PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF DAY CARE CENTER AT DISTRICT 2 AREA VII (CLUSTER 3)

Project number: 21-00176

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 AND AWARDS COMMITTEE FOR INFRASTRACTU



BIDS AND AWARDS COMMITTEE FOR INFRASTRACTURE & CONSULTANCY

2nd floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

November 15, 2021

Invitation to Bid

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

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

22	21- 00177	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 2 Area VII (Cluster 2)	Batasan Hills	17,576,527.83	90	Engineering Department	Engineering - SB No. 1
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- The QUEZON CITY LOCAL GOVERNMENT, through funding source of various years
 intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to
 payments under the contract for the above stated Projects. Bids received in excess of the ABC
 shall be automatically rejected at bid opening.
- The QUEZON CITY LOCAL GOVERNMENT now invites bids for the above Procurement Project. Completion of the Works is required as stated above. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
- Bidding will be conducted through open competitive bidding procedures using nondiscretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
- Interested bidders may obtain further information from QUEZON CITY LOCAL GOVERNMENT – BAC Secretariat and inspect the Bidding Documents at the address given below weekdays from 8:00 am. – 5:00 p.m.
- 5. A complete set of Bidding Documents may be acquired by interested bidders on 16 November 2021 (Tuesday) from given address and website/s below and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB. The Procuring Entity shall allow the bidder to present its proof of payment for the fees presented in person.

STANDARD RATES:

Approved Budget for the Contract	Maximum Cost of Bidding Documents (in Philippine Peso)
More than 1 Million up to 5 Million	5,000.00
More than 5 Million up to 10 Million	10,000.00
More than 10 Million up to 50 Million	25,000.00
More than 50 Million up to 500 Million	50,000.00
More than 500 Million	75,000.00
	# DATE (100 DECEMBER 100 DECEMB

The following are the requirements for purchase of Bidding Documents;

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

It must be duly received by the BAC Secretariat at 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound on or before November 23, 2021 - 5:00PM.

 The QC-BAC-INFRASTRUCTURE & CONSULTANCY will hold a Pre-Bid Conference¹ on November 24, 2021 at 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound or we encourage the prospective bidders to join through our Virtual Conference (ZOOM APP) which shall be open to prospective bidders.

Virtual Conference (ZOOM APP)

Meeting ID: 854 9489 0133

Password: 273320

- Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before December 6, 2021 – 9:00AM. Late bids shall not be accepted.
- All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 16.
- Bid opening shall be on December 6, 2021 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

Virtual Conference (ZOOM APP)

Meeting ID: 810 3646 5257

Password: 201522

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

ATTY, DOMINIC B. GARCIA

OIC, Procurement Department 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound Elliptical Road, Barangay Central Diliman, Quezon City. Tel. No. (02)8988-4242 loc. 8506/8710

Email Add: bacinfra.procurement@quezoncity.gov.ph

Website: www.quezoncity.gov.ph

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-Lefra and Consultancy

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

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

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

1. Scope of Bid

The Procuring Entity, Quezon City Government invites Bids for the PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF DAY CARE CENTER AT DISTRICT 2 AREA VII (CLUSTER 3), with Project Identification Number 21-00176.

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

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

2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for 2021 in the amount of Fourteen Million Seven Hundred Fifty-Five Thousand Nine Hundred Nineteen Pesos & 20/100 Ctvs. (P 14,755,919.20).
- 2.2. The source of funding is:
 - a. LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.

3. Bidding Requirements

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

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

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

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

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

5. Eligible Bidders

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

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

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

6. Origin of Associated Goods

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

7. Subcontracts

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

The Procuring Entity has prescribed that:

a. Subcontracting is not allowed.

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

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

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address on November 24, 2021, 10:00 A.M. at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound and/or we encourage the prospective bidders to join through our Virtual Conference (ZOOM APP) Meeting ID: 854 9489 0133 Password: 273320

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

15. Bid Security

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

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "passed" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

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

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

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

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

Bid Data Sheet

ITB Clause							
5.2	For this purpose, similar contracts shall refer to contracts which have the same major categories of work.						
7.1	Subcontracting is not allowed.						
10.3	No addi	No additional contractor license or permit is required					
	In addi	tion, eligible bidders	shall qualify or comply	w with the following:			
	1. Bidd	ers with valid Philipp	oine Contractors Accred	itation Board (PCAB)			
	Туре	e					
	В	Building - Small B					
10.4	The man	-	rience requirements fo	or key personnel are the			
	PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF DON FABIAN 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			
	5	Skilled Worker	3 years	3 years			
	1	Driver	3 years	3 years			
	5	Laborer	1 year	3 months			
	PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF F. CASTILLO 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			

5	Skilled Worker	3 years	3 years				
1	Driver	3 years	3 years				
5	Laborer	1 year	3 months				
PROI	PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF GOLD 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				
5	Skilled Worker	3 years	3 years				
1	Driver	3 years	3 years				
5	Laborer	1 year	3 months				
			SHING FACILITY AND DAYCARE CENTER				
Qnty.	Key Personnel	General Experience	Relevant Experience				
1	Project Engineer	3 years	3 years				
1	DPWH duly accredite Materials Engineer	ed 3 years	3 years				
1	Safety Officer	3 years	3 years				
1	Foreman	3 years	3 years				
5	Skilled Worker	3 years	3 years				
1	Driver	3 years	3 years				
3	Laborer	1 year	3 months				
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PINADAMA 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
5	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
5	Laborer	1 year	3 months
PROI		TION OF HAND WA N OF PUROK 15 DAY	SHING FACILITY AND Y CARE CENTER
Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years
1	DPWH duly accredite Materials Engineer	ed 3 years	3 years
1	Safety Officer	3 years	3 years
1	Foreman	3 years	3 years
7	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
12	Laborer	1 year	3 months
			SHING FACILITY AND DAY CARE CENTER
Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years
1	DPWH duly accredite Materials Engineer	ed 3 years	3 years
1	Safety Officer	3 years	3 years
1	Foreman	3 years	3 years
6	Skilled Worker	3 years	3 years

3 years

3 years

Driver

4	Laborer	1 year	3 months					
PR	PROPOSED REHABILITATION OF KASUNDUAN 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					
5	Skilled Worker	3 years	3 years					
1	Driver	3 years	3 years					
5	Laborer	1 year	3 months					
PR	PROPOSED REHABILITATION OF KAUNLARAN 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					
5	Skilled Worker	3 years	3 years					
1	Driver	3 years	3 years					
5	Laborer	1 year	3 months					
PRO	PROPOSED REHABILITATION OF LITEX 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					
5	Skilled Worker	3 years	3 years					

1	Driver	3 years	3 years					
5	Laborer	1 year	3 months					
PRO	PROPOSED REHABILITATION OF PUROK 16 YAKAP DAY CARE CENTER							
Qnty.	Key Personnel	General Experience	Relevant Experience					
1	Project Engineer	3 years	3 years					
1	DPWH duly accredite Materials Engineer	d 3 years	3 years					
1	Foreman	3 years	3 years					
9	Skilled Worker	3 years	3 years					
1	Driver	3 years	3 years					
9	Laborer	1 year	3 months					
PRO	POSED REHABILIT	ATION OF SOLIVE	N 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					
6	Laborer	1 year	3 months					
PRO	PROPOSED REHABILITATION OF UNIT IV DAY CARE CENTER							
Qnty.	Key Personnel	General Experience	Relevant Experience					
1	Project Engineer	3 years	3 years					
1	DPWH duly accredite Materials Engineer	d 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
	PRO	OPOSED REHABILI	FATION OF UNIT V	DAY CARE CENTER
	Qnty.	Key Personnel	General Experience	Relevant Experience
	1	Project Engineer	3 years	3 years
	1	DPWH duly accredite Materials Engineer	ed 3 years	3 years
	1	Safety Officer	3 years	3 years
	1	Foreman	3 years	3 years
	4	Skilled Worker	3 years	3 years
	1	Driver	3 years	3 years
	4	Laborer	1 year	3 months
	notari		egoing personnel shal	avit of undertaking duly l perform work exclusively ched bid forms.
10.5	The m	inimum major equipme	ent requirements are th	e following:
		POSED CONSTRUCT REHABILITATION (SHING FACILITY AND AY CARE CENTER
	Equip	ment	Capacity	Number of Units
				as needed as needed as needed
		POSED CONSTRUCT REHABILITATION (SHING FACILITY AND AY CARE CENTER
	Equip	ment	Capacity	Number of Units

Elf Truck	1
Scaffolding	as needed
Power Tools	as needed
Minor Tools	as needed

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF GOLD DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck1Scaffoldingas neededPower Toolsas neededMinor Toolsas needed

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LOWER NAWASA DAYCARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PINADAMA DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PUROK 15 DAY CARE CENTER

Elf Truck1Scaffoldingas neededPower Toolsas neededMinor Toolsas neededCut-Off Machineas needed

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY CARE CENTER

Equipment Capacity Number of Units

Welding Machine 1
Elf Truck 1
Scaffolding (H-Frame) as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF LITEX DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF PUROK 16 YAKAP DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck1Scaffoldingas neededPower Toolsas neededMinor Toolsas neededCut-Off Machineas needed

	PROPOSED REHABILITAT	TION OF SOLIVEN	DAY CARE CENTER		
	Equipment	Capacity	Number of Units		
	Elf Truck Scaffolding Power Tools Minor Tools		as needed as needed as needed		
	PROPOSED REHABILITATION OF UNIT IV DAY CARE CENTER				
	Equipment	Capacity	Number of Units		
	Elf Truck Scaffolding Power Tools Minor Tools		as needed as needed as needed		
	PROPOSED REHABILITA	TION OF UNIT V I	DAY CARE CENTER		
	Equipment	Capacity	Number of Units		
	Elf Truck Scaffolding Power Tools Minor Tools		as needed as needed as needed		
10	In addition, the bidder must notarized stating that the foregoest the project until its completion.	oing equipment shal Please see attached b	l be used exclusively for		
12	[Insert Value Engineering claus	e if allowed.]			
15.1	The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:				
	a) The amount of not less than Php 295,118.38 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or				
	b) The amount of not less the (5%) of ABC if bid secu	•	-		
19.2	Partial bid is not allowed. The and the lot shall not be divid evaluation, and contract award.	1 0			
20	No additional requirement.				

21	Additional Contract Documents relevant to the Project as required:
	1. Construction Schedule and S-curve,
	2. Manpower Schedule,
	3. Construction Methods,
	4. Equipment Utilization Schedule,
	5. PERT/CPM or other acceptable tools of project scheduling, shall be
	included in the submission of Technical Proposal.

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

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

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

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

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

4. The Contractor's Obligations

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

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

5. Performance Security

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

6. Site Investigation Reports

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

7. Warranty

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

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

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

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

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

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

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

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

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

Special Conditions of Contract

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

Section VI. Specifications

Notes on Specifications

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

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

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

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

Sample Clause: Equivalency of Standards and Codes

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

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

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



Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5TH, 6TH, 7TH Floors, QC Civic Center Building 'B' Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF DON FABIAN DAY CARE CENTER

LOCATION:

BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

I. GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall beer all cost ansing 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 madvertence.
- 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. Alt equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

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

II. SITE WORKS

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

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

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

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

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

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

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

III. CIVIL / STRUCTURAL WORKS

A. METAL FABRICATION

Materials:

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

Fabrication:

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

Metal Surfaces:

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

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.

Welding:

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

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

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

B. PAINTING WORKS

- 1 Paint Meterials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Stendard, DPWH or the National Institute of Science and Technology.
- Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and finting color to effect good paint body.
- 3 Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into putty consistency, with all-based primers and points to fill minor surface dents and imperfections.
- Pamt Schedule.
 - Exterior Masonry Wall (plain cement plastered finish to be painted).
 - i 1 coat skim coating, 1 coat primer, 2 coats elastomene paint finish.
 - Interior Masonry Wall (plain cement plastered finish to be painted).
 - i. 1 coat skim coating, 1 coat primer, 2 coats letex paint finish.
 - d. Interior Dry Wall
 - i. 1 coat primer, 2 coats latex paint finish.
 - e. Ceiling Boards
 - 1 coat primer, 2 coats latex paint finish.
 - f Slab Soffit
 - t coat primer, 2 coats latex paint finish.
 - g Metal / Steel Surfaces
 - 1 cost primer. 2 costs epoxy enamel finish.
- Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sended smooth and dusted clean. All knot-holes pitch.

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

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

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

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

In addition, the Contractor shall undertake the following:

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

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

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

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

c. DOORS & WINDOWS

Follow as per approved plan and specifications.

V. SANITARY / PLUMBING WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessones required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - 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 quartity and arrengement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination
 and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sates catalogue of a general nature will not be accepted.
- K. All meternals, 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 menufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra coet.

- M. All sanitary fittings and pipework shall be deaned 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 smable to withstend 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.
- The Sarstary Contractor must carry out any additional tests required by the end-user end/or approving agency.
- U Prainage pipe shall be tested by filting the pipe with 3m of water higher than the fest 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 honzontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Dramage pressure pipe shall be hydraulic tested at minimum pressure 50 ps.
- 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?
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster inserts to forms and install reinforcing bers through openings at top of inserts.
- B8. Install hangers and supports so that piping live and deed 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 831.9 for building services piping.

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

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

B. WIRES AND WIRING DEVICES.

- This term shall consist of the furnishing and installation of all wires and wiring devices
 consisting of electric wires and cables, wall switches, convenience receptacles, heavy
 duty receptacles and other devices shown on the approved Plans but not mentioned
 in these specifications.
- Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and beening the Philippine Stendard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 votts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.
- 3 Conductors or wires shall not be drawn in conduits until after the cement plaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing wires into conduits sufficient stack shall be allowed to permit easy connections for tixtures, switches, receptacles and other wiring devices without the use of additional splices.
- All conductors of convenience outlets and lighting branch circuit homerons shall be wired with a minimum of 3.5 mm in size. Circuit homerons to genel boards shall not be

smaller than 3.5 mm but all homeruns to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size

- 5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- 6. All joints, tape and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7 No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and tapod with rubber and PVC tapes in a manner which will make their insulation as that of the conductor.
- 8. All wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush requiring shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in well locations shall be gaskeled.
- When more than one switch or devoce is indicated in a single location, garry place shall be used.

RALPAGEEGOR M. MANALO Planning and Programming Division , JOCEVÝN (NAONG X's Planning and Programming Division



Replublika ng Pilipinas Lungsoding Quezon

CITY ENGINEERING DEPARTMENT

51* 61*, 71* Floors, QC Civic Center Building *8". Tejephone Nos. 8988-4242 Local 8538.



PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF F. CASTILLO DAY CARE CENTER

LOCATION:

BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

GENERAL REQUIREMENTS I.

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost erising 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.
- Mobilization and Demobilization (If applicable).
 - Mobilization shall include all activities and related costs for transportation of personnel. equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel. equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site appointably for this contract.
- Execute work an strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor
- J Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best. standard for the required types.
 - 2 Temporary facilities shell be provided and maintained including sanitary facilities and first aid stations.

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

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- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.
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 - Removal and/or demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.

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

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

Soulders, logs, and ofner objectionable materials encountered in excavation shall be removed.

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

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

All backfilts shall be placed in layers not exceeding to \$50mm in thickness and each layer shall be thoroughly compacted by wetting, tamping and rolling.

- E. Soil Poisoning. There are two methods usually adopted in soil poisoning which are as follows:
 - Cordoning. This method is usually adopted when there is no visible evidence of termite infestation. Trenches in concentric circles, squares or rectangles are dug 150mm to 220mm wide and at least one meter spart and applied with Liquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.
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1 Meterials

- Steel and Iron If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Febrication and Erection of Structural Steel for buildings
- Bolts, Nuts. Studs and Rivets. ASTM A 307 and A 325.
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- d. Metal Purtins. High grade galvanized steel with minimum tensile strength of 275 MPs, 1.4mm in thickness or approved equal.

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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.

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

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

- 1. 300mm x 300mm Non-8kld Homogeneous Tiles including tile adhesive
- 2. 50mm concrete Topping with Plain Cement Finish.

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- Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology
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Paint is atomized by high pressure pumping rather than broken up by the large volume of air mixed with it. This procedure changes the required properties of the paint.

- Application shall be as per paint Manufacturer's specification and recommendation.
- iv. Provide all drop doth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall stactly follow the Manufacturer's Instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and policined; masonry wall shall be treated with Neutralizer.
- va. 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.
- viii. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper

C. DOORS & WINDOWS

Follow as per approved plan and specifications.

D. FABRICATED MATERIALS

Follow as per approved plan and specifications.

E. LETTERINGS

Follow as per approved plan and specifications.

V. SANTARY / PLUMSING WORKS

- A Compty with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- Supply, Installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water maters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water maters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittels, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - Storm drainage system complete in all respect including but not limited to connection
 to existing storm drainage, 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.
- O. 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 tayout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination
 and details shall be submitted for approval before any equipment is to be ordered

- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. 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 ceitings 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.
- The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Orainage 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 hydrautic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity toads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thormal and seismic increment of piping systems, to permit freedom of movement between pips anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA Install building attachments within concrete 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 puping. Install concrete inserts before concrete is placed, faster 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 CONDUITS, BOXES AND FITTINGS

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

B. WIRES AND WIRING DEVICES

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

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

RALPHGRÉGOR M. MANALO Planning and Programming Division

• JOCELYN AZ NAONG
• Planning and Programming Division



Replublika ng Pilipinus Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5¹⁸, 6¹⁸, 7¹⁸ Floors, QC Civic Center Building 'B' Telephone Nos. 3988-4242 Local 8538



PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF GOLD DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

GENERAL REQUIREMENTS

- A Compty with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost 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 vistallations shall meet or exceed minimum requirements of the standards and codes.
- Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the diseasembly, removal and site dean-up of offices and other facilities assembled on the site specifically for this contract
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J Temporary Facilities and Utilities
 - All facilities shed be near the job site, where necessary and shall conform to the best standard for the required types.
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

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

II. SITE WORKS

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

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

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

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

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

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

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

III. CIVIL / STRUCTURAL WORKS

A. ROOFING WORKS

- 1 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 purilins 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.
- 2. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purios with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- 3 All roofing sheets adjacent to concrete hollow block and other 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. Materials.
 - Steel and Iron If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design. Fabrication and Erection of Structural Steel for buildings.
 - Bolts, Nuts, Studs and Rivets, ASTM A 307 and A 325.

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

B. METAL FABRICATION

1. Materials:

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

Fabrication.

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

3. Metal Surfaces

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

4. Construction:

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

Welding:

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

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

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

B. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology.
- Tirring Colors. Tinting colors shall be first grade quality pigment ground in alkyd rean that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and finting color to effect good paint body
- 3 Skim coat Skim coat shall be fine powder type material like kalsomine that can be mixed into purty consistency, with oil-based primers and paints to fill mirror surface dente and imperfections.
- 4 Paint Schedule
 - Exterior Masonry Wall (plain cement plastered finish to be painted)
 - 1 coat skim coating, 1 coat primer, 2 coats etastomeric paint finish.
 - c. Interior Masonry Wall (plain coment plastered finish to be gainted).
 - t coat skim coating, 1 coat primer, 2 coats latex paint finish.
 - d. Interior Dry Wall
 - 1 coat primer, 2 coats latex paint finish.
 - é. Çévling Boards
 - 1 coat pnmer, 2 coats latex paint finish.
 - Slab Soffit
 - i. I coat primer, 2 coats latex paint finish
 - g. Metal / Steel Surfaces
 - 1 coat primer, 2 coats epoxy enamel finish.
- Surface Preparation All surfaces shall be in proper condition to receive the finish.
 Woodworks shall be hand-sended smooth and dusted clean. All knot-holes pitch
 pockets or sappy portions shall be sealed with natural wood filter. Nall holes, cracks or
 defects shall be carefully puttied after the first coat, matching the color of paint.

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

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

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

In addition, the Contractor shall undertake the following:

- a Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces.
- b Merred or demaged shop coats on metal shall be spot primed with appropriate metal primer.
- Panting and vamishing works shall not be commenced when it is too hot or cold.

- d. Allow expropriete ventiletion during application and drying paried.
- All hardware with be fitted and removed or protected prior to painting and varnishing works.
- iii. Application Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out after application of paint.

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

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

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

C. CEILING FINISHES

6mm thick Fiber Cement Board including Metal Framing and Accessories.

D. DOORS & WINDOWS

Follow as per approved plan and specifications.

E. FABRICATED MATERIALS

Follow as per approved plan and specifications.

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Supply, installation and testing of the following.
 - Potable water supply system complete in all respects including but not limited to submittals, shop drawings, pipling, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any end ell other works involve in providing the complete operation of the water supply system.
 - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - 4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified 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.
- M. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J This shall include all information necessary to ascertain the equipment comply with this specification and drawings. 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 senitery 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.
- Cleaning and flushing shall be carned out in sections as the installation becomes completed.
- P The Contractor shall carry out hydrautic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactionly 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 (esting 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 walts and ducts are closed. Also test shall be carried out prior to false callings 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.
- The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U Oramage 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 timits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building 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.
- 68. 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 R31 9 for building services points.

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

1. This item shall consist of the furnishing and Installation of the complete conduit work, consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes, conduit fittings, such as couplings, locknuts.

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

8. WIRES AND WIRING DEVICES.

- This Item shall consist of the furnishing and installation of all wires and wiring devices
 consisting of electric wires and cables, wall switches, convenience receptacles, heavy
 duty receptacles and other devices shown on the approved Plans but not menuoned
 in these specifications.
- 2. Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 votts. All wires shall be copper, soft drawn and annealed, smooth and of cytindhool form and shall be centrally located inside the insulation.
- 3. Conductors or wires shall not be drawn in conduits until after the cement plaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing wires into conduits, sufficient stack shall be allowed to permit easy connections for fixtures, switches, receptacles and other wining devices without the use of additional splices.
- 4. All conductors of convenience outlets and lighting branch circuit homerums shall be wired with a minimum of 3.5 mm in size. Circuit homerums to panel boards shall not be smaller than 3.5 mm but all homerums to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.
- 5. All wires of 14mm and larger in size shall be connected to penels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.

- 6 All joints, tape and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors
- No aplices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit winning shall be made mechanically and electrically secured by approved splicing devices and taped with rubber arid PVC tapes in a manner which will make their insulation as that of the conductor.
- 8 At wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.

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

RALPHOREGOR M. MANALO Planning and Programming Division JOCELYN A NAONG

Planning and Programming Division



Republic of the Philippines Ouezon City

CITY ENGINEERING DEPARTMENT



Civc Center Bulksing B, Quezon City Hall Compound, E**S**iptical Road Diliman, Central 1,00 Quezon City Trunk line: +63 2 8988 4242

PROJECT NAME:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF LOWER NAWASA DAYCARE CENTER/

LOCATION:

BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY /

TECHNICAL SPECIFICATIONS QUEZON CITY INFRASTRUCTURE PROJECT

(. GÉNÉRAL 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.
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra
 compensation and extension of time shall be given due to negligence or 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 stendards 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. Demotxlization 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 specificably for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, expenenced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types

- Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication
- Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Vi. Upon completion of the work, the temporary facilities shall be demokshed, hauledout and disposed property
- k Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - ir. 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.
- Necessary protections to the adjacent property shall be provided to evoid unfoward 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.

(I. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plane and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- Removal / demolition of existing structures shall be done in accordance to sefety 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. CONCRETE WORK

a Delivery, Storage, and Handling: Alt materials shall be so delivered stored, and transled as to prevent the inclusion of foreign materials and the demage 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

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- Water used in mixing concrete shall be clean and free from other injurious amounts
 of oits, acids, alkaline, organic materials or other substances that may be
 deleterious to concrete or steel.
- iii Fine aggregates shall be beach or over sand conforming to ASTM C33. "Specification for Concrete Aggregates" Send particle shall be course, sherp, clean free from sait 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

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

Coment Sand Gravel

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

e. Forms

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

Placing Reinforcement.

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install end secure the reinforcement property. All reinforcement, when placed, shall be free from loose, flaky

rust and scale, oil grease, clay and other conting 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.

- Conveying concrete shalt be conveyed from mover 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.
- 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 fine! 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 cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of montar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

h. Curing

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

t. Finishing

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

B. 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 purios 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. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purins with min. 2 W max. 31 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 reofing 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

Waterproofing:

Furnish all tabor, 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 seepeges.

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

IV. ARCHITECTURAL WORKS

A. PAINTING WORKS

- a All primers, thinners and putty, also waterproofing for internal and external application, shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other 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.
- All surfaces including masonry wall shall be thoroughly cleaned pultied, 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).
- 8 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 Soit 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, fillings, 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.
- 2. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation 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 a required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination
 and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales calalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contemination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- 4. Any items suffering from damage during manufacture, or in transit, or on site whitst in storage or during erection shall be rejected and replaced without extra cost.
- M. All senitary fittings and pipework shall be deaned after installation and keep them in a new condition.

- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure dearance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable renge 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 callings 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.
- 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 weit 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 teating.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- 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 of concentrated loads, including valves, flanges, and strainers. NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster inserts to forms and install reinforcing 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 831.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Orawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.

- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmantike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F. PANELBOARDS

- F.1 Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 15 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 cabinats.
 - F.2.1 Rated for environmental conditions at installed location.
 - i Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - Outdoor Locations NEMA 250, Type 3R.
 - Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - Indoor Locations Subject to Dust Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box
 - F.2.3 Hinged Front Cover: Entire front frim 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:

- Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-cost, baked-on finish consisting of prime cost and thermosetting topoost,
- ii Back Boxes: Galvanized steel Same finish as panels and Imm.
- 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; banded to bax.

F 4.3 Neutral Bus. 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

Prepared by:

Checked by:

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Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5TH, 6TH, 7TH Floors, QC Civic Center Building "8". Telephone Nos. 6968-4242 Local 8538.



PROJECT TITLE :

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF PINADAMA DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

I. GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall 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 meterials not conforming to the requirements of these specifications shall be considered as defective.
- G All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

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

N. SITE WORKS

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

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

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

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

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

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

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

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

III. CML / STRUCTURAL WORKS

A. MASONRY WORKS

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

Sand.

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

Mortar.

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

Reinforcement

The concrete hollow blocks shall be reinforced with 10mm drameter deformed bar, spaced not more than 0.6m on centers, both ways.

5 Plaster bond:

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

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

B. ROOFING WORKS.

- The roof shall be covered with Ga. 24 pre-painted G.t. rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purious with min. 2 ½" max.
 long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.t. rib-type roofing sheets. They shall so the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- 2. The roof shall be covered with 6mm thick Rib-type polycarbonate sheafs as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½" mex. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- 3. All roofing sheets adjacent to concrete hollow block and other mesonry walls such as properly 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 Materials;
 - Steel and tron, 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.
 - Bolls, Nuts, Studs and Rivets. ASTM A 307 and A 325.
 - Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec FF-S-111.
 - d. Metal Purlins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1 4mm in thickness or approved equal.

C. METAL FABRICATION

1. Materials:

- e Steel and Iron. If not specified otherwise, use standard mill-linished structural steel shapes or bar iron in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.
- Botts, Nuts, Studs and Rivels. ASTM A 307 and A 325.
- Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec FF-S-111.

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

Fabrication:

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

Metal Surfaces:

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

Construction.

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

Welding:

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

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

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

B. PAINTING WORKS

- Paint Meterials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology.
- Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resinthat disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.
- Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into pulty consistency, with oil-based primers and paints to fill minor surface dents and imperfections.
- 4. Paint Schedule
 - Extenor Masonry Wall (plain cement plastered finish to be painted)
 - 1 coat skim coating, 1 coat primer, 2 coats elastomeric paint finish.
 - c. Interior Masonry Well (plain cement plastered finish to be painted).
 - 1 coat skim coating, 1 coat primer, 2 coats latex paint finish.

Interior Dry Wall.

1 coet primer, 2 coets latex paint finish.

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

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

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

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

in addition, the Contractor shall undertake the following:

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

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

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

- iii Application shall be as per paint Manufacturer's specification and recommendation.
- iv. Provide all drop cloth and other covering regulaite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.

- vi. All surfaces including masonry wall shall be thoroughly cleaned, puttled, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- vii. All exposed linish hardware, lighting fedures and accessories, glass and the tike shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

C. CEILING FINISHES

6mm thick Fiber Cement Board Including Metel Freming and Accessories.

D. DOORS & WINDOWS

Follow as per approved plan and specifications.

V. SANITARY / PLUMBING WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- B. Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not imited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - 4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shell 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 secertain that facilities for proper maintanance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different.

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

- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. 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 pecked 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 fiftings and pipework shall be deened effer 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 debrie.
- 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
- O The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceitings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Senitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m, of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- 2. 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.
- 68. 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 meximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

A CONDUITS, BOXES AND FITTINGS.

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

B. WIRES AND WIRING DEVICES

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

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

RALPHOREGOR M. MANALO
Planning and Programming Division

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Republic of the Philippines Onezon City

CITY ENGINEERING DEPARTMENT



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TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF PUROK 15 DAYCARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, 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.
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- e. Site verification / inspection shall be conducted to validate the scope of works. No extracompensation 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 anstallations shall meet or exceed minimum requirements of the standards and codes.
- Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough substantial, workmanlike manner by competent workman. Provide a competent experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- j. Temporary Facilities and Utilities

- i All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
- Temporary facilities shall be provided and maintained including sanitary tacilluss and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demotished, hautedout and disposed properly
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical 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 metrical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - Additional safety precautions shall be provided an the observance of pandamic Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents? accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

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

c. Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).
- 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 course, sharp, clean free from salt, dust, foam, dist 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 targer 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 bers or between reinforcing bars and forms.

d. Proportioning and Mixing.

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

Cement : Sand : 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 appregates.

e. Forms

- 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 atrength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be 'X' waterproof plywood and form lumber.
- ii Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material.

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

f. Plecing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the 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.
- iii. Placing concrete shall be worked readily into the comers 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.
- In 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 cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Placing Concrete through reinforcement In placing concrete through reinforcement, care shell 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

- 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. Most Curing The surface of the concrete shall be kept continuously wet by covering with burlep 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 grounded to a smooth surface to remove all joint marks of the form works.

 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

- Masonry Units (CHB):
 - i 100mm thick for all interior walls and exterior walls unless otherwise indicated.
 - Use 400 psi for non-load bearing blocks and 700 psi for toad 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 8 lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b. Sand:

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

c. Mortar:

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

Plaster bond.

Apply plaster bond to all well 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 purishs with min. 2 ½ max. 31 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 lep 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 purios with min 2 ¼ 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 noge 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.

D. WATERPROOFING

Waterproofing:

Furnish at tabor, 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.

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

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

B. PROVISION OF CABINET

- Good Lumber must be 2" x 2" x 10" for support frames and main frames.
- b. 1/2" thick Plywood must be used:
- 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 primars, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- 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.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly desmed, puttied, sandpapered rubbed and polished; masonry wall shall be treated with Neutralizer.
- All exposed firesh hardware, lighting fixtures and accessones, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- 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 eppticable 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.
- 8.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space 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 to 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 driginally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective covenings until required for use.
- E. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M. All senitary fittings and pipework shall be deaned 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 eatisfactorily 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 cellings 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 walt for 15 mm, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system bonzontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Insta9 hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building 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 55) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster 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 tabel 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" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - F.2.1 Reted for environmental conditions at installed location.
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - Outdoor Locations: NEMA 250, Type 3R.
 - Kitchen and Wash-Down Areas: NEMA 250, Type 4X, steinless steet.
 - Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt, and Oripping Noncorrosive Expulds: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front: Secured to box with concealed trim clamps. For surface-mounted fronts, metch box dimensions, for flush-mounted fronts, overlap box.
 - F.2.3 Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
 - F.2.4 Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
 - F.2.5 Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.

F 2 6 Finishes:

- Panels and Trim. Steel and galvanized steel, factory finished immediately after cleaning and protreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topocat.
- Back Boxes. Galvarized steel Same finish as penels and trim.
- Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.

- F.3 Incoming Mains Location: Top or Bottom
- F.4. Phase, Neutral, and Ground Buses:
 - F.4.1 Material: Hard-drawn copper, 98 percent conductivity.
 - F.4.2 Equipment Ground Bus: Adéquate 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 Ut listed as suitable for nonlinear loads.

VERGEL JEROME A. MAPILI
Planning and Programming Division

A JOCELYN AR NAONG Planning and Programming Division



Republic of the Philippines Quezon City

CITY ENGINEERING DEPARTMENT



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PROJECT NAME:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF UPPER NAWASA DAYCARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

I. GENERAL REQUIREMENTS

- a. Comply with the current end 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.
- Drawings, specifications, codes and stendards are minimum requirements. Where requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and focation to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- 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.
- Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ji. 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 workman. Provide a competent, expenenced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.

- Temporary facilities shall be provided and maintained including senitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed property.
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - ii. The medical room shall be provided in waterproof, it could be a building or room 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 errangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - Additional safety precautions shall be provided in the observance of pandemic.
 Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjecent property shall be provided to avoid untoward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for cartification 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.

IL SITE WORKS

- A. All grades, lines, levets 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 plane. 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. 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 breekage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected. b Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting Items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

c. Materials

- Cernent 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, ecids, attaine, organic materials or other substances that may be delaterious to concrete or steel.
- iii. Fine aggregates shall be beach or over sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from sall dust, loam, dirt and all foreign matters.
- 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 targer than three (ourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

d. Proportioning and Mixing.

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

Cement : Sand : Gravel

- Class A 1.2 3
- Class 'B" 1 : 2 : 4
- Class "C" 1:2 %
- ii Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cament 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 times, or to insure the concrete of contamination with materials caving from edjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained readly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be 'W' waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the confact surfaces of the formed halt be cleaned of encrustations of mortar, the grout or other foreign material.
- iii. Removel 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 amng shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky

rust and scale, oil grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

g Conveying and Placing Concrete:

- i Conveying concrete shall be conveyed from mixer to forms as rapidfy 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 comers 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 honzontal 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 cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Pfacing 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 stabs, where the congestion of steel near the forms makes placing difficult, a layer of monter of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

h. Curing

- General All concrete shall be moist cured for a period not tess 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 well by covering with buriap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing.

Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to fine and shall present or finished appearance except for minor defects which can be easily repaired with patching with camerit morter, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Slabs on Filt. 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. 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. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purilins with min. 2 ½° mex. 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 riveled to the roofing sheets.
- c. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalfs, 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 comugations of the roofing sheets to prevent water from standing around the fasteners.

C. WATERPROOFING

a. Waterproofing:

Furnish all labor, materials, equipment, plant end 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. PAINTING WORKS

- All primers, thirdiers and pulty, also waterproofing for internal and external application shall be the same brand as the specified material
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- 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 submittels, 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 weller meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - B 3 Spil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - 8.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C Workmanship and installation methods shall conform to the best modern practice. Employ skylled tradesmen to perform work under the direct supervision of fully qualified personnet.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- Install equipment in strict accordance with manufacturers written recommendations.
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- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and reptacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation 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.
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- 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.
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- 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 arrenge 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 carned 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 Senitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Oramage pipe shall be tested by filling the proe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete alaba 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 transgers 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).
- 6 Drewings, 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

- 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.
 - Indoor Dry and Clean Locations NEMA 250, Type 1.
 - Outdoor Locations: NEMA 250, Type 3R
 - iii Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - IV Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Ont, and Dripping.
 Noncorresive 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 Inm hinged to box and with standard door within hinged train 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:

- Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's stendard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat
- Beck Boxes: Galvanized steet Same finish as panets and trim.
- Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panelboard door incunted 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.

Prepared by:

hand.

VERGEL JEROME A. MAPILI Planning and Programming Division Cnecked by:

JOCELÝN A. NAONG

Planning and Programming Division



Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5TH, 6TH, 7TH Floors, QC Civic Center Building "B" Tetephone Nos. 8988-4242 Local 8538



PROJECT TITLE :

PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER

BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

GENERAL REQUIREMENTS

- A. Compty with the current and existing laws, ordinances and applicable codes rules and regulations, and standards. Any works performed contrary to the existing laws rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- B Orewings, 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.
- 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 end details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- H. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site, establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough substantial, workmanlike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

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

IL SITE WORKS

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

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

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

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

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

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

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

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

III. CIVIL / STRUCTURAL WORKS

A. MASONRY WORKS

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

Sand:

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

Mortan

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

4. Reinforcement

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

5 Plaster bond:

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

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

B. ROOFING WORKS

- 1. 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 purious with min. 2 ½ max 3° long Tek acrews. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- 2 The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purious with min 2 ½ max 3" long. Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
 - 3. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line threwalls, shall be provided with Gauge 26 pre-painted plain G t. 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 comugations of the roofing sheets to prevent water from standing around the feateners. Materials:
 - a. Steel and Iron If not specified otherwise, use standard mill-finished structural steel shapes or bar iron in comptiance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.
 - Bolts, Nuts, Studs and Rivets. ASTM A 307 and A 325.
 - Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec. FF-S-111.
 - d Metal Purtins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1,4mm in thickness or approved equal.

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

- 300mm x 300mm Non-Skid Homogeneous Tiles including tile adhesive.
- 50mm Concrete Topping for Tites.

B. WALL FINISHES AND PARTITIONING

 ALUMINUM COMPOSITE CLADDING. Wall panel shall be 6 mm thick nano finish, properly cut and prepared for installation and shall conform to the requirements of the Plans. This includes structural angular framing sections, backer red and sealant.

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

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

C. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject
 to test as to material composition by the Bureau of Research and Standard, OPWH or
 the National Institute of Science and Technology.
- 2 Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brend of paint and tinting color to effect good paint body.
- 3 Skim coat. Skim coat shall be fine powder type material like kalsonine that can be mixed into putty consistency, with oil-based primers and paints to fill minor surface dents and imperfections.
- 4 Paint Schedule.
 - Exterior Masonry Wall (plain cement plastered finish to be painted)
 - 1 coat skim coating, 1 coat primer, 2 costs elestomeric paint finish.
 - Interior Masonry Wall (plain cement plastered finish to be painted)
 - 1 coat skim coating, 1 coat primer, 2 coats latex paint finish.
 - d. Interior Dry Walt
 - 1 coat primer, 2 coats latex paint finish
 - Ceiling Boards
 - i. 1 cost primer, 2 coats latex paint finish
 - f. Sleb Soffit
 - 1 cost primer, 2 costs latex paint linish
 - Metel / Steel Surfaces
 - 1 coat primer. 2 coats epoxy enamel finish.
- i. Surface Preparation. All surfaces shall be in proper condition to receive the finish Woodworks shall be hand-sanded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be seated with natural wood filler. Nail holes, cracks or defects shall be carefully putted after the first cost, matching the color of paint.

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

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

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

in addition, the Contractor shall undertake the following:

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

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

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

- iii Application shall be as per paint Manufacturer's specification and recommendation
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's instructions and Specifications.
- vi. All surfaces including masonry wall shall be thoroughly deaned, puttled, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer
- vii. 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.
- viii. Alt other surfaces endangered by steins and paint marks should be taped and covered with craft paper.

D. CEILING FINISHES

6mm thick Fiber Cement Board Including Metal Framing and Accessones

E. DOORS & WINDOWS

Follow as per approved plan and specifications.

F. FABRICATED MATERIALS

Follow as per approved plan and specifications.

V. SANITARY / PLUMBING WORKS

- A Comply with the current applicable codes, ordinarices, and regulations of the authority or authorities having jurisdiction the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water maters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Spil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, filtings, valves, cleanout, drains, etc. Complete and operational
 - 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.
- O 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 shell ascertain that facilities for proper maintenance, repair end replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as fer as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.

- M. All sanitary fittings and pipework shall be deaned after installation and keep them in a new condition
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Q 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 dramage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- O. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false callings and other (inishes are installed)
- S Testing appearatus 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-feated at the appropriate test pressure.
- 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 falling 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 compose pipework and fitting for three floors/storeys required for testing.
- W. Drawage 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 toads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA, Install building attachments within concrete stabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster 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 plping

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

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

B. WIRES AND WIRING DEVICES

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

- 5. All wives of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- All joints, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit witing shall be made mechanically and electrically secured by approved splicing devices and taped with rubber and PVC tapes in a manner which will make their insulation as that of the conductor.
- 8. All wall switches and receptactes shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster fitting shall not be permitted. Plates installed in wet locations shall be gasketed.
- When more than one switch or device is indicated in a single location, gaing plate shall be used

RALPHGREGOR M. MANALO Planning and Programming Division JOCELYN A/NAONG 1 Planting and Programming Division



Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5TH, 6TH, 7TH Floors, QC Clivic Center Building *B* Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE : LOCATION :

PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

L GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- B. 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 extracompensation and extension of time shall be given due to negligence or inadvertence.
- F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H. Mobilization and Demobilization (if applicable)
 - 1 Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site, establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - 2 Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
 - Temporary facilities shall be provided and maintained including sanitary facilities and first eid stations

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

II. SITE WORKS

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

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

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

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

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

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

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

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

III. CMIL / STRUCTURAL WORKS

A. MASONRY WORKS

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

2 Sand:

S-1, washed, clean and greenish in color

Moner

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

Reinforcement

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

5 Plaster band:

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

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

B. METAL FABRICATION

Materæls:

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

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 botts and nuts

3 Metal Surfaces:

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

4 Construction

Thickness of metals and details of assombly 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.

Welding

Use welding electrode £70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where tack welding is permitted. Do not tack weld exposed to connections). Good smooth visible weld in finished installation.

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

- 600mm x 600mm Unglazed Ceramic Tites including tile adhesive
- 300mm x 300mm Unglazed Ceramic Tites including file adhesive.
- 3 50mm concrete Topping with Plain Cement Finish.
- Carpet Tiles including adhesive (Auditorium)
 50mm Concrete Topping for Tiles
- 300mm x 600mm Ceramic Wall Tites
- Plastering Guide/ Grooves

B. WALL FINISHES AND PARTITIONING

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

Metal Studs, Wall framing shall consist of 0.8 mm thick aluminum metal studs and ajuminum metal tracks.

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

C. PAINTING WORKS

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

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

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

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

In addition, the Contractor shall undertake the following:

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

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

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

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

D. DOORS & WINDOWS

Follow as per approved plan and specifications.

E. FABRICATED MATERIALS

Follow as per approved plan and specifications:

V. SANITARY / PLUMBING WORKS

- Comply with the current applicable codes, ordinances, and regulations of the authority or authorities beying jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to submittels, shop drawings piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, verves, cleanout, drains, etc. Complete and operational.
 - Storm drainage system complete in all respect including but not limited to connection
 to existing storm drainage, submittals, shop drawings, pipes, fittings, valves,
 cleanout, drains, stc. 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.
- 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 debrs.
- 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 satisfactority within the requirements of this Specification and local regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydrautic tests shall be carried out as the pipework is instalted 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.
- 8. 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 honzontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units
- Z Install lateral bracing with pipe hangers and supports to prevent swaying
- AA Install building attachments within concrete slabe or attach to structural steel. Install additional attachments at concentrated toads, including valves, flenges, 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.
- 8B. (notati hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC, Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS.

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

B. WIRES AND WIRING DEVICES.

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

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

C. POWER LOAD CENTER, SWITCHGEAR AND PANEL BOARDS

- This item shall consist of the furnishing and installation of the power load center unit substation or low voltage switchgear and distribution panel boards at the location shown or the approved Plans complete with transformer, circuit breakers, cabinets and all accessories, completely wired and ready for service.
- 2 All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and begring the Philippine Standard Agency (PSA) mark.
- Power Load Center Unit Substation. The Contractor shall furnish and install an indeortype Power Load Center Unit Substation at the location shown on the approved Plans if required. It shall be totally metal-enclosed, dead front and shall consist of the following coordinated component parts;
 - a. High Voltage Primary Section. High voltage primary incoming line section consisting of the following parts and related accessories:
 - One (1) Air-filled Interrupter Switch, 2-position (open-close) installed in a suitable air filled metal enclosure and shall have sufficient interrupting capacity to carry the electrical load. It shall be provided with key interlock with the cubicle for the power fuses to prevent access to the fuses unless the switch is open.
 - ii Three (3)-power fuses mounted in separate compartments within the switch housing and accessible by a hinged door.
 - One 1) set of high voltage potheads or 3-conductor cables or three single conductor cables.
 - Lightning arresters shall be installed at the high voltage cubide if required.

Items (i) and (ii) above could be substituted with a power circuit breaker with the correct rating and capecity.

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

The transformer shall be provided with four (4) approximately 2 1/2 % rated KVA taps on the primary winding in most cases one (1) above and three (3) below rated primary voltage and shall be changed by means of externally gang-operated

manual tap changer only when the transformer is de-energized. Tap changing under load is acceptable if transformer has been so designed.

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

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

- c. Low Voltage Switchboard Section. The low-voltage switchboard shall be standard modular-unitized units, metal-built, dead front, safety type construction and shell consist of the following:
 - Switchboard Housing. The housing shall be heavy gauge steel sheet, dead front type, gray enamel finish complete with frame supports, steel bracings, steel sheet panel boards, removable rear plates, copper busbars, and all other necessary accessories to insure sufficient mechanical strength and safety. It shall be provided with grounding bolts and clemps.
 - li. Secondary Metering Section. The secondary metering section shall consist of one (1) ammeter. AC, indicating type, one (1) voltmeter. AC, indicating type, one (1) ammeter transfer switch for 3-phase; one (1) voltmeter transfer switch for 3-phase; and current transformers of suitable rating and capacity.

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

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

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

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

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

- d. Low Voltage Switchgear (For projects requiring low-voltage switchgear only). The Contractor shall furnish and install a low-voltage switchgear at the location shown on the plans, it shall be right-clad, dead front, free standing, safety type construction and shall have copper busbars of sufficient size, braced to resist allowable root mean square (RMS) symmetrical short circuit stresses, and all necessary accessories. The low-voltage switchgear shall consist of the switchgear housing, secondary melening, main breaker and feeder branch circuit.
- Grounding System. All non-current carrying metallic parts like conduits, cabinets and equipment frames shall be properly grounded in accordance with the Philippine Electrical Code, latest edition.

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

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

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

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

Main and branch circuit breakers for panel boards shall have the rating, capacity and number of poles as shown on the approved Plans. Breakers shall be thermal magnetic type. Multiple breaker shall be of the common trip type having a single operating handle. For 50-ampere breaker or less, it may consist of single-pole breaker permanently assembled at the factory into a multi-pole unit.

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

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

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

). PANEL BOARDS

- 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
- Enclosures: Flush, Surface. Flush- and surface-mounted cabinets.
 - Rated for environmental conditions at installed location.
 - Indoor Dry and Clean Locations. NEMA, Type 1.
 - Outdoor Locations: NEMA, Type 3R
 - il Kitchen and Wash-Down Areas: NEMA, Type 4X, steinless steet

- Indoor Locations Subject to Dust. Falling Dirt. and Dripping Noncorresive Liquids. NEMA. Type 12
- Outdoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA, Type 5R.
- b. Front Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
- Hinged Front Cover: Entire front frim hinged to box end with standard door within hinged trim cover
- d. Skirt for Surface-Mounted Panel boards: Same gauge and finish as panel board front with flanges for attachment to panel board, wall, and deiling or floor
- Gutter Extension and Barrier: Same gage and finish as panel board enclosure; integral with enclosure body. Arrange to isolate individual panel sections.

f. Finishes:

- Panels and Trim: Steel and galvanized steel. (actory finished immediately after cleaning and prefreating with menufacturers standard two-cost, baked-on finish consisting of prime cost and thermosetting lopcost
- ji Back Boxes: Galvanized steel Same finish as panels and trim.
- Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- g. Directory Card: Inside panel board door, mounted in transperent card holder metal frame with transparent protective cover.
- 3 Incoming Mains Location: Top or Bottom
- Phase, Neutral, and Ground Buses.
 - Material: Hard-drawn copper, 96 percent conductivity.
 - Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - c. Neutral Bus: 180 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and Ut. listed as suitable for nonlinear loads.

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

RALPHOREGOR M. MANALO Planning and Programming Division JOCELYN A. NAONGS Planning and Programming Division



Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5™, 6™, 7™ Floors, QC Cwid Center Building 18" Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE LOCATION:

PROPOSED REHABILITATION OF LITEX DAY CARE CENTER BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

I. GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall 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)
 - Mobilization shall include all activities and related costs for transportation of personnet, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J Temporary Facilities and Utilities
 - 1 All facilities shall be near the job site, where necessary and shall conform to the best stendard for the required types.
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

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

IL SITE WORKS

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

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

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

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

O All excevated materials, so far as sultable, shall be utilized as backfill. The surplus materials shall be disposed of in euch manner as not to obstruct the stream or otherwise impair the efficiency or appearance of the structure. No excevated materials shall be deposited at any time so as to endanger the parity finished structure.

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

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

III. CIVIL / STRUCTURAL WORKS

A. METAL FABRICATION

Materials

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

2 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 light, flush joints, dressed smooth and clean. Complete with bolts and nuts.

Metal Surfaces.

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

4 Construction:

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

Welding:

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

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

- 300mm x 300mm Non-Skid Homogeneous Tites including tile adhesive.
- 2 400mm x 400mm Non-Skid Homogeneous Tiles including tile adhesive.
- 50mm concrete Topping with Plain Cement Finish.

B. WALL FINISHES

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

C. PAINTING WORKS

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

4. Paint Schedule

- Exterior Mesonry Wall (plain cament plastered finish to be painted).
 - i 1 cost skim coating, 1 coat primer, 2 coats elastomeric paint finish.
- Interior Masonry Wall (plain cement plastered linish to be painted)
 - i 1 coat skim coating, 1 coat primer, 2 coats latex paint finish.
- d. Interior Dry Wall
 - 1 cost primer, 2 costs latex point finish.
- e. Ceiling Spards
 - 1 coat onmer, 2 coats latex paint finish.
- f. Slab Soffit
 - 1 coat primer, 2 coats latex paint finish.

g. Metal / Steel Surfaces

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

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

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

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

In addition, the Contractor shall undertake the following.

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

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

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

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

B. CEILING FINISHES

6mm thick Fiber Cement Board with complete framing and accessories

C. DOORS & WINDOWS

Follow as per approved plan and specifications.

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- B. Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to submittels, shop drawings, piping, water meters, valves, bibbs, insulation, all accessores required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Soit waste and vent system complete in all respect including but not limited to connection to existing sewer, submittels, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - Storm drainage system complete in all respect including but not limited to connection
 to existing storm drainage, submittels shop drawings, pipes, fittings, valves
 cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plent and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- 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 enrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general neture will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, property packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other

- circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L Any items suffering from damage during manufacture, or in transit, or on site whitst 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
- 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.
- O. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydrauke tests shall be carned out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carned out prior to false ceilings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Senitary Contractor must carry out any additional tests required by the and-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 mln, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontalty. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- VV. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 ps.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA, Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flenges, and streiners, NPS 2-1/2 (DN 65) and targer and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping five and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

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

8. WIRES AND WIRING DEVICES

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

- 5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- 6 All joints, taps and splices on wires larger than 14 mm shall be made of suitable soldeness connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No splices or joints shall be permitted in either feeder or branch conductors except within bullet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved sphoing devices and taped with rubber and PVC tapes in a manner which will make their insulation as that of the conductor.
- 8. All wall switches and receptacles shall be fitted with standard Bakelile face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.
- When more than one switch or device is indicated in a single location, geng plate shall be used.

RALPHOREGOR M. MANALO Planning and Programming Division JOCELYN A. NAONG(

Planning and Programming Division



Republic of the Philippines Ovezon City

CITY ENGINEERING DEPARTMENT

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TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED REHABILITATION OF PUROK 16 YAKAP DAYCARE CENTER LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

I. GENERAL REQUIREMENTS

- a. Comply with the current and existing taws, 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
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in struct accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- Mobilization and Demobilization (if applicable).
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site: establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmankle manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations
 - Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.

- Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed property
- Adequate construction safety and health protection shall be provided at all times during the
 execution of work to both workers and property.
 - A fully trained Medical Aide shell be employed permanently on the site who shell be engaged solety from medical duties.
 - The medical room shall be provided in waterproof: it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site
 - Additional safety precautions shall be provided in the observance of pandemic.
 Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent properly 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 shalf be placed in layers not exceeding to 150mm in thickness and each tayer shall be thoroughly compacted welling, tamping and rolling.

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 therein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before

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

Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, elkaline, organic materials or other substances that may be deleterious to concrete or steel.
- iii Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, dean 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 bers or between reinforcing bars and forms.

d. Proportioning and Mixing

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

Cement : Sand : Gravel

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

e #orms

- i. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ¼' waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and aining shall be started as soon as the surface is sufficiently herd to permit it without further damage.

f Placing Reinforcement:

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

g. Conveying and Placing Concrete:

- 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.
- 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 cursed that have commenced initial set, and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- 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 stabs, 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.

ti Curing

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

i. Finishing

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

B. MASONRY

- Masonry Units (CHB).
 - 100mm thick for all interior walls and 125mm thick for all exterior walls unless otherwise indicated.
 - ii 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 deamed required to assure a stabilized wall due to height & other considerations.

b Sand:

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

Moder:

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

d. Plaster bond:

Apply plaster bond to all walf area

C. THERMAL AND MOISTURE PROTECTION

1. VAPOR BARRIER

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

D. ROOFING WORKS

- a. Corrugated galvanized iron (G.I.) sheets, including plain aluminum sheets for roofing accessories shall be cold-rolled meeting ASTM A-153 and with spelter coating of zinc of not less than 0.381 kg/sq.m. (1.25 ounce/sq.ft.) conforming to ASTM A-525 or pns 67:1985. Unless otherwise specified or shown on Plans, roofing sheets shall be gauge 28 (0.48mm thick) and provided in long span sizes to minimize end laps. Sheets shall weigh not less than 3.74 kg/sq.m. and shall be marked or stamped showing the gauge, size amount of zinc coating, brand and name of merufacturer. Test specimens shall stand being bent through 180 degrees flat on itself without fracture of the base metal and without flaking of the zinc coating.
- b Ridge/hip rolls, valteys flashing and counter flashings, gutters and downspouts, whenever required, shall be fabricated from plain G.I. sheets. Ridge/hip rolls, flashings and counter flashings shall be gauge 26. Valleys, gutters and downspouts shall be gauge 24 unless otherwise specified on Plana. Wire basket strainers shall be galvanized, gauge 24.

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

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

- d Polycarbonate rooting and sunbreakers shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purfins with min. 2 ½" max. 3" long Tek screws. Provide all-purpose sealant under the fasteners. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- e All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 25 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.
- 1 Provide 5mm thick thermal insulation with single-side aluminum foil prior to fastening of roofing sheets to serve as thermal protection.

E. METAL FABRICATION

Materials:

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

b. Fabrication:

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

Metal Surfaces;

Surfaces shall be clean and free from all scale, flake rust and rust pitting: well-formed and finished to shape and size, with sharp lines, engle and smooth surface. Shearing and punching shall teave clean true lines and surfaces. Weld or rivet permanent connections. Weld end 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 toosening.

d. Construction.

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

e Welding

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

IV. ARCHITECTURAL WORKS

A. WALLS AND FLOOR FINISHES.

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

B. CEILING FINISHES

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

C. PAINTING WORKS

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

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:
 - 8.1 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. Workmarship 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 leyout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessones shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakege or structural weakening due to handling adverse weather or other curcumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- E. Any yields 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.
- Cleaning and flushing shall be carned out in sections as the installation becomes completed.
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- O. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false callings 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 fitting 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. Oramage pressure pipe shall be hydrautic tested at minimum pressure 50 ps.
- 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/SE17.
- 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 end supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME 631.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having junisdiction, 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 Stendards and Codes.
- D Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withetand 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.
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - Outdoor Locations: NEMA 250, Type 3R.
 - Kitchen and Weeh-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 Failing 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 frim 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 Berrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
- F.2.6 Finishes
 - Panets and Thm: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on firmsh consisting of prime coat and thermosetting topocal
 - ii. Back Boxes. Galvanized steel Same finish as panels and trim
 - Fungus Proofing Permanent fungicidal treatment for overcurrent protective devices and other components.
- F 2.7 Directory Card Inside panetboard 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 rightness loads.

Prepared by:

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Planning & Programming Division

Checked by:

Planning & Programming Division

JOÇELYNIA, NAONGK



Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5TH, 6TH, 7TH Floors, QC Civic Center Building "B" Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE : LOCATION :

PROPOSED REHABILITATION OF SOLIVEN DAY CARE CENTER BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

I. GENERAL REQUIREMENTS

- A Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall 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 inedvertence.
- F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities essembled on the site specifically for this confract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmantike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations

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

II. SITE WORKS

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

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

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

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

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

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

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

III. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORKS

- Delivery, Storage, and Handking: 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 detivered and stored in original peckages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- 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 solting items not placed in the forms. Before
 concrete is placed, embedded items shall have been inspected and tested for concrete
 aggregates and other materials shall have been done.

3. Materials

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

size of aggregates shall be larger (han one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars and forms.

4. Preportioning and Mixing

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

Cement: Sand, Gravet Class "A" - 1, 2, 3 Class "B" - 1; 2; 4 Class "C" - 1; 2 ½

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

5. Forms

- 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 caying from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortal from the concrete. Forms shall be X1 (6mm) thick ordinary plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material.
- c. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

6 Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary tie wires, chairs, spacers, supports and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil, grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrate. 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.

Conveying and Placing Concrete:

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

layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.

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

8. Curing

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

9. Finishing

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

B. MASONRY WORKS

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

Sand.

S-1, washed, clean and greenish in color

3 Mortar:

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

4. Reinforcement

The concrete hollow blocks shall be reinforced with 10mm diameter deformed bar, spaced not more than 0 3m on centers, both ways

Plaster bond:

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

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

C. METAL FABRICATION

1. Materials

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

Fabrication:

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

Metal Surfaces.

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

Construction

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

Welding:

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

IV. ARCHITECTURAL WORKS

A. FLOOR FINISHES

- 300mm x 300mm Non-Skid Homogeneous Tiles including tile adhesive
- 2 400mm x 400mm Non-Skid Homogeneous Tiles including tile adhesive
- 3. 50mm concrete Topping with Plain Cement Finish

B. WALL FINISHES

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

C. PAINTING WORKS

- Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology.
- Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.
- 3 Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into putty consistency, with oil-based primers and paints to fill minor surface dents and imperfections.
- 4 Paint Schedule
 - Exterior Masomy Wall (plain cement plastered finish to be painted)
 - 1 coet skim coating, 1 coat primer, 2 coats elastomeric paint firests
 - Interior Masonry Wall (plain cement plastered finish to be painted)
 - 1 coat skim coating, 1 coat primer, 2 coats latex paint finish.
 - d. Intenor Dry Wall
 - 1 cost primer, 2 costs latex paint finish.
 - Ceiling Boards
 - 1 cost primer, 2 coats latex paint finish
 - f Slab Soff4
 - i. 1 cost primer. 2 costs latex paint finish
 - g. Metal / Steel Surfaces
 - 1 coat pomer, 2 coats epoxy enamet (mish)
- 5. Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be frand-sanded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be sealed with natural wood filler. Nair holes, cracks or defects shall be carefully puttied after the first coat, matching the color of paint.

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

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

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

In addition, the Contractor shall undertake the following

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

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

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

- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, акциинци, glass, finishes and other works.
- iv All applications and methods used shall strictly follow the Manufacturer's instructions and Specifications.
- All surfeces including meaonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer
- vi. All exposed finish hardware, lighting fodures 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.
- vii. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

D. DOORS & WINDOWS

Follow as per approved plan and specifications

E. FABRICATED MATERIALS

Follow as per approved plan and specifications

V. SANITARY / PLUMBING WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to submittats, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - Soil waste and vent system complete in all respect viduoing but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - 4. Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, piges, 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 Instell equipment in strict eccordance 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 shell accertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified to detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- Any stems suffering from damage during manufacture, or in transit, or on site whitst in storage or during erection shall be rejected and replaced without extra cost.
- M. All senitary fittings and pipework shall be deaned after installation and keep them in a new condition.

- N All installed pipelines shall be flushed through with water, codded when necessary to ensure clearance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactority within the requirements of this Specification and local regulations.
- Q. The Confractor 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 Sanitery 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 mm, 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/SE) 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
- Install leteral bracing with pipe hangers and supports to prevent swaying.
- AA. Instell building attachments within concrete stabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; faster 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. CONDUITS, BOXES AND FITTINGS.

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

B. WIRES AND WIRING DEVICES

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

- 5 All wires of 14mm and larger in size shall be connected to panels and appearatus by means of approved type tugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- 6. All younts, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber and PVC tapes in a manner which will make their insulation as that of the conductor.
- 8 All well switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in well locations shall be gasketed.
- 9 When more than one switch or device is indicated in a single tocation, gang plate shall be used.

RALPHOREGOR M. MANALO
Planning and Programming Division

JOCECYN ANNAONG Planning and Programming Division



Republic of the Philippines Onexon City

CITY ENGINEERING DEPARTMENT



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TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED REHABILITATION OF UNIT IV DAYCARE CENTER / LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY /

4. GENERAL REQUIREMENTS

- Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and stendards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- 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.
- 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 instellations shall meet or exceed minimum requirements of the standards and codes.
- h. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site, establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for frensportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- j. Temporary Fecilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types

- Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, reilings and proper signages.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed properly
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical 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 tocation 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.
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents?
- 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 lamping and rolling.

MI. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORK

- a. Delivery, Storage, and Hendling. 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.

Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).
- ii Weter 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 stee.
- iji Fine aggregates shall be beach or river sand conforming to ASTM 033, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from self, 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 founds (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

d. Proportioning and Mixing.

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

Cement . Sand : Gravel

- Class "A" 1:2.3
- Class '8' 1 : 2 : 4
- Class *C" 1 : 2 ½
- Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shell be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

e. Forms

- General Forms shall be used 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 rigidity in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be waterproof plywood and form lumber.
- ii Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of morter, the grout or other foreign material.
- iii Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to 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.

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 toss 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.
- iii. 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 centimaters in death 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 80 complete revolution of the machine mixer.
- iv Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand speding and tamping and vibrators shall not be used.
- 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 stabs, where the congestion of steel near the forms makes placing difficult a layer of montar of the same coment-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.

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 grounded to a smooth surface to remove all joint marks of the form works.
- Concrete Stabs on Fill. The concrete stabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

B. MASONRY

Masonry Units (CHB);
 180mm thick for all interior walls and 125mm thick for all extenor walls unless
otherwise indicated.

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

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 & linitel beams as specified in the structural drawings of as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b. Sand:

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

c. Mortar:

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

d Plaster bond:

Apply plaster band to all wall area

C. METAL WORK

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.

- 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.
- 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)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bolts.
- 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 angaged 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:

- 1 STEEL AND IRON: If not specified otherwise, use standard milifinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- 2. BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- 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, thetalwork 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 botts and nuts.

i. Measurements

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

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.

I. Shop Fabrication

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

η. 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, anthorage, and installation with relation to the construction.

n. Qualification of Welders

In accordance with AWS D1.1 with procedures, materials and equipment of the type required for the work.

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.

p. 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.

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 shell be secured to the puriors with min 2 1/3′ max. 3′ long Tek screws. Ridge rolls, hip rolls and velleys 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 velleys 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 ½" max 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveled to the roofing sheets.
- c. All roofing sheets adjacent to concrete hollow block and other masonry walts such as properly line firewalts, shall be provided with Gauge 25 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 comugations of the roofing sheets to prevent water from standing around the fasteners.

E. WATERPROOFING

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.

F. Testing:

Test waterproofed area by sevenly-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.

ARCHITECTURAL WORKS IV.

A. WALLS AND FLOOR FINISHES

- 300mm x 300mm Unglazed Ceramic Tiles including tile adhesive
- 50mm Concrete Topping for Tiles
- c. 300mm x 300mm Ceramic Wall Tites

B. CEILING FINISHES

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

C DOORS & WINDOWS

a. Follow as per approved plan and specifications.

D. PAINTING WORKS

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

SANITARY / PLUMBING WORKS ٧.

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authornies 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. Alt equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- € Install equipment in strict accordance with manufacturers written recommendations.
- Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor propages to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and menufacturer'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 shell be flushed through with water, redded 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.
- The Senitery 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 hydrautic tested at minimum pressure 50 ps.
- X Hangers and supports for plumbing piping and equipment shall with-stand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expension joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete 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 ptaced, 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 workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the instals 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.
 - Indeor Dry and Clean Locations. NEMA 250, Type 1.
 - Outdoor Locations NEMA 250, Type 3R.
 - Kitchen and Wash-Down Areas. NEMA 250, Type 4X, stainless steel.
 - W Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt, and Dripping.
 Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F 2.2 Front: Secured to box with 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, well, and ceiling or floor.
 - F 2.5 Gutter Extension and Barrier. Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections

F 2.6 Finishes:

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

VERGEL JEROME A. MAPILI
Planning and Programming Division

JOCETTN & NAONGS
Planning and Programming Division



Republic of the Virlippines Quezon City

CITY ENGINEERING DEPARTMENT



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TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE : PROPOSED REHABILITATION OF UNIT V DAYCARE.CENTER / LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

I. GENERAL REQUIREMENTS

- a. Comply with the current and existing taws, 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 existing therefrom.
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or 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.
- Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not enymore 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, substential, workmenlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types

- ii. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- til Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shell be provided within the construction site with adequate guard lights, raisings and proper signages.
- 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.
 - 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.
 - Additional safety precautions shall be provided in the observance of pandemic.
 Protocols set-forth by the government shall be strictly followed:
- Necessary profections 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, tines, 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. Detvery, 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 detivered 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 hereal, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

c. Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- iii. 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 deletenous to concrete or steet.
- iii Fine aggregates shall be beach or over sand conforming to ASTM C33, 'Specification for Concrete Aggregates', Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.
- 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 targer than three fourths (3/4) of the minimum clear specing between reinforcing bars or between reinforcing bars and forms

d Proportioning and Mixing.

Proportioning and mixing of concrete shall conform to the requirements for 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 1/9
- Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cament has been added to the aggregates

e Forms

- i General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be Williamshall be 10.
- ii. Cleaning of Forms before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of morter, the grout or other foreign material
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement property. All reinforcement, when placed, shall be tree 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.
- iii. Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the meterial 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 50 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 hend speding and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hend speding and tamping and vibrators shall not be used.
- 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 tayer of morter of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

h. Curing

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

i Finjshing

- 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 cament mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii Concrete Stabs on Fill. The concrete stabs on fill shall be laid on a prepared foundation consisting of sub grede and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

B. MASONRY

a. Masonry Units (CHB):

100mm thick for all interior walls and 125mm thick for all exterior walls unless otherwise indicated.

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

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:

\$-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. Pfaster bond.

Apply plaster bond to all wall area.

C. METAL WORK

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.

- 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.
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2 068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (Togovern if in conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bolts
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual, Vol. 2; Systems and Specifications

a. 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. Matenals

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

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

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.

I. Shop Fabrication

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

m. Submittals

Shop Orawings. 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. Qualification of Weiders

In accordance with AWS D1.1 with procedures, materials and equipment of the type required for the work.

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.

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 lastallation.

q. Metal Purlins

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

IV. ARCHITECTURAL WORKS

A. CEILING FINISHES

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

B DOORS & WINDOWS

Follow as per approved plan and specifications.

C. PAINTING WORKS

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

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.
 - 8.2 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.
 - 8.3 Soil waste and very 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, submittels, 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.
- M. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature with 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 stems 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.
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- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debria
- 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 wribstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be retested at the appropriate test pressure.
- 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 feakage 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 pail
- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7
- Y Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaving.
- AA. Install building attachments within concrete stabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flenges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is pleced; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping five and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC.Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

- A. 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).
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- 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

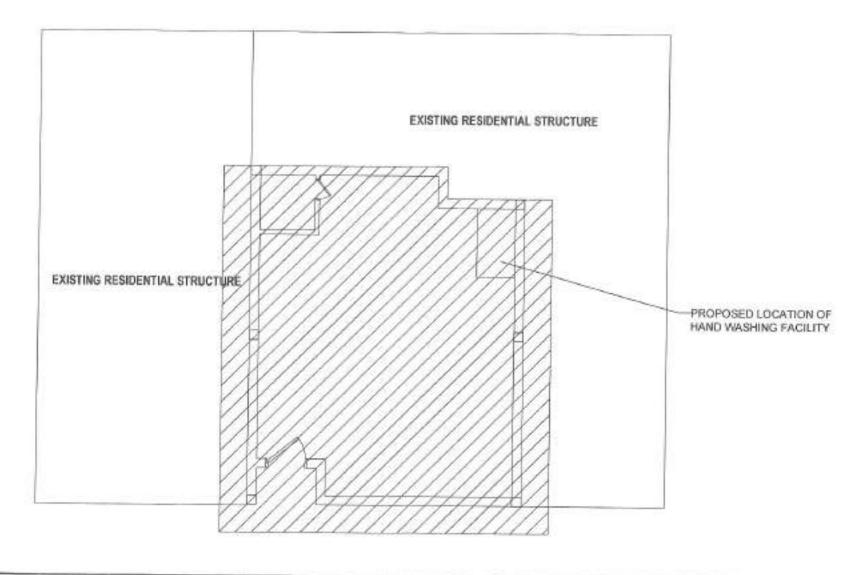
- F.1 Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Saismic controls for Electrical Systems" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - F.2.1 Rated for environmental conditions at installed location.
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - ii. Outdoor Locations: NEMA 250, Type 3R
 - ni, Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless, steel
 - Offiner Wet or Damp Indoor Locations. NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt, and Dripping.
 Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front. Secured to box with concealed Inmiclamps. 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, well, and ceiling or floor
 - F 2.5 Gutter Extension and Barrier Same gage and firmsh as panelboard enclosure: integral with enclosure body. Arrange to isolate individual panel sections.
 - F.2.6 Finishes
 - i Panets 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
 - Back Boxes. Galvanized steel Same finish as panels and trim.
 - Fungus Proofing Permanent fungicidal treatment for overcurrent protective devices and other components.
 - F.2.7 Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.
 - F.3 Incoming Mains Location Top or Sottom.
 - 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.

VERGEL JEROMA A. MAPILI Planning and Programming Civision JOCELÝN A NAONG Planning entlærogramming 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.]



SITE DEVELOPMENT PLAN

SCALE: NES

SHEET NO.

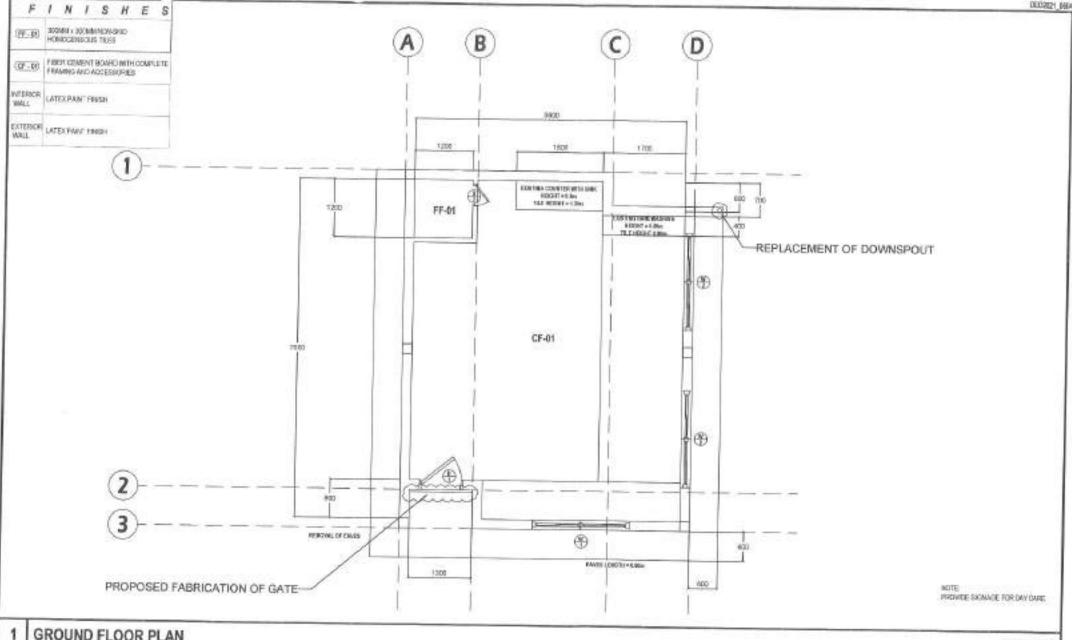
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Republika ng Pilipinas Lungsod ng Quezos CITY ENGINEERING DEPARTMENT

	PROJECT TITLE:	CHARLES THE	SUMMITTED BY:	RECOMMENDING APPROVAL:	APPROAED BY:	SHEET CONTENT
1	PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION	OVE	() ^^	79 <u>2</u> 10		
	OF DON FABIAN DAY CARE CENTER /	CREATE IN: MA	700			STIE DEVELOPMENT PLAN
	ODATON: BARWANGAY COMMONWITALTH, DISTRICT & QUEZON CITY /	REVOCENCE.	ENGR. LEO S. DEL ROSARIO	ENGR. HAGANI R. VERZOSA , JR.	HON, MA, JOSEFINA G. BELMONTE	1.70-96





GROUND FLOOR PLAN

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SHOTT NO.

Republika ng Pilipinas Lungsod og Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF DON FABIAN DAY CARE CENTER / BARANCAY COMMONWEALTH, DISTRICT & QUEZON CITY AND COME

100m try 1889 SUBINITIED BY: ORDERE JAY ENGR. LEG/S. DEL ROSARIO

ENGR. ISAGAM R. VERZOSA , JR.

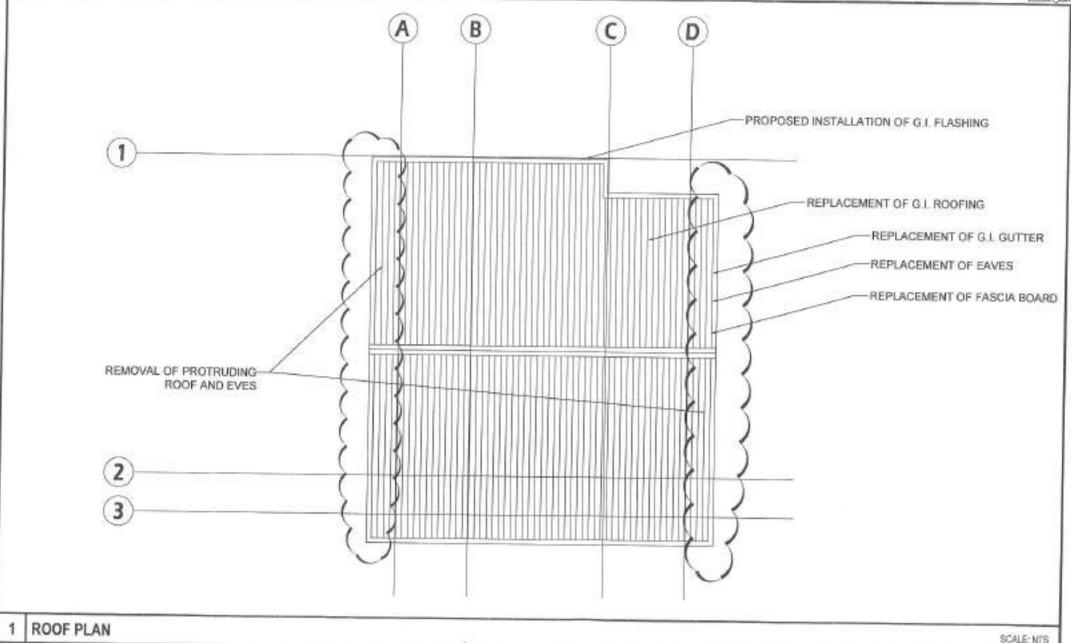
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GROUND FLOOR PLAN HON, MA JOSEFINA G. BELMONTE. division

APPROVED BY

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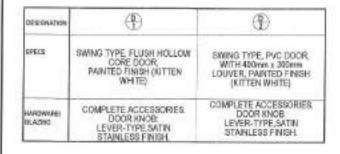
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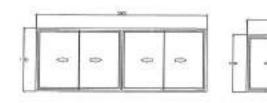


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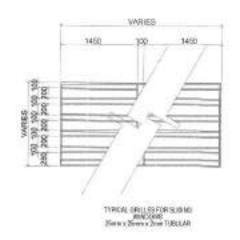








DESIGNATION	●	❤
BPECS	SLIDING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES	SLIDING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES
ULADNO	PROVIDE WITH COMPLETE ACCESSORIES AND GRILLES	PROVIDE WITH COMPLETE ACCESSORIES AND GRILLES



SCHEDULE OF DOORS AND WINDOWS

SCALE: NTS

SHEET MO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE:
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF DON FABIAN DAY CARE CENTER
USA CONTRACTOR OF THE PROPERTY

SUBMITTED BY: OFFICE SET ENGR. LEG'S, DEL ROSANON BARRANGA'S COMMONASALTH, DISTRICT 1, QUEZON CITY ARVINGING 10 and supplied a community of

1 11
CANFR. VERZOSA , JR.

