bulb	5	piece		
	300mm x 1200mm, 1 x 18w LED, Troffer Type, w/ complete accessories	3	piece		
	600mm x 1200mm, 2 x 18w LED, Troffer Type, w/ complete accessories	7	piece		
	E27 Receptacle	1	piece		
	T8, 18w LED Tube light, Box type	1	piece		
	Wall Mounted Lighting	2	piece		
	Panelboard				
	LPP				
	Branch: 1-30AT, 2P, 230V, Bolt-On	1	piece		
	Wiring Devices and Other Fixtures				
	Aircon Outlet, Multipurpose outlet 250V/20A	1	set		
	Ground Fault Circuit Interrupter Outlet 250V/20A	2	set		
	Orbit Fan with Selector Switch	3	set		
	Outlet with Grounding, Two Gang	15	set		
	Switch w/ plate & cover, Single Gang	5	set		
	Switch w/ plate & cover, Two Gang	1	set		
	Three-way Switch w/ plate & cover, Single Gang	1	set		



ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Electrical Tape	8	roll		
	Hacksaw Blade	2	piece		
	Torch with Butane	1	set		
				<b>Materials Cost E</b>	₱
				<b>Labor Cost E</b>	
				<b>Direct Cost E</b>	₱
				<b>Materials Cost II</b>	₱
				<b>Labor Cost II</b>	
				<b>Direct Cost II</b>	₱
III	<b>DAY CARE CENTER 2</b>				
A	Site Works				
	Removal Works				
	Removal of Ceiling	93	sq.m.	₱	₱
	Removal of Doors	4	set		
	Removal of Lavatory	2	set		
	Removal of Tiles	121	sq.m.		
	Removal of Railings	2	sq.m.		
	Removal of Roofing	151	sq.m.		
	Removal of Urinal	1	set		
	Removal of Water Closet	2	set		
	Chipping of Floor (Plumbing and Electrical Works)	4	sq.m.		
	Clearing and Cleaning for Painting Preparation	367	sq.m.		
				Subtotal	₱
	Termite Treatment	5	gal	₱ 1,500.00	₱
				<b>Materials Cost</b>	₱
				<b>Labor Cost</b>	
				<b>Subtotal</b>	₱
				<b>Materials Cost A</b>	₱
				<b>Labor Cost A</b>	
				<b>Direct Cost A</b>	₱
B	Civil/ Structural Works				
	Moisture Protection				
	Cementitious Capillary-Type Waterproofing	12	sq.m.	₱	₱
	Restoration of Concrete (Plumbing and Electrical)	4	sq.m.		
	Metal Works				
	Gate 1				
	50mm x 75mm x 4mm Tubular Bar	153	kg		

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	32mm x 32mm x 4mm Tubular Bar	173	kg		
	Cylindrical Hinges, Heavy Duty	3	piece		
	38mmØ Barrel Bolt	1	set		
	38mmØ Foot Bolt	1	set		
	Gate 2				
	100mmØ G.I. Pipe, sch. 40	231	kg		
	12mm x 12mm Square Bar	57	kg		
	Cylindrical Hinges, Heavy Duty	3	piece		
	38mmØ Barrel Bolt	1	set		
	Miscellaneous				
	Acetylene Tank (Refill)	1	tank		
	Assorted Metal Drill Bit	5	piece		
	Cut Off Blade	2	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-painted G.I. Rib Type Roofing	159	sq.m.		
	Pre-painted G.I. End Flashing	52	sq.m.		
	12mm x 300mm Fiber Cement Fascia Board	52	l.m.		
	6mm Thk One-sided Aluminum Foil Thermal Insulation	159	sq.m.		
	Tekscrew	709	piece		
	Blind Rivets	261	piece		
	All Purpose Sealant	4	tube		
				<b>Materials Cost B</b>	<b>₱</b>
				<b>Labor Cost B</b>	
				<b>Direct Cost B</b>	<b>₱</b>
C	Architectural Works				
	Floor Finishes				
	400mm x 400mm Non-Skid Homogeneous Fall Tiles	7	sq.m.	₱	₱
	600mm x 600mm Non-Skid Homogeneous Floor Tiles	91	sq.m.		
	Floor Topping For Preparation of Tiles Works	98	sq.m.		
	Wall Finishes				
	400mm x 400mm Homogenous Wall Tiles	31	sq.m.		
	Ceiling Finishes				
	6mm Thk Fiber Cement Board Including Metal Framing	97	sq.m.		
	Fabricated Materials				
	Hanging Cabinet	5	sq.m.		
	Painting Works				
	Epoxy Enamel Paint Finish (Steel Surfaces)	20	sq.m.		
	Elastomeric Paint Finish (Exterior Walls)	121	sq.m.		
	Flat Latex Paint Finish				

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	Interior Walls	265	sq.m.		
	Ceiling	97	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D1 - (1.0m x 2.10m) Panel Door with Transom	1	set	₱	₱
	D2 - (0.9m x 2.10m) Panel Door	1	set		
	D3 - (0.60m x 2.10m) PVC Door with Louver	2	set		
	Door Jambs				
	D1 - Panel Door Wooden Jamb	1	set		
	D2 - Panel Door Wooden Jamb	1	set		
	Hardwares and Accessories				
	Door Hinges, Heavy Duty, Stainless	12	set		
	Door Knob, Lever Type, Stainless	4	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Letterings				
	200mm Stainless Steel Lettering	15	set	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>Materials Cost C</b>	₱
				<b>Labor Cost C</b>	
				<b>Direct Cost C</b>	₱
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	2	piece		
	50mm Ø, P-Trap	5	piece		
	75mm Ø, P-Trap	2	piece		
	50mm Ø, 1/8 Bend	27	piece		
	75mm Ø, 1/8 Bend	6	piece		
	75mm Ø, 1/4 Bend	3	piece		
	75mm Ø x 75mm Ø, Tee	1	piece		
	100mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 50mm Ø, Wye	6	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	100mm Ø x100mm Ø, Wye	1	piece		
	50mm Ø, Cleanout with Adapter	1	piece		
	100mm Ø, Cleanout with Adapter	2	piece		
	50mm Ø No Hub Coupling	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	3	piece		
	20mm Ø, Elbow	16	piece		
	20mm Ø, Coupling	3	piece		
	20mm Ø, Tee Equal	11	piece		
	20mm Ø, Female Threaded, Tee	6	piece		
	Fixtures				
	Floor Drain, 100mm x 100mm	2	set		
	Bidet with Complete Accessories, Stainless (Water Efficient)	2	set		
	Grease Trap, 5GPM, Stainless	1	set		
	Hose Bibb, Lever-Type, Stainless, Heavy-Duty (Water Efficient)	5	set		
	Lavatory, Wall Hung, Kiddy	2	set		
	Lavatory Faucet Lever Type, Stainless Steel Heavy Duty	2	set		
	Kitchen Sink, Single Tub, Stainless	1	set		
	Kitchen Sink Faucet, Stainless, Heavy Duty (Water Efficient)	1	set		
	Water Closet, Tank Type w/ Accessories (Water Efficient)	2	set		
	Urinal, Flush Valve-Type, Kiddy (Water Efficient)	1	set		
	Accessories				
	Angle Valve, Single Way, Stainless	4	piece		
	Angle Valve, Two Way, Stainless	2	piece		
	Flexible Hose, Stainless Steel	6	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	4	can		
	All-Around Sealant	4	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	3	roll		
	Waste Cloth	2	kg		
				<b>Materials Cost D</b>	<b>₱</b>
				<b>Labor Cost D</b>	
				<b>Direct Cost D</b>	<b>₱</b>
E	Electrical Works				
	Roughing-ins				
	20mmØ PVC Pipe	15	piece	₱	₱
	25mmØ PVC Pipe	20	piece		
	20mmØ PVC Flexible Hose	60	l.m.		
	Fittings and Accessories				
	20mmØ PVC Adaptor	40	piece		

