## PHILIPPINE BIDDING DOCUMENTS

# Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1)

**Project number:** 

20-00150B

Sixth Edition July 2020

#### **Preface**

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

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

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

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

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

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

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

## TABLE OF CONTENTS

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

7.	Warranty	21
8.	Liability of the Contractor	21
9.	Termination for Other Causes	21
10.	Dayworks	21
11.	Program of Work	22
12.	Instructions, Inspections and Audits	22
13.	Advance Payment	22
14.	Progress Payments	22
15.	Operating and Maintenance Manuals	22
Section	V. Special Conditions of Contract	24
Section	VI. Specifications	26
	VII. Drawings	
	VIII. Bill of Quantities	
	IX. Checklist of Technical and Financial Documents	
Decuon	1/1. Checking of a comment and I mancial Documents	····· JI

## Glossary of Terms, Abbreviations, and Acronyms

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

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

**BAC** – Bids and Awards Committee.

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

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

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

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

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

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

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

**CPI** – Consumer Price Index.

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

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

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

**GFI** – Government Financial Institution.

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

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

**GOP** – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC - Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

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

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

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**UN** – United Nations.

#### Section I. Invitation to Bid

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

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

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

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

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



# REPUBLIC OF THE PHILIPPINES QUEZON CITY GOVERNMENT BIDS AND AWARDS COMMITTEE FOR INFRASTRACT



## BIDS AND AWARDS COMMITTEE FOR INFRASTRACTURE & CONSULTANCY

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

May 25, 2021

## **Invitation to Bid**

No •	Project No.	Project Name	Location	Amount	Durati on Cal. Days	Office	Source Fund
Bui	ldings – S	mall B					
1	21- 00039	Proposed Upgrading of Service Entrance at Payatas B Annex Elementary School	Payatas	1,015,592.29	30	City Engineering Department	Special Education Fund
2	21- 00040	Proposed Upgrading of Service Entrance at Carlos P. Garcia High School	E. Rodriguez	1,677,689.20	60	City Engineering Department	Special Education Fund
3	21- 00041	Proposed Construction of Vending Site at Mangga Street	Katipunan	2,077,798.42	60	City Engineering Department	Engineering Department
4	21- 00042	Proposed Rehabilitation of Electrical System at Demetrio Tuazon Elementary School	Lourdes	2,554,487.62	90	City Engineering Department	Special Education Fund
5	21- 00043	Proposed Rehabilitation of Old Barangay Hall at Barangay Libis (Phase 2)	Libis	3,282,450.73	90	City Engineering Department	Engineering Department
6	21- 00044	Proposed Construction of Stage at San Francisco Elementary School	Del Monte	3,299,250.05	90	City Engineering Department	Engineering Department- Continuing
7	21- 00045	Proposed Rehabilitation of Electrical System at Police Station 5	Fairview	3,330,404.77	90	City Engineering Department	Engineering Department
Bui	ldings – N	ledium A					
8	21- 00046	Proposed Construction of Sto. Domingo Multi- Purpose Building (Phase 1)	Sto. Domingo	122,645,062.03	420	City Engineering Department	OCM-20% Community Development Fund
Bui	ldings – N	<u>1edium B</u>					
9	21- 00047	Proposed Construction of Seven (7) Storey Academic Building at QCU Main Campus (Phase 2)	San Bartolome	167,209,016.04	420	City Engineering Department	Trust Fund
10	20- 00150B	Proposed Construction of New Kamuning Public Market (Phase 1)	Kamuning	173,882,714.62	510	City Engineering Department	Engineering Department
Roa	ds – Small E	!					

11	21- 00048	Proposed Rehabilitation (Surface Improvement) of Makabayan Street	Obrero	1,394,478.44	20	City Engineering Department	OCM-20% Community Development Fund
12	21- 00049	Proposed Rehabilitation (Surface Improvement) of Parkway Street	Obrero	1,470,652.26	20	City Engineering Department	OCM-20% Community Development Fund
13	21- 00050	Proposed Rehabilitation (Surface Improvement) of Rolling Road	Obrero	1,764,985.43	25	City Engineering Department	OCM-20% Community Development Fund
14	21- 00051	Proposed Rehabilitation (Surface Improvement) of Mabilis Street	Pinyahan	2,570,503.04	25	City Engineering Department	OCM-20% Community Development Fund
15	21- 00052	Proposed Rehabilitation (Surface Improvement) of Dasmariñas Street	Damar	3,056,767.14	20	City Engineering Department	OCM-20% Community Development Fund
16	21- 00053	Proposed Rehabilitation of Road and Drainage at Ilang-llang Street (St. Andrew Subdivision)	Nagkaisang Nayon	4,217,010.66	90	City Engineering Department	OCM-20% Community Development Fund
17	21- 00054	Proposed Rehabilitation (Surface Improvement) of Corumi Street	Masambong	5,754,890.03	40	City Engineering Department	OCM-20% Community Development Fund
18	21- 00055	Proposed Rehabilitation of Road and Drainage at Batangas Street	Alicia	6,645,595.96	120	City Engineering Department	OCM-20% Community Development Fund
19	21- 00056	Proposed Rehabilitation of Road and Drainage at Actuarial Street	Bahay Toro	8,773,209.77	150	City Engineering Department	OCM-20% Community Development Fund
20	21- 00057	Proposed Rehabilitation of Road and Drainage at Linaw Street	Sienna	10,884,632.54	180	City Engineering Department	OCM-20% Community Development Fund
21	21- 00058	Proposed Rehabilitation of Road and Drainage at Road 23	Bahay Toro	14,841,163.26	180	City Engineering Department	OCM-20% Community Development Fund
22	21- 00059	Proposed Rehabilitation of Road and Drainage at Zamora Street	Paltok	17,526,621.80	180	City Engineering Department	OCM-20% Community Development Fund

- The QUEZON CITY LOCAL GOVERNMENT, through funding source of various years
  intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to
  payments under the contract for the above stated Projects. Bids received in excess of the ABC
  shall be automatically rejected at bid opening.
- 2. The QUEZON CITY LOCAL GOVERNMENT now invites bids for the above Procurement Project. Completion of the Works is required as stated above. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
- 3. Bidding will be conducted through open competitive bidding procedures using non-discretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

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

#### ATTY. DOMINIC B. GARCIA

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

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

Website: www.quezoncity.gov.ph

12. You may visit the following websites:

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

By:

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

## Section II. Instructions to Bidders

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

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

#### 1. Scope of Bid

The Procuring Entity, Quezon City Government invites Bids for the PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1), with Project Identification Number 20-00150B.

[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 **One Hundred Seventy-Three Million Eight Hundred Eighty-Two Thousand Seven Hundred Fourteen Pesos & 62/100 Ctvs.** (P 173,882,714.62).
- 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 June 3, 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 additional contractor license or permit is required  In addition, eligible bidders shall qualify or comply with the following:			
	,	- "	•	
	Bidders with valid Philip     Type	opine Contractors Accre	editation Board (PCAB)	
	Buildings - Medium	а В		
10.4	The minimum work exposition following:	erience requirements	for key personnel are the	
	Qnty. Key Personnel	General Experience	Relevant Experience	
	1 Project Engineer	3 years	3 years	
	1 DPWH duly accred Materials Engineer		3 years	
	1 Safety Officer	3 years	3 years	
	1 Foreman	3 years	3 years	
	35 Skilled Worker	3 years	3 years	
	1 Driver	3 years	3 years	
	70 Laborer/Helper	1 year	3 months	
		foregoing personnel sh	idavit of undertaking duly all perform work exclusively ached bid forms.	
10.5	The minimum major equipment requirements are the following:			
	Equipment Scaffolding (H-Frame) Power Tools Minor Tools Insulation Resistance Teste Cutoff Machine Elf Truck	Capacity	Number of Units as needed as needed as needed 4 8 3	

	In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing equipment shall be used exclusively for the project until its completion. Please see attached bid forms.
12	[Insert Value Engineering clause if allowed.]
15.1	The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:
	a) The amount of not less than Php 3,477,654.29 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or
	b) The amount of not less than Php 8,694,135.73 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.
19.2	<b>Partial bid is not allowed.</b> The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	No additional requirement.
21	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 510 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	payment  The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is ten (10%) percent of the contract price.

## Section VI. Specifications

#### **Notes on Specifications**

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

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

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

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

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

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

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

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



## Republic of the Philippines Quezon City

#### CITY ENGINEERING DEPARTMENT



Civic Center Building B, Quezon City Hall Compound, Elliptical Road Diliman, Central 1100 Quezon City Trunk line: +63 2 8988 4242

PROJECT TITLE:

PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET

(PHASE 1)

LOCATION:

BARANGAY KAMUNING DISTRICT 4, QUEZON CITY

## TECHNICAL SPECIFICATIONS QUEZON CITY INFRASTRUCTURE PROJECT

#### I. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- e. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- h. Mobilization and Demobilization (if applicable)
  - 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

- 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 facilities and first aid stations.
- iii. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
- v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- vi. Upon completion of the work, the temporary facilities shall be demolished, 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 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 avoid untoward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

#### II. SITE WORKS

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

#### III. CIVIL / STRUCTURAL WORKS

#### A. CONCRETE WORK

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

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

#### c. Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).
- ii. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be 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 larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

#### d. Proportioning and Mixing

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

Cement: Sand: Gravel

Class "A" - 1:2:3

Class "B" - 1 : 2 : 4

• Class "C" - 1:2 1/2

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

#### e. Forms

- i. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ½" waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material.
- 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.

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

#### i. Finishing

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

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

#### b. Sand:

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

### c. Mortar:

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

#### d. Plaster bond:

Apply plaster bond to all wall area.

### C. WATERPROOFING

### a. Waterproofing:

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

#### b. Testing:

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

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

### IV. ARCHITECTURAL WORKS

### A. PAINTING WORKS

- a. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- b. Application shall be as per paint Manufacturer's specification and recommendation.
- c. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
- d. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.

- e. All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- f. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

### V. SANITARY / PLUMBING WORKS

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

- distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

## VI. ELECTRICAL WORKS

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

#### F. PANELBOARDS

- F.1 Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
  - F.2.1 Rated for environmental conditions at installed location.
    - i. Indoor Dry and Clean Locations: NEMA 250, Type 1.
    - Outdoor Locations: NEMA 250, Type 3R.
    - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
    - Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
    - v. Indeor Locations Subject to Dust, Falling Dirt, 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 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 pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
- ii. Back Boxes: Galvanized steel Same finish as panels and trim.
- iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.

- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
  - F.4.1 Material: Hard-drawn copper, 98 percent conductivity.
  - F.4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
  - F.4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

## VII. MECHANICAL WORKS

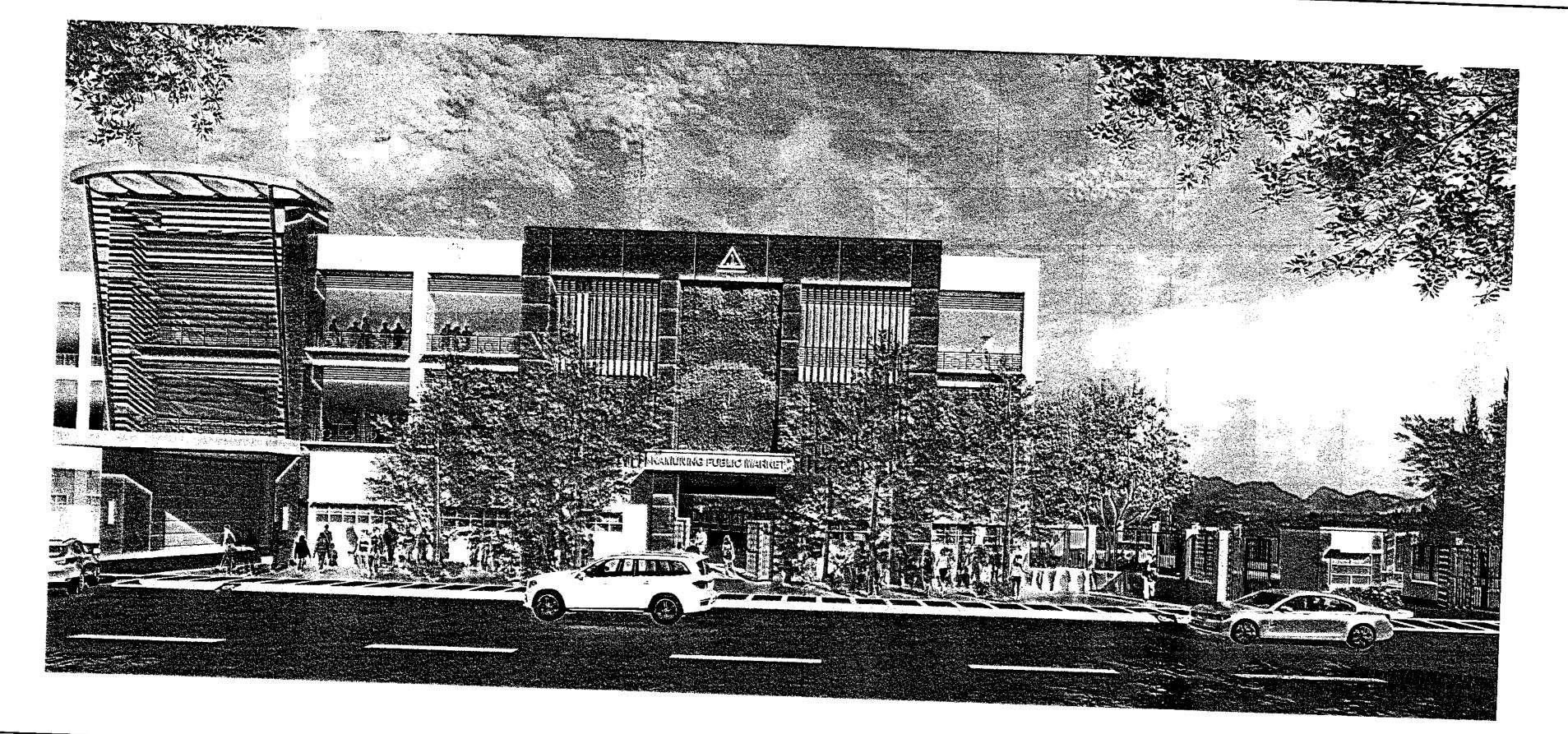
- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements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

Vergel Jerome A. Mapili Planning and Programming Division

Jocetyn & Nacng
Planning and Programming Division

# Section VII. Drawings

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



AR-12 DETAIL OF GUARD HOUSE, DETAIL OF PERIMETER FENCE
AR-13 DETAIL OF TOILETS AR-14 DETAIL OF STAIRS
AR-15 DETAIL OF PUMP ROOM LAND USE & ZONING AR-16 DETAIL OF ELECTRICAL ROOM & GENSET STRUCTURAL ST-01 | GENERAL NOTES AND SPECIFICATIONS ST-02 FOUNDATION PLAN
ST-03 SECOND FLOOR FRAMING PLAN; THIRD FLOOR FRAMING PLAN ST-04 ROOF DECK FRAMING PLAN, I HIRD FLOOR FRAMING PLAN
UPPER DECK STAIR 02, CROSS SECTION, LONGITUDINAL SECTION
COLUMN SCHEDULE, BEAM SCHEDULE ST-05 TYPICAL BEAM TO COLUMN CONNECTION 01
TYPICAL BEAM TO COLUMN CONNECTION 02 ST-05

TYPICAL BEAM TO COLUMN CONNECTION 02
TYPICAL BEAM TO BEAM CONNECTION
PEDESTAL, BASE PLATE & ANCHOR BOLT DETAIL, SLAB DETAIL

FOOTING TIE BEAM DETAIL, DETAIL & SCHEDULE OF PEDESTAL FOOTING
WALL FOOTING DETAIL, DETAIL OF STAIR, DETAIL OF STAIR FOOTING
STAIR DETAIL STAIR DETAIL

GENERAL NOTES, FOUNDATION PLAN (PUMP ROOM)
FOUNDATION PLAN (GENSET & ELECTRICAL ROOM)
DETAIL OF COLUMN FOOTING (CIF), DETAIL OF WALL FOOTING
DETAIL OF ROOF BEAM, FOUNDATION PLAN (GENSET CONCRETE PAD)

ROOF FRAMING PLAN (PUMP ROOM), TRUSS DETAIL (PUMP ROOM)
SPOT DETAIL "A", ROOF FRAMING PLAN (ELECTRICAL ROOM & GENSET)
TRUSS DETAIL (ELECTRICAL ROOM & GENSET), SPOT DETAIL "B"

FOUNDATION PLAN (GUARD HOUSE), ROOF DECK FRAMING
DETAIL OF COLUMN FOOTING, DETAIL OF WALL FOOTING
DETAIL OF SERVICE ENTRANCE COLUMN

ST-10

FOUNDATION PLAN (ELEVATOR), FRAMING PLAN (ELEVATOR)
ELEVATOR PIT DETAIL, ELEVATOR SECTION DETAIL
FOUNDATION PLAN (CISTERN & FIRE TANK) ARCHITECTURAL FOUNDATION PLAN (CISTERN & FIRE TANK) FRAMING PLAN (CISTERN & FIRE TANK) SECTION (CISTERN & FIRE TANK) SLAB DETAIL (CISTERN & FIRE TANK) SCHEDULE OF BEAMS, CANOPY DETAIL (DRIVEWAY) CANOPY DETAIL (ENTRANCE) TYPICAL CONNECTION DETAIL OF LBEAM TO I-BEAM LEDGE DETAIL, TYPICAL DETAIL SECTION OF CANOPY) PERSPECTIVE ST-12 UPPER CANOPY DETAIL VERTICAL GARDEN GREEN WALL DETAIL CIVIL / STRUCTURAL ELECTRICAL EL-01 GENERAL NOTES, LEGEND & SYMBOLS, VICINITY MAP NOT TO SCALE EL-02 | FDAS SINGLE LINE RIGER DIAGRAM EL-04 SCHEDULE OF LOADS

EL-05 GROUND FLOOR LIGHTING LAYOUT

EL-06 TYPICAL SECOND & THIRD FLOOR LIGHTING LAYOUT
DECK LIGHTING LAYOUT & GROUNDING SYSTEM LAYOUT

EL-07 GROUND FLOOR POWER LAYOUT & GROUNDING SYSTEM LAYOUT
DECK POWER LAYOUT

EL-09 TYPICAL SECOND & THIRD FLOOR CEILING FAN LAYOUT
TYPICAL SECOND & THIRD FLOOR CABLE TRAY LAYOUT

EL-10 GROUND FLOOR FIRE DETECTOR ALARM SYSTEM LAYOUT

EL-11 TYP. SECOND & THIRD FLOOR FIRE DETECTOR ALARM SYSTEM LAYOUT

EL-12 GROUND FLOOR CCTV AND TELEPHONE LAYOUT

EL-13 TYPICAL SECOND & THIRD FLOOR CCTV AND TELEPHONE LAYOUT THE SITE URÊAU OF RESEARCH A EL-13 TYPICAL SECOND & THIRD FLOOR CCTV AND TELEPHONE LAYOUT
DECK CCTV LAYOUT INEZON GITY EL-14 TYPICAL CABLE TRAY SUPPORT DETAIL, TYPICAL LIGHTING DETAIL
CABLE TRAY DETAIL MECHANICAL MECHANICAL GENERAL NOTES, LEGENDS & SYMBOLS, EQUIPMENT SCHEDULE VICINITY MAP, PIPE SLEEVE DETAIL REFRIGERANT & CONDENSATE DRAIN PIPE DETAIL KANUN-ING DETAIL OF GALVANIZED CLEVIS HANGER DETAIL OF GALVANIZED LOOP HANGER MP-02 GROUND FLOOR VENTILATION AND AIR-CONDITIONING LAYOUT