SECOMMENDING APPROVAL

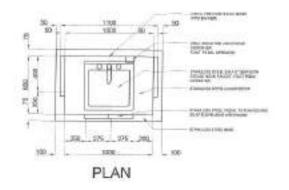
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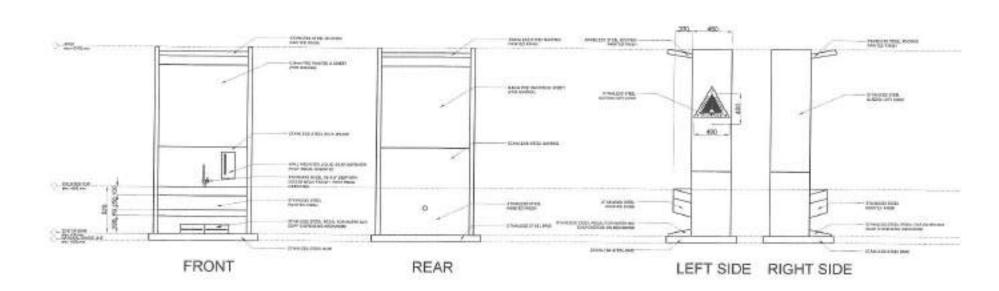
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AND WINDOWS	5 1

SHEET CONTENT



1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

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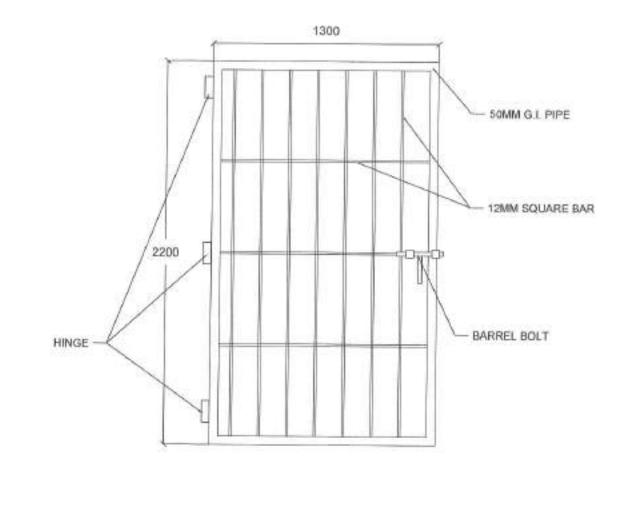
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BARANCAY COMMONWEALTH, DISTRICT 1, QUEZON CITY	PENERON BO :	HER COMME ! PORTANT DIVING	RESTORAGEN STATISH	HON, MA JOSEFINA G. BELMONTE		0 13





GENERAL NOTES

GATE DETAILS

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Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF DON FABIAN DAY CARE CENTER

BARANGAY COMMONWEALTH, DISTRICT 2: QUILZON CITY

DEDGE AND LINE ENGR. LEG S. DEL ROSARIO-HERE, YLARING & PRODUMENCOMODIS MINISTRU .:

SUBMITTED BY:

CONNECTE MAN

ENGR. ISAGAR R. VERZOSA , JR. OC OT DESIGNATING HENDRAL

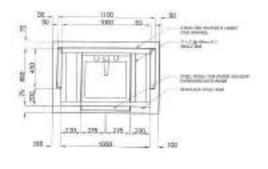
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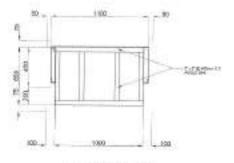
APPROVED BY:

ST-1 GENERAL NOTES BATE DETAILS

SHEET COMPENY



PLAN



ROOF PLAN

1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

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Republika ng Pilipinas.
Langsoding Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING OF A AND THE AND FACILITY AND REHABILITATION OF DON FABILIAN DAY CARE CENTER

DAY CARE CENTER

BARANGKY COMMOMNER, TH, DISTRICT 2 QUEDON CITY

ENGR. LEG S. DEL ROSARIO

ENGR. ISAGINA'R, VERZOSA, JR.

RECOMMENDING APPROVAL

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HAND WASHING
STALL PLAN
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THE ALL SECRETAR
HON, MA, JOSEFINA G, BELMONTE

CETY MATERIA

SPIRE SHE PORTABLE HAND WASHING STALL PLAN LIGHTONS THREAT SECTIONS 8 13

SHEETIND.

- 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 whom applicable.
- 2 The plumbing layout is only diagrammatic; pipes, cleanouts and check volves shall be concealed as much as possible. It is not intended to show the actual dimension of the pipes and finitures in the drawing but all the pipes and finitures 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.
- 5 Minimum slope for borizontal 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 features to pipes and fittings shall be according to manufacturer's specifications.
- 8 All floor strains shall be vented individually.
- 9 All clean out fem,les shell be flush-mounted to wall and shall be provided with polished opver cape. Do not install floor clean outs except at lines on grade and sevice arrest not subject to traffic.
- 10 All underground G.I. pipes in direct contact with esil shall be provided with two (2) costs of protective far covering and wrapped with jute cloth thoroughly scaled in far or asphalt.
- Provide varit stack and verit place thru roof of cast iron service weight as required.
- 12 All test iron pipes shall be of approved quality and Q.I. pipes for water distribution lines shall be Schedule 40 U.S. standard weight.
- 13 Provide gate valves to all water supply lines to fedures.
- 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
- 18 All hase bibbs shall be 19 mm (8 (3/4" (8)) unless otherwise indicated.
- 17 Inlet pipe of septic tank is 50 mm higher than the sighon 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 duty idensed. Master Plumber or Registered Sakitary Engineer. Any discrepancies found in plan shall be notified to the same person.

		LEGEND

FD RD	FLOOR DRAIN ROOF DRAIN
SHO	SHOWER
WG	WATER CLOSET LAVATORY
URI	URINAL
KS	KITCHEN SINK
BD	BUILDING DRAIN
00	DECK DRAIN
000	GEILING GLEANOUT
FCO	FLOOR/GROUND CLEANOU
DB	DOWNSPOUT
mm	millimeter
ø	mm DIAMETER
BHD	SHOWER DRAIN
CB	CATCH BASIN
MH	MANHOLE
->-	DIRECTION OF FLOW
6	GREASE TRAP

	UMON PATENT
	CHECK WALVE
84	BUILDING SEWER
NG.	BUILDING DRAIN
91	WASTELINE
ACCOR	AREA DRAIN / CATCH BASIN
90	FLOOR DRAIN
186	DIAMETER
	WASTELINE
-	WATERLINE
	GACTE VALVE
00	DECK DRAIN
.00	CLEANOUT
	PPEDOWN
	PPEUP
79%	MILDINETER.
dV	GATEVALVE
. <u>D</u>	AREA DRAIN F CATCH BASIN
NU	MATER CLOSET
186	LAVATORY.
Mile	WAMHOLE
48	HOSE BISB
-	STORM DRAINLINE
-	VEST LINE
WE	VENT ABOVE CEILING
0917909	CONCRETE PIPE / RENF. CONC. PIPE
VIN	VENTTHRU ROOF
0-	DIRECTION OF FLOW / SLOPE

1 GENERAL NOTES

2 LEGENDS

SCALE NTS

SHEET NO.



Republica ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF DON FABIAN DAY CARE CENTER

BARANGAY COMMONNEALTH, DISTRICT II, QUEZON CITY

98000 W:

BOWN IN COME CO. SUBMITTED BY:

REVENUE NO.

ENGR, LEO S. DEL ROSARIÓ

ENGR. ISAGAMER, VERZOSA , JR.

RECONNENDING APPROVAL:

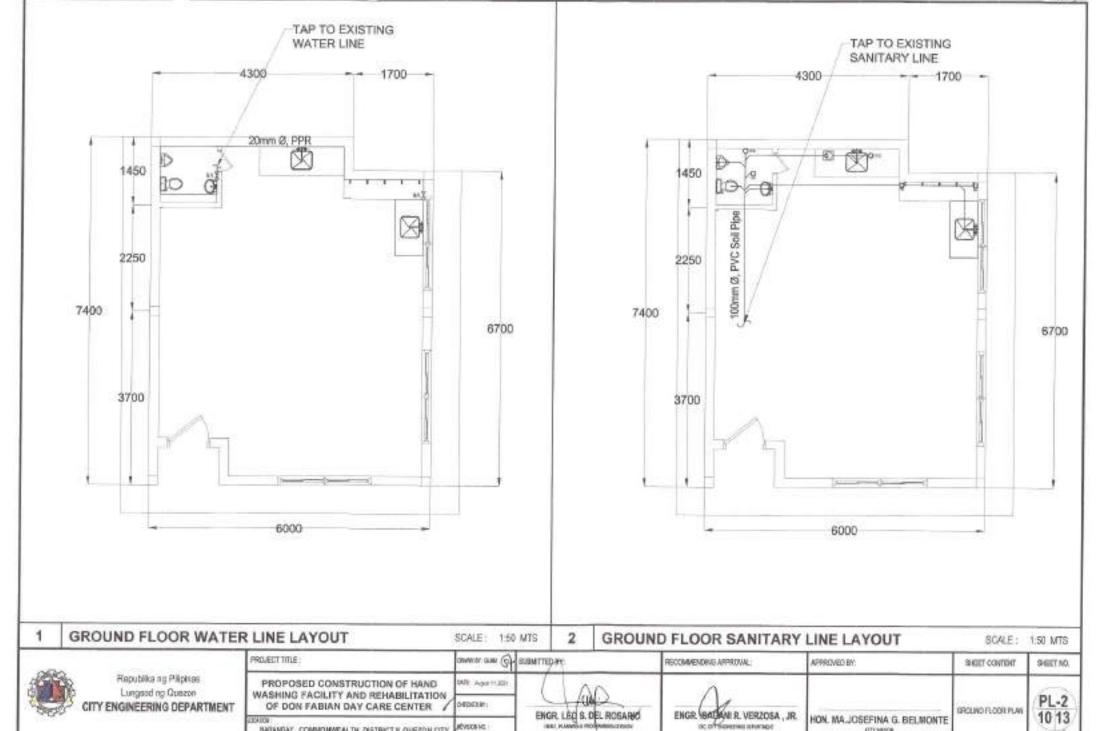
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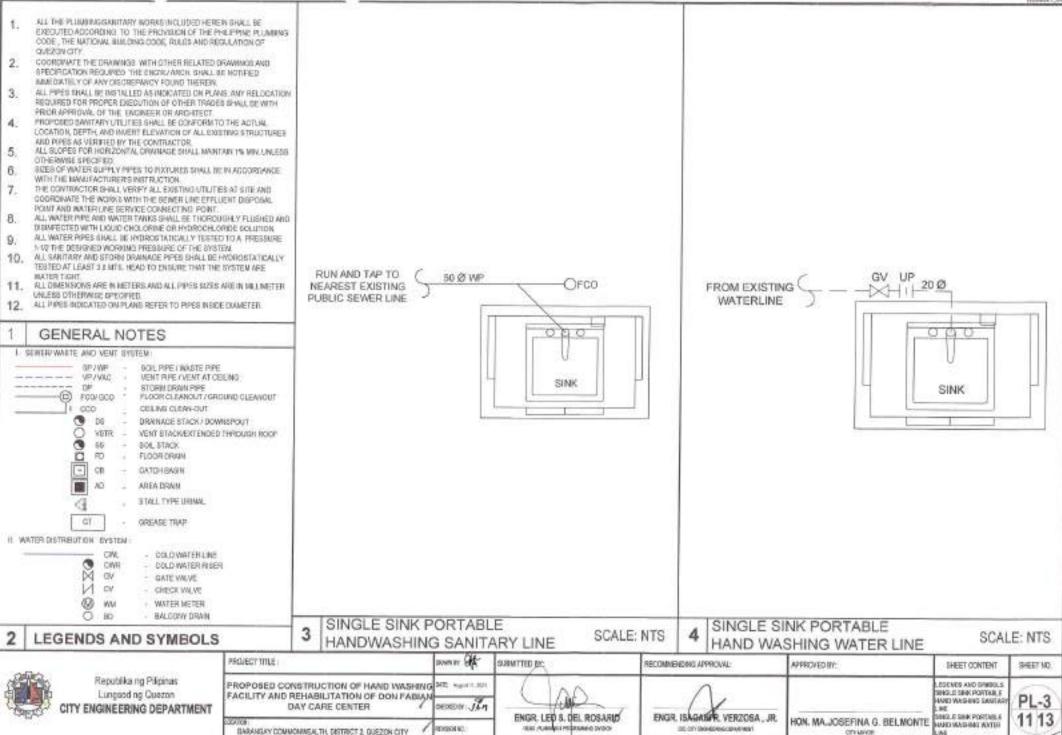
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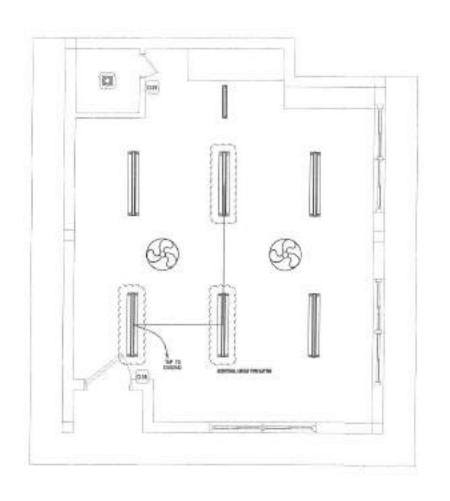
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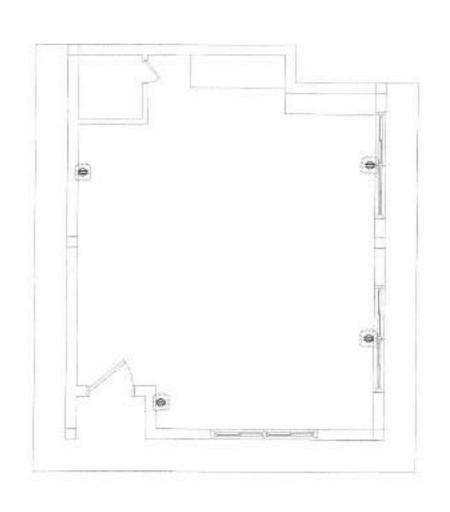
CONTRACTOR



BARAMBAY COMMONWEALTH, DISTRICT II, QUEZON CITY







APPROVED BY:

LIGHTING LAYOUT

SCALE: 1:50 MTS

POWER LAYOUT

SCALE: 1:50 MTS

SHEET CONTENT

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: STANTEDEN PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION, OF DON FABIAN DAY CARE CENTER

DEDECT AND ENGR. LEOS. DEL ROSARIO BARAN SAY COMMONWEALTH, DISTRICT 2, QUILDIN CITY 1918(8 to).

ENGR. ISAGAÑI R. VERZOSA , JR. OCUT MENDROGONATION

RECOMMENDING APPROVAL

TUDNES DANGELL PONES DANGET HON, MAJOSEFINA G. BELMONTE

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SHEET NO.

- 1. ALL CLEOTRICAL WORKS SHALL DE DONE IN ACCORDANCE WITH THE PROTEINING OF THE LATEST HORIZON OF THE PHILIPPINE ELECTRICAL CODE. THE LAWS AND DECEMBER OF THE LOCAL CODE EXPOSED AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL FOWER AND TO EFFORE. LITELITY COMPANY
- 3. THE CONTRACTOR SHALL BECURE ALL PERIODS AND RAY ALL PERIODS FOR THE WORK AND SHALL PURIOS THE OWNER THROUGH THE ENGINEERS, TWAL SEXTENSATES OF BLECTRICA, INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF
- 8. ALL EMPEDDED STRANCH CATCLISTS SHALL BE THIS GONDLISS AND FOR DAYORD INSTALLATION SHALL BE INCOMPRISED BY CONDUST CLAMPS. WHITE THE MILESTERS
- 4 PRIL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WILDSHIPS RICCESSARY TO PACILITY TO WISS RULL BIG EXCUSE THESE ARE NOT RESCRIPTION THE PLANE. SCHOOL FALL PALL BOXES SHALL BE COMPUTED WARRS ON THE CODE RECEIPERSHITS DURANT SHOP DRAWINGS TO THE ENGREEN FOR APPROVAL PROFETO PARTICIATION, LECKTION OF PULL BOXED SHALL BE APPROVED BY THE MISH FED TEMORISE AND MUST DE REFLECTED ON THE WAS BUILT FLAM.
- 8. ALL POWER DEDLETS WAS ENITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLOTS FOR 250 V.
- 8. PROVIDE BROKES FAULT OF RRENT BITERROPTUR CHICLET BEBANDER FOR LORDS SARROED TOPOTON THE PLAN.
- 7. ALL METALLIC COMPLIES CARRIETS AND ECHINARIEST GRALL BE PROFESS Y CROCKNOCK AND SCHOOLS
- 8. UNLOSS OTHERWASE NOTED, MOUNTING HE SAIT FOR WALL MOUNTED DEVICES SHALL BE AS POLICIANS.

MICCEPTACLE OUTLET - 100 HM AFT - 15888 ABOVE MERBANDETLINTER TELEPHONE OUT; ET - 3050MA APP CATS OUTSITE - MIN SAV APP LIGHTING BATTLE - TORONG AFF PANELSCARD - 1808 MW AFF

- 8. REPER TO MECHANICAL, PURISHED ARP FIRE PROTECTION DESCRIBED FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL. DEQUENCES AS EFFCHILD AND OR SHOWN UNDER THEIR REPRECTIVE RECTERS.
- 53. ALL MATERIALS TO BE LIBED SHALL HE OF THE BEST QUALITY. BRIMS MEW AS SPECIFIED.
- 11. THE DEMANDS AND SPECIFICATIONS ARE INTEREST TO PRESENT GENERAL LAYOUT AND ERCOCOUNT, MEDICACHETESI OF THE PROJECT BUT DO NOT INTERSOARLY REDCATEMENT ACTUAL LOCATIONS, LEVEL AND DISTANCES OF THE EQUIPMENT, THE CONTRACTOR IS HERESY REQUIRED TO HAVE EXCH ADJUSTMENT AT THE JOBSTIE AS LOCATION, DEFINICES AND LEVELS AND DEVENINGS BY ACTUAL PIEUS CONDITIONS.
- 12. Any displayment setment this plant and specifications shall be pholight to the attourion of the Elithbeat for Clarification.
- 13. ALL LIGHTAD AND CONVENIENCE CUTLET CRITICIS SHALL BE SEED, ARE THORUZ COPPER WIFE UNLESS CRITERIASE NOTED INSIGNAL COPPER WIFE UNLESS CRITERIASE NOTED INSIGNAL COPPER. IMPERINAL BESIDG MA COPPER WITE ALL WRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

LINE 1-REG UNE 2 - YELLOW RELITERAL (WHITE GROUND - GREEN

14. BOXES, WAYE, GUTTENS, ENCLOSEIVE BYALL BE VARROCATED FROM STEEL WITH THICKNESS WE FOLLOWS:

MAXIMUM WIDTH OF THE WIDDLY QUITFICE STIFFS.

GA 16 PAINTED WITH METAL PRINTER EPOXY AND TOPODAT UP TO INCLUDING 152-40 MH DOMESTIC AND RESIDENCE THAT DOT COVER AND DO DA 14 PARTED WITH METAL PRIMER ERODY AND TOPODAY DIVER 487 30 MM BUT NOT CHEE TRO UM GA 12 INJUITED WITH METAL PRINSER EPOXY AND TOPODAT

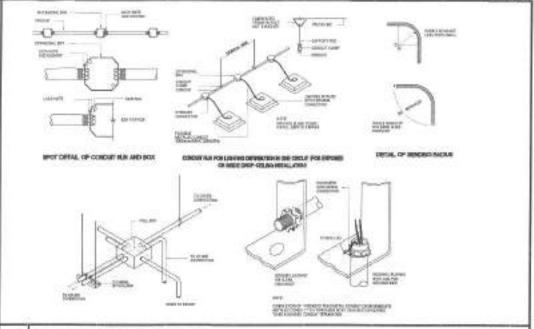
DUES THE HIM

WE ALL ELECTRICAL VACUUS HERCONDOLL, NO EXECUTED BY EXPENSIONED MEN UNDER THE ORIGIN SUPPRIMISION OF A FULL TIME DESIRED. STEPTHICAL EMBRISE PLANCK DOLY ACCREDITED SURCHERAL CONTRACTOR BY MORE BURILL BE HEATLY PLACED RECURRILY PARTERED AND PROPERLY

BA 18 PARTED WITH METAL PRINSE BROKY AND TOPODAT

DIVISION

- IN TYPE OF RESPONDE ESTRUCIO DELLO SE MISSO PRIADE, TWO WIND IN LIGITARY, BO HOST Z 200 AC ADMINAL
- IF. CONDUCTE BLAD CARE SHALL THERE BE MORE THAN THE EQUILABLE OF FOUR CLAMMER BOXOS IN ANY ONE RUR. ALL CONDUCT SONOS SHALL BE FELD WADE BY VISING 4 YER ALLY BENEFITS MANNING BENEVAY RADIUS WHICH SE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- 15. UPON COMPLETION OF ELECTRICAL CONSTRUCTION NORK, INSULATION PROGRAMOR TEST AND FUNCTIONALITY RESPENANCE OF THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED BLOCKING ON ROMAS APPROVED BY THE INJECTION OFF PROMETRICS. DEPARTMENT REPRESENTATIVE. THE GROWND RESISTANCE FOR ELECTRICAL 5YS TEND SHALL NOT BE HIGHE DAWLS CHINE. COMMUNICATION DECURERS RESISTANCE BHALL ROTERCESS FORMS



MISCELLANEOUS DETAILS

NOT TO SCALE

8	SWITCH (FOR REPLACEMENT)
(0)	E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)
-	EXISTING LINEAR SINGLE BATTEN
	EXISTING LINEAR TWIN BATTEN WITH 2X18W LED TUBE LIGHT
	ADDITIONAL LINEAR TWIN BATTEN WITH 2X18W LED TUBE LIGHT
(DUPLEX CONVENIENCE DUTLET (FOR REPLACEMENT)
B	EXISTING CEILING FAN

GENERAL NOTES

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LEGENDS AND SYMBOLS

NOT TO SCALE

SHEET NO.



Republika ng Pilipinas Lungsoding Quezzon CITY ENGINEERING DEPARTMENT

PROJECT TITLE OMINE GEAL SUBMITTED BY: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION. PAT HODOS OF DON FABIAN DAY CARE CENTER TRY LOS REVERSION:

BARANSAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

ENGR. LIBO S. DEL ROSARIO ны повет произветстви

ENGR. ISAGAMAR. VERZOSA, JR. III, IP DESCRIPTION

RECOMMENDING APPROVAL:

APPROVED BY:

HON, MA, JOSEFINA G, BELMONTE

BENERAL NOTES MAKERI EMPERIMENTALI DETAKL LEGENESI AND DOMBOLE 12 13

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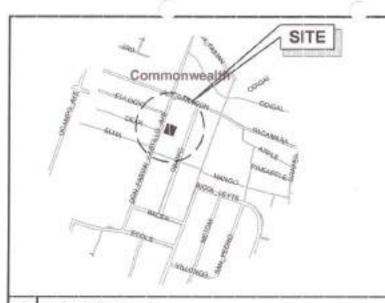




TABLE OF CONTENTS

ARCHITECTURAL DOWNSHIP VORTENDE PORTE ACTHORN AND NOTICE OF A AN ABO3 ABOL を対13.09でき A8-05 PATRICIA SERRIBURGI METERIA. SESTIMBURGO BANAMENTAR ORDINA.

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ELECTRICAL

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LOCATION MAP

VICINITY MAP



MANUEL BOOK

PERSPECTIVE

BUALE: NTS



Republika ng Plipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF F. CASTILLO DAY CARE CENTER

BARWINGAY COMMONVIENLTH, DISTRICT 2, QUEZZIN CITY

DAY IN BOSE ENGR. LED S. DEL ROSARIS на чинистоприменно BROOK:

SUBMITTED BY:

ENGR. ISAGANAPL VERZOSA , JR.

RECOMMENDING APPROVAL-

HON, MAJOSEFINA G. BELMONTE

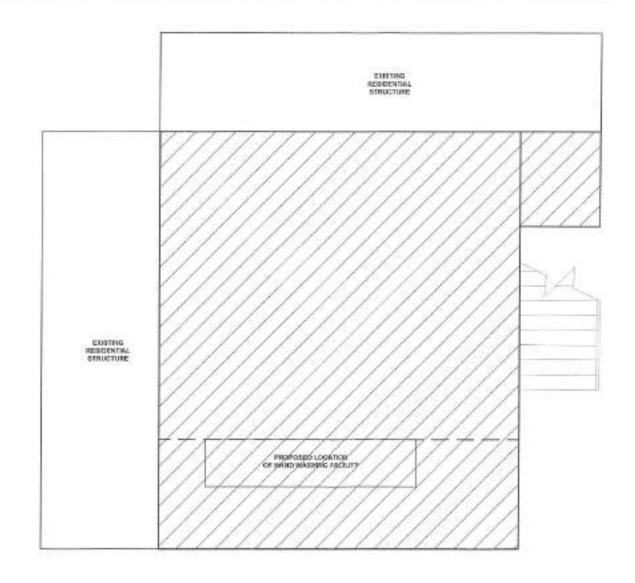
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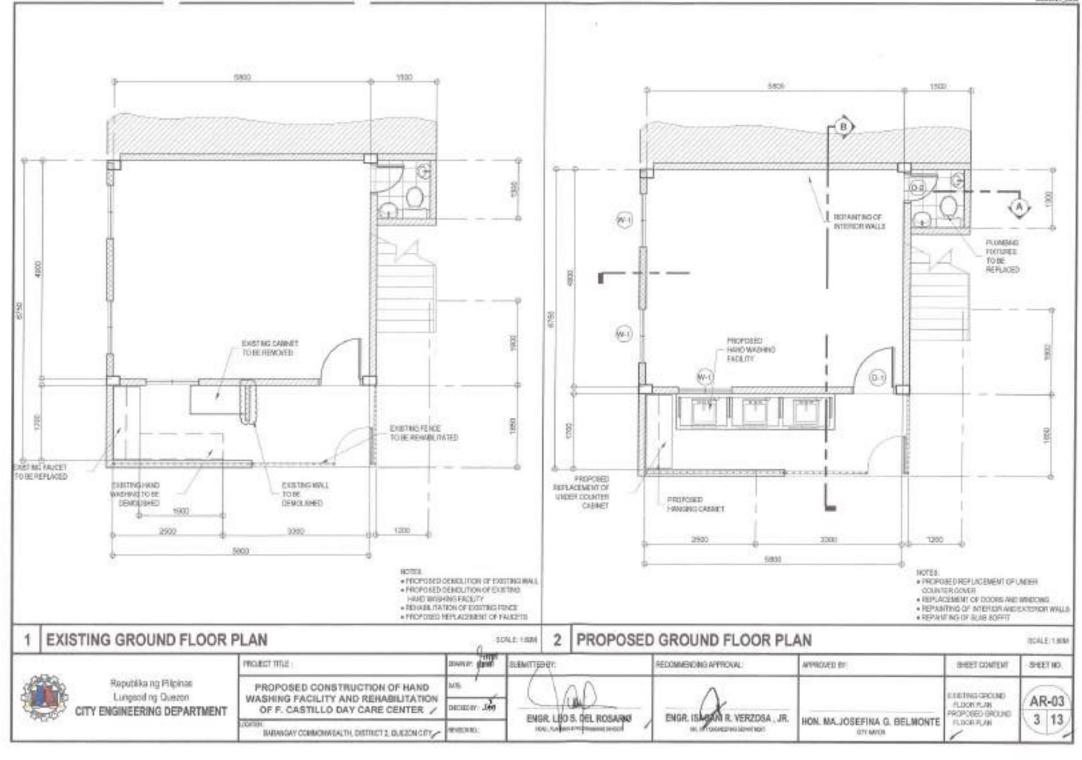
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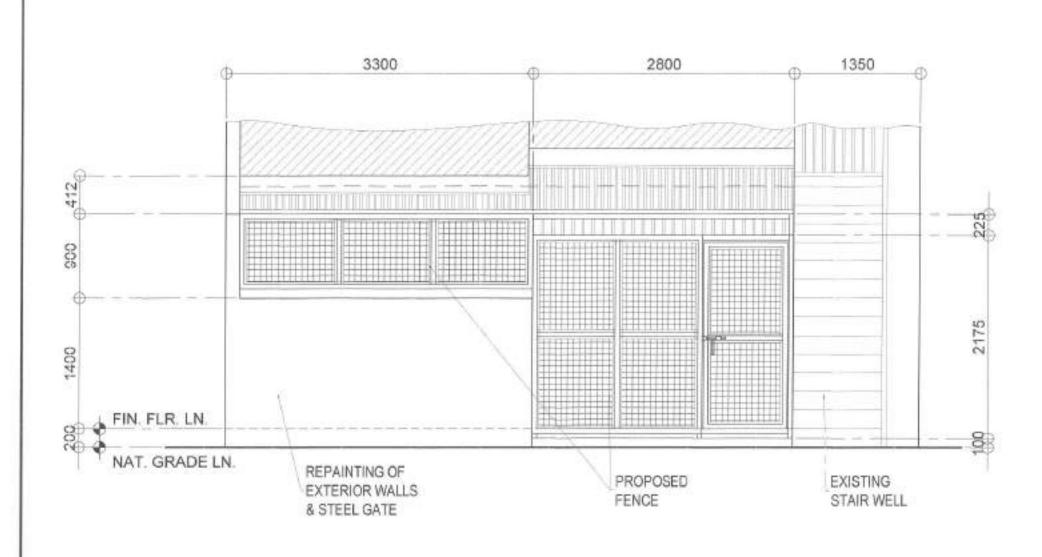
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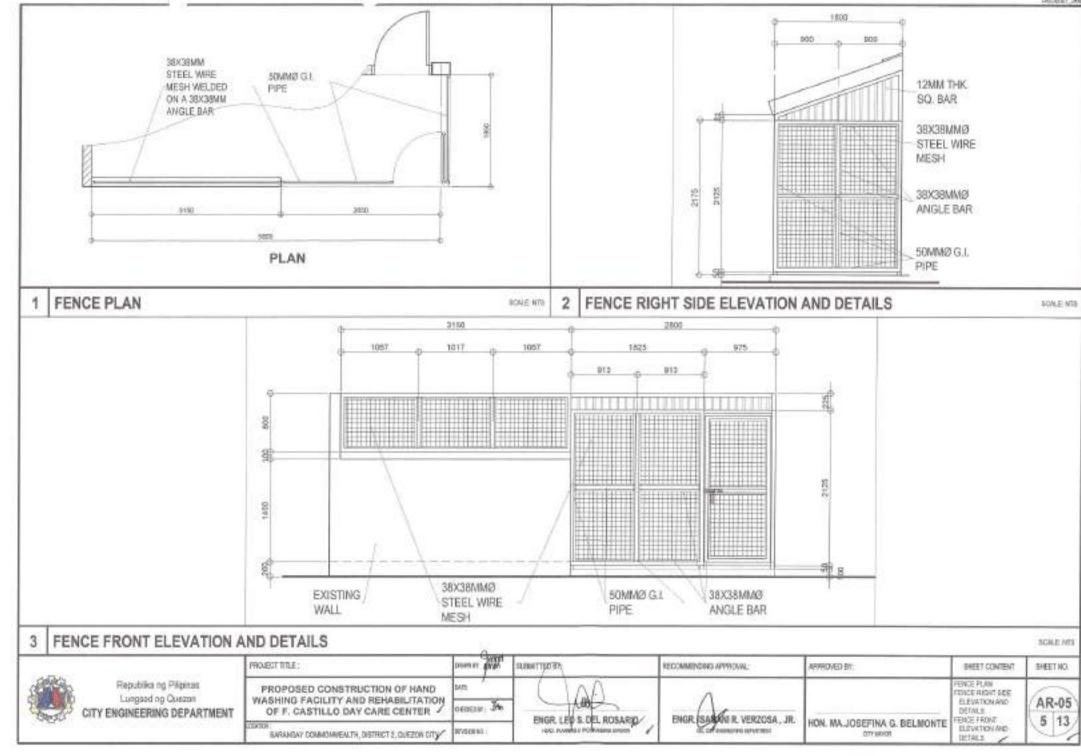


1 3	1 SITE DEVELOPMENT PLAN									SCALE NEW	
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4	Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT	PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND RENABILITATION OF F. CASTILLO DAY CARE CENTER	ME. DEDICO	r.36	- Jag			ATTE DEVELOPMENT PLAN	AR-02		
14000		COUNTRY SANAHGAY CEMBIONAVEAUTH, DISTRICT 2, QUESCIN CITY	R515051	0.:	1		R LED'S DEL ROSANO	ENGR. ISANGANI R. VERZOSA , JR. III: 1945-0402346 IUW/14611	HON. MAJOSEFINA G. BELMONTE	/	2 13

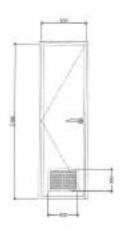




1	EXISTING GROUND FLOOR P	ND FLOOR PLAN								
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	THINGSON ON CHIPZON	PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF F. CASTILLO DAY CARE CENTER !	Decret er	n dh	DUCK	Led S. DEL ROSANNO	ENGR. ISAGANI R. VERZOSA, JR.		EISTING GROUND FLOORPLAN	AR-04
		BARANGAY COMMONWEALTH, DISTRICT 2, GUEZON CITY	SEUSCHINO	S.		Jenni Polyment (1900)	III. AT INCIDENSIA REVENUE	HON, MALJOSEFINA G. BELMONTE.	/	4 13









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	/	/	
	Th/P1 25m	CAL ORILLES FO WINDOWS n x 25mm x 2mm	R BUDING TUBULAR

DESIGNATION	⊕	2
SPECS	SWING TYPE, FLUSH HOLLOW CORE DOOR PAINTED FINISH (KITTEN WHITE)	SWING TYPE, PVC DOOR, WITH 400mm x 300mm LOUVER, PAINTED FINISH (KITTEN WHITE)
HARDWAREI GLAZING	COMPLETE ACCESSORIES. DOOR KNOB. LEVER-TYPE, SATIN. STAINLESS FINISH.	COMPLETE ACCESSORIES. DOOR KNOB: LEVER-TYPE, SATIN STAINLESS FINISH.
NO. OF SETS	1 SET	1 SET

DESIGNATION	₩
SPECS	SLIDING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES
HARDWARE/ GLAZING	PROVIDE WITH COMPLETE ACCESSORIES
NO. OF SETS	3 SETS

1 SCHEDULE OF DOORS AND WINDOW

SCALE WIS



Republika ng Plipinas Lungsod ng Quecon CITY ENGINEERING DEPARTMENT PROJECT TILE

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND REHABILITATION
OF F. CASTILLO DAY CARE CENTER

BIRWAY COMMONICATH, DETRICT 2 GLIZON CITY

ORDERN JAG ENGR. LEG S. DEL ROSARJO - SON ANDRES S PER ROSARJO - SON ANDRES

ENGR. SAGANI R. VERZOSA , JR.

RECOMMENDING APPROVAL

HON. MA.JOSEFINA G. BELMONTE

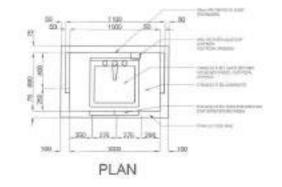
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SCHEDULE OF COORS AND WHOOM

SHEET CONTENT

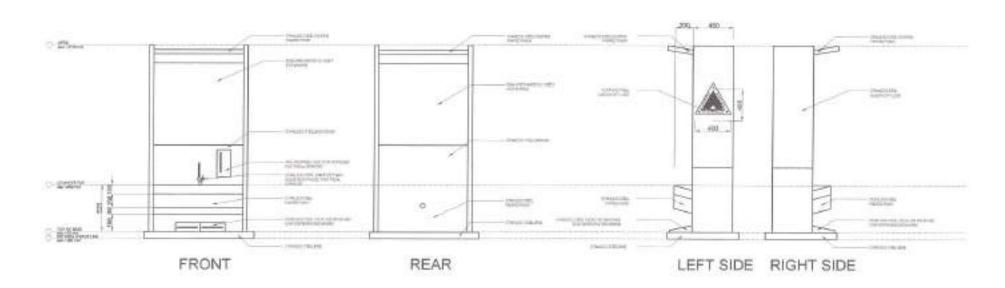
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SHEET NO.



SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: YAOM



DESCRIPTION OF

ME: npick XXII

office access

ELEVATIONS

BOALE 138M

BHEETING



Republika ng Pilipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	Disease 24	
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION,	MR squ	
OF F. CASTILLO DAY CARE CENTER	SESSOR)	
SOTION SAFAMONY COMMONWEALTH, DISTRICT 2, QUEZON CITY	TENSION NO.	



ERZOSA, JR.

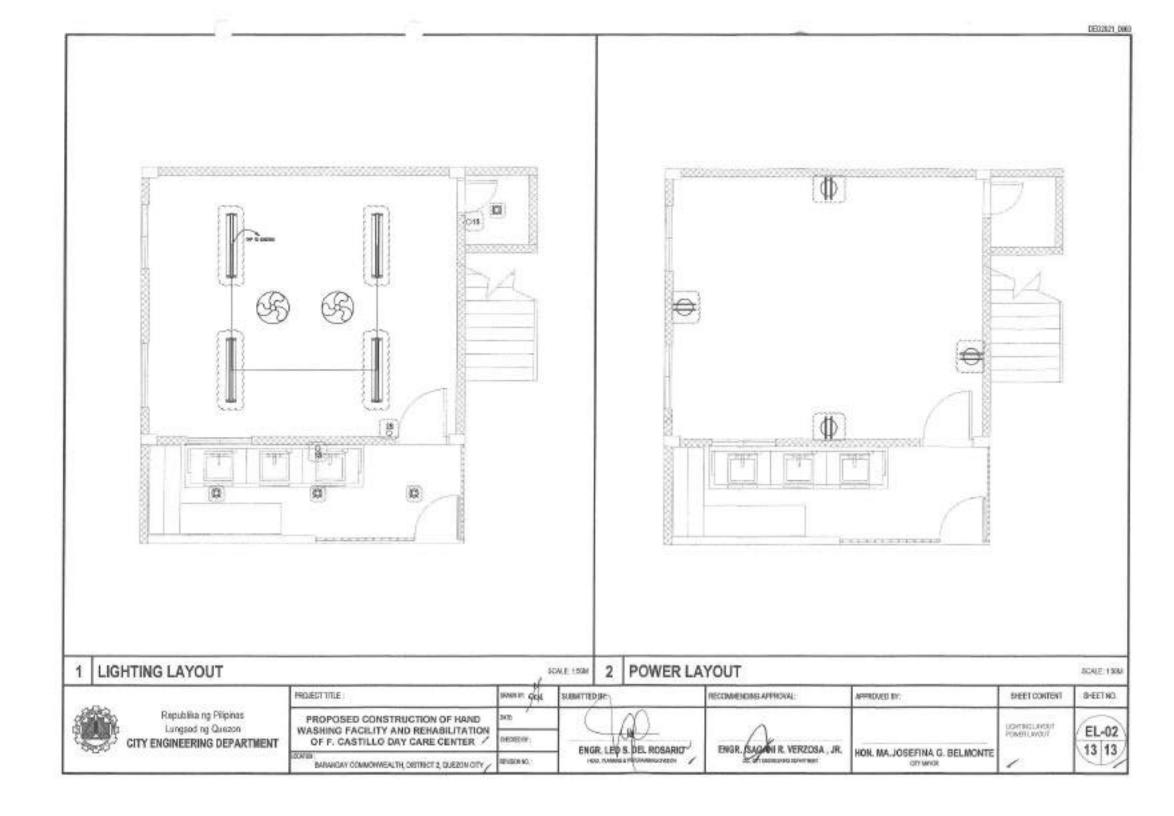
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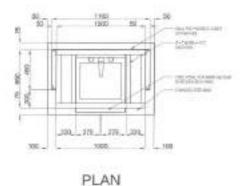
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ı		SINGLE SING PORTAG HAND HASHING BTALL PLAN
ı	HON, MA, JOSEFINA G. BELMONTE	E-EVATIONS.

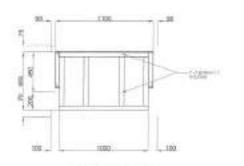
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BHEET CONTENT



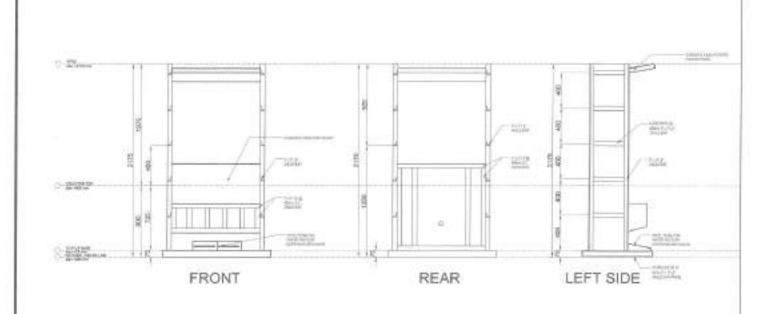


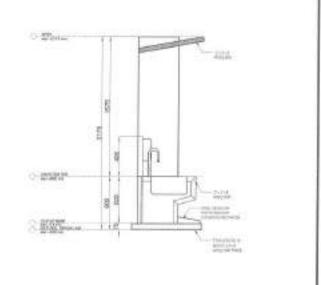


ROOF PLAN

SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: TJOM





2 ELEVATIONS

SCALE 138W RECOMMENDING APPROVAL TYPICAL SECTIONS

AMPROVED BY:

BCALE: 13000

SHEET NO.

Republikaing Pliphas
Lungsoding Quezon
CITY ENGINEERING DEPARTMENT

PROJECTITLE:

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND REHABILITATION
OF F, CASTILLO DAY CARE CENTER

BARAKSAY COMMONWEALTH, BISTRICT 2, QUEZON CITY

OFFICIAL E

SUBMITTED BY:

No minesto

ENGR. LED S. DEL ROSANIO

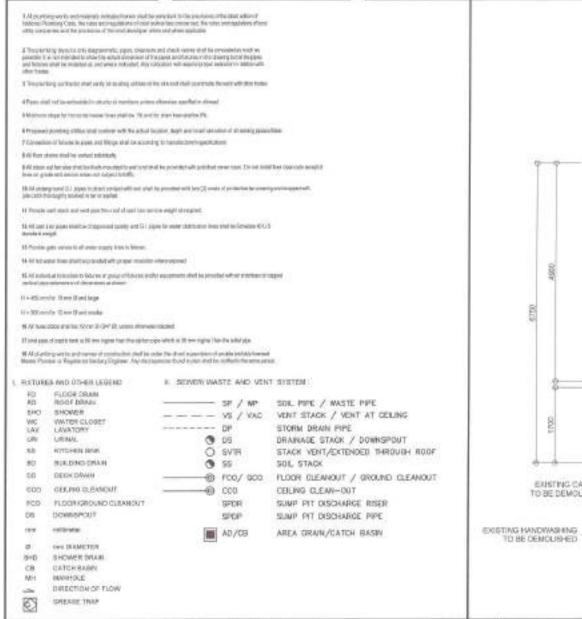
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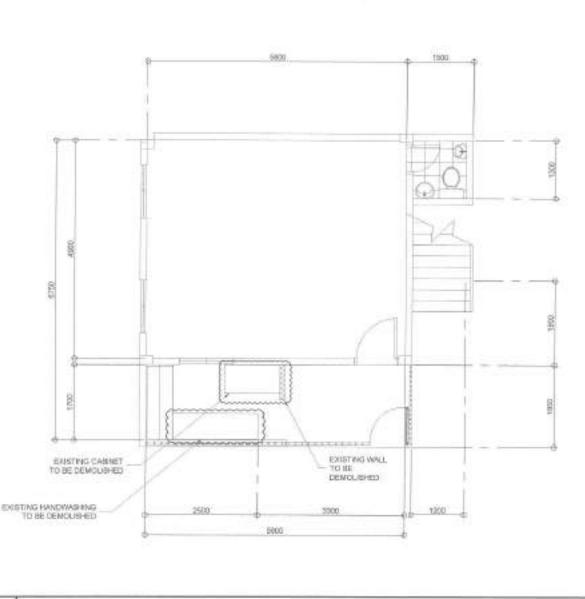
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HON, MA, JOSEFINA G, BELMONTE TRICL SHOWARD

ST-01
ST-01
ST-01

SHEET CONTENT





GENERAL NOTES AND LEGENDS

EXISTING GROUND FLOOR PLAN

SCALE: 150M

SHEET NO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF F. CASTILLO DAY CARE CENTER

BARNAGAY COMMONWEALTH, DISTRICT 2, QUELDIN CITY

18000 H: JA9

SERDIM:

THURST CLAM (STERNATTED BY:

ENGR. LEG S. DEL ROSARIO HE KIND HOUSE COME

ENGR. ISASANI R. VERZOSA , JR. OUT THE PROPERTY OF THE PARTY O

RECOMMENDING APPROVAL

LESENDS HON, MA, JOSEFINA G, BELMONTE

DITY MAY SE

APPROVED BY:

00Y014L102125-6 PL-01 9 13 DEFRIGISION

SHEET CONTENT

TYE

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 AND THE LATEST EDITION OF THE LOCAL CORE EMPIREMENTAL AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE.
- 2 THE CONTRACTOR SHALL DEDUCE ALL PERSONS AND PAY ALL PRISE REQUIRED FOR THE WEST RIGID SHALL PURPOSE THE OWNER THROUGH THE BEGINNERS FROM CHRONICASS OF BLECTECIA, INSPECTION AND APPROVING PROPER CONCENSION AUTHORITIES FOR COMPLETION OF BODIE.
- 2. ALL REMEDDED BRANCH DISCUSTS SHALL BE THIC CONDUSTS AND FOR EUPODED REVALLATOR SHALL BE INC SUPPORTED BY CONDUST CLASPS. EVETY 700 HIL METODS.
- PULL BOSS SHALL BE PROVIDED BY THE CONTRACTOR WHISIDADED RECESSARY TO PACULTATE WHILE PULLING EACH IN THESE MECHOD
 BOOK/POOR THE PLANK. OCHRE OF ALL LICENSES SHALL BE COMPARED ON THE DOOR REQUIREMENTS. SERVED BYOK
 THE SERVESSES FOR APPROVAL. PRICE TO TAMECATION. LOCATION OF PILL ISOSSISSANL, SC APPROVED BY THE ARCHITECTURE SEES AND HEAVY
 SERVED, LOTTED ON THE "NO SEA," THAN
- 2. ALL POWER CUTLETS: AND DIVITOHES SHALL BE DIFOL/HORIG THRE WITH PROJULED BLDTS FOR 250 V.
- A. PROVIDE ORDINAL PALLY CURRENT INTERRUPTER ORGANIF BREAKER FOR LOADS WHILED TOPOT ON THEIR AND
- 2. ALL METALLIC CONDUSTS, CAMMETS AND BOX PURET SHALL BE PROPERLY OPCURED AND BONDED.
- 8. VALUES OTHER WHITE BOTED, WOUNTWE HOGHT FOR WALL WOUNTED DEVICES BUILDING HE AS FISLE WE

MESOPTACLE OUTLET - 300 MAINT | MIRMA AROUS INSENING COUNTER TELSPHONE OUTLET - 300 MILANT CATY OUTLET - 300 MILANT CATY OUTLET - 300 MILANT INVESTIGATIO - 900 MILANT INVESTIGATIO - 900 MILANT

- BEFRET TO INFORMACIA, PLANE NO ARP PRITE PROTECTION DIMANAGE FOR PRITAGE AND COCKTORS OF COURSEME AS INCL. AS THEIR CONTROL.
 BESIZONDES AS INFORTED AND OR SHOWN LINDER THEIR RESPRICTIVE BISTORIA.
- 10. ALL MATERIALS TO BE USED BHALL BE OF THE BEST DUBLITY. BEAUGHTWAS DEPOSITED
- THE DRIVINGS AND OPPORTS FOR ARCHITECOM TO PROSENT GUIDBRILLANGUE AND BROAD DUT, BRICE SCRIPTION OF THE PROJECT BUT DO BOT TRICESSANILY MEIGATING DESCRIPTION ACTUAL LOCATIONS, LEVILL AND DISTANCES OF THE COUPMENT THE CONTINUOUS OF REGION STRUCKED TO WARK DUCK ADJUSTMENT AT THE JOBSTE AS LOCATION, DETAINED AND LINEAR AND DISTANCES OF THE PROJECT AND ADJUSTMENT AT THE JOBSTE AND LOCATION.
- ANY DISCREPANCY RETWINE THE PLANS AND REPORTATIONS CHALL RESERVOIRT TO THE ATTENTION OF THE ENGINEER FOR CLASS ECATION DECISION.
- ALL LIGHTHWAND CONVENIENCE CUTLITY CROCKTS WHALL BY SILES AM THURS COPPER WAS UNLESS OTHERWAS NOTED WARRAN SIZE OF WHILE SHALL SECTION WAS COPPED WITH, ALL WHICH AND CASLES SHALL BE DOLOR CODED AS POLICIAN.

LBET-RED LBET-YELOW SHUTKAL-VANTE GROUND-GREEN

PARRIED

ROWER, WHITE, GATTERS, ENCLOSIVE SHALL BE TABLEDATED FROM STEEL WITH THIS RESIDENCE MARKETH OF THE EMERGET SURFACE STEEL.

UP TO NO, UTING 152 40 MW OR

COURTS HIS ARRIVED BUT BUT OWNER WITH HE

OWER AIT AS NOT HOT OVER THE MIT

OR 18 PAINTED INTH METAL PRIMES EPOSY AND TOROUGH DR 18 PAINTED INTH METAL PRIMES EPOSY AND TOROUGH DR 10 PAINTED INTH METAL PRIMES EPOSY AND TOPODIS

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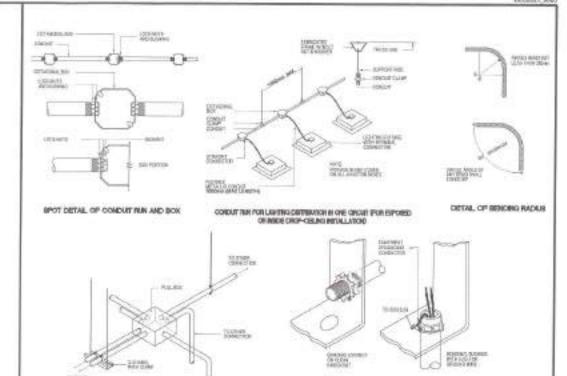
GA TO PARTIES WITH BREVAL PRISINE RECEIVED AT EXPONENCES HER LADER THE DRECT BAS TORSONT

MALE FIRST RICH WASHED HERSEN BRACL BE EXPONENCED AS EXPONENCES HER LADER THE DRECT BAS DRIVEN HER AND A DRILL THE LICENSESS

FRATTANDO AND PROPERTY.

TO THE PARTIES OF THE

- 18. TYPE OF BEHINDS BUTTARACE SHALL BY BRIDGE PRICE. TRID JUNE BUTTA DROUBL, NO HERTZ, 25W AD NOW-BALL
- 15. CORRUPTS MIND CARE ENAUL THRISE REMAINS THRUTHE EQUIVALENT OF YOM GARNESS BEING BRIDE OF HIS WORLDOWN ALL CONDUCTION AND DESCRIPTION OF THE COOR PROCESS OF THE COOR REQUIREMENTS.
- 18. LIACK COMPLETOR OF ELECTRICAL CONSTRUCTION WORK, WOLL AT ON RESOURCE TEST AND FLANCTICALLY TEST SHALL BE RESPONSIBLELY.
 THE CONTRACTOR INCLUSING OF THE ISSUE ALLATION TO SHE REPORTED IN DETAILS DIS FORMED BY THE CHECK OF T



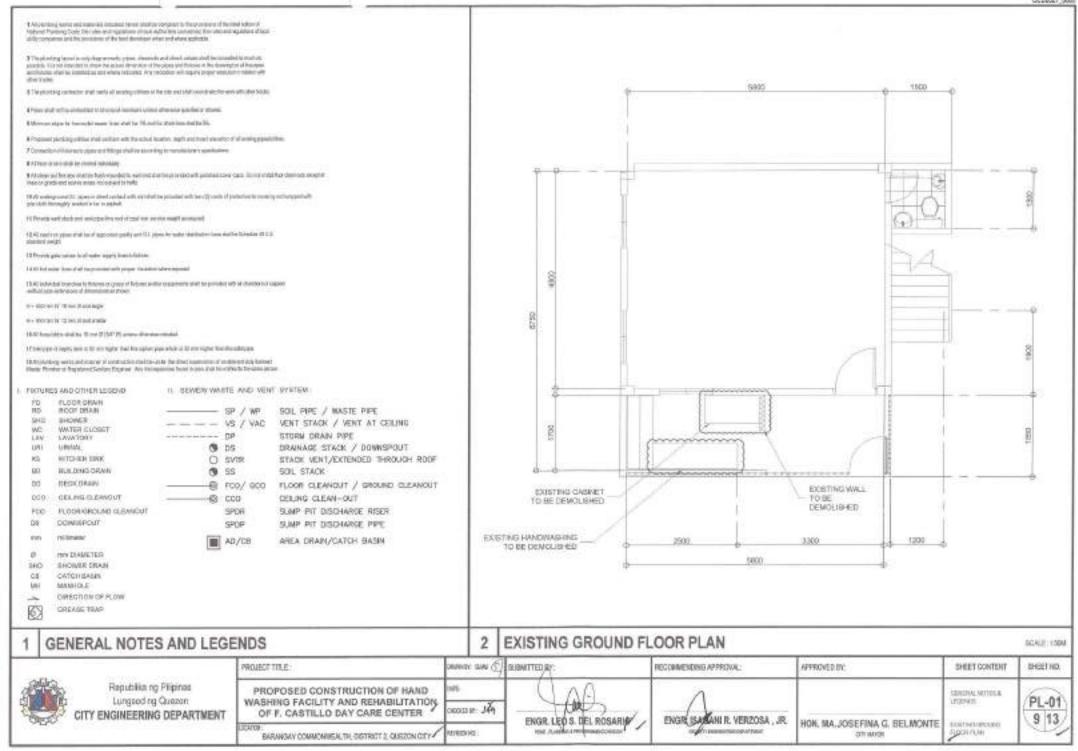
2 MISCELLANEOUS DETAILS

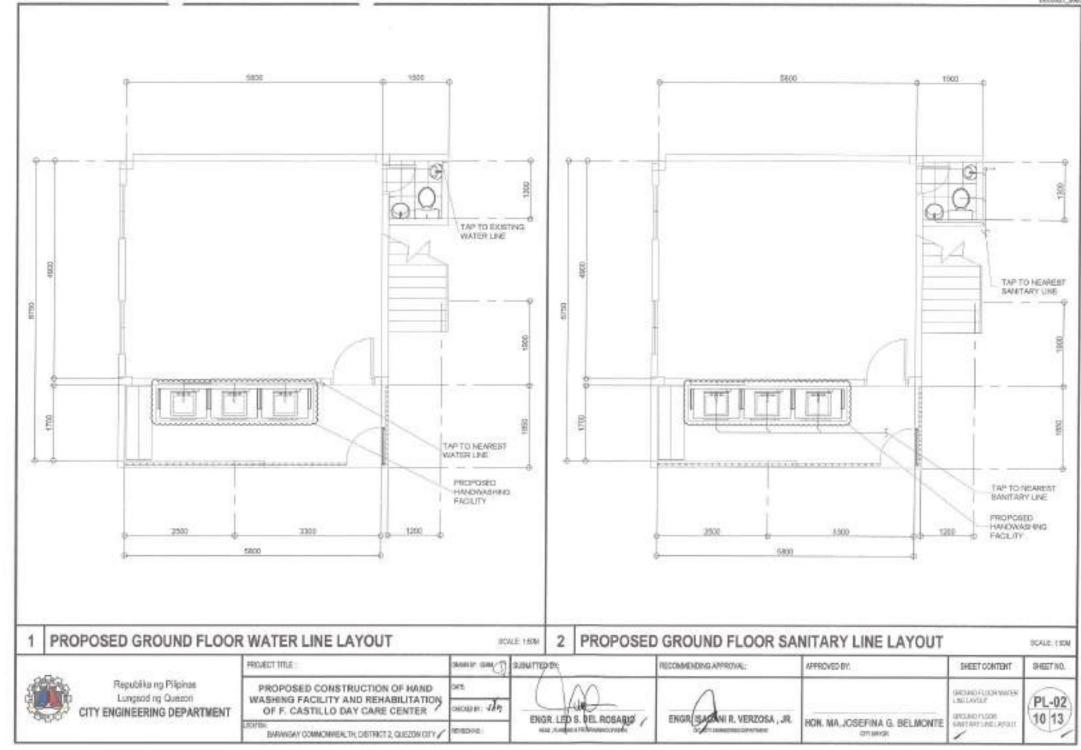
Driver Rocklings

SCALE WITE

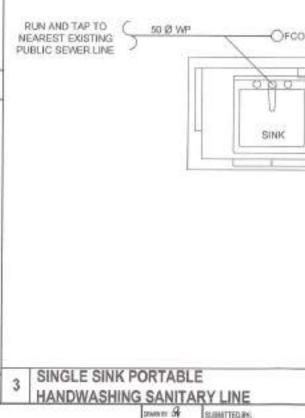
8	SWITCH (FOR REPLACEMENT)
(0)	E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)
_	ADDITIONAL LINEAR TWIN BATTEN WITH 2X18W LED TUBE LIGHT
(0)	DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
9	EXISTING CELLING FAN

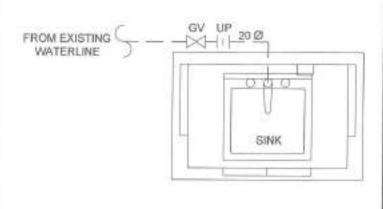
LEGENDS AND SYMBOLS **GENERAL NOTES** SCALD MTS **ECALE: NTO** PROJECT TITLE: more all SUBSTITUTE. RECOMMENDING APPROVAL APPROVED BY: SHEET CONTENT SHEET NO. Rupublika ng Plipinas PROPOSED CONSTRUCTION OF HAND DESIGNAL MOTTES Lungsod ng Quezon WASHING FACILITY AND REHABILITATION MEETI LANGUAGE SEEM EL-01 DESSENT JF4 ERECTS AND ROMAN I CITY ENGINEERING DEPARTMENT OF F. CASTILLO DAY CARE CENTER ENGR. ISASARI R. VERZOSA, JR. ENGR. LED S. DEL ROSARIO 12 13 HON, MA JOSEFINA G. BELMONTE 1600 Avrilla embranascensi полят выволносомники BARLANGAY COMMONWEALTH, DISTRICT J. QUEZON CITY /





ALL THE PLUMBING SAMITARY WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISION OF THE PHILIPPINE PLUMBING. CODE, THE NATIONAL BUILDING CODE, RULES AND REGULATION OF QUEXTIN CITY. COORDINATE THE DRAWINGS WITH OTHER RELATED OR AWINGS AND SPECIFICATION REQUIRED THE ENGIR/ARCH SHALL BE NOTIFIED. IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN. ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS, ANY RELOCATION REJURED FOR PROPER EXECUTION OF OTHER TRACES SHALL BE WITH PRIOR APPROVAL OF THE ENGINEER OR ARCHITECT. PROPOSED SANITARY UTILITIES SHALL SE CONFORM TO THE ACTUAL LOCATION, DEPTH, AND INVERTIGLEWATION OF ALL EXISTING STRUCTURES. AND PIPES AS VERIFIED BY THE CONTRACTOR. ALL SLOPES FOR HORIZONTAL DIVANAGE SHALL ISABITADA INCIDA DIVLESS. OTHERWISE SPECIFIED. SIZES OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDINGE WITH THE MANUFACTURERS INSTRUCTION. THE DONTHACTOR SHALL VERBY ALL EXISTING UTILITIES AT SITE AND COORDINATE THE WORKS WITH THE SEMER LINE SEFELIENT DISPOSAL. POINT AND WATER LINE BERVICE CONNECTING POINT. ALL WATER PIPE AND WATER TANKS SHALL BE THOROUGHLY PLUSHED AND DISINFECTED WITH LIGHE CHOLDRINE OR HYBRIOGHLOREDE SOLUTION. ALL WATER PIPES SHALL BE HYDROSTATICALLY TESTED TO A PRESSURE 1-10 THE DISSOWED WORKING PRESSURE OF THE SYSTOM. ALL SANITARY AND STORMORAWAGE PIPES SHALL BE HYDROSTATICALLY TESTED AT LEAST 20 MTS. HEAD TO ENSURE THAT THE SYSTEMARE. WATER DIGHT ALL DIMERSIONS ARE IN METERS AND ALL PIPES SZES APE IN MILITIETER INLESS OTHERWISE SPECIFIED. ALL PIPES INDICATED ON PLANS REFER TO PIPES MADE DIAMETER. **GENERAL NOTES** I. SEMERI WASTE AND VENT SYSTEM 3P/WP BOIL PIPE / WASTE PIPE ---- VP/WAS VENT PIPE / VENT AT CELLING ---- DP ETORNORAIN PIPE PLOOR CLEANOUT / GROUND CLEANOUT. F00/600 500 CEILING CLEAN-OUT O 08 DRAINAGE STACE / DOWNSPOUT WITH: YENT STACKEXTENDED THROUGH WOOF 88 SOL STACK FO **FLOOR: DWAW**





2 LEGENDS AND SYMBOLS

CMI

CB

AD AD

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CMR

N ON

M CV

(M) WH

IL WATER DISTRIBUTION SYSTEM

CATCH BASIN

AREA ORAIN STALL TYPE URINAL

GREASE TRAFF

- COLD WATERLINE

- COLD WATER RIBER

- GATE VALVE

- CHECK VALVE

- WASTER NETER

BOME MTB

SINGLE SINK PORTABLE HANDWASHING WATER LINE

APPROVED BY

BOALE WITH

SHEET NO.

Republica ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF F. CASTILLO DAY CARE CENTER

SARANGAY COMMONWEALTH, DISTRICT 2, QUIEZON CITY

DESIGNATION AND SERVICES OF THE SERVICES OF T

ENGR. LEO S. DEL ROSABIO

ENGR SANANI R. VERZOSA , JR.

RECOMMENDING APPROVAL:

HON, MA JOSEFINA G. BELMONTE

LECESES AND STWEOUS SOULE SOM PORTUM, E HAND WASHING SANITARIS LINE

SHEET CONTENT

PL-03
SONILE SINK PORTABLE
HAND MADDING WATER



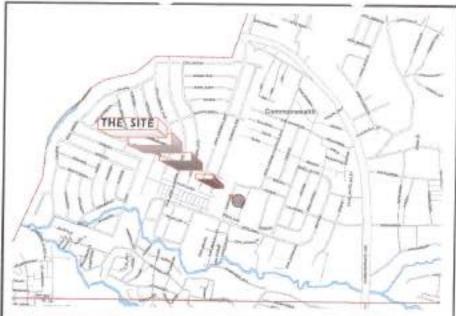




TABLE OF CONTENTS

	ARCHITECTURAL
ARI.	LOSSON WEST TOWN WINTER TO
AB2	STERRIPME DETROPOSOS RAY
482	PRIPRIED GROSSE TUDBOR PLAN
1773	SAUCHE GRUNDAN
	REDERINGED
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PLUMBING

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763	DESCRIPTION FOR YORK WAS INCOME.
	The state of the s

LOCATION MAP

VICINITY MAP



ELECTRICAL

PERSPECTIVE

SCALE: NTS

HON, MA, JOSEFINA G. BELMONTE

CITY WHOY, OHESON LITT



Republika ng Pilipina Lungsod ng Queron CITY ENGINEERING DEPARTMENT

FROMOT YOUR PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF GOLD DAYCARE CENTER

pocaride. BARANGEY DOWNORMAL IN, DRITRICT 2, GUEZON CITY

Therese or Street BUDGETTER, AND DECREE BY AN whi REVISION NO.

ENGR. CEO S. DEL ROSAFIO

ENSRUBACIONI R. VERZOSA, JR.

SECTIONAL NEWS APPROVING

APPROVED BY

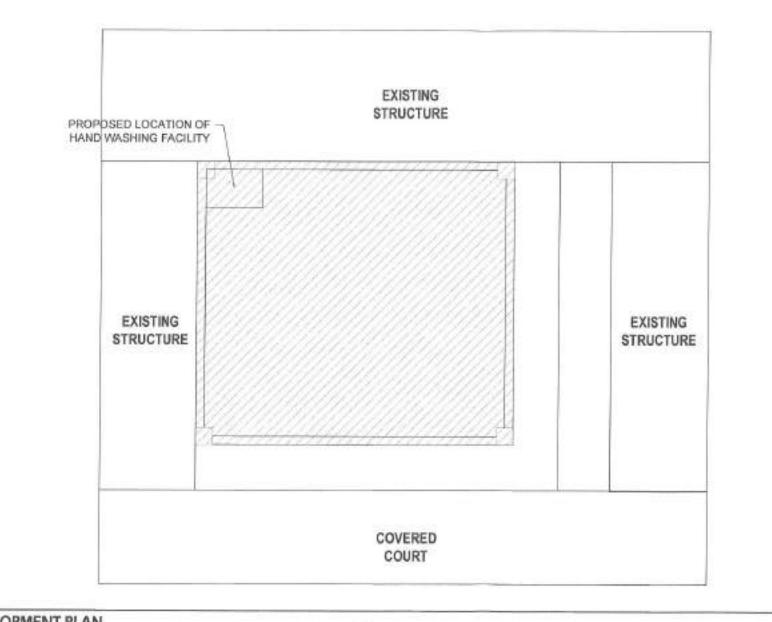
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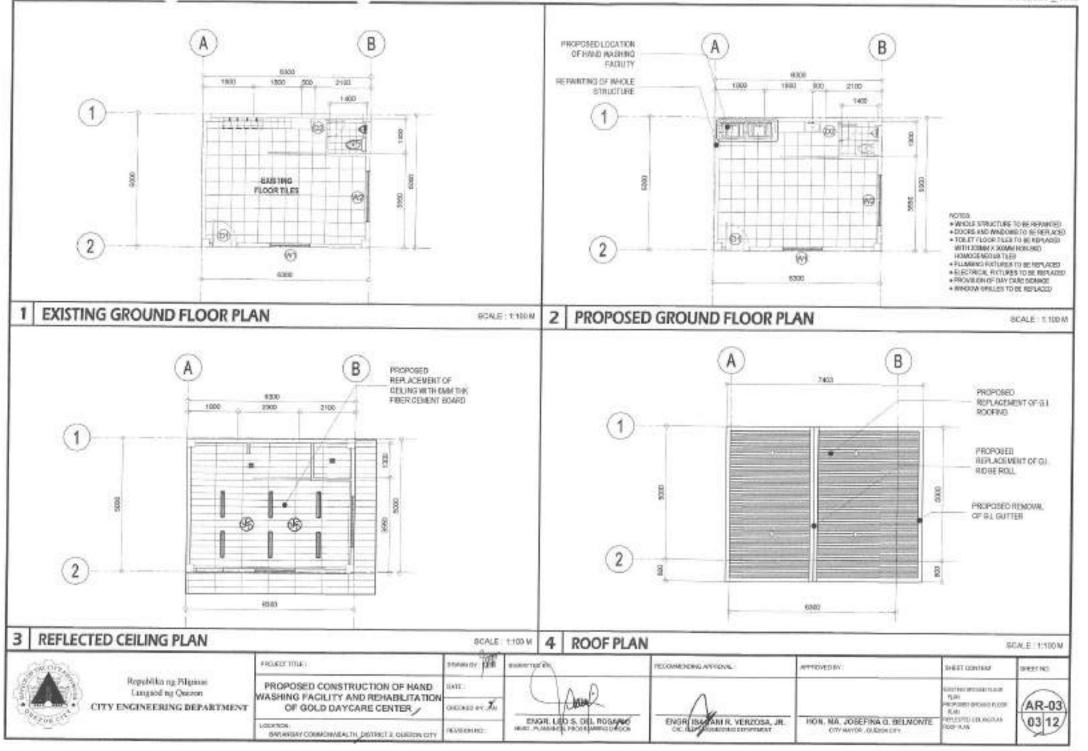
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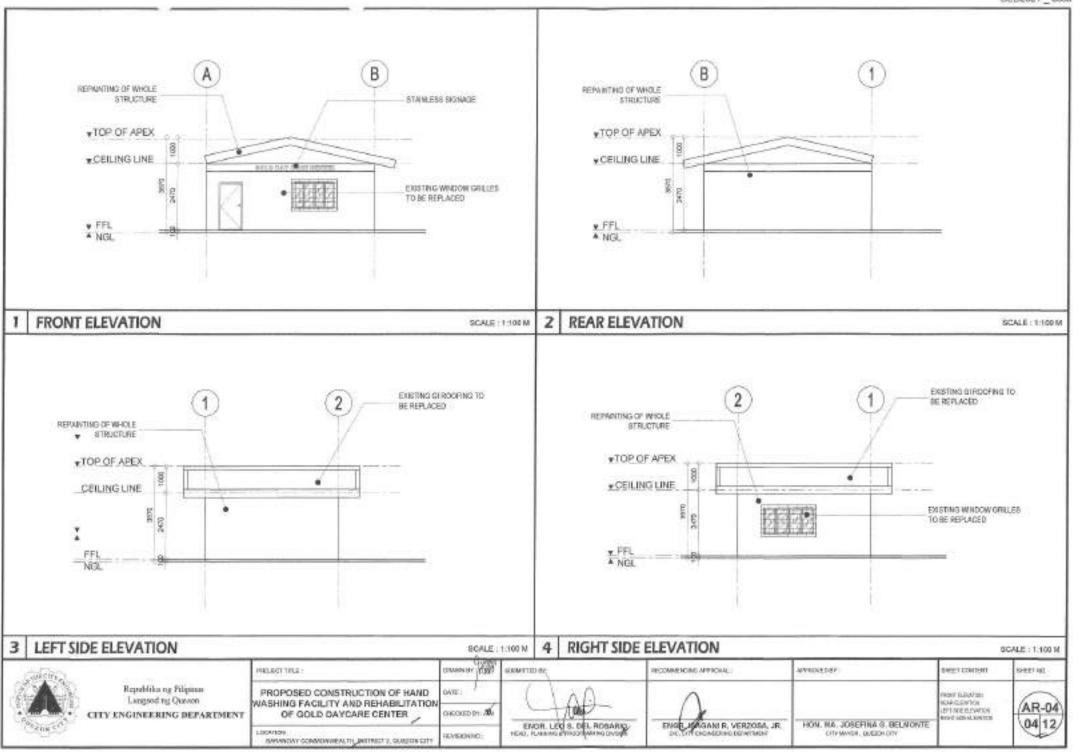


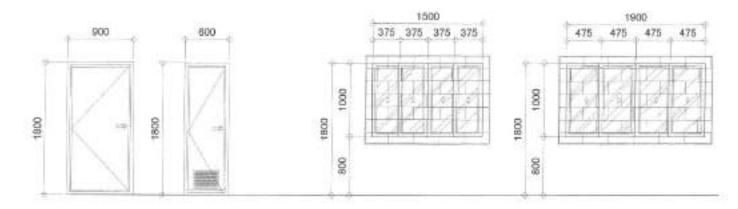
SITE DEVELOPMENT PLAN GENNERAL STATE PHOSPECT TITLE: DEMTROOM RECOMMENSAC APPROVAL APPROVED BY SHEET CONTINUE CH THERE Hopsblika ng Pilipinas PROPOSED CONSTRUCTION OF HAND DATE PROPERTY. Lungsoding Quezon WASHING FACILITY AND REHABILITATION AR-02 CHECKED IN THE CITY ENGINEERING DEPARTMENT OF GOLD DAYCARE CENTER 02 12 ENGR VESTANIR VERZOGA, JR. ENGR. LEO S. DEL ROSARAY HOW, MA, JOSEFFIA G, BELMONTE

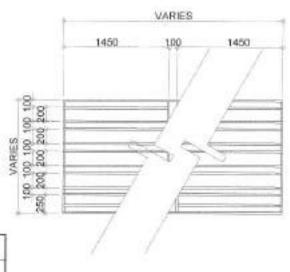
BEHIDOHING

WIRMONY COMMONWALTS, CERTIFICITY, CLIEBUR CITY









DESCRIPTION	(1)	⊕
SPECS	SWING TYPE FLUSH HOLLOW CORE DOOR, FAINTED FINISH (XITTEN WHITE)	SWING TYPE, PVC DOOR, WITH 400mm x 300mm LOUVER, PAINTED FINISH JUTTEN WHITE)
ERROANIO ELAZINO	COMPLETE ACCESSORIES. DOOR KNOS: LEVER-TYPE SATIN STANLESS FINISH	COMPLETE ACCESSORIES. DOOR KNOB LEVER-TYPE SATIN STAINLESS FINSH

DESCHANON	₩	₩
areca	SLEING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER ODATED ALLUMINUM FRAMES	SLIDING WINDOW, 5 mm THK CLEVE TEMPERED SLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES
HARDWINE SLADNO	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES

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

SCHEDULE OF DOORS AND WINDOWS



Republikang Pilipinas Lintgsod ng Quezon CITY ENGINEERING DEPARTMENT

DROWNERS, MAL PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF GOLD DAYCARE CENTER

BARAVERY COMMONWEALTH, DEFRECT J. QUILDON CITY

LODIFTON:

CHECKED BY A SEVERNE.

ENGR. LED S. DEL ROSANGL-INAS PANNING PROGRAMMS SYNDS

SUBMITTED DV:

ENGRISADOS R. VERZOSA, JR.

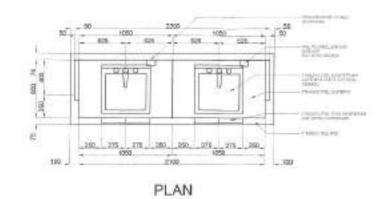
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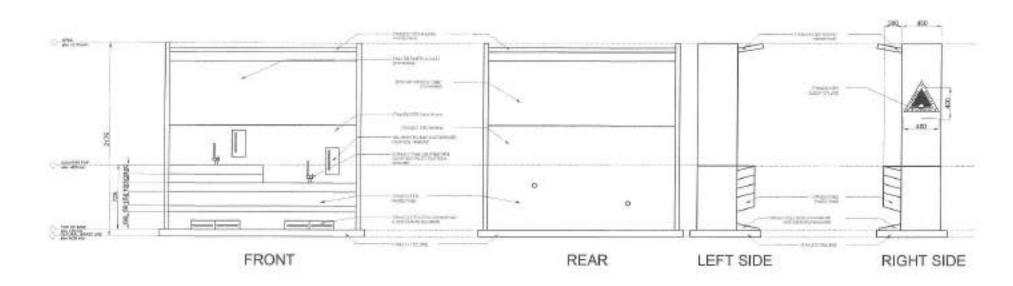
ACREMIT R. 10066 AR-05 05 12 HON, MA. JOSEF MA. G. BELMONTE CTHROVER, QUESTION

SHEET CONTENT



DOUBLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: 130 M



ELEVATIONS

SCALE 1:30 M DESTRO



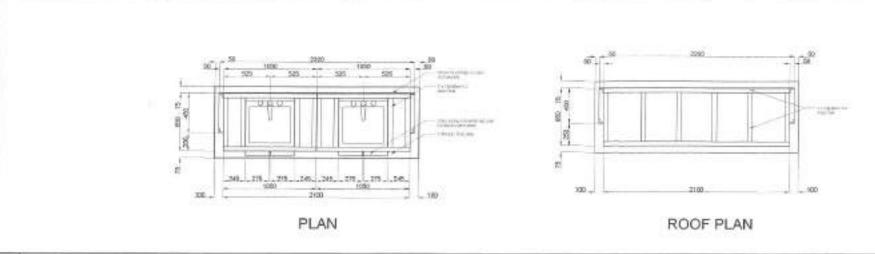
PROJECT TITLE	CHANNEY 100
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF GOLD DAYCARE CENTER	DATE:
	crecion se
LOCATION SATURDAY COMMONWEALTH, DISTRICT E QUASION CITY	REVERSION



ECOMENIAS APRICIAL:	APPICHEDBY:
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ENGR. BAGASIR, VERZOSA, JR. OC. DIFEMBLERS DEMINAT	HON MA .

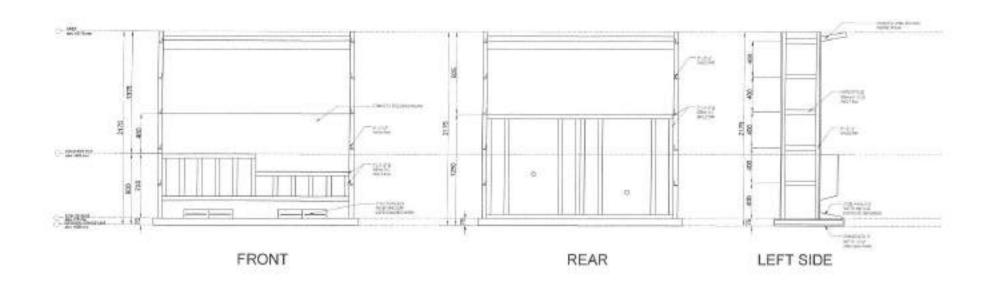
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HON MA JOSEFINA G DELINDRITE DYFMIRH, GARRICHY		06 12

SHEET CONFORT



1 DOUBLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: 130 M





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14 AC fed water than shall be provided with proper hyphotosi where exposed.