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	20mmØ PVC Locknut & Bushing	40	piece		
	25mmØ PVC Adaptor	10	piece		
	25mmØ PVC Locknut & Bushing	10	piece		
	50mm x 100mm PVC Utility Box	10	piece		
	100mm x 100mm PVC Junction Box with cover	25	piece		
	Wires and Cables				
	3.5mm² THHN Wire	250	l.m.		
	5.5mm² THHN Wire	80	l.m.		
	Lighting Fixtures (Energy Efficient)				
	150mm Ø Round Recessed Pinlight (case)	2	piece		
	18W LED Bulb	2	piece		
	300mm x 1200mm, 1 x 18w LED, Troffer Type, w/ complete accessories	5	piece		
	600mm x 1200mm, 2 x 18w LED, Troffer Type, w/ complete accessories	7	piece		
	Panelboard				
	LPP				
	Branch: 1-30AT, 2P, 230V, Bolt-On	1	piece		
	Wiring Devices and Other Fixtures				
	Aircon Outlet, Multipurpose outlet 250V/20A	1	set		
	Ground Fault Circuit Interrupter Outlet 250V/20A	2	set		
	Orbit Fan with Selector Switch	3	set		
	Outlet with Grounding, Two Gang	15	set		
	Switch w/ plate & cover, Single Gang	4	set		
	Switch w/ plate & cover, Two Gang	1	set		
	Three-way Switch w/ plate & cover, Two Gang	1	set		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Electrical Tape	8	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	₱

**SUMMARY**

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	TOTAL COST

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
I II III	GENERAL REQUIREMENTS DAY CARE CENTER 1 DAY CARE CENTER 2				₱
<b>NOTE:</b>  <ul style="list-style-type: none"> <li>Strictly enforce health protocols relative to the latest applicable DPWH memorandum</li> </ul>		<b>TOTAL DIRECT COST</b> Overhead, Contingencies and Miscellaneous and Consumables Expenses (OCM) Profit VAT			₱
		<b>TOTAL ESTIMATED COST</b>			₱

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

**PROJECT TITLE :** PROPOSED REHABILITATION OF AVON DAY CARE CENTER

**LOCATION :** BARANGAY NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY

**PROJECT NO. :** 22 - 00030

**SCOPE OF WORK :**

- I General Requirements include billboard, clearing, hauling and disposal of construction materials and debris, construction safety and health, scaffolding and temporary enclosure.
- II Site Works include removal works, cleaning and clearing for painting preparation, layout and staking and earthworks.
- III Civil/Structural Works include concrete works, masonry works, metal works and roofing works.
- IV Architectural Works floor finishes, wall finishes, ceiling finishes, installation of doors and windows, painting works, installation of fabricated materials and letterings.
- V Sanitary / Plumbing Works include installation of roughing-ins, fixtures and accessories.
- VI Electrical Works include installation of roughing-ins, wiring devices, fixtures and accessories.
- VII Site Development Works include construction of septic tank and area drain/catch basin.
- VIII All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	3	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	39	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	25	sq.m.		
				<b>DIRECT COST I</b>	<b>₱</b>
<b>II</b>	<b>SITE WORKS</b>				
	Removal Works				
	Removal of Countertop	3	sq.m.	₱	₱
	Removal of Kiddy Countertop	2	sq.m.		
	Removal of Hanging Cabinet	1	sq.m.		
	Removal of Roofing and Accessories	55	sq.m.		
	Removal of Ceiling	69	sq.m.		
	Removal of Gate and Fence	23	sq.m.		
	Removal of Fence Roof and Framing	34	sq.m.		
	Removal of Windows	16	sq.m.		
	Removal of Doors	4	set		
	Removal of Floor and Wall Tiles	63	sq.m.		
	Removal of Lavatory	1	unit		
	Removal of Water Closet	1	unit		
	Chipping of Floor and Wall (Electrical / Plumbing Works)	13	sq.m.		
	Cleaning and Clearing for Painting Preparation	119	sq.m.		
	Layout and Staking	2	sq.m.		



ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Excavation for Structures	1	cu.m.		
				Subtotal	₱
	Gravel Bedding	1	cu.m.	₱	₱
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
	Backfill and Compaction	1	cu.m.	₱	₱
				Subtotal	₱
				<b>MATERIAL COST II</b>	₱
				<b>LABOR COST II</b>	
				<b>DIRECT COST II</b>	₱
<b>III</b>	<b>CIVIL / STRUCTURAL WORKS</b>				
	Concrete Works				
	On-Site Mx Concrete, 21Mpa, 3/4" Gravel @28 Days				
	Stairs	1	cu.m.	₱	₱
	Wall Footing	1	cu.m.		
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	10mmØ Wall Footing	12	kg		
	10mmØ Stairs	47	kg		
	Formworks				
	Wall Footing	3	sq.m.		
	Stairs	3	sq.m.		
	Masonry Works				
	Restoration of Concrete (Electrical / Plumbing Works)	13	sq.m.		
	150mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering (Window Enclosure)	4	sq.m.		
	Metal Works				
	Gate				
	25mm x 25mm x 2mm Tubular Bar	55	kg		
	50mm x 50mm x 2mm Tubular Bar	57	kg		
	100mmØ G.I. Pipe	88	kg		
	38mmØ Foot Bolt	1	set		
	38mmØ Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty	6	piece		
	Fence				
	25mm x 25mm Square Bar	1,762	kg		
	50mm x 50mm x 2mm Tubular Bar	95	kg		
	100mmØ G.I. Pipe	263	kg		
	25mm x 4mm Flat Bar	41	kg		
	1.20m x 2.40m x 6.25mm Mild Steel Plate	149	kg		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	6mm thk. Base Plate	25	kg		
	10mmØ Expansion Bolt	32	piece		
	Rafter				
	50mm x 100mm x 1.2mm Metal C-Purlin	129	kg		
	50mm x 150mm x 6mm Tubular Bar	335	kg		
	Base Plate	18	kg		
	18mmØ Dynabolt	16	piece		
	Window Grilles				
	25mm Square Bar	265	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	5	tank		
	Cut Off Blade	10	piece		
	Grinding Disc for Metal	10	piece		
	Oxygen Tank (Refill)	8	tank		
	Welding Rod	4	box		
	Roofing Works				
	Day Care Center Classroom				
	Pre-Painted Rib-type G.I. Roofing	70	sq.m.		
	6mm thk. One-Sided Aluminum Foil Thermal Insulation	70	sq.m.		
	Pre-Painted G.I. Flashing	15	l.m.		
	Pre-Painted G.I. Ridge Roll	11	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	22	l.m.		
	Silicon Sealant	7	tube		
	Tekscrew	322	piece		
	Blind Rivets	48	piece		
	Fence				
	Pre-Painted Rib-type G.I. Roofing	40	sq.m.		
	6mm thk. One-Sided Aluminum Foil Thermal Insulation	40	sq.m.		
	Pre-Painted G.I. Flashing	18	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	9	l.m.		
	Silicon Sealant	4	tube		
	Tekscrew	168	piece		
	Blind Rivets	21	piece		
				<b>MATERIAL COST III</b>	<b>₱</b>
				<b>LABOR COST III</b>	
				<b>DIRECT COST III</b>	<b>₱</b>
<b>IV</b>	<b>ARCHITECTURAL WORKS</b>				
	Floor Finishes				
	Floor Topping for Preparation of Tiles	55	sq.m.	₱	₱
	400mm x 400mm Non-Skid Homogeneous Floor Tiles (Toilet)	3	sq.m.		
	600mm x 600mm Non-Skid Homogeneous Floor Tiles (Classroom)	52	sq.m.		
	Wall Finishes				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	400mm x 400mm Non-Skid Homogeneous Wall Tiles (Toilet)	13	sq.m.		
	Ceiling Finishes				
	6mm thk. Fiber Cement Board including Metal Framing	69	sq.m.		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	Doors				
	D1-(2.10m x 0.90m) Wooden Panel Door	1	set	₱	₱
	D2-(2.10m x 1.00m) Wooden Panel Door	1	set		
	D3-(2.10m x 0.90m) Flush Door	1	set		
	D4-(2.10m x 0.70m) PVC Door with Louver	1	set		
	Door Jamb				
	D1-(2.10m x 0.90m) Wooden Panel Door	1	set		
	D2-(2.10m x 1.00m) Wooden Panel Door	1	set		
	D3-(2.10m x 0.90m) Flush Door	1	set		
	Hardware and Accessories				
	Door Hinge, Heavy Duty, Stainless	12	piece		
	Door Knob, Lever Type, Stainless	4	piece		
	Installation of Windows				
	W1-(3.10m x 1.50m) Aluminum Framed Powder Coated Casement Sliding Window with 6mm thk. Clear Glass	1	set		
	W2-(3.20m x 1.50m) Aluminum Framed Powder Coated Casement Sliding Window with 6mm thk. Clear Glass	1	set		
	W3-(1.50m x 1.50m) Aluminum Framed Powder Coated Casement Sliding Window with 6mm thk. Clear Glass	1	set		
	W4-(0.55m x 0.55m) Aluminum Framed Powder Coated Casement Awning Window with 6mm thk. Clear Glass	1	set		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint (Exterior Wall)	112	sq.m.	₱	₱
	Flat Latex Paint Finish				
	Interior Wall	88	sq.m.		
	Drywall	32	sq.m.		
	Ceiling	69	sq.m.		
	Epoxy Enamel Paint Finish (Steel Members)	106	sq.m.		
	Fabricated Materials				
	Kiddy Countertop	5	l.m.		
	Hanging Cabinet	2	sq.m.		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Countertop with Aluminum Cover and Sink	4	l.m.		
	Letterings				
	200mm Stainless Steel Lettering "AVON DAY CARE CENTER"	17	set		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
	Cleaning and Re-touching of Painting with Simple Design	25	sq.m	₱	₱
				Subtotal	₱
				<b>MATERIAL COST IV</b>	₱
				<b>LABOR COST IV</b>	
				<b>DIRECT COST IV</b>	₱
<b>V</b>	<b>SANITARY / PLUMBING WORKS</b>				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	2	piece	₱	₱
	75 mm Ø, PVC Pipe with Hub	5	piece		
	100 mm Ø, PVC Pipe with Hub	7	piece		
	150 mm Ø, PVC Pipe with Hub	4	piece		
	50mm Ø, P-Trap	4	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	17	piece		
	75mm Ø, 1/8 Bend	5	piece		
	100mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/4 Bend	5	piece		
	150mm Ø, 1/4 Bend	3	piece		
	150mm Ø x 100mm Ø, Reducer	2	piece		
	75mm Ø x 75mm Ø, Tee	5	piece		
	100mm Ø x 75mm Ø, Tee	5	piece		
	100mm Ø x 50mm Ø, Wye	5	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	2	piece		
	150mm Ø x 100mm Ø, Wye	1	piece		
	100mm Ø, Cleanout with Adapter	6	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	5	piece		
	20mm Ø, Elbow	12	piece		
	20mm Ø, Coupling	5	piece		
	20mm Ø, Tee Equal	1	piece		
	20mm Ø, Female Threaded, Tee	7	piece		
	20mm Ø, Female Adapter	5	piece		
	25mm Ø, Union Patente	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		
	Fixtures				
	Bidet with Complete Accessories, Stainless (Water Efficient)	1	set		
	Floor Drain, 100mm x 100mm, Stainless	5	piece		
	Grease Trap, 5GPM, Stainless	1	set		
	Hose Bibb, Lever-Type, Stainless, Heavy Duty (Water Efficient)	7	piece		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	1	piece		
	Kitchen Sink, Single Tub, Stainless	1	set		
	Lavatory, Wall Hung, Kiddy	1	set		
	Lavatory Faucet Lever Type, Stainless (Water Efficient)	1	piece		
	Water Closet, Tank Type with Accessories, Kiddy (Water Efficient)	1	set		
	Accessories				
	Angle Valve, Single Way, Stainless	2	piece		
	Angle Valve, Two Way, Stainless	1	piece		
	Flexible Hose, Stainless	3	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	4	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
				<b>MATERIAL COST V</b>	<b>₱</b>
				<b>LABOR COST V</b>	
				<b>DIRECT COST V</b>	<b>₱</b>
<b>VI</b>	<b>ELECTRICAL WORKS</b>				
	Lighting and Power System				
	Roughing-ins				
	25mmØ RSC Pipe	2	piece	₱	₱
	20mmØ PVC Pipe	56	piece		
	25mmØ PVC Pipe	7	piece		
	32mmØ PVC Pipe	8	piece		
	15mmØ Flexible PVC Tube	25	l.m.		
	50mm x 100mm PVC Utility Box	13	piece		
	100mm x 100mm PVC Junction Box with cover	13	piece		
	25mmØ RSC Locknut and Bushing	4	pair		
	20mmØ PVC Adaptor	104	piece		
	25mmØ PVC Adaptor	6	piece		
	32mmØ PVC Adaptor	4	piece		
	20mmØ PVC Elbow	25	piece		
	25mmØ PVC Elbow	3	piece		
	32mmØ PVC Elbow	4	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mmØ PVC Locknut and Bushing	104	pair		
	25mmØ PVC Locknut and Bushing	6	pair		
	32mmØ PVC Locknut and Bushing	4	pair		
	25mmØ Weatherproof Entrance Cap, Diecast	1	pair		
	Wires and Cables				
	3.5mm² THHN Wire	330	l.m.		
	5.5mm² THHN Wire	40	l.m.		
	14mm² THHN Wire	60	l.m.		
	2.0mm² TW Wire (Green)	2	roll		
	8.0mm² THW Wire (Green)	30	l.m.		
	Lighting Fixtures				
	14w LED Bulb	2	piece		
	1 x 18 T8 LED Tube in Box Type Lighting Fixture	4	unit		
	2 x 18 LED,600mmx1200mm Troffer Fixture	5	unit		
	100mmØ Plastic Lighting Receptacle	2	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	2	unit		
	Outlet with Grounding , Two-gang	5	piece		
	Outlet with Grounding , ACU Heavy Duty	1	piece		
	Switch with Plate and Cover, One-Gang	3	piece		
	Switch with Plate and Cover, Two-Gang	1	piece		
	Switch with Plate and Cover, Three Gang	1	piece		
	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	30	l.m.		
	Vertical Layout of Pipe	6	l.m.		
	Miscellaneous & Consumables				
	400cc Solvent Cement	8	can		
	Electrical Tape	25	roll		
	GI Tie Wire, Ga. 16 (for Wire/Cable Pulling)	3	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	25	roll		
	Pulling Lubricant	3	can		
	Rubber Tape	25	roll		
	Panelboard				
	LP Main: 60 AT, 100AF, 2P, 230V, Bolt-on Branches: 2-20AT, 2P, 230V Bolt-on 3-30AT, 2P, 230V, Bolt-on Enclosure: NEMA 1	1	assy		
	MCB Main: 60AT,100AF, 3P, 230V, MCCB Enclosure: NEMA 3R	1	assy		
				<b>MATERIAL COST VI</b>	<b>₱</b>
				<b>LABOR COST VI</b>	
				<b>DIRECT COST VI</b>	<b>₱</b>