MP-03 SECOND FLOOR VENTILATION AND AIR-CONDITIONING LAYOUT
THIRD FLOOR VENTILATION AND AIR-CONDITIONING LAYOUT

OVER HEAD PLAN (PASSENGER & FREIGHT)
SHAFT PLAN (PASSENGER & FREIGHT)
STRUCTURAL OPENING ENTRANCE BANGER OF SERVICE OF SERVICE SERVICES. QUEZON CITY/ HIGH SCHOOL STRUCTURAL OPENING ENTRANCE, DIMENSION OF SIGNAL FIXTURES SECTION OF HOISTWAY, LAYOUT MANUAL FIRE PROTECTION KAMUNING == GENERAL NOTES, MATERIAL SPECIFICATION, LEGEND & SYMBOLS EQUIPMENT SCHEDULE, DETAIL OF FIRE PUMP & JOCKEY PUMP DETAIL OF GALV, CLEVIS HANGER, DETAIL OF GALV, LOOP HANGER FP-02

DETAIL OF GALV. CLEVIS HANGER, DETAIL OF GALV. LOOP HANGER
DETAIL OF ROOF MANIFOLD, PENDENT TYPE SPRINKLER HEAD,
SIDE WALL TYPE SPRINKLER HEAD, UPRIGHT SPRINKLER HEAD
DETAIL OF FIRE HOSE VALVE, SET-UP VALVE ALARM DETAIL
DETAIL OF SIAMESE CONNECTION, DETAIL OF FLUSHING CONNECTION
DETAIL OF INSPECTOR'S TEST PIPE, DETAIL OF FIRE HOSE CABINET
DET. OF PIPE SLEEVE THRU WALL, DET. OF PIPE SLEEVE THRU FLOOR FP-03 GROUND FLOOR FIRE PROTECTION LAYOUT PLAN SECOND FLOOR FIRE PROTECTION LAYOUT PLAN
THIRD FLOOR FIRE PROTECTION LAYOUT PLAN **PLUMBING** 

PHIAGRAISAHAN

PINAGKATSAHAN EULOGIO RODRIGUEZ SR. (ESPANA EXTENSION

VICINITY MAP

Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY



PROVISO: DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE MITELLECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE ORJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFIL FOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS TO DURY COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROLECTIONS WHETHER PROLECTIONS WHETHER PROLECTIONS WHETHER EXECUTED PARTLY OR IN WHOLE

CITY ARCHITECT

RECOMMENDING APPROVAL ARCH, LUCILLE H. CHUA, fuap, piep

ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

NOT TO SCALE

HON. MA. JOSEFINA G. BELMONTE

APPROVED BY

**LOCATION MAP** 

PROPOSED CONSTRUCTION OF **NEW KAMUNING PUBLIC MARKET** (PHASE 1) LOCATION: BRGY. KAMUNING, QUEZON CITY

PROJECT TITLE:

NOT TO SCALE

SHEET CONTENTS

FP-05 DECK FIRE PROTECTION LAYOUT PLAN

PL-01 GENERAL NOTES, LEGEND & SYMBOLS
DETAIL OF AREA DRAIN / CATCH BASIN
ISOMETRIC VIEW OF SEWER LINE LAYOUT

PL-03 GROUND FLOOR SEWER LINE LAYOUT

PL-06 SECOND FLOOR WATER LINE LAYOUT THIRD FLOOR WATER LINE LAYOUT

ISOMETRIC VIEW OF WATER LINE LAYOUT ISOMETRIC VIEW OF SEWER LINE LAYOUT

PL-04 SECOND FLOOR SEWER LINE LAYOUT
THIRD FLOOR SEWER LINE LAYOUT

PL-05 DECK STORM DRAIN LAYOUT, UPPER DECK STORM DRAIN LAYOUT
GROUND FLOOR WATERLINE LAYOUT

PLUMBING

PERSPECTIVE VICINITY MAP LOCATION MAP TABLE OF CONTENTS

TABLE OF CONTENTS

ARCHITECTURAL

AR-05' TYPICAL SECOND & THIRD FLOOR PATTERN LAYOUT DET, OF FLOOR PATTERN @ CENTER & DET, OF FLOOR PATTERN @ SIDE

AR-09 FRONT ELEVATION, FACADE SPOT DETAIL 01
FACADE SPOT DETAIL 02, VERTICAL GARDEN GREEN WALL DETAIL

AR-04 GROUND FLOOR PLAN

AR-05 SECOND FLOOR PLAN, THIRD FLOOR PLAN

AR-06 DECK PLAN, UPPER DECK PLAN FRONT ELEVATION, REAR ELEVATION

AR-07 RIGHT SIDE ELEVATION, LEFT SIDE ELEVATION AR-08 LONGITUDINAL SECTION, CROSS SECTION

AR-10 SCHEDULE OF DOORS, WINDOWS & GATES

AR-11 DETAIL OF TEXTILE STALL

PERSPECTIVE, VICINITY MAP, LOCATION MAP, TABLE OF CONTENTS
EXISTING SITE CONDITION (TEXTILE STALL ONLY)

Republic of the Philippines DEPARTMENT OF PUBLIC WORKS & HIGHWAYS

OFFICE OF THE BUILDING OFFICIAL

DISTRICT / CITY / MUNICIPALITY

LINE & GRADE

ELECTRICAL

SANITARY

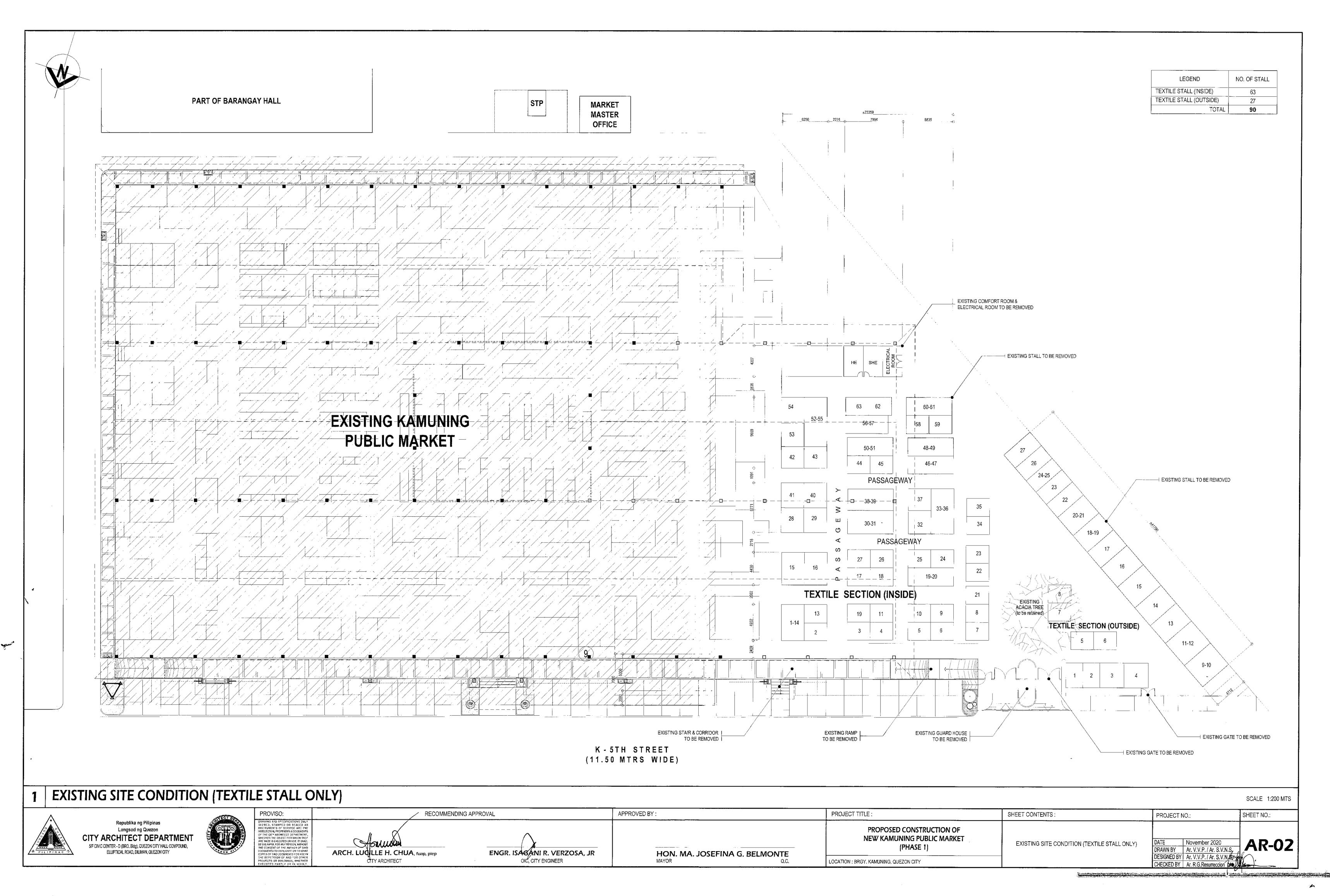
**ELECTRONICS** 

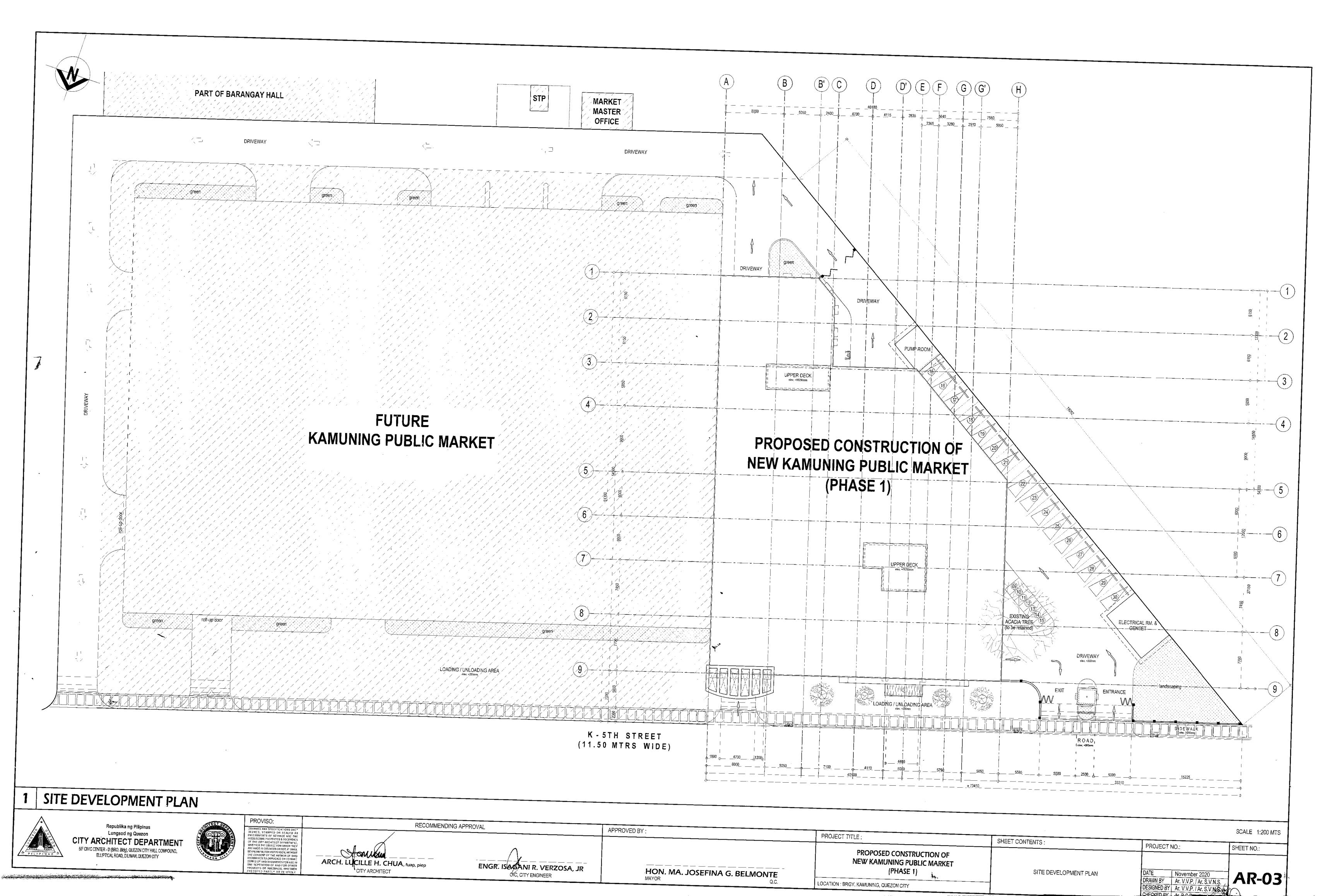
GEODETIC ENGINEER

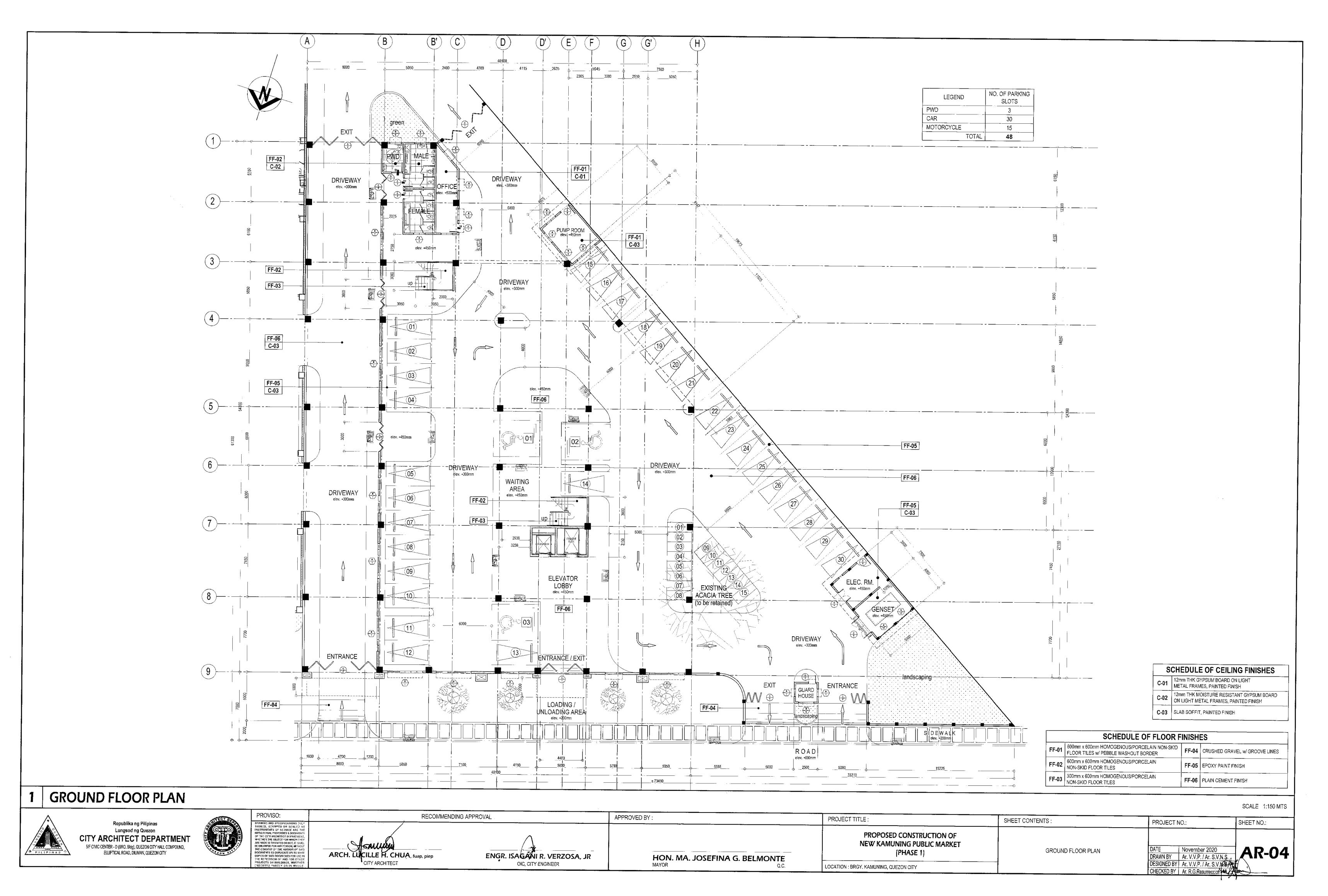
DRAWN BY Ar. V.V.P. / Ar. S.V.N.S.

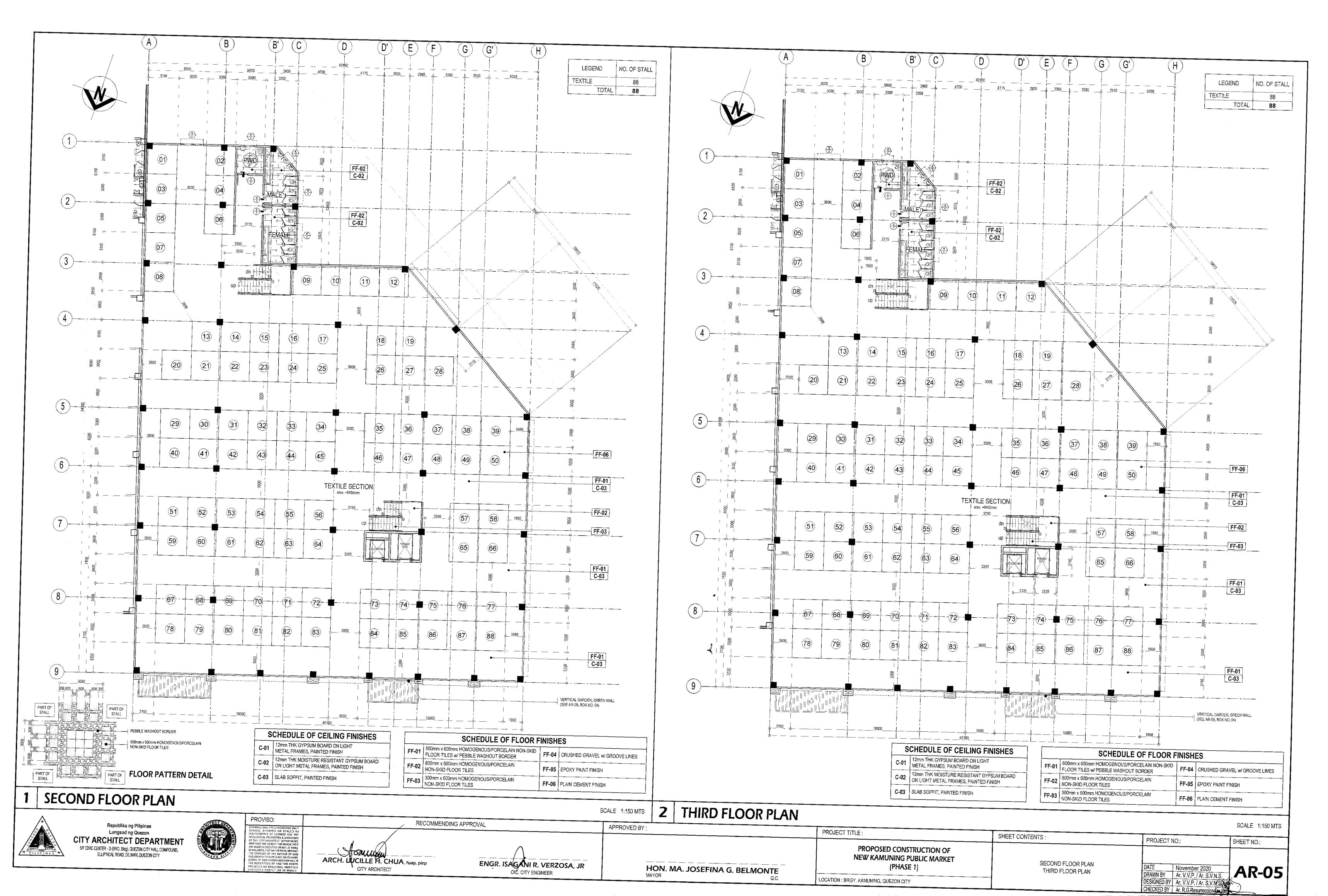
PROJECT NO .:

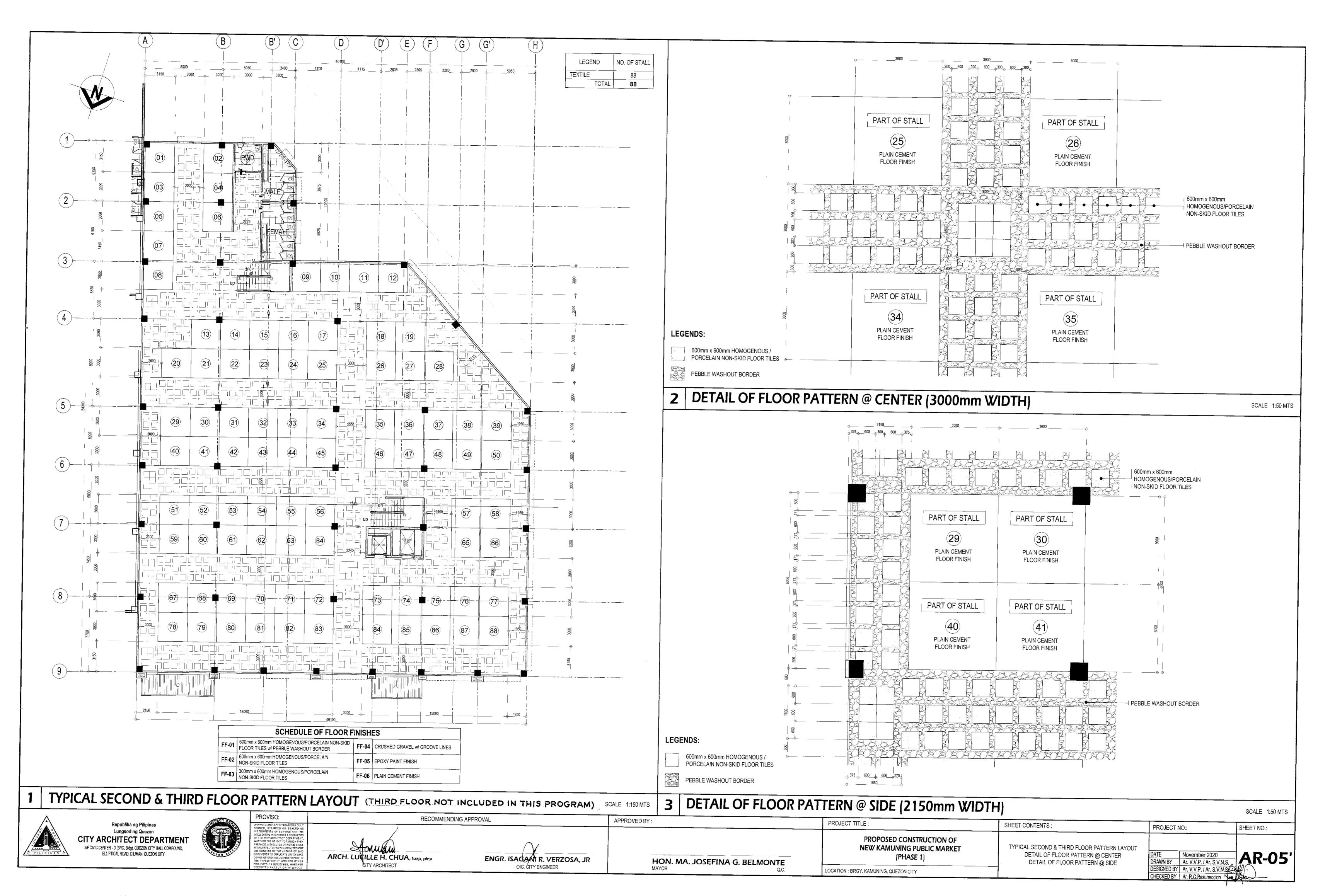
SHEET NO .:

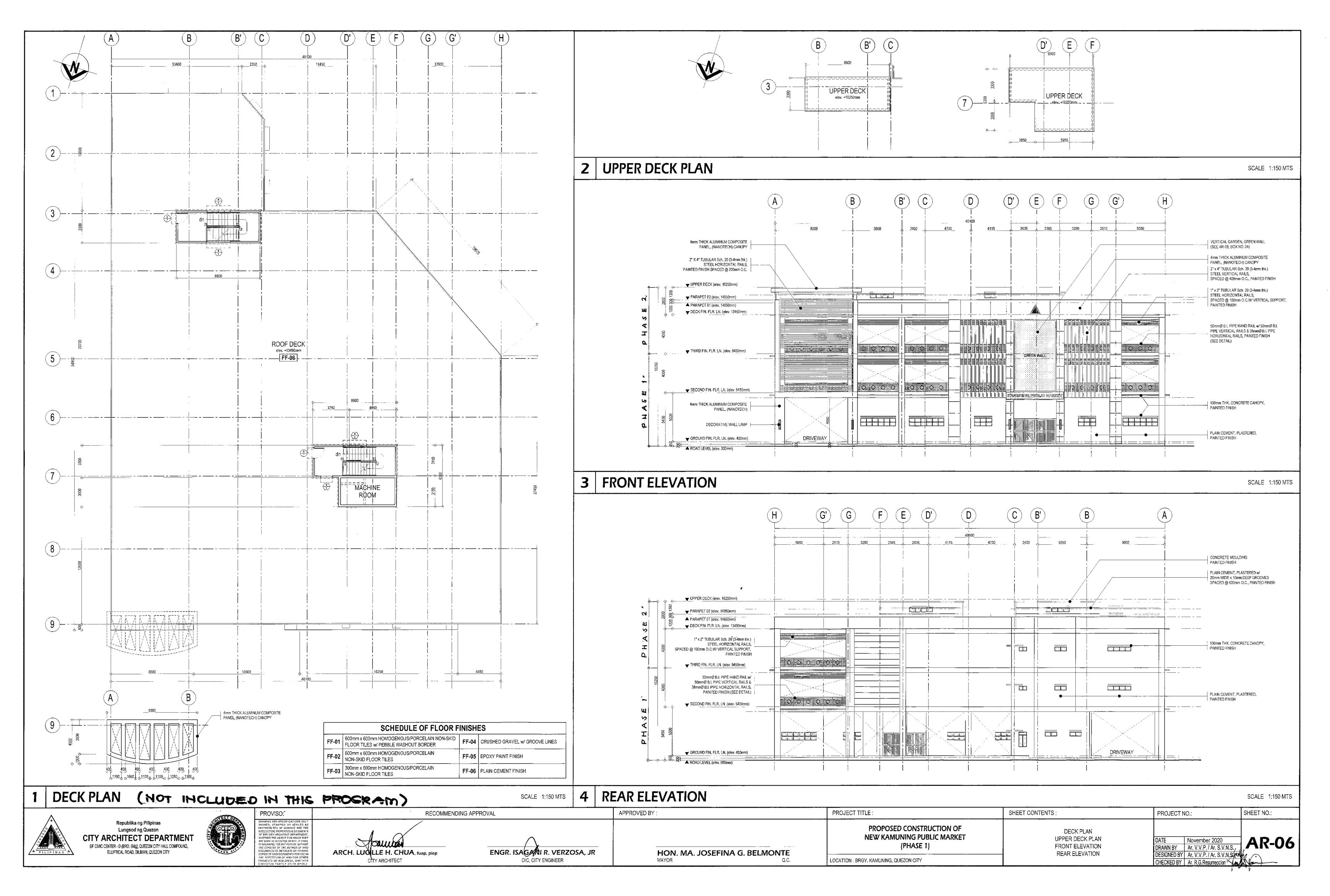


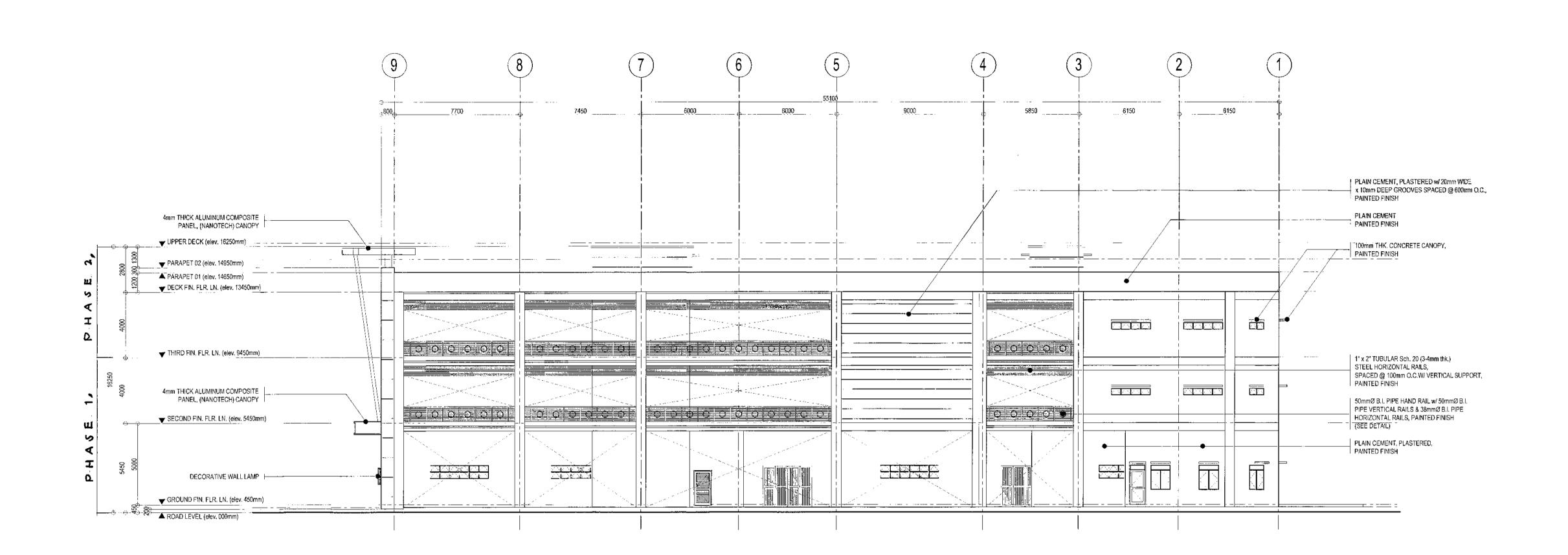






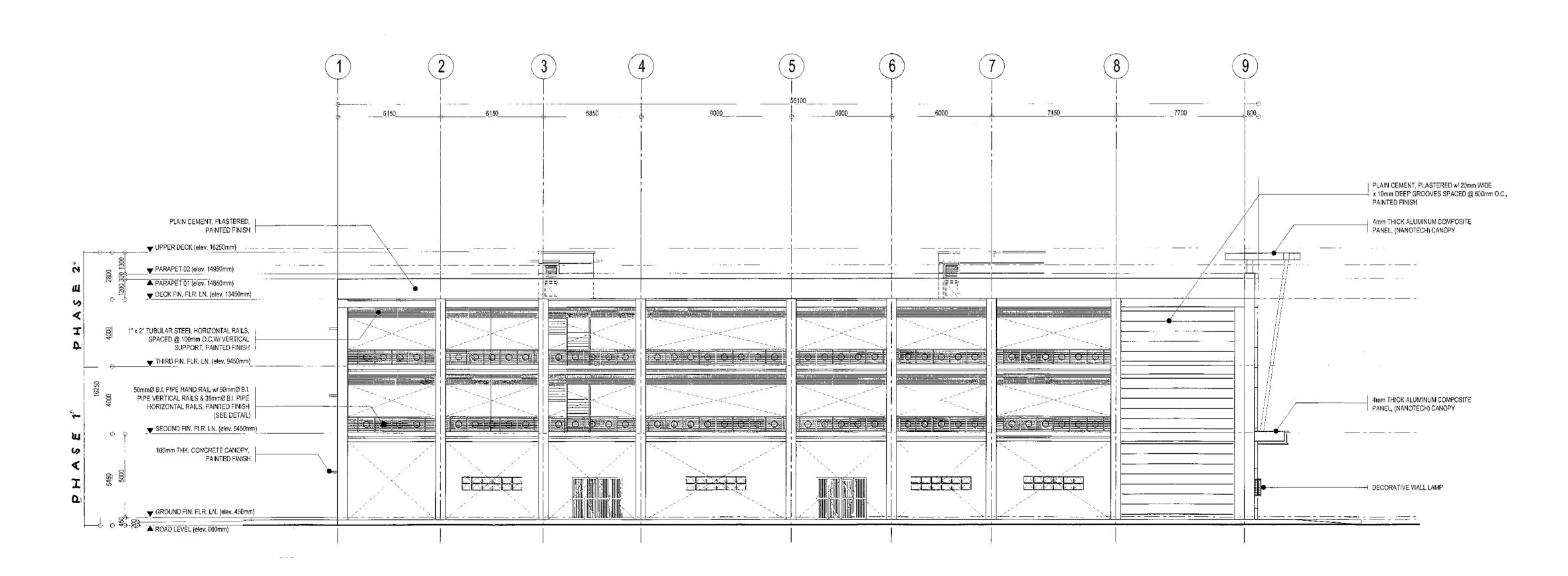






1 RIGHT SIDE ELEVATION

SCALE 1:150 MTS



APPROVED BY:

2 LEFT SIDE ELEVATION

SCALE 1:150 MTS

SHEET NO.:

P.I.L. I F.I.N.A.S.

Republika ng Pilipinas
Lungsod ng Quezon
CITY ARCHITECT DEPARTMENT
5/F CIVIC CENTER - D (BRO. Bldg); QUEZON CITY HALL COMPOUND,
ELLIPTICAL ROAD, DILIMAN, QUEZON CITY



PROVISO:

DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES A DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY DERSON, WITHOUT THE CONSTIT OF THE AUTHOR OF SAID DOCUMENTS TO DUPLYATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

ARCH. LUCILLE H. CHUA, fuap, piep

CITY ARCHITECT

_	ENGR. ISAGANI R. VERZOSA, JI OIC, CITY ENGINEER

HON. MA. JOSEFINA G. BELMONTE

PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1)	
CATION : BRGY. KAMUNING, QUEZON CITY	

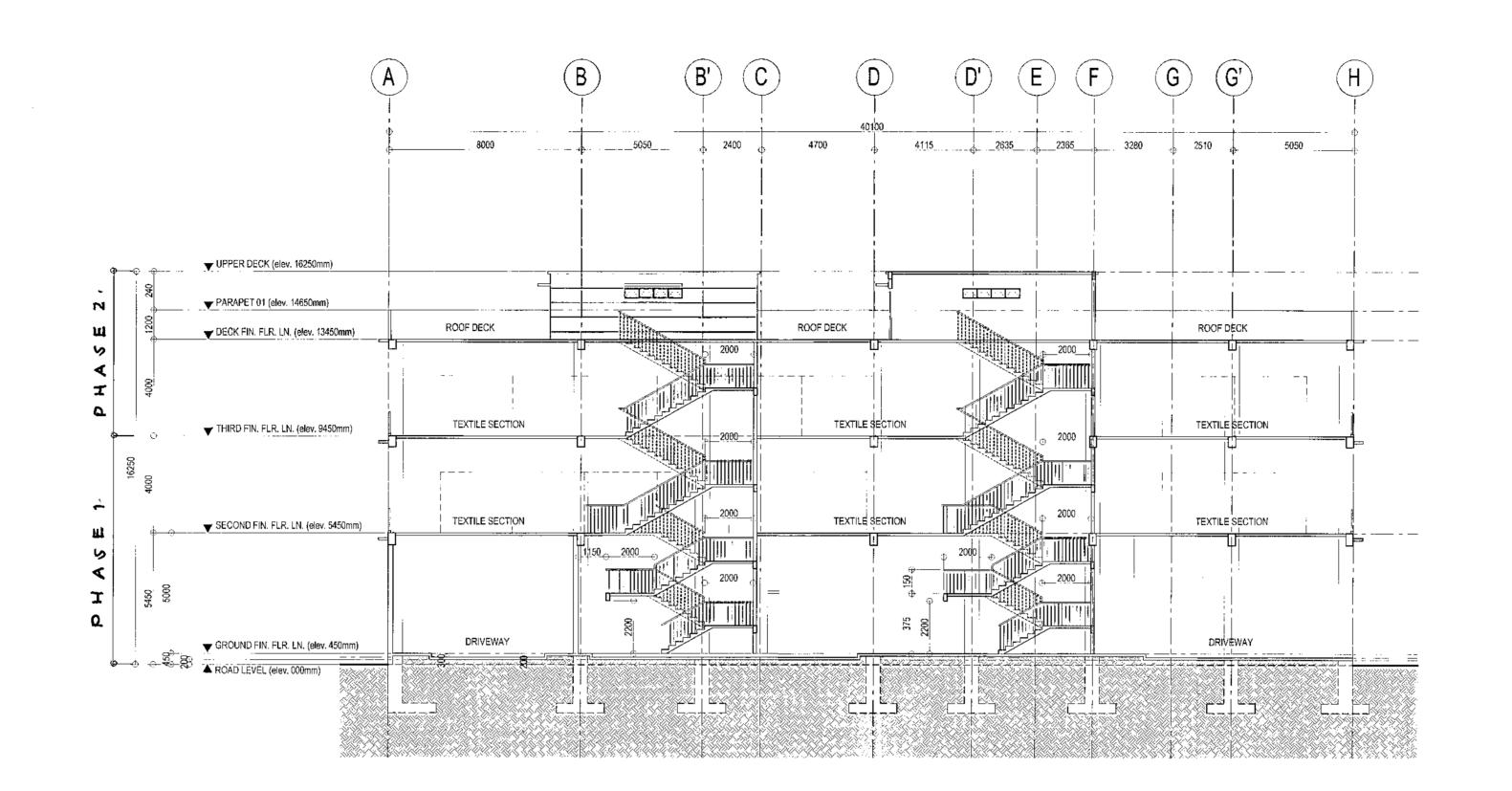
PROJECT TITLE:

RIGHT SIDE ELEVATION LEFT SIDE ELEVATION

SHEET CONTENTS:

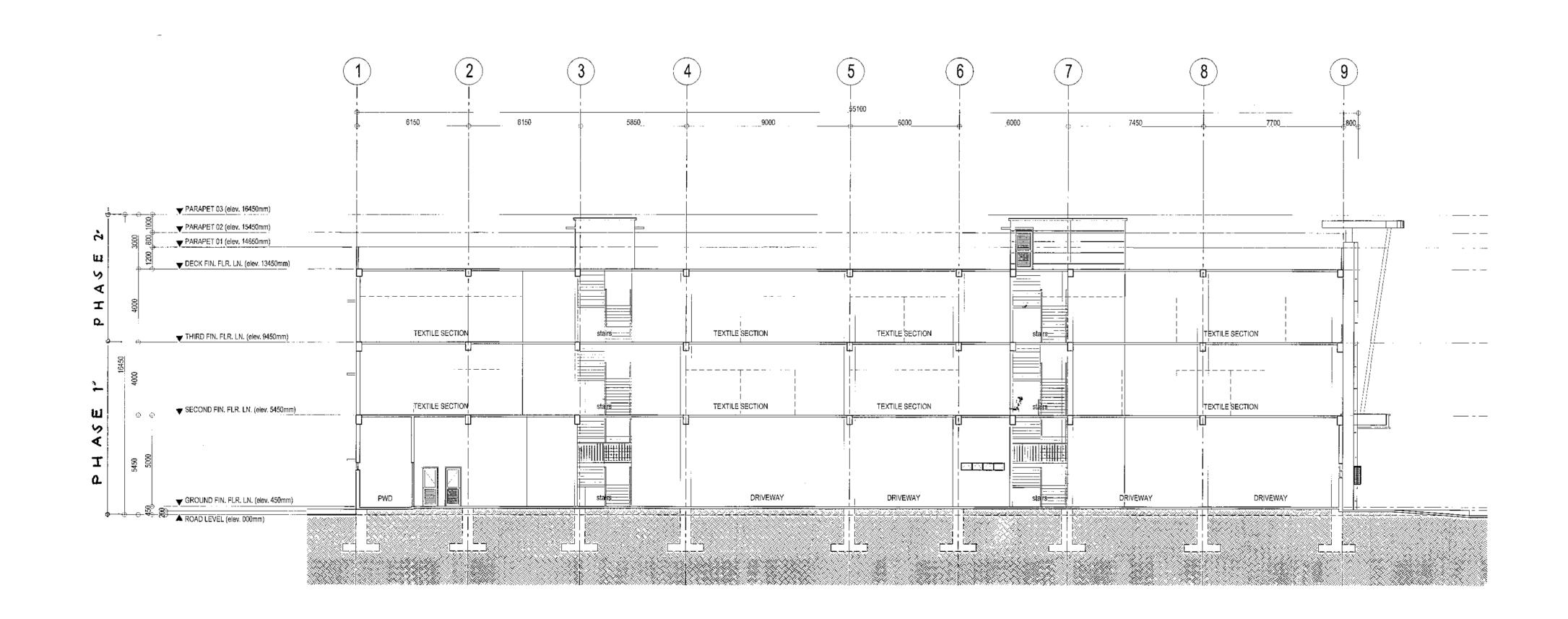
DATE November 2020
DRAWN BY Ar. V.V.P. / Ar. S.V.N.S.
DESIGNED BY Ar. V.V.P. / Ar. S.V.N.S.
CHECKED BY Ar. R.G.Resurreccion

PROJECT NO.:



**CROSS SECTION** 

SCALE 1:150 MTS



APPROVED BY:

# LONGITUDINAL SECTION

Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO. Bldg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY



PROVISO: RAWING AND SPECIFICATIONS DULY AGNED, STAMPED OR SEALED AS NATRUMENTS OF SERVICE ARE THE NTELECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE GRIECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFULFOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS TO DUPLICATE OR TO MAKE COMES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

ARCH. LUCILLE H. CHÚA, fuap, piep CITY ARCHITECT

ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

RECOMMENDING APPROVAL

HON. MA. JOSEFINA G. BELMONTE
MAYOR Q.C.

PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1) LOCATION: BRGY, KAMUNING, QUEZON CITY

PROJECT TITLE:

CROSS SECTION LONGITUDINAL SECTION

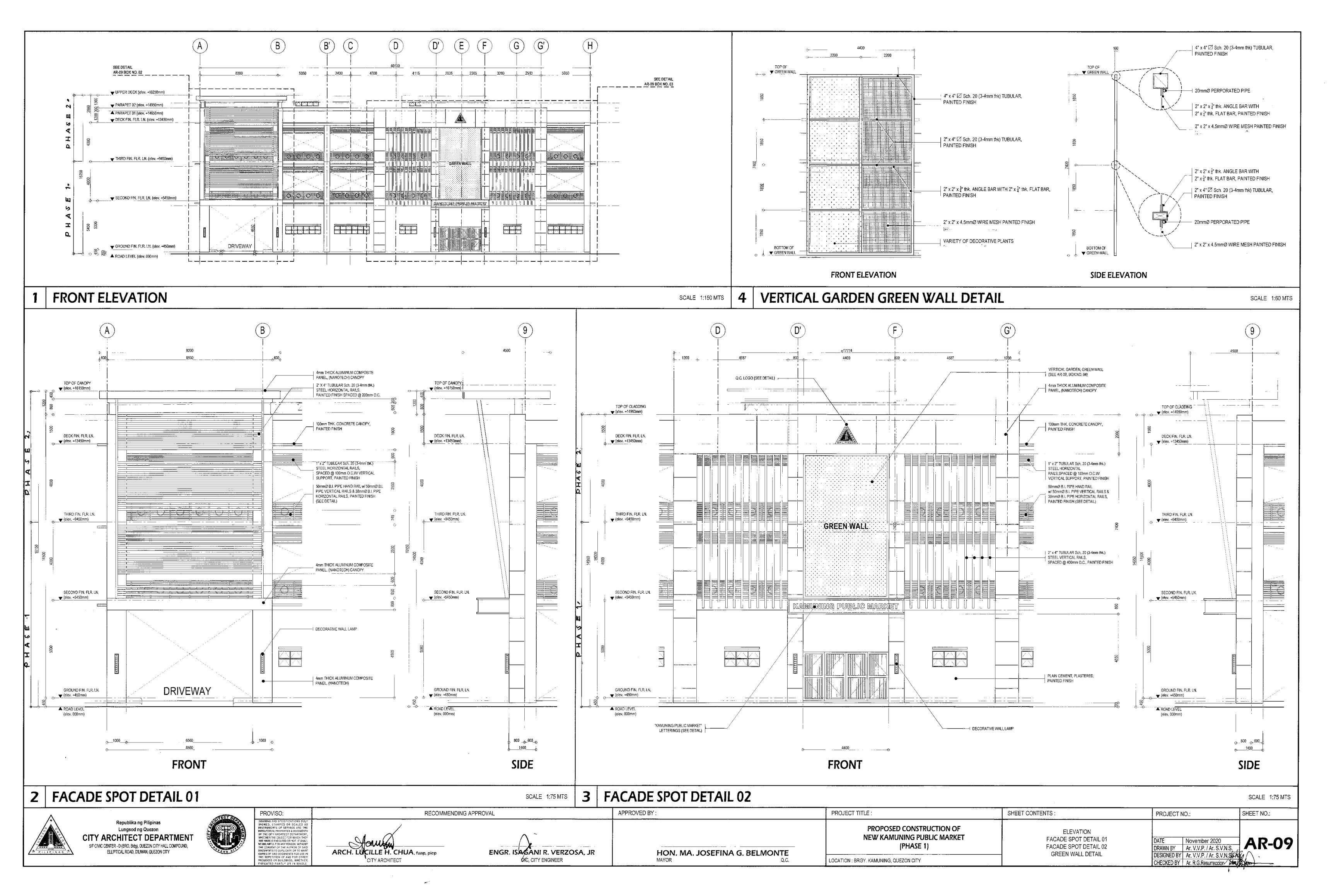
SHEET CONTENTS:

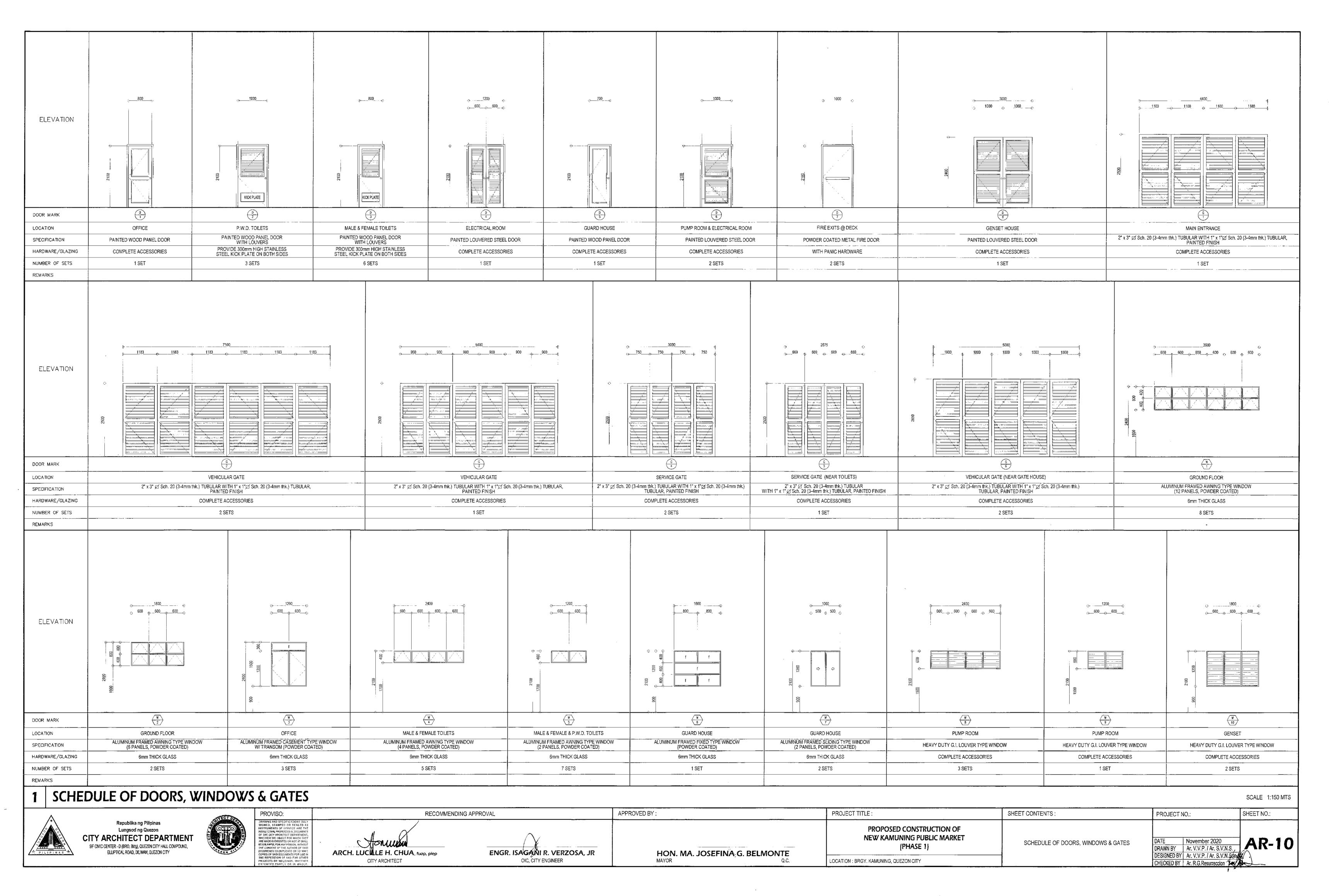
DATE November 2020
DRAWN BY Ar. V.V.P. / Ar. S.V.N.S.
DESIGNED BY Ar. V.V.P. / Ar. S.V.N.S.
CHECKED BY Ar. R.G.Resurreccion

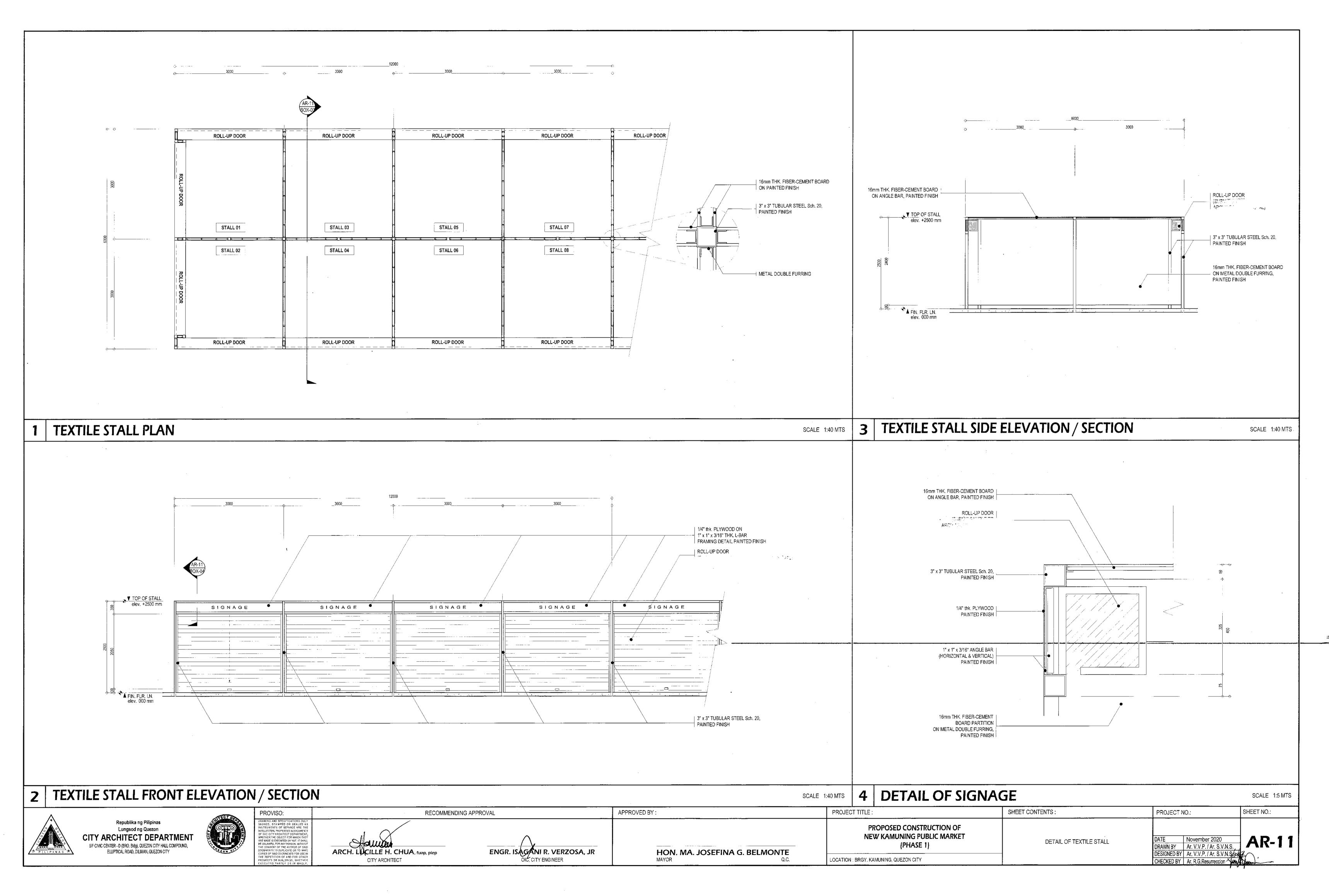
PROJECT NO.:

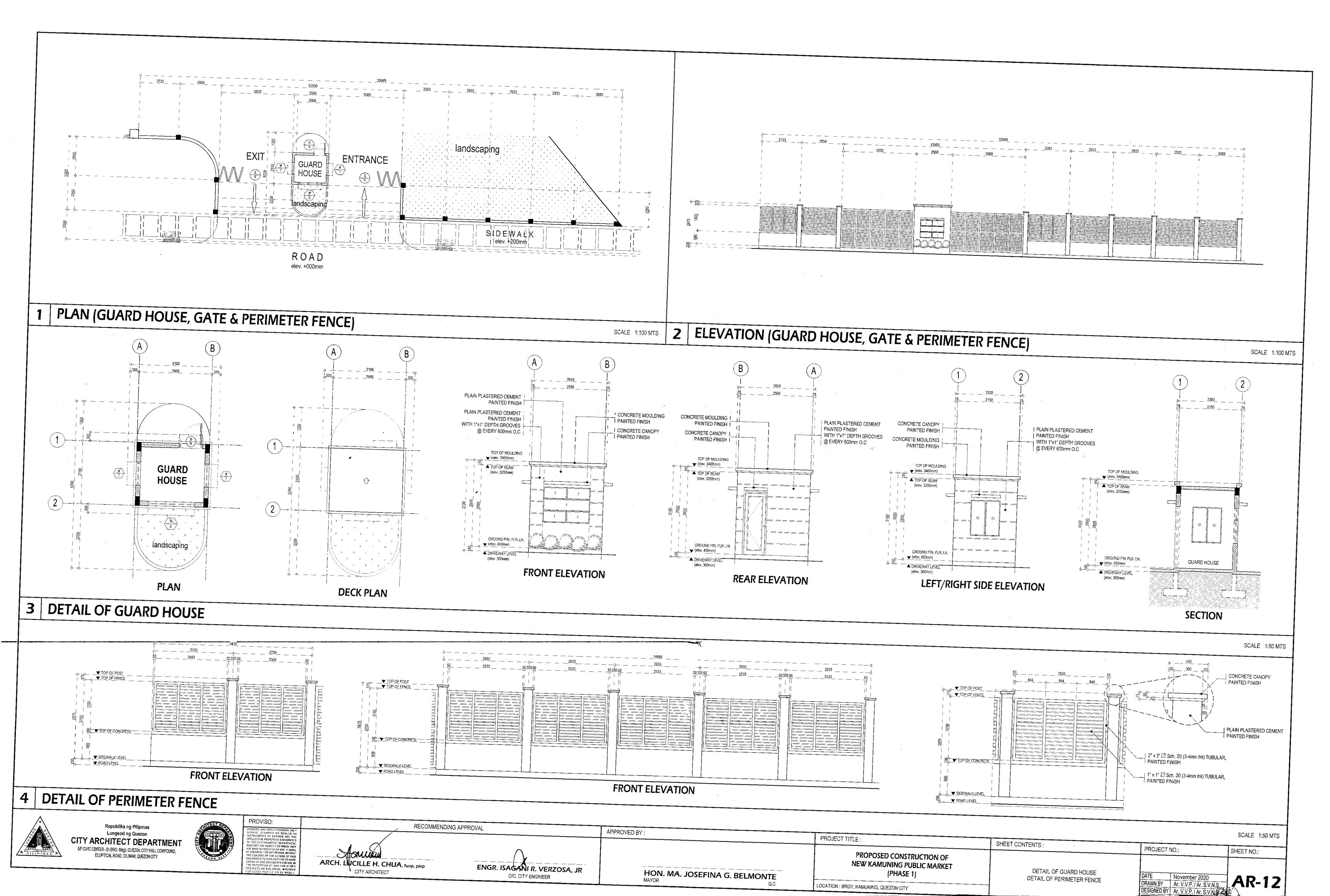
SCALE 1:150 MTS

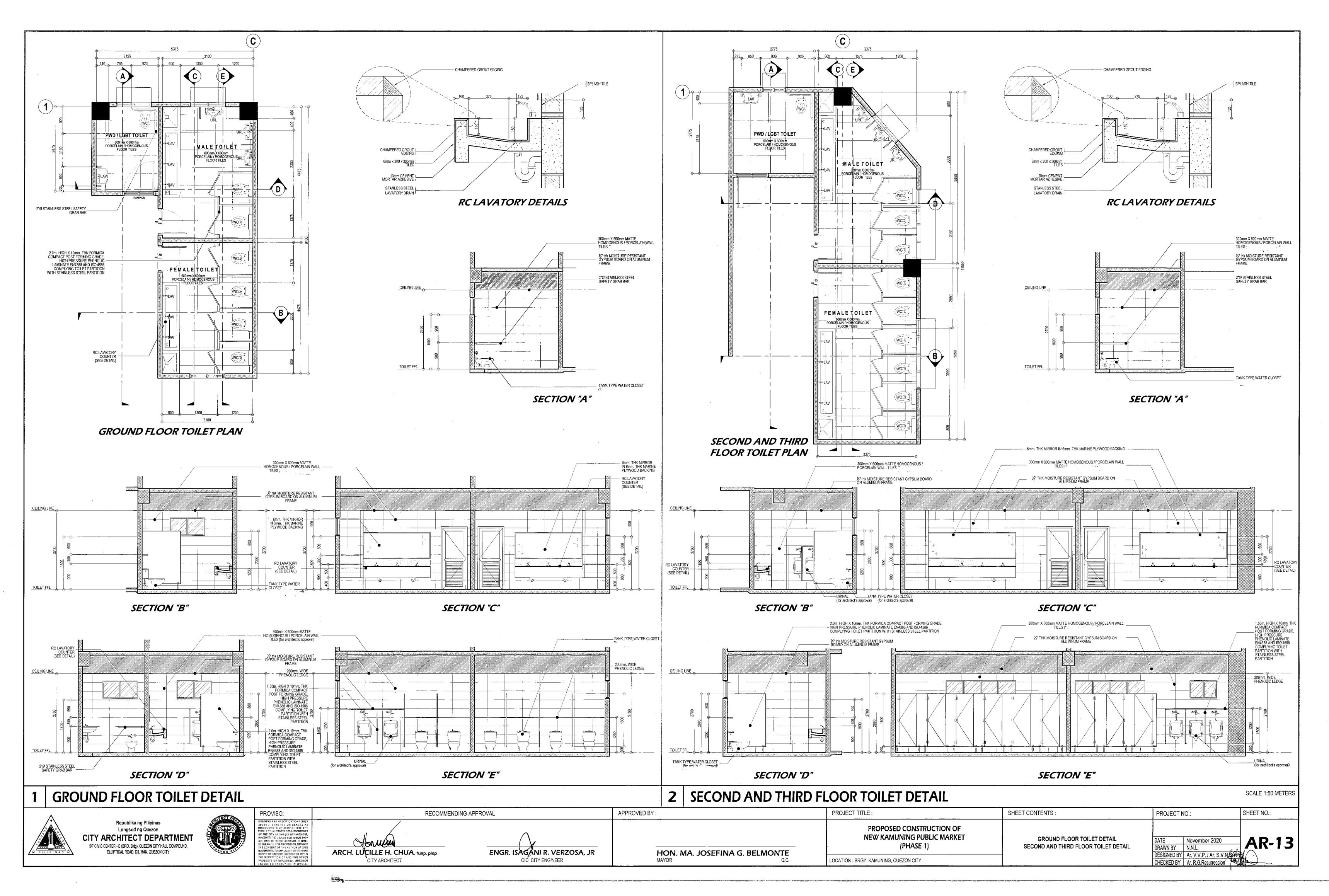
SHEET NO.:

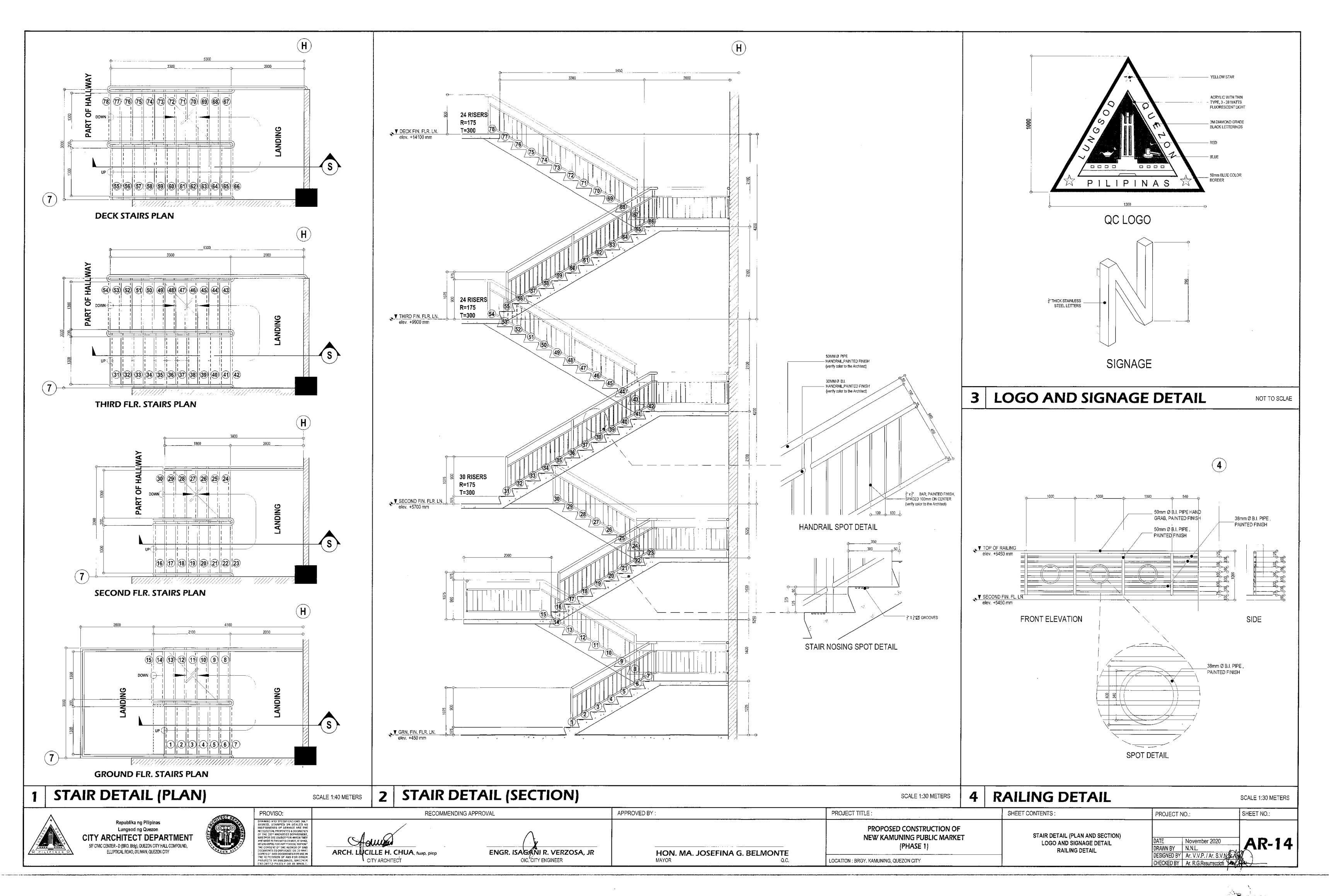


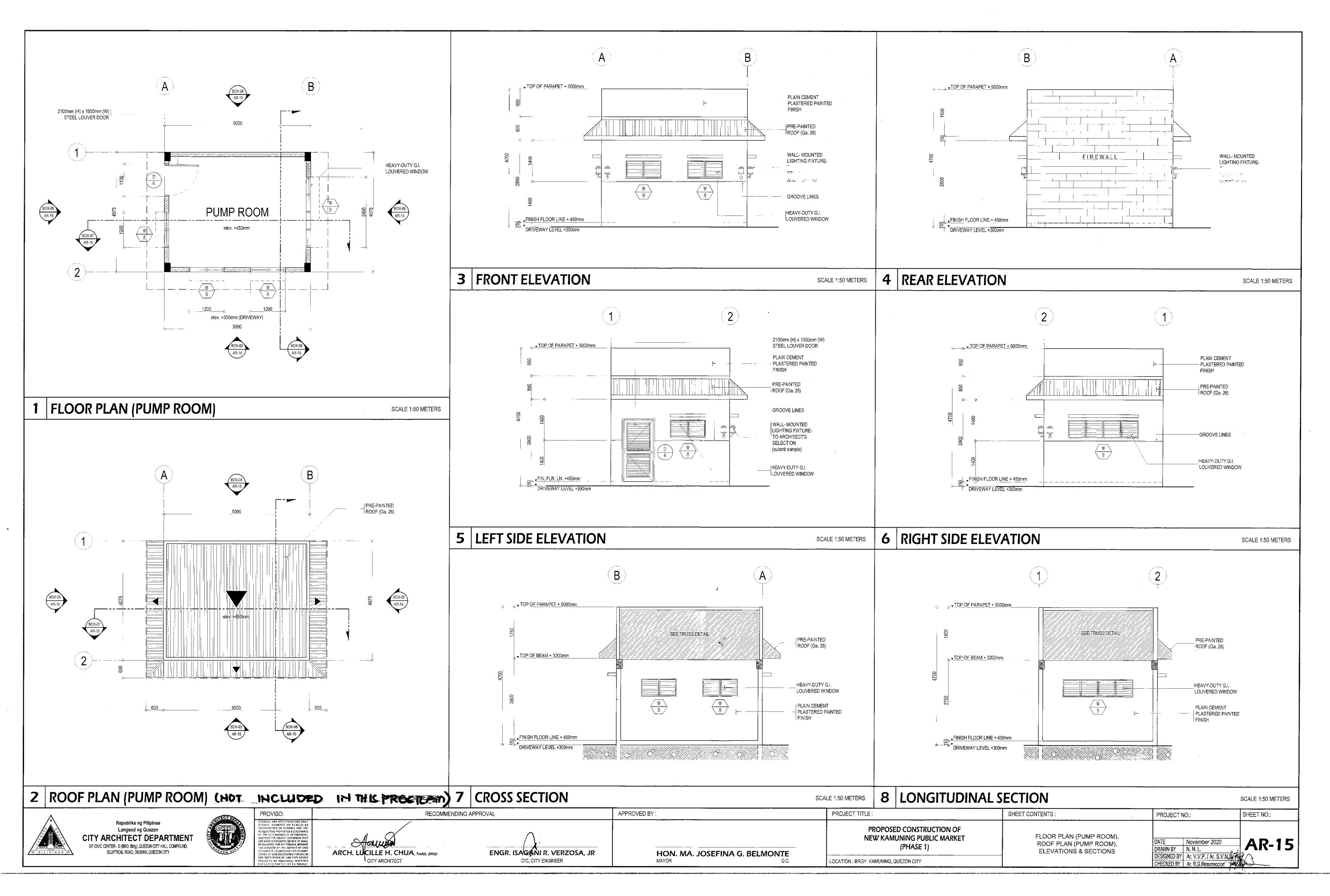


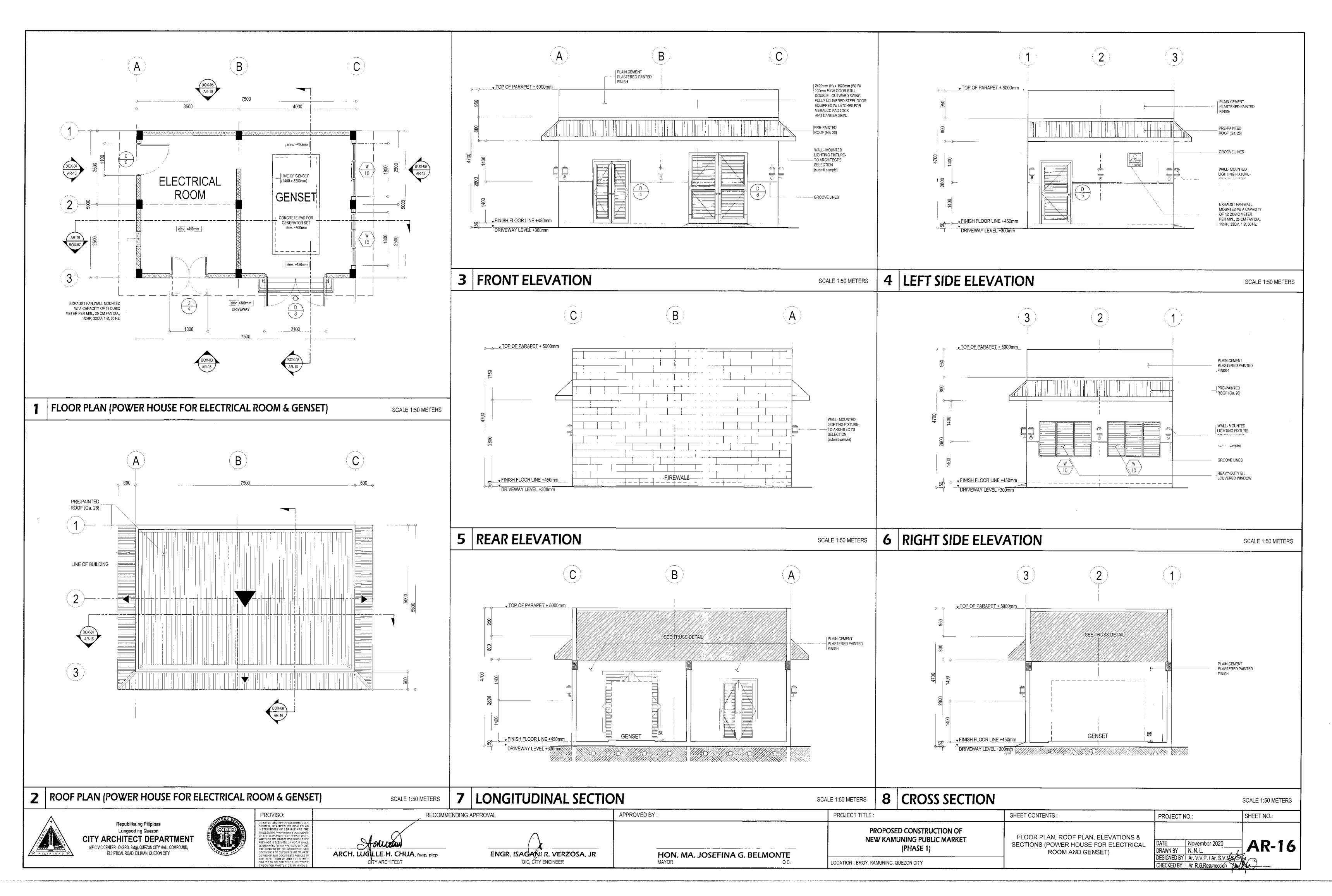












# STRUCTURAL NOTES & SPECIFICATIONS

- ALL STRUCTURAL MILL SECTIONS, BUILT UP PLATE SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC'S LATEST "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- DESIGN LOADS FOR BUILDINGS SHALL MEET THE REQUIRED STRUCTURAL DESIGN CRITERIA. STEEL PLATES, SHAPES, BARS AND METAL FABRICATIONS: ASTM A-36.
- STRUCTURAL BOLTS AND NUTS:
- ASTM A-325, GALVANIZED, 7/8 Ø AND BELOW. A-490 1" Ø AND ABOVE.
- ELECTRODES FOR WELDING: ASTM A233 E\_70XX SERIES; COMPLY WITH AWS D1.1 CODE REQUIREMENTS.
- FLAME CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH LATEST "STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN
- WELDING SOCIETY.
- ALL BUTT WELDS SHALL BE FULL PENETRATION WELDS AND SHALL BE PROPERLY BACK-CHIPPED OR GOUGED, BACK-UP PLATES SHALL BE PROVIDED AS REQUIRED. APPLY TT-P-645 SHOP PAINT FOR ALL FABRICATIONS.
- SHOP PAINTING FOR STRUCTURAL STEEL SHALL BE RUST INHIBITIVE PRIMER WITH MINIMUM D.F.T. OF 2.0 MILS.
- TOUCH-UP PAINTING: APPLY PAINT TO EXPOSED AREAS IN MANNER SATISFACTORY TO THE ENGINEER WITH SAME MATERIAL AS SHOP PAINT.
- COMPLY WITH AISC CODE AND SPECIFICATIONS FOR BEARING, ADEQUACY OF
- TEMPORARY CONNECTIONS AND ALIGNMENT. CONTRACTOR SHALL FURNISH COMPLETE ERECTION DRAWINGS FOR THE PROPER
- IDENTIFICATION AND ASSEMBLY OF ALL BUILDING COMPONENTS. THESE DRAWINGS WILL SHOW ANCHOR BOLT SETTING, PRIMARY SECONDARY, AND ROOF FRAMING,
- AND NECESSARY INSTALLATION DETAILS. SUBMIT SHOP DRAWINGS FOR APPROVAL BEFORE FABRICATION.

APPLICATION OF FIRE PROOFING SYSTEM IS REQUIRED FOR ALL STRUCTURAL STEEL MEMBERS. PROVIDE 2 HOUR MINIMUM FIRE RATING. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR ADDITIONAL FIRE PROOFING REQUIREMENTS.

# STRUCTURAL STEEL

## SCHEDULE OF REINFORCING BARS (PNS - 49)

DIAMETER OF BARS	GRADE (fy)
Ø12 AND SMALLER	275 ( 275 mpa )
Ø16 TO Ø25	415 ( 415 mpa )

- BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORGING BAR BENUS SHALL BE MADE COLL
- ALL GRADE 60 REINFORCING STEEL SHALL BE CLEARLY MARKED TO DIFFERENTIATE THEM FROM GRADE 40 REINF. STEEL IF CONCURRENTLY ON SITE.
- IN GENERAL, BAR SPLICES SHALL BE MADE AT POINTS OF MINIMUM STRESS. SPLICES SHALL BE SECURELY WIRED TOGETHER. STAGGER SPLICES AT LEAST 600mm. WHENEVER POSSIBLE IN BEAM BEAMS AND SLABS SPLICE TOP BARS AT MIDSPAN AND BOTTOM BAR NEAR SUPPORT, SPLICE OF REINFORCEMENT SHALL BE MADE ONLY AS REQUIRED OR PERMITTED ON DESIGN DRAWINGS OR AS ALLOWED BY THE ACI CODE OR AS AUTHORIZED BY THE ENGINEER.
- BARS NOTED AS "CONT." SHALL HAVE A MINIMUM SPLICE LENGTH OF 42 BAR DIA, BUT BAR DIAMETERS BUT NOT LESS THAN 600 mm", UNLESS OTHERWISE
- REINFORCING SHALL BE SPLICED ONLY AS INDICATED ON THE DRAWINGS.
- MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE:

ITEM	COVER
CONCRETE CAST AGAINST EARTH	75 mm
EXPOSED TO EXTERIOR OF WEATHER	38 mm
FORMED SURFACE BELOW GRADE	50 mm
SLAB ON GRADE	50 mm
COLUMNS & BEAMS	38 mm
STRUCTURAL SLABS TOP & BOT.(INTERIOR)	25 mm

- ANY WELDING TO BE PERFORMED MUST HAVE PRIOR WRITTEN APPROVAL
- WELDING OF REINFORCING STEEL IS NOT PERMITTED UNLESS OTHERWISE SHOWN ON THE DRAWINGS, WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4-79 "AWS STRUCTURAL WELDING CODE - REINFORCING STEEL" OF THE AMERICAN WELDING SOCIETY REINFORCING STEEL WHICH IS WELDED SHALL CONFORM TO ASTM A 706. REINFORCING STEEL NOT CONFORMING TO ASTM A 706 MAY BE USED IF MATERIAL PROPERTIES OF THE REINFORCING STEEL CONFORM TO AWS D1.4-79.
- WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185, WELDE WIRE FABRIC IN SUSPENDED SLABS SHALL HAVE FY = 60 KSI. LAP 152 MM. MINIMUM OR ONE FULL MESS, WHICHEVER IS GREATER FOR SLABS ON GRADE.
- SHOP DRAWINGS: THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL PREPARED IN ACCORDANCE WITH ACI 315, INDICATE BENDING DIAGRAM, ASSEMBLY DIAGRAM, SPLICING AND LAPS OF RODS AND SHAPES DIMENSIONS AND DETAILS FOR FOR REINFORCING BARS.
- ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS ARE TO BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED

REINFORCING STEEL

- FORMS SHALL BE PROVIDED FOR ALL CONCRETE INDICATED UNLESS SPECIFIED OTHERWISE. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND MAINTAINED SO AS TO INSURE COMPLETED WORK WITHIN THE ALLOWABLE TOLERANCES SPECIFIED AND SHALL BE MORTAR TIGHT.
- FORMS AND THEIR SUPPORTS SHALL BE DESIGNED SO AS NOT TO DAMAGE PREVIOUSLY PLACED STRUCTURE.
- NO CONSTRUCTION LOAD SHALL BE SUPPORTED ON, NOR ANY SHORING REMOVED FROM ANY PART OF STRUCTURE UNDER CONSTRUCTION EXCEPT WHEN THAT PORTION OF THE STRUCTURE IN COMBINATION WITH THE REMAINING FORMING AND SHORING SYSTEM HAS STRENGTH TO SUPPORT SAFELY ITS WEIGHT AND THE ADDITIONAL IMPOSED LOADS.
- FORMS SHALL BE REMOVED IN SUCH MANNER AS NOT TO IMPAIR SAFETY AND SERVICE ABILITY OF THE STRUCTURE.