15 All Adviced bandes to below or goop of below and/or appears invite pointed with at Homes or capset reduit pop seturations of the several technique.

10- Street by Street Bandlage:

15 - 100 rose for 12 mm (Family sealing

16 Al Your Intion shall be 10 mm (2 (34" A) unions of however indicated.

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GENERAL NOTES

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E2	CREATURE		

DOCUMENT



SCALE: MIS SUMMITTED BY

EXISTING GROUND FLOOR PLAN

HECOMMERCIAL APPROVAL

BCALE 150 M SPECTAGE

SHEET CONTENT

CENT ACOUS

BITTE POST

TEXTOR PLAN

LEGENDS

Republika ng Pilipinas Langsod ng Quezon

CITY ENGINEERING DEPARTMENT

PROJECT TITLE PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF GOLD DAYCARE CENTER

BARANGAT COMMONINGALTH, DISTRICT Z. GUISDON CITY

SHECKER BY: VIN

RENABION MIT

DRIVINGET: COMMI

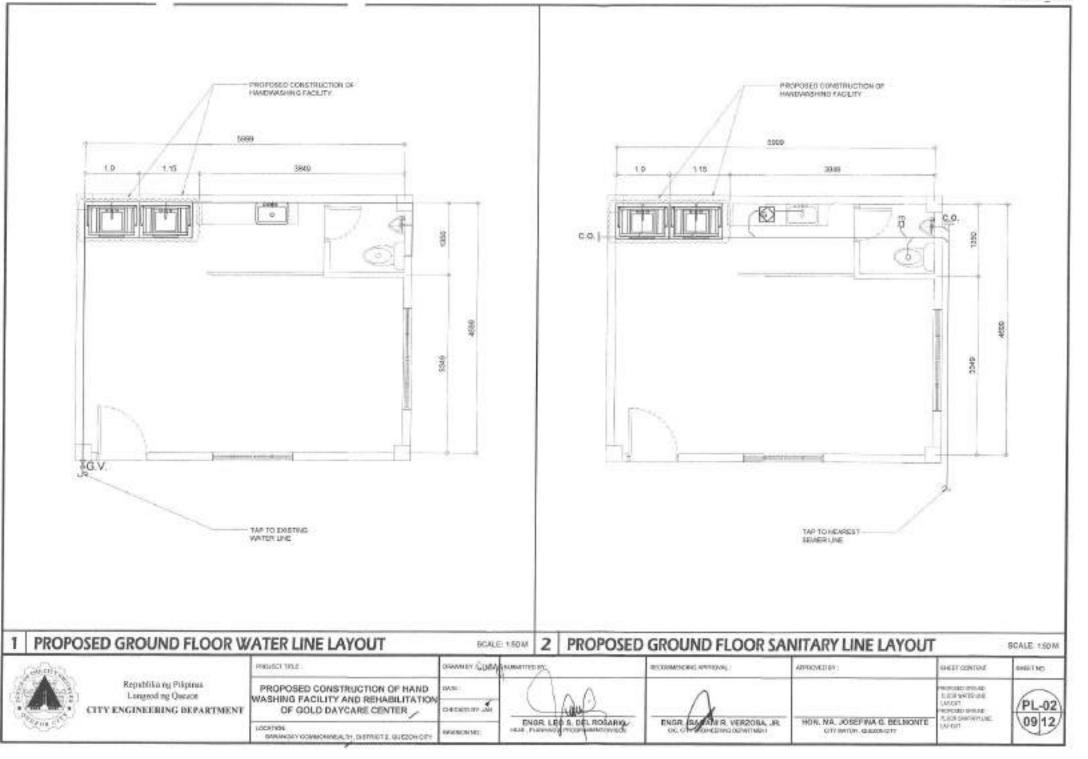
ENGR. LDG S. DEL ROSARIO

ENGR. ISACON R. VERZOSA JR.

HON, MA. JOSEFINA G. BELMONTE DOMESTIC BANKS OF

ATPROVOD BY

PL-01 08 12



SCALE: NTB

SHEET NO.

PL-03

10 12

AND WATERLINE LENGTH

ALL THE PLUMBING BANITARY WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISION OF THE PHILIPPINE PLUMBING. CODE, THE NATIONAL BUILDING CODE, RULES AND RESULATION OF QUEZON CITY: COORDINATE THE BRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATION REQUIRED. THE ENGRIPARCH, SHALL BE NOTIFIED. INNIEDIATELY OF ANY DISCREPANCY FOUND THEREIN ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS. MY RELOCATION. REQUIRED FOR PROPER EXCOUTION OF OTHER TRADES SHALL BE MITH. PRIOR APPROVAL OF THE ENGINEER OR ARCHITECT. PROPOSED SANTARY LITERING SHALL BE CONFORM TO THE ACTUAL LOCATION, DEPTH, AND INVESTIGLE VALUE DISTING STRUCTURES AND PIPES AS VERIFIED BY THE CONTRACTOR: ALL SLOPES FOR HORIZORTAL CRANAGE SHALL MAINTAIN 19/MIN LINEESS. OTHERWISE SPECIFIED. SIZER OF WIKTER SUPPLY FIRES TO FOITURES SHALL BE IN ACCORDANCE. WITH THE MANUFACTURER'S INSTRUCTION. THE CONTRACTOR WHALL VERIFY ALL EXISTING UTILITIES AF SITE AND COORDINATE THE WORKS WITH THE SEWERLINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT ALL WATER PIPE AND WATER TANKS SHALL BE THOROLIGHLY FLUSHED AND DEINFECTED WITH LIQUID CHOLORINE OR HYDROCHLORDE SOLUTION. ALL WATER PIPES SHALL BE HYDROSTATICALLY TESTED TO A PRESSURE. RUN AND TAP TO 1-10 THE DESIGNED WORKING PRESSURE OF THE SYSTEM. ALL SANTARY AND STORM DRAINAGE PIPES SHALL BE HYOROSTATICALLY. NEAREST EXISTING TESTED AT LEAST 36 MTS. HEAD TO ENSURE THAT THE SYSTEM ARE PUBLIC SEWER LINE FROM EXISTING WATERLINE ALL DIMENSIONS ARE REMETERS AND ALL PIPES SIZES ARE IN MILIMETER. 50 Ø WP GV UP OFCO LINLESS OTHERWISE SPECIFIED. 20 0 ALL PIPES INDICATED ON PLANS REFER TO PIPES INSIDE DIAMETER. **GENERAL NOTES** I SEWER/WASTE AND VENT SYSTEM: SP 1 10¹² SOLPPE (WASTE PIPE ---- VPTWC VENT PIPE I VENT AT CEILING ----- DP STORW DRAW PIPE SINK SINK SINK SINK FOOT 800 FLOOR CLEANOUT / GROUND CLEANOUT 000 CEILING CLEAN OUT C DS DRAMAGE STACK / DOWNSPOUT VICER VENT BYACKER TENDED THROUGH ROOF 65 BOIL STADS PD: PLOOR DRAIN 08 CATCH BASIN AO. AREA DRAIN STALL TYPE URBAL GT. OREASE TRAF IL MATERIORSTRUCTION SYSTEM CM - COLD WATERLINE CWS - COLD BATER RISER. GV - GATE WALVE CY - CHECK VALVE 8 - WATER METER IW O 80 - MALCONY DRAWN DOUBLE SINK PORTABLE DOUBLE SINK PORTABLE SCALE: NTB HAND WASHING SANITARY LINE HAND WASHING WATER LINE LEGENDS AND SYMBOLS PROJECT TWO.E. SOCIETARIUS SARALES: YOURANTED SOC MODRAGNONS APPROMA APPROXITE BY BHEET CONFIDE Republika ng Pripana PROPOSED CONSTRUCTION OF HAND WHITE MOTES Eastgooding Queuen FIGURESIA AND OVERDAD. WASHING FACILITY AND REHABILITATION DOUBLE SAMPORTALE DECEMBER 1 CITY ENGINEERING DEPARTMENT OF GOLD DAYCARE CENTER > KAID WALTHING GAVITADA

LDERTHOAL

SANAVIANT EDINATIONARILTH, PRITREET E, GUILLER CITT

ENOR REMANDER NEW YORK JR.

HON NA JOSEFINA G. BELINONTE

DITCHESSAR , PRIVAR VITO

ENGR. LEG S. DEL ROSARIQ.

- 1. ALL BLACTHICAL BERRIS SHALL BE DODE IN ADDITIONACE WITH FIRE PROVINCING OF THE LATERT ROTTON OF THE PROPERTY CARDINAL CODE. THE LAWS AND ORDINANCES OF THE LOCAL DODE ENFORCING ANTHOR THES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE. URLITY COMPARY
- 2. THE DOWNLAD FOR SHALL SECURE ALL PERSONS AND PAY ALL PEES RESIDEND FOR THE WORKLAND BHALL PURSON THE OWNER THROUGH THE BROWSERS, FINAL CORFERENCE OF BLACTRICAL INSPECTOR AND APPROVAL VICTO PROPER GOVERNISM TAVITAGETED FOR CORPLETION OF
- 8. ALL PARRIODED BRANCH CRICKITS SHALL BE FVC COMBUTE AND FOR SPOSED INITIALIATED SHALL BE SIC SUPPORTED BY CONDUIT CLAIPS. CVERY TOO HIS METERS
- 4. PALL BOXED DHALL BE PROVIDED BY THE CONTRACTOR VALENCINER RECEBBARY TO FACILITATE WIRE RULLING OVER IT THESE ARE NOT INDICATES ON THE PLANS. BIZING OF ALL PILL BOXES GHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. BURNET SHOP INVAVIOUS TO THE ENGINEER FOR APPROVAL PRIOR TO PRESIDENCE LEGATION OF PILLEGIES WHILL BE APPROVED BY THE ARCHITECTURISHEER AND RUST DO BOTH FOTED ON THE 18S SUBJECT PLAN
- 5. ALL POWER OUTLETS AND SMITCHES SHALL BE GROUNDING TYPE WITH EXBALLE, SLOTS FOR 230 V.
- PROVIDE ORDINAL PULLY CURRENT SITERS FITTER CIRCUIT BESIASTS FOR COASS MARKET THEFT ON THE PLAN.
- T. ALL METALL IC CONCLETE, CARBASTS AND COMPARINT SHALL BE PROPERLY CONCLEDED AND DOMESTI.
- 8. LIREZED CTHENWISE NOTED, MOURTING HEIGHT FOR WILL ACCONTED DEVICES SHALL BE AN POLICIAS.

RECEIPTACLE CUTTAT - SECREGATY , VACABLE ARCHE VERRORG CONNTER TELEPHONE OUTLET - 300 Mill AFF CATY CUTLET + 200 MM-APP DONTHO SWITCH - 1450 MALART PRINCIPIOARD - 1980 MW ARF

- B. REFER TO MEDIANICAL PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF SCHEMENT AS WELL AS THEIR CONTROL. BEGINENCES AS DIEGITICS AND OR SHOWN LINDER THEIR RESPECTIVE SECTIONS.
- 10. ALL MATERIALS TO BE VISIO SHALL BE OF THE BEST OLIALITY, BRAND HOWAS SPECIFIED.
- 11. THE DRAWINGS AND SPECIFICATIONS ARE INTERSED TO PRESENT GRINAN, LAPOUT AND BROAD OUT, INSIDERCRIPTION OF THE PROJECT BUT DO NOT RECEIVED IN THE CATOLOGIC RED NOTICE, LOCATIONS, LEVEL AND DISTANCES OF THE GOVERNMENT. THE CONTRACTOR IS HORSELY ARQUIRED TO MAKE BUCH ADJUSTMENT AT THE JOBETTE AS LOCKTON DETAILED AND LEWIS DRIVENING BY ACTUAL PELOCOSPOTORIO
- 12. ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGAGER FOX CLARPICATION.
- 13. ALL LIGHTING AND DONVENIGHE OUTLET GROUTS GHALL BE 3.5 SQ. MAI THANKS COPPER WINE UNLESS CHRETAINE NOTED. MIRRIAN SEE OF WIRE SHALL BE 3.5 SO, MIS COPPER WIRE ALL VIOLES AND CARLES SHALL BE COLOR CODED AS POLLOWS:

t trail t - RED LINET-VELLOW HOUTER-WHITE DADUND DRIEN

14. BOSED, MYRE, DUTTERS, ENGLOSUME SHALL BE, ENSPICATED FROM STREET WITH THICKNESS AS POLLOWS.

MAKADALWICTH OF THE WIDEST SURFACE STED.

SIA 18 PARSITED WITH METAL PRIMER EPOID? AND TOPOCAT. MPTO RECURSING 152 ACREM

OVER 152-10 MM BUT NOT DVEH 167.30

GA 14 PANYTED WITH METAL PRIMER EMDRY AND TOPEDAT

GA 12 PAINTED WITH METAL PRIMER EPONY AND TOPODAT

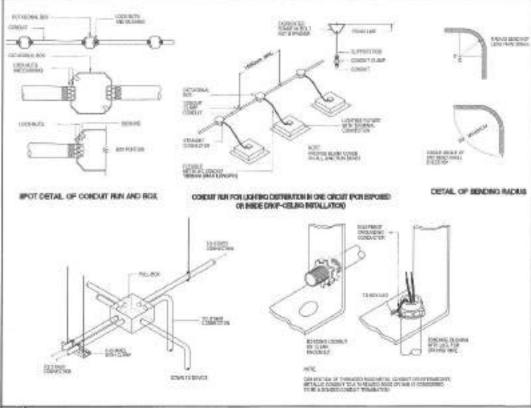
OVER 467:30 MM BUT NOT OVER 762 MM CHE E 202 MH

GATO PANYTED WITH METAL PRIMER EPOKY AND TOPCONT

15. ALL BLECTRICAL WORKS HERESH SKALL BE EXECUTED BY ASPAIN ENGED MEN SWEET THE DIRECT REPERVISION OF A FOUL TIME LICEDISES. PLECTRICAL PROBUSES AND A DULY ACCRECATED PLECTRICAL CONTRACTOR BY POAR MORKS DAY, J. RESERVEY PLACED. DECLERALY FASTENED AND PROPERLY

PROBLED

- 16. TYPE OF SERVICE ENTERHED SHALL SE SINGLE-PLASE. THIS MISE PLOS GROUND, 48 HERRY YOU AS WARRIAN.
- 17. DOMENTS HE NO DASC SHALL THERE BE HORE THAN THE SOLVANENT OF FOUR QUARTER BEHOS SHARP ORE RUN. AU, CONDUST BEHOS SHALL BE WILD BACK BY LIBRO HYDRAUL & BENDERS MANUAL RESIDENCE RADIUS BILLY BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- 18 LIPER COMPLETON OF BLICCHICAL CONSTRUCTION WORK, RIBULATION FEBRUARION THAT AND PURCHDSAULTY TRAFF SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON POWER ARRIVORD BY THE CHEZON-CITY ENGAGES INC. DEPARTMENT REPRESENTATIVE. THE DROWNER RESERVANCE FOR ELECTRICAL STITTEMS SHALL NOT BE MORE THAN 5 OHRS. COMMUNICATION GROUNDING RESISTANCE ON ALL NOT EXCEED & OHIO.

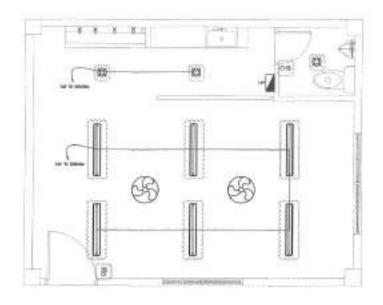


MISCELLANEOUS DETAIL

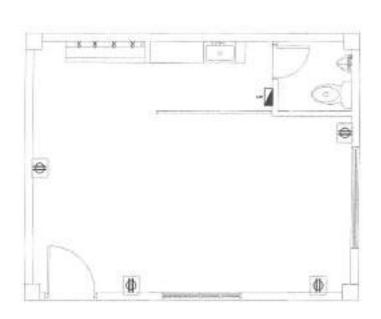
SCALE NES

8	SWITCH FOR REPLACEMENT)
a	E27 RECEPTIONE WITH LESS BUILD (FOR REPLACEMENT)
-	ADDITIONAL LED THRE LIGHT
(0)	DURLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
9	EXISTING CELLING FAIN

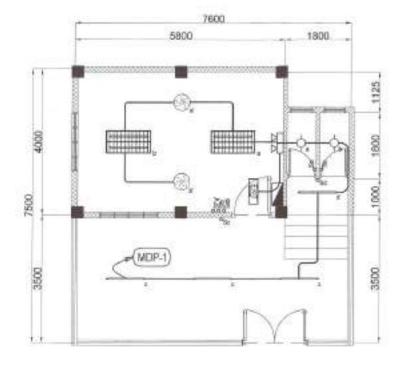
LEGENDS AND SYMBOLS **GENERAL NOTES** SCALE: NIE MOJECT TITLE HANNETT GOVE SUBMITTED BY HICZENNINGKI KPRICINA APPROVED BY DESCRIPTION OF THE PARTY. CHITTHE Republika ng Pilipman PROPOSED CONSTRUCTION OF HAND GD109-86594 Lungsod ng Guezon WEST ALBOHOUSE OF THE I WASHING FACILITY AND REHABILITATION EL-01 LEGISTER AND THRIBATED CHECKED ST. TA CITY ENGINEERING DEPARTMENT OF GOLD DAYCARE CENTER ENGR. LEO S. DEL ROSARION ENGR. BAGATH R. VERZOSA, JR. HOW WA. JOSEFINA G. BELINONTE .0047/0% STYMANSH, GUILDI LTT REVEKNING SARANGAY COMMORWEALTH, DISTRICT J, QUEZON CITY

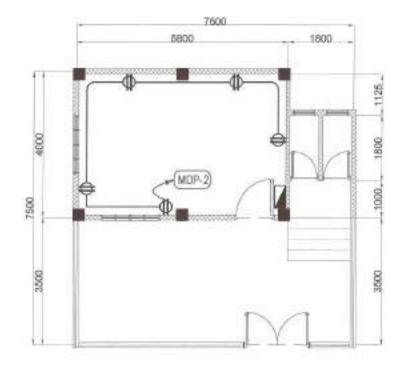


BARNAGAY CORMONWEALTH, DISTRICT 2, QUEZON CITY



LIGHTING LAYOUT **POWER LAYOUT** SCALE: 1:50 M SCALE: 150 M SSMM IV. CAN PRINCY YELD: BURNISTED BY TECHNOLOGICAPPICKS. ANNEXADEL THEFT CONTONT MEETING. Republika ng Filiparen: PROPOSED CONSTRUCTION OF HAND 1,015,0310001 Lungsod my Quezon WASHING FACILITY AND REHABILITATION EL-02 Decoupe 3a CITY ENGINEERING DEPARTMENT OF GOLD DAYCARE CENTER 12 12 ENGR. LEG S. DEL ROSARIO HON, MA. JOSEPHA S. BELMONTE ENGR. SAGNAR. VERZOSA, JR. DIC, GIVENNESSESSHOODWINDE CITY MAYOR . BUSING CITY поуковню





1 PROPOSED LIGHTING LAYOUT

SCALE 1:75M

PROPOSED POWER LAYOUT

PROCESSIONS APPROVAL

SCALE 1:79A

Republika ng Pilipinas Lungsod ng Queson CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LOWER NAWASA DAY CARE CENTER /

BRIDY COMMONWEALTH ORDITION IS CHEZON ONLY

DATE: E-H SCH CHECKES ST. TH REVIDENCE.

ENGR. LEGS B. DEL ROSANIGO

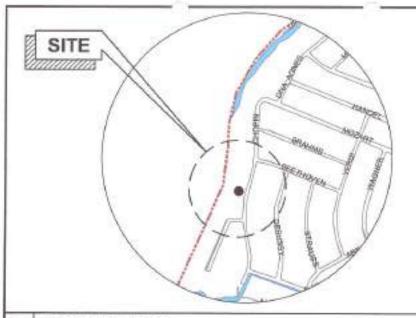
ENGR. ISAGAR R. VERZOBA, JR.

HON, III.A. JOSEFINA S. BELSIONTE CITYANYOR, QUEZINOTY

APPROVED BY:

PROVOSEDUCITNO CATOLOGICAL PROPOSEDUCITNOS PROPOSEDUCITADO PRO

DESTROOTEST



LOCATION MAP

SCALE: NTS

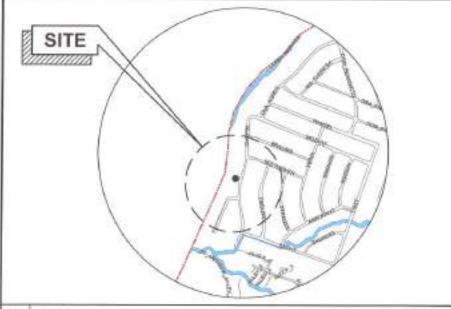




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	REFLECTED CELING PLAN.
AR-ti	ROOF PLAN
AH-6	PRIORE ELEVATION
	REAR ELEVATION
	HIGHT BIDE SUEVATION
	LEFT ELEMATION
AR-6	SECTION THRU W
	SECTION THRU SE
	SCHEDULE OF DOORS
MN7	SINGLE BINK PORTABLE HAND WASHING STALL PLAN AND GLEWITCHS

STRUCTURAL

STALL PLAN AND ELEVATIONS

SANITARY/ PLUMBING

PL1 GENERAL NOTES LEGENDS AND SYMBOLE SINGLE SINK PORTABLE HAND WASHING STALL SANITABY AND WATERLING LAYOUT

ELECTRICAL

EL-1 GENERAL NOTES LEGENDS AND SYMBOLS LOAD SCHEDULE SINGLE LINE DIAGRAM PRISON DINOPAN EL-2 PROPOSED UGHT NG LAYOUT

PROPOSED POWER LAYOUT

THETTERNITESHE

WITHOUGH BY:

VICINITY MAP

SCALE: NTS

PERSPECTIVE

SCALE: NTS

STERMYON, GLASSIN-DTV

Ropublika ng Pilipisas Lungsod og Queron CITY ENGINEERING DEPARTMENT PROJECT TYPES: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LOWER NAWASA DAY CARE CENTER /

BROY DOMMONWEALTH SISTRICT # QUEZONOTY

DEMONSTRATE OF DATE: GILBURY DECKOOSE AN ENGR. LEO S. DEL ROSARIO MEVADOR NO.

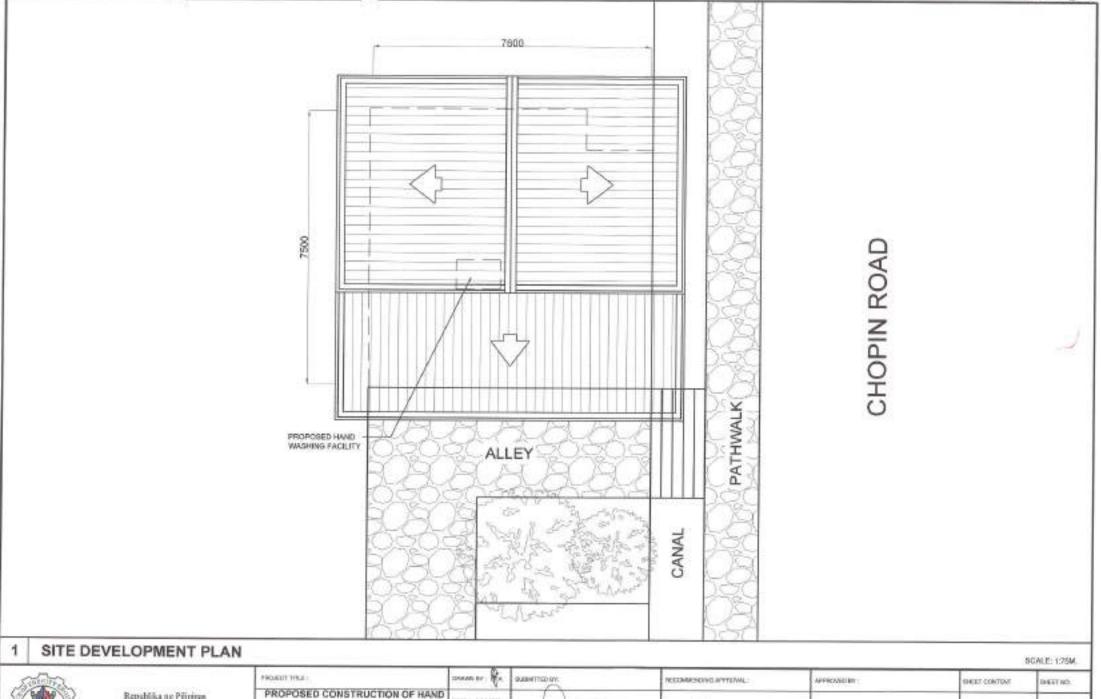
ENGR. / SAGAN R. VERZOSA, JR.

ANGEST'N DESCRIBERIES

LOCATIONMAP VIOLETY BUP PERSPECTUR HON, MA. JOSEFINA G. BELINDNITE

AR-1 0111

DATESHO.



Republika ng Připinus Lungsod ng Quecon CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF LOWER NAWASA
DAY CARE CENTER

ICHATON
BROW, COMMERCIAN LIGHT ST., CARRIER CT.

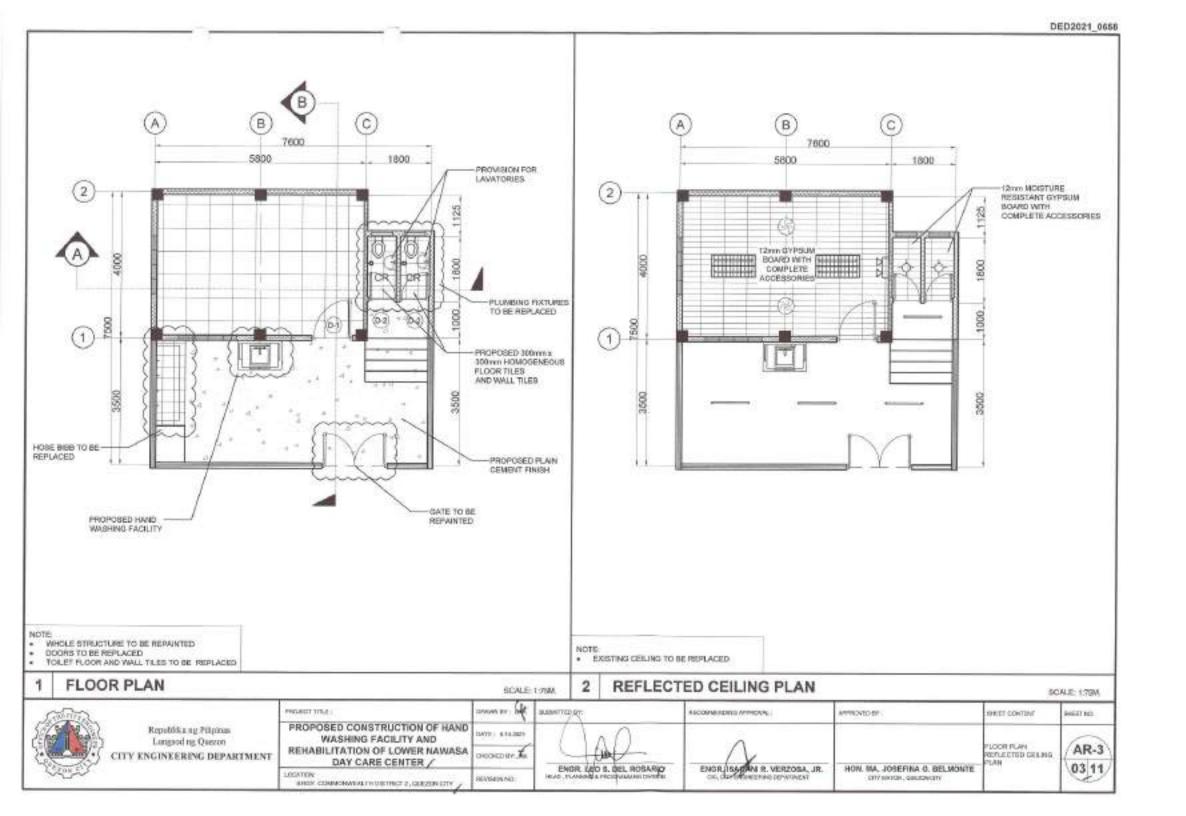
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VASA DROCKED BY: 3/4

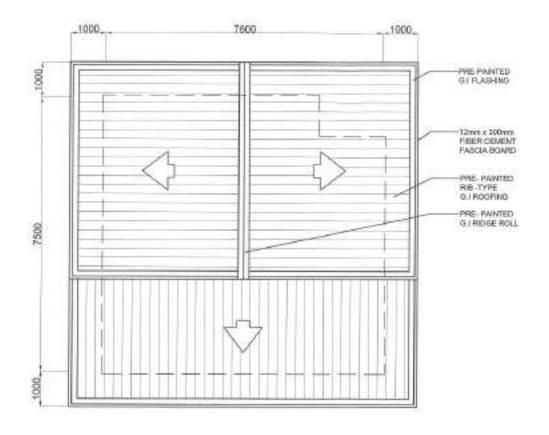




HON. MA, JOSEFINA G. BELMONTE
ODYNOM, GESCHOOTE

AR-2 02 11

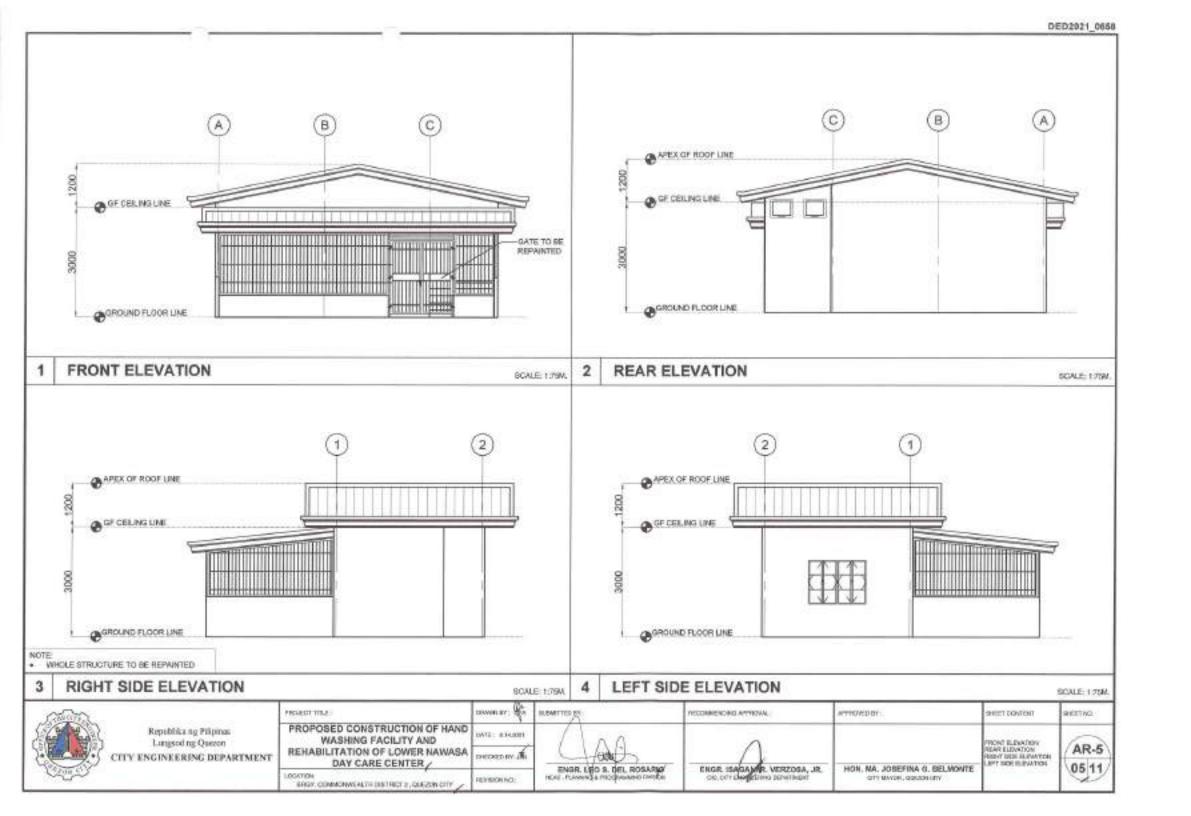




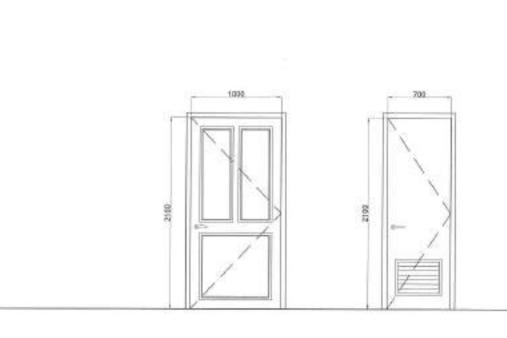
NOTE: EXISTING ROOFING TO BE REPLACED.

ROOF PLAN SCALE: 1:TSM. mount of PROJECT HISE SUBMITTED BY RECORDERED BEG APPROVAL WITHOUGH BY THE PAGE TERMS BRIGHTED. PROPOSED CONSTRUCTION OF HAND Republika ng Pilipisus 1871 811207 WASHING FACILITY AND Langsoding Quantin DOOF PLAN AR-4 REHABILITATION OF LOWER NAWASA CITY ENGINEERING DEPARTMENT DAY CARE CENTER / ENOR BANKER VERZOSA, JR. ENSR. LEO S. DEL ROSARIES 04 11 HON, MA, JOSEFINA & BELMONTE REVISION NO.: BITY MAYOR, GIBLIOR CITY

BROW, COMMONWELLTH DRITTHETT 2, DURING TY

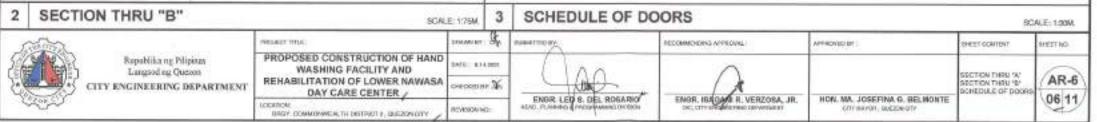


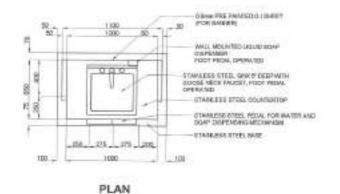






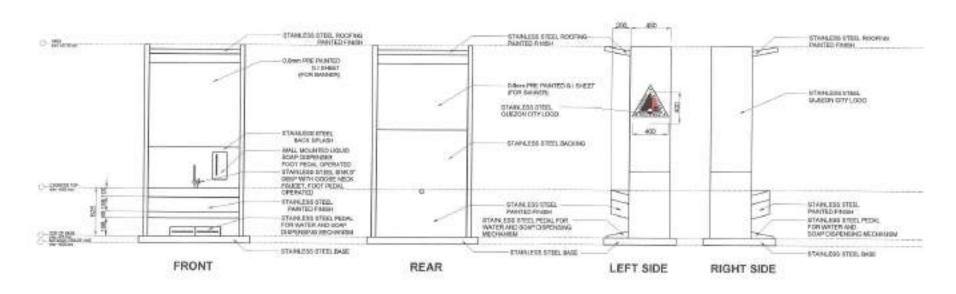
	D-1	0.2
LOCATION	DAY CARE CENTER	COMPORT ROOM
SPECIFICATIONS	PANEL DOOR.	PVC DOOR WITH LOUVER
HARDWARE / GLAZING	COMPLETE ACCESSORIES	COMPLETE ACCESSORIES
NO OF SETS	1	2





1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: 1:30M.



2 ELEVATIONS

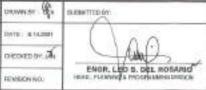
SGALE: 1:30M.



Republikang Pilpinis Lungsod ng Quezon CTTY ENGINEERING DEPARTMENT

PROJECT TITLE:	ţ
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND	Ė
REHABILITATION OF LOWER NAWASA DAY CARE CENTER/	C
LOOKING	

BRIEF, CHIMICHWEALTH DISTRICT 9, GLEZON CIET



	1		
ENGR	ISADAJA	R. VERZOS	M, JR.

RECOMMENDATE APPROVIAL:

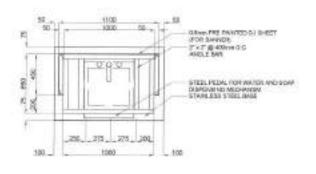
HON, MA. JOSEFHA G. BELMONTE

CIT MATCH, GEGINGOTY

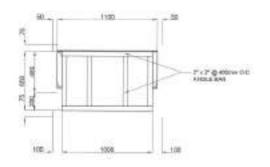
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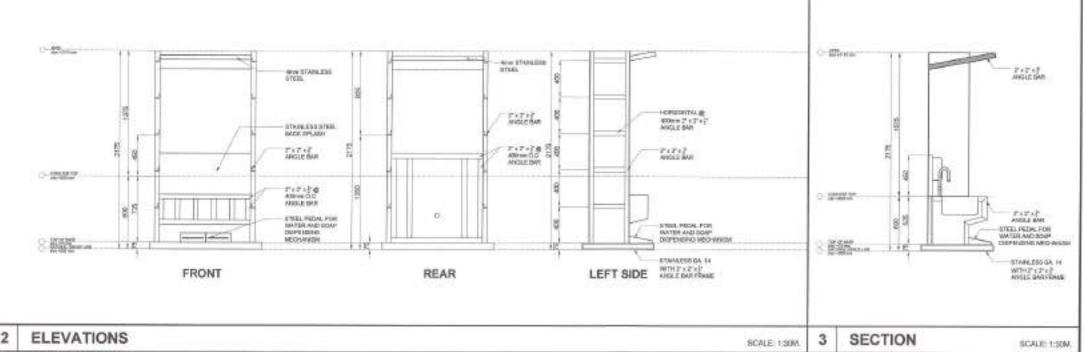
PLAN



ROOF PLAN

1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

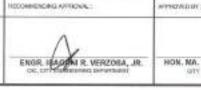
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Republika ng Pilipinas
Langsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF LOWER NAWASA
DAY CARE GENTER
LOCATION
SHOW COMMONWEALTHUSTHICTS, CLEATER CITY



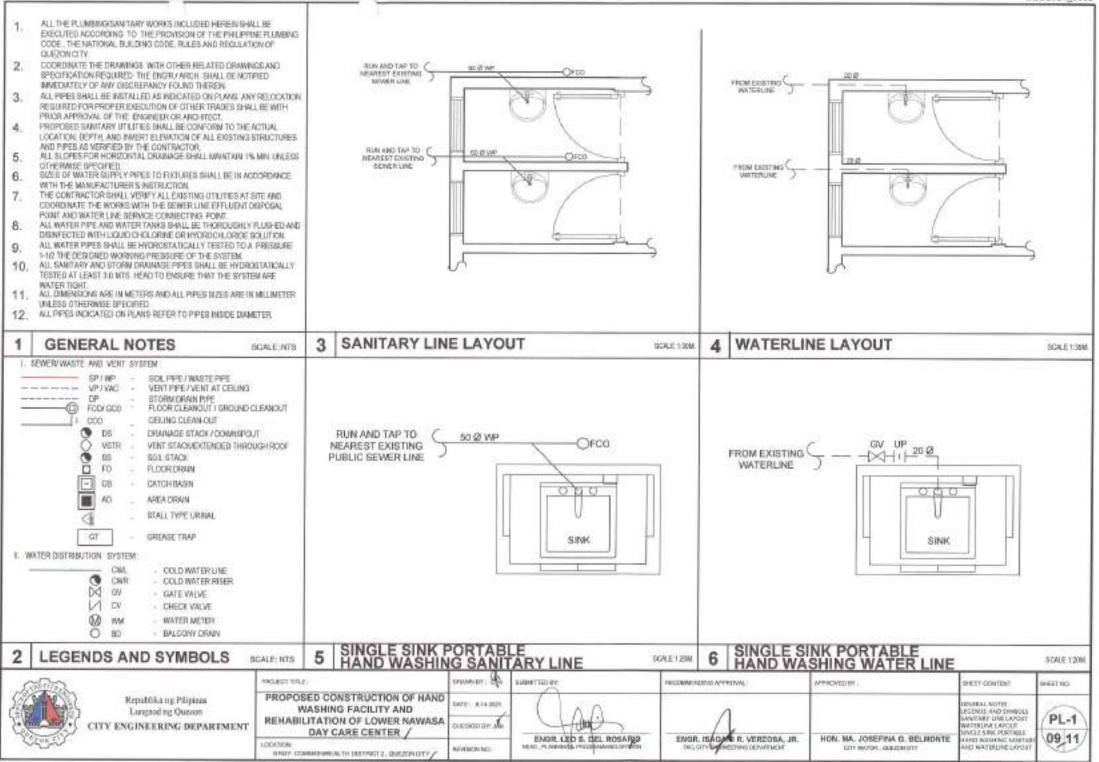


SPICES SINK PORTABLE HAND WASHING TO A TURN WASHING STOLEN AND STOLEN WASHING STOLEN WAYNON, OUR DOCKNOWN THE STOLEN WAYNON, O

ST-2 08 11

SHEETING.

TARTINGO TESRE



GENERAL NOTES:

- 4. ALL D. SCHREIM, WERRESTRAND, SELECTED AND RECOGNISHED WITH THE PROPERTY SELECTED BY THE PREPARATION. ELECTRONIC CODE THE LAVE AND DEPOSITION OF THE LOCAL CODE ENVIRONMENT MORNING INC. THE MADE THE PROPERTY OF THE LOCK, FORER AND TELEFICIAL STUTY COMPANY
- 2. THE CONTRACTOR WALL MINURE ALL REMAYS MAY ALL THESE RESUMES FOR THE VIOLANCE SHALL FRIM UNITS. SWIGHT THROUGH THRUSH GRIEBERG FIREL CREATER AFTER OF SUBCTRICAL REPORTION WICH PRODUCE FROM PROJECT DOMERRISH FUTHORITES FOR CONFLETCHOF MOVE
- 8 ALL SMICOSO WANG-CRIDATE SHALL BE INCOMBUTE AND FOR EXPOSED HIS RELETION HELD BE SERVICED BY CONDUCTOR AND BYON TOXAL METER
- 4. Will, briefly evilus the Recommendative contraction (separate) recognisor to recollising sales in a payment in sensor. AND KEY KRICKED ON THE PLANS. MENN OF ALL PALICEMENTHALL BE CONFUTED WHICH BY THE COST REQUIREMENTS. SUBSIT DRIVEN DESCRIPTION OF THE RECEIPED FOR SPRICE OF PROPERTY PARTICIPATION LOCATION OF RELEGISLANCE DE APROVED BY THE ARCHITECTROPHISMS HAD BUILT BE REPLECTED OF THE YOURSET FRAME.
- 8. No. YOM ROTHERS NICE INVOICE BING, SET HIGH BURGE TWO WHITWANDS SUPERFORDED
- 4. Homos tempo i kun due este areanuetes pacció assureros pocusarias dos principios.
- * . YOU HET HAVE THY OUT IS SAME ITS HIS SOUTHWAY SHIPL, BE PROPERLY SHOULD USE BOHOLD.
- 8. HILLING OF HERWOOD SCHOOL NECESSARY HEIGHT WITH MINE, HOLD TO DO KOCK DAME, HE HE FOLLOWS

CREMINDS SWORDS WASHINGTON THAT THE TELL STATES OF THE PROPERTY OF THE PROPERT

TRUSTHOPEROUTURY - 166 Mill SITY DATE OF FLET + 300 Millson LIESTING BRITCH - HIS MILEY WHILESEE - HERMAN

- METHY TO MICHARCAL PLUMING ANY PRICHARCH CHARGES COMMUNICATED INTO INCIDENCE COLUMNS COMMUNICATED All facility or the big source of the second second second recognitive representation of the second second
- TO MALEMATERIAL PRODESINGS THAT SECURITY COUNTY, SHARE-INVASISHED FOR
- 11. THE CRAWFOLD HIS RECEIVED AND APPLICATIONS OF PRINCIPLE STREET, LANSING AND REGION OF THE DESCRIPTION OF THE PROJECT BUT DO NOT INCOMINANT PROPRIESDOWNING HOUR, COUNTRIES LINKS, HIS DISTRICTS OF THE EQUIPMENT, THE CONTRACTOR IN HERMAN ARGUMES TO MADE BASIN ADAL HERMAN OF THE ABOVE AND DESCRIPTION OF THE ABOVE ADDRESS AND DESCRIPTION OF THE ABOVE ABOVE AND DESCRIPTION OF THE ABOVE ABOVE ABOVE AND DESCRIPTION OF THE ABOVE ABOVE ABOVE ABOVE AND DESCRIPTION OF THE ABOVE ABOVE ABOVE ABOVE ABOVE AND DESCRIPTION OF THE ABOVE Abstraction American wheelvar for the real properties
- II. ANY DECRETMENT SETWED/THE PLANS AND SEQUENT ONE SHALL DE SACIONT SO THE ATTEMPOREDY THE ISSUE HERE.
- 10. ALL LIGHTED AND CONTRIBUTED COURT CRECIPIES AND THESE AND THE ACCURATE AND CHARGOS AND ACCURATE AND ACCUR MARKET DE CEL HIRE BARL. HE L'ESC MIX COPTES MAL ILL, VINGS HIR CREATERSALL DE LECONODERA PELLONE.

12001-000 Libert-Verlice hand offering a common state of the AROUGH GIVEN

14 BOOK WISE SUTTERN EACHDRING SHALL BY FARRENITS PROVIDED, WINT HOWERS ASSOCIATED. MANAGEMENT OF THE WEST BURNACH STILL.

1971D BULLDING YORK MA DVM REATHVEST NOT DISS ASSE STYLES HET THE HAN SOLT HER STREET THE PERSON.

DIVERSION NO.

ON TO MAKE BOTH RECTU, FRENCH DISSOVAND FORCING TAX IN PRACTICAL PROPERTY AND TAX PROPERTY CONTRACTOR C MAY 12 PARK TIES IN THE SIETAL PRIMITING SPRISY AND TOPOGAC TAX HIS DANGED HAVE WELL THOMAS CONTROL AND PROPERTY.

- TE. HE TERCHOOK WORKSHOREN SHEETS SECURITIES BY LOOKE BEETS REVISION FOR DESCRIPTION OF A FOR PRECIDENCE DECEMBER AND ADDRESS AND ADDRESS DESCRIPTION OF PRACTICIPATION WORLD THE MENNATURAL PLACED, RECORDER FAIRTHED AND REPORT THIS RED.
- TO THE REPORT OF THE PARTY WAS THE RESIDENCE OF THE PARTY OF THE PARTY
- IT CONSIDER HIS SAIL SHILL THERE BOYS THAT THE SECRETARY OF SUR-QUARTERS SELECT OF SUR-CONSIST BRIDE SHALL BE FIRED WARE BY 20WG HYDRAN IS SCHOOLS HAVE MADERIAL DATES WAS AN AND ASSAULT. for his code requestables.
- WILLIAM COMPLETION OF COCCURS ALCOHOLD CONSTRUCTION WHEN DISCLARIES REQUIRED THE WAY HER DISCLARIES THE WAY THE WAY. BE PRINCIPALE BY THE CONTRACTOR OCCURRENCE OF THE WIETUNGSTON TO BE RECOGNISHED AND ADDRESS OF THE PRINCIPAL PRINCIP мутик рокруги оту импинитор, окаличний значиний учисти в серьести от и отрости от простига, вчетья, THE CONTRACT WAS TAKEN THAN THAN THE PROPERTY OF COMMENT MINISTRACT SHALL BUT THE BUT FORM

_	1900AN, 75, 1 X 28W LEB, TRUE DON'T
0	SCOWNER THROUGHT LCD
	RODEN X TORONAL 2 X 20% LED PECKSED TROPPER TIPE
20	DIFFERENCY LIGHT
	DOT WORT
	SHOLE POLE SMECH (LIGHTS)
26	TWO POLE SWITCH (LIGHTS)
*	SELECTION SWITCH (FWI)
Ф	DUPLEX CONVENIENCE DUTLET
(6)	COLING FAM
-	PANEL BOXES
(M)	HILD-MATT METER

MDP

				CURRENT	CHICUIT EREARES			WIRES AND CONDUST		
OET.RO.	IO. LOAD OF CHIPTICAL	YOU	POMIS	[AMPDE]	AT	AF		UH SERIO -	GROUNS	594¢
E	2-190fffE, 2-FMsGHF, 4-73, 2-F/ME	1785	1188	3.17	20	30	. 1	2-35em²	1-35mm ²	20 mm il PVC
2	6- CONSTRUCT OCILES	238	900	3.9%	:28	500	7	2-35em	1.25am²	20 cm # 760
3	SIME	236	1000	486	36	50	7.			
4	39981	218	1300	4.25	.24	165	- 2		-	141
- no	TAL DIMPOSTED LOAD		3000	35.7%		-				

CROUT PROTECTION COMPUTATION:

I++(4088/230 V) * 525%

I₁=22.22 anpere

OVER CURRENT PROTECTION: USE: 60 AT, 2F CB BOLD-ON

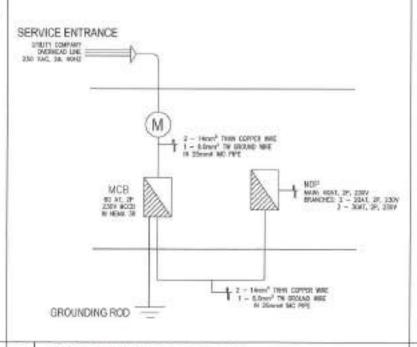
MAIN FEEDER:

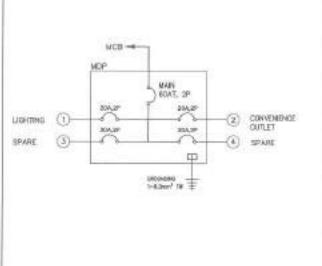
USE: 2- 14mm2 THRIR WIFE & 1 - II Dmm2 TW GROUND WIFE

TAY 25mm (\$1 BMC TYPE

LEGEND LOAD SCHEDULE SCALE: NTS

SCALE: NTB





GENERAL NOTES

SCALE: NTS

SINGLE LINE DIAGRAM

DRAWNEY: CA

HOSSAILS CETAG

OHEOMED BY THE

REVENIEN NO.

SCALE:NTS

AVERTINA DIRECTIONAL

RISER DIAGRAM

APPROVED BY

BOALE: NTS SHEET MO.

Republika ng Filipinas Langsod ng Quezon CITY ENGINEERING DEPARTMENT PHICARGE TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LOWER NAWASA

DAY CARE CENTER / BROY, COMMONWEALTH DISTRICT 2, QUEZONICTY





REPORT AUTRIE LEGEND LOAD SCHEDULE INGLE LINE DIAGRAM HIGHER TENGERAM HON, MA, JOSEFINA G, BELMONTE DET MAYOR , QUEZON DEY

INSTRUCCIONE



THE SITE



THE SITE



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ARH	LEGGESTAY OCHEV BY REPORTED
ARZ	SPECOVELIPMENT
ARS.	ORIGINOA SORRIAN
AST	NEW YORK
AB5	PERFECTION SCHOOLS
ARK.	SCHEDUL DESCRIPTION AND WHEN THE

PLUMBING

	DOMEN STRUCTURE
Pt-2	GRAND \$ 208 BATERLING LINCOT
750.00	CONTRACTOR OF SERVICE AND LAYOUR.

ELECTRICAL

		THE PRODUCTION OF THE PARTY OF
П	801	STATE STOLENGE STATE
- I	0.2	SYBORD RESOLUTION OF THE PARTY

LOCATION MAP

2 VICINITY MAP



PERSPECTIVE

PROJECT TITUE:

Republika ng Plipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PINADAMA DAY CARE CENTER

BARVANGAY COMMONINGALTH, DISTRICT 2, QUEZON CITY

ENGR, LEO S. DEL ROSARIO

RECOMMENDING APPROVAL:

ENGR. SAKAN R. VERZOSA , JR.

APPROVED BY:

HON, MA.JOSEFINA G. BELMONTE CTYANION

SCALE: NTS SHEET CONTENT

LOCATION MAP

VICINITY MAP

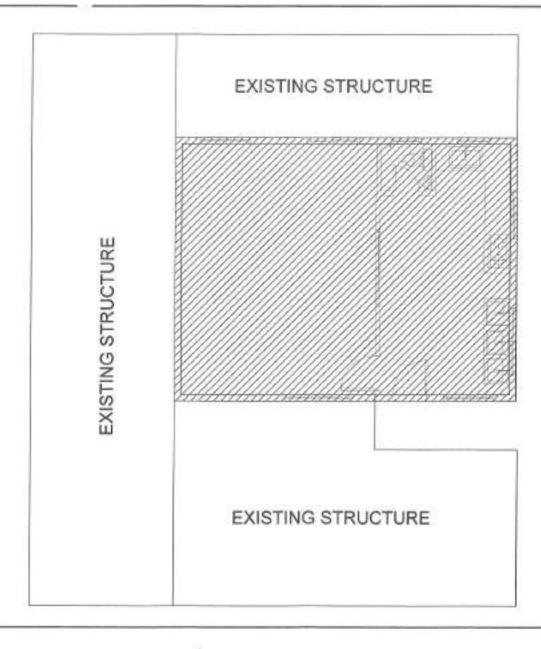
PERBPECTIVE

SKEET NO.

AR-1 1 11

SUBSETTED, FC.

onourn An



1 SITE DEVELOPMENT PLAN

SCALE: NTS SHIIT NO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PR	OPOSED CONSTRUCTION OF HAND
WAS	HING FACILITY AND REHABILITATION
C	F PINADAMA DAY CARE CENTER
SCAPPINE B	IRANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

ENGR. LEO S. DEL ROSARIO

SUBMITTED BY:

\cap	
ENGR. SAGANI R. VERZOSA , J	R.

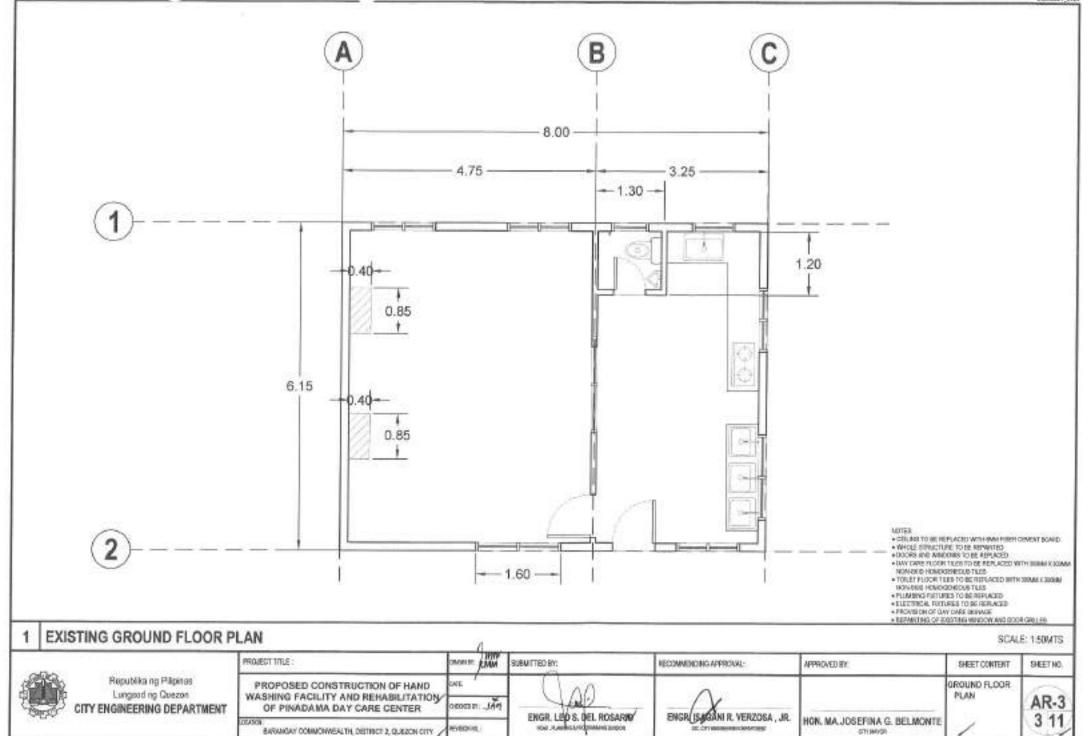
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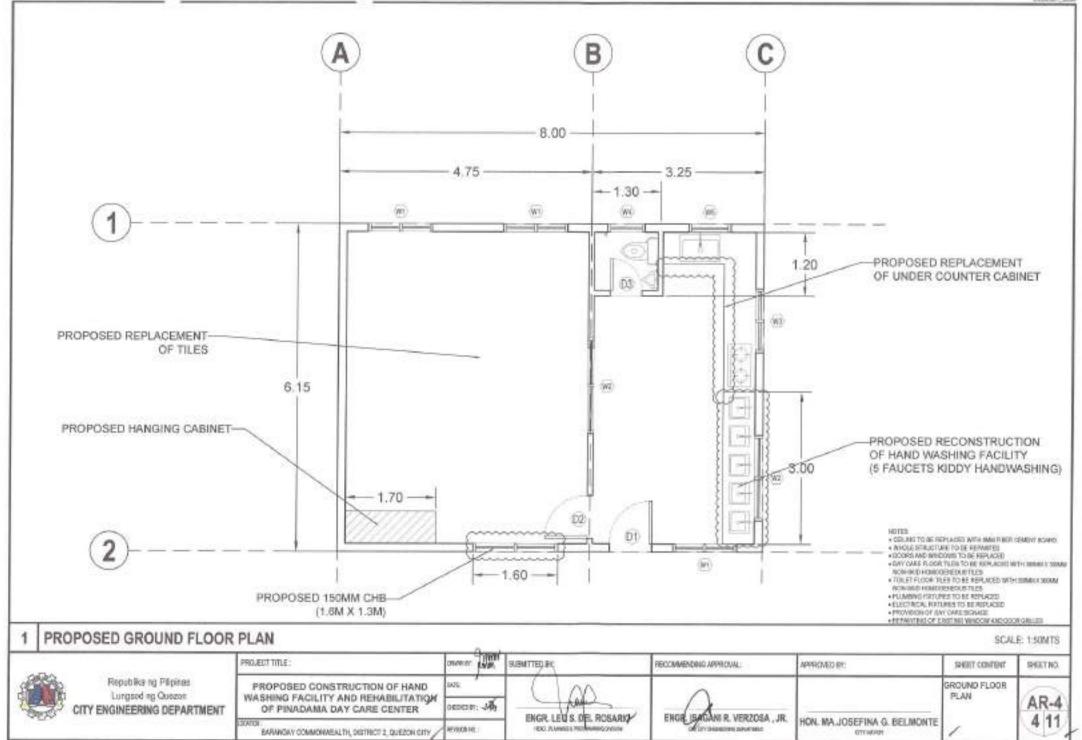
HON, MA.JOSEFINA G. BELMONTE

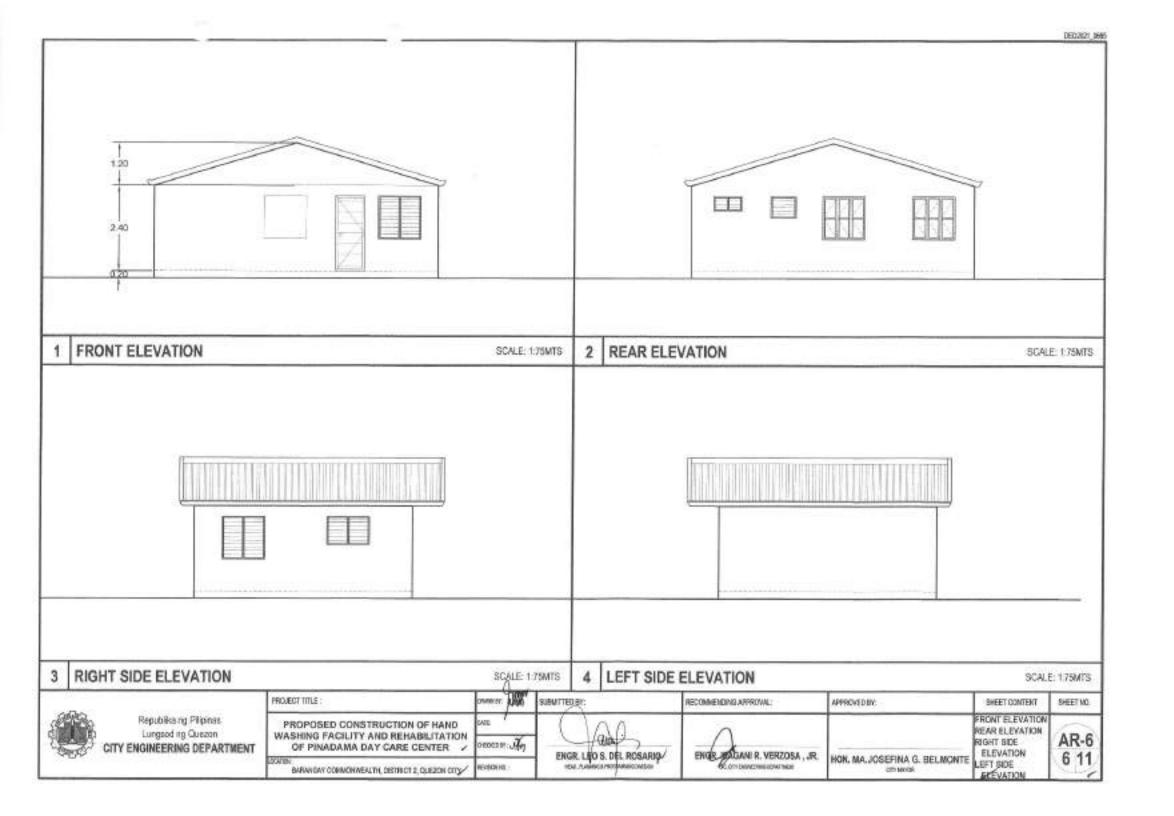
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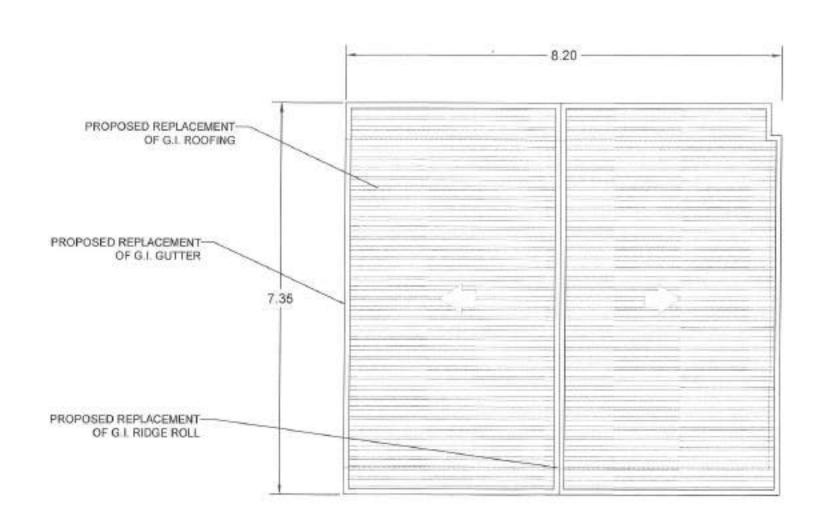
STE DEVELOPMENT AR-2

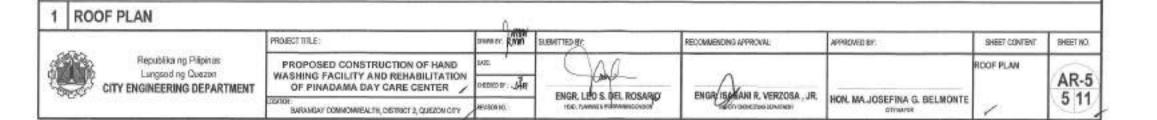
SHEET CONTENT





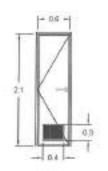






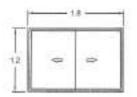


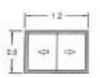




DESGRAFICA	(1)	€	€9
SMICE.	SWING TYPE, FLUSH HOLLOW	DOUBLE SWING TYPE, PLUSH	BWING TYPE, PVC DOOR,
	CORE DOOR,	HOU, OW CORE DOOR	WITH 400mm > 300mm
	PANTED FINISH (NITTEN	PAINTED HINSH (KITTEN	LOUVER, PAINTED FIMSH
	WHITE)	WHITE)	(RITTEN WHITE)
RAZMS	COMPLETE ACCESSORIES.	COMPLETE ACCESSORIES	COMPLETE ACCESSORIES.
	DOOR KNOB	DOOR KNOB	DOOR KNOB.
	LEVER-TYPE SINTIN	LEVER-TYPE SATIM	LEVER-TYPE SATIN
	STANLESS FRISH	STANLESS FINISH	STAMLESS FINISH.









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2.4	1		- 3	d

DESIGNATION .	⊕	(D)	∰)	(T)	(1)
SPECS	SLIDING WINDOW, GYIN THK CLEAR TEMPENED GLASS ON WHATE COLOR POWDER DOATED ALLIWINUM FRANES	SUDBIG WINDOW, even THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALLWINUM FRAMES	SLEING WINDOW, Serr THN CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALMINUM FRAMES	ARRING WINDOW, SINK THE CLEAR TEWPERED GLASS ON WHATE COLOR POWDER COATED ALLWINGER FRANCS	AWNING WINDOW, 5mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALLWINJA FRAMES
HARDWARD GLAZING	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES

1 | SCHEDULE OF DOORS AND WINDOWS



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE	
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PINADAMA DAY CARE CENTER	
SURBLE BARNAGAY CORNACHWEALTH, DISTRICT Z. QUEZON CITY	

	- A-v	
	OWNERS BOARD	STRM LLED SK
	DATE	
DN	ococur. A	FH40 11
ν,	reverous:	ENGR. LE

1	10	Λ
-	1000	1
ENGR. L	E0 S. D	EL ROSARIA

1	\cap
ı	ENGRUSAÇÃNI R. VERZOSA , JR.

RECOMMENDING APPROVAL:

	90
HON, MA, JOSEFINA G. BELMONTE	W

APPROVED BY:

	_
SHEDULE OF DOORS AND WINDOWS	AR-7 7 11
1	Charles Lines

SHEET CONTENT SHEET NO.

- 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, deanouts 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 fidures shall be installed as and where indicated. Any relocation will require proper execution in relation with officer brades.
- 3 The plumbing contractor shall verify all axisting 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%.
- # Proposed plumbing utilities shall conform with the actual logation, depth and invertibles of all existing pipes/stiffies.
- 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 femiles shall be flush-mounted to walf and shall be provided with polished cover caps. Do not install floor clean outs except at lines on grade and sevice areas not subject to traffic.
- 10 All underground G.I. pipes in direct contact with soil shall be provided with two (2) coats of protective for govering and wrapped with jute cirth thoroughly soaked in far 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 fintures.
- \$4 All hot water lines shall be provided with proper insulation where exposed.
- 15 All individual branches to futures or group of fixtures and/or equipments shall be provided with air chambers or capped vertical pipe extensions of dimensions as shown:
- H = 450 mm for 19 mm Ø and larger
- H = 300 mm for 12 mm Ø and smaller
- 16 All hose bibbs shall be 19 mm Ø (3/4* Ø) unless atherwise indicated.
- 17 Inlet pipe of septic tank is 50 mm higher than the sigher pipe which is 30 mm higher than the outlet pipe.
- 48 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.

1.	FIXT	JAMES A	AND OTHER	LEGEND

FIXTURE	ES AND OTHER LEGEND
FD RD	FLOOR DRAIN ROOF DRAIN
BHO	SHOWER
WC	WATER CLOSET
NAV.	LAVATORY
URL	URINAL
KB.	KITCHEN SWK
80	BUILDING DRAIN
OD.	DECK DRAIN
000	GEILING CLEANOUT
FOO	FLOOR/GROUND CLEANOUT

DOWNSPOUT

mill limoter INITIAL DIAMETER

SHOWER DRAIN CATCH BASIN

MANHOLE DIRECTION OF FLOW

GREASE TRAP

-	UNION PATEAL
northern.	CHECK VALVE
25	BUILDING SEWER
im	BUILDING DRAWN
er .	WIGHT LINE
ADVIDE	AREA DRAIN / CATCHBASIN
10	PLOOR ORAFY
4	DIMIETER
_	MASTELINE
	WATERLINE
	GATE VALVE
00	DECK DRAIN
pp	CLEANDLE
-	PIPE DOWN
	FFCLP
done.	VILUVETER
40	SATE VALVE
	AREA DIGANT CATCH BASIN
WE	WATER CLOSET
LW	LAWATORY
April 1	MANAGE
146	HOSE BIRB
_	STORM DRAIN LINE
	VENTURE
WC	VENT ABOVE CELLING
DF/90F	CONCRETE PIPE / NEINF, COME, PIPE
VIE.	VENT THRUROOF
City.	DIRECTION OF RUOW / BLOFE

GENERAL NOTES

Republika ng Pilipinas. Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

LEGENDS PROJECT TITLE: MANNEY DUNN A SUBMITTED BY:

SYMBONS.

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION DEDUSEN: 1740 OF PINADAMA DAY CARE CENTER /

BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

ENGR. LEO S. DEL ROSARIO

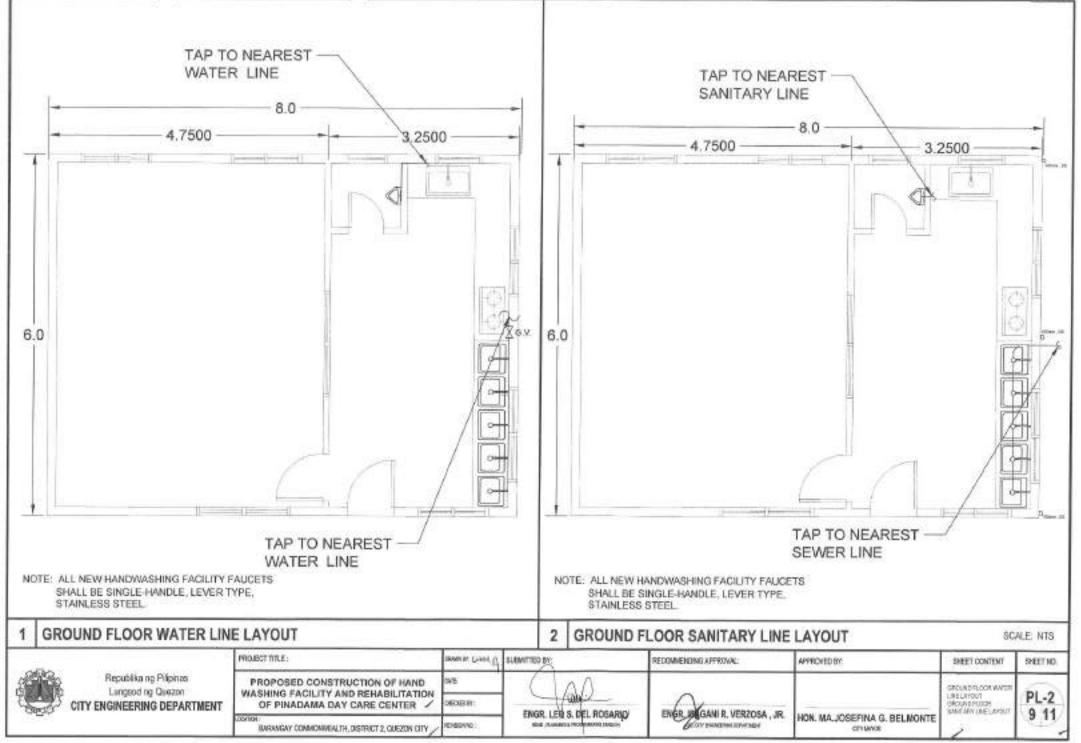
ENGR. ISAMANI R. VERZOSA , JR.

RECOMMENDING APPROVAL

SCALE NTS

APPROXED BY: SHEET CONTENT SHEET NO CERNITAL NOTES PL-1 SCHOOL STREET 8 11 HON, MA JOSEPINA G. BELMONTE





- 1. WILL BUILD TROOM WORKS SHALL BE COME IN ADDOMORANCE WITH THE PROVINCIAN OF THE LATEST FORMER OF THE PIPE PLEASURE OLD COME. THE LAWS AND DECEMBER OF THE LOCAL COOR ENFORCED AUTHORITIES AND THE RECURRENCES OF THE LOCAL POWER AND TELEPHONE
- 2. THE CONTRACTOR SHALL BECLER ALL PERMITS AND RAY ALL FIELD REQUIRED FOR THE WORK AND SHALL RUREDH THE OWNER THROUGH THE ENEMBERS. FINAL CENTRICATES DE SECTIONAL MERICON ALL APPROVAL PROMETRICA DO CONTRAMENT AUTURISTICS POR CONFLICTION OF
- 1. ALL DIRECTORS BRANCH CROVITS SHALL BE PIC CONDUITS AND YOR EXPOSED INSTALLATION SHALL BE NO SUPPORTED BY CONDUIT GLAUPE. **EVERY FOR MUDIETRYS**
- 4. PRILL BOXES SHALL BE PROVIDED BY THE CONTRACTOR INHONEVER INCOMESSAY! TO PACELIZATE WARE PLALING EVEN IN THESE ARE NOT TRECATED OR THE PLANE. SIZES OF ALL PIALISORES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS SUBJECT SHOP DRAWNESS TO THE DIGHEER FOR APPROVAL PRIOR TO SAMRICATION LOCATION OF PILLHOUSE SHALL HE INVIDENCE IN THE ARCHITECUTE MODIFIES AND MUST THE REPLECTED ON THE DISJUST PLAN.
- 1. ALL POWER DUTLETS AND SWITCHES SHALL BE SACURED BY THE WITH PARK UPLEUTE FOR SEC.
- 8. PROVIDE ORDERED FAUL Y CURRENT INTERNATIONS OF EXPLICATE PORTLOADS MARKED SHOP ON THE FLAM.
- F. ALL METALLIC CONDUITS, CARMETS AND EIGU PMINE MINUL BE PROMISLY INSTRUMENT AND ROSCIED.
- 8. UNLISS OF WERNIES NOTED, NOUNTRIO HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OUTLET - 300 MW AFF , TROMM SHOVE WORKING DOUNTER. TELEPHONE DITLET - SIGNAL APP CATY DUTLET - 310 MW AFF DONTRO EINTOH + 1480 MINATE PARELECADO - 1980 KM ANT

- REPER TO HECHANICAL PLANEAG ANY FIRE PROTECTION DRAWINGS FOR RATEIOS AND LICATIONS OF ECUPRISHT AS WELL AS THEIR CONTROL. SEQUENCES AS IPECIFIES AND OR SHOWN LINGER THEIR RESPECTIVE GOTTORS.
- TO HALL MATERIALS TO BE LIKED SHALL INLOFTHE REST QUALITY. BRAND HISWAS SPRIS REST
- 11. THE DRAWINGS AND IMPEDIFICATIONS ARE INTERDED TO PRESENT GENORAL LANDUT AND BROAD OUTLINE/DESCRIPTION OF THE PROJECT BUT DO NOT HODESSAIR LY INDICATO DESCRIBED ACTUAL LOCATIONS, LIEIS, AND DISTANCES OF THE SIGNIFIANT. THE CONTRACTOR IS HEAREN RECORDED TO MAKE SUCH ACCURENCE AT THE JOBSTE AN LOCATION, DISTANCES AND LEVIS & ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
- 12. ANY DISORPHANDY SETWING THE PLANS AND SPECIFICATIONS SHALL IN INDICATED TO THE ATTENTION OF THE ENGAGES FOR CLASSIFICATION.
- 18 AU LIGHTING AND CONVENIENCE DVITLET CIRCUITS SHALL BE 2.5 SIE MAL THANKS COPPER MAS UNUSUS CHRISTMEN MOTED MINISTER OF WAS GRALL BE 3.3 dol risk confer was: ALL VIRES AND CHILLES SHALL BE COLOR GODED AS FOLLOWS:

LAKE 1-4ED LART FELLOW MOUTRAL - WHITE GROUND - GROUN

14. BOYES, WIRE, GUTTERS, SHOUGHER SHAUL BY PARRICHTED PROMISTRES, WITH THICKNESS AS FOUL OWS.

MAXIM IM WITTH OF THE WESEST SURFACE STEEL.