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>VII</b>	<b>UTILITY AND ANCILLARY WORKS</b>				
	Septic Tank	10	cu.m.	₱	₱
	Area Drain / Catch Basin	1	unit		
				<b>DIRECT COST VII</b>	<b>₱</b>

**SUMMARY**

ITEM NO.	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST
I	GENERAL REQUIREMENTS	₱
II	SITE WORKS	
III	CIVIL / STRUCTURAL WORKS	
IV	ARCHITECTURAL WORKS	
V	SANITARY / PLUMBING WORKS	
VI	ELECTRICAL WORKS	
VII	UTILITY AND ANCILLARY WORKS	
		<b>TOTAL DIRECT COST</b> ₱
Note:	Overhead, Contingencies and Miscellaneous Expenses (OCM)	Profit
	<b>Strictly enforce Health Protocols relative to the latest applicable DPWH Memorandum</b>	VAT
		<b>TOTAL ESTIMATED COST</b> ₱





















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

**PROJECT TITLE :** PROPOSED REHABILITATION OF MMTc DAY CARE CENTER

**LOCATION :** BARANGAY NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY

**PROJECT NO. :** 22 - 00030

**SCOPE OF WORKS:**

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

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	unit	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	79	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	32	l.m.		
				<b>DIRECT COST I</b>	<b>₱</b>
<b>II</b>	<b>SITE WORKS</b>				
	Removal / Demolition of Existing Structure				
	Removal of Tiles	79	sq.m.	₱	₱
	Removal of Ceiling	96	sq.m.		
	Removal of Roof	95	sq.m.		
	Removal of Cabinet	2	sq.m.		
	Removal of Existing Window	11	sq.m.		
	Removal of Existing Door and Door Jambs	5	set		
	Removal of Existing Water Closet	2	unit		
	Removal of Existing Lavatory	1	unit		
	Removal of Existing Floor Drain	4	unit		
	Removal of Existing Kitchen Sink	2	unit		
	Chipping of Concrete (Sanitary/Plumbing Works)	1	sq.m.		
	Cleaning and Clearing for Painting Preparation	85	sq.m.		
				<b>DIRECT COST II</b>	<b>₱</b>
<b>III</b>	<b>CIVIL WORKS / STRUCTURAL WORKS</b>				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering	8	sq.m	₱	₱
	Restoration of Concrete Floor ( Sanitary/Plumbing Works )	1	sq.m.		
	Plastering of Door Opening	2	sq.m.		
	Moisture Protection				
	Cementitious Capillary Type Waterproofing	7	sq.m.		
	Metal Works				
	Gate 1				
	50mm x 50mm x 4mm Tubular Bar	40	kg		
	25mm x 25mm x 4mm Tubular Bar	94	kg		
	38mm Ø Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Assorted Metal Drill Bit	1	piece		
	Cut Off Blade	1	piece		
	Grinding Disc for Metal	2	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	100	sq.m.		
	Pre-Painted G.I. End Flashing	40	l.m.		
	Pre-Painted G.I. Ridge Roll	27	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	40	l.m.		
	6mm Thk One-Sided Aluminum Foil Thermal Insulation	95	sq.m.		
	Blind Rivets	263	piece		
	Tekscrew	100	piece		
	Silicon Sealant	5	tube		
				<b>MATERIALS COST III</b>	₱
				<b>LABOR COST III</b>	
				<b>DIRECT COST III</b>	₱
<b>IV</b>	<b>ARCHITECTURAL WORKS</b>				
	Floor Finishes				
	300mm x 300mm Non-skid Homogeneous Tiles (Comfort Rooms)	7	sq.m.	₱	₱
	600mm x 600mm Non-skid Homogeneous Tiles (Class Room)	42	sq.m.		
	Floor Topping for Preparation of Tile Works	49	sq.m.		
	Countertop Finishes				
	300mm x 300mm Non-skid Homogeneous Tiles (Countertop)	5	sq.m.		
	Wall Finishes				
	300mm x 300mm Homogeneous Tiles (Comfort Rooms)	48	sq.m.		
	Ceiling Finishes				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	6mm thk Fiber Cement Board Ceiling including Metal Framing	63	sq.m.		
	Fabricated Materials				
	Book Shelves	3	sq.m.		
	Hanging Cabinet	2	sq.m.		
	Under Counter Cabinet	4	l.m.		
	Lettering				
	200mm Stainless Steel Lettering "MMTC DAY CARE CENTER"	17	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	Doors				
	D1 - (0.90m x 2.10m) Panel Door	1	set	₱	₱
	D2 - (0.8m x 2.10m) Panel Door	1	set		
	D3 - (0.6m x 2.10m) PVC Door with Louver	2	set		
	Door Jambs				
	D1 - (0.90m x 2.10m) Panel Door	1	set		
	D2 - (0.8m x 2.10m) Panel Door	1	set		
	Hardwares and Accessories				
	Door Hinge, Heavy Duty, Stainless	12	set		
	Door Knob, Lever Type, Stainless	4	set		
	Installation of Windows				
	W1-(1.95m x 1.25m) Sliding Window on Powder Coated Aluminum Frame	2	set		
	W2-(1.70m x 1.20m) Sliding Window on Powder Coated Aluminum Frame	1	set		
	W3-(0.60m x 0.50m) Awning Window on Powder Coated Aluminum Frame	2	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint Finish (Exterior walls)	117	sq.m.	₱	₱
	Epoxy Enamel Paint Finish (Steel Members)	27	sq.m.		
	Latex Paint Finish				
	Ceiling	63	sq.m		
	Interior Walls	161	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>MATERIALS COST IV</b>	₱
				<b>LABOR COST IV</b>	