## SCHEDULE OF STRIPPING OF FORMS AND SHORES

ITEMS	TIME
FOUNDATION	24 HRS
SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED	14 DAYS
COLUMN/WALLS	12 DAYS
BEAMS	14 DAYS

# **FORMWORKS**

## SCHEDULE OF STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTH AND TYPES

LOCATION	STRUCTURAL ELEMENTS	28-DAY COMPRESSIVE STRENGTH	DENSITY	MAX SLUMP
ALL FLOORS	COLUMNS BEAMS SLABS RC WALL FOOTING	4000 psi (UNLESS NOTED OTHERWISE)	150 PGF	4"(100mm)
GROUND	SLAB ON GRADE/ WALL FOOTING	3000 psi	150 PCF	4"(100mm)

20 541/

• INFORM ARCHITECT/ENGINEERS OF OTHER MISCELLANEOUS CONCRETE STRUCTURAL ELEMENTS NOT SHOWN ABOVE TO DETERMINE THEIR RESPECTIVE COMPRESSIVE STRENGTHS.

## SCHEDULE OF CONCRETE AGGREGATES

ITEMS	AGGREGATE SIZE
SLABS, BEAMS, COLUMNS	3/4" ( 19 mm )
CURBS & MASS CONCRETE	1" (25 mm)

- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION CODE OF THE AMERICAN CONCRETE INSTITUTE (ACI 318 -91).
- LOCATION OF ALL CONTRUCTION OR COLD JOINTS MUST BE APPROVED BY THE ENGINNEER / ARCHITECT.
- PIPE OR DUCTS EXCEEDING ONE THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES BUT SHALL NOT BE EMBEDDED THEREIN.
- REINFORCING BARS, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACED BEFORE POURING CONCRETE, BAR PLACEMENT AND SUPPORTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDED ACI PRACTICE.
- ALL INSERTS, ANCHOR BOLTS, PLATES, ETC. TO BE-EMBEDDED IN CONCRETE SHALL BE HOT DIP GALVANIZED UNLESS NOTED OTHERWISE.
- IN GENERAL, THE LATEST EDITION OF (MANUAL OF STANDARD PRACTICE) FOR DETAILING CONCRETE STRUCTURES ) ACI 315, SHALL BE ADHERED TO, UNLESS SHOWN OTHERWISE
- USE OF ADMIXTURES IS PERMITTED TO PRODUCE PROPER SLUMP AND WORKABILITY BUT SUBJECT TO THE ENGINEER'S APPROVAL ADDITION OF WATER TO CONCRETE AT JOBSITE IS NOT ALLOWED.

## REINFORCED CONC. NOTES

- 1, ALI, MATERIALS & WORKMANSHIP SHALL BE IN ACCORDANCE W/ THE APPLICABLE STANDARD & SPECIFICATIONS OF THE STRUCTURAL CODE OF THE PHILIPPINES & UNIFORM BUILDING CODE. 2, MORTAR & GROUT FOR ALL CONCRETE MASCNRY SHALL CONFORM TO ASTM 270 - TYPE N &
- SHALL HAVE A MINIMUM OF 28 DAYS STANDARD CYLINDER COMPRESSIVE STRENGTH OF 17.5 MPa (2500 PSi). 3, ALL CHB SHALL BE LAID OUT WITH THE CELLS IN UNOBSTRUCTED VERTICAL CONTINUITY. ALL CELLS ESPECIALLY THOSE WITH REINFORCEMENT SHALL BE FILLED WITH MORTAR.
- 4. REINFORCEMENT, AS TABULATED BELOW SHALL BE PROVIDED UNLESS OTHERWISE SPECIFIED IN THE PLAN. 5. ALL MASONRY WALLS SHALL BE PROVIDED W/ STIFFENER BEAM BLOCK & STIFFENER AS REQUIRED. 5.a. FOR HIGH WALLS & EVERY 3000 mm & COLUMN (BOLT) AT 3000 mm ON CENTER.

5.b. FOR DOORS & WINDOWS OPENING PROVIDE LINTEL BEAM SAME AS STIFFENER BEAM BLOCK.

STIFFENER BEAM BLOCK STIFFENER COLUMN

- GENERAL NOTES AND TYPICAL STRUCTURAL DETAILS SHALL APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED.
- FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT FOR SIMILAR CONDITIONS, MODIFY TYPICAL DETAILS AS REQUIRED TO MEET SPECIAL CONDITIONS.
- THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY DISCREPANCIES HE MAY FIND BEFORE
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING OF THE STRUCTURE FOR ALL LOADS THAT MAY BE IMPOSED DURING CONSTRUCTIONS.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST
- INSPECTION-ALL CONSTRUCTION AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION, EXAMINATION AND TESTING BY THE ENGINEER/ARCHITECT. THE ENGINEER/ARCHITECT SHALL HAVE THE RIGHT TO REJECT DEFECTIVE
- TYPICAL DETAILS AS SHOWN IN THESE DRAWINGS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COORDINATION OF WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.
- DO NOT SCALE DRAWINGS, CALLED-OUT DIMENSIONS AND STANDARD CODE REQUIREMENTS SHALL GOVERN OVER UNSCALED DRAWINGS.
- SPECIAL NOTE: DIMENSIONS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS. ARCHITECTURAL DRAWINGS SHALL BE USED TO DEFINE DETAIL
- THE CONTRACTOR IS GIVEN THE OPTION TO UTILIZE ALTERNATIVE METHODS OF DESIGN AND ALTERNATIVE METHOD OF CONSTRUCTION AS DEEMED SUITABLE PROVIDE THAT SUCH OPTION IS IN CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND IS COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS.

**GENERAL NOTES** 

- PROCEEDING WITH THE WORK OR DURING CONSTRUCTION.
- APPLICABLE STANDARDS OR SPECIFICATIONS, ALL WORKS SHALL CONFORM WITH THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES.
- MATERIALS AND WORKMANSHIP OR REQUIRE ITS CORRECTION. UNLESS SPECIFICALLY DETAILED ELSEWHERE CONTRACTOR SHALL FOLLOW

- CONFIGURATIONS, ELEVATIONS, OPENINGS, JOINTS, SLOPES, ETC.

## CONDITION CONDITION CONDITION CONDITION CONDITION CONDITION CONDITION CONDITION 2 | 3 | 1 3 | 1 | | 12 | 22 | 17 | 23 | 18 | 22 | 17 | 19 | 15 | 20 | 15 | 19 | 15 | 17 | 13 | 18 | 14 | 17 | 1 16 27 21 35 27 27 21 24 18 31 24 24 18 21 16 28 21 21 1 5 20 33 25 51 39 36 28 28 22 44 34 31 24 25 20 39 30 28 21 22 | 38 | 29 | 61 | 53 | 48 | 37 | 33 | 25 | 60 | 46 | 42 | 32 | 29 | 23 | 54 | 41 | 38 | 29 ∄ | 25 | 45 | 35 | 90 | 69 | 63 | 49 | 39 | 30 | 78 | 60 | 55 | 42 | 35 | 27 | 70 | 54 | 49 | 38 . | 28 | 57 | 44 | 114 | 88 | 80 | 62 | 50 | 38 | 99 | 76 | 69 | 54 | 45 | 34 | 89 | 68 | 62 | 48 32 73 56 145 111 101 78 63 49 125 97 88 68 56 43 112 86 79 6 36 | 89 | 69 | 178 | 137 | 125 | 96 | 77 | 60 | 154 | 119 | 108 | 83 | 69 | 53 | 138 | 106 | 97 | 75 | | 10 | 23 | 16 | 23 | 16 | 23 | 16 | 21 | 15 | 21 | 15 | 21 | 15 | 21 | 15 | 21 | 15 | 21 | 15 | 21 | 15 12 | 30 | 22 | 30 | 22 | 30 | 22 | 26 | 19 | 26 | 19 | 26 | 19 | 23 | 17 | 23 | 17 | 23 | 17 16 | 37 | 27 | 37 | 27 | 37 | 27 | 32 | 23 | 32 | 23 | 32 | 23 | 29 | 21 | 29 | 21 | 29 | | 39 | 28 | 39 | 28 | 39 | 28 | 35 | 25 | 35 | 25 | 35 | 2 20 | 45 | 32 | 45 | 32 | 45 | 32 22 52 37 52 37 52 37 45 32 45 32 45 32 40 29 40 29 40 2 25 | 59 | 43 | 59 | 43 | 59 | 43 | 52 | 37 | 52 | 37 | 52 | 37 | 46 | 33 | 46 | 33 | 46 | 33 28 | 67 | 48 | 67 | 48 | 67 | 48 | 58 | 42 | 58 | 42 | 58 | 42 | 52 | 37 | 52 | 37 | 52 | 3 . | 32 | 75 | 54 | 75 | 54 | 75 | 54 | 65 | 47 | 65 | 47 | 65 | 47 | 59 | 42 | 59 | 42 | 59 | 42 36 | 84 | 60 | 84 | 60 | 84 | 60 | 73 | 52 | 73 | 52 | 73 | 52 | 65 | 47 | 65 | 47 | 65 | 47

CLASS "A" LAP SPLICE SCHEDULE (L)

Fc' = 3000 psi

Fc' = 4000 psi

(INCHES)

(INCHES)

Fc' = 5000 psi

## MINIMUM 2 WIRE TIES AT ALL SPLICES PROJECTING FROM FOOTINGS, TYP.

- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 300mm CONCRETE CAST IN THE MEMBER BELOW THE REINFORCEMENT
- THESE BAR DEVELOPMENT LENGTHS APPLY TO REGULAR WEIGHT CONCRETE. MULTIPLY THE SPECIFIED DEVELOPMENT LENGTH BY 1.3 FOR LIGHTWEIGHT
- ALL DETAILING OF REINFORCEMENT SHALL COMPLY WITH THIS SCHEDULE UNLESS SPECIFICALLY DETAILED OTHERWISE ON THE DRAWINGS.
- db INDICATES DIAMETER OF THE BAR.

1 OR 2 ARE NOT SATISFIED.

- LENGTHS SHOWN UNDER CONDITION 1 SHALL BE USED WHERE ANY ONE OF THE FOLLOWING IS SATISFIED:
- A. BEAM AND COLUMN BARS WHERE "BAR SPACING ≥ 4db".
- B, INNER LAYER OF SLAB OR WALL REINFORCEMENT WHERE "BAR SPACING ≥ 4db".
- C. ANY REINF. WHERE "BAR COVER\_2db" AND "BAR SPACING\_4db".
- LENGTHS SHOWN UNDER CONDITION 2 SHALL BE USED WHERE "BAR COVER ≤ db" OR "BAR SPACING ≤ 3db".
- LENGTHS SHOWN UNDER CONDITION 3 SHALL BE USED WHERE CONDITION
- IF "BAR SPACING ≥ 6db" AND "BAR COVER ≥ 2.5db" USE 80% OF LENGTH SPECIFIED IN SCHEDULE ABOVE.
- USE CLASS "B" SPLICES U.N.O. AT CLASS "B" SPLICES ONE HALF OR LESS OF THE TOTAL REINFORCEMENT. REINFORCEMENT IS SPLICED
- WITHIN THE REQUIRED LAP LENGTH. • FOR CLASS "A" SPLICES USE SAME VALUES AS PER Ld.
- SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPLICING DIFFERENT
- SIZES BARS. AT CONCRETE WALLS SPLICES IN HORIZONTAL REINFORCEMENT SHALL BE
- STAGGERED. AT CONCRETE WALLS SPLICES IN TWO CURTAINS, WHERE USED, SHALL
- NOT OCCUR IN THE SAME LOCATION.
- ALL FOOTING DOWELS SHALL HAVE CLASS "B" LAP SPLICE AT VERTICAL WALL/ COLUMN BARS (STAGGER DOWEL HEIGHTS).

# BAR DEVELOPMENT LENGTH (Ld) SCHEDULE

## HOOK BAR DEVELOPMENT LENGTH (Ldh) SCHEDULE (INCHES) CONCRETE WALLS ALL MEMBERS U.N.O. AND DIAPHRAGMS 10 | 6 | 6 | 7 | 6 | 6 12 8 7 6 9 8 7 16 | 10 | 9 | 8 | 11 | 10 | 9 20 | 12 | 10 | 9 | 13 | 11 | 10 22 | 14 | 12 | 11 | 15 | 13 | 12 16 | 14 | 12 28 | 18 | 15 | 14 | 20 17 64mm MIN. 32 | 20 | 17 | 16 | 22 | 19 | 17 COVER @ EA. SIDE OF BAR 36 22 19 17 24 21 19

- THESE DEVELOPMENT LENGTHS APPLY TO REGULAR WEIGHT CONCRETE MULTIPLY THE SPECIFIED DEVELOPMENT LENGTH BY 1.3 FOR LIGHTWEIGHT CONCRETE.
- THE DEVELOPMENT LENGTHS SPECIFIED FOR "CONCRETE WALLS & DIAPHRAGMS\* ARE APPLICABLE IF THE HOOKED BAR IS WITHIN THE CONFINED CONCRETE CORE OF A BOUNDARY MEMBER.
- REFER TO SECTION FOR ADD'L. REQUIREMENTS FOR "ALL OTHER MEMBERS".

# HOOKED BAR DEVELOPMENT LENGTH (Ld) SCHEDULE

- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 300mm CONCRETE CAST IN THE MEMBER BELOW THE REINFORCEMENT.
- THESE BAR DEVELOPMENT LENGTHS APPLY TO REGULAR WEIGHT CONCRETE, MULTIPLY THE SPECIFIED DEV'T. LENGTH BY 1.3 FOR LIGHTWEIGHT CONCRETE.
- ALL DETAILING OF REINFORCEMENT SHALL COMPLY WITH THIS SCHEDULE UNLESS SPECIFICALLY DETAILED OTHERWISE ON THE DRAWINGS.
- db INDICATES DIAMETER OF THE BAR. LENGTHS SHOWN UNDER CONDITION 1 SHALL BE USED WHERE ANY
- ONE OF THE FOLLOWING IS SATISFIED: A. BEAM AND COLUMN BARS WHERE "BAR SPACING 4db". B. INNER LAYER OF SLAB OR WALL REINFORCEMENT WHERE
- "BAR SPACING <u></u> 4db". C. ANY REINF. WHERE "BAR COVER—2db" AND "BAR SPACING—4db".
- LENGTHS SHOWN UNDER CONDITION 2 SHALL BE USED WHERE "BAR COVER <u>←</u> db" OR "BAR SPACING <u>←</u> 3db".
- LENGTHS SHOWN UNDER CONDITION 3 SHALL BE USED WHERE CONDITION 1 OR 2 ARE NOT SATISFIED.

IF "BAR SPACING

—6db" AND "BAR COVER

—2.5db" USE 80% OF

LENGTH SPECIFIED IN SCHEDULE ABOVE.

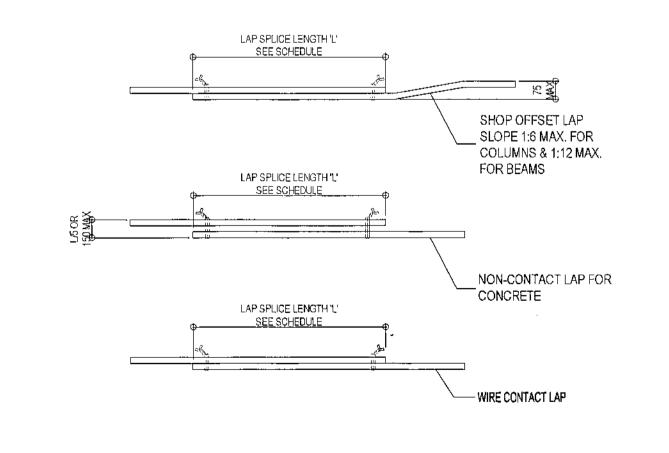
 A STANDARD HOOK SHALL BE PROVIDED WHERE Ld IS UNATTAINABLE DUE TO SPACE RESTRICTIONS (REFER TO SCHEDULE FOR Ldh).

APPROVED BY:

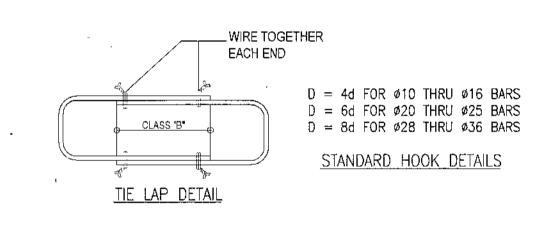
## Fc' = 5000 psiFc' = 3000 psi Fc' = 4000 psiFile: | condition | 3 | 1 | 2 | 3 | 1 | 2 | 3 TOP OTHER TOP OT 10 21 17 21 17 21 17 19 16 19 16 19 16 17 16 17 16 17 | 12 | 28 | 22 | 30 | 23 | 28 | 22 | 25 | 19 | 26 | 20 | 25 | 19 | 22 | 17 | 23 | 18 | 22 | 17 5 | 16 | 35 | 27 | 46 | 35 | 35 | 27 | 31 | 24 | 40 | 31 | 31 | 24 | 27 | 21 | 36 | 28 | 27 | 21 5 20 42 33 66 51 46 36 37 28 57 44 40 31 33 25 51 39 36 28 22 | 49 | 38 | 90 | 69 | 63 | 37 | 43 | 33 | 78 | 60 | 54 | 42 | 38 | 29 | 69 | 54 | 49 | 38 25 | 59 | 45 | 117 | 90 | 82 | 63 | 51 | 39 | 101 | 78 | 71 | 55 | 46 | 35 | 91 | 70 | 64 | 49 | 28 | 74 | 57 | 148 | 114 | 104 | 80 | 65 | 50 | 129 | 99 | 90 | 69 | 58 | 45 | 115 | 89 | 81 | 62 32 | 94 | 73 | 188 | 145 | 132 | 101 | 82 | 63 | 163 | 125 | 114 | 88 | 73 | 56 | 146 | 112 | 102 | 79 36 | 116 | 89 | 232 | 178 | 162 | 125 | 101 | 77 | 201 | 154 | 141 | 108 | 90 | 69 | 180 | 138 | 126 | 97 10 | 29 | 21 | 29 | 21 | 29 | 21 | 28 | 20 | 28 | 20 | 28 | 20 | 28 | 20 | 28 | 20 | 28 | 20 | 28 | 20 12 | 29 | 28 | 39 | 28 | 39 | 28 | 34 | 24 | 34 | 24 | 34 | 24 | 30 | 22 | 30 | 22 | 30 | 22 16 | 48 | 35 | 48 | 35 | 48 | 35 | 42 | 30 | 42 | 30 | 42 | 30 | 38 | 27 | 38 | 27 | 38 | 27 20 | 58 | 42 | 58 | 42 | 58 | 42 | 50 | 36 | 50 | 36 | 50 | 36 | 45 | 32 | 45 | 32 | 45 | 32 68 | 48 | 68 | 48 | 68 | 48 | 59 | 42 | 59 | 42 | 59 | 42 | 52 | 38 | 52 | 38 | 52 | 38 55 77 55 67 48 67 48 67 48 67 48 60 43 60 43 60 43 28 | 87 | 62 | 87 | 62 | 87 | 62 | 87 | 62 | 75 | 54 | 75 | 54 | 75 | 54 | 67 | 48 | 67 | 48 | 67 | 48 32 | 98 | 70 | 98 | 70 | 98 | 70 | 85 | 61 | 85 | 61 | 85 | 61 | 76 | 54 | 76 | 54 | 76 | 54

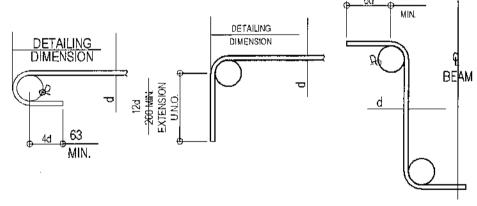
늴 | 36 | 109 | 78 | 109 | 78 | 109 | 78 | 94 | 67 | 94 | 67 | 94 | 67 | 84 | 60 | 84 | 60 | 84 | 60 |

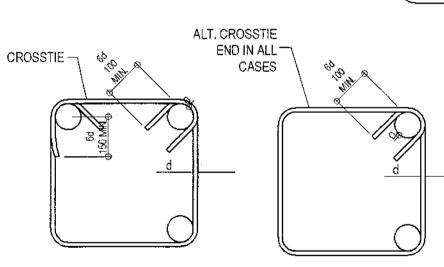
CLASS "B" LAP SPLICE SCHEDULE (L)



# REINFORCEMENT LAP SPLICE DET.







SPANDREL & BEAM SUPPLEMENTARY TIE

COLUMN & SPANDREL TIE

**BAR BENDING DETAIL** 

March 2020

PROJECT NO .:

DESIGNED BY Engr. R.E. Debalocos, Jr. CHECKED BY Engr. R.E. Debalocos, Jr.