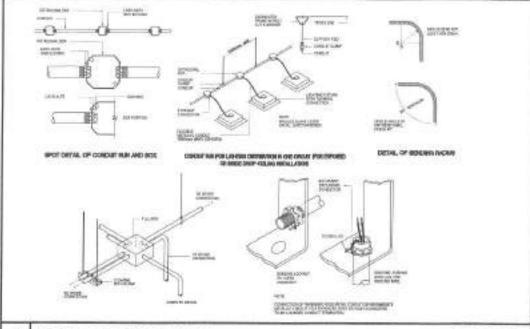
UP TO MICL YORKS 152-40 MW OA THE PARKTHER WITH ME TAIL PRIMER EPICKY AND TOPOGRT. DAMES 152-49 MBH BUT NOT CAVES 407-30. DA 14 PHINTED WITH METAL PRINCE EACHY AND TOROGRA. SA 13 PARTED WITH METAL PRIMER BROOK MAS TOROGKE

OVER 457.36 MIN DUT NOT OVER THE WIN OVER NO MA

SA 16 PARTED WITH METAL PRINCE SPORY AND TOPOCK! 15. ALL ELECTRICAL WORKS HERE IN SHALL BE EXECUTED BY ROPERENCED MEN LINDER THE DIRECT SUPERVISION OF A FULL-THAT LICENSED. GLECTRICAL SIGNABER AND A DOLY ACCREDITED PLECTRICAL CONTRACTOR BY TOKE BUILD BE REATLY REPORT RECIPILLY

PASTENED AND PROPERLY FREEHED

- HE TWE OF SERVICE ENTRANCE SHALL BE SHOULD-PHASE. WHO WIRE PLUX DRIVING. HE HEREZ 2500 AT ROUNGE
- 17. CONDUITS WHO CASE GRAVE THERE BE MORE THAN THE EDUCATION OF FOUR DIAMETER BRIDGS IN ANY ONE SIZE, ALL CONDUIT BRIDGS IN ALL DE FIELD MADE BY LIMES HYDRALLIC REVOKES, MINISTERS NO VARIES BY ACCOMPANCE TO THE DOOR OCCURRENCE.
- THE UPON COMPLETION OF ELECTRICAL CONSTRUCTION HOME, WIRELATION RESISTANCE THAT AND FLAGRICANAL TYTEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETALLS ON FORMS APPROVED BY THE CURCOSIC CITY SINGRESSESS. DEPARTMENT REPRESENTATIVE. THE GROUND RESIDENCE FOR BLECTRICAL STITTING SHALL BOY BE RICHET THAN 5 OHIS, COMBUNICATION. CHOLMONS RESISTANCE SHALL HOT EXCESS 2 OHMS.



MISCELLANEOUS DETAILS

NOT TO SCALE

8	SWITCH (FOR REPLACEMENT)	0	DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
0	E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)	(%)	ADDITIONAL CEILING FAN
_	EXISTING TUBE LIGHT BOX TYPE	30	WALL-MOUNTED EXHAUST FAN (FOR REPLACEMENT)
	ADDITIONAL TUBE LIGHT BOX TYPE	LPP	PANEL BOARD

APPROVED BY

GENERAL NOTES

NOT TO SCALE DIMENTED BY

LEGENDS AND SYMBOLS

NOT TO SCALE



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PINADAMA DAY CARE CENTER

BARANGAY DOMINONNEALTH, DISTRICT 2, QUEZON CITY

OFFICE IN COURSE 9EV50910.

ENGR, LED S. DEL ROSARIO HAS: PANIFIES & PROBLEMAND CONSISTS.

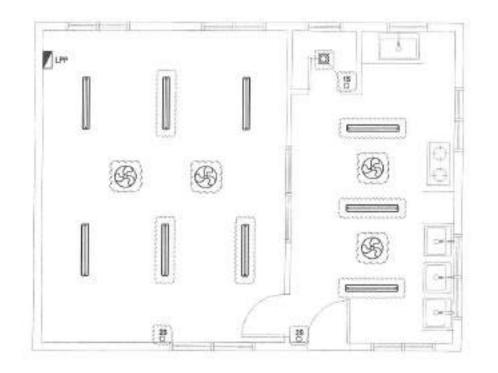
ENGR/ISAGANI R. VERZOSA , JR. of oppositions sometimes

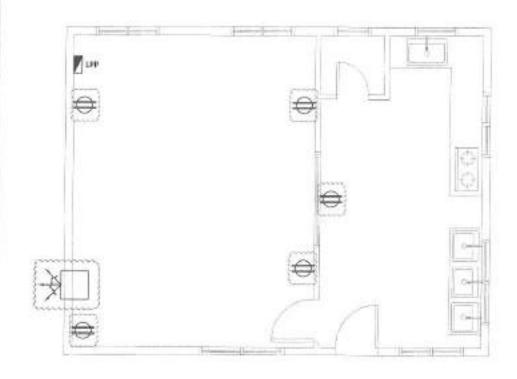
RECOMMENDING ARPROVAL:

HON, MAJOSEFINA G. BELMONTE

SHEET CONTENT SHEET NO. GENERAL NOTES LEGENDS AND SYMBOLS

EL-1 10 11





1 LIGHTING LAYOUT

SCALE 1:50 MTS

POWER LAYOUT

SCALE: 1:100 MTS

SHEET NO.

SHEET CONTENT

Republika ng Pilipinan Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROJECT TILE:

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND REHABILITATION
OF PINADAMA DAY CARE CENTER

BROWGEY COMMONIBELTH, OSTRICTZ, QUEZONOTY

DECRETOR OF STATE OF

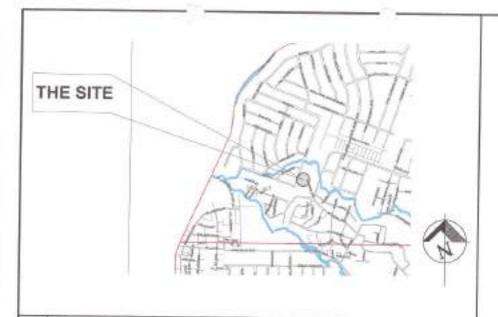
ENGE BANANIR VERZOSA, JR.

RECOMMENDING APPROVIL:

HON, MAJOSEFINA G. BELMONTE

APPROVED BY:

NG LAYOUT EL-2



VICINITY MAP

SCALE: NTS

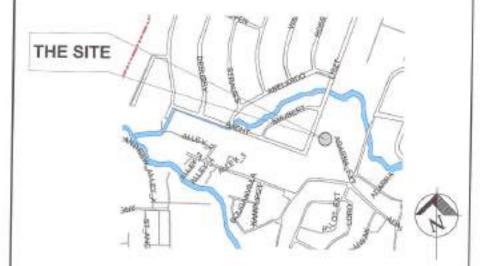




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	RCHITECTURAL
ANT.	VICINITY NAP
	LOGATION PLAN
COLUMN TO SERVICE	HAND WASHING PERGRECTIVE
AR-2	REFE DEVELOPMENT PLAN
	GROUND FLOOR PLAN
AH-3	MODIF PLAN
	CELING PLAN
AR4	PRONT ELEWITON
	REAR BUSWITTON
	LEFY SIDE ELEWATION
2,200	PROHT SIDE ELEVATION
AR-G	SCHEDULE OF DOORS
	SCHEOLILE OF WINDOWS
Aftic.	SHOULD BE ROPE AND HAVE WISHING PLAY.
200	DESIGN THE POSTABLE HARD WASHEST LIKENADO

BTRUCTURAL

87-1 CREOUT SIRK PORTABLE HARD INVARIANT PLAY
DRIBUG SIRK PORTABLE HARD INVARIANT EXIST

PLUMBING

FL4 GENERAL NOTES
LEGEND AND SYMBOLS
SINGLE BINK PORTABLE HAND WASHING GANTARY LINE AND WATER LINE

ELECTRICAL

EL-1 ODNERAL NOTES

LEGENO AND BYMBOLS

SO-EDILE OF LOVOS

SHIGHE INFORMANI

MISCELLANEOUS DITTALS

D.-9 OPPOUND FLOOR LIGHTNIS LIGHDUT

OPPOUND FLOOR LIGHTNIS LIGHDUT

2 LOCATION MAP

SCALE: NTS

PERSPECTIVE

BLUM TIED BY

SCALE: NTS

on S

Republika ng Riipinus Lumpsod ng Quexon CITY ENGINEERING DEPARTMENT PROPERTY.

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PUROK 15 DAYCARE CENTER

DIGATION: BROY, COMMONWEALTH, ENERGIES, GUESON CITY DOWNER P

DOTE: OR HEAT CHECKED BY JA

REVENOVING.

ENGR LED S DEL ROSARIO

ENOR, ISA DAN II. VERZOBA, JR.

RECOMMENDABLE APPROVAL

N. HON, MA. JOSEFINA G. SELMONTE

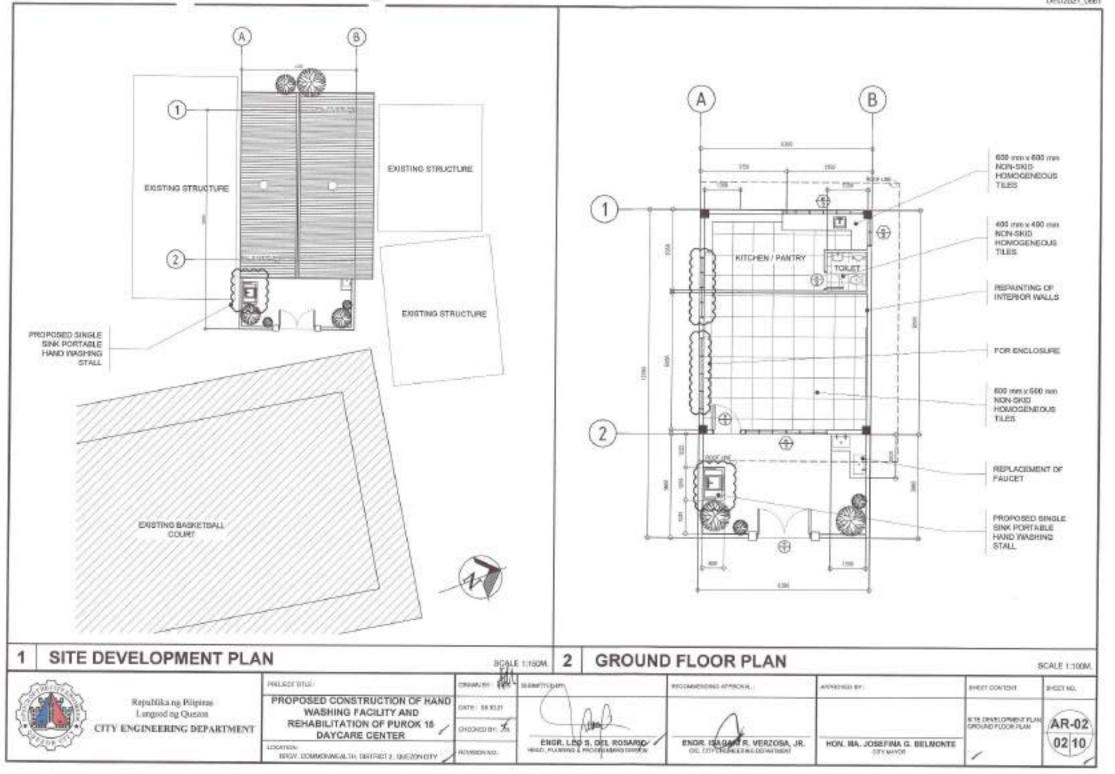
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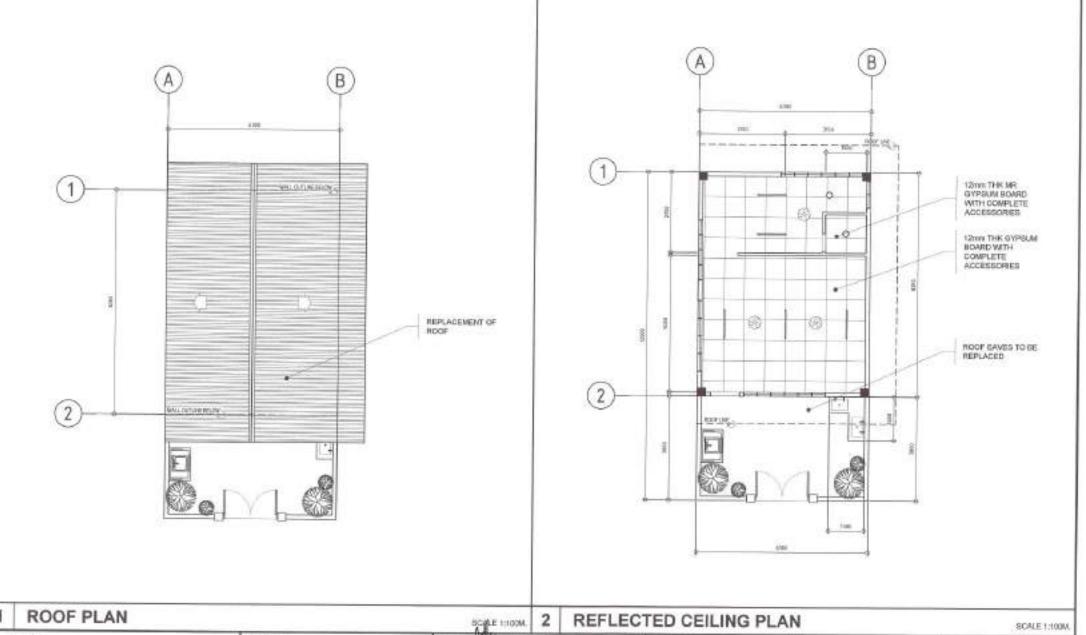
VECROTY MAP ECCUTION MAP HAVE WINGHING PERPENCINE

WIEST CONTON

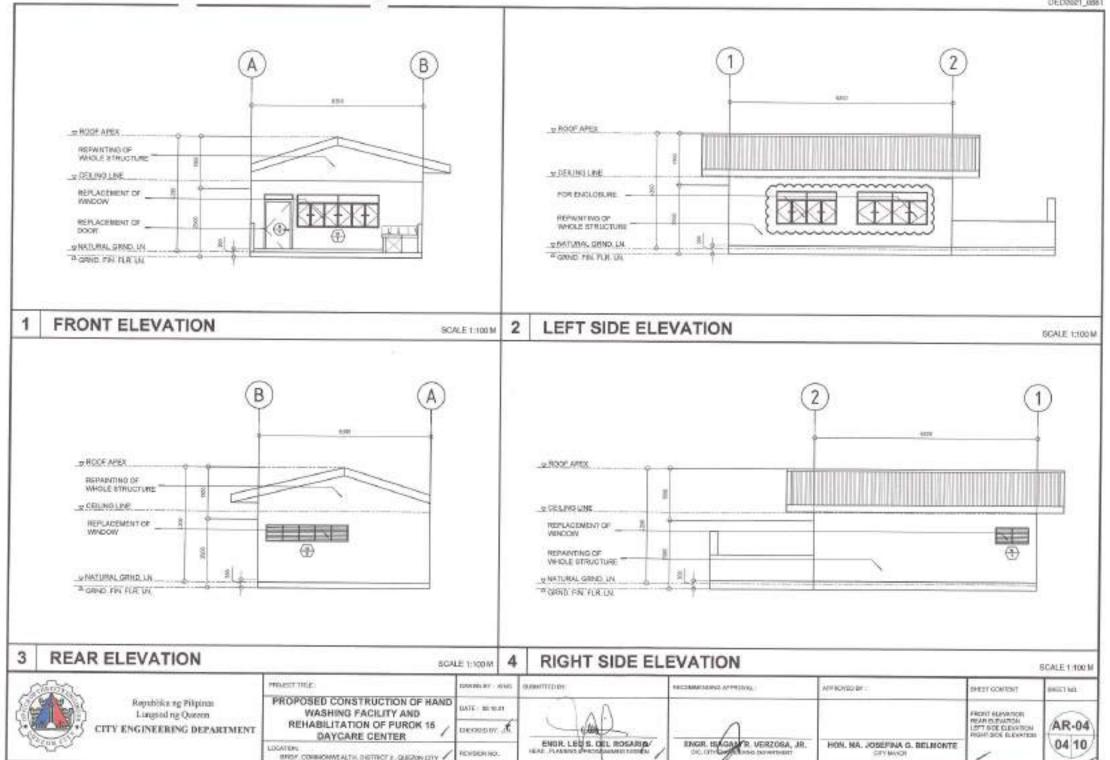
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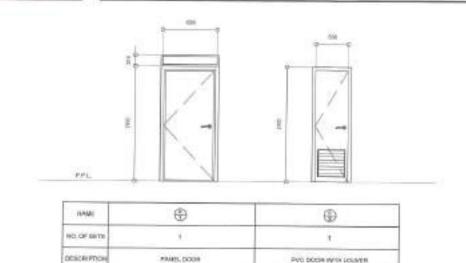
DHEET NO.





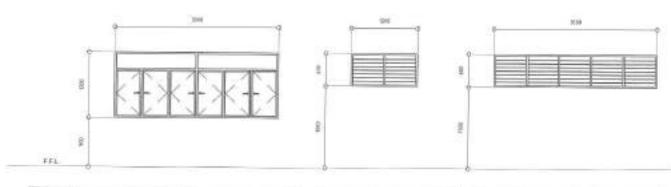
Distance Police PRESSOR TITLE: RECOMMENDED APPROVA ANNIONED BY: SPEET CONTENT WELLINO: PROPOSED CONSTRUCTION OF HAND Republika ng Pilipinar DATE: BRYOLEY WASHING FACILITY AND Lungsoding Quezon ROOF PLAN SEE NG PLAN REHABILITATION OF PUROK 15 AR-03 CTTY ENGINEERING DEPARTMENT GERREROW THE DAYCARE CENTER 03 10 ENGR. LED B. DEL ROSANIO ENGR/ISA ONE R. VERZOSA, JR. HON, MA. JOSEFINA G. BELMONTE PEVERNO. DELA PRINCIPE SROV, COMMONWEALTH, DISTRICT 2, QUICSON CITY





EIMMANEE

LOCATION

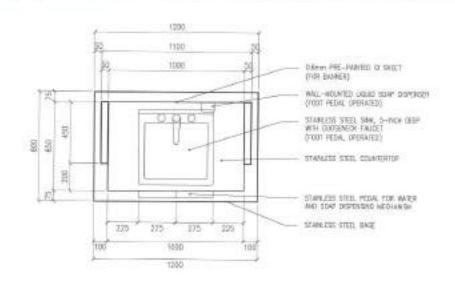


PVC DOOR INTO LICENSE

TORAT

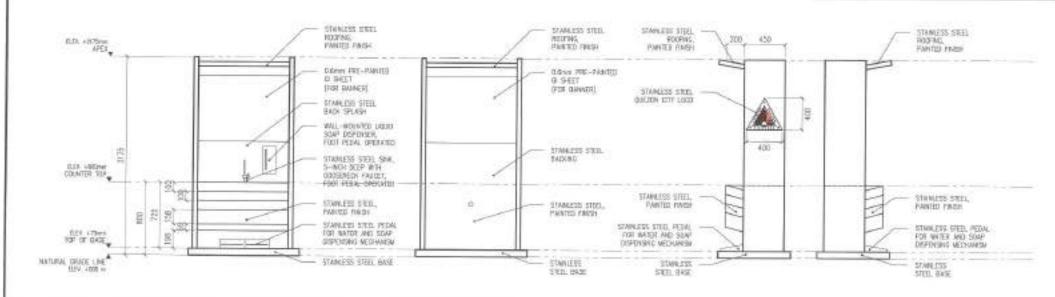
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ROTHINOSS:	ALIBRALE FRAME POWER COMING DAREMENT WHILE W WITH SING THE CLEAR GLASS	ALMMANN FRAME POWDER CONTRO ALCUSE WORKS	ALLEMANDE PRAME POWDER COATED MALCORNE MIRADON
LOCATION	OLASSADOM	ктенен	ктоны





1 SINGLE SINK PORTABLE HAND WASHING PLAN

BCALE 1:20 M



2 SINGLE SINK PORTABLE HAND WASHING ELEVATIONS

BCALE 1:20M



Republika ng Plipinte Langsod ng Queson CITY ENGINEERING DEPARTMENT

PHILACT YOUR	Danwier Ser
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND	DATE: NO.40.8Y
REHABILITATION OF PUROK 15 / DAYCARE CENTER	DEDMONT A
BROY COMMONWEALTH, DISTRICT 2, QUICTOHOTY /	WNIBERIO.

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	ENGR. LBD S. DEL ROSARK ICEL FUSSYNG S PROSPURATED PROD

ROOMSWIND APPROXIS	APPROVED BY
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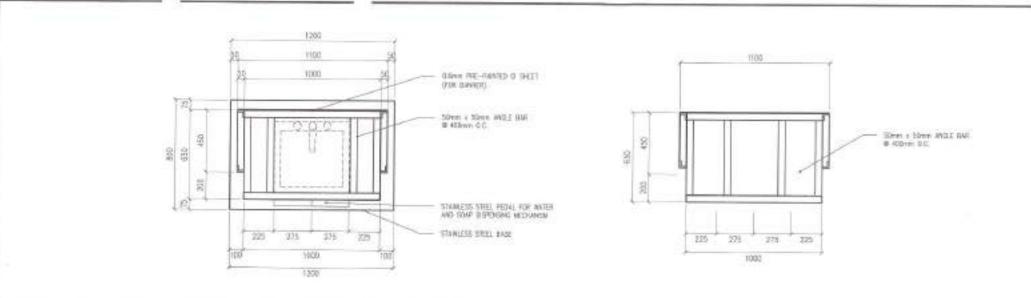
HON, MA, JOSEFINA C. BELMONTE

DIVERSITY

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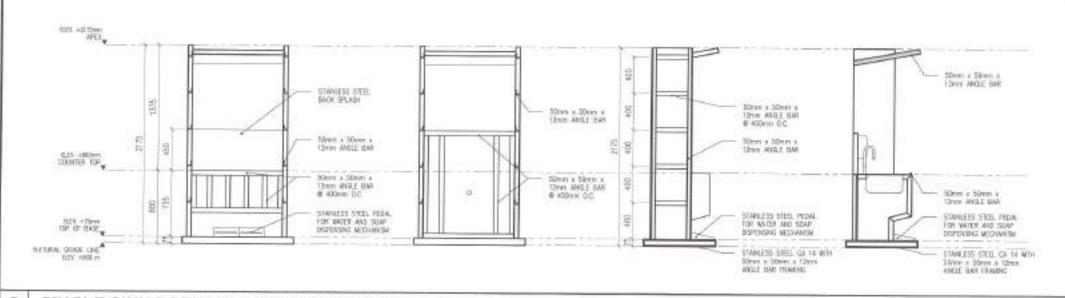
MARKET CONTENT

AR-06 06 10



SINGLE SINK PORTABLE HAND WASHING PLAN

SCALE 1:30 M



SINGLE SINK PORTABLE HAND WASHING ELEVATIONS

BCALE 1:20 M

DEETHO.



Republika ng Filipinas Lungsoding Questor CITY ENGINEERING DEPARTMENT

PROJECT WILE:	DENNIE IN
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND	DATE: BEXON
REHABILITATION OF PUROK 15 / DAYCARE CENTER	Oresessor. In
BROV DOMACHINEACH) SIGNACTY DEFANDITY	нужение.

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7.0	ENGH, LED S. DEL ROSARIO

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i	ENGR ISAGENI R. VERZOSA, JIL
l	

SHEET CONTINUE. SINOLE BUILFORTMER HAND WORKS PLAN SINOLE BASK FORTMOLE HAND WACHENG ELEVATIONS: HON, MA. JOSEFINA B. BELMONTE CRYMAYOR

APPROXICE BY

ST-01 07 10

- ALL THE PLUMBING/SANITARY WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISION OF THE PHILIPPINE PLUMBING CODE, THE NATIONAL BUILDING CODE, RULES AND REGULATION OF QUEZON CITY.
- COORDINATE THE DRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATION REQUIRED. THE ENGRI/ARCH, SHALL BE NOTIFIED.
 IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
- ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS ANY RELOCATION REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE ENGINEER OR ARCHITECT.
- PROPOSED SANITARY UTILITIES SHALL BE CONFORM TO THE ACTUAL LOCATION, DEPTH, AND INVERT ELEVATION OF ALL EXISTING STRUCTURES AND PIPES AS VERIFIED BY THE CONTRACTOR.
- ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 1% MIN. UNLESS OTHERWISE SPECIFIED.
- SIZES OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE AND COORDINATE THE WORKS WITH THE SEWER LINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT.
- ALL WATER PIPE AND WATER TANKS SHALL BE THOROUGHLY FLUSHED AND DISINFECTED WITH LIQUID CHOLORINE OR HYDROCHLORIDE SOLUTION.
- ALL WATER PIPES SHALL BE HYDROSTATICALLY TESTED TO A PRESSURE 1-1/2 THE DESIGNED WORKING PRESSURE OF THE SYSTEM.
- ALL SANITARY AND STORM DRAINAGE PIPES SHALL BE HYDROSTATICALLY TESTED AT LEAST 3.0 MTS. HEAD TO ENSURE THAT THE SYSTEM ARE WATER TIGHT.
- ALL DIMENSIONS ARE IN METERS AND ALL PIPES SIZES ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 12. ALL PIPES INDICATED ON PLANS REFER TO PIPES INSIDE DIAMETER.

I. SEWER/WASTE AND VENT SYSTEM:

COO _ CEILING CLEAN-OUT

ORANIAGE STACK / DOWNSPOUT

VSTR - VENT STACK/EXTENDED THROUGH ROOF

SS - SOIL STACK
C FD - FLOOR DRAIN
C CB - GATCH BASIN

AD - AREA DRAIN

STALL TYPE URINAL

GT - GREASE TRAP

IL WATER DISTRIBUTION SYSTEM

CWL - COLD WATER LINE
CWR - COLD WATER RISER
OF GATE VALVE
CW - CHECK VALVE

CV - CHECK WALVE
 WATER METER
 BO - BALCONY DRAIN

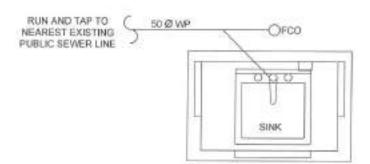
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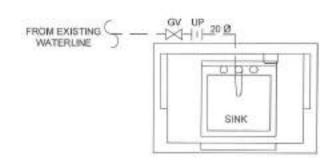
GENERAL NOTES

SCALE NTS

LEGENDS AND SYMBOLS

SCALE: NTS





RECOMMENDED APPROVED.

SINGLE SINK PORTABLE HAND WASHING SANITARY LINE AND WATER LINE

SCALE 1:20 M



Republika ng Pilipinas Lungsod ng Queven CETY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF PUROK 15 / DAYCARE CENTER

BROW COMMONWEALTH, BIRTINGS & CLIENSWICTLY &

DATE SERVERY

DECORDOR OF SERV

ENGR. LED S. DEL ROSARRO

ENGRI ISANAM R. VERZOBA, JR.

HON, MA, JOSEFINA O, BELHONTE

CITY MAYOR

PL-1 08 10

SHEET CONTIDUT

GENERAL NOTES

- 1. REQUESTRON YORKS BRAIL BY DOREST ACCORDANCE WITH THE PROVINGING OF THE LIBERT BUTCOURTHE THEIR THE DISCRETAL CODE, THE LEAST WITH CORRESPONDING THE LOCAL CODE DISCRETAL AND HOST THE RELIGIOUS DAY. THE LOCAL POYER ME TRUPPORT UNITE COMPANY
- 8. THE COROMACTOR BHALL RESIDENAL PREMITE AND PAY ALL PECH WILLIAMS FOR THE BOOK HIS DIRECT PARKET THE WHERE SHOULD HAVE MICHIGARD AND PRICEPES OF ELECTRICAL HUNGER ON MICHIGAN PROGRAMS. COVERNMENT AUTOMOSTICS FOR EXAMPLETION OF YORK.
- All Delicion Meson (Security Meson Delicion) Supply propriet CONDUCT CURRENT SYSTEM TOO SOLUMETED.
- 4 RIQUIDOSD BHALL BE PROVIDED BY THE CONTRACTOR WISHOUTH RECEIVEN FOR PROCEDURE WHE FALLING WISHOW THREE ARCHIO/HOROFIBO ON THE RUMA. MEMBEO FAIL PRILIFERENHILL BE CORFUTED BRHED ON THE CORN WILLIAMSHIP. WIGHT BUCK DANNING TO THE INCOMES YOU APPROVAL WHICH TO FABRUATION LOCKED BY TALKS BEING AND ATTROVED BY THE AND KTECHEROMERS AND WART BY FETTED YOU ON THE WINDS TYPING.
- \$ 40. POWER DUTINGS WITHOUT THE SHELL BY DROBACHED THE NETW HARMALIS, SUCREPORTED IN
- A PROME HOURS HALF CONSIST WINNESPERIOR OF SIERCE CHICAGO WARGOTS CONTRACTOR THE WAR
- T. AL RETROT CONSUMS CHARGES HIS BOUNDARY SHALL BE PROPERLY GROUPED WID SONSESS.
- 8. VALCOU CONSTRUCTION RESISTANCE HIGHER PURI AND MONTHS SERVER SHIEL SEAS FOLLOWS.

A DESIRY OF CULTURE AND A PROPERTY AND ADDRESS OF A PERSON OF A PE

TRUSTRONS DUTLET - DO NO ANY DATE OFFICE - MINISTRALE LICHTURG SPETUS - 1408/MILLIOT PRINCIPAL - 1007 SECRET

- 8 NOTER TO RECHROMA, MUMERICAN PREPROTECTION SEMESTED IN HER MEDICOL PROSECULAR SEMESTED AND A HE THER CONTROL BECOMESE HE REPORTED WIND IN DRIVING THEIR RESIDENCE MICTORIA.
- THE WAS INVESTIGATED TO BE LIBED IN AND BETTER THE BEST GOALTY. BANKS MOVING WHETHER,
- 11. THE DRAWNOS AND SACCHESTORS ARE INVESTED TO RESIDENT LIBERAL LANCAT AND DRAWNOS CONTRACTORS OF THE PROPERTY OF THE PROPERT THE PROJECT BUTTED BUT BUTSBURBLY HIS CATEBOOKING() ALFLIA, LOCATIONS, LISTEL WAS INCOMEDIATED THE COMPANY, THE CHARGE FOR IN HARMON RECEIVED TO MAKE MUCH SCHOOL AT THE COMPANY AND INCIDENCES DATABASES. HIRD CONDING AND INCOMPRESS OF ACTUAL VIEWS CONSTITUTED.
- SO THE DISCREPANCE IN THE RESIDENCE AND AND POSTORS IN ALL DESCRIPTION OF THE REGISSION OF THE REGISSION OF CLARFOOT DECISIONS.
- TE ALL DOUTING SHID COMPRESSED TUTLET CRECUTE WHALL RESE ON AN INVESTOOMING WHITE URLIGHT CHROWING LCTSC WHIRAM RECORDED AND SHALL HE TO SEE BM COMPRESSION ALL WHEN AND CARLLED FROM THE COLOR COMPLANTALISMS.

LORD 1-RED LINE S-STALLOW WINTEN - WHITE SERVICE CREEK

W. BOYER WINE DITTERS BROUGHT BALL SE DIRECTED TRONSFED, WITH THE PROPERTY TOLLOWS. MAKING INVESTIGATION THE WORKEN INVESTIGATION.

LAPTO BUILDINGS YOU'VE UNIT BUT HE ALBOTED WITH MICHAE PREMICE BY DOOR WHO ROPOLAN OVER 103-40 AM BUT HOT DISSE JET 50 SA IN PRINTED WITH METAL PRIMER IPORT AND TOPODAY. OURS ASSESS BREAKET BOTH CORNER TO JUNE ISH OF PHINTED WITH METW. ROMER RIPORT WIRE TOROUGH. SALES PRINTED WITH NET W, HOMER LIPOUR WAS TOPCOW. OVER 100 mail

THE PROPERTY OF STREET WAS DESCRIBED TO STREET, BUT STREET, BUT STREET, BUT STREET, ST FIG. THE EXPERIENCE EXPENSES. ENGINEER VIOLETTES A CONTROL OF THE RESIDENCE HALL BE HEATLY PLACED WICLIABLY HISTORIES AND PROTEINLY PROPERTY.

- 18. TYPE OF SURVICE INFORMED SHALL BE INSCLUMINABLE, THE WHILE PLAN OFFICIAL OF HEIGH DOWNERS AND RESIDENCE.
- IT. CONDUCTS IN NO CASE STIKE, THERE BY MORE THAN THE HOLD WIND OF FOUR GLASTICS ADMINISTRATION AND THE ROLL AND CONTRACT STACE STACK HE FIRST SAME OF USING HYDROCAL CONCERNS. MISSIAN SOMEON HOLD MAY BE PLACED STACK. TO THE CODE HIDDLINGWISH.
- 16. WHAT COMPLETED FOR SELECTIONS CONSTRUCTED WORK AND A FORESTERING THE WID A SELECTION OF SALES SECRETARIO DE TAR CONTRATOS INCLUMENTA PARAMETANTOS COM DETACAMENTA DE FARA DA FARAMENTA BY THE GUESTON GITY SHORESPINES DEPORTMENT REPRESENTATION THE DECURE PRINTED AND IN SCHOOL REPRESENT BHE JACK REMOVE THAT I DOMESTICK CHICAGO CHICA

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DVIR CLERRYT PROTECTION:

CHECKET PROTECTION CONFUSATION: L=13090 / 13045

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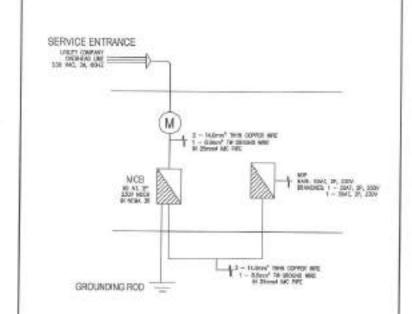
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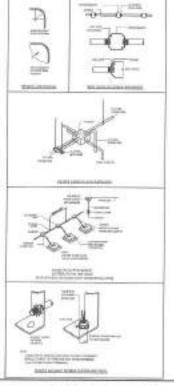
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LOAD SCHEDULE

BCALE: MTS





GENERAL NOTES

PREMIUM TOTAL

SINGLE LINE DIAGRAM

MARKETTON BY

BOALE: NTS

MISCELLANEOUS DETAILS SCALE:NTS



Republika ng Pilipinas Lungsoding Quezon TTY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF PUROK 15 DAYCARE CENTER

BROY, COMMONWEALTH, DESTRUCT & QUESTIVICITY

SCALE: NTS

DATE: BR to bt. эномоги Жи

HEYBER NO.

SHOWING THE

ENGR. LEO 8. OEL ROSARIO MEAD PLANNING PROPERTY OF THE ENGR-HIGHAM R. VERZOSA, JR. OC. OTHER DESIGNATION

RECOMMENDES APPROVAL

HON, HA, JOSEFINA G, BELMONTE **EXYMPOR**

5

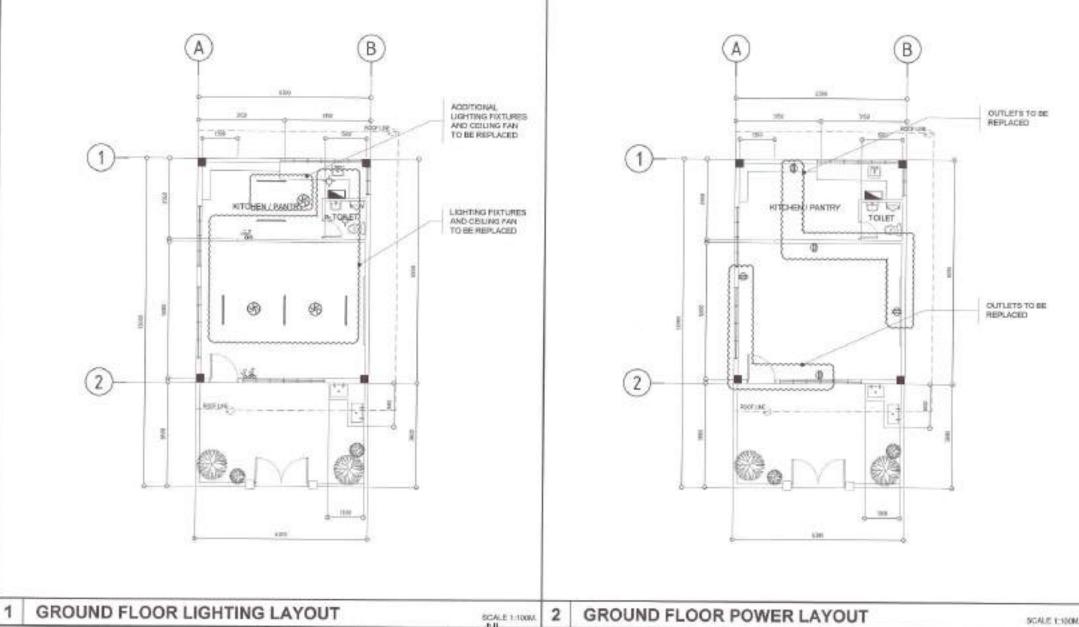
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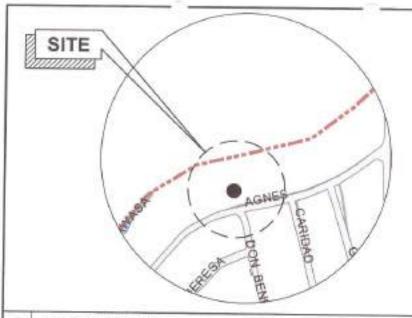
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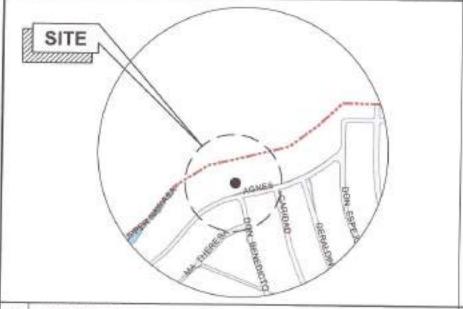


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LOCATION MAP

SCALE: NTS



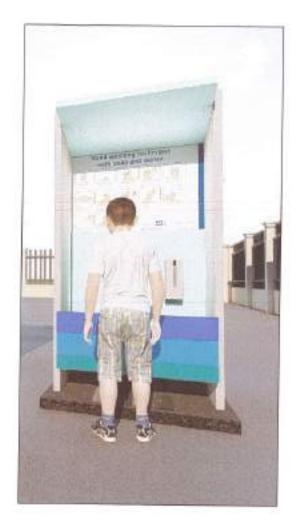


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	VICENTY MAP
	PERSPECTIVE
ARC	SITE DEVELOPMENT PLAN
ARE	GROUND FLOOR PLAN
	GROUND FLOOR REPLECTED COURSE PLAN
AR+	BOOF PLAN
200	SCHEDULE OF DOORS AND WINDOWS
ARE	FROST ELEVATION
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	LEFT ELEVATION
	SECTION THRU'W'
	SECTION THRU IF

STRUCTURAL

SIF-1 OENERW, NUTTER FIOOF DETAILS ST-2 SWILL BINK PORTABLE HAND WASHING STALL PLAY AND BLEWRICKS

AB-B GINGLE BRIK PORTABLE HAND WASHING STALL PLAN AND ELEWITORS

SANITARY/ PLUMBING

PI-1 GENERAL NOTES LEBENDS WYD SYMBOLS STALL SANITARY AND WATERLINE LAYOUT

ELECTRICAL

EL1 GENERAL NOTES LEGENDS AND SYMBOLS LOND SCHEDULE SHOLE LINE DIAGRAM RISSER DIAGRADI EL-2 PROPOSED LIGHT NIS LAYOUT PROPOSED POWER LAYOUT

VICINITY MAP

SCALE:NTS

PERSPECTIVE

PARAMETER BY:

SCALE; NTS

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Republika ng Pilipinas Lungsoding Queen CITY ENGINEERING DEPARTMENT PROJECT TOTAL

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY CARE CENTER

680Y-COMMONWEALTH DISTRICT 2: QUESTIVITY

DOMEST

DATE: 0.544001 окасию эт: Ж PENNICH NO.

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ENGR. ISAGLATIVE, VERZOGA, JR.

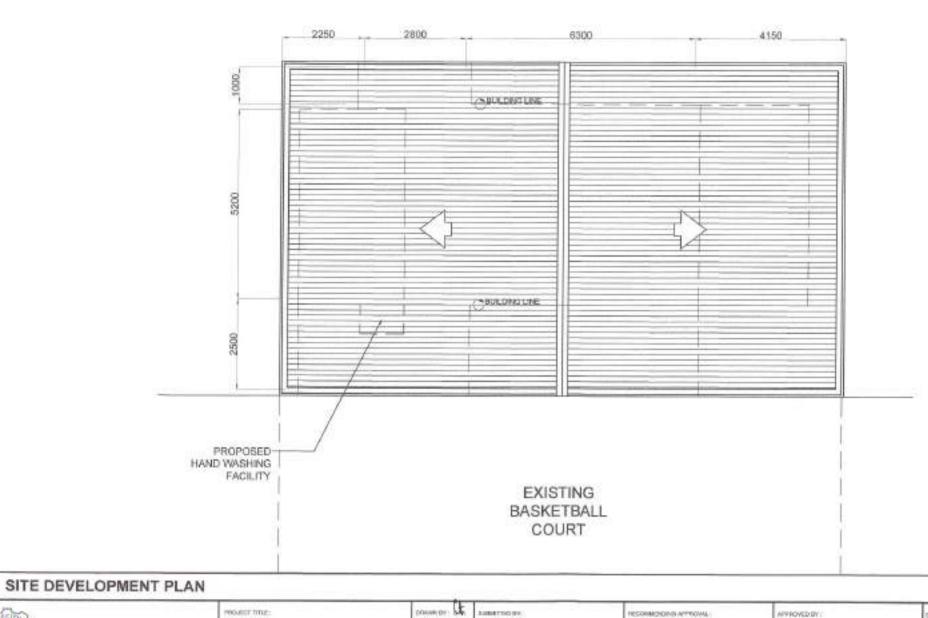
PECOMMENDING APPROXIS.

HON, MA. JOSEFINA G. BELINDINTE OTT WATER, GLEAN OTT

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Republika ng Pilipinau Lungsoding Queenn CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY CARE CENTER

DOMESTIC AND DALE : 014 SER CHEDODIAN AND ICCOTON: BMSY COMMINWEALTH BISTREET E. GUESONOTY

AMBRITHOUS. ENGR. LED S. DEL ROSARIO ELO: 7,4440X PEOPWARIO OVERNE

ENGR. BACAN R. VERZOSA, JR.

SITE DEVELOPMENT HOW, MA. JOSEFINA G. BELMONTE

KITCHWATH, DARROWSTY

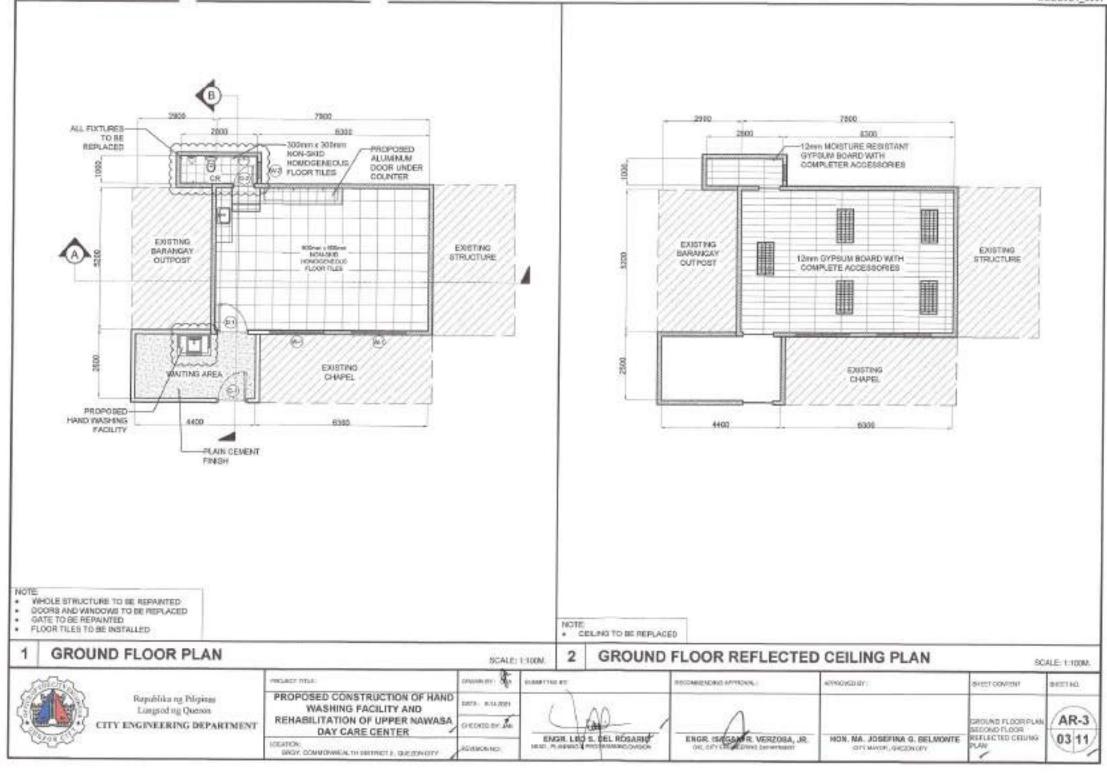
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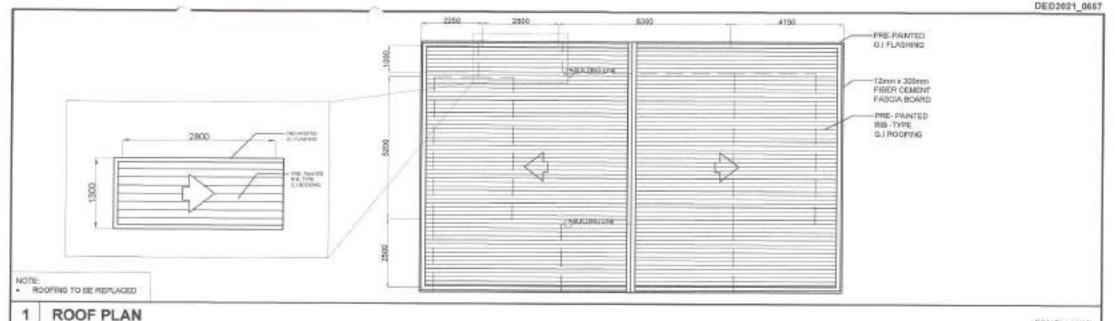
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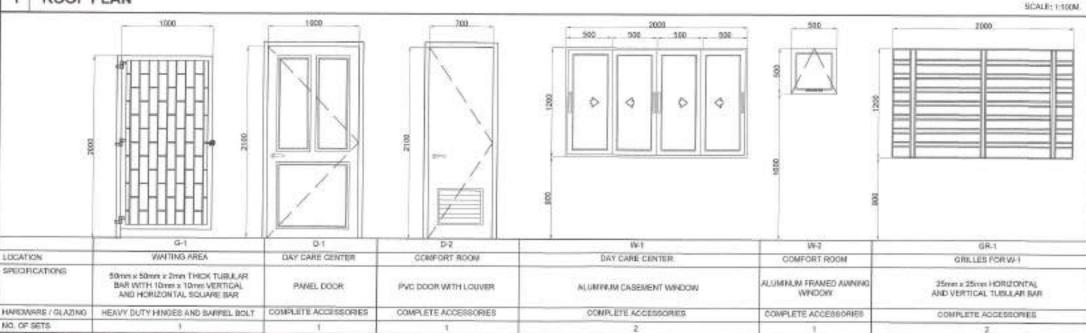
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BRETTING.

AR-2 02 11







SCHEDULE OF DOORS AND WINDOWS

BOALE: 1:30M. DHEET NO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPERT HEAD PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY CARE CENTER BRIGH, COMMONWEALTH DISTRICT 9. QUEZNIN CITY,

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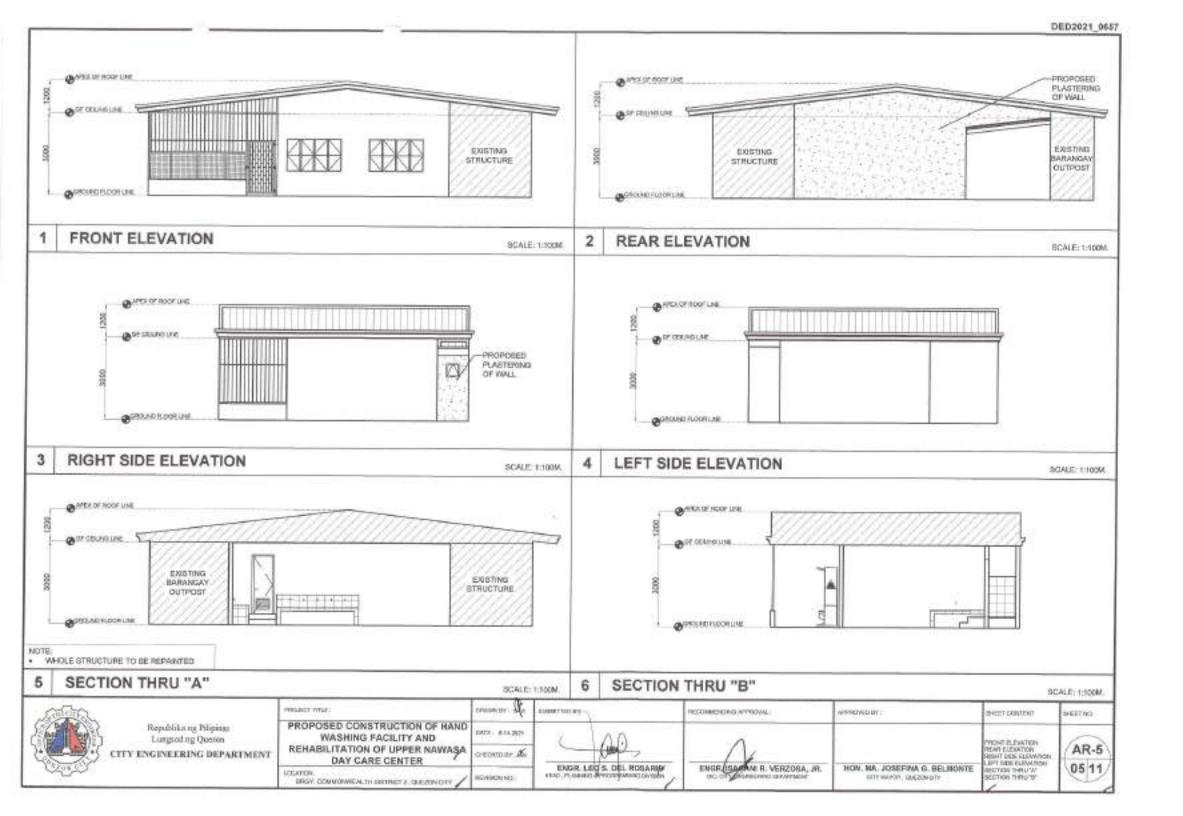
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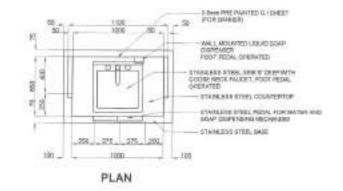
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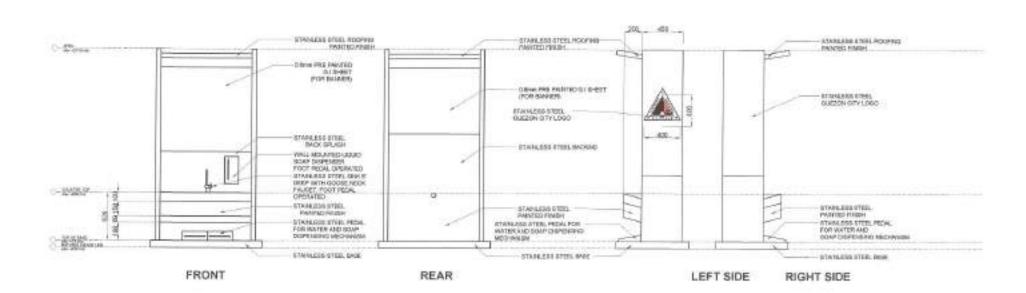






1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE 138M.



STANFORD CO.

DATE: 8.14.0001

DECEMBER 18

HILVERHAD.

2 ELEVATIONS

SCALE: 1:39M



Republika ng Pilipinus Lungsod ng Quesen CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY GARE CENTER

BROY COMMONWEALTH DISTRICT 8. QUEZIONOITY

ENGR. LED S. DEL ROSARIO

ENGR USAGNA R. VERZOSA, JR.

DECOMMENDING NAMED OF STREET

HON, MA. JOSEFINA G. HELWONTE

COYMAND, GAZIONOTY

SHEET CONTENT

APPROPRIES



GENERAL

- EDMERTICS GENERALS AND TYPICAL DETAILS APPLYTO ALL DEALERS UNLESS OF HOMES AND THE SERVICE SHOWS AS DEPOTED FOR HELD ALL CONSTRUCTION.
- INCHERNATION WITH ERECTION WICK ACHIGORIGANIS OF ALL STRUCTURALISM. ENCAPORA PRODUCTADOS TADOS TODA AL MOR SITURIOS DISCOSTRATORIOS DE CONTRATOS DE CON
- MEDIANGAL MERCHANICAN CONTRACTURE FOR COROLER, WEILERUS, EN. TO JE finishingspark covorers
- If BMCLIE THE CONTINUED RESPONSELTY TO PRINTE LONGS OF SHOWER AND BRONZO DE TIM RENUCTURA PORTAL LONDICTRITMANTE MADRES DURIGIDASTRUCTOR.
- WORE OF CLEEN ON WHITE PROVIDE AT REPORT STORMER AT LOTHER EXCLUSIVES, THE ATTENDANCE OF CHECK PROVIDED THE ATTENDANCE OF CHECK PROVIDED

CONCRETE & REINFORCEMENT

- 1 AL METERA IS NOT REPORTANTALE POLICIONADA POR LA FACILIZADA COSC SE AREROAN (CACOS) SEARCH LE POLICIO
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B SHARK CIZUMPE SUSPENCES SAGE	40070-0036966	9000 (TWH)	(v) (185w)
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- 3 ALL REMOTERING SARS SHALL CONFUSATIO PUBLISHERAGE DE
- FOR COME 2 NO MALLIE AND INCIDENT MAKE OF THE MILLIARDINGS.

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- IL MINISTAN MINIMAN CONCRETE CONCRETE HER RESPONDING STEELING PULLOWS

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WALLS ARCHO GOVER	26 616
SETIMATE RODOWNS	46 644

- A PLEASE BHILL BE RECIRCLE WHEN THE PROPERTY OF BUILDING STOR IN CONTRACT. ATH THE ET (THE E OF OF DELCE AND A CHORAGE SHOP) IN COSCID-RADGE INCOME. DWENCH, IPCSCS SHALL BY STREET REPRESENTATION AS
- TALL HONOROUS, STREET, HIS CONTRIBUTED WILL BE PROPORT HUSTORS HIS MICHAEL BY PLACE PRICE TO PLACE HIS CONSTRUCT.
- 4 CONTRACTOR SHALL NOTE AND PROVIDE ALL WINDS, LANGUAGES HALLS SHOULD HOLLINGHISH. MENEROWICH, MACE THAT ARE RESIDENT OF MENTES YOU, ALTERDAL AND MERANCH ORWAND
- BIALL CONCRETE SHALL BE SETT WAS THOSE HORSEN OF SINCE OF CONSCIONAL DATA MASSICALLY APPLIES OF CONTRACTOR OF SINCE SHALL APPLIES OF CONTRACTOR OF CONTRACTO APPROXITE OF THOSE

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STRUCTURAL STRUL AND PLATES

- FIG. NYACYERAL SYBIG BYALL COMPONENTS ARTHLE IN LINE DESCRIPTIONS WITH MANAGEMENT BY STREET, BY 20 LARV.
- 2. MICHORA PASTENER DOLTA, N.C. DOLTA: HALL CONFORM TO ANY MY ROSPHER VALUE OF
- A WOLDSKI RODA, W. L. VELODIĆI RODE SKULI SE SILE GYEST, TI SCENOP, JEDNI HODOGO JEDNI AND I

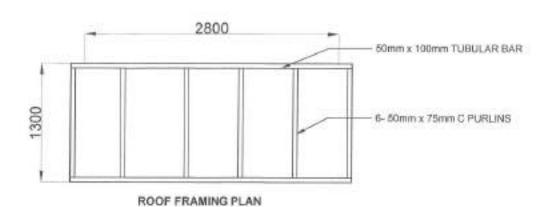
FOUNDATION

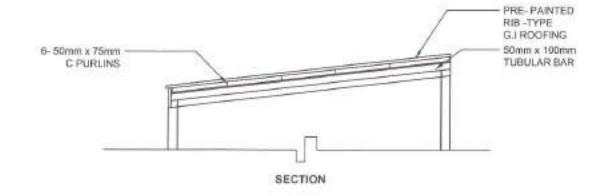
- ACREMATION EDGE-CHRISTIANSED ON WITCHAK, BUILDING COSCOP THE RELEPHANTER AS BUILDINGS. SOL SOURIS OR WORK OF MONRY
- ROUNDATION SHALL HELD DESCRIPTION THE THE PROPERTY OF THE PROPERT
- 2. THE CONTRACTOR ANALYMET PLYTIC DISCRESS LINES COMPLETON OF DISCRESS ASSESSMENT OF RESIDENCE AND CONDITIONS INVESTIGO NOT CONFIDENTS THE SIGN MEMBER OWNERS FOR PROPER REVISION.

MADDINET WALLS

- ALLER TERMS & RESIDENCE SHELLIS IS ACCORDANCE AT THE STRUCKING STURING.
- A SPECIFICACIONE OF THE STRUCTURAL DODE OF THE THE PRINCIPAL DISCUSSION COME. 2. MARTINIA GROUT FOR ALL DUNCRETS AND DRY SHALL DON'THE FOREYOR TO MERCED. TYPE MS. THE WALL WAS A MARKET OF DESIGN PLANTAGE OF ROSE TO MARKET THE PROPERTY OF THE
- I REDRING WINDOWNTH COLUMN BURNING COLUMN BURNING ALL CELLS ESPECIALLY TROSE WITH HEINFUNDING HALLOS PLLICHTS MORDA.
- A RENEDICINEST ACTIVIDATES RELIVERENCE REPORTED LA DESCRIPTION DE L'ACTIVIDADE L'ACTIVIDADE L'ACTIVIDADE.
- I ILL MICHAEL WHILE DAYLING MICHOSO AND ELLINGS BROOKS ASSAURANCE AND INC. SA PER HONIANUS A EVERY 3000-HAS DO JAMES DE PER SEDENCIA DE MESA.

 SA POR DESENS ARRESTANDO DE SAS PRODUCTI LA PER HESALE A O STETU DE AGANDO DE





GENERAL NOTES

SCALE: NIS

ROOF DETAILS

MWN br

SCALE: 1:SOM DESTRUCTION.



Republika ng Pilipinas Lungard ng Queen CITY ENGINEERING DEPARTMENT PROJECT THE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA

DAY CARE CENTER LOCKHON. **BOYORKYNO** BROY COMMONWEALTH BISTRICT 2. QUESTINGTY

NAME OF TAXABLE PARTY. DATE: BAARRO GHODEDINY AND ENGR. LINO S. DEL ROSARDO

PRODUMENTO APPROVA

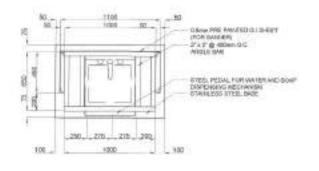
ENGR: TSAGANI R. VERZOSA, JR. DICCOTT ENGINEETHIS OF MAINWASH ETTY REVISE, QUE CONDITION

APPROVED BY

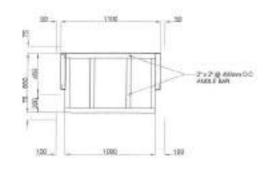
GENERAL MOTES ROOF DETAILS HOW, MA. JOSEFINA G. BELINDRITE.

DISTRICT CONTENT

ST-1 07 11



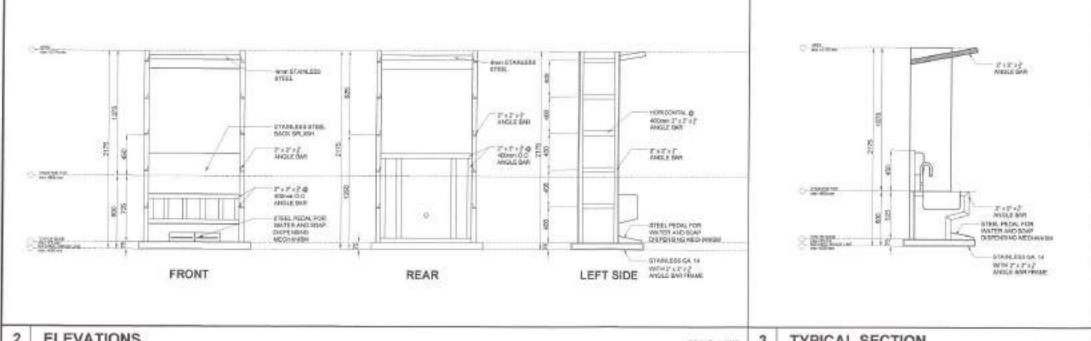
PLAN



ROOF PLAN

SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE 1 DOM.



ELEVATIONS

SCALE: 1:30M

TYPICAL SECTION

WYTERWEITHY:

SCALEH 30M DESTRUCTION.



Republika ng Pilipinas Langsoding Quason CITY ENGINEERING DEPARTMENT

PROJECT TRACE PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY CARE CENTER LODATION:

BROY COMMONMENTH DESTRUCTS, QUESTINGTY

DENNISON SA SUBMITTED BY DECE MINUSES DECRESSION DE ENGIL LEO S. DEL ROSASTO HEAD, PLAYERS A.P. привонно

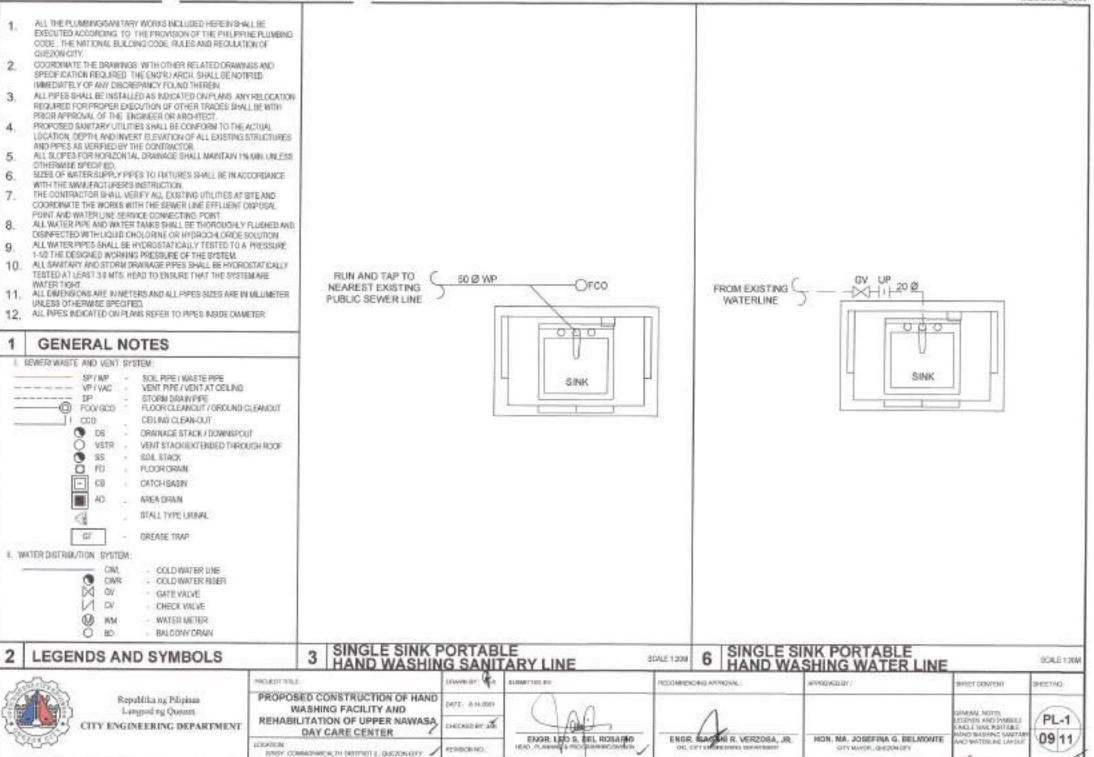


ENOR SARONI R. VERZOSA, JR.

EINGLE BUK FORMALE HAND WASHING STALL PLAN BLEWFICHS TYPICAL SECTIONS HON, MA. JOSEFINA G. BELMONTE SITY MAYOR, QUEZONORY

THEY DOWNER.

ST-2 08 11



GENERAL NOTES:

- ALL EUTOWING, WORKS WHILL BE DONE WASCONSTANCE WITH THE PROPERTY OF THE LABOUR SPITCHES OF THE PROPERTY. EXECUTED ALL CODE THE LANS HAD CREATED THE LOCAL CODE ENGINEERING A PROJECT HIS HIGH THE RECOMMENDATE OF THE LISTON, YOMAN AND TELEPHONE, YOU'VE COMPANY.
- \$. THE CONTRACTOR SHALL DESIRED ALL PRIMERS ARE HELD ALL PRESIDENCE FOR THE HORSE HIS WALL PLEASE THE DAMEST PROJUCT THE DESCRIPTION FROM, ORDER SAFEDOWN, RETRICAL PRINCIPLE AND APPROPRIATE FROM PROPRIET EDWYRREN AUTHORISE FOR CONTINUED WORK
- \$ 40, DANDAR WARD-CROSPINAL IN AN EXPERTMENT REPORTS AGREE AGREE AND A MANAGEMENT AND A STATE OF THE ACT OF TH CHARLY SUMMS EVERY NO MUMERIN
- V. TALL BODGE BALLLING PRODUCED OF EXCLUSIVE CORP. SECURITY OF THE PRODUCED OF WE NOT RECOVER ON THE FLORE. SIGNED IN ALL PALLEDGE WAS SO CONTROL MADED ON THE COST SCIENTIFICATION. MANY INDIVIDUAL DELANGED THE DESIGNATION OF AWARDS. WHO I'VE RESPONDED LOCATION OF PULL STORE SHILL SEE HEREOLEVIEW IN THE ARCHITECTURES ARE MAD MAD REPORTED BY THE HOLDOW PLAN.
- 8. ALL POWER DUTLETS AND INSTORES SHALL BY SNOCKED TYPE WITH MARKED, INCOMPRESENT
- 5. PROVINCENDOS PARA EXPRESENTAR DESCRIPTOR DESCRIPTOR DE LOCA DE LOCA
- 1. BLIBTALICOMOTE OBJETS NO DESPICIT SHILL SCHOOL PROVIDED HE ROKES.

8. URLERS OTHER MODEL WILLAST AND PRICES THAT MISS AND ADMITS AND

TRUBE-COST DUTINT - NOVEMBER DAIN ON PURE - MOUNT NO LIGHT MA REPTOR - 1400 NRCHOT ALASTA GOOD IN THE PARTY

8. REPORT CONTROL NAME AND ADDRESS OF THE PROTECT OF PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPE HIS HARM CORNED, REQUIREDED AN EMPORAL JUST DE REDWI HADER THERE ORDITOTIVE EQ. THORE

PROSPERIOR EXCEPTAGE - NOR HIS NEW, (Hilliam Agov), NOR HIS CONTEST.

FE. ALL MODERALS TO RESPICE WHILL ME OF THE MET SEALTY. MAKE NEW AS INVESTIGATED

- 11. THE DRIVING HIS PROPOSITION WELL TRISTS TO PERSON SOURCE, LANCE AND RESPONDED TO THE DRIVEN OF THE PERSON OF T THE PRESIDENT BUT DO NOT THE SERVICE OF THE DESCRIPTION OF THE ACCOUNT OF THE PRESIDENT OF THE PARTY. THE CONTINUOUS OF WHICH REQUIRED TO MAKE SUCH ASSURANCE OF THE ASSURANCE ASSOCIATION, IN PRACTICE. HIS LEVEL AND ADMINISTRATIVE HELD EMPIRES.
- TO THE CHARGE WITH THE PARTY OF SUPERCANDIDATION.
- (i) BULLERY NO WED DOWNSHOLD OF THE CHOOSE SHALL BE SO SO HAS THANKS DOWNER VARIABLE THROUGH BUTTON. WHEN THE OF WHILE BOLL HE SEED, MA COMPT WHE ALL WHIS ANY CARLES WALL BE THE PROTECTED AN FOLLOW.

A BARRY - DARRY LWED-RELIES HELPHAL WHITE SACLARIA COMMISSION

IN JESUS WAS AUTOMODISCOUNT DIVING TABLES TO FREE THE WAY THOUGH AN POLICY. WASHINGTHOP THE WORKT BLANKS CTOR.

WHEN THE WALLEST STREET, WHITE WALLEST STREET, WALLEST DARK RESERVE THE THE SERVE SERVE CHR SC SCHOOL NOT CHROSING

ISA NEPROPRIED NETH HISTOR, PREMIED HARDS NEW YORKSON'T BY IN PRIVIDE WITH INTIK, PRIVATE BYOM AND TOPOSIT As INVESTIGATION WITH THE PROPERTY AND TOPOUR EX TO PRACTICE WITH METAL PRIVATE BROOK VAID TO DO DO!

10 No. ACRESTATION MATERIAL SERVICE GRADE OR CONTROL AND APPROXIMATE ARTS AND APPROXIMATE APPROXIMATE AND APPROXIMATE ARTS AND APPROXIM HALL THE LEGISLES FLETTERS. CHOICES ME ADMIT MODERN DE DECEMBRE ENVENTE SEVEN MODERNAL. BERTSTRAGE HESHELFARTHER WERREST FILING

to TREAT GOVERNMENT AND ASSESSMENT OF THE SECOND ASSESSMENT OF ASSESSMEN

IT CONDITIONS CONTINUE THE PROPERTY OF THE PRO CONTRACT BRICK SHILL BE FREE BADE BY LIGHT HOWART STATES MANY RECVINE HAS LEVEL BEEN RECOGNICE.

H. LIPSH COMPLETION OF SLACOSICAL CONSTRUCTION WORK, THIS LIPSON RESIDENCES THAT MAD RUSE TOWN THE HALL. AN PROPORTING THE CONTRACTOR INCLUDED OF THE INSTALLATION TO SECREPTINGS IN DETRICACION CONTRACTOR APPRICACIONS BY THE SCHOOL CHY MISSION RESIDENCE OF PARTMENT AND AMERICAN THE CACCAG RESISTANCE TO A QUETOCAL SHOTOM. BACK ORDERTON AND REMEMBER REPORTED FOR PROPERTY BARRIES BARRIES WITH STREET

_	TEXTAM TS. T X SEW LED, TLICE LIGHT
*	180WWW PINLIGHT LEG
	SHOWN I 1200MM, 2 X 20W LED PECESSED TROPPER
등급	EMERCENCY LIGHT
(W)	EXIT LIGHT
#	SMOLE POLE SWICH (LICHTS)
Det	TWO POLE SWITCH (LIGHTS)
**	BILICIDE SWIGH (FAN)
Φ	TUPLO COMOVENCE OUTLET
(3)	COLMS THE
	PHIS, BOHID

KRED-WATT METERS

MDP

	27.12			distance .	CIRCUIT BES AREIS			WIRES AND CONDUIT		
OCTAG.	KOMPOSOPTON	ADEL	KOWIN	CONNECTO	ÅT	M	p	UNGRINO	THE	MWB WIT
1	1-THORFER, 1-RNUGHT, 2-FL, 2-CPAN	220	1260	548	30	90	±	2-55ml	1-55m²	30 ming PA
	5 - CONVENIENCE OUTLET	130	100	891	38	50.	2	1-15mm	1-35mm	20 next PV
3	SMRE	230	1000	435	30	- 30	1		-	
4	SMIZ	250	1000	4.15	30	30	1.		-	7.
70	TAL COMMECTED LOAD		4300	18.09	1		1			

GROUT PROTECTION COMPUTATION:

I; = (4160 / 210 V) * 125%

OVER CURRENT PROTECTION: USE: 60 AT, 2P CB BOLT-ON

1-22.61 amoure

USE: 2-14mm2 THHN WIRE & 1 - 8.0mm2 TW GROUND WIRE

IN 25mm @ IMC TYPE

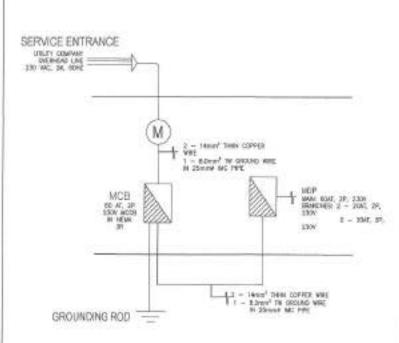
MAIN FEEDER:

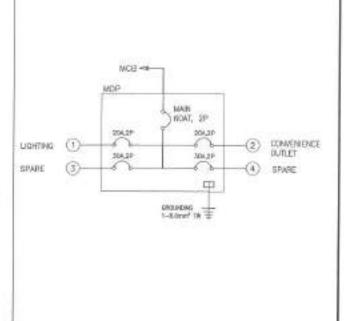
LEGEND

SCALE: NTS

LOAD SCHEDULE

BOALE: NIS





GENERAL NOTES

BCALE NTS

SINGLE LINE DIAGRAM more or Six

REMINDENING.

SCALE: NTS

просмендирири интерие.

RISER DIAGRAM

GTV MAYOR, GREZON CRY

STREET, STREET

SCALE: NTS

RECEING

BHILL CONTINUE

Republikang Pilipines Languard ing Queson CITY ENGINEERING DEPARTMENT PROPERTY AND A

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF UPPER NAWASA DAY CARE CENTER

BROY COMMONWEALTH DESTRUCT 2. CHEEDWICTY

DATE - STREET DHENESS BY AND

NUMBER TO BE

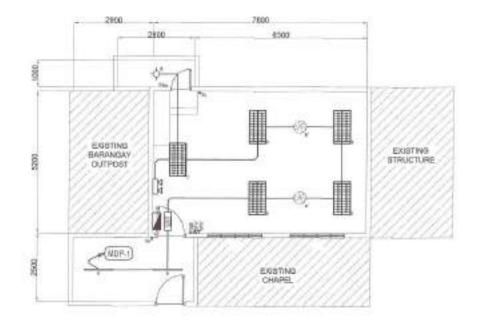
ENGR. LED S. DEL ROSARIO

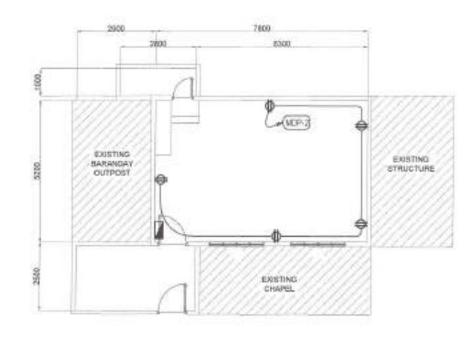
ISAKANI R. VERZOBA, JR. ENGR

5

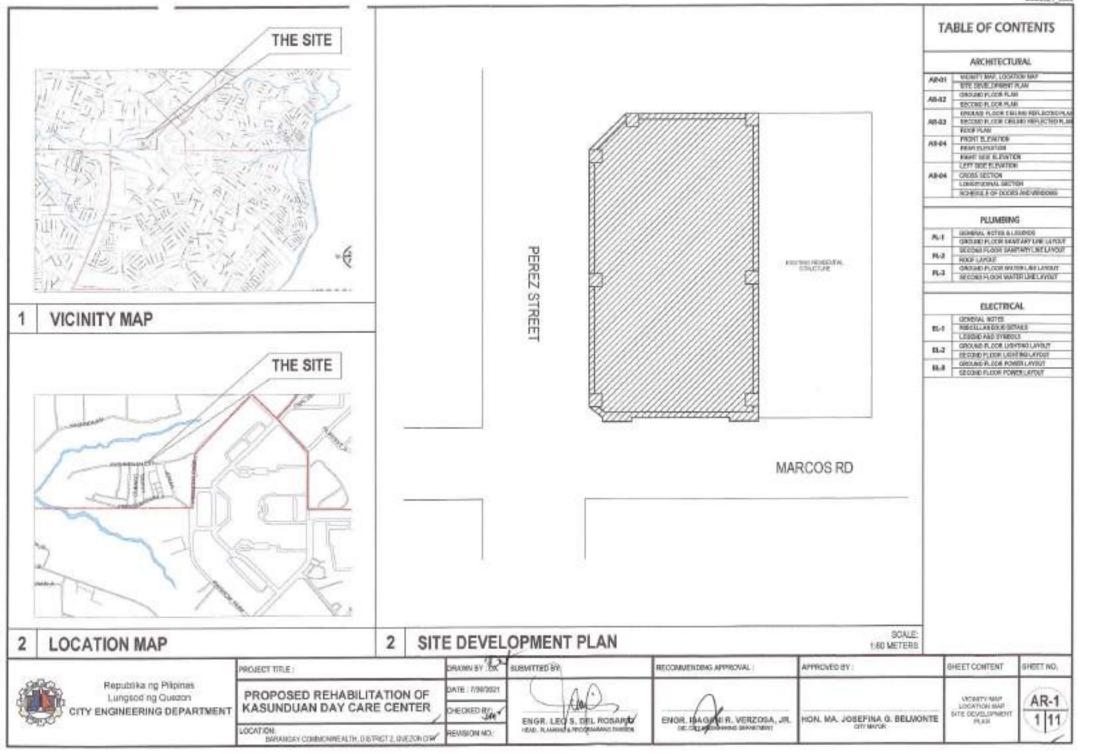
2010/01/25/00/02 E09040 ENGSHORDAD. SHIGHT LINE TRACEMIN MANDRIC PER HON, MA, JOSEFINA G. BELMONTE

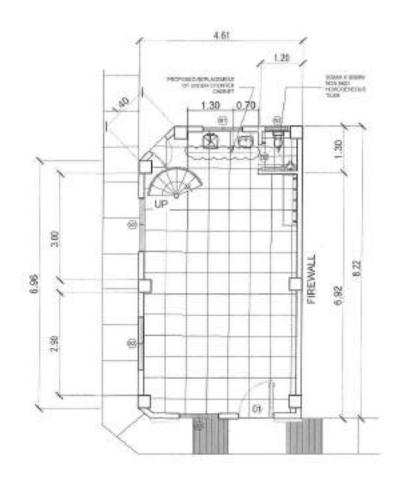
EL-1 10 11





PROPOSED LIGHTING LAYOUT PROPOSED POWER LAYOUT SCALE 1:100M BONLE THOM HANN ET GO STORYSON SPROVE APPROVED BY: OVERT CONTRACT OHEST NO. PROPOSED CONSTRUCTION OF HAND Republika ng Pilipinas DATE: \$14.00% PROPOSED LIGHTING LAYOUT PROPOSED PRIVABIL LAYOUT WASHING FACILITY AND Lungood sg Quaron REHABILITATION OF UPPER NAWASA EL-2 DECEMBER N CITY ENGINEERING DEPARTMENT DAY CARE CENTER ENGR. ISANENI R. VERZOSA, JR. 11 11 ENGR. LEG S. SEL ROSARIO HON, MA, JOSEFINA G, BELMONTE DITY MAYOR: DUESTINGEY PROVINCE NO. RRGY, COMMONWEALTH DISTRICT 2. CLK20W-01TV







- ■PROPOSED REPLACEMENT OF DOORS AND WINDOWS
 TOLET FLOOR FILES TO BE REPLACED WITH DOWN X,300MM
- MON-BIOD HOMOGENEOUS TILES

. WHILE STRUCTURE TO BE REPARTED

4.61

1.20

HOTES

- . PROPOSED REPLACEMENT OF PLUMBAIG HURURES
- PROPOSED REPLACEMENT OF DOORS AND INNDOMS
 TO LET FLOOR TILES TO BE REPLACED WITH SOMM K 300MW
- TOBET FLOOR TILES TO BE BEPLACED WITH SOSIAN X SOSIAN MON-SHID HOWERSHEIGHS TRES
- . WHOLE STRUCTURE TO BE REPAINTED

GROUND FLOOR PLAN

9CALE: 1.75 METERS

SEASON BY TOK SUBMITTED BY:

SECOND FLOOR PLAN

SCALE: 1.75 METERS SHEET NO.