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				<b>DIRECT COST IV</b>	<b>₱</b>
<b>V</b>	<b>SANITARY / PLUMBING WORKS</b>				
	Waterline System				
	20mm Ø PPR Pipe	3	piece	₱	₱
	20mm Ø x 20mm Ø Tee Equal	2	piece		
	20mm Ø 90° Elbow	3	piece		
	20mm Ø Coupling	3	piece		
	Fixtures				
	Bidet, Heavy-Duty, Stainless Steel (Water Efficient)	2	unit		
	Floor Drain, 100mm x 100mm	4	piece		
	Grease Trap, 5GPM, Heavy Duty, with Accessories	1	set		
	Hose Bibb, Heavy Duty (Water Efficient)	7	piece		
	Kitchen Sink, Single, Tub	2	piece		
	Kitchen Sink Faucet, Lever Type (Water Efficient)	2	piece		
	Lavatory, Wall Hung, Kiddy	1	unit		
	Lavatory Faucet, Lever-type, Stainless Steel (Water Efficient)	1	piece		
	Water Closet, Tank Type, Kiddy (Water Efficient)	2	unit		
	Accessories & Hardwares				
	Angle Valve, Single-Way, Stainless	6	piece		
	Angle Valve, Two-Way, Stainless	1	piece		
	Flexible Hose, Stainless	7	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All Purpose Sealant	2	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	4	roll		
	Waste Cloth	2	kg		
				<b>MATERIALS COST V</b>	<b>₱</b>
				<b>LABOR COST V</b>	
				<b>DIRECT COST V</b>	<b>₱</b>
<b>VI</b>	<b>ELECTRICAL WORKS</b>				
	Lighting and Power System				
	Roughing-ins				
	3/8" Rectangular PVC Moulding	27	piece	₱	₱
	Fittings & Accessories				
	4" x 4" Metal Junction Box with cover	3	piece		
	4" x 2" metal utility box	3	piece		
	4" x 4" metal square box	3	piece		
	Wires and Cables				
	3.5mm² THHN Wire	1	roll		
	2.0mm² THW Wire	70	l.m.		
	Lighting Fixtures (Energy Efficient)				
	600mm x 1200mm, 2 x 18w LED, Troffer Type, w/ complete accessories, recessed type	4	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	T8, 18w LED Tube light	4	piece		
	18W LED bulb	4	piece		
	Wiring Devices				
	Outlet with Grounding , One-gang for Proposed Ceiling Fan	1	piece		
	Switch w/ plate & cover, Two pole	4	piece		
	Switch w/ plate & cover, Single pole	1	piece		
	Ceiling Orbit Fan with Selector Switch	3	set		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	General Purpose Construction Adhesive	5	tube		
	All around Sealant	2	tube		
	Electrical Tape	2	roll		
	Hacksaw Blade	3	piece		
	Masking Tape	2	roll		
	Rubber Tape	2	roll		
				<b>MATERIALS COST VI</b>	<b>P</b>
				<b>LABOR COST VI</b>	
				<b>DIRECT COST VI</b>	<b>P</b>

**SUMMARY**

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST
I	GENERAL REQUIREMENTS	P
II	SITE WORKS	
III	CIVIL WORKS / STRUCTURAL WORKS	
IV	ARCHITECTURAL WORKS	
V	SANITARY / PLUMBING WORKS	
VI	ELECTRICAL WORKS	
		<b>TOTAL DIRECT COST</b> P
		Overhead, Contingencies and Miscellaneous Expenses (OCM)
		Profit
		VAT
		<b>TOTAL ESTIMATED COST</b> P

**Note:**  
Strictly enforce health protocol relative to the latest applicable DPWH Memorandum.

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

**PROJECT TITLE :** PROPOSED REHABILITATION OF MMTc DAY CARE CENTER

**LOCATION :** BARANGAY NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY

**PROJECT NO. :** 22 - 00030

**SCOPE OF WORKS:**

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

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	unit	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	79	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	32	l.m.		
				<b>DIRECT COST I</b>	<b>₱</b>
<b>II</b>	<b>SITE WORKS</b>				
	Removal / Demolition of Existing Structure				
	Removal of Tiles	79	sq.m.	₱	₱
	Removal of Ceiling	96	sq.m.		
	Removal of Roof	95	sq.m.		
	Removal of Cabinet	2	sq.m.		
	Removal of Existing Window	11	sq.m.		
	Removal of Existing Door and Door Jambs	5	set		
	Removal of Existing Water Closet	2	unit		
	Removal of Existing Lavatory	1	unit		
	Removal of Existing Floor Drain	4	unit		
	Removal of Existing Kitchen Sink	2	unit		
	Chipping of Concrete (Sanitary/Plumbing Works)	1	sq.m.		
	Cleaning and Clearing for Painting Preparation	85	sq.m.		
				<b>DIRECT COST II</b>	<b>₱</b>
<b>III</b>	<b>CIVIL WORKS / STRUCTURAL WORKS</b>				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering	8	sq.m	₱	₱
	Restoration of Concrete Floor ( Sanitary/Plumbing Works )	1	sq.m.		
	Plastering of Door Opening	2	sq.m.		
	Moisture Protection				
	Cementitious Capillary Type Waterproofing	7	sq.m.		
	Metal Works				
	Gate 1				
	50mm x 50mm x 4mm Tubular Bar	40	kg		
	25mm x 25mm x 4mm Tubular Bar	94	kg		
	38mm Ø Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Assorted Metal Drill Bit	1	piece		
	Cut Off Blade	1	piece		
	Grinding Disc for Metal	2	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	100	sq.m.		
	Pre-Painted G.I. End Flashing	40	l.m.		
	Pre-Painted G.I. Ridge Roll	27	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	40	l.m.		
	6mm Thk One-Sided Aluminum Foil Thermal Insulation	95	sq.m.		
	Blind Rivets	263	piece		
	Tekscrew	100	piece		
	Silicon Sealant	5	tube		
				<b>MATERIALS COST III</b>	₱
				<b>LABOR COST III</b>	
				<b>DIRECT COST III</b>	₱
<b>IV</b>	<b>ARCHITECTURAL WORKS</b>				
	Floor Finishes				
	300mm x 300mm Non-skid Homogeneous Tiles (Comfort Rooms)	7	sq.m.	₱	₱
	600mm x 600mm Non-skid Homogeneous Tiles (Class Room)	42	sq.m.		
	Floor Topping for Preparation of Tile Works	49	sq.m.		
	Countertop Finishes				
	300mm x 300mm Non-skid Homogeneous Tiles (Countertop)	5	sq.m.		
	Wall Finishes				
	300mm x 300mm Homogeneous Tiles (Comfort Rooms)	48	sq.m.		
	Ceiling Finishes				



ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	6mm thk Fiber Cement Board Ceiling including Metal Framing	63	sq.m.		
	Fabricated Materials				
	Book Shelves	3	sq.m.		
	Hanging Cabinet	2	sq.m.		
	Under Counter Cabinet	4	l.m.		
	Lettering				
	200mm Stainless Steel Lettering "MMTC DAY CARE CENTER"	17	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	Doors				
	D1 - (0.90m x 2.10m) Panel Door	1	set	₱	₱
	D2 - (0.8m x 2.10m) Panel Door	1	set		
	D3 - (0.6m x 2.10m) PVC Door with Louver	2	set		
	Door Jambs				
	D1 - (0.90m x 2.10m) Panel Door	1	set		
	D2 - (0.8m x 2.10m) Panel Door	1	set		
	Hardwares and Accessories				
	Door Hinge, Heavy Duty, Stainless	12	set		
	Door Knob, Lever Type, Stainless	4	set		
	Installation of Windows				
	W1-(1.95m x 1.25m) Sliding Window on Powder Coated Aluminum Frame	2	set		
	W2-(1.70m x 1.20m) Sliding Window on Powder Coated Aluminum Frame	1	set		
	W3-(0.60m x 0.50m) Awning Window on Powder Coated Aluminum Frame	2	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint Finish (Exterior walls)	117	sq.m.	₱	₱
	Epoxy Enamel Paint Finish (Steel Members)	27	sq.m.		
	Latex Paint Finish				
	Ceiling	63	sq.m		
	Interior Walls	161	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>MATERIALS COST IV</b>	₱
				<b>LABOR COST IV</b>	

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				<b>DIRECT COST IV</b>	<b>₱</b>
<b>V</b>	<b>SANITARY / PLUMBING WORKS</b>				
	Waterline System				
	20mm Ø PPR Pipe	3	piece	₱	₱
	20mm Ø x 20mm Ø Tee Equal	2	piece		
	20mm Ø 90° Elbow	3	piece		
	20mm Ø Coupling	3	piece		
	Fixtures				
	Bidet, Heavy-Duty, Stainless Steel (Water Efficient)	2	unit		
	Floor Drain, 100mm x 100mm	4	piece		
	Grease Trap, 5GPM, Heavy Duty, with Accessories	1	set		
	Hose Bibb, Heavy Duty (Water Efficient)	7	piece		
	Kitchen Sink, Single, Tub	2	piece		
	Kitchen Sink Faucet, Lever Type (Water Efficient)	2	piece		
	Lavatory, Wall Hung, Kiddy	1	unit		
	Lavatory Faucet, Lever-type, Stainless Steel (Water Efficient)	1	piece		
	Water Closet, Tank Type, Kiddy (Water Efficient)	2	unit		
	Accessories & Hardwares				
	Angle Valve, Single-Way, Stainless	6	piece		
	Angle Valve, Two-Way, Stainless	1	piece		
	Flexible Hose, Stainless	7	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All Purpose Sealant	2	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	4	roll		
	Waste Cloth	2	kg		
				<b>MATERIALS COST V</b>	<b>₱</b>
				<b>LABOR COST V</b>	
				<b>DIRECT COST V</b>	<b>₱</b>
<b>VI</b>	<b>ELECTRICAL WORKS</b>				
	Lighting and Power System				
	Roughing-ins				
	3/8" Rectangular PVC Moulding	27	piece	₱	₱
	Fittings & Accessories				
	4" x 4" Metal Junction Box with cover	3	piece		
	4" x 2" metal utility box	3	piece		
	4" x 4" metal square box	3	piece		
	Wires and Cables				
	3.5mm² THHN Wire	1	roll		
	2.0mm² THW Wire	70	l.m.		
	Lighting Fixtures (Energy Efficient)				
	600mm x 1200mm, 2 x 18w LED, Troffer Type, w/ complete accessories, recessed type	4	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	T8, 18w LED Tube light	4	piece		
	18W LED bulb	4	piece		
	Wiring Devices				
	Outlet with Grounding , One-gang for Proposed Ceiling Fan	1	piece		
	Switch w/ plate & cover, Two pole	4	piece		
	Switch w/ plate & cover, Single pole	1	piece		
	Ceiling Orbit Fan with Selector Switch	3	set		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	General Purpose Construction Adhesive	5	tube		
	All around Sealant	2	tube		
	Electrical Tape	2	roll		
	Hacksaw Blade	3	piece		
	Masking Tape	2	roll		
	Rubber Tape	2	roll		
				<b>MATERIALS COST VI</b>	<b>P</b>
				<b>LABOR COST VI</b>	
				<b>DIRECT COST VI</b>	<b>P</b>

**SUMMARY**

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST
I	GENERAL REQUIREMENTS	P
II	SITE WORKS	
III	CIVIL WORKS / STRUCTURAL WORKS	
IV	ARCHITECTURAL WORKS	
V	SANITARY / PLUMBING WORKS	
VI	ELECTRICAL WORKS	
	<b>TOTAL DIRECT COST</b>	P
	Overhead, Contingencies and Miscellaneous Expenses (OCM)	
	Profit	
	VAT	
	<b>TOTAL ESTIMATED COST</b>	P