SHEET NO.:

**ST-01** 

# 5 | MASONRY WALL

**Lungsod ng Quezon** CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO. Bldg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD; DILIMAN, QUEZON CITY



PROVISO: RAWING AND SPECIFICATIONS VED, STAMPED OR SEALED A RUMENTS OF SERVICE ARE TH LECTUAL PROPERTIES & DOCUMEN ETHER THE OBJECT FOR WHICH THI WHETHER THE OBJECT FOR WHICH THEY RER MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR DTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

ARCH. WUCILLE H. CHUA fuap, piep CITY ARCHITECT

OIC, CITY ENGINEER

RECOMMENDING APPROVAL

HON. MA. JOSEFINA G. BELMONTE

PROJECT TITLE:

NEW KAMUNING PUBLIC MARKET (PHASE 1) LOCATION: BRGY, KAMUNING, QUEZON CITY

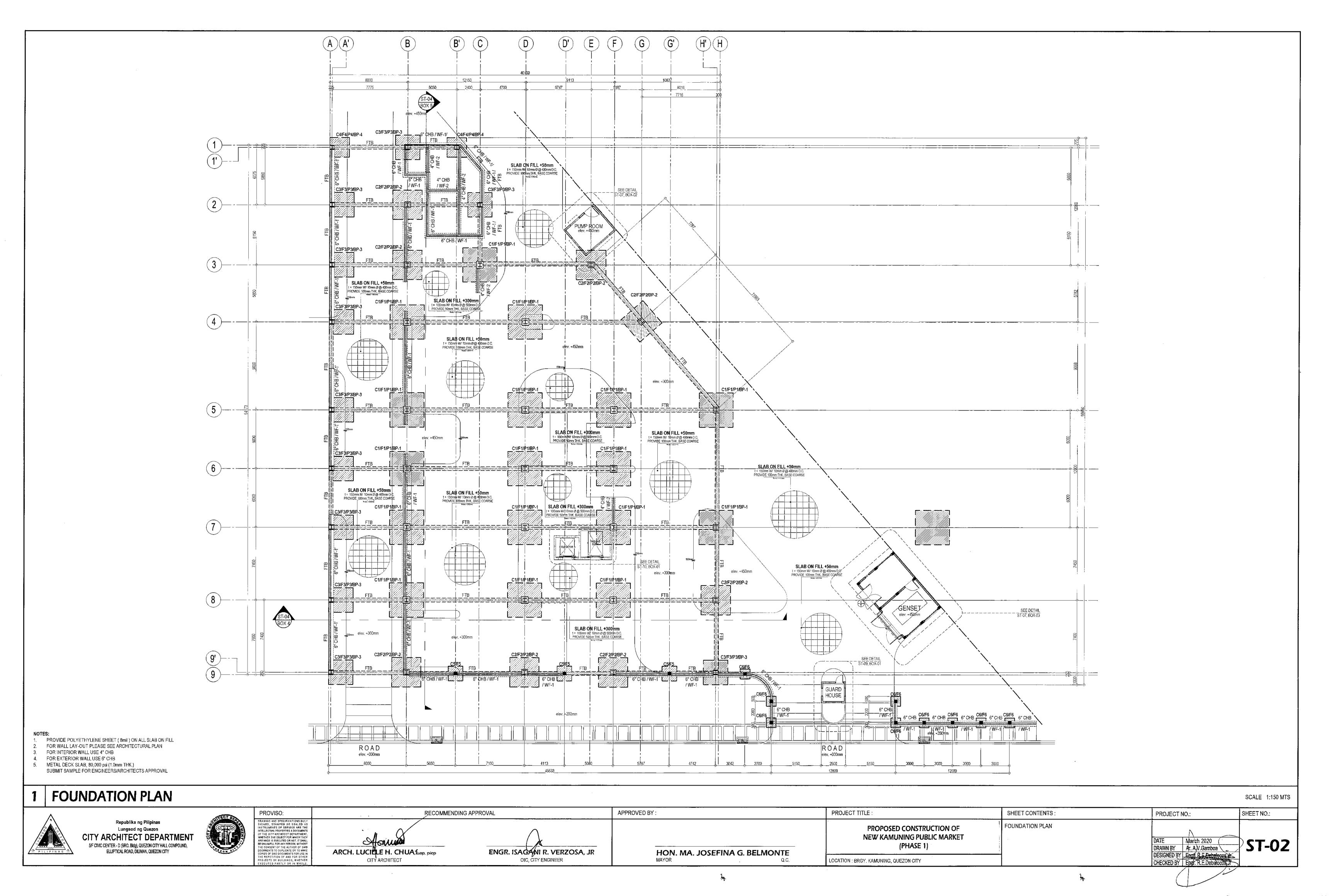
PROPOSED CONSTRUCTION OF

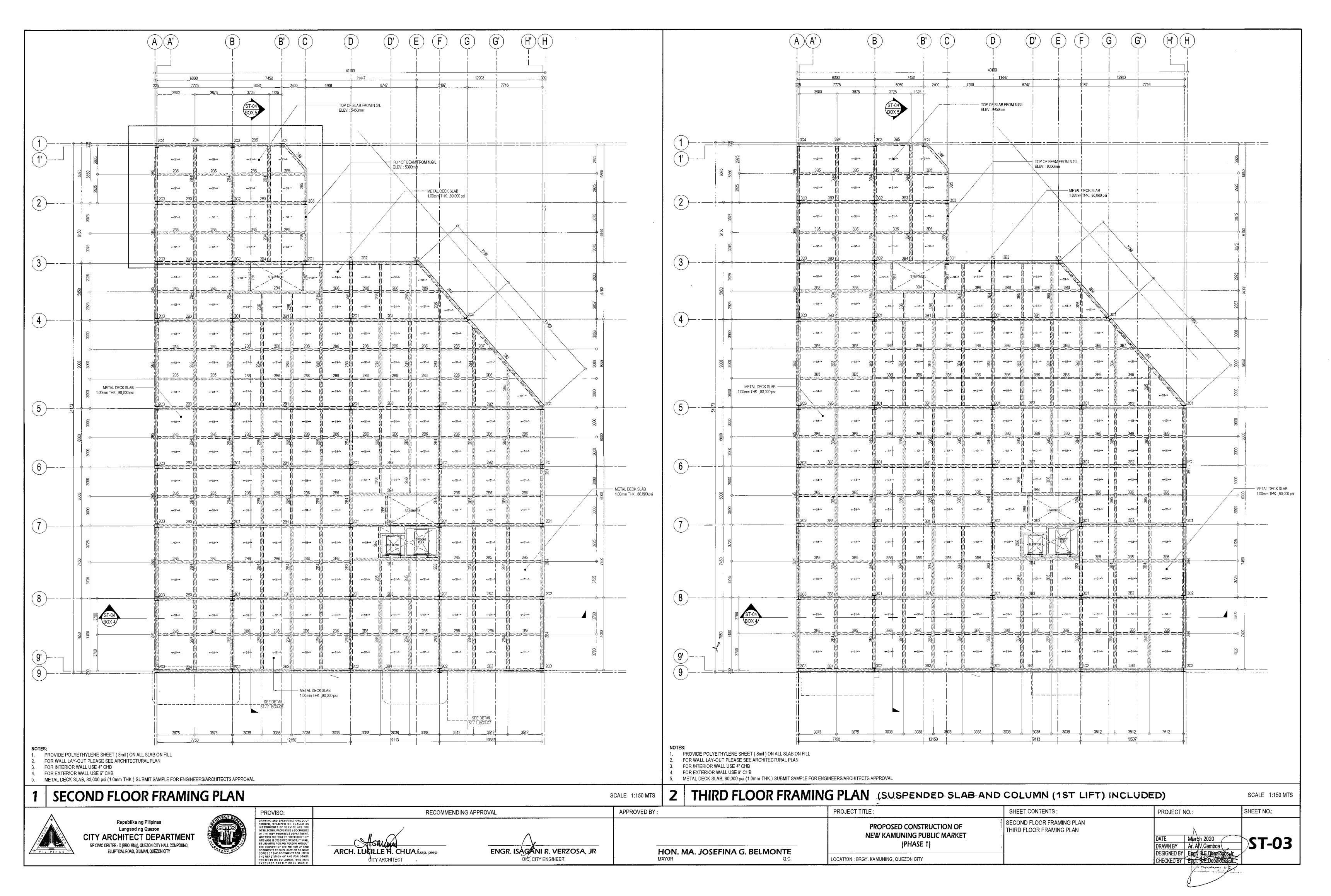
DRAWN BY Ari A.V. Gamboa

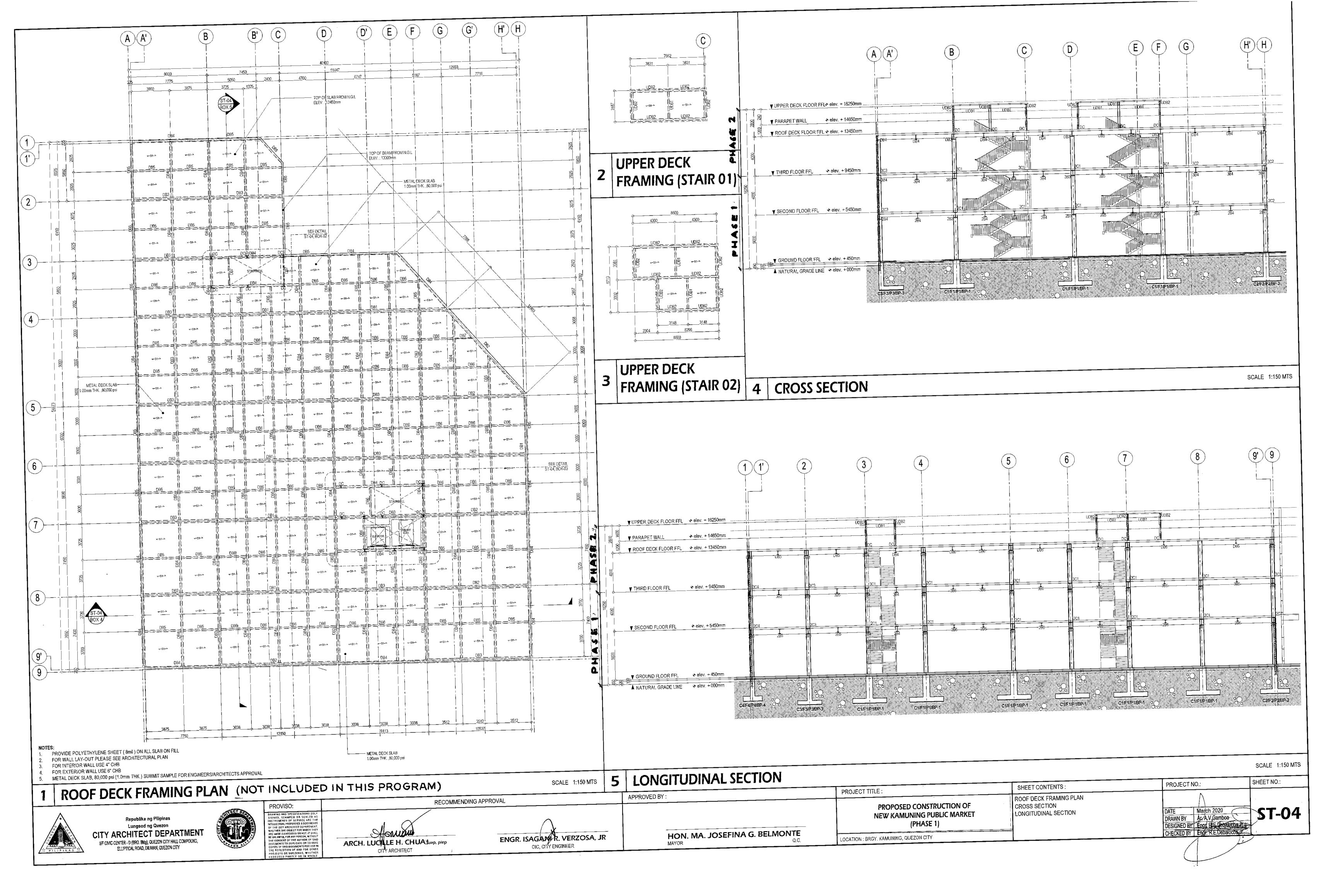
ENGR. ISAGÁNI R. VERZOSA, JR

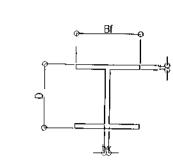
SHEET CONTENTS

**GENERAL NOTES AND SPECIFICATIONS** 









FLOOR	COLUMN	DIMENSIONS (MM)					
		D	Bf	tf	tw	W (Kg/m)	
JOR.	C1 / 2C1 (W 14x233)	407.40	403.60	43.70	27.20	347.61	
GROUD 2ND FLOOR	C2 / 2C2 (W 14x176)	386.60	397.50	33.30	21.10	262,87	
GR( 2ND	PC/ C3 / 2C3 (W 14x132)	372.40	374.00	26.20	16.40	196.90	
인	C4 / 2C4 (W 14x109)	363.70	371.00	21.80	13.30	162.39	
o X	3C1 / (W 14x176)	386.60	397.50	33.30	21.10	262.87	
OD TO	3C2 / (W 14x132)	372.40	374.00	26.20	16.40	196.90	
THIRD ROOF DI	3C3 / (W 14x109)	363,70	371.00	21.80	13.30	162.39	
	3C4 / (W 14x87)	355.60	368.30	 17.48	10.67	129.50	
UPPER DECK	DC / (W 8x48)	215.9	206.17	17.35	10.29	71.43	

# **COLUMN SCHEDULE**

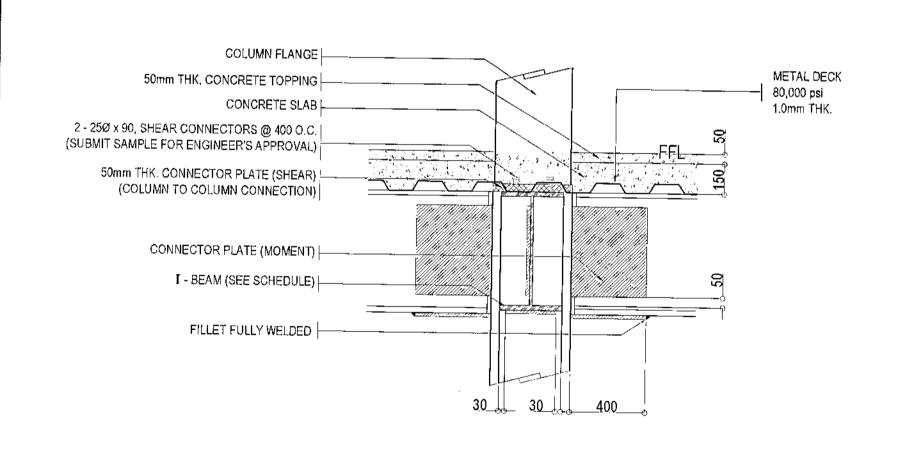
NOT TO SCALE

FLOOR	BEAM MARK	DIMENSIONS (MM)				
	DEANI WARK	D	Bf	tf	tw	W (Kg/m)
	2B1 (W 24x192) lb/ft	646.90	328.90	37.10	20.60	285,71
œ	2B2 (W 24x176) lb/ft	641.10	327.40	34.00	19.10	262.36
00]	2B3 (W 21x132) lb/ft	554.50	316.10	26.30	16.50	196.90
SECOND FLOOR	2B4 (W 21x101) lb/ft	542.60	312.20	20.30	12.70	151.23
100	2B5 (W 18x85) lb/ft	465.32	224.49	23.14	13.36	126.50
SS	2B6 (W 12x65) lb/ft	307.80	204.80	15.40	9.90	96,93
	2B7 (W 12x26) lb/ft	310.40	104.90	9.70	5.50	38.82
	3B1 (W 24x192) lb/ft	646.90	328.90	37.10	20.60	285.71
	3B2 (W 24x176) lb/ft	641.10	327.40	34.00	19.10	262.36
THIRD FLOOR	3B3 (W 21x132) lb/ft	554.50	316.10	26.30	16.50	196.90
DFL	3B4 (W 21x101) lb/ft	542.60	312.20	20.30	12.70	151.23
E	3B5 (W 18x85) /b/ft	465.32	224.49	23.14	13.36	126.50
_	3B6 (W 12x65) lb/ft	307.80	204.80	15,40	9,90	96.93
	3B7 (W 12x26) lb/ft	310.40	104.90	9.70	5.50	38.82
	DB1 (W 24x176) lb/ft	641.10	327.40	34.00	19.10	262.36
	DB2 (W 21x132) lb/ft	554.50	316.10	26.30	16.50	196.90
	DB3 (W 21x101) lb/ft	542.60	312.20	20.30	12,70	151.23
ROC	DB4 (W 18x85) lb/ft	465.32	224.49	23.14	13.36	126.50
	DB5 (W 16x64) lb/ft	406.40	215.90	18.16	11.25	95.24
	DB6 (W 14x38) lb/ft	358.65	172.11	13.03	7.95	56.55
	DB7 (W 10x15) lb/ft	250.00	100.00	6.84	5.84	22.32
UPPER	UDB1 (W 16x64) lb/ft	406.40	215.90	18.16	11.25	95.24
	UDB2 (W 14x38) lb/ft	358.65	172.11	13.03	7.95	56.55

## METAL DECK 1. ALL CONNECTIONS ARE FULL WELDS. -∤80,000 psi 2. THICKNESS OF SHEAR PLATE SAME AS 1.0mm THK THAT OF CONNECTING COLUMN FLANGE. 3. PROVIDE STIFFENER PLATE AT BEAM & COLUMN, 600mm O.C., THICKNESS SAME AS THAT OF CONNECTING WEB. 4. THICKNESS OF MOMENT PLATES SAME AS THAT OF CONNECTING BEAM FLANGE. 5. ONE SIDED CONNECTION IS SHOWN, TWO SIDED IS SIMILAR. COLUMN FLANGE | 50mm THK, CONCRETE TOPPING CONCRETE SLAB L METAL DECK - | 80,000 psi 2 - 25Ø x 90, SHEAR 1.0mm THK. CONNECTORS @ 400 O.C. (SUBMIT SAMPLE FOR ENGINEER'S APPROVAL) CONNECTOR PLATE (SHEAR) | (COLUMN TO COLUMN CONNECTION) CONNECTOR PLATE (MOMENT) | FILLET FULL WELD