Republika ng Pilipinas Lungsod ng Quecon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER

LOGATION: BARANCAY DOMMONWEALTH, DISTRICT 2, CLEZION CITY

DATE: TIXXXXXII

REVISION NO.:

ENGR. LEG S. DEL ROSARIO

ENGR. ISAGENI R. VERZOBA, JR.

RECOMMENDING APPROVAL

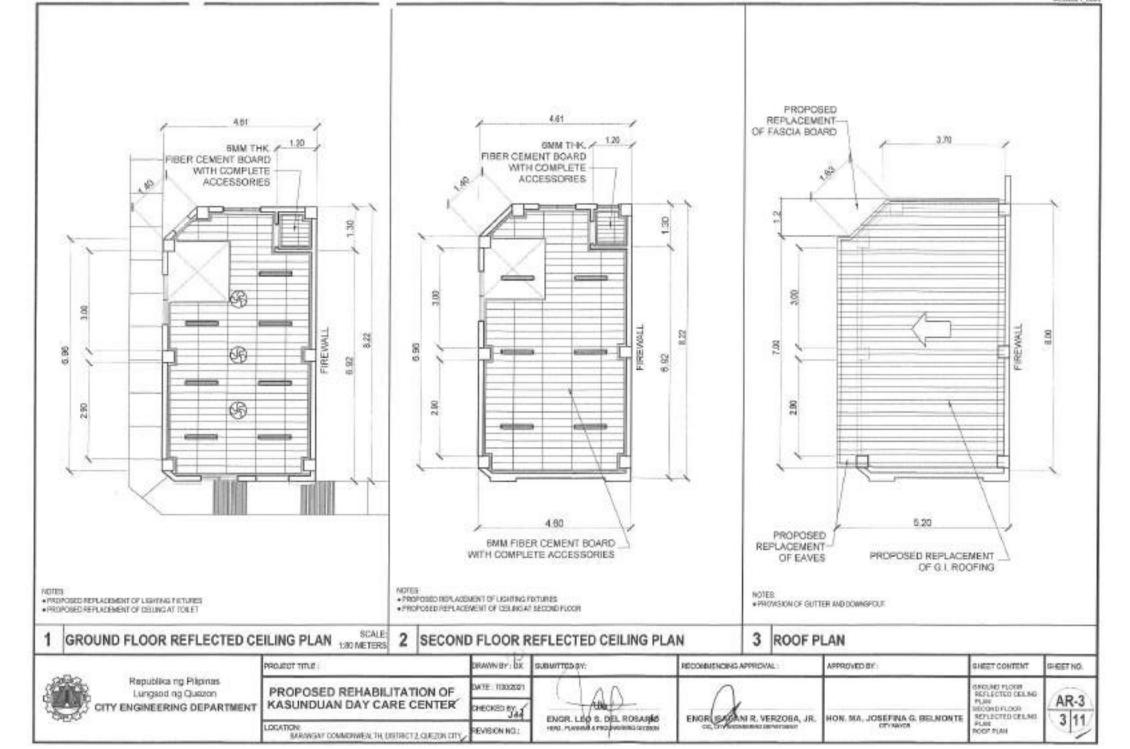
HON MA, JOSEFINA G. BELMONTE

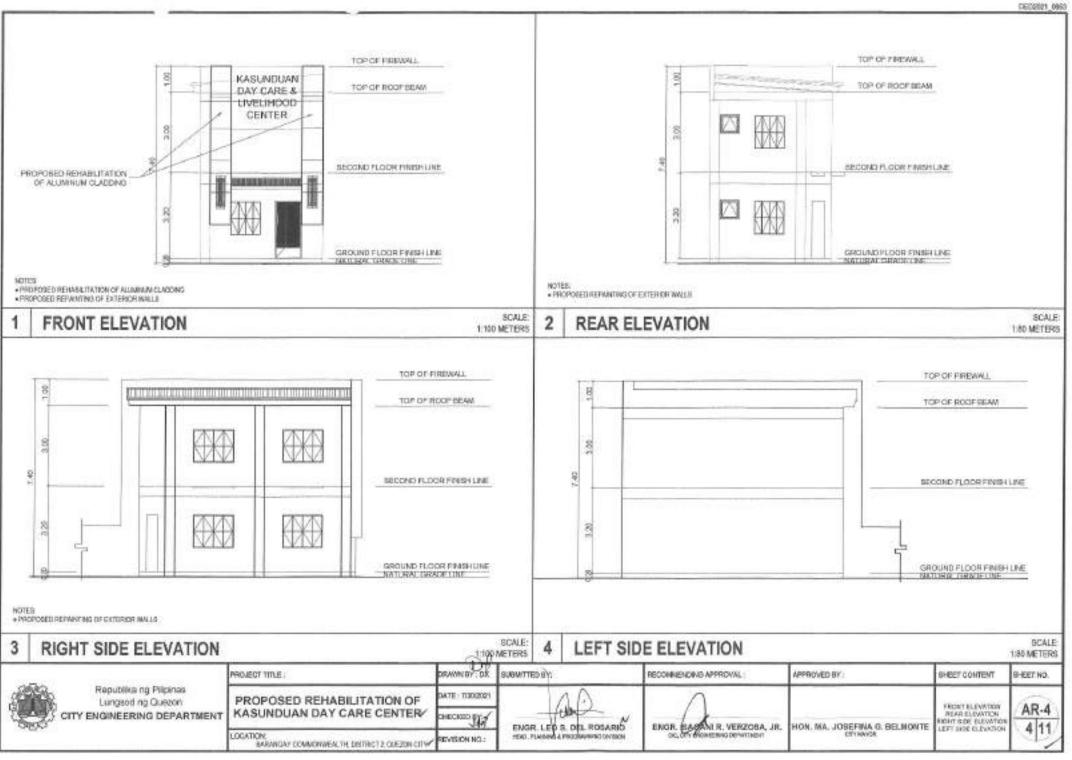
APPROVED BY:

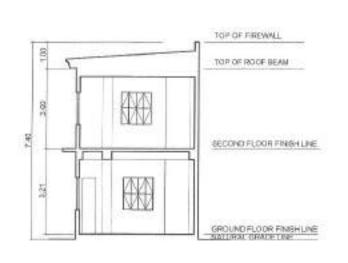
DROUND PLOOR PLAN
BEOOMD FLOOR PLAN
2 11

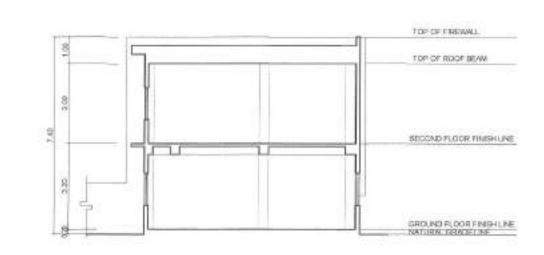
SHIGHT CONTENT







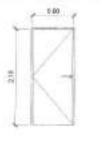




1 | CROSS SECTION

SCALE: 1:100 METERS 2 LONGITUDINAL SECTION

SCALE: 1:80 METERS











cessama	⊕	⊕
2402	SAING TYPE, PLUSH HOLLOW CORE COOR PAUSTED FAILS HOUSTEN WHITE	SWING TYPE PICCOOR WITH 40km x 300mm LOUNGR PAINTED FINGS (ATTEN MINTE)
GADIO	COMPLETÉ ACCESSIBILIS DOOR HACE LENGRY PERATIN STAINLESS PINESS	COMPLETE ADDESSORES. DOOR HADE LEVES-TIPP SATIN STAINLESS FINSH:

00010447994	◆	●	₩
ereca.	SUDING WINDOW, INVITATION GLEAR TEMPERED GLASS DV WINTE COLOR POWDER DONTED ALIMINUM FRAMES	BLISHING WITHOUT SEWN THE GLEAR TEMPERE O GLASS ON WHITE COLOR POWLER DOWNED ALLWANTERMES	AWNIS WIEDOW Grie THE GLEAT TEMPERED GLASS ON WHITE COLOR POWIER COATED A LIMIN AN FRAMES
WOMON 9A3HG	PROVIDE WITH COMPLETE ACCESSIONES	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES

3 SCHEDULE OF DOORS AND WINDOWS

BCALE NTS

SHEET NO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER
LOCATION
BYRANGAY COMMONMEALTH, DISTRICT 2, DJEZON GTY

OF DATE: 7500121
TER DIECKEDEN.

ENGR. LEG S. DEL ROSARIO

SUBMITTED BY:

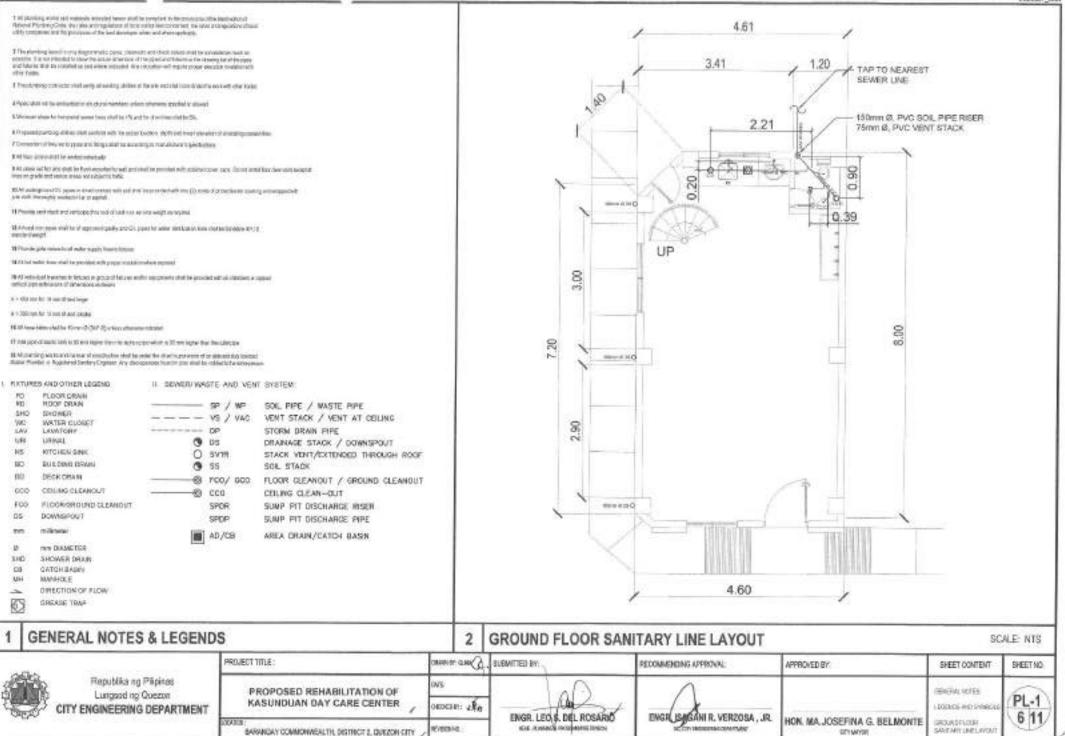
ENGR. BARANI R. VERZOSA, JR.

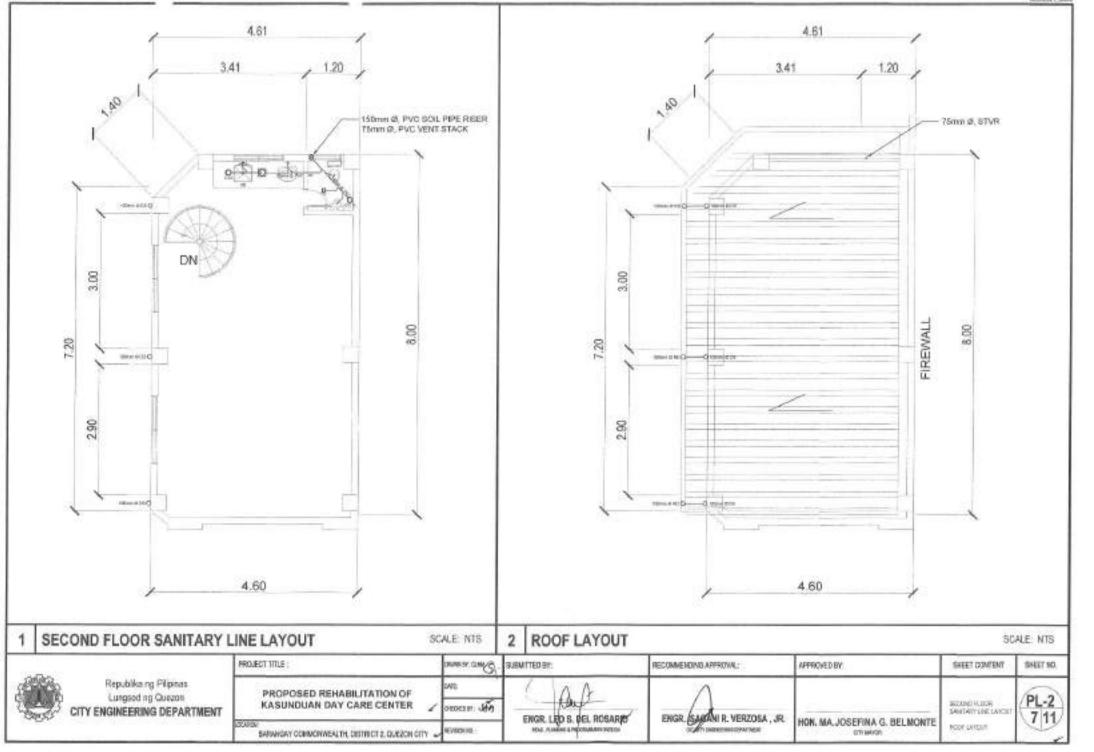
RECOMMENDING APPROVAL

HON, NA. JOSEFINA Q. BELMONTE

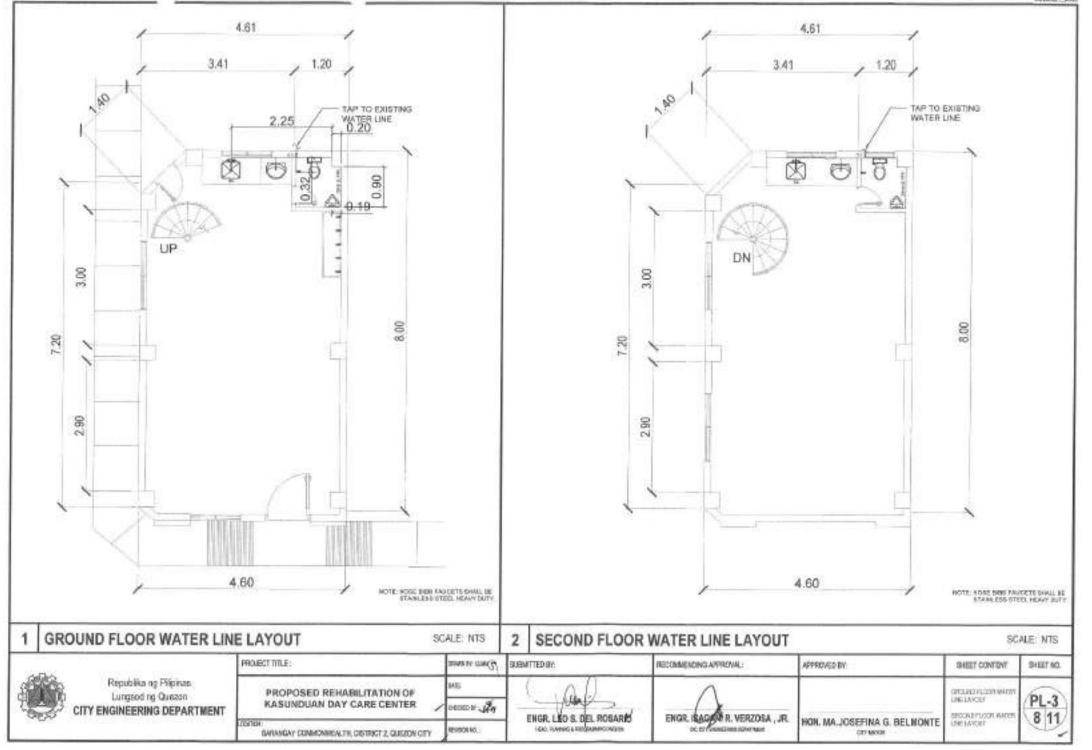
APPROVED BY :

EROSS SECTION LINGTH CONTROL OF DOORS AND WINDOWS 57 11









- ALL ELECTRICAL WORKS SHALL HE SCREEN ALCOHOLISIS WITH THE PROVINCIAS OF THE ELECTRICAL OF THE PHILLIPPINE SLECTRICAL CODE.
 THE LAWS WID OF THAT FOR THE LOCAL CODE ENFORCING AS THORNING WID THE RECEIVE MARKETS OF THE LOCAL POWER AND TELEPHOLIS
 WITH IT'S COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL DEES REQUIRED FOR THE WORK AND ISSUE, FURNISH THE OWNER TREDUCKS THE EMPHRICAL FINAL CERTIFICATION OF FLACTRICAL, REPRESTICES AND APPROPAR TOWER FROM THE OWNER ALTHORITIES FOR CORPLETION OF WORK.
- ALL BRIGGED BRACK CROSS SHALLIE PLC CONSUTS AND RESPONDED INTRUCKDOWN AS NO SUPPORTED BY CONSUT QUARTS EVERY 200 MEMOTERS.
- 4. FULL SCHED SHALL BE PROVIDED BY THE CONTRACTOR SHIPPING INCOMESTS OF THE CODE REQUIREMENTS BEART SHOP DRAWNED TO MODEWIED ON THE PLANE. SCHEDOW FOR TO PURKENTON LOCATOR OF PULLBONES SHALL BE APPROVED BY THE ARCHITECTERSWISES AND MUST THE DESIREST FOR APPROVAL PROVIDED TO PURKENTON LOCATOR OF PULLBONES SHALL BE APPROVED BY THE ARCHITECTERSWISES AND MUST BE REPLECTED ON THE TAX BUILT FINAL.
- 5. AU, POWER OF TLETS, AND EMPTCHES SHALL BE GROUPDING TYPE WITH AWARLES, SLOTS FOR 750 V.
- IL. PROVIDE ORDINO PAULT QUERROIT INTERRUPTER CIRCUIT BREAKER FOR LOADS WARKED OFO! ON THE PLAN.
- ALL METALLIC CONDUSTS, CARRIETS AND ECONOMIST SHALL BE PROPERLY DECURDED AND ROXDED.
- 6. INVERSIONMENTAL NOTES. MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

RECEPTACLE OLTLET - 300 BM APF, TREEM ABOVE VIOLENCE COUNTER TELEPHONE DUTLET - 300 BM APF CATVOUTLET - 300 BM APF

LIGHTING GWITCH - 1400 MM APP PAULICHES GWITCH - 1400 MM APP PAULICHES GWITCH - 1400 MM APP

- REFER TO MECHANICAL, FLURRING ANT PRIC PRITECTION DRAWINGS FOR PARTIES AND LOCATIONS OF ISSUPPLIES AS WELL AS THEIR EXPITED, SEGRENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECREDIE.
- HE. ALL MATERIALS TO BE USED GHALL BE OF THE BOST GUALITY, BRAND NEW AS SPECIFIED.
- 11. THE GRAWINGS AND SPECIFICATIONS AND INTERDED TO PRESENT GENERAL LAYOUT AND SHOULD UP, MODESCRIPTION OF THE PROJECT SITTOD HOT NECESSARILY INDICATED DESCRIPTION AT THAT LOCATIONS, LEVEL AND OSTANCES OF THE POLIMINIST. THE CONTRACTOR IS HERBRY RECEIVED TO WARE SUCH ADJUSTMENT AT THE JOSETTE AS LOCATION , DISTANCES AND LEVELS ARE GOVERNOUS OF ACTUAL FIELD CONDITIONS.
- ANY DEGREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE EXCUSURY TO THE ATTENTION OF THE EXCHISIN FOR CLASSICATION.
- ALL LIGHTING AND CONVONENCE OF CUTLET CIRCUITS SHALL BE 15 SQ, MILL THAN 3 COPPOR WIRE SHALL BE OTHERWISE NOTED MEMBERS AND CAPITAL REPORT OF COLORS CODED AS FOLLOWS.

UNE 1-MID UNE 2-YOUGW NEUTRAL-VAIDE ORGUNG - CREEN

14. BOXED, WRIE, GUTTERES, ENGLIGE SHALL BE PARRICATED FROM STOD, WITH THICKNESS AS FOLLOWS:

MAGRICULATE OF THE WIDEST SURFACE STEEL

UP TO DECLUDING 1GUIS MAI. HAN THE WITH METAL PRIMER & POXY AND TOPODAT

OVER 152.40 IIIII BUT HOT OVER 467.30

GA 14 PAINTED WITH METAL PRIMER BYOLKY AND TOPICOAT OA 12 PAINTED WITH METAL PRIMER BYOLKY AND TOPICOAT

CAVER 457.30 HAM BUT HOT CHER FIRE MIN CAPIT THE MAY GA 12 PAINTED WITH METAL PRIMER EPOLIS AND TOPOCHT CA 13 PAINTED WITH METAL PRIMER EPOLIS AND TOPOCHT

ALL ELECTRICAL MORKS HIGHER SHALL BE EMPORTED BY EXPERIENCED MISH UNDER THE DIRECT EXPERIODOR OF APULL TIME LICENSES.

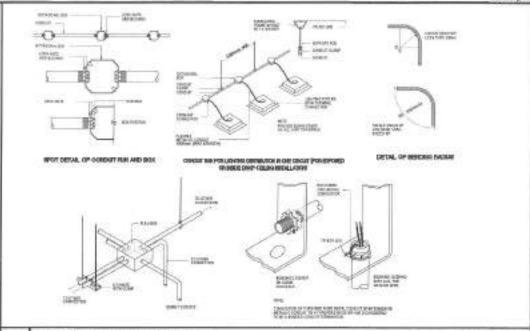
FRETCHICAL BIGGINERS AND A DIALY ACCREDITED BY BOTHCOAL OCHTRIACTOR BY FIGAR WORKS SHALL BE HEATLY PLACED, GROWNELY

FRETCHICAL AND PROBREM.

PINGRED

- 18. TYPE OF BETWEE SYNAMORE SHALL BE SINGLE-PHASE, TWO WHE PLUS DEDUND. BO HEATE 2000 AC HOURSELL
- IT. CORDURG HIND GASS SHALL THERE SE MORE THAN THE EDUNALISH OF FOUR GENETIC BURGS IN ANYONE RULLAL CORDUIT BURGS SHALL BE FILLD MADE BY LICEND HYDRAULE: SESCIOUS MARKAGE BEIGGED BURGS MUST BE \$1,000 OF CORDUING TO THE CODE MEDIANOMENTS.
- III. LIPTON COMPRETED OF ELECTRICAL CORRESPONDED ROTAL RESIDENCE POST AND PERCENCIAL TY TEST SHALL BE POST-ORAND BY THE CONTRACTOR RECURSING OF THE MOTELLATION TO BE REPORTED IN DETAILS ON FORMA APPROVED BY THE CULTOR OF PROPRETED DEPARTMENT REPRESENTATIVE. THE SECULOR RESIDENCE POR BLISCITED ALL RESTRICTED AND THE SECULOR OF THE COMPRESSION OF SECULOR DEPARTMENT REPRESENTANCE SHALL NOT EXCED 2 ON MIS.

PROJECT TITLE



MISCELLANEOUS DETAILS

NOT TO SCALE

[00]	SWITCH (FOR REPLACEMENT)
0	E27 RECEPTACLE WITH LED BULB (FOR REPLACEMENT)
_	EXISTING TUBE LIGHT BOX TYPE
-	TUBE LIGHT BOX TYPE (FOR REPLACEMENT OF LED)
(b)	DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
B	ADDITIONAL CEILING FAN
LPP	PANEL BOARD

APPROVED BY:

1 GENERAL NOTES

NOT TO SCALE

SUBMITTED BY:

LEGENDS AND SYMBOLS

NOT TO SCALE

SHEET NO.

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER

BARANGAY COMMONWEALTH, DISTRICT Z. QUEZON CITY

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SPV60016

mmor gard

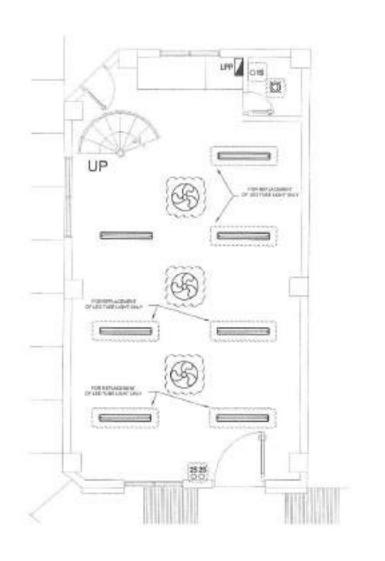
ENGR. LEOIS, DEL ROSAMO

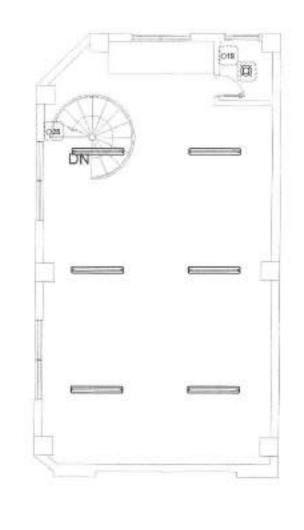


RECOMMENDING ARPROVAL:

HON. MA.JOSEFINA G. BELMONTE

EDICAL MOTES SETIALS SEL-1 STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD SERVICES SER





GROUND FLOOR LIGHTING LAYOUT

SCALE: 1:50 MTS

JENBON NO.

SECOND FLOOR LIGHTING LAYOUT

RECONNENDING APPROVAL

SCALE: 1:50 MTS

SHEET NO.

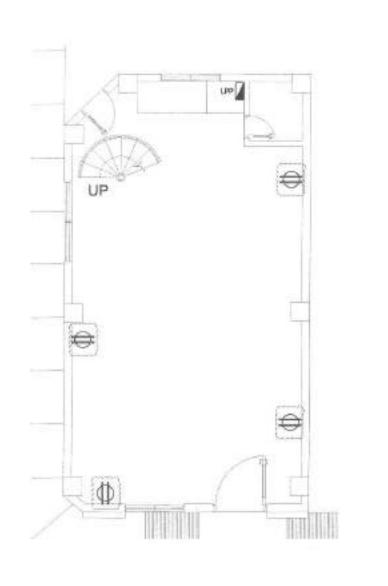
Republika ng Pilipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT PROJECT WILE: PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER BARANGAY COMINCANIEALTH, DISTRICT Z, QUEZON CITY BUBMITTED BY nomer: Me ENGR. LEO S. DEL ROSARIO

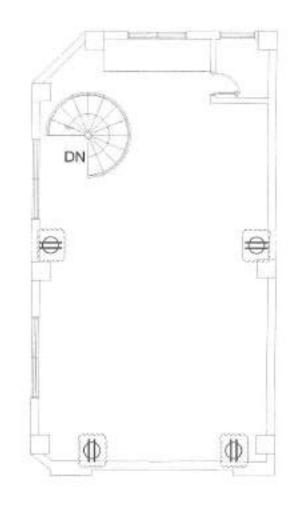
ENGR. ISABER R. VERZOSA , JR.

HON, MA.JOSEFINA G. BELMONTE OTT MYOR

APPROVIDEY:

айсано цоайцантна имоут вестие коомцантна имил EL-2 10 11





GROUND FLOOR POWER LAYOUT

SCALE: 1:50 MTS

SECOND FLOOR POWER LAYOUT

RECOMMENDING APPROVAL:

SCALE: 1:50 MTS

Republika ng Pilipinas Lungsoding Queezon CITY ENGINEERING DEPARTMENT

SUBMITTED BY PROJECT TITLE: PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER DEDSON JA PERSONAL: BARANSAY COMMONIMEALTH, DISTRICT 2, QUEZON CITY

ENGR. LEO S. DEL ROSARIO

ENGR. SAGANI R. VERZOSA , JR.

HON. MA. JOSEFINA G. BELMONTE

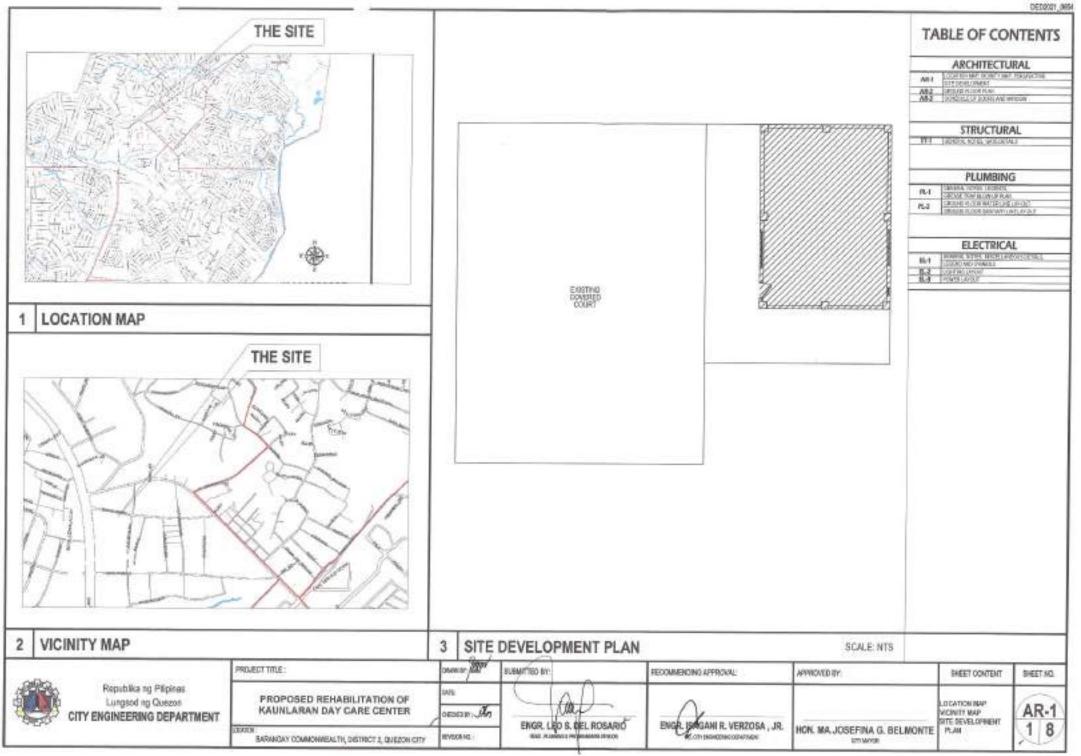
APPROVED BY:

GROUND FLOOR FOWER LANGUT SISTAND FLOOR FORMIN LANGUT

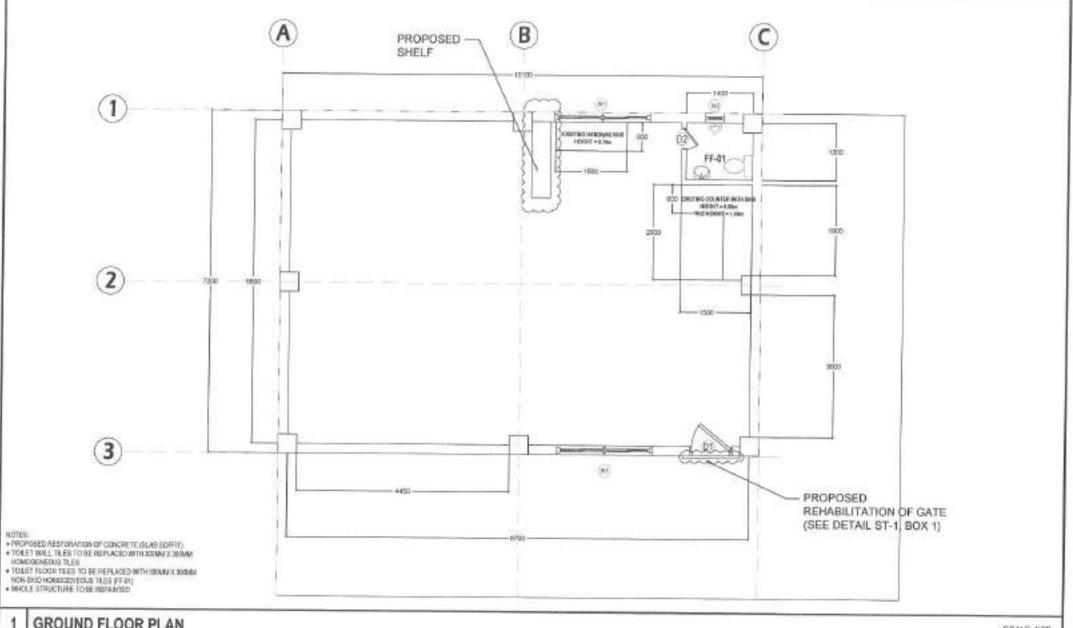
SHEET CONTENT

EL-3 11 11

SHEET NO.







GROUND FLOOR PLAN

SCALE NTS SHEET NO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER BARANGEY COMMONNEALTH, DISTRICT 2, QUEZON CITY

ORDING JAM ENGR. LEO S. DEL ROSARIO

SUBMITTED BY:

DONE BY

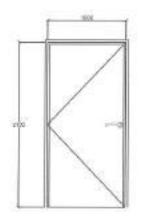
ENGR. SARANI R. VERZOSA , JR.

RECOMMENDING APPROVING

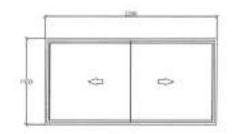
DROUND FLODR PLAN HON, MAJJOSEFINA G. BELMONTE

APPROVED BY:

AR-2 2 8









DESIGNATION	9	(D)
SPECS	SWING TYPE, FLUSH HOLLOW CORE DOOR, PAINTED FINISH (KITTEN WHITE)	SWING TYPE, PVC DOOR, WITH 400mm x 300mm LOUVER, PAINTED FINISH (KITTEN WHITE)
HARDWARE) GLAZING	COMPLETE ACCESSORIES. DOOR KNOB: LEVER-TYPE, SATIN STAINLESS FINISH.	COMPLETE ACCESSORIES DOOR KNOS: LEVER-TYPE, SATIN STAINLESS FINISH.

DESIGNATION	₩	%
SPECS	SLIDING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES	AWNING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES
HARDWARE/ GLAZING	PROVIDE WITH COMPLETE ACCESSORIES	PROVIDE WITH COMPLETE ACCESSORIES

1 SCHEDULE OF DOORS AND WINDOWS

SCALE NTS



Republika ng Plipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER

BARRANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

ies; oxozov. JŠA

TRANSPER SUBMITTED BY:

ENGR. LEG S. CEL ROSARIO

ENGR. IRACANI R. VERZOSA , JR.

RECOMMENDING APPROVAL

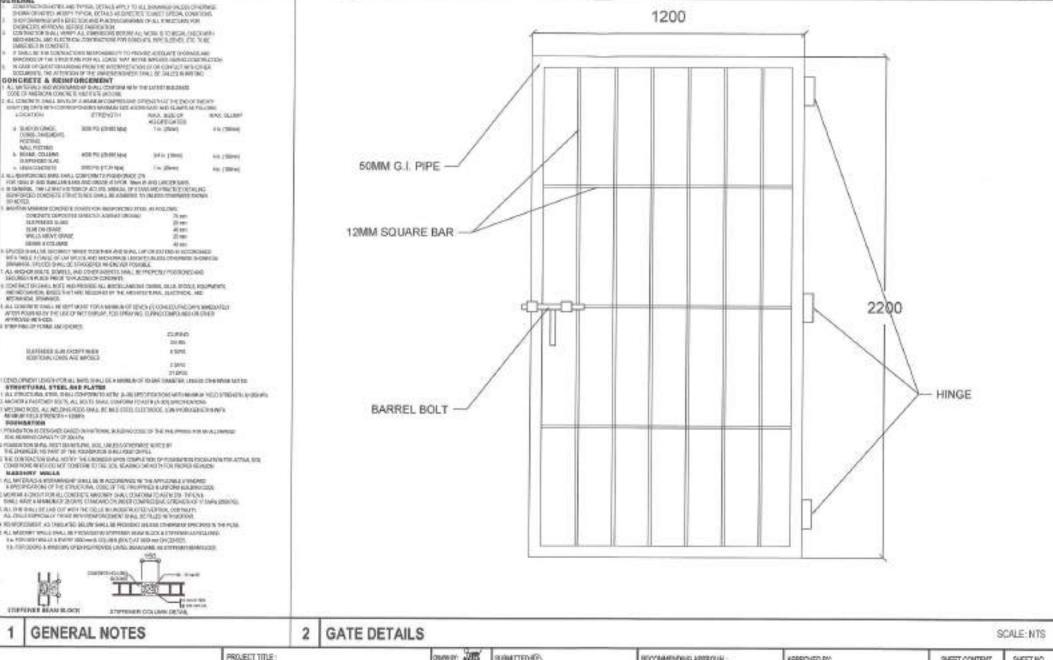
HON, MA.JOSEFINA G. BELMONTE

APPROVED BY:

SCHEDILE OF DOORS AND WHITOMS

SHEET CONTENT

AR-3 3 8



SHEET NO.



Republika ng Plipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE:

The state of the s	AMM.	STORE LIENACO
PROPOSED REHABILITATION OF	DATE	
KAUNLARAN DAY CARE CENTER	omme: win	muco i o
S - BARANGAY COMMONWEALTH, DISTRICT J. QUEZON CITY	MINEONIA:	ENGR. LE

DIS. DEL ROGARIO-

ENGR. ISAGANI R. VERZOSA, JR. OC DYNOMESON DEVENDS

RECOMMENDING APPROVAL:

HON, MAJJOSEFINA G, BELMONTE CITY MARKOR

APPROVED BY:

ST-1 DONERAL NOTES: BATE DETAILS 4 8

\$ All plumbing works and materials indicated horses shall be compliant to the provisions of the latest edition of National Plumbing Code, the rules and regulations of local as thorities conserved, the rules and regulations of local offify companies and the provisions of the land developer when and where applicable.

2 The plumbing layout is only diagrammatic; pipes, cleanusts and check valves shall be concessed as much as potential. It is not intended to show the actual dimension of the pipes and follows in the drawing but all the pipes. and finteres shall be installed an and where indicated. Any relocation will require proper associan in relative with

\$ The plumbing contractor shall wally all existing utilities at the site and shall coordinate the work with other budge.

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

5 Minimum slope for furticinal sewer lines shall be 1% and for drain lines shall be 5%.

6 Proposed plumbing utilities shall combon with the actual location, depth as all invest devasion of all existing pipealutities.

If Correction of fedures to a post and fittings shall be according to manufacturer's specifications.

8 All foor drains shall be serred individually.

If All clears out furralise shall be flush recurited to wall and shall be provided with polished cover sape. Us not make floor dwarr outs accept at lines on grade and sevice areas not subject to traffic.

18 All underground (1), pipes in clied contact with soil shall be provided with two (2) coats of protestive for covering and weapond with jule cloth thoroughly scaled in lar or applials.

11 Provide sent stack as if vest pipe thru roof of dast has earlied weight as required.

12 All cast item pipes shall be of opproved quality and G I, pipes for water distribution lines shall be Schedule 4D U.S. standard weight.

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

14 All had water lines shall be provided with proper insulation where exposed.

16 All individual branchise to Disturbs or group of features and/or equipments shall be provided with air chambers or capped vertical place extensions of dimensions as shows.

H = 450 rare for 19 rare ID and larger

H = 300 ram for 12 mm ID and smaller

16 All hose bibbs shall be 19 mm 2 (3/4" (3) unless otherwise indicated:

17 Inlet pipe of septic task is 50 mm higher than the siphon pipe which is 30 mm higher than the cedet pipe.

18 All plumbing works and manner of construction shall be under the direct supervision of an abic and duly licensed. Master Plumber or Registered Bankley Engineer. Any electromarches found in plan shell be notified to the same person. I TRYTHNES AND OTHER LEGEND

FLOOR DRAIN

ND. ROOF DRAIN

\$40 SHOWER

WATER CLOSET LAWRIDEY

1/49 OTHE

603 HOTO HIDN SHAN

BUILDING DRAIN

DD DECK DISAM

CCD CRUNG CLEANOUT

PLDORIGHOUND CLEANOUT

DG DOWNSPORT

910 CHAMETER

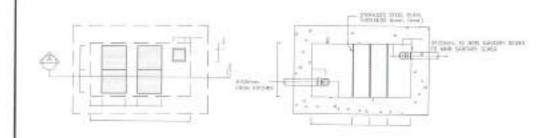
THOWER DRAW GATCH BADIN

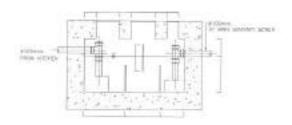
MARK-ROLE

DIRECTION OF FLOW

-	UNDSTRIBUT
-	DHEEK WESE
10	ROLDING SEVEN
100	AUCORGIDORE
14	ANTE NE
18/03	NES DERINTONICS BASIN
40	FLOOR ERANG
	TAMETER
-	WASTE DRIE
	AUSTON:
	SATE VALVE
100	DECK DRIM
100	CLOHELY
	TRECODMI
-	PBS UE
100	A CT RELIES
100	SAFE VALUE
D .	AREA DIGINAL CATCHERS.
90	WINCLOSE
1.80	LAMATORY
181	MARKSE
- 96	HOSE BIBE
	STORM SHANLING
-	NOTIFE .
160	VISIT ABOVE CITE MG
301436	CONDIETE PAPE HIGHE COND PAPE
100	MINE THE ROOF
Cor.	DRICTION OF MARKSHAP

LEGENDS





APPROVED BY:

GENERAL NOTES

GREASE TRAP BLOW-UP PLAN

SCALE: NTS

SHEET NO.

Republika ng Pilipines Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER

BARWAGAY COMMONWEALTH, DISTRICT 1, QUESTIN CITY

PROJECT TITLE:

DEDCHE: JAA

REVEKS NO.:

A CHARGE ' WITH A COMPANY ENGR. LEO S. DEL ROSARIO

NOT TANKED PROBLEM INCOME

ENGR. (SAGAN) R. VERZOSA , JR.

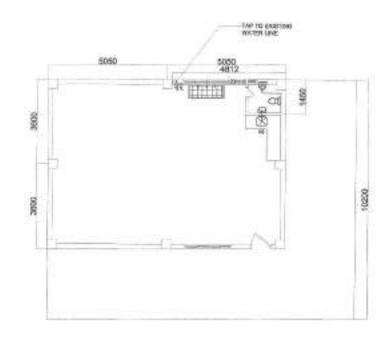
RECOMMENDING APPROVAL:

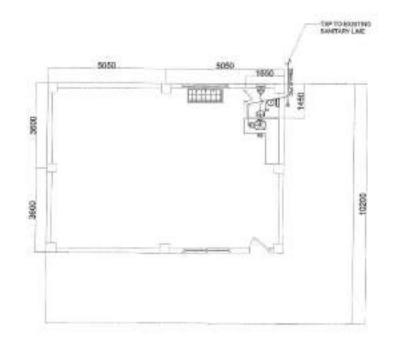
CORRESAL NOTICE MARKET MET SYRROL HON, MA JOSEFINA G. BELMONTE

OF MYOR

PL-1 5 8

SHEET DON'TENT





1	GROUND FLOOR WATER	R LINE LAYOUT	SCALE: 1:100	MTS	2 G	ROUNE	FLOOR SANITARY	LINE LAYOUT	SCALE:	1:100 MTS
		PROJECT NILE:	BWE ANNE	SUBMITTED	DIF.		RECOMMENDING APPROVAL	APPROVED BY	SHEET CONTENT	SHEET NO.
	Republika ng Pilipinas Lungsod ng Quezon	PROPOSED REHABILITATION OF	DE Application	1	IMA		^		5	60
Cons	CITY ENGINEERING DEPARTMENT	KAUNLARAN DAY CARE CENTER	DEDUCE JAK	FNO	100	2	THE PARTY IN		MATERIUME LAY-OUT SEWERLINE LAY-OUT	PL-2
-3396		ENDOS: BARANGAY GUNNERWEALTH, DISTRICT 1, QUEZEN CITY	REVERSE NO.	40.00	IR, LEO,S. DEL RO	DURIN	Secretario sevena	HON, MA.JOSEFINA G. BELMONTE	TEMOLORE DO TOTAL	68

- ALL ELECTRICAL WORKS SHALL SE DON'T IN ACCUMENACE YETS THE PROVISIONS OF THE LATEST BD FIRST OF THE PRESENCE ELECTRICAL CIZED
 THE LAWS AND ORDINANCES OF THE LOCAL CICED ENFORCESS AUTHORITIES AND THE EXPLINEMENTS OF THE LOCAL CICED HOLDS
 URLITY COMMENTS.
- THE CONTRACTOR SHALL BESTIES AND PRIVATE PRESTRICTURES FOR THE VERN HIS SHALL PRIVATE THE SAMENT THE SAMENT THE SECRETARY. PRACE SENTENCIATES OF ELECTRICAL MOPECTOR AND APPROVAL FEGA PROPER CONTRIBUTE ANTHORIZES FOR COMPLETION OF WORK.
- ALL EMBRICORD REVAILS CHACUTE SHALL BE TWO CONDUCTS AND FOR EXPOSED INSTALLATION SHALL BE INCOMPRISED BY CONDUCT CLARPS.
- 4. PILL BOOKS SHALL BE PROVIDED BY THE CORTINACTOR WHEREVER RECESSARY TO ROCULTATE WHITE DULL BY EVEN IF THOSE ARE NOT REPORTED ON THE PLANE. SERVICE OF ALL PULLBOOKS SHALL BE CORN LESS BASED ON THE DOCK RICH SHIPMENTS. SLAWLT SHOP OR PRINCIPATION TO THE SAME SERVICE SHIPMENTS OF THE ARCHITECTURE TO PRINCIPATE OF THE SAME SHIPMENTS OF THE ARCHITECTURE SHIPMENTS.
- ALL POWER OUTLITS AND SINTCHES SHOUL BY ORIGINATIVE WITH PARALLEL SLOTS FOR 256 V.
- 8. PROVIDE GROUND PAIL T CURRENT INTERPLETES CINCUST BREAKER FOR LOADS MARKED TOPOT ON THE PLAN.
- ALL METALLIC CONCERTS, CARRIETS AND ROLL PARKETS WALL BE PROPERLY DISCUSSED INC. SCHOOL
- INSTERN OTHERWISE NOTED, MONATHIS RESONT FOR WALL MOUNTED DEVICES SHALL BE AS POLLOWS:

WECEPTACH CUTLET - 200 MW APF , PENNE ABOVE WERHING DOUNTER.
TELEPHONE OUTLET - 200 MW APF
CATVOUTLET - 300 AMA APF
COGRETING SWITCH - 1400 MM APF
COMMUNICATION - 1600 MM APF

- REFER TO RECHARCAL, PLAYERS ARE FREE PROTECTION ORWANIOS FOR EXTINGS AND LOCATIONS OF COLUMBERT AS WILL AS THEIR CONTROL.
 SERVICION AS SPECIFICO AND OR GROWN LING OF THEIR RESPISATIVE SECTIONS.
- 10. ALL MATERIALS TO BE USED BHALL SE OF THE REST CLIALITY, IRRAND NOWAR SPECIFIED.
- THE DRAWAND AND DROUGHEAT DNS ARE INTENDED TO PRESENT GENERAL LAYOUT AND DROAD OF ILMEDISCREPTION OF THE PROJECT BUT DO NOT RECEIVABLE MEDICALS DESCRIBED ACTUAL LOCATIONS, LINES, AND DETANCES OF THE EQUIPMENT, THE CONTRACTOR IS HONDOY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JOSOTE AS LOCATION, DISTANCES AND LENGTH AND GOVERNED BY ACTUAL PRICE CONDITIONS.
- ANY DISCREPANCY BETWEEN THE PLANS AND APPEARANCE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGAGER FOR QUARTECATION DECISION.
- 15. ALL LIGHTING MICHORYCHIENCE OUTLET GROUTE SHALL NEEDS DO. UNI THINKING COPPER WAR UNLESS OFHERWARE NETTED, IMMINESTIGET OF MICH SHALL HE I I RIGHT MICHORYCH WIRE. ALL WINSO AND CASLES SHALL BE COLOR CODED AS FOLLOWS.

LINE 2 - YELLOW NOUTH AL - HAVE DROUND - GREEN

14: HOSSIS, WARE, DUTTERSE, BACACORAMS BHALL BY PARRICULED PROBECTES; WITH THICH \$50 AS FOLLOWS:

MAXIMUM WITH OF THE WIDERS BURGACE STEEL.

UP TO REQUERED TESTED MET AND TOPOGRET
OVER 457.50 MM BUT BOT OVER 457.50
OA SH PARKED WITH INSTAL PRIMER EPOXY AND TOPOGRET
OVER 457.50 MM BUT BOT OVER 457.50
BA TO PRINTED WITH INSTAL PRIMER EPOXY AND TOPOGRET

OVER YICKMAN

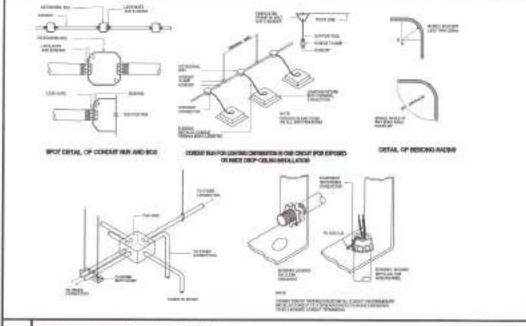
GA TO PRINTED WITH WE'NA PRIMED EXPOSORY AND TOPOCOMY

18. ALL ELECTRICAL WORKS HERREY BHALL BE EXECUTED BY EXPONENCED MEN HADEN THE SERVICE OUTSTWAKEN OF A FIGU-THEE LOCKMED

PLECTRICAL ENGINEER AND A DULY ACCURDANCE ELECTRICAL CONTRACTOR BY POAR MORRE SHALL BE NEATLY PLACED, RECEIVELY
FRANCISCO AND PROPERTY
FRANCISCO.

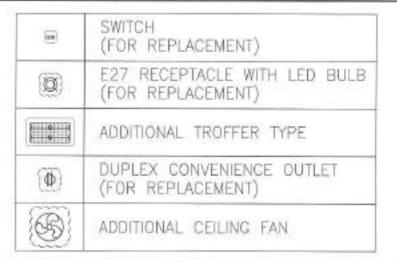
- HE. TYPE OF REPOYDE ENTERINGS INVALIDED SHEEF PHASE. THE WAYS PLUS INCOMES, HE HOST TOWN AC MOMBAL
- IT. CORDITO IN NO CASE SHALL THERE BE RESIST THAN THE EQUIVALENT OF YOUR QUARTER BEACH IN ANY ONE FUR. ALL CONDUCT SENSE SHALL SE FIRED MICH BY LIBRIC HYDRAULIC SENDERS. INVINITY SENDENCI AND US HUGT BE IN ADDICADADE TO THE CODE REQUIREMENTS.
- 18. LPDB CORPLETION OF ELECTRICAL CONSTRUCTION WORK, MOVEATION RESISTANCE TEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR REQUESTOR OF THE PROTAL ATTOR TO BE REPORTED IN DISTALL OF FORMS APPROVED BY THE GUISTON CITY ENDERSONS OF DEPAY THEIR TERPERENTATION. THE INFOLUTE FORMS FOR BLECTRICAL SYSTEMS GRALL NOT SE MORE THAY SIGNAL COMMISSIONED OR GROUNDING RESISTANCE SHALL BOY EXCESS TO USE.

PROJECT TITLE:



MISCELLANEOUS DETAILS

NOT TO SCALE



APPROVED BY:

GENERAL NOTES

NOT TO SCALE

MATERIAL STREET, STREET, ST.

LEGENDS AND SYMBOLS

MOT TO SCALE



Republika ng Pilipinas Langsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF KAUNLARAN DAY GARE CENTER

BARANGAY COMMONWEALTH, DISTRICT 1, QUEZON CITY

эконы Ди

CHRONIC:

ENGR. LEG S. DEL ROSARIO

ENGR. ISAGANI R. VERZOSA , JR.

RECOMMENDING APPROVAL

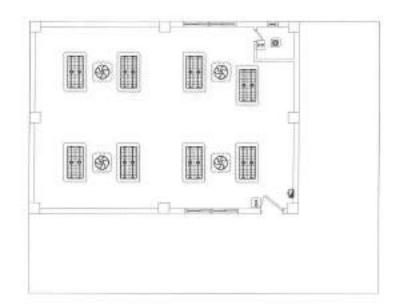
HON, MA JOSEFINA G. BELMONTE

SHOVALMOUS MECOLARIDATION NAME LIGHTER AND SYMBOLD

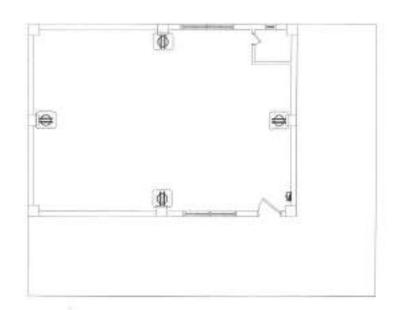
SHEET CONTENT



SHEET NO.



PROJECT TITLE :



1 LIGHTING LAYOUT

SCALE: 1:100 MTS

DEPENDENT STRUCTURED BY

2 POWER LAYOUT

SCALE: 1:100 MTS

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER

BARNAIGAY COMMONWEALTH, DISTRICT 1, QUEZON CITY

OROSS W: JAK

ENGR. LEGIS, DEL ROSARIO

ENGR. SAGAN R. VERZOSA , JR.

REDOMNINONG APPROVAL:

HON, MA JOSEFINA G. BELMONTE

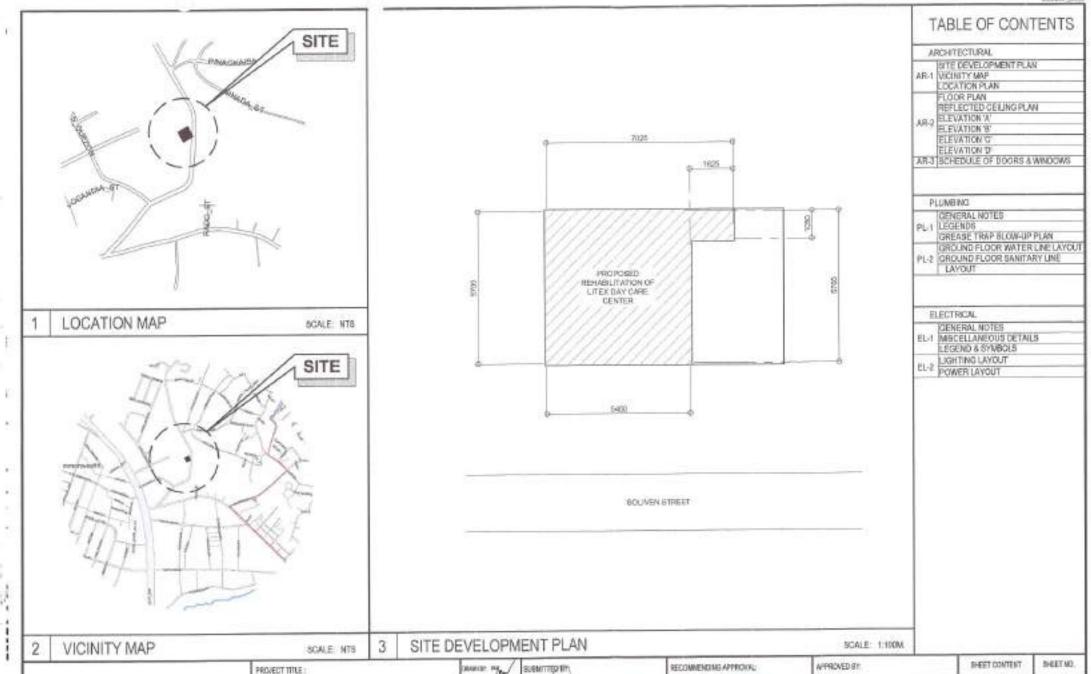
APPROVED BY:

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SHEET CONTENT

EL-2 8 8

SHEET MO:



Republika ng Pilipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF LITEX DAY CARE CENTER

HARANGEY COMMONWEALTH, DISTRICT 2, QUEZON CITY

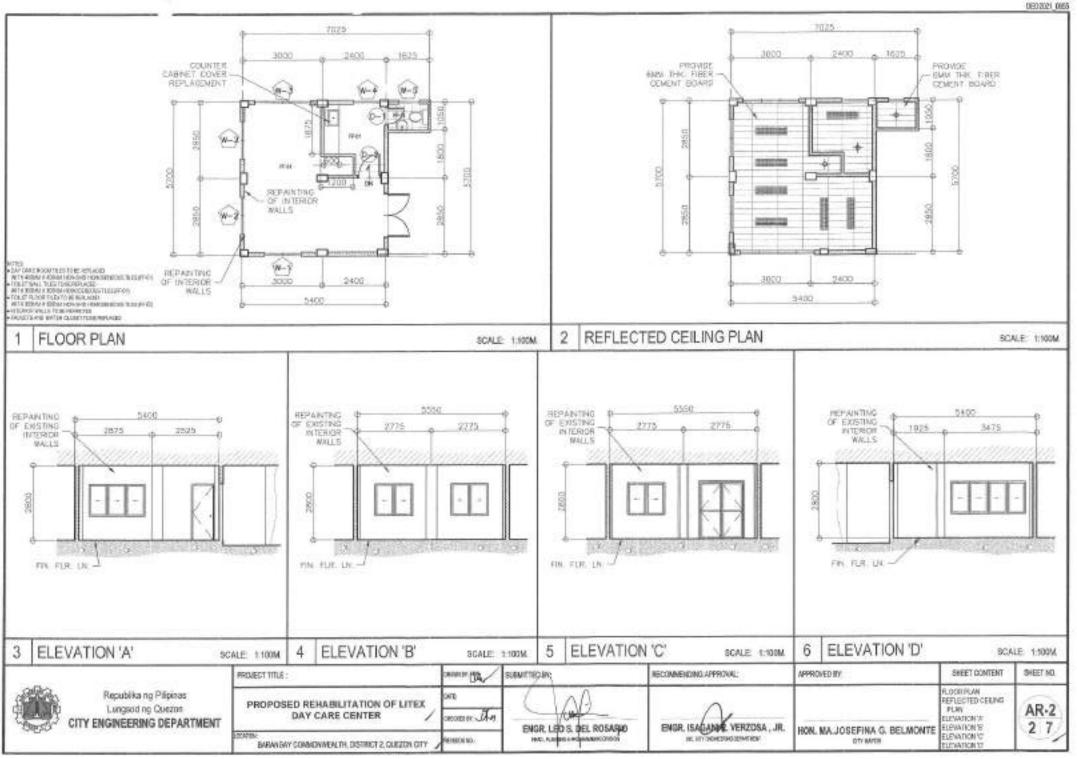
SUBMITTED TITL DEDECTIVE JOHN 80/50810:

ENGR. LEO S. DEL ROSARIO на плия и прознением

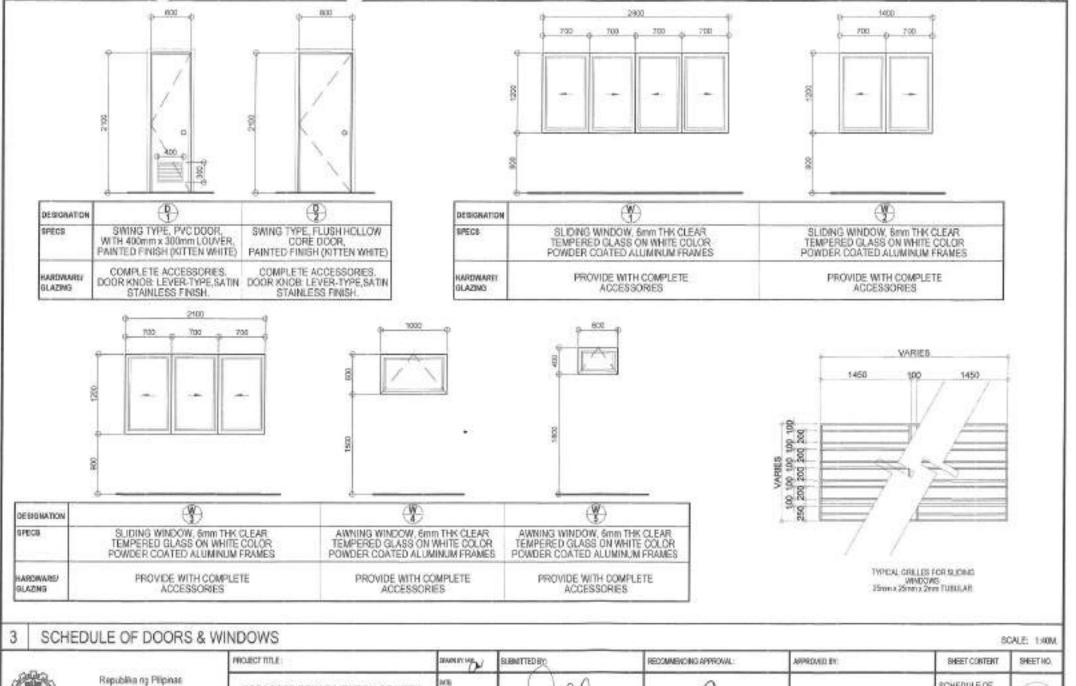
ENGR SAGAMIR VERZOSA, JR.

LOCATION WAS VICENTY WAP SITE DEVELOPMENT B.AN. HON, MA, JOSEFINA G. BELMONTE

AR-1 17







Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PR	DPOSED REHABILITATION OF DAY CARE CENTER	LITEX
COCKE		_

ABOT TITLE:	BANKET 198	BLEMITTEDBY
PROPOSED REHABILITATION OF LITEX	MB	()00
DAY CARE CENTER	DEDEDAY JAM	100
IN BARANSAY COMMONWEALTH, DISTRICT 2, QUEZON GITY	emporto:	ENGR. LEGIS, DEL R

	100
ENGR. LEG	S. DEL ROSARIO
16A PLANS	Сытовремностини

	1
EMGR	ISÁGAJÁR VERZOSA JR.

HON, MAJOSEFINA G. BELMONTE arty serion

SCHEDULE OF AR-3 DOORS & WINDOWS 3 7

- 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.
- A Pipes shall not be embedded in structural members unless otherwise specified or allowed.
- 5 Minimum slope for horizontal sever 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.
- # All floor drains shall be vented individually.
- 9 All clean out families shall be flush-mounted to wall and shall be provided with poliched cover caps. Do not install floor clean outs except at lines on grade and sevice areas not subject to traffic.
- 10 All underground G.f. pipes in direct contact with soil shall be provided with two (2) coats of protective for 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 focuses.
- 14 All hat water lines shall be provided with proper insulation where expased.
- 15 All inthiridual 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 tables shall be 19 mm Ø (3/4" Ø) unless otherwise indicated.
- 17 linkst pipe of septic tank is 50 mm higher than the sighon pipe which is 30 mm higher than the outlet pipe.
- 18 All plumbing works and manner of construction shall be under the direct supervision of an able and duly licensed. Master Plumber or Registered Sanitary Engineer. Any discrepancies found in plan shall be notified to the same person.

I. FIXTURES AND OTHER LEGEND FD PLOOR DRAIN

RD.	ROOF DRAIN
SHO	SHOWER
M/C LAW	WATER CLOSET LAVATORY
URE	LIRINAL
KS	KITCHEN SINK
BD	BUILDING DRAWN
DD:	DECK DRAIN

CEILING CLEANOUT

FLOOR/GROUND CLEANOUT

DOWNSPOUT

milimotor

mm DIAMETER SHOWER DRAIN SHD CB CATCH BASIN MH MANHOLE

DIRECTION OF FLOW

LEGENDS

GREASE TRAP

-4-	UNION PRIENT
	CHECKYMEVE
.00	BUILDING SEWER
80	BUILDING DRAIN
- 61	WASTE LINE
40108	AREA DRAW COATCH BASIN
(K)	PLOCE DEAR
	DIAMETER
-	WASTELINE
	WATERLINE
(magazine)	GATEVALOR
10	DECK BRAIN
- 60	CLEANOUT
-	PPE DOWN
	NECE:
1980	MILMETER:
-av	GATE VALVE
13	AREA ORAIN / CATCH BASIN
WE	WATER CLOSET
1,89	LAWATORY
1966	MANAGLE
146	HOSE BIDD
-	STORM DRIGH LINE
	VERTURE
960	VENT ABOVE CEILING
2911001	CONCRETE PUTETTIENT, CONC. PUTE
1078	VENT THRUBODE
	CHECTION OF FLOW/ SLOPE

GENERAL NOTES

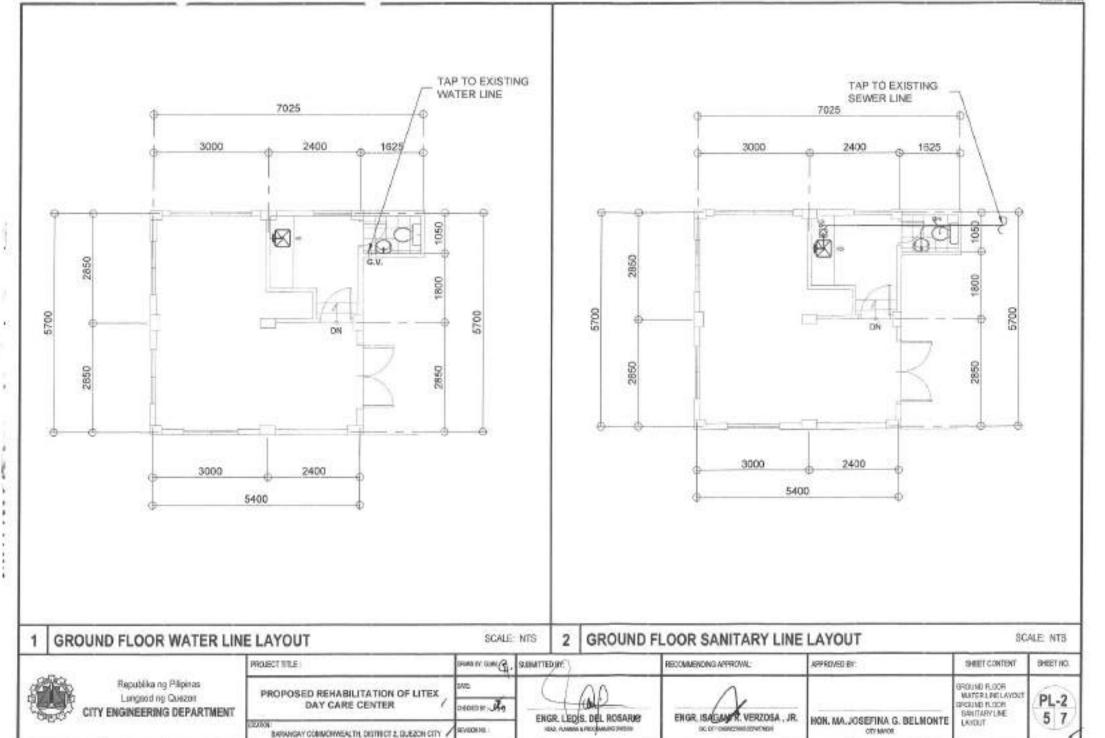
Republika ng Pilipinas Lungsad no Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE :

PROPOSED REHABILITATION OF LITEX DAY CARE CENTER

SCALE: NTS

PL-1 4 7

OMWHY DAW (C) SUBMITTED, BYL RECOMMENDING APPROVAL: APPROVED BY: SHEET CONTENT SHEET NO GENERAL MOTES LEGENDIS HEDED IN: ENGR. LEG B. DEL ROSARIO ENGR. ISAGAMER. VERZOSA, JR. HON, MAJOSEFINA G. BELMONTE HIS AMERICANOSPRESS STRON BARANDAY COMMONWEALTH, DISTRICT 2, QUEZON CITY



- ALL ELECTROPS, WORKS GHALL RC DONE IN ACCORDANCE WITH THE PROVIDENCE THE LECTED HISTORICS THE PAIL SPINE ELECTRICAL CODE.
 THE LANS AND ORDERNACES OF THE LOCAL CODE SEPORCING AUTHORITIES AND THE REDARREMENTS OF THE LOCAL POWER AND TELEPHONE
 WILLITY COMPANY.
- THE CONTRACTOR BANCL ISSUIDE ALL PERMITS AND PAY ALL FEED REQUIRED FOR THE WORK MAD SAME, REPAIRED THE DAYS THE SEASON THAT SERVICE THAT CERTIFICATES OF ELECTRICAL MERCHING AND APPROVAL PROMPRIONE SOCIETY AND APPROVAL PROMPRION OF SEASON THAT APPROVAL PROMPRION SEASON THAT APPROVED SEAS
- ALL DREEDGG BRAKEN CROUTS STAIL BE TWO CONSUMS AND FOR SEPONDO INSTALLATION SHALL BE BIG SUPPORTED BY CONDUCT CLASHS.
 EVENY 700 MAJOR SEA
- 4. PLALE BOAZE BHALL BE PROVIDED BY THE CONTRACTOR INFERENCE INCIDENCE TO FACULTARIE WHIS PILLING EACH IT THESE ARE NOT BESCATED ON THE FALME. BEING OF ALL PAUGES \$4-ALL BE COMPARED ON THE CODE PROVIDENTE. BLANCE BHAS BHAD DEAVMARS TO THE SHIRLES FOR ARTHOUGH. FROM TO THE OCCUPANTION CONTRACTOR ON THE ARCHITECTURE AND RESIDENCE BY THE ARCHITECTURE AND RESIDENCE.
- E. ALL POWER OUTLETS, AND SWITCHES WHALL SE INCURCING TYPE WITH PARALLEL SLOTS FOR 250 V.
- # PROVIDE GROUND FAULT CURRING INTERRUPTER CIRCUIT BREAKER FOR COIDS MYRKED FOR THE PLAN.
- T. ALL HETALLIG GONDHITS, GREWETS AND EDG PARKY SHALL BE PROPERLY GROUNDED AND BONDED.
- B. UNLESS OTHERWISE NOTED, MOUNTING HISGHT FOR WALL MOUNTED DEVICES WALL WE AN POLICY/III.

RECEPTION CUTTLET - DO MA APT - THEM ANOVE VIOLENC COUNTER TREPROSE CUTTLET - DOUBLE APT CATVOUTLET - DOUBLE APT DON'THIS SWITCH - 1000 MILES P RANCEDANC - 1000 MILES P

- 8 REFER TO RECHARCAL, PLANTING ANY THE PROTECTION DEACHER FOR INSTRUME AND LOCATIONS OF EGIPPMENT AS WELL AS THEIR CONTROL.
 BEQUINCES AS INFECTION AND OR GHOWN UNDER THEIR RESPECTIVE DECYCHS.
- 10. ALL WATERIALS TO BE USED SHALL THE OF THE BEST GUALITY. BRANC MISS AS SPECIFIED.
- THE DOWNING AND SPECIFICATIONS ARE RETENDED TO PRESENT CENTERS. LAYOUT AND REDGE DUT, REPRESENTED NOT THE PROJECT BEFORE
 NOT HIS ESSABLY INDICATED RECREMENT ACTIVAL LOCATIONS. LAYOU AND ESTANCES OF THE EQUIPMENT THE CONTRACTOR IS HERRITY
 REQUIRED TO MAKE SUCH ASSISTMENT AT THE JOSEPPE AS SOCIATION, CREAKING MAD SHALL ARE SOCIATIONS OF ACTIVAL FIELD CONDITIONS.
- ANY DECRESSANCY RETAINS THE PLANTAGE SPECIFICATIONS SHALL BE INVOICED TO THE ATTENTION OF THE ENGINEER FOR CLARPICATION.
- 15. ALL LIGHTING AND CONTRIBUTED COUTLET CROSSITS SHALL BE 35 SQ, MM, THANK-2 COPPER WAS UNLESS OTHERWISE KOTED. MINISTAN SEES OF WARE SHALL, BE 35 SQ, AM, COPPER WAS, ALL WIRES AND DATE OF SHALL BY COLOR DODGES AN POLICIAN.

LINE 1 - RED LINE 2 - VIELCON NESTRAL - MATE GROUND - GREEN

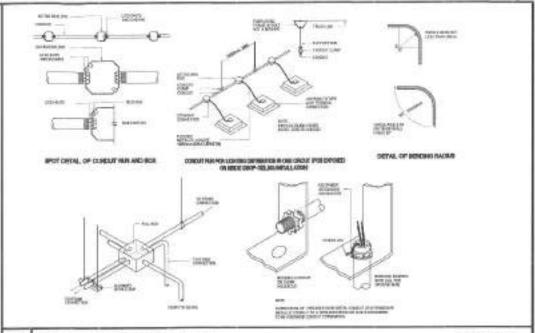
 GOALS, WIRE, GUTTORS, ENCLOSIVE DIVALL BY PARKICATED PROBRETES, WITH THICKNESS AS POLICINE. ANALYSIAN WORK OF THE WESSET SURFACE STAIL.