**Note:**  
Strictly enforce health protocol relative to the latest applicable DPWH Memorandum.

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

**PROJECT TITLE :** PROPOSED REHABILITATION OF SITIO URLINA DAY CARE CENTER

**LOCATION :** BARANGAY NORTH FAIRVIEW, DISTRICT 5, QUEZON CITY

**PROJECT NO. :** 22 - 00030

**SCOPE OF WORKS:**

- I 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 demolition/removal works, earthworks and cleaning and clearing for painting preparation.
- III Civil / Structural Works include concrete works, masonry works, metal works, roofing works, and moisture protection.
- IV Architectural Works include floor finishes, wall finishes, countertop finishes, ceiling finishes, 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, lighting fixtures, wiring, devices, panelboard and accessories.
- VII Utility and Ancillary Works include repair of lined canal.
- VIII All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
<b>I</b>	<b>GENERAL REQUIREMENTS</b>				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	3	t.l.		
	Construction Safety and Health Equipment	1	unit		
	Scaffolding (Rental)	41	sq.m		
	Temporary Enclosure Around the Construction Area (H=2.4m)	11	l.m.		
				<b>DIRECT COST I</b>	₱
<b>II</b>	<b>SITE WORKS</b>				
	Demolition/Removal Works				
	Removal of Floor Tiles	30	sq.m	₱	₱
	Removal of Water Closet	1	set		
	Removal of Kitchen Sink	1	set		
	Removal of Ceiling	65	sq.m		
	Removal of Doors	3	set		
	Removal of Windows	3	sq.m		
	Demolition of Main Roofing and Framing	83	sq.m		
	Demolition of CHB Wall	6	sq.m		
	Chipping of CHB Wall	2	sq.m		
	Cleaning and Clearing for Painting Preparation	94	sq.m.		
	Excavation for Structures				
	Wall Footing	2	cu.m.		
	Footing	1	cu.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Backfill and Compaction	2	cu.m.		
				Subtotal	₱
	Gravel Bedding	1	cu.m.	₱	₱
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>MATERIAL COST II</b>	₱
				<b>LABOR COST II</b>	
				<b>DIRECT COST II</b>	₱
<b>III</b>	<b>CIVIL WORKS / STRUCTURAL WORKS</b>				
	Concrete Works				
	On-Site Mix Concrete, 21MPa, 3/4" Gravel @ 28 days				
	Footing	1	cu.m	₱	₱
	Wall Footing	1	cu.m		
	Column	1	cu.m		
	Reinforcing Steel Bars				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire #				
	10mm Ø Reinforcing Steel Bar				
	Column	27	kg		
	Wall Footing	12	kg		
	12mm Ø Reinforcing Steel Bar				
	Wall Footing	17	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire #				
	16mm Ø Reinforcing Steel Bar				
	Column	49	kg		
	Footing	25	kg		
	Formworks				
	Column	7	sq.m		
	Wall Footing	3	sq.m		
	Scaffolding/Shoring				
	Column	7	l.m.		
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering	25	sq.m		
	Moisture Protection				
	Cementitious Capillary Type Waterproofing	3	sq.m		
	Metal Works				
	Gate				
	50mm x 50mm x 6mm Tubular Bar	132	kg		
	25mm x 25mm x 1.5mm Tubular Bar	39	kg		
	G.I. Plain Sheet	3	sq.m.		
	38mmØ Barrel Bolt	1	set		
	38mmØ Foot Bolt	2	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Cylindrical Hinge, Heavy Duty	6	piece		
	Roof Framing				
	50mm x 75mm x 1.2mm C-Purlins	234	kg		
	50mm x 100mm x 1.5mm Tubular Bar	256	kg		
	10mm Ø Sagrod	31	kg		
	6mm thk Base Plate	18	kg		
	18mm Ø Dyna Bolt	95	piece		
	Miscellaneous & Consumables				
	Acetylene Tank Refill	1	tank		
	Assorted Metal Drill	4	piece		
	Cut Off Blade	5	piece		
	Grinding Disc	5	piece		
	Oxygen Tank Refill	3	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-painted G.I. Rib Type Roofing	85	sq.m		
	Pre-painted G.I. End Flashing	39	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	39	l.m.		
	6mm Thk. One-Sided Aluminum Foil Thermal Insulation	85	sq.m		
	Blind Rivet	276	piece		
	Tekscrew	390	piece		
	Silicon Sealant	39	tube		
				<b>MATERIAL COST III</b>	<b>₱</b>
				<b>LABOR COST III</b>	
				<b>DIRECT COST III</b>	<b>₱</b>
<b>IV</b>	<b>ARCHITECTURAL WORKS</b>				
	Floor Finish				
	600mm x 600mm Homogeneous Tiles	22	sq.m.	₱	₱
	300mm x 300mm Non-Skid Homogeneous Tiles	2	sq.m.		
	Floor Topping for Preparation of Tile Works	24	sq.m.		
	Plain Cement Finish with 50mm Concrete Topping	14	sq.m.		
	Wall Finish				
	300mm x 300mm Homogeneous Tiles	7	sq.m.		
	Countertop Finish (Hand Washing)				
	600mm x 600mm Homogeneous Tiles	7	sq.m.		
	Ceiling Finishes				
	6mm Fiber Cement Board including Metal Framing	70	sq.m.		
	Fabricated Materials				
	Fixed Stand Cabinet	4	sq.m.		
	Countertop with Undercounter Cabinet	2	l.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Installation of Doors				
	D-1 - (0.9m x 2.1m) Wooden Panel Door	1	set	₱	₱
	D-2 - (0.6m x 2.1m) PVC Door with Louver	1	set		
	D-3- (0.6m x 2.1m) Wooden Panel Door	1	set		
	Door Jamb				
	D-1 - (0.9m x 2.1m) Wooden Panel Door	1	set		
	D-3- (0.6m x 2.1m) Wooden Panel Door	1	set		
	Hardware and Accessories				
	Door Hinge, Heavy Duty, Stainless	9	piece		
	Door Knob, Lever-Type, Heavy Duty, Stainless	3	piece		
	Installation of Windows				
	W1 - (1.2m x 0.9m) Sliding Powder Coated Aluminum Framed Window	2	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint Finish (Exterior Walls)	76	sq.m	₱	₱
	Epoxy Enamel Paint Finish (Steel Members)	67	sq.m		
	Flat Latex Paint Finish				
	Interior Walls	89	sq.m		
	Ceiling	70	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Cleaning and Retouching of Painting with Simple Design	21	sq.m.	₱	₱
				Subtotal	₱
	Letterings				
	200mm Stainless Steel Lettering	24	set	₱	₱
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				<b>MATERIAL COST IV</b>	₱
				<b>LABOR COST IV</b>	
				<b>DIRECT COST IV</b>	₱
<b>V</b>	<b>SANITARY / PLUMBING WORKS</b>				
	Sewer Line / Storm Drainage System				
	PVC Roughing-Ins				
	50mm Ø PVC Standard Hub Pipe	2	piece	₱	₱
	100mm Ø PVC Standard Hub Pipe	2	piece		
	50mm Ø PVC 1/4 Bend	1	piece		
	100mm Ø PVC 1/4 Bend	1	piece		
	100mm Ø PVC Cleanout	1	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø No-hub Coupling	2	piece		
	50mm Ø PVC P-Trap	2	piece		
	Waterline System				
	20mmØ PPR Pipe	3	piece		
	20mmØ x 20mmØ Tee Equal	4	piece		
	20mmØ 90° Elbow	3	piece		
	20mmØ x 12mm Ø Female Threaded Tee	4	piece		
	25mmØ Union Patent	1	piece		
	20mmØ Coupling	2	piece		
	Fixtures				
	Bidet, Heavy-Duty, Stainless with Complete Accessories (Water Efficient)	1	unit		
	Floor Drain Stainless, 100mm x 100mm	2	piece		
	Grease Trap, 5GPM	1	set		
	Hose Bibb, Lever-Type, Stainless, Heavy Duty (Water Efficient)	5	piece		
	Kitchen Sink Faucet, Lever-type Heavy Duty Stainless Steel (Water Efficient)	1	set		
	Kitchen Sink, Single-Tub, Stainless	1	set		
	Water Closet, Tank Type, Kiddy	1	set		
	Hardware and Accessories				
	Angle Valve, One-Way Stainless Steel	1	piece		
	Angle Valve, Two-Way Stainless Steel	1	piece		
	Flexible Hose, Stainless	2	piece		
	Miscellaneous				
	15mmØ Concrete Drill Bit	1	piece		
	15mmØ Metal Drill Bit	1	piece		
	All Around Sealant	1	can		
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
				<b>MATERIAL COST V</b>	₱
				<b>LABOR COST V</b>	
				<b>DIRECT COST V</b>	₱
<b>VI</b>	<b>ELECTRICAL WORKS</b>				
	Roughing-ins				
	20mmØ PVC Pipe	30	piece	₱	₱
	32mmØ PVC Pipe	5	piece		
	25mmØ IMC Pipe	3	piece		
	Fittings and Accessories				
	20mmØ PVC Adaptor	30	piece		
	20mmØ PVC Locknut and Bushing	30	pair		
	32mmØ PVC Adaptor	4	piece		
	32mmØ PVC Locknut and Bushing	4	pair		



ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	25mmØ IMC Coupling	2	piece		
	25mmØ IMC Elbow	2	piece		
	25mmØ Weatherproof Entrance Cap	1	piece		
	50mm x 100mm PVC Utility Box	15	piece		
	100mm x 100mm PVC Junction Box with Cover	15	piece		
	Wires and Cables				
	3.5mm² THHN Wire	2	roll		
	5.5mm² THHN Wire	40	l.m.		
	14.0mm² THHN Wire	30	l.m.		
	2.0mm² TW Wire	50	l.m.		
	3.5mm² TW Wire	20	l.m.		
	8.0mm² TW Wire	15	l.m.		
	Lighting Fixtures ( Energy Efficient )				
	300mm x 1200mm, 2 x 18w LED, Troffer Type, with Complete Accessories, Recessed Type	4	set		
	1 x 18W LED, Tube Light, Box Type	3	set		
	100mmØ Receptacle with 10W LED Bulb	3	set		
	Wiring Devices & Other Fixtures				
	Aircon Outlet, Multipurpose Outlet	1	piece		
	Convenience Outlet with Ground, Two Gang	5	piece		
	Wall Fan, Heavy Duty with Selector Switch	4	set		
	Switch with Plate and Cover, One Gang	3	piece		
	Switch with Plate and Cover, Two Gang	1	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	10	l.m.		
	Vertical layout of pipe	5	l.m.		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	All around Sealant	1	can		
	Electrical Tape	8	roll		
	G.I Tie Wire (for Wire/Cable Pulling)	2	kg		
	Hacksaw Blade	2	piece		
	Pulling Lubricant	1	gal		
	Rubber Tape	5	roll		
				<b>MATERIAL COST V</b>	₱
				<b>LABOR COST V</b>	
				<b>DIRECT COST V</b>	₱
<b>VII</b>	<b>UTILITIES AND ANCILLARY</b>				
	2 Layer Lined Canal	12	l.m.	₱	₱
				<b>MATERIAL COST VI</b>	₱
				<b>LABOR COST VI</b>	
				<b>DIRECT COST VI</b>	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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**SUMMARY**

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	AMOUNT
I	GENERAL REQUIREMENTS	₱
II	SITE WORKS	
III	CIVIL WORKS / STRUCTURAL WORKS	
IV	ARCHITECTURAL WORKS	
V	SANITARY / PLUMBING WORKS	
VI	ELECTRICAL WORKS	
VII	UTILITIES AND ANCILLARY	
<b>NOTE:</b>	<p align="right"><b>TOTAL DIRECT COST</b></p> <p align="right">Overhead, Contingencies and Miscellaneous Expenses (OCM)</p> <p align="right">Profit</p> <p align="right">VAT</p> <p>• Strictly enforce health protocols relative to the latest applicable DPWH memorandum</p>	₱
	<b>TOTAL ESTIMATED COST</b>	₱

## ***Section IX. Checklist of Technical and Financial Documents***

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

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

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

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

# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class “A” Documents*

#### Legal Documents

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

#### Technical Documents

- (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid (*please see attached prescribed forms required by the QC – BAC for Infrastructure and Consultancy*); **and**
- (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules with an attached Notice of Award, Notice to Proceed, Contract and Certificate of Acceptance (*please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy*); **and**
- (h) Philippine Contractors Accreditation Board (PCAB) License;  
**or**  
Special PCAB License in case of Joint Ventures;  
**and** registration for the type and cost of the contract to be bid; **and**
- (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- (j) Project Requirements, which shall include the following:
  - a. Organizational chart for the contract to be bid;
  - b. List of contractor’s key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data (*please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy*);
  - c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment

lessor/vendor for the duration of the project, as the case may be (*please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy*); **and**

- (k) Original duly signed Omnibus Sworn Statement (OSS); **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Additional Technical Requirements:

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

#### Financial Documents

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

#### **Class "B" Documents**

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

## **II. FINANCIAL COMPONENT ENVELOPE**

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

#### Other documentary requirements under RA No. 9184

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

**Bid Form for the Procurement of Infrastructure Projects**  
*[shall be submitted with the Bid]*

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**BID FORM**

Date : \_\_\_\_\_  
Project Identification No. : \_\_\_\_\_

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

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

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract]*;
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;
- d. The discounts offered and the methodology for their application are: *[insert information]*;
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines<sup>1</sup> for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

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<sup>1</sup> currently based on GPPB Resolution No. 09-2020

- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].
- l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: \_\_\_\_\_

Legal Capacity: \_\_\_\_\_

Signature: \_\_\_\_\_

Duly authorized to sign the Bid for and behalf of: \_\_\_\_\_

Date: \_\_\_\_\_

## **Bid Securing Declaration Form**

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

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

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

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

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
  - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
  - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

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

**[Jurat]**

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



## Omnibus Sworn Statement (Revised)

*[shall be submitted with the Bid]*

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

### AFFIDAVIT

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

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

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

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

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

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

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

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

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

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

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

*[If a sole proprietorship:]* The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

*[If a partnership or cooperative:]* None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project

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

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

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

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**CONTRACT AGREEMENT**

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

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

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, viz.:
  - a. Philippine Bidding Documents (PBDs);
    - i. Drawings/Plans;
    - ii. Specifications;
    - iii. Bill of Quantities;
    - iv. General and Special Conditions of Contract;
    - v. Supplemental or Bid Bulletins, if any;
  - b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;  
  
Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;
  - c. Performance Security;
  - d. Notice of Award of Contract and the Bidder's conforme thereto; and
  - e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**
3. In consideration for the sum of *[total contract price in words and figures]* or such other sums as may be ascertained, *[Named of the bidder]* agrees to *[state the object of the contract]* in accordance with his/her/its Bid.

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

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

*[Insert Name and Signature] [Insert Name and Signature]*

*[Insert Signatory's Legal Capacity] [Insert Signatory's Legal Capacity]*

*for: for:*

*[Insert Procuring Entity] [Insert Name of Supplier]*

**Acknowledgment**

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

## Performance Securing Declaration (Revised)

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

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

### PERFORMANCE SECURING DECLARATION

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

I/We, the undersigned, declare that:

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

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

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

**[Jurat]**

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

LIST OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS

NAME OF CONTRACTOR: \_\_\_\_\_

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

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

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

**NAME OF CONTRACTOR:** \_\_\_\_\_

**PROJECT TITLE:** \_\_\_\_\_

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

**SINGLE LARGEST COMPLETED CONTRACT SIMILAR TO THE CONTRACT TO BE BID**

**NAME OF CONTRACTOR:** \_\_\_\_\_

**PROJECT TITLE:** \_\_\_\_\_

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

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page \_\_\_\_\_ of \_\_\_\_\_



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

**NAME OF CONTRACTOR:** \_\_\_\_\_

**PROJECT TITLE:** \_\_\_\_\_

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

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

NAME OF CONTRACTOR: \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_

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

## COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

NAME OF BIDDER: \_\_\_\_\_

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

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

\*\* BASED ON LIST OF ON-GOING AND AWARDED BUT NOT YET STARTED CONTRACTS SUBMITTED

REPUBLIC OF THE PHILIPPINES)

\_\_\_\_\_ ) S.S.

### AFFIDAVIT OF UNDERTAKING

I, \_\_\_\_\_ of legal age, Filipino, \_\_\_\_\_ [OFFICER OR REPRESENTATIVE]

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

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

That [Name of Bidder] bidding for the (Name of Project)

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

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

IN WITNESS HEREOF, I have hereunto signed my name below this \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

AFFIANT FURTHER SAYETH NAUGHT.

\_\_\_\_\_  
Affiant

SUBSCRIBED AND SWORN TO BEFORE ME this \_\_\_\_\_ day of \_\_\_\_\_  
in \_\_\_\_\_

affiant exhibiting to me his/her \_\_\_\_\_ issued at \_\_\_\_\_  
on \_\_\_\_\_

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

\_\_\_\_\_  
Notary Public