UP TO INCOLDED FOLKE BANK CARE AND TOPOCAT
OWER 18/40 BB BUT NOT CHIEF 327.35
OWER 18/40 BB BUT NOT CHIEF 327.35
OWER 18/40 BB BUT NOT CHIEF 327.35
OWER 327.40
OW

- 15. ALL ELECTRICAL WORKS HONGE SHALL SEERS FEST BY EXPERIENCED MED LADGE THE DIRECT SUPERVISION OF A FULL TIME LICENSES. BLECHROAL BROWNER AND A DILLY ACCREDITED ELECTRICAL CONTRACTOR BY FOME WORKS SHALL BE MEATLY PLACED, INCUFELY FARTONED AND PROPERLY.
- HE THRE OF BETWEE ENTRANCE WHICH BE SHICKE PHASE, TAX WHILE PLUS SERVIND, HE HERTZ, DW AC SOMME
- 17. COMDUTE HIND CASE SHALL THERE BE MOVE THAN THE EDWINALIST OF FOUR QUARTER SCALE IN ANY ORE BUY, ALL CORRECT MINES SAAL BE FILLD MADE BY USING HYDRAULD SENDERS. MAINANI SOLICIAN WASTER BY ACCORDANCE TO THE COST REQUIREMENTS.
- III. UPON DOMELETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION WERE BRANCH TEST AND PURCE KNALLTY TEST SHALL DE PERFORMED SY THE CONTRACTOR INCLUSIVE DE THE INSTRUCTION TO BE REPORTED IN DITALS ON FORMS APPOINTED BY THE CUISSIN CITY EXCENDIBINE DOMETHEMT REPRESENTATIVE. THE ORIGINAL RESERVANCE FOR ELECTRICAL SYSTEMS SHALL HOT SE MORE THAN 5 CHAIR COMMUNICATION DROUGHERS INVESTIGATED SHALL HOT EXCELSE 2 CHAIR.

PROJECT TITLE:

COLUM



MISCELLANEOUS DETAILS

NOT TO SCALE

20	SWITCH (FOR REPLACEMENT)
ECONOMIS	EXISTING 300mmX1200mm TROFFER TYPE
	EXISTING 600mmX1200mm TROFFER TYPE
	600mmX1200mm TROFFER TYPE (FOR REPLACEMENT OF LED TUBE LIGHT)
Φ)	DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
(8)	ADDITIONAL CEILING FAN

APPROVED BY:

GENERAL NOTES

NOT TO SCALE

NAMES CAN AT SUBMITTED BY:

LEGENDS AND SYMBOLS

NOT TO SCALE

SHEET NO.



Republika ng Plipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF LITEX DAY CARE CENTER

BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

овован: Ди

MEVERONIE:

ENGR. LEG S. DEL ROSARIO

ENGR. ISACAMAR, VERZOSA , JR.

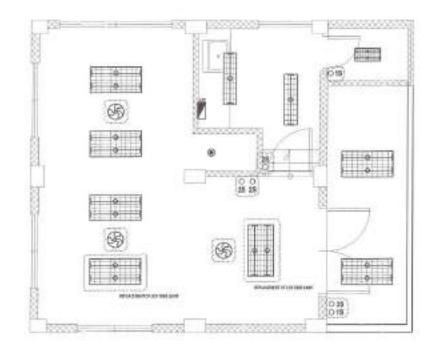
RECOMMENDING APPROVAL:

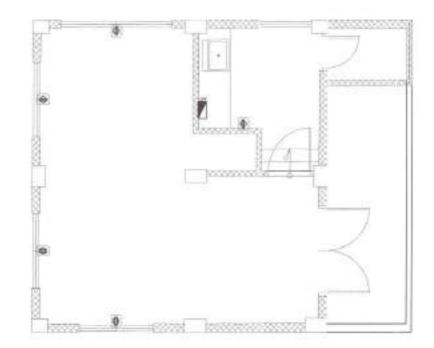
HON. MA, JOSEFINA G. BELMONTE

GENERAL NOTES
MISCELLANEOUS
DETALS
LEGENDS AND
SYMBOLS

EL-1
6 7







1 LIGHTING LAYOUT

SCALE: 1:100 MTS

POWER LAYOUT

SCALE: 1:100 MTS

SHEET NO.

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF LITEX
DAY CARE CENTER

BARRANDAY COMMONWEALTH, DISTRICT Z. QUEZON CITY

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ENGR. LEGIS, DEL ROSARIO

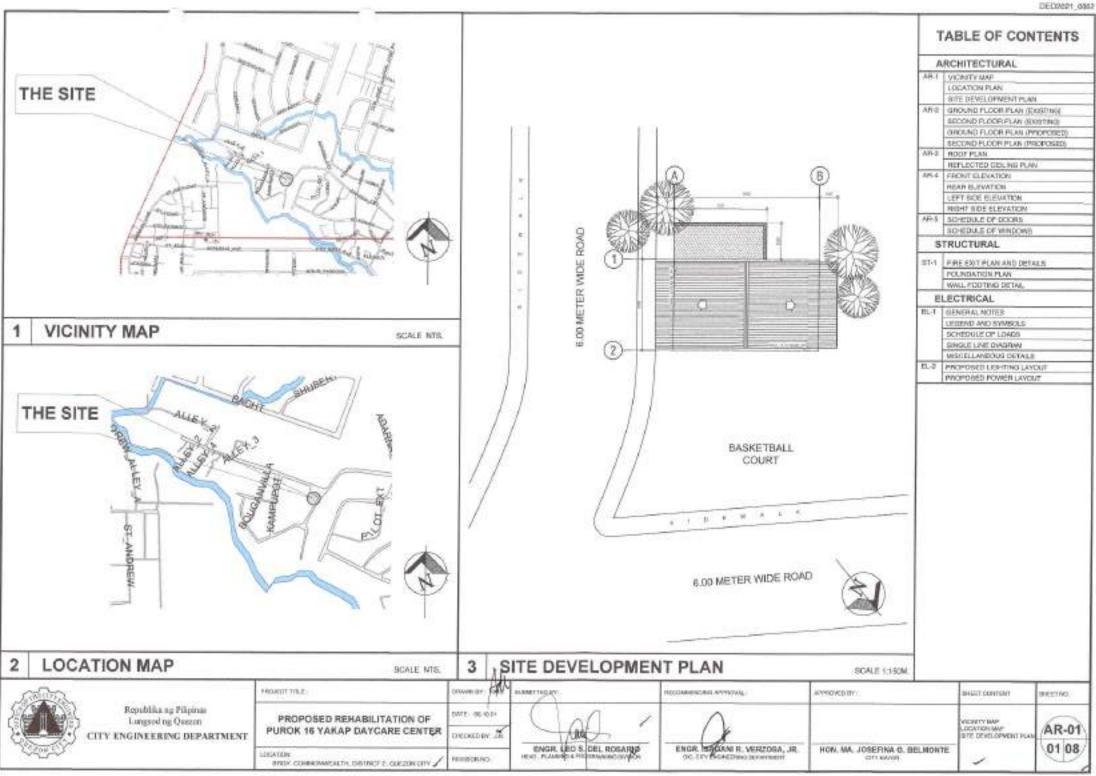
ENGR. SARRIER R. VERZOSA, JR.

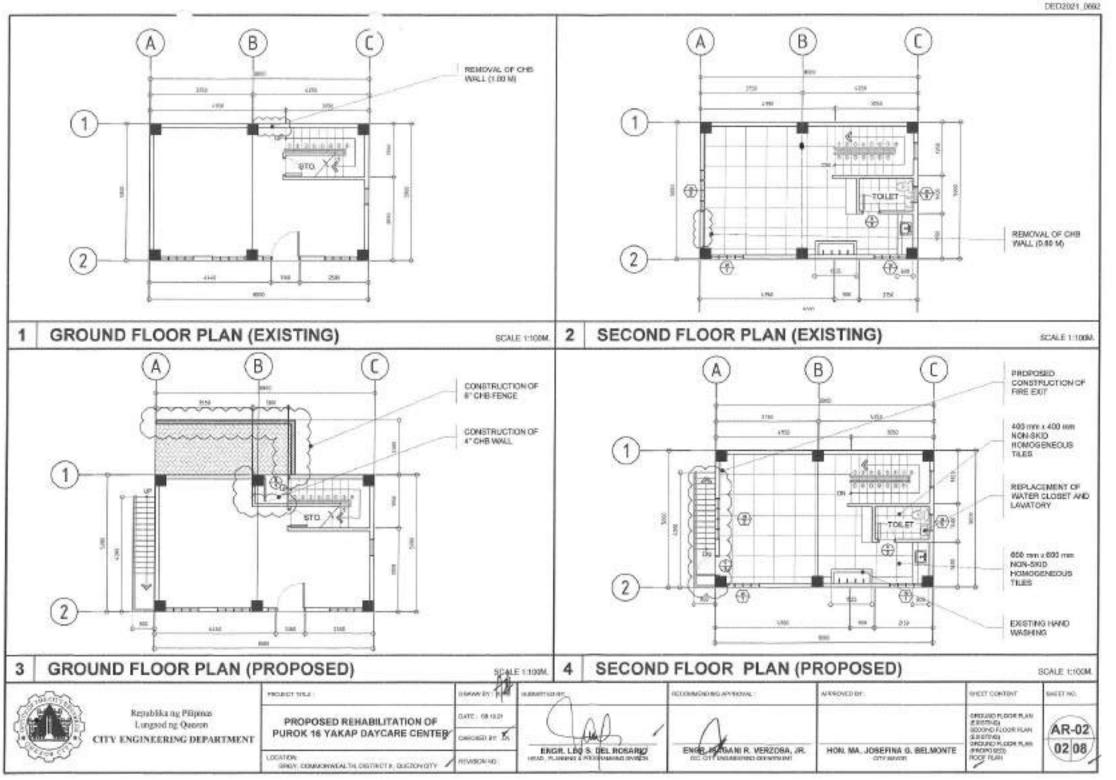
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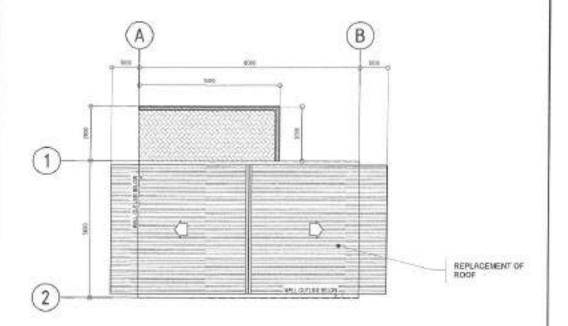
HON, MA, JOSEFINA G. BELMONTE

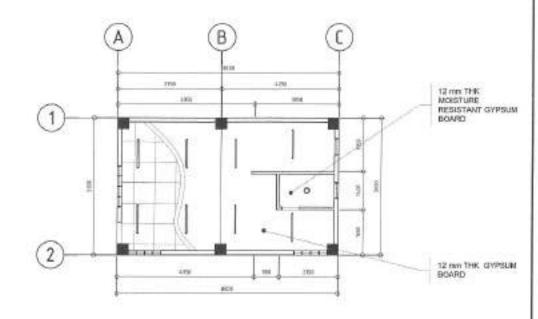
APPROVED BY

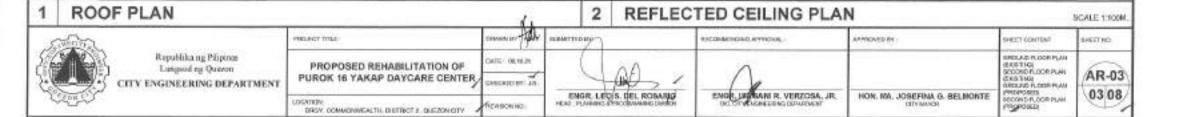
POWER LAY-OUT EL-2

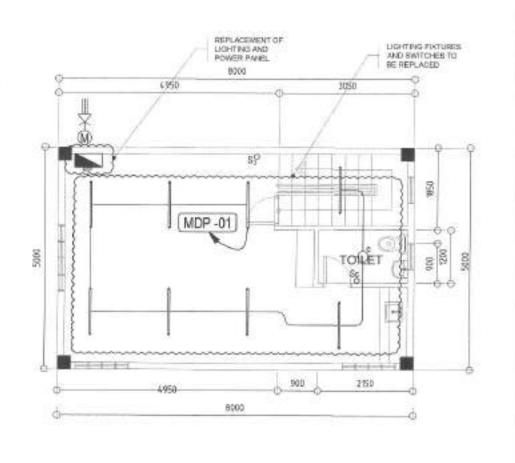


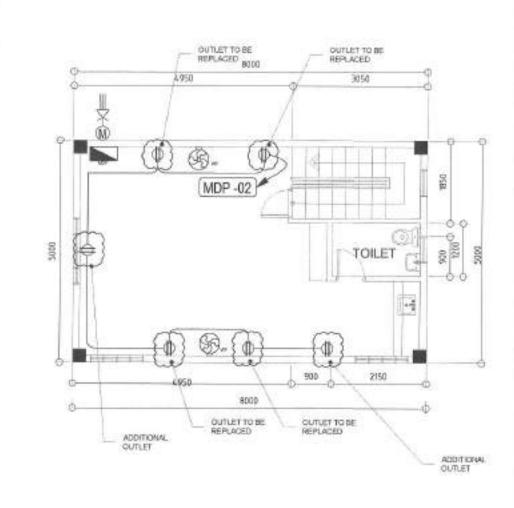












1 PROPOSED LIGHTING LAYOUT

SENSE 1904 2 PRO

PROPOSED POWER LAYOUT

BCALE 1:83W

Republika ng Pilipinas Langsod ng Quezon CETY ENGENEERING DEPARTMENT PROPOSED REHABILITATION OF PUROK 16 DAYCARE CENTER

BROY COMMONWEALTH DISTRICTS; QUESTINGTY,

DANGE SETEM

CHECKEOSE: IA

ENGRE NO S. DEL ROSANSE

FENSIONES: PARTIES DONOR

ENGRI ESATONI R. VERZOSA, JR

HON, MA, JOSEFINA G, BELMONTE

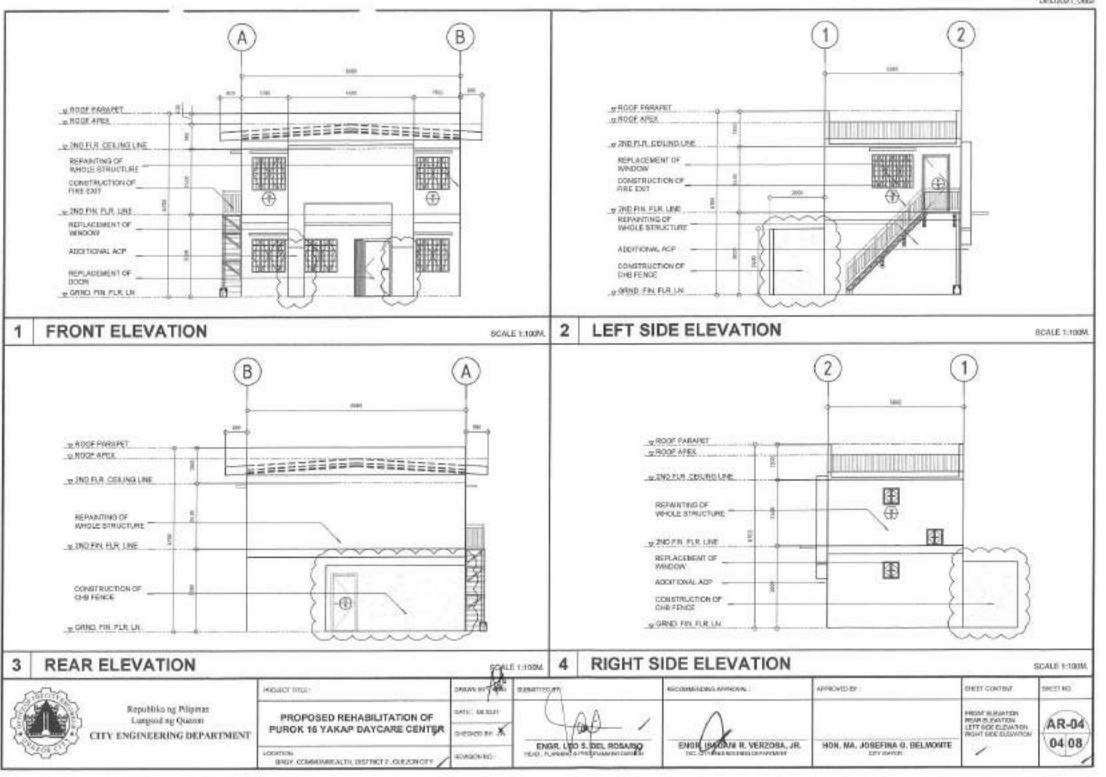
OTYMACH

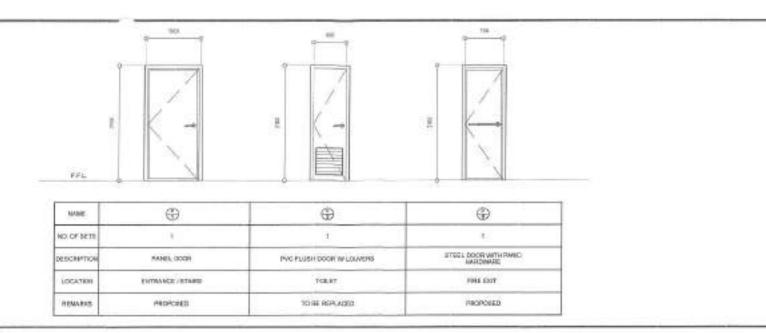
APPROVED BY

EL-02 08 08

SHEET NO.

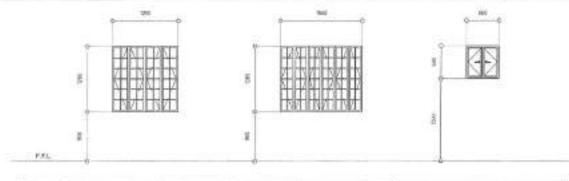
Meter CONTEST





SCHEDULE OF DOORS

SCALE 1:50M



NAME	⊕	⊕	(1)
NO OF SETS	2	+	1
DESCRIPTION	ALIMINUS FRANCO POWDER CONTED CASEMENT WINDOW WITH SIND THE CLEAR SLASS.	ALUMBUM FRANCO POMDER COATED CASEMENT MADOW WITH 6 MY THE CLEAR GLASS	ALUMINUM FRAMED POWDER CONTED-CASEMENT VINDOW RET'S BHIN THE OLEAR GLASS
LOGATION	GLASSROOM	OUASSPOOM	CLABOROOM, STAIRS AND TOART
ROMARIS	TO DE REPLACED	TO BE REPLACED	TO BE REFLACED

SCHEDULE OF WINDOWS

SCALE 1.50M.

CHTERRE



Republika ng Plipinas Lungsod ng Quecon CITY ENGINEERING DEPARTMENT MOST THE PROPOSED REHABILITATION OF PUROK 16 YAKAP DAYCARE CENTER

BROY COMMORREALTH, DISCRICT E, CLEZON CETY

DEMONSTRY TO DATE: 08 10 in CHECKED BY ENGR. LEG S. DEL ROSARIO REMINORNEL

RECOMMENDING APPROVAL.

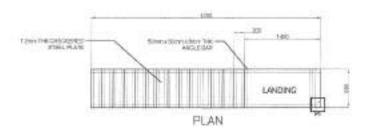
ENGR. JESEANI R. VERZOSA, JR.

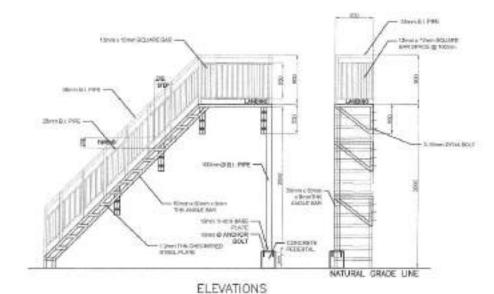
APPROVED BY

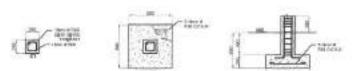
ICHEDILE OF BOOKS ICHEDILE OF MICCOMS HON, MA, JOSEFIKA G, BELMONTE

AR-05 05 08

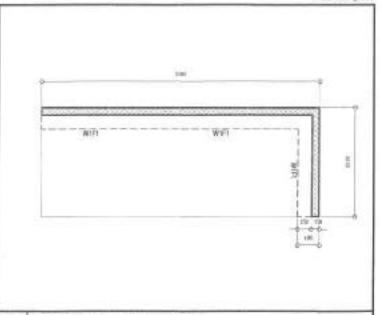
THITHOG TERM





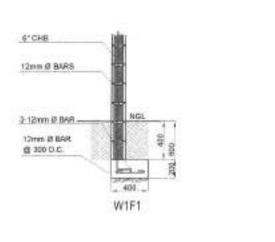


COLUMN FOOTING DETAIL



2 FOUNDATION PLAN

SCALE 150W.



1 FIRE EXIT PLAN AND DETAILS

Republiko ng Phipinas
Lungsod ng Queson
CITY ENGINEERING DEPAREMENT

PROPOSED REHABILITATION OF PUROK 18 YAKAP DAYCARE CENTER

BRIDY COMMUNICALTH, DISTRICT S, QUESCINGTY

ENGR. LEG B. DEL ROSARIO
1940. P. SPECIAL POSARIO

DEMANALEY: \$10

DATE: SERVEY

SHEGHER BY A

SEVERON NO.

BCALE 1.56M.

REDDMEDISTRE APPROVAL

WALL FOOTING DETAIL

ATTEMEDRY:

SCALE 1:30M.

ST-01

06 08

SAUTHOUT THE

ENGR. ISAGAM R. VERZOSA, JR. HON. MA. JOSEFINA O. BELMONTE
DIS CITY MACHINE DE CONTRACTOR DE CONTRAC

- 1. ALL BESTRICK MORE DIVIL BE DOSE IN ACCORDANCE WITH THE PROVIDING OF THE LATEST EXTREM OF THE PROJECT IS ELECTRICAL COOK, THE LAND AND ORDINANCES OF THE LICEAL CODE ENFORCED AUTHORITIES WAS THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE LITELTY COMPANY
- 2. THE CONTRACTOR SHALL REQUIRE ALL PIERM TO AND PAY ALL PLETS REQUIRED FOR THE WORK AND SHALL PLEIGHT THE DWHIR THROUGH THE BING WERRE, RIGH, CONTIFICATION OF ELECTRICAL REPRESTOURNES APPROVING PROMINENT GOVERNMENT AUTHORITIES FOR CONFLETION OF WORK
- 2. ALL EMBEDDED BRIVACH CHICATE IF ALL ISE PAY CONDUITS AND FOR EMPOSED INSTALLATION SHALL BE IND SUPPORTED BY CONDUCTORANGE EVENT 700 MILLIMETER
- 4 PIAL BORD SHALL BE PROVIDED BY THE COSTRACTOR WARRINGS ASCRESSIVE TO PACIFICATION FROM PIALING EVER IF THESE ARE NOT HIS DISASTED ON THE PLANE. SQUAG OF ALL PLALBORIDG BHALL DE COMPUTED BASED ON THE CODE BOOL REMAINES. SUBMIT SHOP DISAMINGS TO THE ENGINEER FOR APPROVAL PRIOR TO PARRICATION LOCATION OF PILLEDOES SHALL BE APPROVIDE BY THE ANOHITECTION (INSERT AND MUST BE REPLECTED ON THE YELBULT PLAN
- 5. ALL POWER CUTLETS: AND SINTCHES SHALL BE GROUNDING PHYE WITH PREMILED SLIGHT FOR THE V.
- PROVIDE DROUND FALL TO DRIVENT INTERPLATER DIROUTERS WHICH FOR LOADS MATHER 1970'S ON THE PLAN.
- 7. ALL METALLIG CONDUSTR, CARRIETT AND ECLEPAINT SHILL BY PROPERLY DEDUNCED AND ECADED.
- 8. UNLESS STREET, WASHINGTON, WOURTED HE SENT FOR WALL MOLETTIC DEVICES GRALL BE AS FOLLOWS

RECEPTACLE GATLET - 300 MW.APF , FROMWARDNE WORKING GOGNYERS

TRUBE-CRIR CUTURY - 38I MARE DATY QUILET - NO WIM AFF LIGHTONG BYSTCH - 1480 Mill APP PAYMERDAPET - THEO MITSELF

- REPER TO MECHANICAL, RUMBING ANY HER PROTECTION DIAMERUS FOR EXTREME AND LOCATIONS OF EQUIPMENT AS WELL. AS THEIR CONTROL DESIGNATES AS EPISCHED AND ON CHORNING DRIP THEIR RESPECT W. SECTIONS.
- IO. ALL WITERALE TO BE USED BHILL BE OF THE BEST GUALITY. BRAND HIM AS SPECIFIED.
- 11. THE DISAMINGS WILD GRECIFICATIONS ARE INTRIDED TO PRESENT GENERAL LAYOUT AND SECAL OUTUBER EXCHIPTION OF THE PREJECT SUT DO NOT MICE SIMPLY RESCRIBESCRIBES ACTUAL LISCATIONS, LINE, AND DISTRICTS OF THE EQUIPMENT, THE CONTRACTOR IS REPERT REQUIRED TOWARD SUCH ADJUSTMENT AT THE JOB TE AS LOCK YOU, DRIVINGS AND LEVELS AND GOVERNED BY ACTUAL FIELD CONDITIONS.
- III. ANY DISCREMANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DECISION
- 15. AU, DOLFFING AND COMMENCED CUTLET CIRCUITY SHALL BE 3.5 SQ. MA. THINKS COPPER WIRE UNLESS OTHERWISE HOTED. MINIMAN 622 OF WIRE CHALL, SE SHISQ WAS COPPEY WIRE, ALL BIRRES AND CASLES SHALL SE COLOX CODED AS FOLLOWS:

LINE 1 - RED LIME 1 - YELLOW WELTEN - WHETE GROUND-GREEN

14. BOXES, WHE GUTTERS, ENCLOSURE SHALL BE PARRICATED PROHISTED, WITH THORNESS AS FOLLOWS. MANAGE WITH OF THE WIDEST GUNFACE STEEL

WE TO VECTORISM THE RENAM COURT 1922-40 MINI BUT 192T (INVER 407:30)

DA 16 PRAYDROWITH METS. PRIMER ERORY AND TOPODAT OA 14 PANTSC WITH METAL PRIMER EPOXY WID TOPOCAT GA IC PAINTED WITH METAL PRIMER EPOXY WAS TOROCAT.

CHEW 46T DO MALEUT NOT OVER TISSING

BALSO PARATRO WITH METAL PRESENT EPICAT WAS TOPICOAT

PROJECT NILE

- 16. ALI SESCRECAL WORKS HEREST SHILL BE EXECUTED BY EXPERIENCED USES LINDER THE DIRECT SUPERIASION OF A FULL-THE LICENSID BLECKER. DIGNERS IND A DULY ACCREDITED BLECKICAL CONTRACTOR BY POAR WERKS SHALL BE HEATLY PLACED, BEOLIFELY PASTENED AND PROPERLY PINISHED.
- 46. TYPE OF BETWOOD ENTERANCE SHALL BY INSCRIPTIONS: TWO WITE TO GROUND, BEHEFTE, 2007 AC HERISAUL.
- CONDUCT BOYOR SHALL DELIFIELD HADE BY US ARE INVORAGED DENDERS, MAINLAN SCHOOLS PACKET WAS THE IN ACCORDANCE. TO THE GOOD REQUIREMENTS.
- III. LEGIS COMPLETION OF INJECTIONAL CONCERNIONON WORK, RELIGIOUS RESISTANCE TREE AND FUNCTIONALTY TREE INJUIN 66 PERFORMED BY THE CONTRACTOR RECUSIVE OF THE BUTHLIATION FO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE GUEZON OFF ENGINEERING DEPARTMENT REPRESENTATIVE. THE GROUND REDISTANCE FOR ELECTRICAL SYSTEMS. SHALL ROTTED RIGHD THAN 5 OHMS. COMMUNICATION SHOULDS HIS RESISTANCE SHALL HOT EXCESS 3 ORMS.

_	FILLS NOT LIKE THOSE BOY LIKE
4	RESEPTION AND WATER AND
-0	OLIFIEK CONVEMENCE BUILET
632	WALL CARE
*	SHIRE OARD SATCH (LIGHTS)
ne	TWO SWISS SMITCH (GGPTTS)
Ble .	THIS: GIAC SWITH (LIGHT)
79.7	CITCUT HOMESA
1	7MEL BLUST
0	KOLONATT-HISKE METER
-0	IBMC DIRECT

MDP										
- 1				CHARGE	ATMINUTED IN		WWW.self-coherum			
07.60	COAD BESIDER TON	Mex	POMEN	Devested	M	46		UNSHIEL DVM	DESCRIPTION	MMS Trity
1.	9-130KTHG	310	908	5.91	19	- 90	338	1-35mm	L-LOuer	15 mm B AVC
	A - DRITTED DUTUTED - ACRES (SHIEL) DATE OF BOAD FARE	200	100	5.00	in	- 61	-1	1-thesi	1-12mm	THE PR
	irsci	280		. 4	-	-	1	-	-	- +
-4	3/900	-206								
	FORMA CONNECTED FORD		3186	9.99						

DROLF MORETION COMPUTATION:

+ (J2007 ENTV)

A SCHOOL SHARE BY

OVER CLIRRENT MIGTECTION: LINE: HE AR. 2P CO BOLT ON

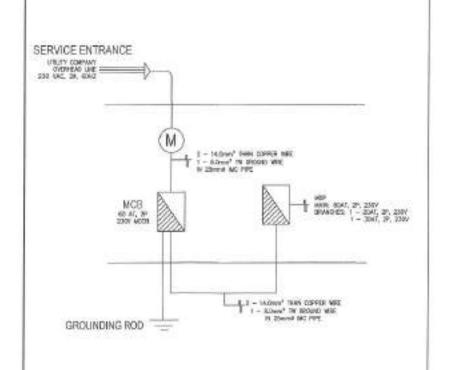
WASH RESDER-

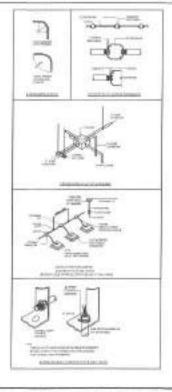
650 2- Level Tress Will & 2 - 8 Gress TW 0800/80 store.

IN SHIP BINCTIFE

LEGEND LOAD SCHEDULE 3 BCALE: NTS

SCALE: NTB







BOALE: NTS

SINGLE LINE DIAGRAM

BOALE: NTS

5

ERYMINDE

azzonem Er

MISC. DETAILS

SCALE: NTS SHADET NO.

Republika ng Phipinas Lungsod ng Quazon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF PUROK 16 DAYCARE CENTER/

BROY COMMONWEALTH DISTRICTS, BUEZON STY

DENNI PL KAL **BUDNITTOHS** DECREDON AN PROVIDENT SEC.

ENGR. 4EG 8. DEL ROBARIO

ENGR. SARIM R. VERZOSA, JR.

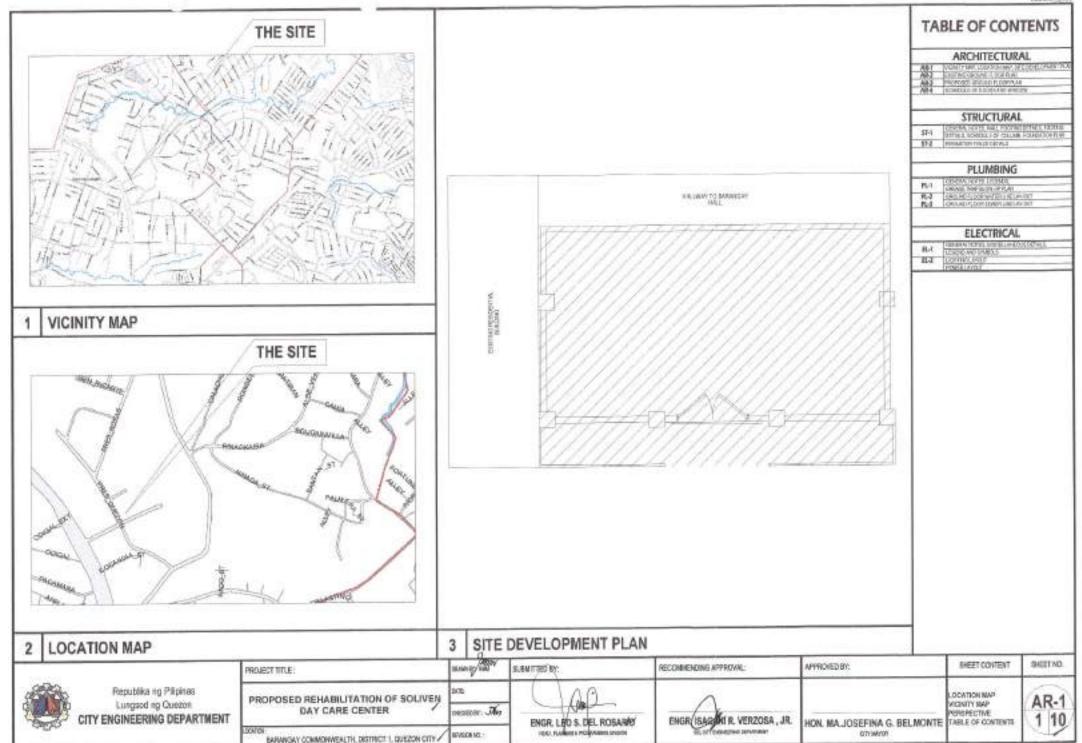
DESCRIPTIONS APPROVAL.

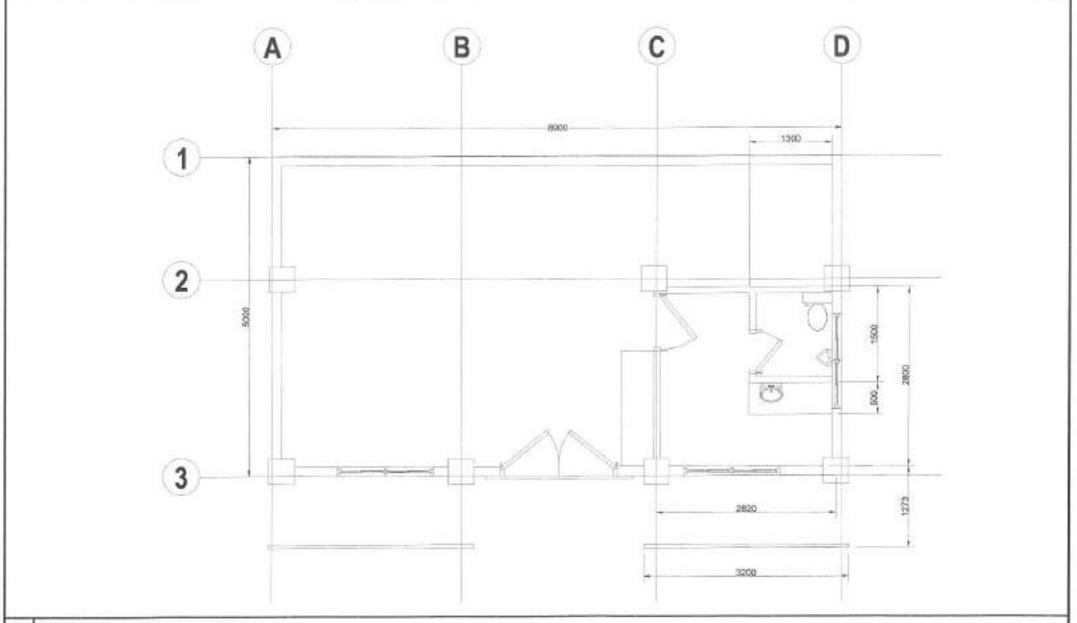
A AUGUSTO DAD. BARDER LINE CHARRING HOM, MA, JOSEFINA G. BELMONTE

DESIGNAL MOTES LEGENO WAS SYMBOLS ASSELLANDOUR DETAIL

THEFT CONTENT

EL-01 07 08





1 EXISTING GROUND FLOOR PLAN

спу

Republika ng Plipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE :
PROPOSED REMABILITATION OF SOLIVEN DAY CARE CENTER
DOTTO: BURNICAY COMMONNEALTH, DETRICT 1, QUEZON CITY

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анавыг, "Ж		
atheories:	ENGR. LED'S. DEL ROS	PA IO

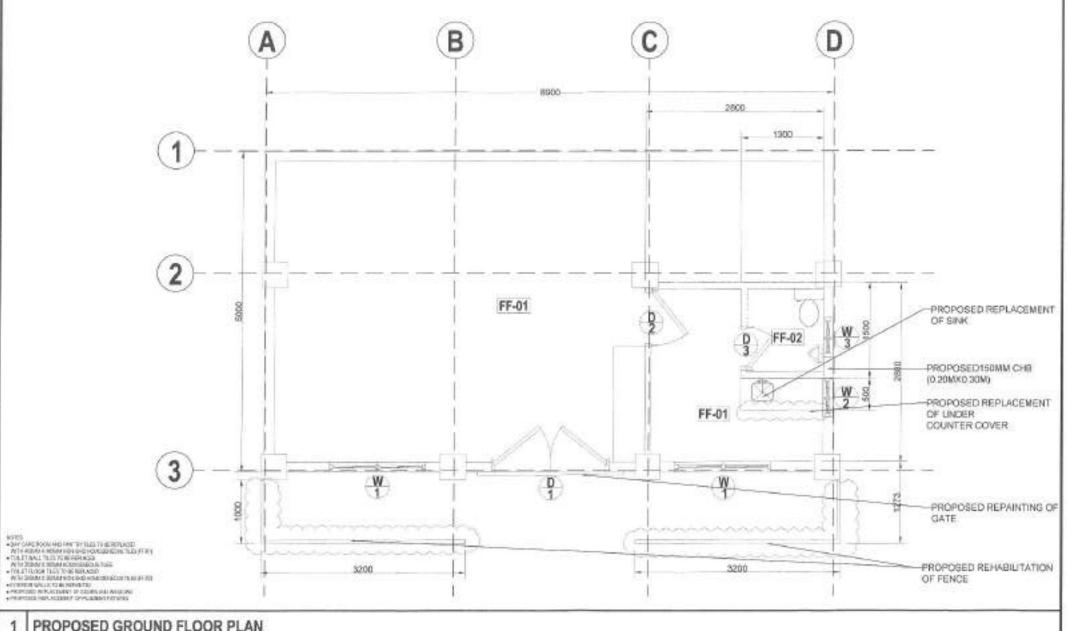
ENGR. ISAGANA. VERZOSA , JR.

RECOMMENDING APPROVAL:

30.4501.001.0	The state of the s	
	EXISTING GROWND FLOOR PLAN	AF
HON, MA, JOSEFINA G. BELMONTE		2

SHEET CONTENT SHEET NO.

APPROVED BY:



PROPOSED GROUND FLOOR PLAN



Republika ng Pilipinas Lungsod ng Quezan CITY ENGINEERING DEPARTMENT

PROVECT TITLE PROPOSED REHABILITATION OF SOLIVEN DAY CARE CENTER INDOOR: BANANDAY COMMONWEALTH, DISTRICT 1, QUEZON CITY "

DEDICATE JAME ENGR. LEO S. DEL ROSARIO SEMECH HO.

SUBMITTED BY:

ENGR. ISACASER VERZOSA, JR. OC 6TH DRINKCONKCODA/THEN

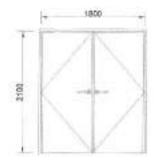
RECOMMENDING APPROVAL

PROPOSED GROUND FLOOR FLAN AR-3 3 10 HON, MAJOSEFINA G. BELMONTE OTHERS

SHEET CONTENT

SHEET NO.

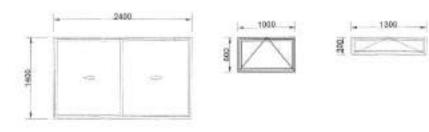
APPROVED BY







DESIGNATION	⊕	9	49
SPECE	SWING TYPE, FLUSH HOLLOW CORE DOOR PAINTED FINSH (KITTEN WHITE)	SWING TYPE, FLUSH HOLLOW CORE DOOR PAINTED FINSH MITTEN WHITE)	SWING TYPE, PVC DOOR, WITH 400mm x 200mm LOUVER, PAINTED FINISH (KITTEN WHITE)
HARDWARES SLAZM)	COMPLETE ACCESSORIES. DOOR KNOB: LEVER-TYPE SATIN STARLESS FINISH	COMPLETE ACCESSORIES DOOR KNDS LEVER-TYPE SATIN STAINLESS FINSH.	COMPLETE ACCESSORIES. DOOR KNOB LEVER-TYPE, SATIN STAINLESS FINSH.



SESIGNATION	⊕	₩)	₩
specs	SLIDING WINDOW, 5 mm THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALLWINJM FRAMES	AWNING WINDOW, Smit THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALUMINUM FRAMES	AWNING WINDOW, Green THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALLIMINUM FRAMES
STASMO STANDARD	PROVIDE WITH COMPLETE ACCESSORIES	PRÓVIDE WITH COMPLETE ACCESSORES	PROVIDE WITH COMPLETE ACCESSORIES

1 SCHEDULE OF DOORS AND WINDOWS

SCALE: NTS

SHEET NO.



Republika ng Pilipinas Lungsed ng Cuezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	
PROPOSED REHABILITATION OF SOLIVEN DAY CARE CENTER	
TATON: BARRANDAY COMMONWEALTH, DISTRICT 1, QUEZON CITY	,

DROSON: JAY
ENGR. LEP S. DEL ROSARIO
HOUSOING.

SUBSETTE PIECE

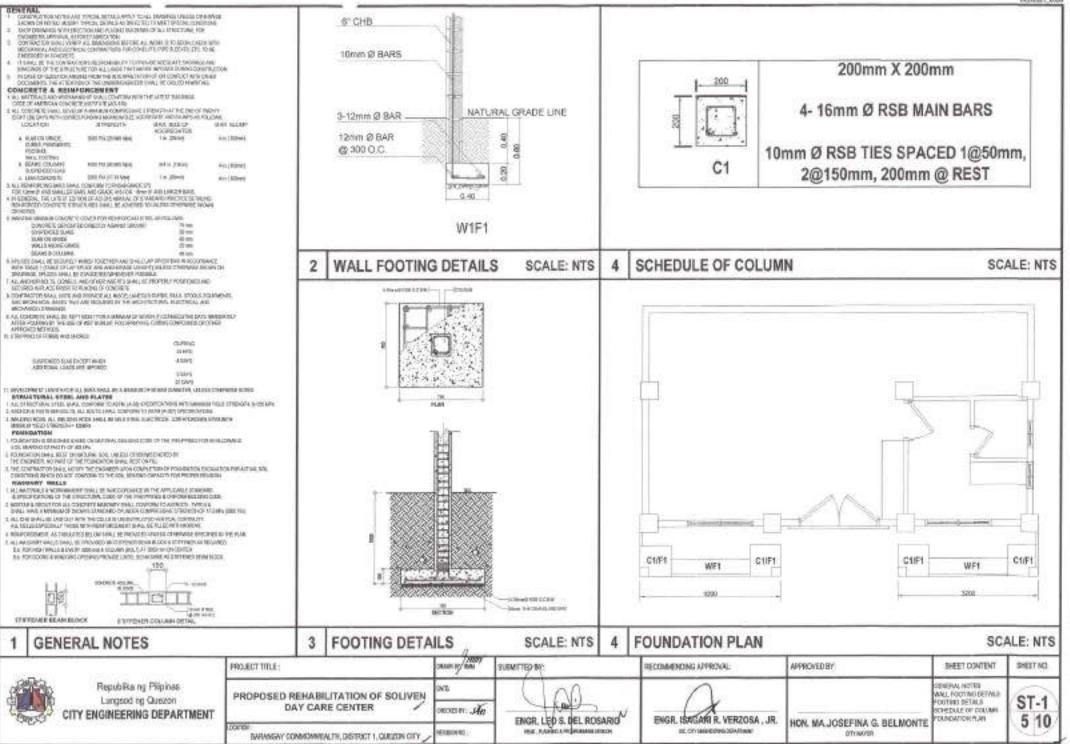
ENGR. ISAGAN R. VERZOSA , JR.

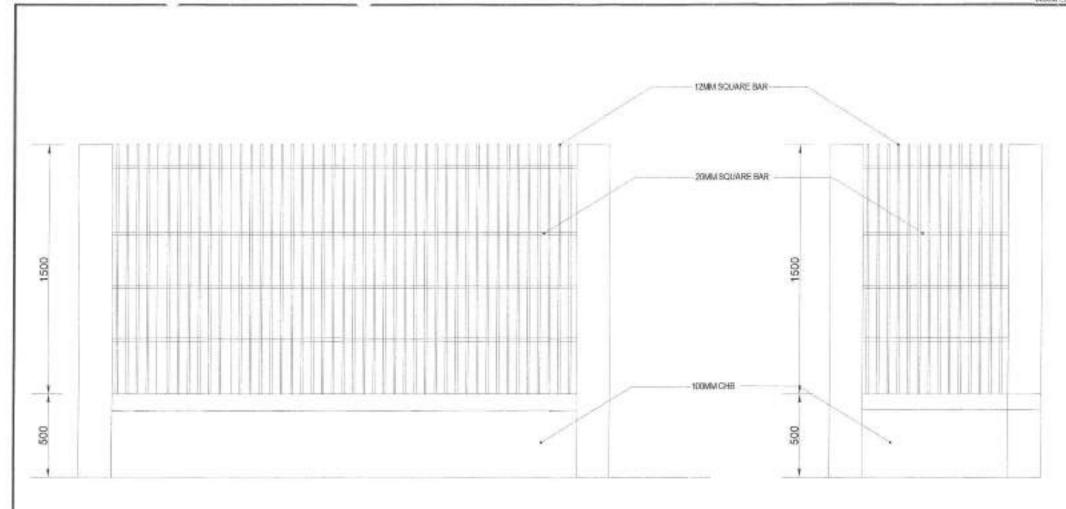
RECOMMENDING APPROVAL

HON, MA.JOSEFINA G. BELMONTE

APPROVED BY

SCHEDULE OF BOORS AND WINDOWS AR-4





PERIMETER FENCE DETAILS SCALE: NTS PROJECT TITLE : SUBMITTED BY: RECOMMENDING APPROVAL: APPROVED BY: SHEET CONTENT SHEET NO. Republika ng Pilipinas PERMETER FENCE PROPOSED REHABILITATION OF SOLIVEN **DETAILS** ST-2 Lungsod ng Quezon DAY CARE CENTER ORDER JAS CITY ENGINEERING DEPARTMENT ENGR. LED S. DEL ROSARIO ENGR. ISAGANI R. VERZOSA , JR. 6 10 HON, MA.JOSEFINA G. BELMONTE OC.075 (WANTERWOODNITHING) OTH MODE

BARANGAY CORMONIVEALTH, DISTRICT 1, QUEZZIN CITY

- 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.
- Z The plumbing layout is only diagrammatic; pipes, cleanouts and check values 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 is 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 shuctural morrisers 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 furtures to pipes and fittings shall be according to manufacture's specifications.
- 4 All floor drains shall be vented individually.
- 9 All dean out femules shall be fush-mounted to wall and shall be provided with polished cover caps. Do not install floor dean outs except at lines on grade and sevice areas not subject to traffic.
- 10 All underground G.I. piges in direct contact with soil shall be provided with two (2) costs of protective tar covering and wrapped with jute cloth thoroughly soaked in tar or asphalt.
- 11 Provide vent stack and vent sipe thru roof of cast iron service weight as required.
- 12 All cast iron pipes shall be of approved quality and GJ; pipes for water distribution lines shall be Schedule 40 U.S. standard weight.
- #3 Provide gate valves to all water supply lines to focures.
- 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 (2 (3W* (2)) unless otherwise indicated.
- 17 Inlet pipe of septic tank is 50 mm higher than the sighon 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 Sprittary Engineer. Any discrepancies found in plan shall be notified to the same person.

FIRTLE	COLD ST.	A BANKY	Ph/981.14	1 1000	ADJUST TO	1.00
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FD RD	FLOOR DRAIN ROOF DRAIN
SHO	SHOWER
WC LAV	WATER CLOSET LAVATORY
1,190	URINAL
KS	KITCHEN SINK
BD	BUILDING DRAIN
DO	DECK DRAIN
cco	CEILING CLEANOUT

FLOOR/GROUND CLEANOUT

DOWNSPOUT

milimeter

0 mm DIAMETER SHD SHOWER DRAIN CATCH BASIN CB MANHOLE



GREASE TRAP

DIRECTION OF FLOW

-	UNION PATENT
	CHECK WALVE
56	BUILDING SEWER
10	BUILDING DRAIN
PF	WASTELINE
60708	AREA DRAIN/ CATCH BASIN
10	FLOOR DRAIN
	DAMETER
	WASTELINE
	WATER LINE
	GATE VALVE
82	DECK DRAIN
-00	CLEANOUT
-	PIPE DOWN
	PAPE UP
100	MILLIMETER
ITV.	GATE VALVE
100	AREA DRAIN) DATCHEASIN
WC	WATER CLOSET
LW	LXWATORY
10-1	MANHOLE
HB	HOSE BIBB
	STORM DRAWLINE
_	VEVILINE
Yest	VENT ABOVE CEILING
27 (62)	CONCRETE PIPE / RENF. CONC. PIPE
VTR	VENT THRU ROOF
De l	DIRECTION OF FLOW / SLOPE

GENERAL NOTES

LEGENDS

SCALE NTS

SHEET NO.



Republika ng Pilipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE: PROPOSED REHABILITATION OF SOLIVEN DAY CARE CENTER CODATION:

BARANGAY COMMONIVEALTH, DISTRICT 1, QUEZON CITY

DEDEDOT: JAN ENGR, LEGIS, DEL ROSARIO HIV. PLANSE & PHILIPANHING CHICOL.

WANTED BY:

RESIDENCE.

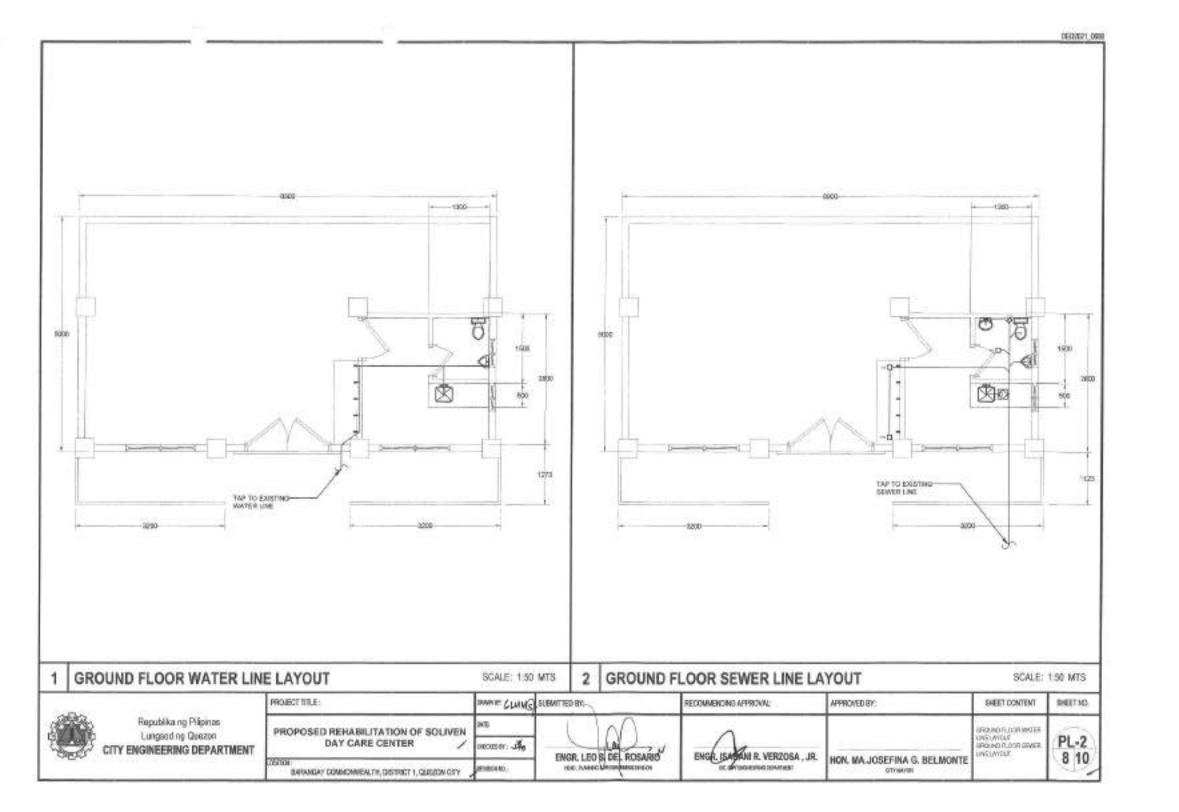
ENGRUSANOR R. VERZOSA, JR.

RECOMMENDING APPROVAL:

HON, MA JOSEFINA G. BELMONTE COTY MARKET

APPROVED BY:

PL-1 DENOVAL NOTICE 7 10 LEGISHES AND SYMBOLS



- 1. ALL CLESTRICAL MORRESHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE FINLIPPINE SLECTRICAL CODE. THE LANS AND DISCINANCES OF THE LOCAL CODE ENFORCES AUTHORITIES AND THE RECORD BUILDING OF THE LOCAL POWER AND TELEPHONE WHENTY-COMPANY.
- 2. THE DONTRACTOR SHALL DETRUBE ALL PERMITS AND PAY ALL FEED REQUIREDS FOR THE WORK AND GHALL PURKISH THE OWNER THE OWNER THE ENGINEES, PARL CHETHOLOGIS OF ELECTRICAL ASSPCTION AND APPROVAL FROM PROPER ODVERNMENT AUTHORITIES FOR COMPLETION OF
- 2. ALL IMPREDIES BRAICH CRICLETE BRAIL RE PAIT CONDUITE AND POR EXPOSED INSTALLATION BRAIL RE INC. SUPPORTED BY CONDUIT CLAUPE. EVERY 700 MILMETERS
- 6. FULL RORES SHALL REPROVEDED BY THE CONTRACTOR RECEIVERS FO FACE TATE MAY PULL HE DUTY P. THURS AND BOT INDICATED ON THE PLANS. ISLENG OF ALL PALLBORDS SHALL SE COMPUTED BASED ON THE CODE REQUIREMENTS SUBJECT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PROR TO PARROWTCH LOCATION OF PULLBOARS SHALL BE APPROVED BY THE ARCHITECHSTOSINGSER AND MUST 65 PEPLECTED ON THE "AS-BUILT PLAN.
- AUL POWER CHTLETS AND BUITCHES SHALL BE GROUNDED TYPE WITH HARALES BLOTS FOR 250 II.
- PROVIDE GROUND FAILT OUR BENT IN TERRUPTER CIRCUIT ERICABER FOR LIGADS MARKED TOROL ON THE RUAM.
- 7. ALL METALLIC CONDUTTS, CAUSELTS AND EQUIPMENT SHALL BE PROPERLY DECLINORS AND RORDED.
- 8. HILESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

PROSEPTAGLE OUTLET < 200 MW APP , HOMM ABOVE WORKING COUNTER. TELEPHONE GATTLET - 300 MW AFF. CATUCATORY - 200 Mol APP LIGHT NO SWITCH - 1400 HIS AFT PROPERCIANT - YES MALAPP

- 6. REPUBLIC MICHARICA, PLUMBER ARE PROTECTED GRAWING FOR EXTROS AND LOCATIONS OF EQUIPMENT AS WILL AS THER CONTEST. SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THE RESPECTIVE SECTIONS.
- 15. ALL MATERIAGE TO BE USED SHALL BE OF THE BEST USAUTY, BRAND NEW AS SPECIFIED.
- 15. THE DISAMINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GIVERAL LAYOUT AND BROAD OUTLINGUISSORPTION OF THE PROJECT BUT OD NOT MICHIGRAPHLY REPORTED CRIMED ACTUAL LOCATIONS. LEVEL AND DISTANCES OF THE RELIGIOUS THE CONTRACTOR IS REFERN RECORDED TO MAKE SUCH ADJUSTMENT AT THE JOSSITE AS LOGATION, DISTANCES AND LEVELS ARE GOVERNOUS AN ACTUAL PIELD DONDITIONS.
- 12. ANY DISCREPARCY SETMENT THE FLACE AND SPECIFICATIONS SHALL BE SKOUGHT TO THE ATTENTION OF THE SEGRESH FOR CLASSIFICATION.
- 13. ALL LIGHTING AND CONVENE NOC OUTLET CIRCUITS SHALL BE 3.5 SC; NM, THINK 3 COPPOR WIRE INLESS OTHERWISE NOTICE MINIMUM SIZE OF WAS THALL BY 3.5 RQ, MM, COPPEN WHY, ALL WIRES AND CASLES SHALL BE COLOR CICCED AS FOLLOWS:

DRET-HED UNET-YELLOW MELTING: - VINTE GROUND - GREEN

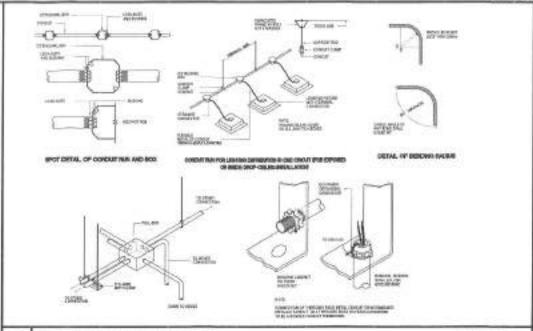
14 ROOTS WIRE CUTTERS ENGINEERS SAUL BY PARRICATED FROM STEEL WITH THICKNESS AS FOLLOWS: MAKING WINDSHOP THE WIDEST BUREAGE STILL.

LIPTO BICLUDING HIS 40 MH ILA 16 PARTED WITH WETAL PRIMER EPOXY AND TOPODOT GA 14 PAINTED WITH METAL PRIMER BYOKY AND TOPOCAT CHARLE HER HIS LIE WAS TO CHARLE AST TO DATE HELD TON THE HER DECIDE HEND DA 12 YANTED WITH METAL PROBER BROKY AND TOPOCHT OVER 762 HM TA 18 FANTED WITH METAL FRRIER BROXY AND TERRORY

TO ALL ELECTRICAL YORKS HAVE BISHALL BE EXECUTED BY EXPERIENCED BEST UNDER THE DIRECT ELPHANSION OF A PULL-TIME LICENSES. ELECTRICAL CHOINEER, AND A DISLY ADDRESSTED ELECTRICAL CONTRACTOR BY MORE WORKS SHALL BE NEATLY PLACED, SECLIFIELY FARTENED AS DIPROPERLY.

PARTIES.

- THE TYPE OF SERVICE ENTRANCE WHILE WHILE PHASE. TWO WHE PLUTTER DUBY, NO HERTE DOLAC HOMBIAL
- 17. CONDUTTOR NO CASE SHALL THERE BE WORK THAN THE EXPONNENT OF FOUR QUARTER BENDS IN ANY ONE YUN, ALL CONDUIT BENDS BHALL BE HIS D HADE BY LIGHES HYDRAUGHE BRIND BRILD BRIND BRILD BRIND BROWN BASIN BRIND BRIND BRIND TO THE COOR RECARBINENTS.
- 16. SPON COMPLETION OF SLECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND PUNICTION/CITY TEST SHALL BE PERFORMED BY THE CONTRACTOR HIS USING OF THE HISTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE DUESON OF V ENDINCEPRICE DEPURISHENT REPRESENTATIVE. THE DROLLIO RESISTANCE FOR SECTINGUE STREETS SHALL BOT BE JOSE THAN 5 CHAIR COMMUNICATION. GROSHISHING RESISTANCE SHALL NOT EXCEED 3 OHMS.



2 MISCELLANEOUS DETAILS

NOT TO SCALE

⊜	SWITCH (FOR REPLACEMENT)
(n)	E27 RECEPTACLE WTIH LED BULB (FOR REPLACEMENT)
-	EXISTING TUBE LIGHT BOX TYPE
	TUBE LIGHT BOX TYPE (FOR REPLACEMENT OF LED TUBE LIGHT)
(0)	DUPLEX CONVENIENCE OUTLET (FOR REPLACEMENT)
(%)	ADDITIONAL CEILING FAN

APPROVED BY:

GENERAL NOTES

NOT TO SCALE

3 LEGENDS AND SYMBOLS

NOT TO SCALE

SHEET NO.



Republika ng Pilipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE: PROPOSED REHABILITATION OF SOLIVEN DAY CARE CENTER UCCODE BARANGAY COMMONWEALTH, DISTRICT 2, QUESTIN CITY

mecanier: 140 ENGR. LEOJS, DÉL ROSARIO FOR AMERICATION WHITE STOOM EHIDI IO.

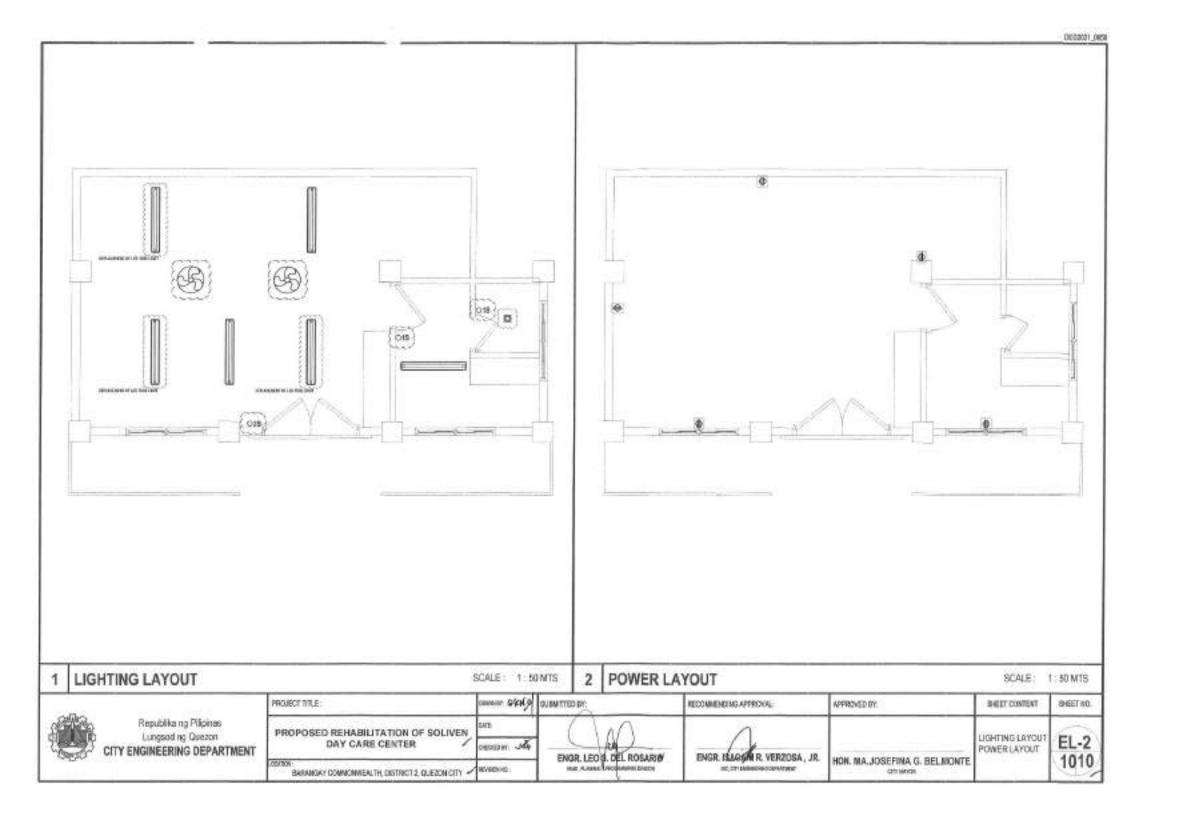
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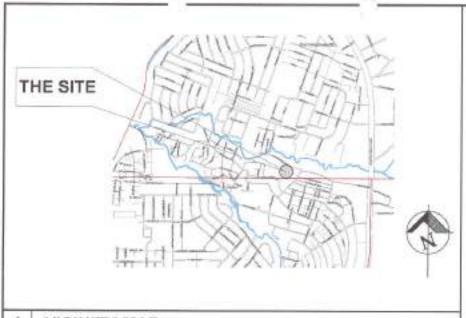
RECOMMENDING APPROVAL:

ENGRIBAÇANI R. VERZOSA . JR. SIC, DIVENDRESS PRODUCTION

HON, MA JOSEFINA G. BELMONTE

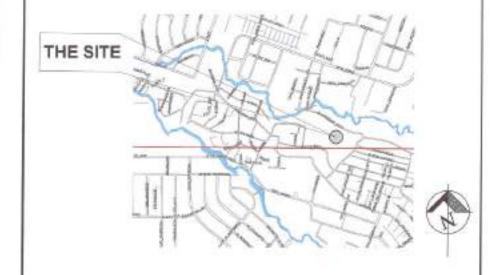
GENERAL NOTES MISCELLANEOUS EL-1 DETAILS LECENDS AND 9 10 SYMBOLS





VICINITY MAP

SCALE NTS.



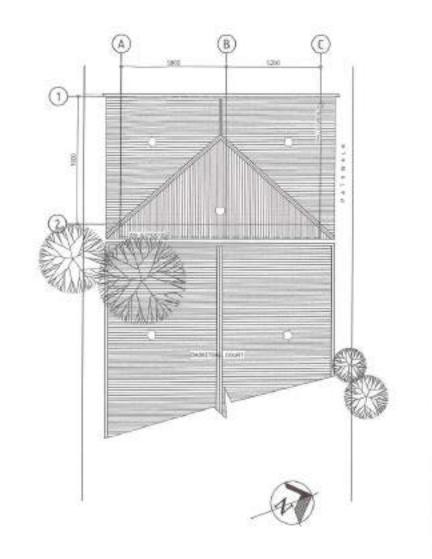


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ARCHITECTURAL

ART VICINITY MAP LOCATION PLAN SITE DEVELOPMENT PLAN ARR SECOND PLOOP PLAN

ROOF PLAN APP FRONT ELEVATION REAR ELEVATION

LEFT SIDE ELEVATION RIGHT SIDE ELEVATION APLA LONGITUDINAL SECTION THRU-A CROSS SECTION THRUB

ARIS | REFLECTED CEILING PLAN SIZ-EDULE OF DOORS SID-EDULE OF WINDOWS

STRUCTURAL

ST-1 STEEL GATE WAS PENCE DETAILS PRE EXIT PLAN AND ELEVATIONS

ELECTRICAL

EL1 GENERALBOTES. LEBEND AND SYMBOLS. MISCELLANGOUS DETALS BL-9 PROPOSED LIGHTING LAYOUT PROPOGED POWER LAYOUT

SITE DEVELOPMENT PLAN

SCALE 1:150M.

APPROVED BY

DEET CONTINUE SHEET NO.

> AR-01 01 08

Republika ng Pilipinas Langsod ng Quezon

CITY ENGINEERING DEPARTMENT

LOCATION MAP

PROPOSED REHABILITATION OF UNIT IV DAYCARE CENTER,

SCALE NTS.

BROW COMMORWEALTH, DISTRICT J. QUESONOTY

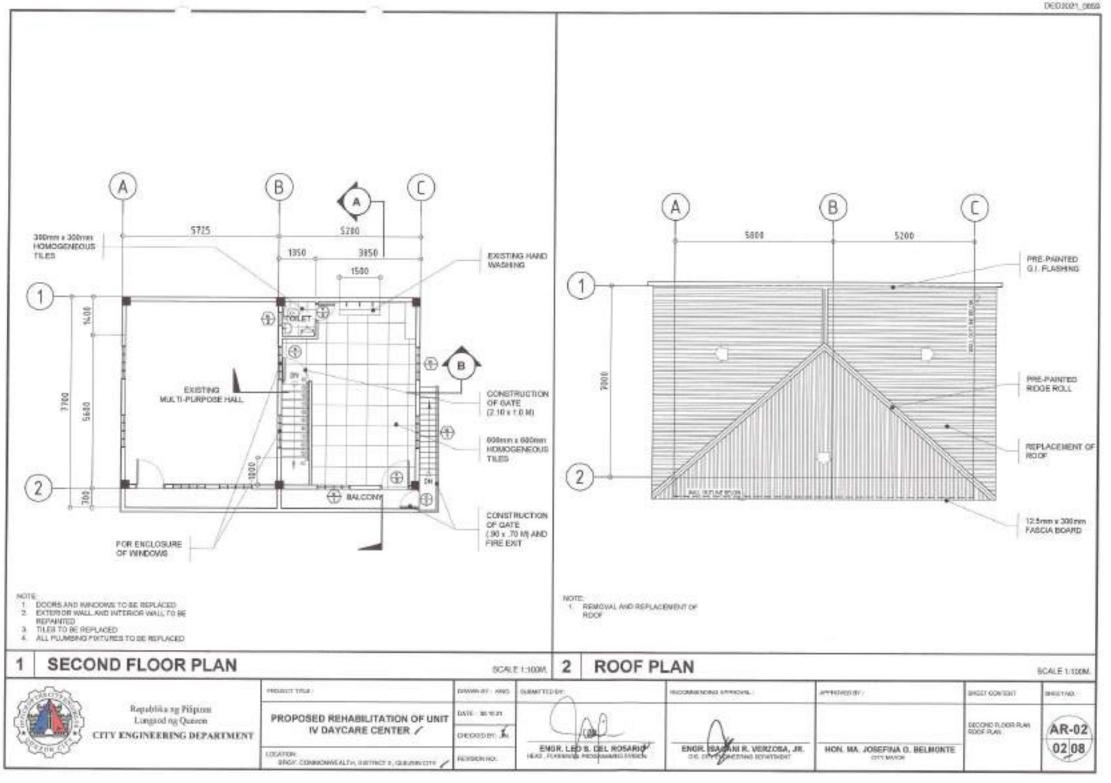
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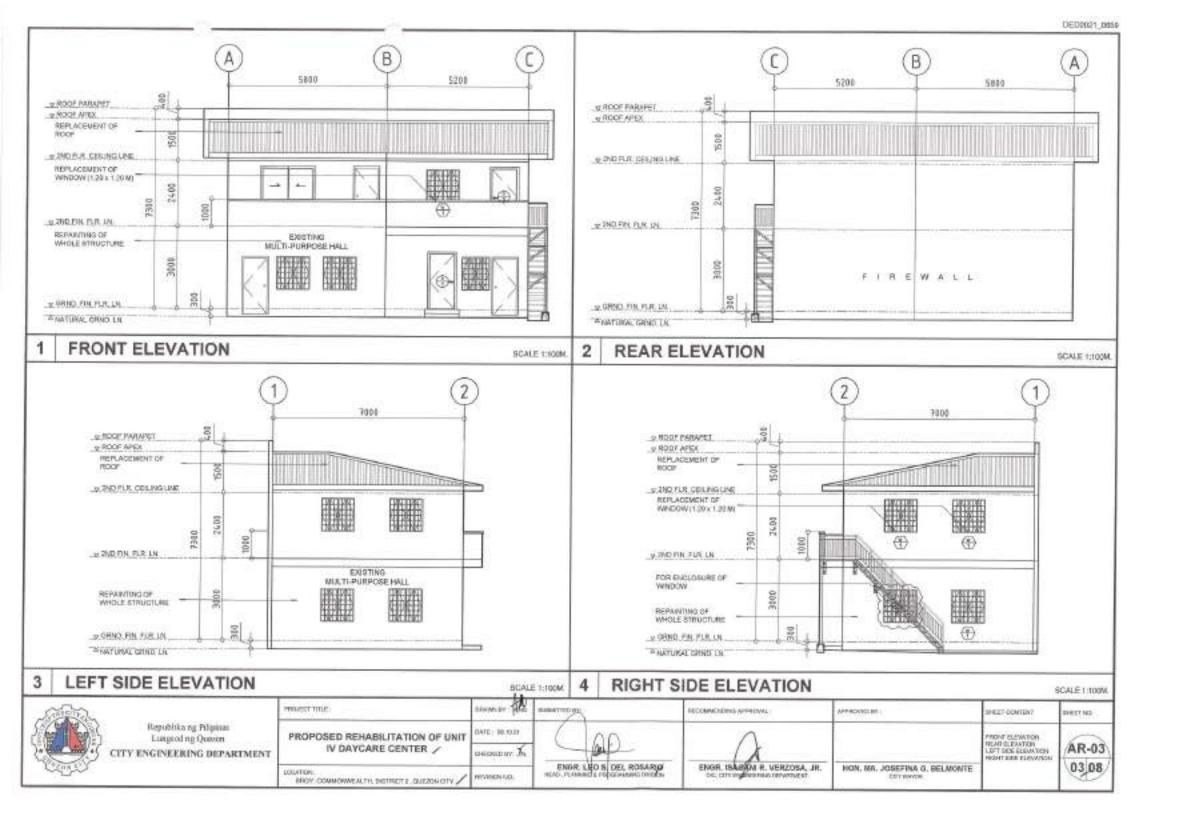
DERMINET MAN DATE: 66.KUT Decrees A ENGR. LED S. DEL ROSARIO HOVERINGS:

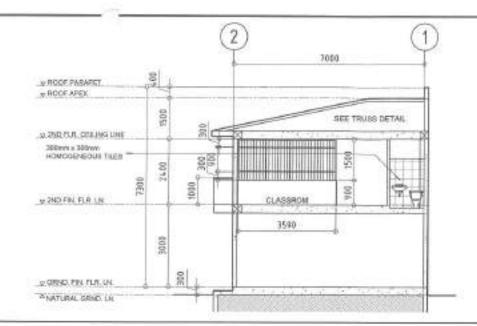
ENGR. ISAGAM R. VERZOSA, JR.

НЕСОМИЕНИЯМ АРТИТОЧИ

VICHTY MAP LICATION HAVE SITE DEVELOPMENT PLA HON, NA, JOSEFINA G, BELMONTE

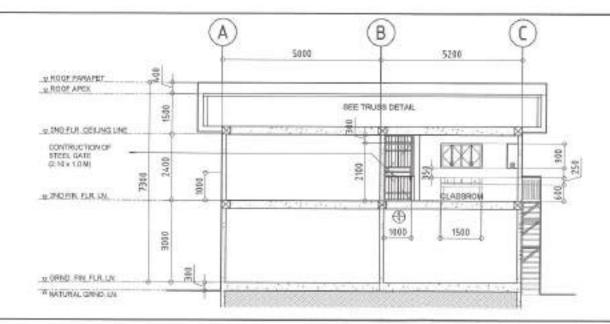






1 SECTION THRU-A

SCALE 1:100M.



2 SECTION THRU-B

SCALE 1:100W.

DISTRIBUTE



Republika ng Pliquim Lungsod ng Queson CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF UNIT
IV DAYCARE CENTER

PRODUCT WING:



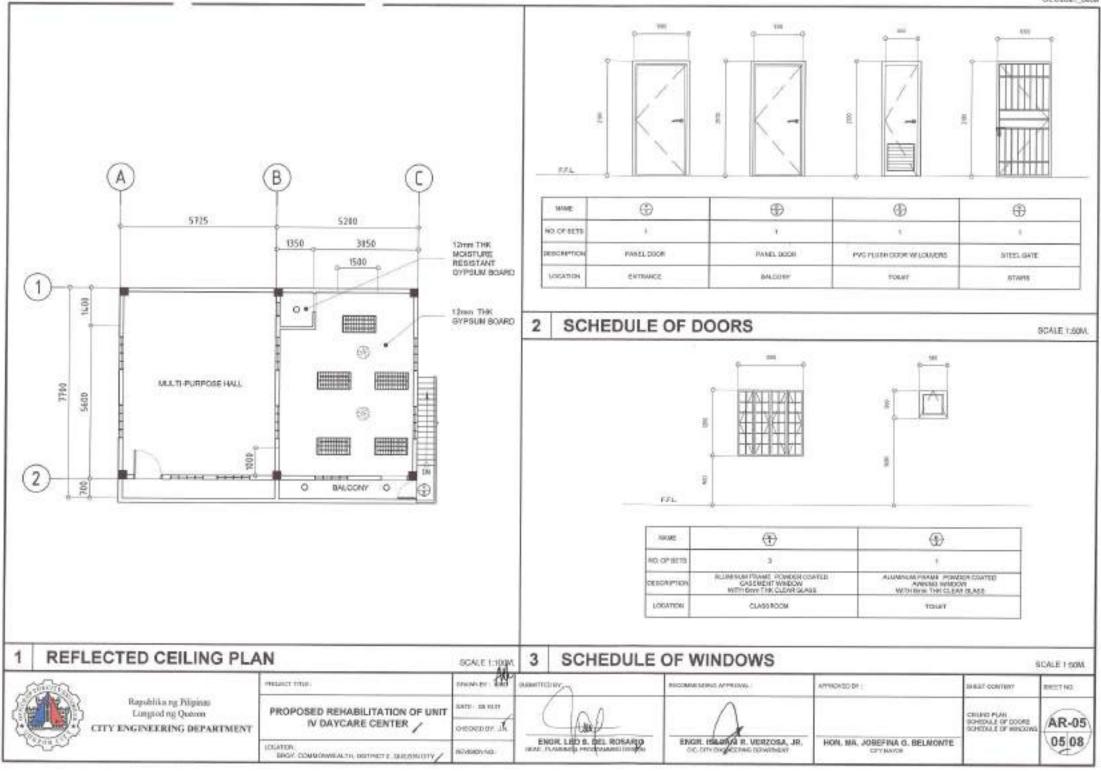
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FINGE	IBAGON R. VERZOSA, JR.

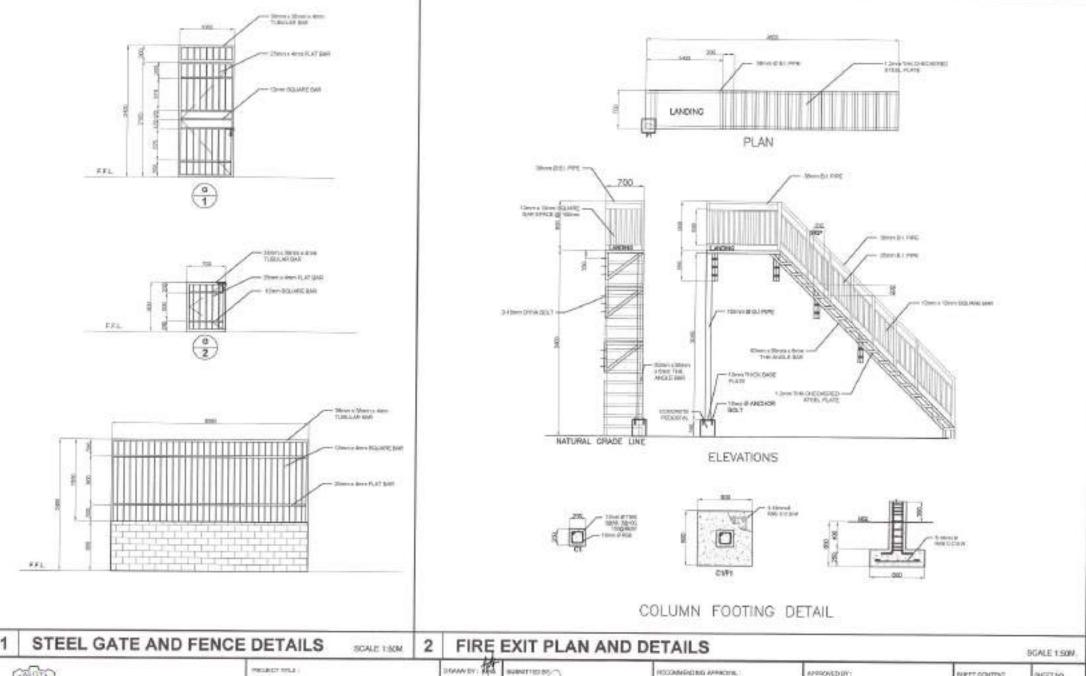
RECOMMENSMEN APPROVAL

SECTION THRU-6
SECTION THRU-6
HIGH, MR. JOSEFINA G. BELMONTE
CEYMANOR

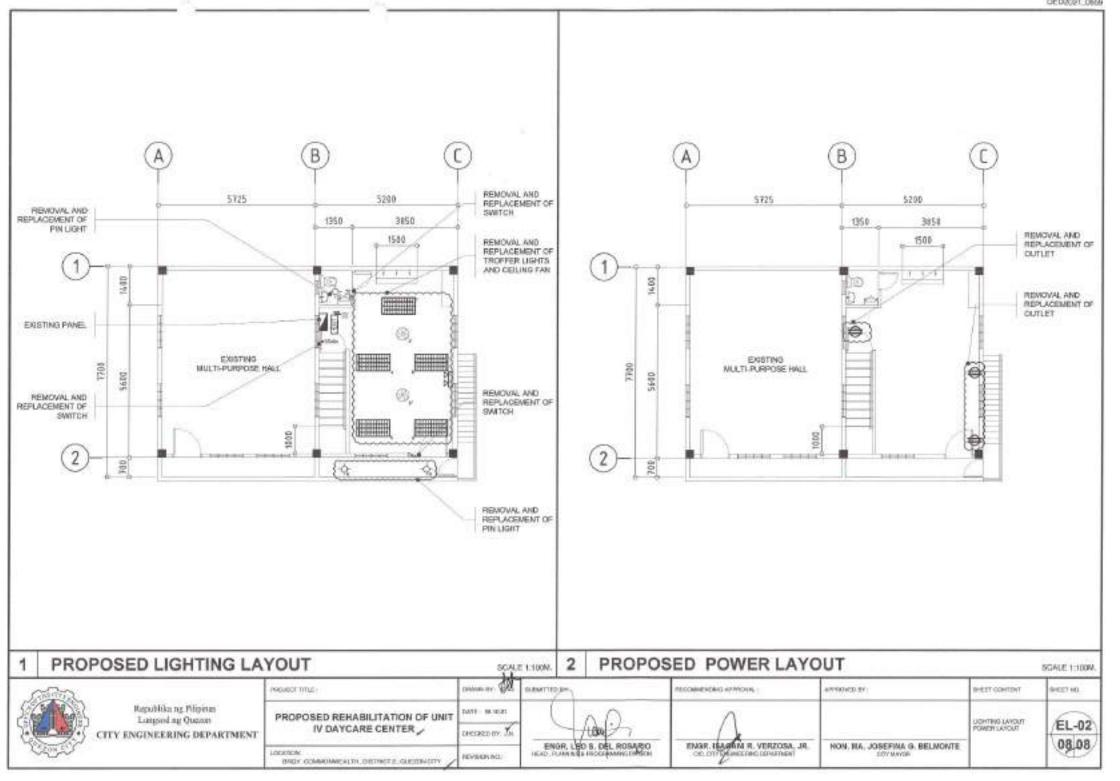
APPROVIDED I

AR-04 04 08





APPROVED BY: DESTINO. SPECT CONTENT Republika ng Pilipinas 0.070 | 00.10.25 PROPOSED REHABILITATION OF UNIT Lungsod ng Queson WITH A GATE AND PRICE DETAILS ST-01 IV DAYCARE CENTER/ DECREDING BL CITY ENGINEERING DEPARTMENT 06 08 ENGR. LEG S. DEL ROSARIO BNBR. BAGANI R. VERZOGA, JR. HON, MA. JOSEFINA G. BELMONTE (doznov REVISION NO. CITY MUROIN BROY, COMMONWEALTH, DRITHECT J. GUEZENIGTY



GENERAL NOTES:

- A LESSTRICK WIRES SHALL SE TIDE IN ADDISPOSED WITH THE PROMISSING THE LATER STITEMEN THE PARK. ELECTRICAL COSE, THE LANS AND CREMINISTS OF THE LOCAL COSE SHEURDING HET POPPRISH HET THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHORE STEET COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE REPRINDING MAIL REPORT FOR OWER THROUGHTHE ENGINEERS. FINAL GERT FORTES OF ELECTRICAL IMPSET ON HEAVITHOUSE PROPER CONTRIBUTATIVER FOR CONFLETOR OF NORK
- 1. ALL EMBERGED OFFICE LONGLES HALL BE THE CONCUPS AND THE EMPOSED RETALLATOR OF HE SUPPORTED BY SOMELAN DUAL BUT PROPERTY OF ALL MOTERS.
- 4 PALEOGERAND, IS PROVIDED BY THE CONTRICTOR WIREYOFF SECREMENTO MICHIEF MAR PULLISHMENT FROM WIR HOT NORTHER OWNER FLAVOR DERVOOR HILL FOLLOWING IS ALL DE CORPUTED SAKED ON THE COOK REQUIREMENTS. извыст вной овыченов то тис екрандей гов избером, извей то пкороллом соохложностициональных ис APPROXIDED BY THE RECHTECH PROBLEMENT WILLIAM TO A PROJECT FOR THE WARREST PLANS.
- 8. ALL POWER COTLETS. MICHIGHISTONIS INVALORS OF SUPPLIED OF SECH PRINCIPLE, SUCTE FOR CIRC.
- 8. PROVIDE GROUND PALLET CLEMENT INTERMETTEN CIRCUIT BROWER FOR LOADS WARRED GROUND RUNG.
- I AL METALLIC CONDUCTS, CARRIETTI AND SICLEPRINT SHALL BE PROPRIET SETLADEG AND RESIDENT
- 8. IAURO CHERMINISTE, RUSTNO HESHTORVAL MUSTEDIA/GERHL MARCLUM

RECEPTAGUE DUTLEY - NO THA APT , (100MA RECOVEROUS ROCKERS) TELEPHONE STITLET - SESTIMANE

CATE OUTLAND - 300 DRIVAN LIGHTING WATER - LIGHTING HTP PARESDOOD - 1000 NW LTF

- 8 ROTER TO MEDIANICAL FULNESSES WIR FIRE PROTECTION ANNIANCE FOR HAVING MICHIGAN CONTINUED FULL PRINT AS VALUE. AN THE R CONTROL WILLIAM CAN AN EMPOYMENT AND DISCHOLARY LINDER THEIR RESPECTIVE MICTORIA.
- TO ALL RESTRICT AND ALL
- 16. THE DRIVANCE WID RESIDENCE WILL RETEXAND TO PRODUCE GOVERN, LAYOUT WID BROAD OUT HEXASORPHION OF THE PROJECT BUT DO NOT HER REPORTS PRESONNESS DRIVEN ACTUAL CITE STORY UNITS. AND DEPARTMENT THE DESCRIPTION OF THE CONTRACTOR IS REPORT FOR WHICH TO WARR BLOCK ADMINISTRATIVE ADMINISTRATION OF THE ACCURATE AND CONTRACT. AND LEVELS AND CONTINUED BY ACTUM, THE DICHERTONS.
- SE ANY DISCREPANCY RETIRED THE PLANE AND SPECIFIC RETIRED IN ALL HE RECORD TO THE ATTRIBUTED THE DISCREPANCE. CLARFICATION OF CRICK
- 13. ALL LOFTING MID CONVENIENCE OUTLET ORIGINES HALL BE 25.50. MM THURS COPPER WITE VILLES OF ENWIRE NOTED. SERVICE SET OF WITE SHALL SEE FIRE MR CORPORATE ALL WARRANCE SHALL BE COLD CORE IN PLUCIME

LOSE 1 - 1980 LIGHT S. VELLORS RESITIAL, VALUE GROUND-WHEEL

15 BOILD, WHILL, SUTTING, BROLDSUMS SHALL BE, TANNOVISO PROHIBES, WITH THORSESS REPOLICIAN. WAXWAN WORK OF THE HITEET SUPPLY STEEL.

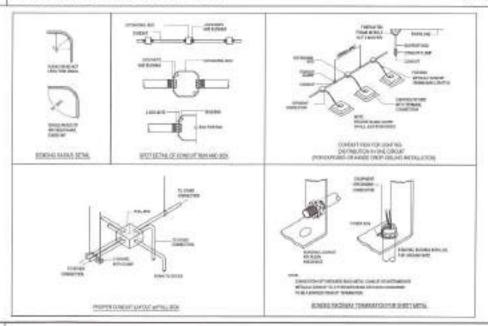
UP TO INCLUDING HEL40 MV GA 11 PWAITED WITH METAL PRINCIPGROUT WID TOPODAT DIVER 150 HE RM SUFF NOT CHER HEC SO SA SEPARITED WITH BUTH, PRIMER PRODUCED AND TOROUT DVER JET TO BALBUT FOR DWENTY THE HAL DAY OF THE WITH MET N. PRIMER STORY AND TOROUGH COVER TREAMS DA SCHWITTER WITH METAL PRIMERIEPORY AND FORCIAT

- 45. AU SLETTRON, NORGE ACRES SHALL SE EXCUPTO Y EXPENSACIO HIS LINES THE CRECY SUPERMISSION A RULL/TMF LORRESCHEICTRICAL RECEIBER AND EIGHT SICCREDITED ELECTRICAL CONTRACTORS FOR BALLL DESIGNATURE PLANTA DE CONSTRUIR Y PARTENER AND PROPERA PERSONER.
- 19. TYPE OF SCRIVES DIFFERENCE SHALL BE INNOCE-FRANCE. TWO HISTO PLUS URDANOL NO HISTORISM NEW PERSONS.
- 17 COSCUERS IN NO CASE SHALL THERE HE MORE TAKE THE REQUIREMENT OF POLICE JUSTICE WHICH IS ANY ONE RISK ALL CONCURS BRAIL BY FELD BASE WY LESS HYDRACK STIDENS WHALE STIDING THE PARTY OF HACOTOPING TO THE OLDER PROGRESSION TO
- POHODO LETOTO FILLETROA, CONTRUCTO VIVOR, RELATION RESERVED. BET WELLED CONTRIT THE BRILL. WE PERCHASO BY THE CONTRACTOR REQUISIVE OF THE RETALLATION TO BE REPORTED IN DITING A CHARGING APPROVED. BY THE OLD THY CHORDED WIS DESIGNATION RED SESSIONATIVE. THE SPECIAL DESIGNATION OF THE BY SHALL NOT BE WORE THAN 5 DHAVE COMMUNICATION SHOUNDING HEIGHT WICE THALL NOT EXCEND 2 DHAVE

0	PINLIGHT
	DOTHER RECESSED TROFFER TYPE
	ENERGENCY LIGHT
(EXI)	ENT LIGHT
40	SNIGLE GANG SWITCH (LIGHTS)
Male.	THREE GANG SWITCH (UGHTS)
**	SELECTOR SWITCH (FWV)
Ф	SUPLEX CONVENENCE QUILET
(8)	CELING FAV
	PANEL BOWRD

LEGEND AND SYMBOLS

SCALE: NTS



APPROVED BY

ESTY MAYOR

GENERAL NOTES

SCALE: NYS

DEMORPHIS.

SECRETTOD BY

MISCELLANEOUS DETAILS

RECOMMENDING APPROVAL

SCALE: NTS DISTRICT.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROBLET TELET 18:06:10 : 3TNO PROPOSED REHABILITATION OF UNIT IV DAYCARE CENTER/ CHROSORIES AR

RRGY, COMMONWEALTH, DISTRICT J., QUICZON CITY

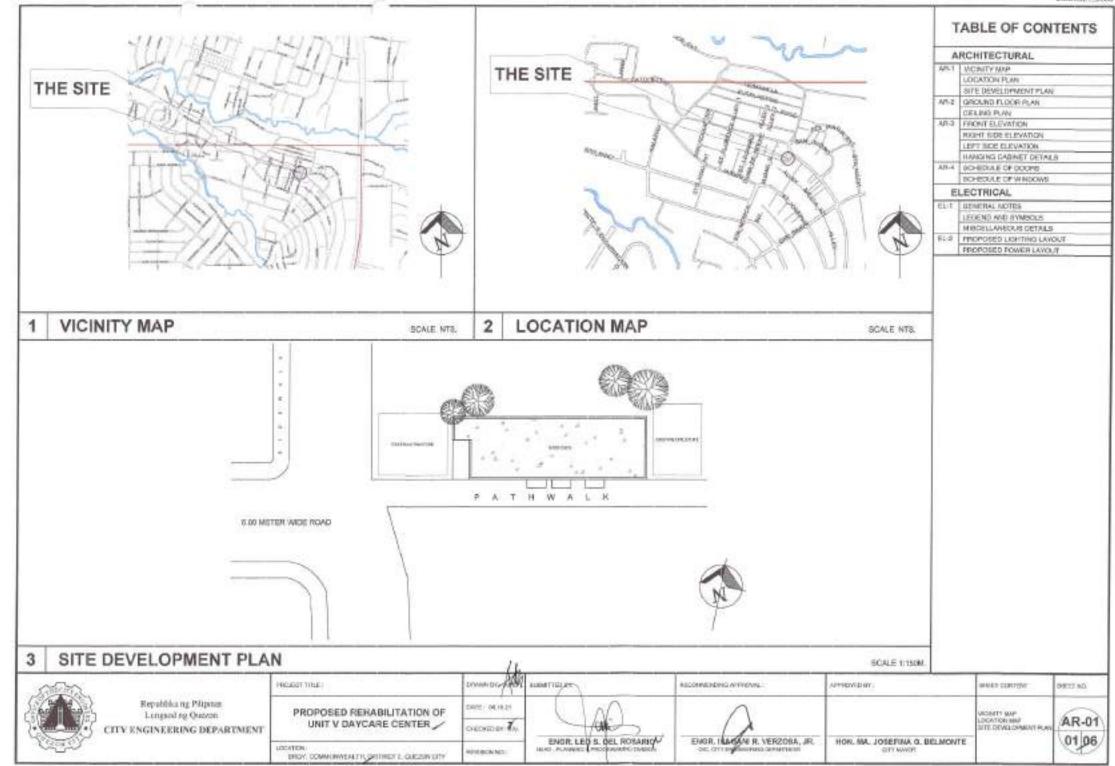
ENGR. LEG S. DEL ROSARIO HEAD PLANNING EPROGRAMMO TRANSPORT

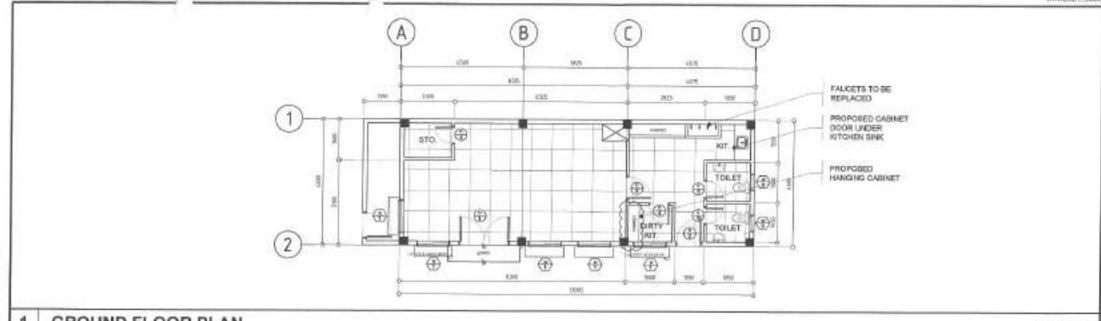
ENGRASAGONE R. VERZOSA, JR. DO CHARGE HEET HIS DEDVENDENT

LECRINI AND SYMBOLS MISCOLLANDOUS BLANTAGE HON, MA. JOSEFINA G. BELMONTE

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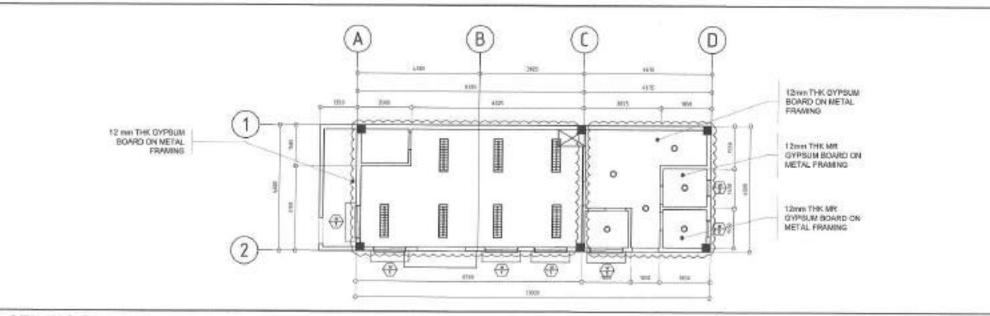
EL-01 07 08





GROUND FLOOR PLAN

SCALE 1:500M



DATE: GRADE

PETABLISHED NO.

CEILING PLAN

SQALE 1:100M

SHEET MIL



Republika ng Pilipinas Lungsofing Queson CITY ENGINEERING DEPARTMENT PHOLEST TITLE PROPOSED REHABILITATION OF UNIT V DAYCARE CENTER REGE COMMONSMEALTH ARREST RESERVORY



ENGR. ISAGANI R. VERZOBA, JR.

RECOMENDING ATTROVAL

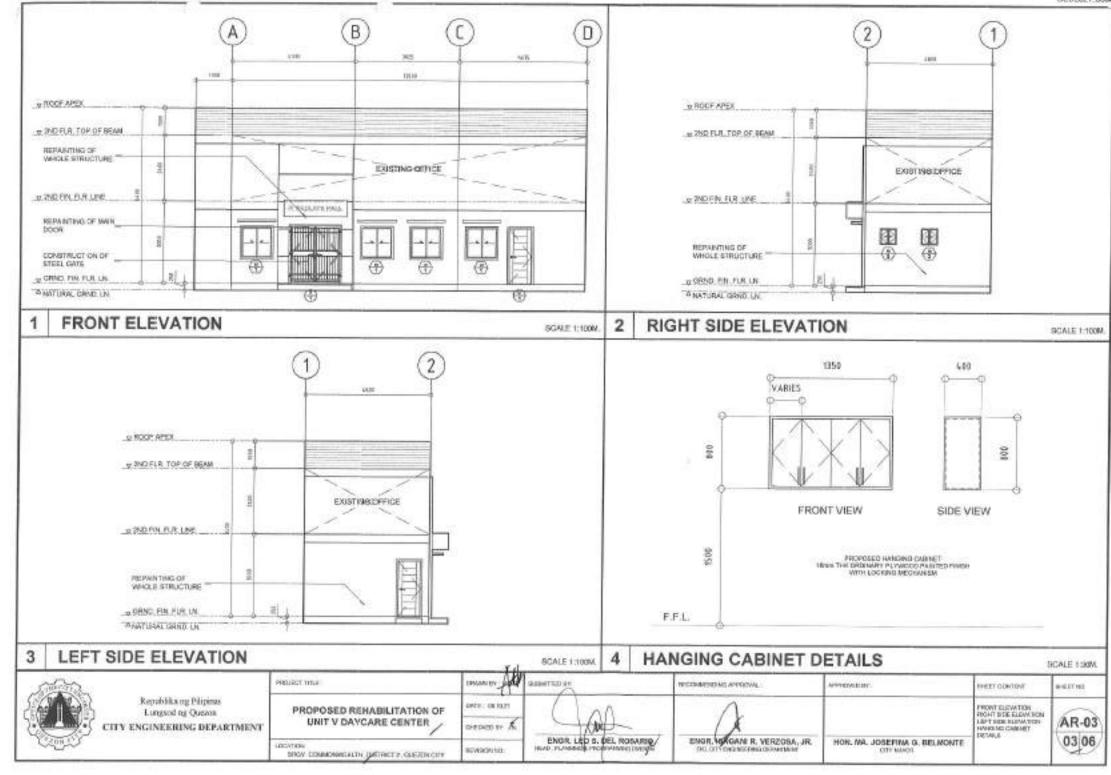
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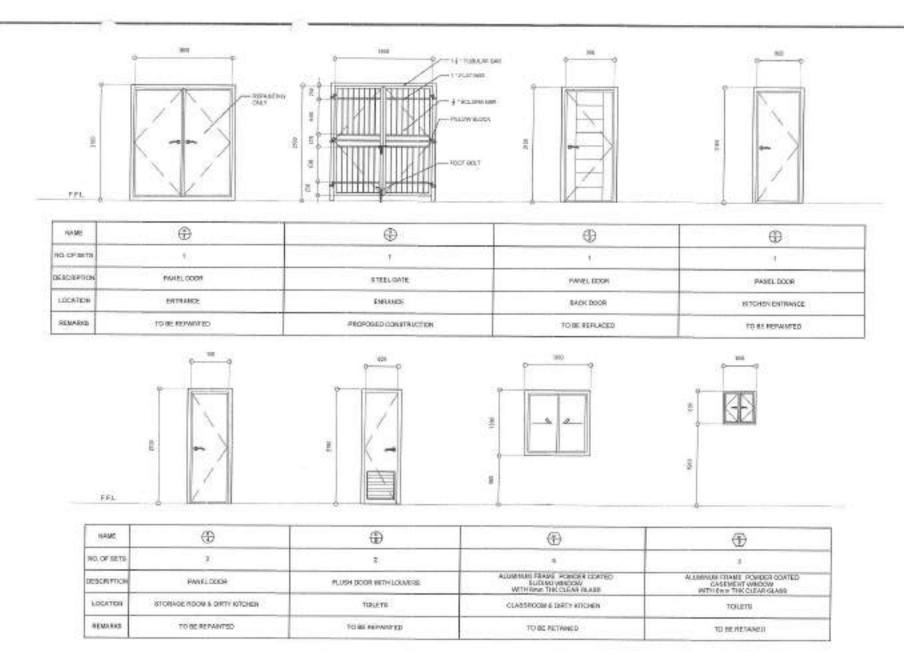
HON, MA. JOSEFINA G. BEI, MONTE

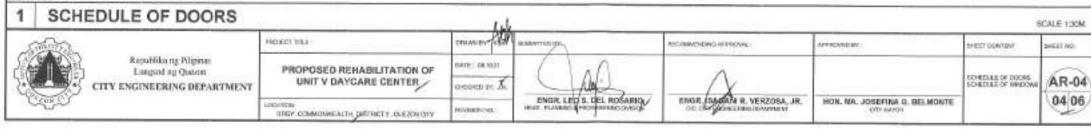
COST MAYOR.

DROUBLE PLOOP PLAN COLAGO PLAN

AR-02 02 06







GENERAL NOTES:

- 1. ALC SECTION, HORKS IN ALL RETURNS IN ACCOMPANCE WITH THE PROVIDENCE THE LATES EDITION OF THE IPPLICATION. BUILT YORK TO DE, THE LAWS ME DESIGNED BY THE LOCAL CODE SHIP SCREEN AUTHORISES AND THE REQUIREMENTS OF THE LOCKLEDWISH AND TELEPHONE LITERY COMPANY.
- 1. THE CONTRACTOR SHALL SECURE ALL PROMOTE AND FOR ALL PROMPTS OF THE WORK MEDISHALL PURPOSE THE CAMBET THROUGHT THE BYOMBERTS, PINAL DESTRICATED OF BLECHWICH, MERCET FOR AND ARTHOUGH PROVIDING COVERNMENT AUTHORITIES FOR COMPLETION OF ROSE.
- IN ALL SWEEDED STANDS DECUME WALL BY MYC GOAD, IF SIAMO FOR EXPOSED INSTALLAR DYSHALL BY MYC ALRESTING BY CONSUM SURMER SHARK DOWN AND SALESMAN.
- 4. PULL DOWDS SHALL SE PROVIDED BY THE CONTRACTOR WHENEVER HEIGESSARY FOR HIGH YATE WHE PLALING WARR IN THESE. WAS NOT DESCRIPTION FOR THE RUPE. WHICH OF NO. BOTH STATE WHILE, BY CORDINATE BRIDGING THE CORD HEROMETER. SUBMIT SHOP COMMISSED THE ENGINEER FOR APPROVAL PRIOR TO PARTIE MYON LOCATION OF PULL REPORTED HALL BE WHENTO BY THE WICH PERCENTAGED INDIGHT AS REPUBLISHED IN THE RESIDENCE.
- 5. ALL POWER OUTLING AND SWITCHES SHALL BE GROUPING TYPE WITH PARKLUS SUITS FOR 251 V.
- IS. PROVINCIPIOSIO FAILT CLIPPART INTERPREPTER CRICAT BRIGAIN FOR LOADS WARRE SPOT ON THEIR WAR
- F. ALL METALLIC CONDUCTION CHARGETS AND EQUIPMENT WHALL BE PROPERLY SHOWNED AND ROOMS.
- IN LINEARS COMPANIES WITH MICHIGAN FOR WALL MOUNTED DEVOKE SHALL REVISION LINES.

RECEPTACLE DUTLEY - DID MIR 67F. (IROMANSOVE WORKING COLUMNS)

TELEPHONE OUTLET - MICHINIARY CHTV/OUTLET - DISHMAPP DOMESTIC - NOOMAND FARE BOARD : 1600 MILLARE

- 80 REFER TO MICHAMICAL RUNDING MET THE PROTECTION GRAMMED FOR RATHER WIS LOCATIONS OF EXPRESS AS WELL. ANTHER CONTROL REQUENCES AS INFOCE DO ON SHOWN UNKNOWN THER RETECTIVE BISCHOOL
- TO ALL INTERNALS TO SELVICE SHALL BE OF THE BEST QUALITY. BERROTERNAS HIS HIS DIRECT
- III. THE DELANGE AND REPORTATIONS ARE ARRESTS TO DESIGN OF THE PALL LAYOUT HIS BROKE OUT, RECOGNITION OF THE RESIDENT BUT DO NOT VEH ESTABLY INDICATE DESCRIBED ACTURE, USBATIONS LEVEL HIS DISTANCISHOP THE ROUPLBY. THE DISTRICTOR IS HERBEY REQUESTED TO USE OUT ADJUSTMENT AT THE JOSS'S AUDITATION DISTRICTS. AND LEVELS ARE SOMERNED OF ALTUAL FIELD CONSTITUTE.
- 12. ANY DISORPHACY RETWEEN THE PLANS AND APPEARS IN SHALL BE SROUGHT TO THE ATTENDAGY THE ENCARES FOR CLARIFICATERILISCOCK.
- 13. ALL LITERALS AND CONVENIENCE OUT, ET CASCILITÉ BAULL BET 5 SO, HAI THAN 2 CONTEN HIRE UNIQUE OTHERWISE HOTED. SERVICE SIDE OF WAY \$140. SESSION MY COPPER WAS ALL MINIST AND CALLES SHALL BE COLDECTED MATCHINGS.

LINES-RED LINE 2 - YELLOW NOTES, VALUE SECURE-DESIGN

14 BOYES MIRC OFFICIAL DISCOURTE WALL BE THEREGIFES FROM ETCS, WITHTHOUSE AS POLICIAL MAXIMUM RICHHOF THE RECEST MARRICH STREET

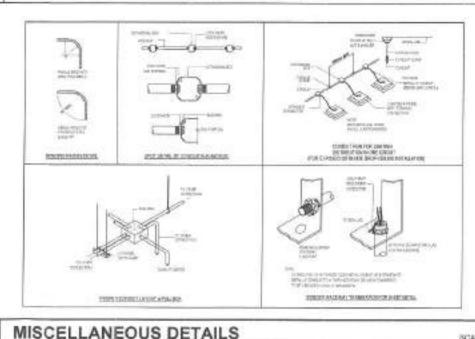
LIPTO MOLUDING HELYOMM. GA 15 FAMILED WITH HET ALTWINGS CROSS AND YORK ON DVEN NO AS MARKET NOT CHER AT SE OR THE PARKETED IN THE WITHELP PRIMER REPORT AND TOPSCORE DVER HERSON BUT NOT CHERTISMA GRID PARKETED INTERIOR AT FRANCE EPONY AND TOPOORT THE TO PRINTED SETTIMENTS: PRIMER PROSPERSOR TERRORET - DAMEST STATEMENT

- 45 ALL GLECHECAL HORSES AGREEN SHALL DE ENGLYED D'ENGRESHOOD MOLVINGER THE DIRECT BLADWING MOR FULL TIME UDBS BID FLACTRICAL. WISHING WICH SIZE A COLUMN ACCIDENTATION REPORTS OF REPORTS AND ACCIDENTATION OF THE PROPERTY O BE HOLD YOUNGED BETWEEN YEARD MAD PROPERLY ENVIRON
- 18. TYPE OF REWICK EXPRESSED SHELL RELIGIOUS FRAME, TWO WHITE CIRCLES J. 60-4870, 200 ACADOMIA.
- CENDOTS KIND CREESING THERE BY MOSE THAN THE CONTINUENT OF FOUR QUANTER GOVERNMY ONE NUMBER. CONDUCT SERVICE OFFILE OF FEITH MADE BY LIERO HYDRAULIC SENDERIS MINISTER SENDERIS HADDE BY MAD BY AN ALL STORY OF THE MAD BY LIERO BY LIE TO THE COOK REQUIREMENTS.
- 14. LIFES CONFIGENCE CE ELECTRICAL CONSTRUCTION HIGHE HALL STIGHT RESERVICE TEST AND PURCTICAN LITTRES BALL. SE PERFORMADION THE CONTINUOUS HOUSING OF THE HISTALLANDRY TO SE REPORTED INDETVILLED INDETVILLED HISTALLED HISTALLED INDETVILLED IN DETVILLED IN DE BY THE QUEXTS OF Y REQUIREMENTS DRIVEN HER PROPERTY STATE, THE DECLAR PERSON AND FOR SUCCESSIA, SHOTENS SHALL HOT GO HORE THREE OHRS COMMUNICATION GROWN AGRICUMONOS SHALL HOT EXCESS SIGNAL

-0-	ISSNAM FAUGIT IZE
	300AM X 1200AM 1 X 18W (ED RESESSED BYSTYCH TYPE
22	EMERODICY LIGHT
1997	EXT LIGHT
67	SMOLE POLE SWITCH (LIGHTS)
16	TWO POLE SMITCH (LIGHTS)
5	HARE FOLE SWITCH (USHITS)
Ф	DUPLEX CONVENIENCE OUTLET
69	WALL FAIR
	FWNEL BOWRD

LEGEND AND SYMBOLS

SCALE: NTB





Republika ng Pilipinas Longs od ng Quezon CITY ENGINEERING DEPARTMENT

GENERAL NOTES

SHITTEROW

UNIT V DAYCARE GENTER

HROY COMMONWEALTH, EVETRICT 2. QUEZOVOTY

THE REMARKS SUBMITTED DY DATE IN N. P.

DECORD ST. A

REVISEN NO.

SCALE: NITE

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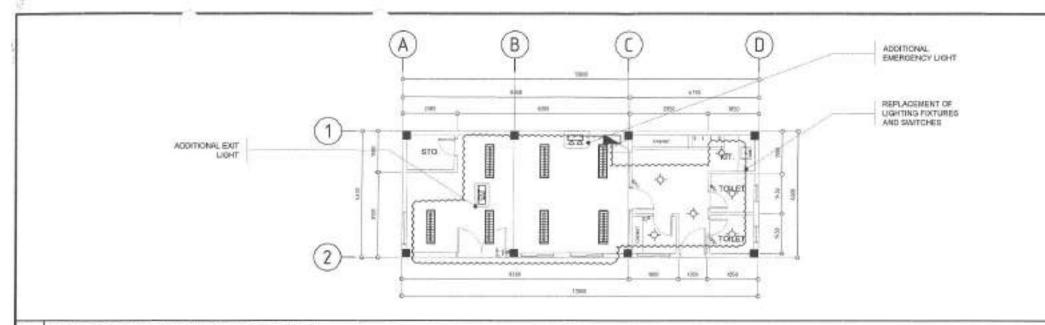
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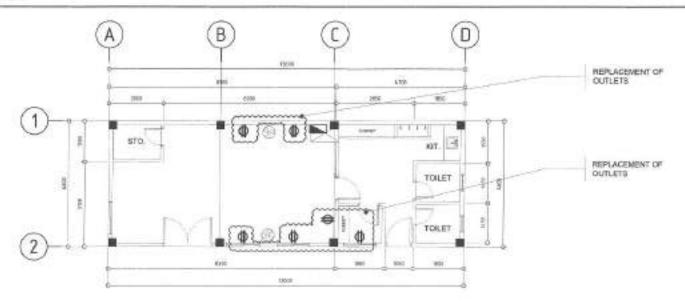
PROPOSED REHABILITATION OF

HON, MA. JOSEFINA G. BELMONTE



1 PROPOSED LIGHTING LAYOUT

SCALE 1:100M.



1 PROPOSED POWER LAYOUT

SCALE 1:100N.



Republika ng Pilipina Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF UNIT V DAYGARE CENTER GRORD ST. JK.

LOGITION.
BROW. COMMONWEALTH, DISTRICT S. GLEZON COTT.





RECOMMENDANS MYRCHAL

PROPOSICO LIGHTING LARGUT 1900-0380 FOREX LARGUT POWER LARGUT TO THE RESERVE TO T

THEIR COMTEST

APPROVED IN



Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

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

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

Daywork Schedule

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

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

Provisional Sums

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

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

Signature Box

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

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

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF DAY CARE CENTER AT DISTRICT 2 / AREA VII

(CLUSTER 3)

LOCATION : BARANGAY BALONBATO, AND SANGANDAAN, DISTRICT 6, QUEZON CITY

PROJECT NO. : 21 - 00176

DURATION: Ninety (90) Calendar Days

BREAKDOWN OF COST

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
	LOWER NAWASA DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAYCARE CENTER				
	UNIT IV DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
	LITEX DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
	DON FABIAN DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAYCARE CENTER				
	SOLIVEN DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				-

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
	KASUNDUAN DAYCARE CENTER				
1	GENERAL REQUIREMENTS				
Ш	SITE WORKS				
Ш	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
	PINADAMA DAYCARE CENTER				
ı	GENERAL REQUIREMENTS				
Ш	CONSTRUCTION OF HANDWASHING FACILITY				
Ш	REHABILITATION OF DAYCARE CENTER				
	UNIT V DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
Ш	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
	GOLD DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAYCARE CENTER				
	F.CASTILLO DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAYCARE CENTER				
	PUROK 16 YAKAP DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
	UPPER NAWASA DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAYCARE CENTER				
	PUROK 15 DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAYCARE CENTER				
	KAUNLARAN DAYCARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				

LUMP SUM BID IN WORDS : _______

ITEM	ITEM OF WORK	MATERIALS	LABOR COST	INDIRECT COST	AGGREGATE
NO.	(DESCRIPTION)	COST	LABOR COST	INDIKECT COST	COST

Bid Form Page 3 of 3

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF LOWER NAWASA DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 4, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORKS:

GENERAL REQUIREMENTS include billboard, clearing, hauling and disposal of construction materials and debris, construction safety and health equipment, scaffolding, and temporary enclosure

- II CONSTRUCTION OF HAND WASHING FACILITY
- A Hand Washing Facility include single sink portable hand washing facility
- B Site Works include chipping of concrete
- C Civil Works include restoration of concrete
- D Sanitary and Plumbing Works include installation of roughing-ins and accessories
- III REHABILITATION OF LOWER NAWASA DAYCARE CENTER
- A Site Works include demolition / removal works and cleaning and clearing for painting preparation
- B Civil/Structural Works include waterproofing works, and roofing works
- C Architectural Works include floor finishes, wall finishes, ceiling finishes, installation of doors, and painting works
- D Sanitary and Plumbing Works include installation of roughing-ins, fixtures and accessories
- E Electrical Works include installation of roughing-ins, wirings, lighting fixtures, wiring devices and panel board
- IV All necessary testing of materials and commissioning works must be performed as per standard procedures.

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	P	P
	Clearing, Hauling and Disposal of Construction Materials and Debris	2	t.l.		
	Construction Safety and Health Equipment	1	unit		
	Scaffolding (Rental)	52	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	35	l.m.		
				Direct Cost I	P
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	HAND WASHING FACILITY				
	Single Sink Portable Hand Washing Facility	1	unit	P	P
				Direct Cost A	₽
В	SITE WORKS				
	Demolition / Removal Works				
	Chipping of Concrete (Floor)	3	sq.m.	P	P
				Direct Cost B	P
С	CIVIL WORKS				
	Restoration of Concrete (Floor)	3	sq.m.	P	P
				Materials Cost C	P
				Labor Cost C	

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Direct Cost C	P
D	SANITARY & PLUMBING WORKS				
	Sewer Line System				
	50mm Ø PVC Pipe with Hub	3	piece	P	₽
	50mm Ø x 50mm Ø PVC Tee	1	piece		
	50mm Ø x 50mm Ø PVC 1/4 Bend	3	piece		
	50mm Ø PVC Coupling	3	piece		
	50mm Ø PVC Cleanout	1	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Water Line System				
	20mm Ø PPR Pipe, PN 16	3	piece		
	20mm Ø x 20mm Ø PPR Tee Equal	1	piece		
	20mm Ø PPR Union Patente	1	piece		
	20mm Ø PPR Coupling	3	piece		
	20mm Ø PPR Male Adaptor	2	piece		
	Valves and Appurtenances				
	20mm Ø PPR Gate Valve	1	piece		
	Miscellaneous and Consumables				
	400cc Solvent Cement	3	can		
	All Around Sealant	1	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	5	roll		
	Waste Cloth	2	kg		
				Materials Cost D	P
				Labor Cost D	
				Direct Cost D	P
					P
				Labor Cost II	
				Direct Cost II	P
III	REHABILITATION OF LOWER NAWASA DAYCARE CENTER				
Α	SITE WORKS				
	Demolition / Removal Works				
	Removal of Floor and Wall Tiles	11	sq.m.	P	P
	Removal of Ceiling	49	sq.m.		
	Removal of Roofing	55	sq.m.		
	Removal of Door	2	set		
	Removal of Water Closet	2	set		
	Cleaning and Clearing for Painting Preparation	228	sq.m.		
				Direct Cost A	P
В	CIVIL WORKS				
	Thermal and Waterproofing Works				
	Cementitious Capillary-type Waterproofing (Toilet)	4	sq.m.	P	P
	Roofing Works				
	Pre-painted Rib-type GI Roofing	59	sq.m.		
	Pre-painted GI Flashing	37	l.m.		
	Pre-painted GI Ridge Roll	6	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	47	l.m.		
	Tekscrew	470	piece		
	Silicon Sealant	10	tube		
				Materials Cost B	P
				Labor Cost B	
				Direct Cost B	₽
С	ARCHITECTURAL WORKS				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Floor Finishes				
	Floor Topping for Preparation of Tiles (Comfort Room)	4	sq.m.	P	P
	300mm x 300mm Non-skid Homogeneous Floor Tiles (Comfort Room)	4	sq.m.		
	Plain Cement Finish (Waiting Area)	28	sq.m.		
	Wall Finishes				
	300mm x 300mm Homogeneous Wall Tiles (Comfort Room)	14	sq.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
_	Ceiling Finishes				
	12mm thick Gypsum Board on Metal Framing (Daycare Center)	25	sq.m.		
	12mm thick Moisture Resistant Gypsum Board on Metal Framing		1 '		
	Comfort Room	4	sq.m.		
	Eaves	20	sq.m.		
			- '	Materials Cost	P
				Labor Cost	
				Subtotal	P
	Installation of Doors				•
	Doors				
	D1 - 1.0m x 2.1m Wooden Panel Door	1	unit	P	P
	D2 - 0.7m x 2.1m PVC Door with Louver	2	unit	1	1
	Door Jambs	2	unit		
	D1 - 1.0m x 2.1m Wooden Door Jamb	1	unit		
		I	uniii		
	Hardwares and Accessories	0			
	Door Knob, Lever-type, Heavy Duty, Stainless	3	unit		
	Door Hinge, Heavy Duty, Stainless	9	unit		_
				Materials Cost	P
				Labor Cost	
				Subtotal	P
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	74	sq.m.	₽	P
	Flat Latex Paint Finish (Interior Wall)				
	Daycare Center	62	sq.m.		
	Comfort Room	12	sq.m.		
	Flat Latex Paint Finish (Ceiling)				
	Daycare Center	25	sq.m.		
	Comfort Room	4	sq.m.		
	Eaves	20	sq.m.		
	Epoxy Enamel Paint Finish				
	Steel Fence & Gate	31	sq.m.		
	Window Grilles	14	sq.m.		
				Materials Cost	₽
				Labor Cost	
					P
				2 3.3 13 33.	
				Materials Cost C	P
				Labor Cost C	
				Direct Cost C	P
D	SANITARY & PLUMBING WORKS			211001 0001 0	-
	Sewer Line System				
	50mm Ø PVC Pipe with Hub	6	piece	P	P
	75mm Ø PVC Pipe with Hub		<u> </u>		_
	·	1	piece		
	75mm Ø x 75mm Ø PVC Wye	1	piece		
	50mm Ø x 50mm Ø PVC 1/4 Bend	6	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75mm Ø x 75mm Ø PVC 1/4 Bend	1	piece		
	75mm Ø x 75mm Ø PVC 1/8 Bend	1	piece		
	50mm Ø PVC P-Trap	1	piece		
	50mm Ø PVC Coupling	6	piece		
	75mm Ø PVC Coupling	1	piece		
	Water Line System				
	20mm Ø PPR Pipe, PN 16	1	piece		
	20mm Ø PPR 90° Elbow	2	piece		
	20mm Ø PPR Female Threaded Adaptor	2	piece		
	20mm Ø PPR Coupling	1	piece		
	20mm Ø PPR End Cap	2	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fixtures & Accessories				
	Bidet with Accessories, Stainless Heavy Duty (Water Efficient)	2	piece		
	Floor Drain, 100mm x 100mm, Stainless	2	piece		
	Hose Bibb, Lever-type, Stainless (Water Efficient)	6	unit		
	Lavatory, Wall-hung, Kiddy	2	unit		
	Lavatory Faucet, Lever-type (Water Efficient)	2	unit		
	Water Closet, Tank Type, Kiddy (Water Efficient)	2	unit		
	Accessories				
	Angle Valve, One-way, Stainless Steel	2	piece		
	Angle Valve, Two-way, Stainless Steel	2	piece		
	Flexible Hose, Stainless Steel	4	piece		
	Miscellaneous and Consumables		 '		
	400cc Solvent Cement	2	can		
	All Around Sealant	2	can		
	Hacksaw Blade	5	piece		
	Teflon Tape	10	roll		
	Waste Cloth	2	kg		
	Waste Cloth		Ng	Materials Cost III D	P
				Labor Cost III D	'
				Direct Cost III D	P
Е	ELECTRICAL WORKS			Direct Cost III D	-
_	Pipes and Fittings				
	20mm Ø PVC Pipe	60	piece	P	P
	25mm Ø IMC Pipe	5	piece		F
	20mm Ø PVC Adaptor	80	piece		
	20mm Ø PVC Locknut & Bushing	80	pair		
	25mm Ø IMC Elbow	4	piece		
	25mm Ø IMC Coupling	4	piece		
	25mm Ø IMC Locknut & Bushing	4	piece		
	25mm Ø IMC Weatherproof Entrance Cap	1 1	piece		
	50mm x 100mm PVC Utility Box	•			
	100mm x 100mm PVC Junction Box with cover	20	piece		
		15	piece		
	Wires and Cables		nell.		
	3.5mm² THHN Wire	2	roll		
	14mm² THHN Wire	30	l.m.		
	3.5mm² TW Wire	1	roll		
	8.0mm² TW Wire	20	l.m.		
	Lighting Fixtures (Energy Efficient)		ļ		
	600mm x 1200mm, 2 x 18w LED, Troffer, Recessed Type	2	set		
	with Complete Accessories		<u> </u>		
	6" Ø Round Recessed Pinlight LED	2	piece		
	T5, 28W LED Tube Light	4	piece		
	Emergency Light	1	piece		
	Exit Light	1	piece		
	Wiring Devices				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Orbit Fan, Heavy Duty With Selector Switch	2	piece		
	Outlet with Grounding , Two-gang	5	piece		
	Switch with Plate & Cover, One-Gang	4	piece		
	Switch with Plate & Cover, Two-Gang	1	piece		
	Panel Board				
	PPA	1	assy		
	Main: 60 AT, 2P, 230V, Bolt-on				
	Branches: 2 - 20AT, 2P, 230V, Bolt-on				
	2 - 30AT, 2P, 230V, Bolt-on				
	Enclosure: NEMA 1 with Ground Terminals				
	MCB	1	assy		
	Main: 60AT, 2P, 230V, MCCB				
	Enclosure: NEMA 3R with Ground Terminals				
	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	30	l.m.		
	Vertical Layout of Pipe	2	l.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All around Sealant	2	can		
	Electrical Tape	8	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	5	kg		
	Hacksaw Blade	3	piece		
	Masking Tape	5	piece		
	Torch w/ Butane	2	set		
	Paint Thinner	1	lit		
	Pulling Lubricant	1	gal		
	Rubber Tape	5	roll		
				Material Cost III E	P
				Labor Cost III E	
				Direct Cost III E	₽
				Materials Cost III	P
				Labor Cost III	
				Direct Cost III	P

ITEM NO	WORK DESCRIF	AMOUNT	
_ = =	II CONSTRUCTION OF HAND WASHING FACILITY		Đ
		TOTAL DIRECT COST	P
	Ily enforce health protocols relative to the tapplicable DPWH Memorandum	Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT	
	I		P

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF UNIT IV DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORKS:

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.

- 2 Site Works include demolition/removal works.
- 3 Civil/Structural works include masonry works, thermal and moisture protection, metal works and roofing works.
 Architectural works include installation of floor finishes, wall finishes, ceiling works, installation of doors and windows and painting
- 4 works.
- 5 Sanitary/plumbing works include installation of roughing-ins, fixtures and accessories.
- 6 Electrical works include installation of roughing-ins, wirings, devices, fixtures and accessories.
- 7 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
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	171	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	29	l.m.		
				Direct Cost I	₽
II	SITE WORKS				
	Demolition/Removal Works				
	Removal of Existing Ceiling	70	sq.m.	₽	₽
	Removal of Existing CHB Wall (Balcony Area)	1	sq.m.		
	Removal of Existing Tiles	56	sq.m.		
	Removal of Existing Door and Door Jambs	3	set		
	Removal of Existing Windows	7	sq.m.		
	Removal of Grilles	6	sq.m.		
	Removal of Existing Roof	112	sq.m.		
	Cleaning and Clearing for Painting Preparation	406	sq.m.		
				Direct Cost II	P
III	CIVIL WORKS / STRUCTURAL WORKS				
	Masonry Works				
	100mm CHB Laying including Mortar, Reinforcement	5	sq.m.	₱	₱
	and Two-Face Plastering				
	Thermal and Moisture Protection				
	Cementitious Capillary Type Waterproofing (Comfort Room)	3	sq.m.		
	Membrane Type Waterproofing (Balcony)	6	sq.m.		
	Roofing works				
	Pre-painted Rib Type G.I Roofing	112	sq.m		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Pre-painted Ridge Roll	20	l.m.		
	Pre-painted G.I Flashing	13	l.m.		
	6mm thick One-sided Thermal Insulation	112	sq.m		
	12.5mm x 300mm Fascia board	27	l.m.		
	Silicon Sealant	3	tube		
	Tekscrew	1120	piece		
				Materials Cost	₱
	·			Labor Cost	_
				Subtotal	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Е	Metal Fabricatrion				
	Fire Exit	1	set	₱	₱
	Indoor Grilles with Gate	1	set		
				Direct Cost E	₽
				Materials Cost III	₽
				Labor Cost III	
				Direct Cost III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	300mm x 300mm Non-skid Homogeneous Floor Tile	11	sq.m.	₽	₽
	600mm x 600mm Homogeneous Floor Tile	37	sq.m.		
	Floor Topping for Preparation of Tile Works	48	sq.m.		
	Wall Partitions and Finishes				
	300mm x 300mm Homogeneous Floor Tile (Comfort Rooms)	10	sq.m.		
	Ceiling Finishes				
	12mm thick Gypsum Board including Metal Framing	37	sq.m.		
	12mm thick Moisture Resistant Gypsum Board including Metal Framing	34	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	Doors				
	D1 - 1.0m x 2.1m Solid Wood Panel Door	1	set	₽	₽
	D2 - 0.9m x 2.1m Solid Wood Panel Door	1	set		
	D3 - 0.6m x 2.1m PVC Door with Louver	1	set		
	Door Jamb				
	D1 - 1.0m x 2.1m Solid Wood Panel Door	1	set		
	D2 - 0.9m x 2.1m Solid Wood Panel Door	1	set		
	Hardwares and Accessories				
	Door Hinge, Heavy Duty	9	piece		
	Door Knob, Lever Type	3	piece		
	Installation of Windows				
	W1 - 1.2m x 1.2m Aluminum Framed Casement Window (Powder Coated)	3	set		
	W2 - 0.5m x 0.5m Aluminum Framed Awning Window	1	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
Е	Painting Works				
	Elastomeric Paint Finish (Exterior Walls)	219	sq.m.	₽	₽
	Flat Latex Paint Finish				
	Interior Walls - 2F	108	sq.m.		
	Ceiling	70	sq.m.		
	Slab Soffit	9	sq.m.		
				Materials Cost	₽
				Labor Cost	

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Subtotal	₱
				Materials Cost IV	₽
				Labor Cost IV	
				Direct Cost IV	₽
٧	SANITARY AND PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	50mm Ø PVC Pipe with Hub	1	piece	₱	₱
	75mm Ø PVC Pipe with Hub	1	piece		
	75mm Ø x 75mm Ø PVC Wye	1	piece		
	50mm Ø x 50mm Ø PVC 1/4 Bend	1	piece		
	75mm Ø x 75mm Ø PVC 1/4 Bend	1	piece		
	75mm Ø x 75mm Ø PVC 1/8 Bend	1	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø PVC P-Trap	1	piece		
	50mm Ø PVC Coupling	1	piece		
	75mm Ø PVC Coupling	1	piece		
	Water Line System				
	20mm Ø PPR Pipe, PN 16	1	piece		
	20mm Ø PPR 90° Elbow	2	piece		
	20mm Ø PPR Female Threaded Adaptor	2	piece		
	20mm Ø PPR Coupling	1	piece		
	20mm Ø PPR End Cap	2	piece		
	Fixtures & Accessories				
	Bidet with Accessories, Stainless Heavy Duty	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	1	unit		
	Hose Bibb, Stainless Steel, Lever-Type (Water Efficient)	4	unit		
	Lavatory, Wall-hung, Kiddy	1	unit		
	Lavatory Faucet, Lever Type (Water Efficient)	1	unit		
	Water Closet, Kiddy Tank Type (Water Efficient)	1	unit		
	Urinal, Kiddy Flush Valve Type (Water Efficient)	1	unit		
	Accessories				
	Angle Valve, One-way, Stainless Steel	1	piece		
	Angle Valve, Two-way, Stainless Steel	1	piece		
	Facial Mirror, 450mm x 600mm x 6mm	1	piece		
	Flexible Hose, Stainless Steel	2	piece		
D	Miscellaneous and Consumables		piccc		
	400cc Solvent Cement	1	can		
	All Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	5	roll		
	Waste Cloth	1	kg		
	Wade Glow		ı.g	Materials Cost V	₽
				Labor Cost V	•
				Direct Cost V	₽
VI	ELECTRICAL WORKS			Direct Goot V	•
٧.					
	Roughng-ins, Pipes and Fittings	75	-:	₽	₽
	20mmØ PVC Pipe	75	piece	•	•
	Fittings and Accessories 20mmØ PVC Adaptor	80	niana		
	•	80	piece		
	20mmØ PVC Locknut and Bushing 50mm x 100mm PVC Utility Box	15	pair piece		
		15	1		
	100mm x 100mm PVC Junction Box with Cover Wires and Cables	13	piece		
	3.5mm² THHN Wire	3	"all		
	3.5mm² TW Wire	2	roll		
			roll		
	Lighting Fixtures (Energy Efficient)				
	6" Ø Round Recessed Pinlight LED 600mm x 1200mm, 2 x 18W LED, Troffer Type, With Complete	3 5	set set		
	Accessories, Recessed Type	٥	ે		
	Emergency Light	1	piece		
	Exit Light	1	piece		
	Wiring Devices and Other Fixtures				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Orbit Fan, Heavy Duty With Selector Switch	2	set		
	Outlet with Grounding , Two Gang	3	piece		
	Switch with Plate & Cover, One Gang	2	piece		
	Switch with Plate & Cover, Three Gang	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All around Sealant	2	can		
	Electrical Tape	10	roll		
	G.I Tie Wire (for Wire / Cable Pulling)	3	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	5	roll		
	Paint Thinner	1	lit		
	Pulling Lubricant	1	gal		
	Rubber Tape	5	roll		
	Torch w/ Butane	2	set		
				Materials Cost VI	₽
				Labor Cost VI	
				Direct Cost VI	₽

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO	WORK DESCRIF	AMOUNT	
	GENERAL REQUIREMENTS SITE WORKS CIVIL WORKS / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY AND PLUMBING WORKS		
VI	ELECTRICAL WORKS		
	tly enforce Health Protocols relative to the tapplicable DPWH Memorandum	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT	₽
		TOTAL ESTIMATED COST	P

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF LITEX DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	28	sq.m.		
				DIRECT COST I	P
	SITE WORKS				
	Removal Works				
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	11	sq.m.		
	Removal of Under Counter Cabinet	2	sq.m.		
	Removal of Ceiling	35	sq.m.		
	Removal of Tiles	46	sq.m.		
	Removal of Sink	1	set		
	Removal of Water Closet	1	set		
	Clearing and Cleaning for Painting Preparation	98	sq.m.		
				DIRECT COST II	₽
III	CIVIL / STRUCTURAL WORKS				
	Metal Works				
	Window Grilles				
	25mm X 25mm X 2mm Tubular Bar	173	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				MATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping Preparation of Tile Works	35	sq.m	₽	₽
	300mm x 300mm Non-Skid Homogeneous Tiles	2	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	33	sq.m		
	Wall Finishes and Partition				
	300mm x 300mm Homogeneous Tiles	12	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board including Metal Framing	35	sq.m		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Painting Works				
	Epoxy Enamel Paint Finish (Metal Surfaces)	1	sq.m		
	Flat Latex Paint Finish				
	Interior Wall	98	sq.m		
	Ceiling	35	sq.m		
	Fabricated Materials				
	Under Counter Cover (Aluminum)	2	l.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.60m x 2.10m) Swing Type PVC Door	1	set	₽	₱
	Painted Finish (Kitten White) w/ 400mm X 300mm Louver				
	D2 - (0.80m x 2.10m) Swing Type Flush Hollow Core Painted Finish	1	set		
	Door Jamb				
	D2 - (1.00m x 2.10m) Swing Type Flush Hollow Core Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	6	set		
	Door Knob, Lever Type, Stainless	2	set		
	Installation of Windows				
	W1 -(2.80m x 1.20m) Sliding Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W2 -(1.40m x 1.20m) Sliding Window, 6mm Thk,	2	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W3 -(2.10m x 1.20m) Sliding Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W4 -(1.00m x 0.60m) Awning Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W5 -(0.6m x 0.40m) Awning Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				2 3 3 3 3 4 3	
				MATERIALS COST IV	₽
				LABOR COST IV	
				DIRECT COST IV	₽
٧	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	2	piece	₽	₽
	75 mm Ø, Pipe PVC	3	piece		-

WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
100mm Ø, Pipe PVC	3	piece		
50mm Ø, P-Trap	2	piece		
75mm Ø, P-Trap	1	piece		
50mm Ø, 1/8 Bend	3	piece		
75mm Ø, 1/8 Bend	2	piece		
100mm Ø, 1/8 Bend	3	piece		
75mm Ø, 1/4 Bend	2	piece		
100mm Ø x 75mm Ø, Tee	2	piece		
100mm Ø x 50mm Ø, Wye	4	piece		
100mm Ø x 75mm Ø, Wye	1	piece		
100mm Ø x 100mm Ø, Wye	1	piece		
100mm Ø, Cleanout with Adapter	1	piece		
Waterline System				
Roughing-Ins				
20mm Ø, Pipe PPR	4	piece		
20mm Ø, Elbow	9	piece		
20mm Ø, Coupling	4	piece		
20mm Ø, Tee Equal	3	piece		
20mm Ø, Female Threaded, Elbow	3	piece		
Valves and Appurtenances				
20mm Ø Gate Valve, PPR	1	piece		
Fixtures				
Bidet with Accessories, Stainless (Water Efficient)	1	piece		
Floor Drain, 100mm x 100mm, Stainless	1	piece		
Grease Trap, 5 GPM, Heavy Duty	1	piece		
Kitchen Faucet, Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		
Sink 8" Deep, Stainless Steel	1	piece		
Water Closet, Kiddy, Tank Type w/ Accessories (Water Efficient)	1	piece		
	100mm Ø, Pipe PVC 50mm Ø, P-Trap 75mm Ø, P-Trap 50mm Ø, 1/8 Bend 75mm Ø, 1/8 Bend 100mm Ø, 1/8 Bend 100mm Ø, 1/8 Bend 100mm Ø x 75mm Ø, Tee 100mm Ø x 50mm Ø, Wye 100mm Ø x 75mm Ø, Wye 100mm Ø x 100mm Ø, Wye 100mm Ø x 100mm Ø, Wye 100mm Ø, Cleanout with Adapter Waterline System Roughing-Ins 20mm Ø, Pipe PPR 20mm Ø, Elbow 20mm Ø, Coupling 20mm Ø, Tee Equal 20mm Ø, Female Threaded, Elbow Valves and Appurtenances 20mm Ø Gate Valve, PPR Fixtures Bidet with Accessories, Stainless (Water Efficient) Floor Drain, 100mm x 100mm, Stainless Grease Trap, 5 GPM, Heavy Duty Kitchen Faucet, Lever Type, Stainless Heavy Duty (Water Efficient) Sink 8" Deep, Stainless Steel Water Closet, Kiddy, Tank Type w/ Accessories (Water	100mm Ø, Pipe PVC 50mm Ø, P-Trap 75mm Ø, P-Trap 75mm Ø, 1/8 Bend 75mm Ø, 1/8 Bend 75mm Ø, 1/8 Bend 33 75mm Ø, 1/4 Bend 20 100mm Ø x 75mm Ø, Tee 100mm Ø x 50mm Ø, Wye 100mm Ø x 75mm Ø, Wye 100mm Ø x 75mm Ø, Wye 100mm Ø x 100mm Ø, Wye 100mm Ø, Cleanout with Adapter Waterline System Roughing-Ins 20mm Ø, Pipe PPR 20mm Ø, Pipe PPR 20mm Ø, Coupling 20mm Ø, Tee Equal 30 20mm Ø, Female Threaded, Elbow Valves and Appurtenances 20mm Ø Gate Valve, PPR Fixtures Bidet with Accessories, Stainless (Water Efficient) Floor Drain, 100mm x 100mm, Stainless Grease Trap, 5 GPM, Heavy Duty Kitchen Faucet, Lever Type, Stainless Heavy Duty (Water Efficient) Sink 8" Deep, Stainless Steel Water Closet, Kiddy, Tank Type w/ Accessories (Water	100mm Ø, Pipe PVC 3 piece 50mm Ø, P-Trap 2 piece 75mm Ø, P-Trap 1 piece 50mm Ø, 1/8 Bend 3 piece 75mm Ø, 1/8 Bend 2 piece 100mm Ø, 1/8 Bend 3 piece 75mm Ø, 1/4 Bend 2 piece 100mm Ø, 1/8 Bend 2 piece 100mm Ø, 2/8 Bend 3 piece 100mm Ø, 2/8 Bend 3 piece 100mm Ø, 2, 1/8 Bend 3 piece 100mm Ø, 2, 50mm Ø, Wye 4 piece 100mm Ø, 1/8 Bend 2 piece 100mm Ø, 100mm Ø, Wye 4 piece 20mm Ø, 2 Leanout with Adapter 4 piece	100mm Ø, Pipe PVC 3 piece 50mm Ø, P-Trap 2 piece 75mm Ø, P-Trap 1 piece 50mm Ø, 1/8 Bend 3 piece 75mm Ø, 1/8 Bend 2 piece 100mm Ø, 5/4 Bend 2 piece 100mm Ø, 5/4 Bend 2 piece 100mm Ø, 5/4 Bend 2 piece 100mm Ø, 75mm Ø, Wye 4 piece 100mm Ø, 75mm Ø, Wye 1 piece Waterline System 1 piece Waterline System 1 piece Roughing-Ins 2 piece 20mm Ø, Piepe PP

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Accessories				
	Flexible Hose, Stainless Steel	3	piece		
	Single Way Angle Valve, Stainless Steel	2	piece		
	Two Way Angle Valve, Stainless Steel	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				MATERIALS COST V	₽
				LABOR COST V	
				DIRECT COST V	₽
VI	ELECTRICAL WORKS				
	Roughing-ins				
	20mmØ PVC Pipe	6	piece	₱	₽
	20mmØ PVC Flexible Hose	30	l.m.		
	Fittings and Accessories				
	20mmØ PVC Adaptor	6	piece		
	20mmØ PVC Locknut & Bushing	6	piece		
	50mm x 100mm PVC Utility Box	5	piece		
	100mm x 100mm PVC Junction Box with Cover	5	piece		
	Wires and Cables				
	3.5mm² THHN Wire	60	l.m.		
	Wiring Devices and Fixtures				
	Linear Twin Batten with 2x18W LED Tube Light	3	set		
	Orbit Fan with Selector Switch	3	set		
	Outlet with Grounding, Two-Gang	5	set		
	Switch w/ Plate & Cover, Single Gang	2	set		
	Switch w/ Plate & Cover, Two-Gang	3	set		
	Switch w/ Plate & Cover, Three-Gang	1	set		
	T8, 18w LED Tube light	4	piece		
	Miscellaneous & Consumables				
	Electrical Tape	2	roll		
				MATERIALS COST VI	₽
				LABOR COST VI	
				DIRECT COST VI	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION	TOTAL COST	
- = ≡ ≥ > 5	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS		₽
	Overhea y enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST d, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF DON FABIAN DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

- II Construction of hand washing facility.
- a Supply and installation of foot operated single sink handwashing facility.
- b Sanitary and Plumbing Works include installation of sewerline and waterline.
- III Rehabilitation of day care center
- a Site Works include removal works and cleaning and clearing for painting preparation.
- b Civil / Structural Works include metal works and roofing works.
- c Architectural Works include floor finishes, ceiling works, painting works and installation of doors, windows and letterings.
- d Sanitary / Plumbing Works include installation of roughing-ins, equipment and accessories.
- e Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
				DIRECT COST I	₱
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	Hand Washing Facility				
	Single Sink Portable Hand Washing Facility	1	unit	₽	₱
				DIRECT COST-A	₽
В	Sanitary and Plumbing Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	1	piece	₱	₽
	50mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	1	piece		
	20mm Ø, Elbow	1	piece		
	20mm Ø, Coupling	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-B	₱
				LABOR COST-B	
				DIRECT COST-B	₱
				MATERIALS COST II	₱
				LABOR COST II	
				DIRECT COST II	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Ш	REHABILITATION OF DAY CARE CENTER				
Α	SITE WORKS				
	Removal Works				
	Removal of Roofing and Accessories	58	sq.m.	₱	₽
	Removal of Ceiling	38	sq.m.		
	Removal of Downspout	3	l.m.		
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	7	sq.m.		
	Removal of Lavatory	2	set		
	Removal of Sink	1	set		
	Removal of Urinal	1	set		
	Removal of Water Closet	1	set		
	Clearing and Cleaning for Painting Preparation	102	sq.m.		
				DIRECT COST-A	₽
В	CIVIL / STRUCTURAL WORKS				
	Metal Works				
	Gate				
	12mm Square Bar	22	kg	₱	₱
	50mm Ø G.I. Pipe, Sch. 40	34	kg		
	Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Window Grilles				
	25mm X 25mm X 2mm Tubular Bar	124	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	58	sq.m		
	Pre-Painted G.I.Ridge Roll	8	l.m.		
	Pre-Painted G.I. Gutter	16	l.m.		
	300mm Fiber Cement Fascia Board	16	l.m.		
	Blind Rivets	82	piece		
	Tekscrew	24	piece		
				MATERIALS COST-B	₽
				LABOR COST-B	
				DIRECT COST-B	₽
С	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping Preparation of Tile Works	2	sq.m	₽	₽
	300mm x 300mm Non-Skid Homogeneous Tiles	2	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board including Metal Framing	38	sq.m		
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	45	sq.m		
	Epoxy Enamel Paint Finish (Metal Surfaces)	2	sq.m		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Flat Latex Paint Finish				
	Ceiling	40	sq.m		
	Interior Wall	67	sq.m		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.90m x 2.10m) Swing Type Flush Hollow Core Painted Finish	1	set	₱	₽
	D2 - (0.60m x 2.10m) Swing Type PVC Door w/ 400mm X 300mm Louver	1	set		
	Door jamb				
	D1 - (0.90m x 2.10m) Swing Type Flush Hollow Core Door	1	set		
	Hardware and Accessories				
	Door Hinges, Heavy Duty, Stainless	6	set		
	Door Knob, Lever Type, Stainless	2	set		
	Installation of Windows				
	W1 -(3.00m x 1.10m) Sliding Window, 6mm Thk	1	set		
	Clear Tempered Glass on White Color Powder Coated Aluming	um			
	Frame with Complete Accessories				
	W2 -(1.50m x 1.00m) Sliding Window, 6mm Thk	2	set		
	Clear Tempered Glass on White Color Powder Coated Aluming	um			
	Frame with Complete Accessories				
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Letterings				
	120mm Stainless Steel Lettering	22	set	₱	₽
	"DON FABIAN DAY CARE CENTER"				
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
				MATERIALS COST-C	₱
				LABOR COST-C	
				DIRECT COST-C	₽
D	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	4	piece	₽	₽
	75 mm Ø, Pipe PVC	4	piece		•
	100mm Ø, Pipe PVC	6	piece		
	50mm Ø, P-Trap	3	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	6	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	8	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 50mm Ø, Wye	7	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	8	piece		
	100mm Ø x 50mm Ø, Tee Reducer		piece		
	100mm Ø, Cleanout with Adapter	2	piece		
	Waterline System	3	piece		
	Roughing-Ins				
	20mm Ø, Pipe PPR	4	nioco		
	20mm Ø, Elbow	4	piece		
		10	piece		
	20mm Ø, Coupling	4	piece		
	20mm Ø, Tee Equal	9	piece		
	20mm Ø, Female Threaded, Elbow	4	piece		
	32mm Ø x 20mm Ø, Reducer	2	piece		
	32mm Ø, Union Patente	1	piece		
	Valves and Appurtenances		nicos		
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	2	piece		
	Grease Trap, 5 GPM, Heavy Duty	1	piece		
	Hose Bibb, Lever Type, Stainless Steel Heavy Duty (Water Efficient)	5	piece		
	Kitchen Faucet, Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Lavatory, Faucet, Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		
	Lavatory, Wall Hung	1	piece		
	Sink, 8" Deep, Stainless Steel	1	piece		
	Urinal, Kiddy, Flush Type (Water Efficient)	1	piece		
	Water Closet, Kiddy, Tank Type w/ Accessories (Water Efficient)	1	piece		
	Accessories				
	Flexible Hose, Stainless Steel	4	piece		
	Single Way Angle Valve, Stainless Steel	3	piece		
	Two Way Angle Valve, Stainless Steel	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	4	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-D	₱
				LABOR COST-D	
				DIRECT COST-D	₽
Е	ELECTRICAL WORKS				
	Roughing-ins				
	20mmØ PVC Flexible Hose	20	l.m.	₱	₽
	Fittings and Accessories				
	20mmØ PVC Adaptor	4	piece		
	20mmØ PVC Locknut & Bushing	4	piece		
	50mm x 100mm PVC Utility Box	10	piece		
	100mm x 100mm PVC Junction Box with Cover	5	piece		
	Wires and Cables				
	3.5mm² THHN Wire	40	l.m.		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Wiring Devices and Other Fixtures				
	18W LED Bulb	1	set		
	E27 Receptacle	1	set		
	Linear Twin Batten with 2x18W LED Tube Light	3	set		
	Outlet with Grounding, Two-Gang	4	set		
	Switch w/ Plate & Cover, Two-Gang	1	set		
	Switch w/ Plate & Cover, Three-Gang	1	set		
	Miscellaneous & Consumables				
	Electrical Tape	2	roll		
				MATERIALS COST-E	₱
				LABOR COST-E	
				DIRECT COST-E	₱
				MATERIALS COST III	₱
				LABOR COST III	
				DIRECT COST III	₽

ITEM NO.	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST	
- = =	GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER	₽	
	TOTAL DIRECT Overhead, Contingencies and Miscellaneous Expense by enforce Health Protocols relative to the applicable DPWH Memorandum TOTAL ESTIMATE	es (OCM) Profit VAT	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF SOLIVEN DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	66	sq.m.		
				DIRECT COST I	₱ 69,404.00
II	SITE WORKS				
	Excavation for Structures	4	cu.m	₽	₱
	Backfill and Compaction	2	cu.m		
	Removal Works				
	Removal of Dilapidated Door	3	unit		
	Removal of Dilapidated Window	8	sq.m.		
	Removal of Under Counter Cabinet	1	sq.m.		
	Removal of Tiles	53	sq.m.		
	Removal of Lavatory	1	set		
	Removal of Sink	1	set		
	Removal of Urinal	1	set		
	Removal of Water Closet	1	set		
	Chipping of Wall	1	sq.m.		
	Clearing / Cleaning for Painting Preparation	273	sq.m.		
				DIRECT COST II	₽
III	CIVIL / STRUCTURAL WORKS				
	Concrete Works				
	Site Mix Concrete, 21 Mpa, 3/4" Gravel	2	cu.m	₱	₽
	Reinforcing Steel Bars				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	10mm Ø Column	38	kg		
	12mm Ø Wall Footing	38	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	16mm Ø Footing	60	kg		
	16mm Ø Column	80	kg		
	Formworks				
	Wall Footing	4	sq.m		
	Footing	4	sq.m		
	Column	7	sq.m		
	Masonry Works				
	100mm CHB Wall Laying, including mortar, reinforcement and two-face plastering	9	sq.m		
	150mm CHB Wall Laying, including mortar, reinforcement and two-face plastering	1	sq.m		
	Metal Works				
	Fence				
	12mm Square Bar	106	kg		
	20mm Square Bar	18	kg		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		
	•		ı	MATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	300mm x 300mm Non-Skid Homogeneous Tiles	3	sq.m	₱	₱
	400mm x 400mm Non-Skid Homogeneous Tiles	45	sq.m		
	Wall Finishes and Partition				
	300mm x 300mm Non-Skid Homogeneous Tiles	9	sq.m		
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	56	sq.m		
	Epoxy Enamel Paint Finish (Fence)	3	sq.m		
	Flat Latex Paint Finish				
	Interior Wall	123	sq.m		
	Slab Soffit	123	sq.m		
	Exterior Painting (with Simple Design)	27	sq.m		
	Fabricated Materials				
	Under Counter Cover (Aluminum)	2	l.m.		
				Materials Cost	₱
				Labor Cost	
	Installation of Doors			Subtotal	P
	D1 - (1.80m x 2.10m) Swing Type Flush Hollow Core Painted Finish	1	set	₽	₽
	D2 - (0.80m x 2.10m) Swing Type Flush Hollow Core Painted Finish	1	set		
	D3 - (0.60m x 2.10m) Swing Type PVC Door	1	set		
	Painted Finish (Kitten White) w/ 400mm X 300mm Louver				
	Door jamb				
	D1 - (1.80m x 2.10m) Swing Type Flush Hollow Core Door	1	set		
	D2 - (0.80m x 2.10m) Swing Type Flush Hollow Core Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	9	set		
	Door Knob, Lever Type, Stainless	3	set		
	Installation of Windows				
	W1 -(2.40m x 1.40m) Sliding Window, 6mm Thk,	2	set		
	Clear Tempered Glass White Color Powder Coated Aluminum	n ı			
	Frame with Complete Accessories				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	W2 -(1.00m x 0.60m) Sliding Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum	n			
	Frame with Complete Accessories				
	W3 -(1.30m x 0.30m) Awning Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum	n			
	Frame with Complete Accessories				
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Letterings				
	120mm Stainless Steel Lettering	20	set	₱	₱
	"SOLIVEN DAY CARE CENTER"				
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
			N	MATERIALS COST IV	₱
				LABOR COST IV	
				DIRECT COST IV	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
٧	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	2	piece	₽	₽
	75 mm Ø, Pipe PVC	4	piece		
	100mm Ø, Pipe PVC	3	piece		
	50mm Ø, P-Trap	3	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	6	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 50mm Ø, Wye	7	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	1	piece		
	100mm Ø x 50mm Ø, Tee Reducer	1	piece		
	100mm Ø, Cleanout with Adapter	1	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	4	piece		
	20mm Ø, Elbow	10	piece		
	20mm Ø, Coupling	4	piece		
	20mm Ø, Tee Equal	9	piece		
	20mm Ø, Female Threaded, Elbow	4	piece		
	32mm Ø x 20mm Ø, Reducer	2	piece		
	32mm Ø, Union Patente	1	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	2	piece		
	Grease Trap, 5 GPM, Heavy Duty	1	piece		
	Hose Bibb, Lever Type, Stainless Steel Heavy Duty (Water Efficient)	5	piece		
	Kitchen Faucet Lever Type, Stainless Heavy Duty (Water Efficient)	1	unit		
	Kitchen Sink 8" Deep, Stainless Steel	1	unit		
	Lavatory, Faucet, Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		
	Lavatory, Wall Hung, Kiddy	1	piece		
	Urinal, Flush Type, Kiddy (Water Efficient)	1	unit		
	Water Closet, Tank Type w/ Accessories, Kiddy (Water Efficient)	1	unit		
	Accessories				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Angle Valve, Stainless Steel, Single Way	3	piece		
	Angle Valve, Stainless Steel, Two Way	1	piece		
	Flexible Hose, Stainless Steel	4	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				MATERIALS COST V	P
				LABOR COST V	
				DIRECT COST V	₽
VI	ELECTRICAL WORKS				
	Roughing-ins				
	16mm x 16mm x 2.44m Rectangular PVC Moulding	30	piece	₱	₽
	Wires and Cables				
	3.5mm² THHN Wire	120	l.m.		
	Lighting Fixtures (Energy Efficient)				
	18W LED Bulb	1	piece		
	T8, 18w LED Tube Light	3	piece		
	E27 Receptacle	1	piece		
	Wiring Devices and Other Fixtures				
	50mm x 100mm PVC Amco box	5	piece		
	Orbit Fan with Selector Switch	2	set		
	Outlet with Grounding, Two-Gang	1	set		
	Switch w/ Plate & Cover, Single Gang	2	set		
	Switch w/ Plate & Cover, Two-Gang	1	set		
	Miscellaneous & Consumables				
	Electrical Tape	2	roll		
			- I	MATERIALS COST VI	₽
				LABOR COST VI	
				DIRECT COST VI	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION &	SCOPE OF WORKS	TOTAL COST
 V V	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS	₽	
	Overhead, C ly enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST ontingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF KASUNDUAN DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

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

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	72	sq.m.		
				DIRECT COST I	P
II	SITE WORKS				
	Removal Works				
	Removal of Dilapidated Door	3	unit	₱	₱
	Removal of Dilapidated Window	13	sq.m.		
	Removal of Under Counter Cabinet	2	sq.m.		
	Removal of Ceiling	40	sq.m.		
	Removal of Tiles	4	sq.m.		
	Removal of Sink	2	set		
	Removal of Urinal	2	set		
	Removal of Water Closet	2	set		
	Removal of Lavatory	2	set		
	Removal of Roofing and Accessories	42	sq.m.		
	Removal of Aluminum Cladding	10	set		
	Chipping of Wall for Plumbing Works	1	sq.m.		
	Clearing and Cleaning for Painting Preparation	350	sq.m.		
				DIRECT COST II	₽
Ш	CIVIL / STRUCTURAL WORKS				
	Masonry Works				
	Concrete Topping Preparation	1	sq.m	₽	₽
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	43	sq.m		
	Pre-Painted G.I. Gutter	10	l.m.		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Pre-Painted G.I. End Flashing	10	l.m.		
	300mm Fiber Cement Fascia Board	10	l.m.		
	Blind Rivets	52	piece		
	Tekscrew	30	piece		
				MATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₱
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping Preparation of Tile Works	4	sq.m	₽	₱
	300mm x 300mm Non-Skid Homogeneous Tiles	4	sq.m		
	Wall Finishes and Partition				
	Aluminum composite cladding, 6mm thick, nano finish including structural angular framing sections, backer rod and sealant	10	sq.m		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Ceiling Works				
	6mm thk Fiber Cement Board including Metal Framing	40	sq.m		
	Painting Works		,		
	Elastomeric Paint Finish (Exterior Wall)	44	sq.m		
	Flat Latex Paint Finish		,		
	Interior Wall	174	sq.m		
	Ceiling	40	sq.m		
	Exterior Painting (with Simple Design)	56	sq.m		
	Fabricated Materials		'		
	Under Counter Cover (Aluminum)	2	l.m.		
	,			Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.90m x 2.10m) Swing Type Flush Hollow Core Painted	4	224	Ð	a
	Finish	1	set	₽	P
	D2 - (0.60m x 2.10m) Swing Type PVC Door	2	set		
	Painted Finish (Kitten White) w/ 400mm X 300mm Louver				
	Door Jamb				
	D1 - (0.90m x 2.10m) Swing Type Flush Hollow Core Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	9	set		
	Door Knob, Lever Type, Stainless	3	set		
	Installation of Windows				
	W1 -(1.20m x 1.20m) Sliding Window, 6mm Thk,	3	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W2 -(1.50m x 1.20m) Sliding Window, 6mm Thk,	4	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W3 -(0.60m x 0.60m) Awning Window, 6mm Thk,	2	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				MATERIALS COST IV	P
				LABOR COST IV	
				DIRECT COST IV	₽
٧	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	4	piece	₱	₱
	75 mm Ø, Pipe PVC	7	piece		
	100mm Ø, Pipe PVC	13	piece		
	150mm Ø, Pipe PVC	4	piece		
	50mm Ø, P-Trap	8	piece		
	75mm Ø, P-Trap	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø, 1/8 Bend	9	piece		
	75mm Ø, 1/8 Bend	3	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	8	piece		
	75mm Ø x 75mm Ø, Tee	8	piece		
	100mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 50mm Ø, Wye	7	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	8	piece		
	150mm Ø x 100mm Ø, Wye	3	piece		
	100mm Ø x 50mm Ø, Tee Reducer	2	piece		
	100mm Ø, Cleanout with Adapter	4	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	9	piece		
	20mm Ø, Female Threaded, Elbow	9	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	2	piece		
	Floor Drain, 100mm x 100mm, Stainless	2	piece		
	Roof Drain, 100mm Ø, Dome-Type, Stainless	3	piece		
	Grease Trap, 5 GPM, Heavy Duty	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hose Bibb Lever Type, Stainless Steel, Heavy Duty (Water Efficient)	7	piece		
	Kitchen Faucet, Lever Type, Stainless, Heavy Duty (Water Efficient)	2	piece		
	Lavatory, Counter-top	2	piece		
	Lavatory Faucet, Lever Type, Stainless, Heavy Duty (Water Efficient)	2	piece		
	Sink 8" Deep, Stainless Steel	2	piece		
	Urinal, Kiddy, Flush Type (Water Efficient)	2	piece		
	Water Closet, Kiddy, Tank Type w/ Accessories (Water Efficient)	2	piece		
	Accessories				
	Flexible Hose, Stainless Steel	6	piece		
	Single Way Angle Valve, Stainless Steel	4	piece		
	Two Way Angle Valve, Stainless Steel	2	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	5	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
				MATERIALS COST V	₽
				LABOR COST V	
				DIRECT COST V	₽
VI	ELECTRICAL WORKS				
	Roughing-ins				
	16mm x 16mm x 2.44m Rectangular PVC Moulding	30	piece	₱	₽
	Wires and Cables				
	3.5mm² THHN Wire	1	roll		
	Lighting Fixtures (Energy Efficient)				
	18W LED Bulb	2	piece		
	E27 Receptacle	2	piece		
	T8, 18W LED Tube Light	6	piece		
	Wiring Devices and Other Fixtures				
	Orbit Fan with Selector Switch	3	set		
	Outlet with Grounding, Two-Gang	8	set		
	Switch w/ Plate & Cover, Single Gang	2	set		
	Switch w/ Plate & Cover, Three-Gang	3	set		
	Miscellaneous & Consumables				
	Electrical Tape	3	roll		
				MATERIALS COST VI	₽
				LABOR COST VI	
				DIRECT COST VI	₽

ITEM NO WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION	& SCOPE OF WORKS	TOTAL COST
	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS		₽
	Overh y enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST ead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF PINADAMA DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

- II Construction of Hand Washing Facility.
- a Architectural Works include fabricated materials.
- b Sanitary and Plumbing Works include installation of sewerline and waterline system.
- III Rehabilitation of Day Care Center
- a Site Works include removal works and cleaning and clearing for painting preparation.
- b Civil / Structural Works include masonry works and roofing works.
- Architectural Works include floor finishes, ceiling works, painting works, fabricated materials and installation of doors, windows and letterings.
- d Sanitary / Plumbing Works include installation of roughing-ins, equipment and accessories.
- e Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- IV 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
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	51	sq.m		
	Temporary enclosure around the construction area (h= 3.6m)	16	l.m.		
				DIRECT COST I	₱
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	ARCHITECTURAL WORKS				
	Fabricated Materials				
	Countertop with Aluminum Cover	3	l.m.	₱	₱
				MATERIALS COST-A	₱
				LABOR COST-A	
				DIRECT COST-A	₽
В	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	2	piece	₽	₱
	50mm Ø, 1/8 Bend	3	piece		
	100mm Ø, 1/8 Bend	3	piece		
	100mm Ø x 50mm Ø, Wye	3	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	Waterline System				
	Roughing-Ins				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Pipe PPR	2	piece		
	20mm Ø, Elbow	3	piece		
	20mm Ø, Coupling	2	piece		
	20mm Ø, Tee Equal	3	piece		
	20mm Ø, Female Threaded, Elbow	4	piece		
	Fixtures				
	Lavatory, Countertop, Kiddy	5	piece		
	Lavatory Faucet, Countertop-Mounted, Lever Type,	5	piece		
	Stainless Steel Heavy Duty				
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-B	₽
				LABOR COST-B	
				DIRECT COST-B	₽
				MATERIALS COST II	₽
				LABOR COST II	
				DIRECT COST II	₽
Ш	REHABILITATION OF DAY CARE CENTER				
Α	SITE WORKS				
	Removal Works				
	Removal of Ceiling	61	sq.m.	₱	₽
	Removal of Dilapidated Door	3	unit		
	Removal of Dilapidated Window	13	sq.m.		
	Removal of Downspout	8	l.m.		
	Removal of Roofing and Accessories	61	sq.m.		
	Removal of Tiles	33	sq.m.		
	Removal of Urinal	1	set		
	Removal of Under Counter Cover	5	sq.m.		
	Clearing and Cleaning for Painting Preparation	150	sq.m.		
				DIRECT COST-A	₱
В	CIVIL / STRUCTURAL WORKS				
	Masonry Works				
	150mm CHB Wall Laying, including mortar, reinforcement and two-face plastering	3	sq.m		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	61	sq.m		
	Pre-Painted G.I.Ridge Roll	8	l.m.		
	Pre-Painted G.I. Gutter	15	l.m.		
	Tekscrew	24	piece		
				MATERIALS COST-B	₽
				LABOR COST-B	
				DIRECT COST-B	₽
С	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping Preparation of Tile Works	33	sq.m	₽	₽
	300mm x 300mm Non-Skid Homogeneous Tiles	33	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board including Metal Framing	61	sq.m		
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	31	sq.m		
	Epoxy Enamel Paint Finish (Metal Surfaces)	4	sq.m		
	Flat Latex Paint Finish				
	Ceiling	64	sq.m		
	Interior Wall	104	sq.m		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fabricated Materials				
	Under Counter Cover (Aluminum) - Pantry	4	l.m.		
	Under Counter Cover (Aluminum) - Hand Washing	2	l.m.		
	Hanging Cabinet	3	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Exterior Painting (with Simple Design)	24	sq.m	₽	₽
				Subtotal	₱
	Installation of Doors				
	D1 - (0.80m x 2.10m) Swing Type Flush Hollow Core Painted Finish	1	set	₱	₽
	D2 - (0.80m x 2.10m) Double Swing Type Flush Hollow Core	1	set		
	Painted Finish				
	D3 - (0.60m x 2.10m) Swing Type PVC Door	1	set		
	w/ 400mm X 300mm Louver				
	Door jamb				
	D1 - (0.80m x 2.10m) Swing Type Flush Hollow Core Door	1	set		
	D2 - (0.80m x 2.10m) Swing Type Flush Hollow Core Door	1	set		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hardware and Accessories				
	Door Hinges, Single-Swing, Heavy Duty, Stainless	6	set		
	Door Hinges, Double-Swing, Heavy Duty, Stainless	3	set		
	Door Knob, Lever Type, Stainless	3	set		
	Installation of Windows				
	W1 -(1.20m x 1.20m) Sliding Window, 6mm Thk	3	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu	ım			
	Frame with Complete Accessories				
	W2 -(1.80m x 1.20m) Sliding Window, 6mm Thk	2	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu	ım			
	Frame with Complete Accessories				
	W3 -(1.20m x 0.80m) Sliding Window, 6mm Thk	1	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu	ım			
	Frame with Complete Accessories				
	W4 -(0.70m x 0.60m) Awning Window, 6mm Thk	1	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu	ım			
	Frame with Complete Accessories				
	W5 -(0.70m x 0.40m) Sliding Window, 6mm Thk	1	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu	ım			
	Frame with Complete Accessories				
				Materials Cost	₱
				Labor Cost	
				Subtotal	₽
	Letterings				
	120mm Stainless Steel Lettering	21	set	₱	₱
	"PINADAMA DAY CARE CENTER"				
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
				MATERIALS COST-C	₱
				LABOR COST-C	
				DIRECT COST-C	₱
D	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe	1	piece	₱	₱
	75 mm Ø, PVC Pipe	3	piece		
	100mm Ø, PVC Pipe	6	piece		
	50mm Ø, P-Trap	1	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	4	piece		
	100mm Ø, 1/4 Bend	5	piece		
	75mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	2	piece		
	100mm Ø, Coupling	6	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	100mm Ø, Cleanout with Adapter	1	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	1	piece		
	20mm Ø, Elbow	2	piece		
	20mm Ø, Coupling	2	piece		
	20mm Ø, Tee Equal	2	piece		
	20mm Ø, Female Threaded, Elbow	1	piece		
	Fixtures				
	Floor Drain, 100mm x 100mm, Stainless	1	piece		
	Urinal, Kiddy, Flush Type (Water Efficient)	1	piece		
	Accessories				
	Flexible Hose, Stainless Steel	1	piece		
	Angle Valve, Stainless Steel, Single Way	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-D	₱
				LABOR COST-D	
				DIRECT COST-D	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Е	ELECTRICAL WORKS				
	Roughing-ins				
	20mmØ PVC Pipe	15	l.m.	₽	₱
	20mmØ PVC Flexible Hose	50	l.m.		
	16mm x 16mm x 2.44m Rectangular PVC Moulding	20	piece		
	Fittings and Accessories				
	20mmØ PVC Adaptor	20	piece		
	20mmØ PVC Locknut & Bushing	20	piece		
	50mm x 100mm PVC Utility Box	5	piece		
	100mm x 100mm PVC Junction Box with Cover	6	piece		
	Wires and Cables				
	3.5mm² THHN Wire	1	roll		
	Lighting Fixtures (Energy Efficient)				
	18W LED Bulb	1	piece		
	E27 Receptacle	1	piece		
	T8, 18W LED Tube Light	6	piece		
	Wiring Devices and Other Fixtures				
	Orbit Fan with Selector Switch	4	set		
	Outlet with Grounding, Two-Gang	5	set		
	Switch w/ Plate & Cover, Single-Gang	1	set		
	Switch w/ Plate & Cover, Two-Gang	2	set		
	EF 1 - Wall Ventilation Fan, 100 cfm / 20 w / 230 V / 1 φ	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Electrical Tape	3	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	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION	TOTAL COST			
- = =					
	Over y enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST nead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST			

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF UNIT V DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORKS:

General Requirements include billboard, cleaning, hauling and disposal of construction materials and debris, construction safety and

- 1 health, scaffolding and temporary enclosure around the construction area.
- 2 Site Works include demolition/removal works.
- 3 Civil/Structural works metal fabrication.
- 4 Architectural works include ceiling works, installation of doors, painting works and fabricated materials.
- 5 Sanitary/plumbing works include installation of fixtures and accessories.
- 6 Electrical works include installation of roughing-ins, wirings, devices, fixtures and accessories.
- 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
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	67	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	23	l.m.		
				Direct Cost I	₽
II	SITE WORKS				
Α	Demolition/Removal Works				
	Removal of Existing Ceiling	63	sq.m.	₱	₱
	Removal of Existing Door and Door Jambs	1	set		
	Cleaning and Clearing of Wall, Steel Surfaces, Ceiling and Door for Painting Preparation	317	sq.m.		
				Direct Cost II	₱
III	CIVIL WORKS / STRUCTURAL WORKS				
Α	Metal Fabricatrion				
	Gate for Main Door	4	sq.m.	₱	₱
				Materials Cost III	₱
				Labor Cost III	
				Direct Cost III	₽
IV	ARCHITECTURAL WORKS				
Α	Ceiling Finishes				
	12mm thick Gypsum Board including Metal Framing	58	sq.m.	₽	₱
	12mm thick Moisture Resistant Gypsum Board including Metal Framing	6	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
В	Installation of Doors				
	Doors				
	D2 - 0.9m x 2.1m Solid Wood Panel Door	1	set	₱	₱
	Door Jamb				
	D2 - 0.9m x 2.1m Solid Wood Panel Door	1	set		
	Hardwares and Accessories				
	Door Hinge, Heavy Duty, Stainless	3	piece		
	Door Knob, Lever Type, Stainless	1	piece		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₱
С	Painting Works				
	Elastomeric Paint Finish (Exterior Walls)	140	sq.m.	₽	₽
	Flat Latex Paint Finish				
	Interior Walls	175	sq.m.		
	Ceiling	63	sq.m.		
	Epoxy Enamel Paint Finish (Steel Members)	2	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₱
D	Fabricated Materials				
	Kitchen Cabinet	2	l.m.	₱	₽
	Overhang Cabinet	1	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₱
				Materials Cost IV	₽
				Labor Cost IV	
				Direct Cost IV	₽
٧	SANITARY AND PLUMBING WORKS				
A	Fixtures & Accessories				
	Bidet with Accessories, Stainless Heavy Duty (Water Efficient)	2	piece	₽	₽
	Hose Bibb, Stainless Steel, Lever-Type (Water Efficient)	7	unit		
	Lavatory Faucet, Lever Type (Water Efficient)	3	unit		
В	Accessories				
	Angle Valve, One-way, Stainless Steel	3	piece		
	Angle Valve, Two-way, Stainless Steel	2	piece		
	Flexible Hose, Stainless Steel	5	piece		
С	Miscellaneous and Consumables		F.555		
	400cc Solvent Cement	1	can		
	All Around Sealant	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
		'	ıv9	Materials Cost V	₽
				Labor Cost V	-
			1	Labor Cost V	

TEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COS
VI	ELECTRICAL WORKS				
	Roughng-ins, Pipes and Fittings				
	20mmØ PVC Pipe	60	piece	₱	₱
	Fittings and Accessories				
	20mmØ PVC Adaptor	80	piece		
	20mmØ PVC Locknut and Bushing	80	pair		
	50mm x 100mm PVC Utility Box	15	piece		
	100mm x 100mm PVC Junction Box with cover	20	piece		
	Wires and Cables				
	3.5mm² THHN Wire	3	roll		
	3.5mm² TW Wire	2	roll		
	Lighting Fixtures (Energy Efficient)				
	300mm x 1200mm, 1 x 18W LED, Troffer Type, w/ complete accessories, Surfaced Mounted	7	piece		
	6"Ø Round Recessed Pinlight LED	6	piece		
	Emergency Light	1	piece		
	Exit Light	1	piece		
	Wiring Devices & Appliances				
	Outlet with Grounding , Two-gang	6	piece		
	Switch w/ plate & cover, One Gang	4	piece		
	Switch w/ plate & cover, Two Gang	1	piece		
	Switch w/ plate & cover, Three Gang	1	piece		
	Miscellaneous & Consumables		·		
	400cc Solvent Cement	2	can		
	All around Sealant	2	can		
	Electrical Tape	10	roll		
	G.I Tie Wire	3	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	5	piece		
	Paint Thinner	1	lit		
	Pulling Lubricant	2	gal		
	Rubber Tape	5	roll		
	Torch with Butane	2	set		
				Materials Cost VI	₽
				Labor Cost VI	
				Direct Cost VI	₽

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

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS			
- = = ≥ >	GENERAL REQUIREMENTS SITE WORKS CIVIL WORKS / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY AND PLUMBING WORKS		₽	
VI	ELECTRICAL WORKS			
_	enforce Health Protocols relative to the oplicable DPWH Memorandum	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	P	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF GOLD DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

- II Construction of Hand Washing Facility.
- A Supply and installation of foot operated double sink handwashing facility.
- B Sanitary / Plumbing Works include installation of sewerline and waterline system.
- III Rehabilitation of Day Care Center
- A Site Works include removal works and cleaning and clearing for painting preparation.
- B Civil / Structural Works include metal works and roofing works.
- Architectural Works include floor finishes, ceiling works, painting works, fabricated materials and installation of doors, windows and letterings.
- D Sanitary / Plumbing Works include installation of roughing-ins, equipment, fixtures and accessories.
- E Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- IV 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
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	38	sq.m		
	Temporary Enclosure Around the Construction Area (h= 2.4m)	23	l.m.		
				DIRECT COST I	P
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	Hand Washing Facility				
	Double Sink Portable Hand Washing Facility	1	unit	₱	₱
				DIRECT COST-A	₱
В	Sanitary and Plumbing Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	1	piece	₱	₱
	50mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	1	piece		
	20mm Ø, Elbow	4	piece		
	20mm Ø, Coupling	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Tee Equal	2	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-B	₱
				LABOR COST-B	
				DIRECT COST-B	₱
				MATERIALS COST II	₱
				LABOR COST II	
				DIRECT COST II	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Ш	REHABILITATION OF DAY CARE CENTER				
Α	SITE WORKS				
	Removal Works				
	Removal of Ceiling	43	sq.m.	₱	₱
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	4	sq.m.		
	Removal of Dilapidated Window Grilles	6	sq.m.		
	Removal of Hanging Cabinet	5	l.m.		
	Removal of Lavatory	1	set		
	Removal of Roofing and Accessories	45	sq.m.		
	Removal of Sink	1	set		
	Removal of Tiles	2	sq.m.		
	Removal of Urinal	1	set		
	Removal of Water Closet	1	set		
	Removal of Under Counter Cover	2	sq.m.		
	Removal of Countertop	1	sq.m.		
	Clearing and Cleaning for Painting Preparation	115	sq.m.		
	<u> </u>		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DIRECT COST-A	₽
В	CIVIL / STRUCTURAL WORKS			DIRECT COCT X	1
	Metal Works				
	Window Grilles				
	25mm X 25mm X 2mm Tubular Bar	76	kg	₽	₽
	Miscellaneous & Consumables	1			
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	45	sq.m		
	Pre-Painted G.I.Ridge Roll	6	l.m.		
	300mm Fiber Cement Fascia Board	29	l.m.		
	6mm Thk One-Sided Aluminum Foil Thermal Insulation	45	sq.m		
	Blind Rivets	147	piece		
	Tekscrew	18	piece		
	Silicon Sealant	3	tube		
				MATERIALS COST-B	₽
				LABOR COST-B	-
				DIRECT COST-B	₽
С	ARCHITECTURAL WORKS				
	Floor Finishes				
	300mm x 300mm Non-Skid Homogeneous Tiles	2	sq.m	₽	₽
	Floor Topping Preparation of Tile Works	2	sq.m		
	Ceiling Works		<u> </u>		
	6mm thk Fiber Cement Board including Metal Framing	43	sq.m		
	3		<u> </u>	Materials Cost	₽
				Labor Cost	
				Subtotal	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Installation of Doors				
	D1 - (0.90m x 1.80m) Swing Type Flush Hollow Core Painted F	1	set	₱	₽
	D2 - (0.60m x 1.80m) Swing Type PVC Door	1	set		
	w/ 400mm X 300mm Louver				
	Door jamb				
	D1 - (0.90m x 1.80m) Swing Type Flush Hollow Core Door	1	set		
	Hardware and Accessories				
	Door Hinges, Heavy Duty, Stainless	6	set		
	Door Knob, Lever Type, Stainless	2	set		
	Installation of Windows				
	W1 -(1.50m x 1.00m) Sliding Window, 6mm Thk	1	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu				
	Frame with Complete Accessories				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	W2 -(1.90m x 1.00m) Sliding Window, 6mm Thk	1	set		
	Clear Tempered Glass on White Color Powder Coated Aluming	um			
	Frame with Complete Accessories				
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	60	sq.m	₱	₱
	Epoxy Enamel Paint Finish (Steel Surfaces)	1	sq.m		
	Flat Latex Paint Finish				
	Ceiling	46	sq.m		
	Interior Wall	61	sq.m		
	Fabricated Materials				
	Under Counter Cover (Aluminum) - Pantry	2	l.m.		
	Hanging Cabinet	3	sq.m.		
	Letterings				
	120mm Stainless Steel Lettering	17	set		
	"GOLD DAY CARE CENTER"				
				Material Cost	₱
				Labor Cost	
				Subtotal	₽
				MATERIALS COST-C	₱
				LABOR COST-C	
				DIRECT COST-C	₱
D	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	1	piece	₱	₽
	75 mm Ø, PVC Pipe with Hub	6	piece		
	100mm Ø, PVC Pipe with Hub	5	piece		
	50mm Ø, P-Trap	2	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	7	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Tee	1	piece		
	100mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Wye	5	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	8	piece		
	100mm Ø x 50mm Ø, Tee Reducer	2	piece		
	100mm Ø, Cleanout with Adapter	4	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	3	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Elbow	8	piece		
	20mm Ø, Coupling	3	piece		
	20mm Ø, Tee Equal	7	piece		
	20mm Ø, Female Threaded, Elbow	7	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	1	piece		
	Grease Trap, 5 GPM, Heavy Duty	1	piece		
	Hose Bibb, Lever Type, Stainless (Water Efficient)	4	piece		
	Kitchen Sink Faucet, Lever Type, Stainless (Water Efficient)	1	piece		
	Lavatory, Faucet, Lever Type, Stainless (Water Efficient)	1	piece		
	Lavatory, Wall Hung	1	set		
	Sink, 8" Deep, Stainless Steel	1	piece		
	Urinal, Kiddy, Flush Type (Water Efficient)	1	set		
	Water Closet, Kiddy, Tank Type w/ Accessories (Water Efficier	1	set		
	Accessories				
	Angle Valve, Stainless Steel, Single Way	1	piece		
	Angle Valve, Stainless Steel, Two Way	1	piece		
	Flexible Hose, Stainless Steel	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	All Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-D	₱
				LABOR COST-D	
				DIRECT COST-D	₱
Е	ELECTRICAL WORKS				
	Roughing-ins				
	20mmØ PVC Pipe	15	piece	₽	₱
	20mmØ PVC Flexible Hose	50	l.m.		
	Fittings and Accessories				
	20mmØ PVC Adaptor	20	piece		
	20mmØ PVC Locknut & Bushing	20	piece		
	50mm x 100mm PVC Utility Box	5	piece		
	100mm x 100mm PVC Junction Box with Cover	6	piece		
	Wires and Cables				
	3.5mm² THHN Wire	1	roll		
	Lighting Fixtures (Energy Efficient)				
	18W LED Bulb	3	piece		
	E27 Receptacle	3	piece		
	T8, 18W LED Tube Light	6	piece		
	Wiring Devices and Other Fixtures				
	Outlet with Grounding, Two-Gang	4	set		
	Switch with Plate and Cover, One-Gang	1	set		
	Switch with Plate and Cover, Two-Gang	1	set		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Electrical Tape	3	roll		
	Hacksaw Blade	2	piece		
	Torch with Butane	1	set		
				MATERIALS COST-E	₽
				LABOR COST-E	
				DIRECT COST-E	P
				MATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₽

WORK DESCRIPTION & SCOPE OF WORKS QTY UNIT UNIT COST
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ITEM NO.	WORK DESCRIPTION	TOTAL COST	
- = ≡	GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER		₽
	Overhy enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST nead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF F. CASTILLO DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

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

- II Construction of Hand Washing Facility.
- A Supply and installation of foot operated single sink handwashing facility.
- B Site Works include chipping of floor.
- C Civil / Structural Works include restoration of concrete.
- D Sanitary and Plumbing Works include installation of sewerline and waterline.
- III Rehabilitation of Day Care Center
- A Site Works include removal works and cleaning and clearing for painting preparation.
- B Civil / Structural Works include metal works.
- C Architectural Works include floor finishes, painting works fabricated materials and installation of doors, windows and letterings.
- D Sanitary / Plumbing Works include installation of roughing-ins, fixtures, equipment and accessories.
- E Electrical Works include installation of roughing-ins, wirings, devices and fixtures.
- IV 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
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
				DIRECT COST I	P
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	HAND WASHING FACILITY				
	Single Sink Portable Hand Washing Facility	3	unit	₱	₱
				DIRECT COST-A	₱
В	SITE WORKS				
	Chipping of Floor (Plumbing / Sanitary Works)	3	sq.m.	₱	₱
				DIRECT COST-B	
С	CIVIL / STRUCTURAL WORKS				
	Restoration of Concrete (Floor)	3	sq.m.	₽	₱
				MATERIALS COST-C	₱
				LABOR COST-C	
				DIRECT COST-C	₽
D	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	2	piece	₱	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75 mm Ø, PVC Pipe with Hub	2	piece		
	100 mm Ø, PVC Pipe with Hub	3	piece		
	50mm Ø, 1/8 Bend	3	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	2	piece		
	100mm Ø x 50mm Ø, Wye	3	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	2	piece		
	20mm Ø, Elbow	3	piece		
	20mm Ø, Coupling	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				MATERIALS COST-D	₽
				LABOR COST-D	
				DIRECT COST-D	₽
				MATERIALS COST II	₽
				LABOR COST II	
				DIRECT COST II	₽
III	REHABILITATION OF DAY CARE CENTER				
Α	SITE WORKS				
	Removal Works				
	Removal of Cabinet	2	sq.m.	₱	₽
	Removal of Countertop	1	sq.m.		
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	5	sq.m.		
	Removal of Fence	14	sq.m.		
	Removal of Lavatory	1	set		
	Removal of Tiles	2	sq.m.		
	Removal of Under Counter Cover	2	sq.m.		
	Removal of Urinal	1	set		
	Removal of Wall	2	sq.m.		
	Removal of Water Closet	1	set		
	Clearing and Cleaning for Painting Preparation	117	sq.m.		
	5 5 7		•	DIRECT COST-A	₽
В	CIVIL / STRUCTURAL WORKS			220000.7.	
	Metal Works				
	Fence				
	38mm X 38mm X 4mm Angle Bar	123	kg	₽	₽
	38mm X 38mm Wire Mesh	14	sq.m		
	12mm Square Bar	13	kg		
	50mm Ø G.I. Pipe, Sch. 40	151	kg		
	38mm Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Window Grilles		,		
	25mm X 25mm X 2mm Tubular Bar	111	kg		
	Miscellaneous & Consumables	111			
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	10	piece		
	Grinding Disc for Metal	10	piece		
	Oxygen Tank (Refill)	10	tank		
	Welding Rod	1	box		
	weluling itou	I I	DOX	MATERIALS COST-B	₽
				LABOR COST-B	1
				LABUK CUST-B	

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
С	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping Preparation of Tile Works	3	sq.m	₱	₱
	300mm x 300mm Non-Skid Homogeneous Tiles	3	sq.m		
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	18	sq.m		
	Epoxy Enamel Paint Finish (Metal Surfaces)	5	sq.m		
	Flat Latex Paint Finish				
	Interior Wall	63	sq.m		
	Slab Soffit	30	sq.m		
	Fabricated Materials				
	Under Counter Cover (Aluminum) - Pantry	2	l.m.		
	Hanging Cabinet	3	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Exterior Painting (Simple Design)	16.00	sq.m	634.90	
				Subtotal	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Installation of Doors				
	D1 - (0.90m x 2.10m) Swing Type Flush Hollow Core Painted F	1.00	set	₽	₱
	D2 - (0.60m x 2.10m) Swing Type PVC Door	1.00	set		
	w/ 400mm X 300mm Louver				
	Door jamb				
	D1 - (0.90m x 2.10m) Swing Type Flush Hollow Core Door	1.00	set		
	Hardware and Accessories				
	Door Hinges, Heavy Duty, Stainless	6.00	set		
	Door Knob, Lever Type, Stainless	2.00	set		
	Installation of Windows				
	W1 -(1.20m x 1.20m) Sliding Window, 6mm Thk	3.00	set		
	Clear Tempered Glass on White Color Powder Coated Aluminu	um			
	Frame with Complete Accessories				
				Materials Cost	₱
				Labor Cost	
				Subtotal	₽
	Letterings				
	120mm Stainless Steel Lettering	22.00	set	₱ 2,240.00	₱
	"E. CASTILLO DAY CARE CENTER"				
				Material Cost	₽
				Labor Cost	
				Subtotal	₽
				MATERIALS COST-C	₽
				LABOR COST-C	
				DIRECT COST-C	₽
D	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	2	piece	₽	₽
	75 mm Ø, PVC Pipe with Hub	3	piece		
	100mm Ø, PVC Pipe with Hub	2	piece		
	50mm Ø, P-Trap	2	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	2	piece		
	75mm Ø x 75mm Ø, Tee	2	piece		
	100mm Ø x 75mm Ø, Tee	2	piece		
	100mm Ø x 50mm Ø, Wye	3	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	100mm Ø, Cleanout with Adapter	3	piece		
	100mm Ø, Coupling	2	piece		
	Waterline System		-		
	Roughing-Ins				
	20mm Ø, PPR Pipe	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Elbow	7	piece		
	20mm Ø, Coupling	2	piece		
	20mm Ø, Tee Equal	4	piece		
	20mm Ø, Female Threaded, Elbow	4	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		
	Fixtures				
	Bidet with Complete Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	1	piece		
	Lavatory Faucet, Lever Type, Stainless Heavy Duty (Water Eff	1	piece		
	Lavatory, Wall Hung	1	piece		
	Urinal, Kiddy, Flush Valve-Type (Water Efficient)	1	piece		
	Water Closet, Kiddy, Tank Type (Water Efficient)	1	piece		
	Accessories				
	Angle Valve, Single Way, Stainless Steel	2	piece		
	Angle Valve, Two Way, Stainless Steel	1	piece		
	Flexible Hose, Stainless Steel	3	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1.00	kg		
		_		MATERIALS COST-D	₽
				LABOR COST-D	
				DIRECT COST-D	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Е	ELECTRICAL WORKS				
	Roughing-ins				
	16mm x 16mm x 2.44m Rectangular PVC Moulding	25	piece	₱	₱
	20mmØ PVC Flexible Hose	20	l.m.		
	Fittings and Accessories				
	20mmØ PVC Adaptor	4	piece		
	20mmØ PVC Locknut & Bushing	4	piece		
	50mm x 100mm PVC Utility Box	2	piece		
	100mm x 100mm PVC Junction Box with Cover	2	piece		
	Wires and Cables				
	3.5mm² THHN Wire	70	l.m.		
	Wiring Devices and Other Fixtures				
	18W LED Bulb	4	set		
	E27 Receptacle	4	set		
	Linear Twin Batten with 2x18W LED Tube Light	4	set		
	Outlet with Grounding, Two-Gang	4	set		
	Switch with Plate and Cover, Two-Gang	1	set		
	Switch with Plate and Cover, One-Gang	2	set		
	Miscellaneous & Consumables				
	Electrical Tape	3	roll		
				MATERIALS COST-E	₱
				LABOR COST-E	
				DIRECT COST-E	₽
				MATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₽

ITEM NO.	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST
 	GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER	₽
	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) ly enforce Health Protocols relative to the st applicable DPWH Memorandum VAT TOTAL ESTIMATED COST	

BILL OF QUANTITIES (Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF PUROK 16 YAKAP DAY CARE CENTER

LOCATION BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. 21 - 00176

SCOPE OF WORKS:

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

- 2. Site works include site clearing and preparation, layout and staking, cleaning / clearing for painting preparation, cleaning of existing ACP, demolition/removal works and earthworks.
- 3. Civil works include concrete works, masonry works, metal fabrication and roofing works.
- 4. Architectural Works include floor finishes, wall partitioning and finishes, ceiling finishes, installation of doors and windows and painting works.
- 5. Sanitary/Plumbing Works include installation of roughing-ins, fixtures and accessories.
- 6. Electrical Works include installation of roughing-ins, wiring, devices, fixtures and accessories.
- 7. All necessary testing and commisioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Cleaning, Hauling and Disposal of Construction Materials and Debris	3	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	91	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	34	l.m.		
				Direct Cost I	₱
II	SITE WORKS				
	Site Clearing and Preparation	11	sq.m	₱	₱
	Layout and Staking	11	sq.m.		
	Excavation for Structures (Wall Footing)	2	sq.m.		
	Backfill and Compaction	1	cu.m.		
	Cleaning / Clearing for Painting Preparation	273	sq.m		
	Cleaning of Existing ACP	17	sq.m.		
	Removal Works				
	Demolition of Existing Structure	5	sq.m.		
	Removal of Dilapidated Roof	54	sq.m.		
	Removal of Dilapidated Ceiling	42	sq.m.		
	Removal of Dilapidated Tiles	56	sq.m.		
	Removal of Existing Doors	2	set		
	Removal of Existing Windows	5	sq.m.		
	Removal of Existing Water Closet	1	set		
	Removal of Existing Lavatory	1	set		
	Chipping of Wall for Panelboard	1	sq.m		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Chipping of Wall for Electrical Pipes and Fixtures	2	sq.m		
				Subtotal	₱
	Gravel Bedding	1	cu.m	₽	₽
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Materials Cost II	₽
				Labor Cost II	
				Direct Cost II	P
Ш	CIVIL WORKS / STRUCTURAL WORKS				
	Concreting				
	On Site Mix 21 MPa, 19mm Gravel, @ 28 days				
	Wall Footing	1	cu.m.	₽	₽
	Reinforcing Bars				
	Grade 40 Reinforcing Steel Bar with G.I. Tie Wire #16				
	12mm Ø Reinforcing Steel Bar				
	Wall Footing	42	kg		
	Masonry Works				
	100mm CHB Laying including Mortar, Reinforcement	9	sq.m.		
	and Two-Face Plastering				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	150mm CHB Laying including Mortar, Reinforcement	23	sq.m.		
	and Two-Face Plastering				
	Roofing Works				
	6mm Thick Thermal Insulation (Single Sided Aluminum Foil)	54	sq.m.		
	12.5mm x 300mm Fascia Board	11	l.m.		
	Pre-Painted Rib Type G.I Roofing Ga. 20	54	sq.m.		
	Pre Painted Flashing	22	l.m.		
	Pre Painted Ridge Roll	5	l.m.		
	Miscellaneous and Consumables				
	Tekscrew	540	piece		
	Silicon Sealant	5	tube		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Metal Works				
	Fire Exit Stairs	1	set		
	1.110 2.111 0.1111			Direct Cost	₱
				Materials Cost III	₽
				Labor Cost III	
				Direct Cost III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	400mm x 400mm Non-skid Homogeneous Floor Tiles	4	sq.m.	₽	₽
	600mm x 600mm Non-skid Homogeneous Floor Tiles	36	sq.m.		
	Floor Topping for Preparation of Tiles	55	sq.m.		
	Wall Partitioning and Finishes		'		
	400mm x 400mm Homogeneous Wall Tiles	15	sq.m.		
	4mm thick Aluminum Composite Panel Cladding with Complete Framing and Accessories	4	sq.m.		
	Ceiling Finishes				
	12mm thk Gypsum Board with Complete Framing and Accessories	39	sq.m.		
	12mm thk Moisture Resistant Gypsum Board with Complete Framing	14	sq.m.		
	and Accessories	'*	34.III.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	P
	Installation of Doors				
	D1 - 1.0m x 2.1m Solid Panel Door	1	set	₱	₱
	D2 - 0.6m x 2.1m PVC Door with Louver	1	set		
	D3 - 0.7m x 2.1m Metal Door with Panic Hardware	1	set		
	Door Jamb				
	D1 - 1.0m x 2.1m Wooden Door Jamb	1	set		
	D3 - 0.7m x 2.1m Metal Door Jamb	1	set		
	Hardwares and Accessories				
	Door Hinge, Heavy Duty	9	piece		
	Door Knob, Lever Type	2	piece		
		1		1	
	Panic Hardware	1	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	W1 - 1.20m x 1.20m Aluminum Framed Window	2	set		
	W2 - 1.50m x 1.20m Aluminum Framed Window	1	set		
	W3 - 0.60m x 0.60m Aluminum Framed Window	1	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Epoxy Enamel Paint Finish (Steel Members)	4	sq.m.	₱	₽
	Elastomeric Paint Finish				
	Exterior Wall	187	sq.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Flat Latex Paint Finish				
	Interior Wall	101	sq.m.		
	Ceiling	32	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	P
				Materials Cost IV	P
				Labor Cost IV	
				Direct Cost IV	₽
٧	SANITARY / PLUMBING WORKS				
	Fixtures & Accessories				
	Floor Drain, 100mm x 100mm, Stainless	1	piece		
	Kitchen Sink Faucet, Lever-type Stainless Steel (Water Efficient)	1	piece		
	Hose Bibb, Stainless, Lever Type (Water Efficient)	4	piece		
	Lavatory, Wall-hung, Kiddy	1	unit		
	Lavatory Faucet, Lever-type Heavy Duty Stainless Steel (Water Efficier	1	unit		
	Water Closet, Tank Type, Kiddy (Water Efficient)	1	unit		
	Accessories & Hardwares				
	Angle Valve, Single-Way, Stainless	1	piece		
	Angle Valve, Two-Way, Stainless	1	piece		
	Facial Mirror, 450mm x 600mm x 6mm	1	piece		
	Flexible Hose, Stainless	2	piece		
	Miscellaneous and Consumables				
	400cc Solvent Cement	2	can		
	All Around Sealant	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	4	roll		
	Waste Cloth	2	kg		
				Materials Cost V	₽
				Labor Cost V	
				Direct Cost V	₽
VI	ELECTRICAL WORKS				
	Roughing-ins, Pipes and Fittings				
	20mmØ PVC Pipe	35	piece	₱	₱
	32mmØ PVC Pipe	7	piece		
	25mmØ IMC Pipe	6	piece		
	Fittings and Accessories				
	20mmØ PVC Adaptor	45	piece		
	20mmØ PVC Locknut and Bushing	45	pair		
	32mmØ PVC Adaptor	4	piece		
	32mmØ PVC Locknut and Bushing	4	pair		
	25mmØ IMC Coupling	2	piece		
	25mmØ IMC Elbow	2	piece		
	25mmØ Weatherproof Entrance Cap	1	piece		
	50mm x 100mm PVC Utility Box	11	piece		
	100mm x 100mm PVC Junction Box with cover	10	piece		
	Oval Eyebolt	1	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	16mm Ø x 3000mm Grounding Rod (Copper Clod) w/ Ground Clamp	1	piece		
	Wires and Cables				
	3.5mm² THHN Wire	2	roll		
	14.0mm² THHN Wire	50	l.m.		
	2.0mm² TW Wire	1	roll		
	8.0mm² TW Wire	25	l.m.		
	Lighting Fixtures (Energy Efficient)				
	1 x 18W LED, Tube Light, Box Type	8	piece		
	10W LED Bulb	1	piece		
	100mmØ Receptacle	1	piece		
	Wiring Devices & Appliances				
	Convenience Outlet with ground, Two-gang	6	piece		
	Switch with Plate & Cover, One Gang	1	piece		
	Switch with Plate & Cover, Two Gang	1	piece		
	Switch with Plate & Cover, Three Gang	1	piece		
	Wall Fan	2	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Panelboard				
	MCB				
	Main: 60AT, 2P, 230V, MCCB	1	assy		
	Enclosure: NEMA 3R with Ground Terminals				
	MDP				
	Main: 60AT, 2P, 230V, MCCB	1	assy		
	Branches: 2 - 20AT, 2P, 230V				
	2 - Space				
	Enclosure: NEMA 1 with Ground Terminals				
	Pipe Hangers & Supports				
	Horizontal layout of pipe	15	l.m.		
	Vertical layout of pipe	10	l.m.		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	All around Sealant	3	can		
	Electrical Tape	10	roll		
	G.I Tie Wire	5	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	5	roll		
	Pulling Lubricant	1	gal		
	Rubber Tape	5	roll		
				Materials Cost VI	P
				Labor Cost VI	
				Direct Cost VI	P

ITEM NO	WORK DES	TOTAL COST	
- ≡ ≡ ≥ > 5	GENERAL REQUIREMENTS SITE WORKS CIVIL WORKS / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS	p	
Strictly enforce health protocols relative to the latest applicable DPWH memorandum		TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

BILL OF QUANTITIES

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF UPPER NAWASA DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORKS:

I GENERAL REQUIREMENTS include billboard, clearing, hauling and disposal of construction materials and debris, construction safety and health equipment, scaffolding, and temporary enclosure

II CONSTRUCTION OF HAND WASHING FACILITY

- A Hand Washing Facility include single sink portable hand washing facility
- B Site Works include chipping of concrete
- C Civil Works include restoration of concrete
- D Sanitary and Plumbing Works include installation of roughing-ins

III REHABILITATION OF UPPER NAWASA DAYCARE CENTER

- A Site Works include demolition / removal works and cleaning and clearing for paint preparation
- B Civil Works include waterproofing works, masonry works, metal works and roofing works
- C Architectural Works include floor finishes, wall finishes, ceiling finishes, fabricated materials, installation of doors and windows, and painting works
- D Sanitary and Plumbing Works include installation of roughing-ins, fixtures and accessories
- E Electrical Works include installation of roughing-ins, wirings, lighting fixtures, wiring devices and panel board
- IV All necessary testing of materials and commissioning works must be performed as per standard procedures.

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	P	P
	Clearing, Hauling and Disposal of Construction Materials and Debris	4	t.l.		
	Construction Safety and Health Equipment	1	unit		
	Scaffolding (Rental)	71	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	47	l.m.		
				Direct Cost I	P
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	HAND WASHING FACILITY				
	Single Sink Portable Hand Washing Facility	1	unit	P	P
				Direct Cost II A	P
В	SITE WORKS				
	Demolition / Removal Works				
	Chipping of Concrete (Floor)	3	sq.m.	₽	P
				Direct Cost II B	P
С	CIVIL WORKS				
	Restoration of Concrete (Floor)	3	sq.m.	P	P
				Materials Cost II C	P
				Labor Cost II C	
				Direct Cost II C	P

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
D	SANITARY & PLUMBING WORKS				
	Sewer Line System				
	50mm Ø PVC Standard Hub Pipe	3	piece	₽	4
	50mm Ø x 50mm Ø PVC Tee	1	piece		
	50mm Ø x 50mm Ø PVC 1/4 Bend	3	piece		
	50mm Ø PVC Coupling	3	piece		
	50mm Ø PVC Cleanout	1	piece		
	Water Line System				
	20mm Ø PPR Pipe, PN 16	3	piece		
	20mm Ø x 20mm Ø PPR Tee Equal	1	piece		
	20mm Ø PPR Union Patente	1	piece		
	20mm Ø PPR Coupling	3	piece		
	20mm Ø PPR Male Adaptor	2	piece		
	Valves and Appurtenances				
	20mm Ø PPR Gate Valve	1	piece		
	Miscellaneous and Consumables		-		
	400cc Solvent Cement	3	can		
	All Around Sealant	1	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	5	roll		
	Waste Cloth	2	kg		
				Materials Cost II D	P
				Labor Cost II D	
				Direct Cost II D	P
				Materials Cost II	P
				Labor Cost II	
				Direct Cost II	P
III	REHABILITATION OF UPPER NAWASA DAYCARE CENTER				
Α	SITE WORKS				
	Demolition / Removal Works				
	Removal of CHB Wall (Window Opening)	1	sq.m.	₽	P
	Removal of Floor and Wall Tiles	63	sq.m.		
	Removal of Ceiling	94	sq.m.		
	Removal of Roofing	143	sq.m.		
	Removal of Door	2	set		
	Removal of Window	2	set		
	Removal of Water Closet	1	set		
	Removal of Urinal	1	set		
	Removal of Lavatory	1	set		
	Cleaning and Clearing for Painting Preparation	368	sq.m.		
	3		- 4	Direct Cost III A	P
В	CIVIL WORKS			322 2301 / (
	Thermal and Waterproofing Works				
	Cementitious Capillary-type Waterproofing (CR)	3	sq.m.	P	P
	Masonry Works		24	-	•
	Plastering of CHB Wall (Rear Wall)	48	sq.m.		
	Metal Works		74		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	25mm x 25mm Tubular Bar (Window Grilles)	206	kg		
	Roof Framing				
	50mm x 100mm Tubular Bar	70	kg		
	50mm x 75mm C Purlin	18	kg		
	Miscellaneous & Consumables				
	Acetylene Tank Refill	1	tank		
	Concrete Drill Bit	2	piece		
	Cut Off Blade	2	piece		
	Grinding Metal Disc	2	piece		
	Oxygen Tank Refill	1	tank		
	Welding Rod	1	box		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roofing Works				
	Pre-painted Rib-type GI Roofing	147	sq.m.		
	Pre-painted GI Flashing	48	l.m.		
	Pre-painted GI Ridge Roll	10	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	52	l.m.		
	Tekscrew	702	piece		
	Silicon Sealant	10	tube		
				Materials Cost III B	P
				Labor Cost III B	
				Direct Cost III B	P
С	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping for Preparation of Tiles				
	Daycare Center	43	sq.m.	P	P
	Comfort Room	3	sq.m.	•	1
	300mm x 300mm Non-skid Homogeneous Floor Tiles		34.111.		
	Comfort Room	3	sq.m.		
	Counter Top	7	sq.m.		
	600mm x 600mm Non-skid Homogeneous Floor Tiles	,	5q.iii.		
	Daycare Center	43	00 m		
		12	sq.m.		
	Plain Cement Finish (Waiting Area)	12	sq.m.		
	Wall Finishes	40			
	300mm x 300mm Homogeneous Wall Tiles (CR)	10	sq.m.		
	Ceiling Finishes	40			
	12mm thick Gypsum Board on Metal Framing (Daycare Center)	43	sq.m.		
	12mm thick Moisture Resistant Gypsum Board on Metal Framing				
	Comfort Room	3	sq.m.		
	Eaves	52	sq.m.		
	Fabricated Materials				
	Counter Top Cabinet	3	l.m.		_
				Materials Cost	P
				Labor Cost	
				Direct Cost	P
	Installation of Doors				
	Doors				
	D1 - 1.0m x 2.1m Wooden Panel Door	1	unit	P	P
	D2 - 0.7m x 2.1m PVC Door with Louver	1	unit		
	Door Jambs				
	D1 - 1.0m x 2.1m Wooden Door Jamb	1	unit		
	Hardwares and Accessories				
	Door Knob, Lever-type	2	unit		
	Door Hinge, Heavy Duty	6	unit		
	Installation of Windows				
	W1 - 1.2m x 2.0m Sliding Glass Window on Powder Coated	2	unit		
	Aluminum Frame				
	W2 - 0.5m x 0.5m Awning Glass Window on Powder Coated	1	unit		
	Aluminum Frame				
				Materials Cost	P

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Labor Cost	
				Direct Cost	P

Painting Works Elastomeric Paint Finish (Exterior Wall) Flat Latex Paint Finish (Interior Wall) Daycare Center Comfort Room Flat Latex Paint Finish (Ceiling) Daycare Center 43 sq.m. Comfort Room 3 sq.m. Eaves 40 sq.m. Epoxy Enamel Paint Finish (Steel Surfaces) 34 sq.m.		P
Flat Latex Paint Finish (Interior Wall)		P
Daycare Center 82 sq.m. Comfort Room 16 sq.m. Flat Latex Paint Finish (Ceiling) 43 sq.m. Daycare Center 43 sq.m. Comfort Room 3 sq.m. Eaves 40 sq.m.		
Comfort Room 16 sq.m. Flat Latex Paint Finish (Ceiling) 43 sq.m. Daycare Center 43 sq.m. Comfort Room 3 sq.m. Eaves 40 sq.m.		
Flat Latex Paint Finish (Ceiling)		
Daycare Center 43 sq.m. Comfort Room 3 sq.m. Eaves 40 sq.m.		
Comfort Room 3 sq.m. Eaves 40 sq.m.		
Eaves 40 sq.m.		
Epoxy Enamel Paint Finish (Steel Surfaces) 34 sq.m.		
	Materials Cost	₽
	Labor Cost	
	Direct Cost	P
Mat	terials Cost III C	P
l l	Labor Cost III C	
	Direct Cost III C	P
D SANITARY & PLUMBING WORKS		
Sewer Line System		
50mm Ø PVC Standard Hub Pipe 1 piece P		P
75mm Ø PVC Standard Hub Pipe 1 piece		
75mm Ø x 75mm Ø PVC Wye 1 piece		
50mm Ø x 50mm Ø PVC 1/4 Bend 1 piece		
75mm Ø x 75mm Ø PVC 1/4 Bend 1 piece		
75mm Ø x 75mm Ø PVC 1/8 Bend 1 piece		
50mm Ø PVC P-Trap 1 piece		
50mm Ø PVC Coupling 1 piece		
75mm Ø PVC Coupling 1 piece		
Water Line System		
20mm Ø PPR Pipe, PN 16 1 piece		
20mm Ø PPR 90° Elbow 2 piece		
20mm Ø PPR Female Threaded Adaptor 2 piece		
20mm Ø PPR Coupling 1 piece		
20mm Ø PPR End Cap 2 piece		
Fixtures & Accessories		
Bidet with Accessories, Stainless Heavy Duty (Water Efficient) 1 piece		
Floor Drain, 100mm x 100mm, Stainless 1 piece		
Hose Bibb, Heavy Duty (Water Efficient) 4 unit		
Lavatory, Kiddy Wall-hung 1 unit		
Lavatory Faucet, Lever-type (Water Efficient) 1 unit		
Urinal, Kiddy Flush Type (Water Efficient) 1 unit		
Water Closet, Kiddy Tank Type (Water Efficient) 1 unit		
Accessories		
Angle Valve, One-way, Stainless Steel 1 piece		
Angle Valve, Two-way, Stainless Steel 1 piece		
Flexible Hose, Stainless Steel 2 piece		
Miscellaneous and Consumables		
400cc Solvent Cement 1 can		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	All Around Sealant	2	can		
	Hacksaw Blade	5	piece		
	Teflon Tape	10	roll		
	Waste Cloth	2	kg		
				Materials Cost III D	1
				Labor Cost III D	
				Direct Cost III D	P

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Е	ELECTRICAL WORKS				
	Pipes and Fittings				
	20mm Ø PVC Pipe	60	piece	₽	P
	25mm Ø IMC Pipe	5	piece		
	20mm Ø PVC Adaptor	70	piece		
	20mm Ø PVC Locknut & Bushing	70	pair		
	25mm Ø IMC Elbow	4	piece		
	25mm Ø IMC Coupling	4	piece		
	25mm Ø IMC Locknut & Bushing	4	pair		
	25mm Ø IMC 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		
	14mm² THHN Wire	40	l.m.		
	3.5mm ² TW Wire	1	roll		
	8.0mm ² TW Wire	25	l.m.		
	Lighting Fixtures (Energy Efficient)				
	600mm x 1200mm, 2 x 18w LED, Troffer, Recessed Type	5	set		
	with Complete Accessories				
	6" Ø Round Recessed Pinlight LED	1	piece		
	T5, 28W LED Tube Light	2	piece		
	Emergency Light	1	piece		
	Exit Light	1	piece		
	Wiring Devices		•		
	Orbit Fan, Heavy Duty With Selector Switch	2	piece		
	Outlet with Grounding , Two-gang	5	piece		
	Switch with Plate & Cover, One-Gang	3	piece		
	Switch with Plate & Cover, Two-Gang	1	piece		
	Panel Board		•		
	MDP	1	assy		
	Main: 60 AT, 2P, 230V, Bolt-on		,		
	Branches: 2 - 20AT, 2P, 230V, Bolt-on				
	2 - 30AT, 2P, 230V, Bolt-on				
	Enclosure: NEMA 1 with Ground Terminals				
	MCB	1	2001		
	-	'	assy		
	Main: 60AT, 2P, 230V, MCCB Enclosure: NEMA 3R with Ground Terminals				
	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	30	l.m.		
	Vertical Layout of Pipe	2	I.m.		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	All Around Sealant Electrical Tape	8	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	3	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	5	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Pulling Lubricant	1	gal		
	Rubber Tape	5	roll		
	Torch w/ Butane	2	set		
				Material Cost III E	P
				Labor Cost III E	
				Direct Cost III E	P
				Materials Cost III	P
				Labor Cost III	
				Direct Cost III	P

ITE M	WORK DESCRIPTION AND SCOPE OF WORKS	AMOUNT
- = =	GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF UPPER NAWASA DAYCARE CENTER	Þ
	Striclly enforce health protocols relative to the Overhead, Contingencies and Miscellaneous Expenses (OCM) latest applicable DPWH Memorandum Profit VAT TOTAL ESTIMATED COST	
	TOTAL LOTIMATED GGG	•

BILL OF QUANTITIES

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION

OF PUROK 15 DAY CARE CENTER

LOCATION: BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORKS:

I GENERAL REQUIREMENTS

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

II CONSTRUCTION OF HANDWASHING FACILITY

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

III REHABILITATION OF PUROK 15 DAYCARE CENTER

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

IV TESTING AND COMMISSIONING

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

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	2	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	87	sq.m.		
	Temporary Enclosure Around the Construction Area (h=2.4m)	37	l.m.		
				Direct Cost I	₽
II	CONSTRUCTION OF HANDWASHING FACILITY				
Α	Single Sink Portable Hand Washing Facility	1	unit	₱	₱
				Direct Cost A	
В	SITE WORKS				
	Demolition / Removal Works				
	Chipping of Concrete (Floor)	4	sq.m.	₱	₱
				Direct Cost B	₱
С	CIVIL WORKS				
	Restoration of Concrete (Floor)	4	sq.m.	₱	₱
				Materials Cost C	₽
				Labor Cost C	
				Direct Cost C	₱
D	SANITARY & PLUMBING WORKS				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Sewer Line System				
	50mm Ø PVC Standard Hub Pipe	4	piece	₽	₽
	50mm Ø x 50mm Ø PVC Tee	1	piece		
	50mm Ø x 50mm Ø PVC 1/4 Bend	3	piece		
	50mm Ø PVC Coupling	4	piece		
	50mm Ø PVC Cleanout	1	piece		
	Water Line System				
	20mm Ø PPR Pipe, PN 16	3	piece		
	20mm Ø x 20mm Ø PPR Tee Equal	1	piece		
	20mm Ø PPR Union Patente	1	piece		
	20mm Ø PPR Coupling	3	piece		
	20mm Ø PPR Male Adaptor	2	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Valves and Appurtenances				
	20mm Ø PPR Gate Valve	1	piece		
	Miscellaneous and Consumables				
	400cc Solvent Cement	3	can		
	All Around Sealant	1	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	5	roll		
	Waste Cloth	2	kg		
				Materials Cost D	₽
				Labor Cost D	
				Direct Cost D	₽
				Materials Cost II	₽
				Labor Cost II	
				Direct Cost II	₽
Ш	REHABILITATION OF PUROK 15 DAYCARE CENTER				
Α	Site Works				
	Demolition / Removal Works				
	Removal of Existing Roof	75	sq.m.	₽	₽
	Removal of Ceiling	52	sq.m.		
	Removal of Doors	2	set		
	Removal of Windows	12	sq.m.		
	Removal of Tiles	69	sq.m.		
	Cleaning and Clearing for Painting Preparation	149	sq.m.		
				Direct Cost A	₱
В	Civil Works / Structural Works				
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and Two- Face Plastering	7	sq.m.	₽	₽
	Roofing Works				
		05	00 m		
	Pre-Painted Rib Type G.I Roofing Ga. 24	85 17	sq.m.		
	Pre Painted G.I. Flashing Pre Painted G.I. Ridge Roll	11	I.m.		
	12.5mm x 300mm Fascia Board	23	I.m.		
	6mm Thick One-Sided Aluminum Foil Thermal Insulation	85			
	Tekscrew	850	sq.m. piece		
	Silicon Sealant	5			
	Silicon Sealant	5	tube	Materials Cost B	₽
				Labor Cost B	Г
					Ð
С	Architectural Works			Direct Cost B	₽
	Floor Finishes				
		2	00 m	₽	₽
	400mm x 400mm Non-Skid Homogeneous Floor Tiles 600mm x 600mm Non-Skid Homogeneous Floor Tiles	3	sq.m.	۲	۲
	-	52	sq.m.		
	Floor Topping for Preparation of Tile Works Wall Finishes	57	sq.m.		
		7	00.55		
	300mm x 300mm Homogeneous Wall Tiles	7	sq.m.		
	400mm x 400mm Homogeneous Wall Tiles Ceiling Finishes	10	sq.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	12mm thk Gypsum Board including Metal Framing	52	sq.m.		
	12mm thk Moisture Resistant Gypsum Board including Metal Framing	22	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D1 - (1.0m x 2.1m) Solid Panel Door	1	set	₱	₱
	D2 - (0.6m x 2.1m) PVC Door with Louver	1	set		
	Door Jambs				
	Door Jamb D1 - (2.1m x 1.0m) Panel Door	1	set		
	Hardware and Accessories				
	Door Knob, Lever Type	2	piece		
	Door Hinge, Heavy Duty	6	piece		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Installation of Windows				
	W1 - 3.0m x 1.2m Aluminum Framed Powder Coated Casement Window	1	set		
	W2 - 1.2m x 0.6m Jalousie Window	1	set		
	W3 - 3.0m x 0.6m Jalousie Window	1	set		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₽
	Painting Works				
	Epoxy Enamel Paint Finish (Steel Members)	7	sq.m.	₽	₱
	Elastomeric Paint Finish (Exterior Wall)	118	sq.m.		
	Flat Latex Paint Finish		-		
	Interior Wall	113	sq.m.		
	Ceiling	68	sq.m.		
	3			Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Subtotal	'
	Exterior Painting (Simple Design)	14	sq.m.		
	Exterior Fairting (oimple Design)	17	34.111.	Direct Cost A	₽
				Direct Cost A	
				Materials Cost C	₽
				Labor Cost C	<u>-</u>
				Direct Cost C	₽
	Coniton / Diumbina Warka			Direct Cost C	-
D	Sanitary / Plumbing Works				
	Plumbing Fixtures	4	-:		
	Flat Floor Drain, Stainless, 100mm x 100mm	1	piece	₽	₽
	Kitchen Sink Faucet, Lever-type Stainless Steel (Water Efficient)	1	piece		
	Grease Trap 5 GPM, Stainless, Heavy Duty	1	set		
	Hose Bibb, Stainless, Lever Type (Water Efficieant)	4	piece		
	Kitchen Sink, Single Tub	1	set		
	Lavatory Faucet, Lever-type Heavy Duty Stainless Steel (Water	1	unit		
	Efficient) Lavatory, Wall-hung, Kiddy (Water Efficient)	1	unit		
	Water Closet, Tank Type, Kiddy (Water Efficient)	1	unit		
	Accessories & Hardwares	'	unit		
		4	niono		
	Angle Valve, Stainless Single Way	1	piece		
	Flexible Hose, Stainless	1	piece		
	Miscellaneous & Consumables		0.5:-		
	400cc Solvent Cement	2	can		
	All Around Sealant	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				Materials Cost D	₱
				Labor Cost D	
				Direct Cost D	₽
Е	Electrical Works				
	Roughing-ins				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mmØ PVC Pipe	35	piece	₱	₱
	32mmØ PVC Pipe	7	piece		
	25mmØ IMC Pipe	3	piece		
	Fittings and Accessories				
	20mmØ PVC Adaptor	45	piece		
	20mmØ PVC Locknut and Bushing	45	pair		
	32mmØ PVC Adaptor	4	piece		
	32mmØ PVC Locknut and Bushing	4	pair		
	25mmØ IMC Coupling	2	piece		
	25mmØ IMC Elbow	2	piece		
	25mmØ Weatherproof Entrance Cap	1	piece		
	50mm x 100mm PVC Utility Box	11	piece		
	100mm x 100mm PVC Junction Box with Cover	10	piece		
	Wires and Cables				
	3.5mm² THHN Wire	2	roll		
	14.0mm² THHN Wire	40	l.m.		
	2.0mm² TW Wire	1	roll		
	8.0mm² TW Wire	15	l.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Lighting Fixtures (Energy Efficient)				
	1 x 18W LED, Tube Light, Box Type	5	piece		
	10W LED Bulb	2	piece		
	100mmØ Receptacle	2	piece		
	Wiring Devices & Appliances				
	Convenience Outlet with Ground, Two-Gang	5	piece		
	Switch with Plate & Cover, One Gang	1	piece		
	Switch with Plate & Cover, Two Gang	1	piece		
	Switch with Plate & Cover, Three Gang	1	piece		
	Orbit Fan, Heavy Duty with Selector Switch	3	set		
	Panelboard				
	MCB	1	assy		
	Main: 60AT, 2P, 230V, MCCB		ĺ		
	Enclosure: NEMA 3R with Ground Terminals				
	MDP	1	assy		
	Main: 60AT, 2P, 230V, MCCB		4.00)		
	Branches: 1 - 20AT, 2P, 230V				
	1 - 30AT, 2P, 230V				
	3 - Space				
	Enclosure: NEMA 1 with Ground Terminals				
	Pipe Hangers & Supports				
	Horizontal layout of pipe	15	l.m.		
	Vertical layout of pipe	8	l.m.		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	All around Sealant	3	can		
	Electrical Tape	10	roll		
	G.I Tie Wire (for Cable Pulling)	5	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	5	roll		
	Pulling Lubricant	1			
	Rubber Tape	5	gal roll		
	Trubber Tape	3	1011	Materials Cost E	₽
				Labor Cost E	1
				Direct Cost E	₽
				Direct Cost E	Г
				Materials Cost III	P
					<u> </u>
				Labor Cost III	a
				Direct Cost III	P

ITEM NO	WORK	TOTAL COST	
- = =	CONSTRUCTION OF HANDWASHING FACILITY		₽
,	enforce health protocol relative to the applicable DPWH Memorandum.	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT	₽
		TOTAL ESTIMATED COST	₽

BILL OF QUANTITIES

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF KAUNLARAN DAY CARE CENTER

LOCATION : BARANGAY COMMONWEALTH, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00176

SCOPE OF WORK:

- General Requirements include billboard, clearing, hauling and disposal of construction materials and debris and construction safety & health.
- II Site Works include removal of dilapidated gate, door, window, under counter cabinet, tiles, plumbing fixtures and cleaning and clearing for painting preparation.
- III Civil Structural Works include masonry and metal works.
- IV Architectural Works include floor finishes, wall finishes, painting works, fabricated materials and installation of doors and windows
- V Plumbing Works include installation of waterline, fixtures, hardware and accessories.
- VI Electrical Works include installation of wiring devices and other fixtures.
- VII 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
ı	GENERAL REQUIREMENTS				
	Billboard	1.00	unit	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1.00	t.l.		
	Construction Safety and Health	1.00	unit		
				DIRECT COST I	₽
П	SITE WORKS				
	Removal Works				
	Removal of Dilapidated Gate	1.00	unit		
	Removal of Dilapidated Door	2.00	unit		
	Removal of Dilapidated Window	4.00	sq.m.		
	Removal of Under Counter Cabinet	1.00	sq.m.		
	Removal of Tiles	10.00	sq.m.		
	Removal of Lavatory	2.00	set		
	Removal of Sink	1.00	set		
	Removal of Urinal	1.00	set		
	Removal of Water Closet	1.00	set		
	Clearing and Cleaning for Painting Preparation	109.00	sq.m.		
				DIRECT COST II	P
Ш	CIVIL / STRUCTURAL WORKS				
	Masonry Works				
	Restoration of Concrete (Slab Soffit)	77.00	sq.m.	₱	₱
	Metal Works				
	Gate				
	12mm Square Bar	19.00	kg		
	50mmØ X 4mm G.I. Pipe	33.00	kg		
	Barrel Bolt	1.00	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3.00	piece		
	Miscellaneous & Consumables				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Acetylene Tank (Refill)	1.00	tank		
	Cut Off Blade	3.00	piece		
	Grinding Disc for Metal	3.00	piece		
	Oxygen Tank (Refill)	1.00	tank		
	Welding Rod	1.00	box		
				MATERIALS COST III	₽
				LABOR COST III	
				DIRECT COST III	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	300mm x 300mm Non-Skid Homogeneous Tiles	2.00	sq.m	₽	₽
	Wall Finishes and Partition				
	300mm x 300mm Homogeneous Tiles	9.00	sq.m		
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	46.00	sq.m		
	Epoxy Enamel Paint Finish (Gate)	2.00	sq.m		
	Flat Latex Paint Finish				
	Interior Wall	112.00	sq.m		
	Slab Soffit	69.00	sq.m		
	Exterior Painting (with Simple Design)	64.00	sq.m		
	Fabricated Materials				
	Under Counter Cover (Aluminum)	3.00	l.m.		
	Shelf	4.00	sq.m		
				Materials Cost	₽
				Labor Cost	-
				Subtotal	₽
	Installation of Doors			- Cabiotai	•
	D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Painted Finish	1.00	set	₽	₽
	D2 - (0.70m x 2.10m) Swing Type PVC Door	1.00	set		
	Painted Finish (Kitten White) w/ 400mm X 300mm Louver				
	Door Jamb				
	D1 - (1.00m x 2.10m) Swing Type Flush Hollow Core Door	1.00	set		
	D2 - (0.70m x 2.10m) Swing PVC Door	1.00	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	6.00	set		
	Door Knob, Lever Type, Stainless	2.00	set		
	Installation of Windows				
	W1 -(2.20m x 1.10m) Sliding Window, 6mm Thk,	2.00	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W2 -(0.60m x 0.60m) Awning Window, 6mm Thk,	1.00	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
				Materials Cost	₽
				Labor Cost	1
				Subtotal	₽
				Subiotal	•
				MATERIALS COST IV	P
				LABOR COST IV	•
				DIRECT COST IV	P
v	PLUMBING / SANITARY WORKS			DII(201 0001 IV	•
•	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	4.00	piece	₽	P
	75 mm Ø, Pipe PVC	4.00	piece	·	•
	100mm Ø, Pipe PVC	6.00	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø, P-Trap	3.00	piece		
	75mm Ø, P-Trap	1.00	piece		
	50mm Ø, 1/8 Bend	6.00	piece		
	75mm Ø, 1/8 Bend	2.00	piece		
	100mm Ø, 1/8 Bend	4.00	piece		
	75mm Ø, 1/4 Bend	3.00	piece		
	75mm Ø x 75mm Ø, Tee	2.00	piece		
	100mm Ø x 75mm Ø, Tee	2.00	piece		
	100mm Ø x 50mm Ø, Wye	6.00	piece		
	100mm Ø x 75mm Ø, Wye	2.00	piece		
	100mm Ø x 100mm Ø, Wye	3.00	piece		
	100mm Ø x 50mm Ø, Tee Reducer	2.00	piece		
	100mm Ø, Cleanout with Adapter	3.00	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	3.00	piece		
	20mm Ø, Elbow	10.00	piece		
	20mm Ø, Coupling	3.00	piece		
	20mm Ø, Tee Equal	7.00	piece		
	20mm Ø, Female Threaded, Elbow	4.00	piece		
	20mm Ø, Female Adapter	2.00	piece		
	32mm Ø x 20mm Ø, Reducer	1.00	piece		
	32mm Ø, Union Patente	1.00	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2.00	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1.00	piece		
	Floor Drain, 100mm x 100mm, Stainless	1.00	piece		
	Grease Trap, 5 GPM, Heavy Duty	1.00	piece		
	Kitchen Faucet, Lever Type, Stainless Heavy Duty (Water Efficient)	4.00	piece		
	Lavatory, Faucet, Lever Type, Stainless Heavy Duty (Water Efficient)	1.00	piece		
	Lavatory, Wall Hung, Kiddy	1.00	piece		
	Sink 8" Deep, Stainless Steel	1.00	piece		
	Urinal, Kiddy, Flush Type (Water Efficient)	1.00	piece		
	Water Closet, Kiddy, Tank Type w/ Accessories (Water Efficient)	1.00	piece		
	Accessories				
	Flexible Hose, Stainless Steel	6.00	piece		
	Single Way Angle Valve, Stainless Steel	3.00	piece		
	Two Way Angle Valve, Stainless Steel	1.00	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3.00	can		
	Hacksaw Blade	2.00	piece		
	Teflon Tape	2.00	roll		
	Waste Cloth	1.00	kg		
				MATERIALS COST V	P
				LABOR COST V	
				DIRECT COST V	₽
VI	ELECTRICAL WORKS				
	Roughing-ins				
	16mm x 16mm x 2.44m Rectangular PVC Moulding	20.00	piece		₽
	Wires and Cables				
	3.5mm² THHN Wire	103.00	l.m.		
	Wiring Devices and Fixtures				
	Orbit Fan with Selector Switch	2.00	set		
	Outlet with Grounding, Two-Gang	4.00	set		
	Switch w/ Plate & Cover, Single Gang	1.00	set		
	Switch w/ Plate & Cover, Three-Gang	1.00	set		
	600mm x 1200mm Troffer Type, w/ 2x18W LED Tube Light	6.00	set		
	w/ Complete Accessories, Surface Mounted				
	Miscellaneous & Consumables				
	Electrical Tape	2.00	roll		
				MATERIALS COST VI	P
				LABOR COST VI	
				DIRECT COST VI	P

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION & SCOPE OF WORKS		TOTAL COST
 V V	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS PLUMBING / SANITARY WORKS ELECTRICAL WORKS		P
	y enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

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

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

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

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Leg	al Do	<u>cuments</u>
	(a)	Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
	(b)	and 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;
	(c)	and 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).
Tec	chnica	l Documents
	(f)	Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid (please see attached prescribed forms required by the QC – BAC for Infrastructure 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;
	(i)	 <u>and</u> registration for the type and cost of the contract to be bid; <u>and</u> Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
	(j)	or Original copy of Notarized Bid Securing Declaration; and 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

see attached prescribed form required by the QC - BAC for Infrastructure and Consultancy); and Original duly signed Omnibus Sworn Statement (OSS); \sqcap (k) and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder. Additional Technical Requirements: Certificate of Site Inspection or Affidavit of Site Inspection as part of Omnibus Sworn Statement • Affidavit of Undertaking for Key Personnel and Equipment (please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy) ■ • Equipment Utilization Schedule Manpower Schedule Construction Schedule and S-Curve □ • PERT-CMP ☐ • Construction Methods Financial Documents (1) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and The prospective bidder's computation of Net Financial Contracting Capacity П (m) (NFCC) (please see attached prescribed form required by the QC – BAC for *Infrastructure and Consultancy*). Class "B" Documents If applicable, duly signed joint venture agreement (JVA) in accordance with \square (n) RA No. 4566 and its IRR in case the joint venture is already in existence; or duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful. II. FINANCIAL COMPONENT ENVELOPE (o) Original of duly signed and accomplished Financial Bid Form; and Other documentary requirements under RA No. 9184 Original of duly signed Bid Prices in the Bill of Quantities; and П (p)

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

rentals used in coming up with the Bid; and

Cash Flow by Quarter.

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

(q)

(r)

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM	
Date : Project Identification No. :	

To: [name and address of Procuring Entity]

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

- We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: [insert name of contract];
- b. We offer to execute the Works for this Contract in accordance with the PBDs:
- The total price of our Bid in words and figures, excluding any discounts offered below is: [insert information];
- d. The discounts offered and the methodology for their application are: [insert information];
- e. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of [insert percentage amount] percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines¹ for this purpose;
- We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

¹ currently based on GPPB Resolution No. 09-2020

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

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

Bid Securing Declaration Form

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

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

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

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

I/We, the undersigned, declare that:

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

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

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

[Jurat]

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

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

AFFIDAVIT

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

1. [Select one, delete the other:]

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

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

2. [Select one, delete the other:]

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

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

- 3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. [Select one, delete the rest:]

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

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

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

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

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

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

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

[Jurat]

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

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

CONTRACT AGREEMENT

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

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

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
- The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - a. Philippine Bidding Documents (PBDs);
 - Drawings/Plans:
 - ii. Specifications;
 - iii. Bill of Quantities:
 - iv. General and Special Conditions of Contract;
 - v. Supplemental or Bid Bulletins, if any;
 - Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

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

- c. Performance Security;
- d. Notice of Award of Contract and the Bidder's conforme thereto; and
- e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. <u>Winning bidder agrees that</u> additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.
- In consideration for the sum of [total contract price in words and figures] or such other sums as may be ascertained, [Named of the bidder] agrees to [state the object of the contract] in accordance with his/her/its Bid.

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

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

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

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

for:

for:

[Insert Procuring Entity] [Insert Name of Supplier]

Acknowledgment

Performance Securing Declaration (Revised)

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

REPUBLIC OF THE PHILIPPINES)	
) S.S

PERFORMANCE SECURING DECLARATION

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

I/We, the undersigned, declare that:

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

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

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

[Jurat]

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

PROJECT TIFLE			100000000000000000000000000000000000000		CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR,	TOTAL CONTRACT	DATE OF	CONTRACT			
[Name of the Contract] B. EXACT PROJECT LOCATION	DATE OF CONTRACT	DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	INTEREST IN A 1/2 and PERCENTAGE OF PARTICIPATION	VALUE AT AWARD	COMPLETION of ESTIMATED COMPLETION TIME	VALUE AT COMPLETION IF APPLICABLE	ACTUAL ACCOMPLISHMENT	PLANNED ACCOMPLISHMENT	VALUE OF OUTSTANDIN WORKS (IN PHP)
									TOTAL AMOUNT OUTSTANDING V		

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page of

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

OF CONTRACT (Php)

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

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page___of___

NAME OF CONTRACTOR: PROJECT TITLE:

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

	4	
Page	454	
- W. B. W.		

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)

Page		
1 age	OI.	

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.

Page	of	
F HELD	174	

COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

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

NOTES:

- CURRENT ASSETS AND LIABILITIES BASED ON AUDITED FINANCIAL STATEMENT FOR THE PRECEDING CALENDAR YEAR SUBMITTED TO B.I.R.
- ** BASED ON LIST OF ON-GOING AND AWRDED BUT NOT YEY STARTED CONTRACTS SUBMITTED

)	S. S.					
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REPR	ESENTA'	TIVE)					301.1140.01486	100000000000000000000000000000000000000	
with c	office add	ress at							after
having	g been du	ly sworn	to in accord	ance with law	, hereby	y volum	atary depose an	d state:	-
	That 1 a underta	ım duly king ası	authorized i	representative / Secretary's C	of the . Certifica	[Nam	e of Bidder Board Resoluti	to execution.	te this
	That _	IName	of Bidder	_bidding for	the (Na	me of l	Project)		
	that the	equipm	ent to be use	ntioned Project and the key p project until i	ersonne	d to be	assign shall ex	_hereby undertal clusively be used	ke l and
	That I a with the	m execut	ing this affic	davit to attest technical requir	o the tr	uth of for the	the foregoing a public bidding	nd in compliance g of the said proje	ect.
of	IN WI	INESS 1	HEREOF, I	have hereun	to sign	ned m	y name belov	v this	day
	AFFIAN	IT FURT	HER SAYET	'H NAUGHT.					
							Affiant		
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Notary Public