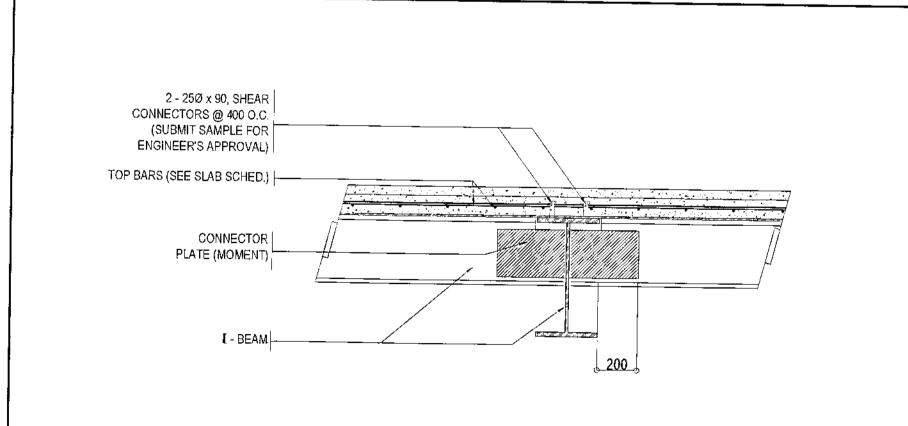
# TYP. BEAM TO COLUMN CONNECTION 1

SCALE 1:20 MTS SCALE 1:40 MTS (A3 SIZE)

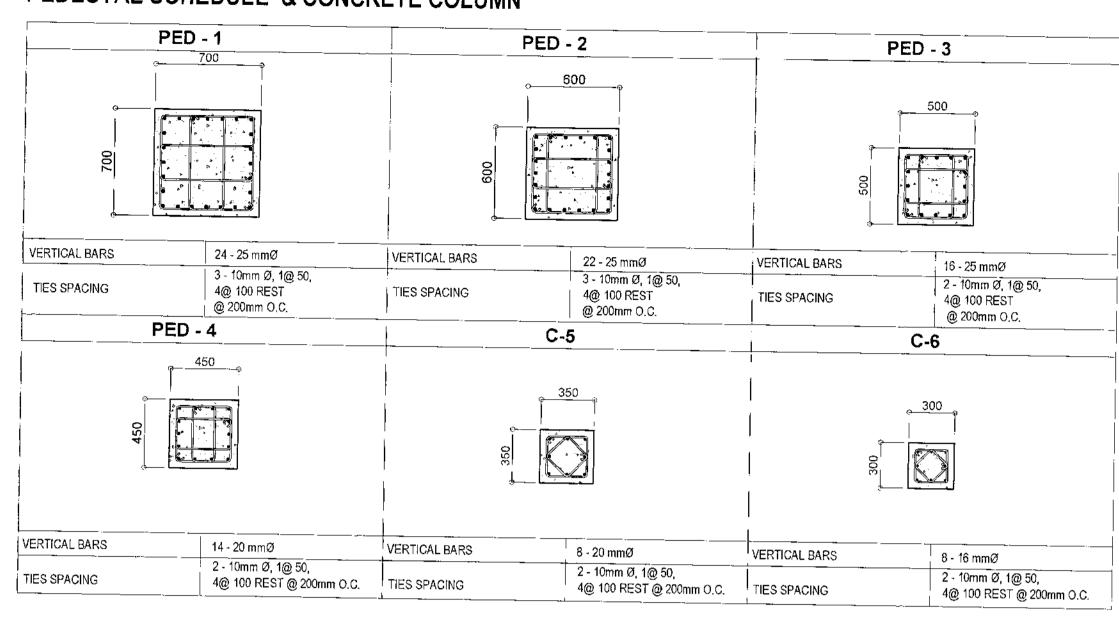


# TYP. BEAM TO COLUMN CONNECTION 2

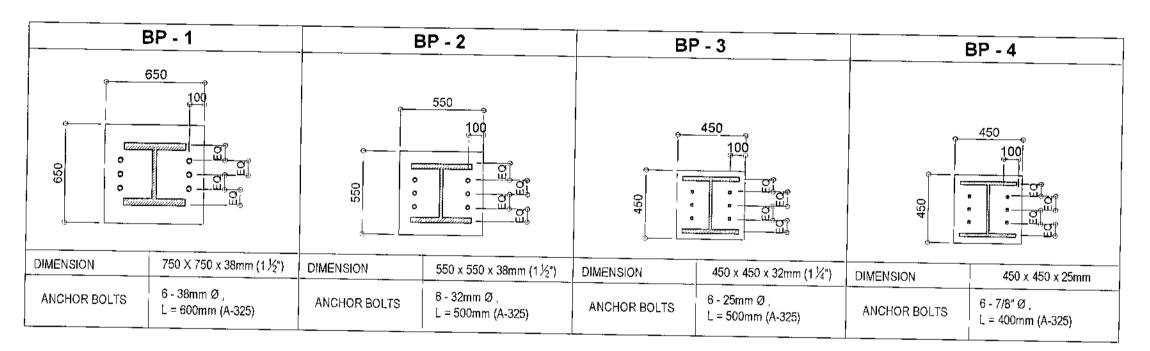
SCALE 1:20 MTS SCALE 1:40 MTS (A3 SIZE)



# PEDESTAL SCHEDULE & CONCRETE COLUMN

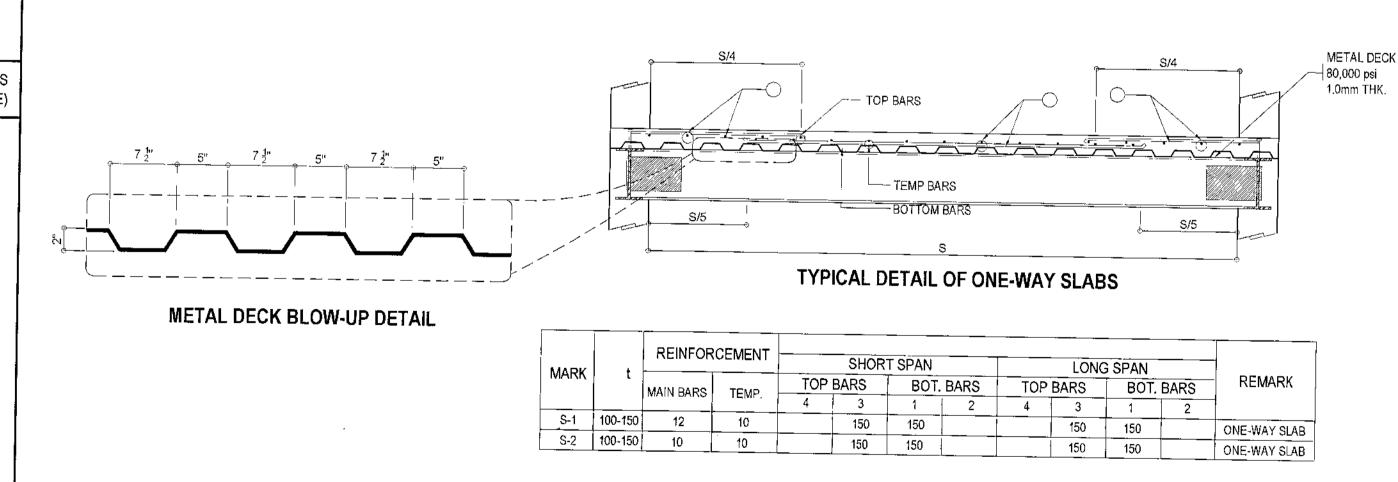


# BASEPLATE & ANCHOR BOLT SCHEDULE



# PEDESTAL, BASEPLATE & ANCHOR BOLT DETAIL

NOT TO SCALE



**BEAM SCHEDULE** 

NOT TO SCALE

TYPICAL BEAM TO BEAM CONNECTION

RECOMMENDING APPROVAL

SCALE 1:20 MTS SCALE 1:40 MTS (A3 SIZE)

APPROVED BY:

SLAB DETAIL

PROJECT TITLE:

NOT TO SCALE

Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY



PROVISO: DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS TO DUPICLATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

ARCH. LUCILLE H. CHUA, Juap, piep

ENGR. ISÁGÁNI R. VERZOSA, JR OIC, CITY ENGINEER

HON. MA. JOSEFINA G. BELMONTE

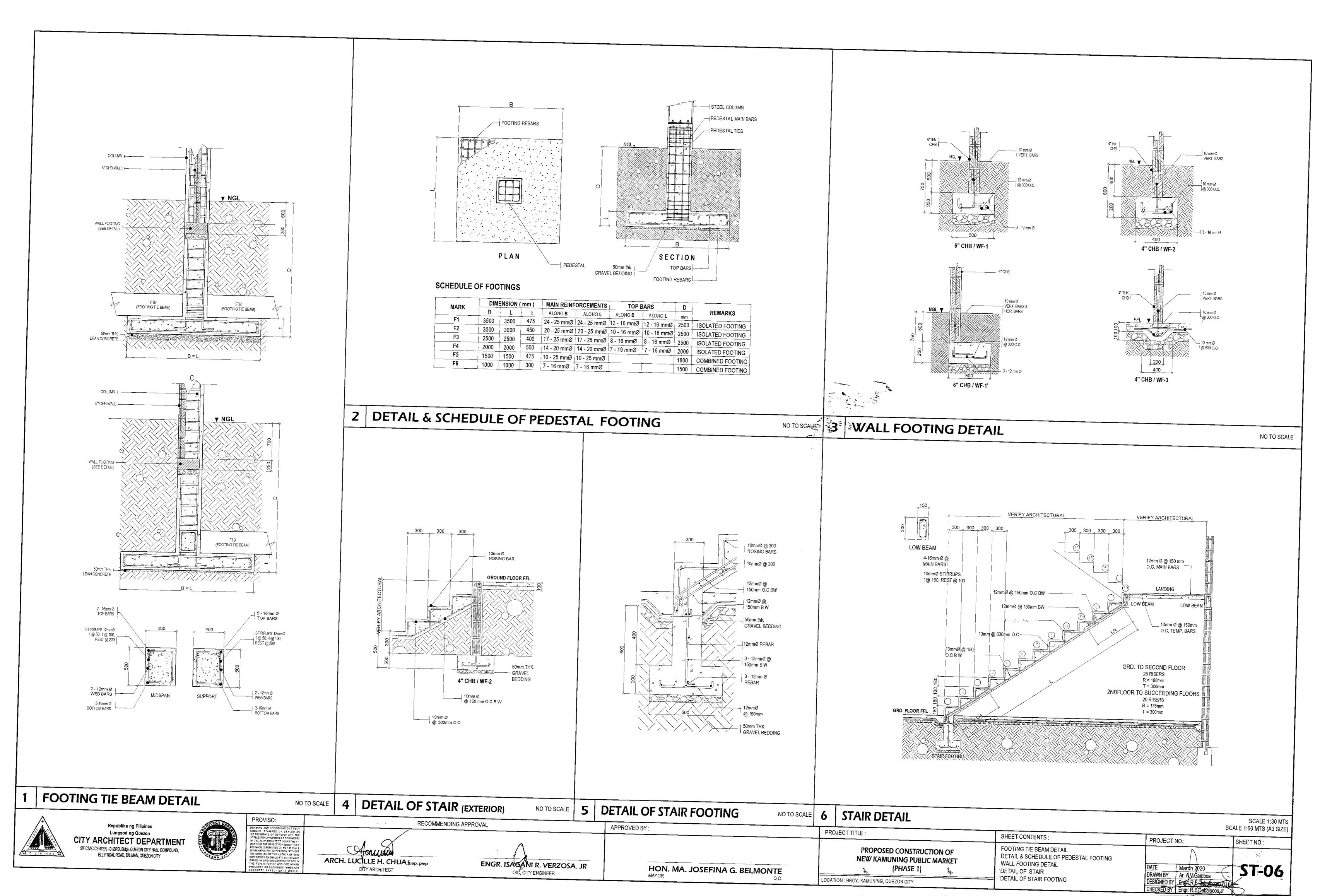
PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET & (PHASE 1) LOCATION: BRGY, KAMUNING, QUEZON CITY

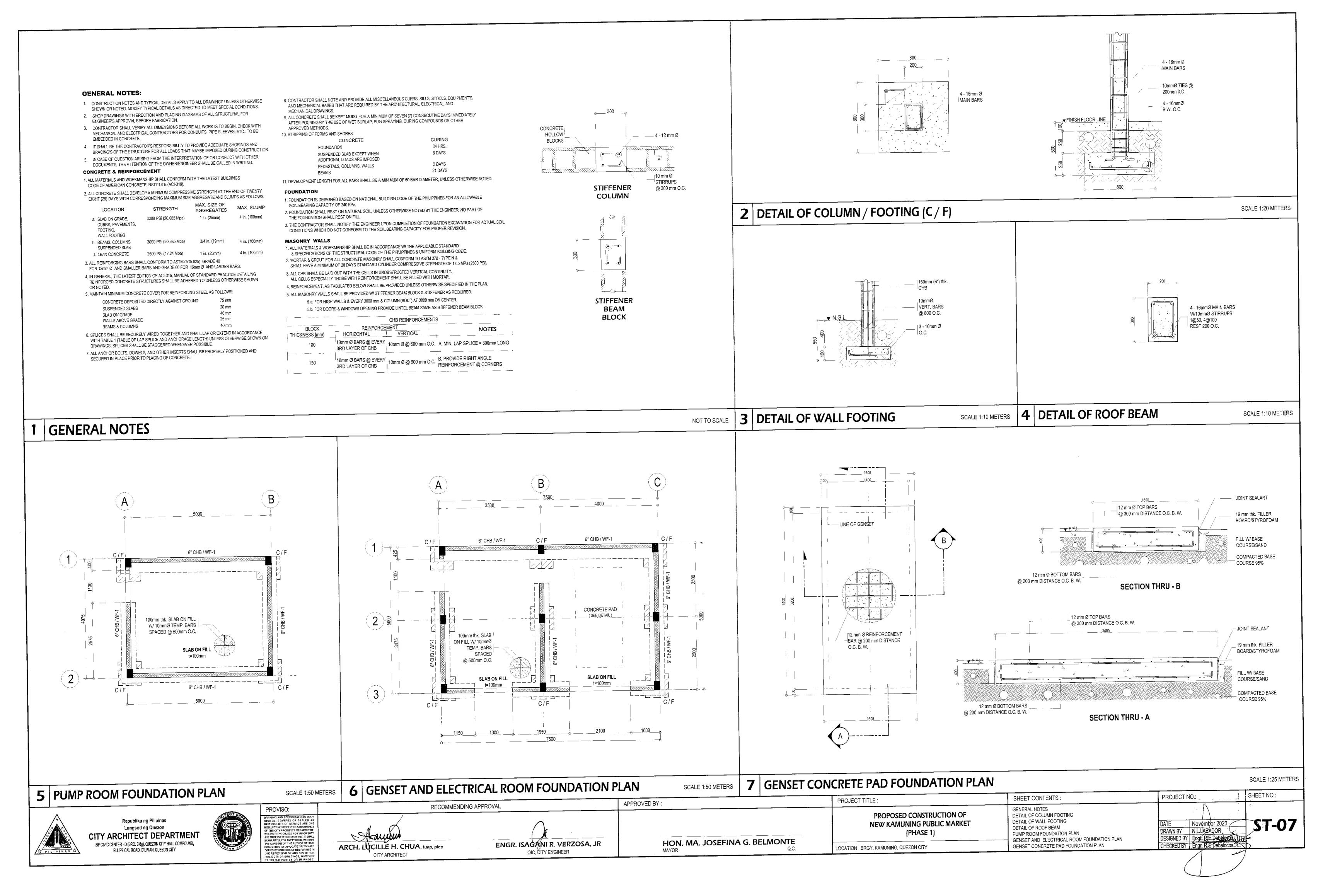
OLUMN SCHEDULE BEAM SCHEDULE TYPICAL BEAM TO COLUMN CONNECTION 1
TYPICAL BEAM TO COLUMN CONNECTION 2
TYPICAL BEAM TO BEAM CONNECTION
PEDESTAL,BASEPLATE & ANCHOR BOLT DETAIL

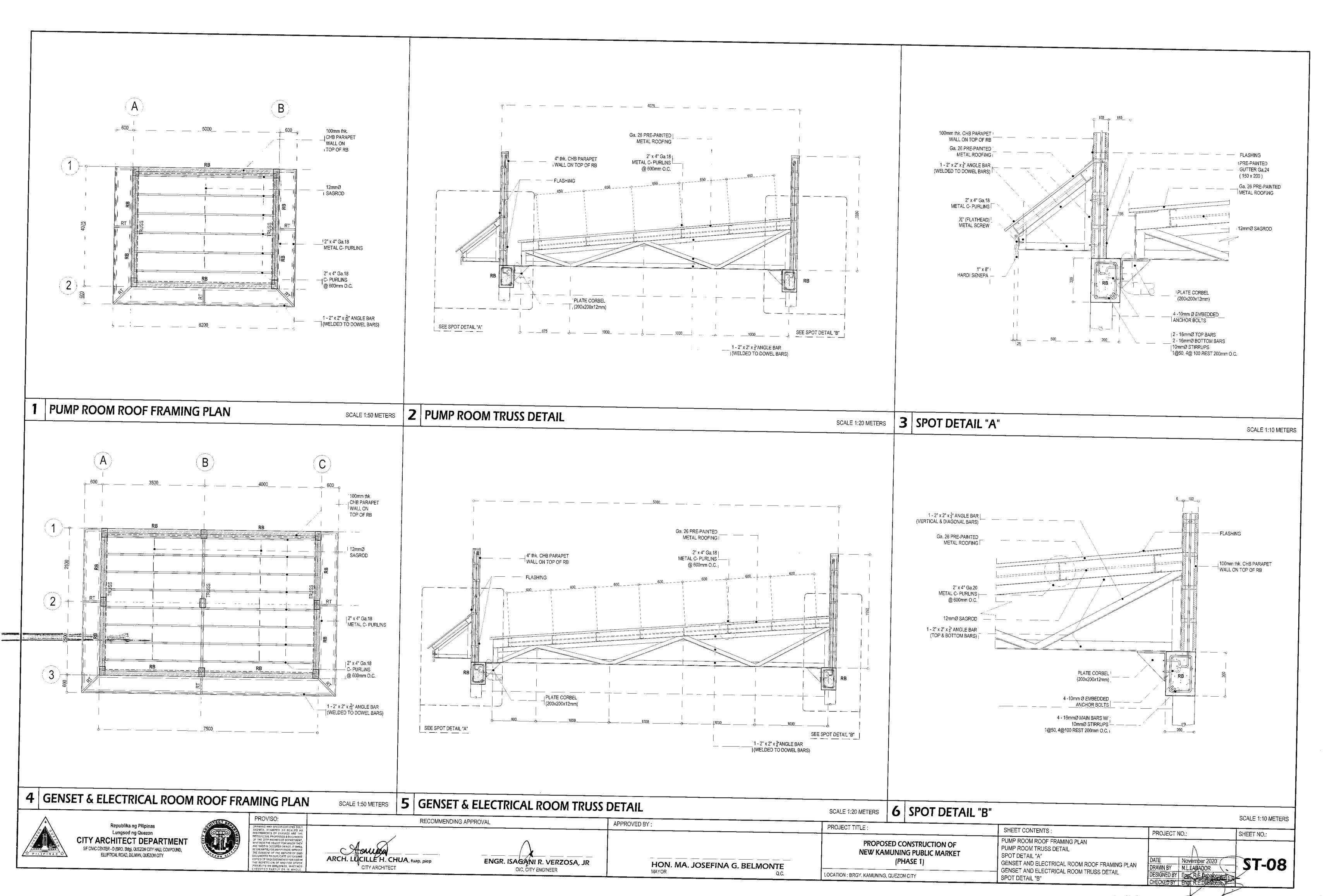
SHEET CONTENTS:

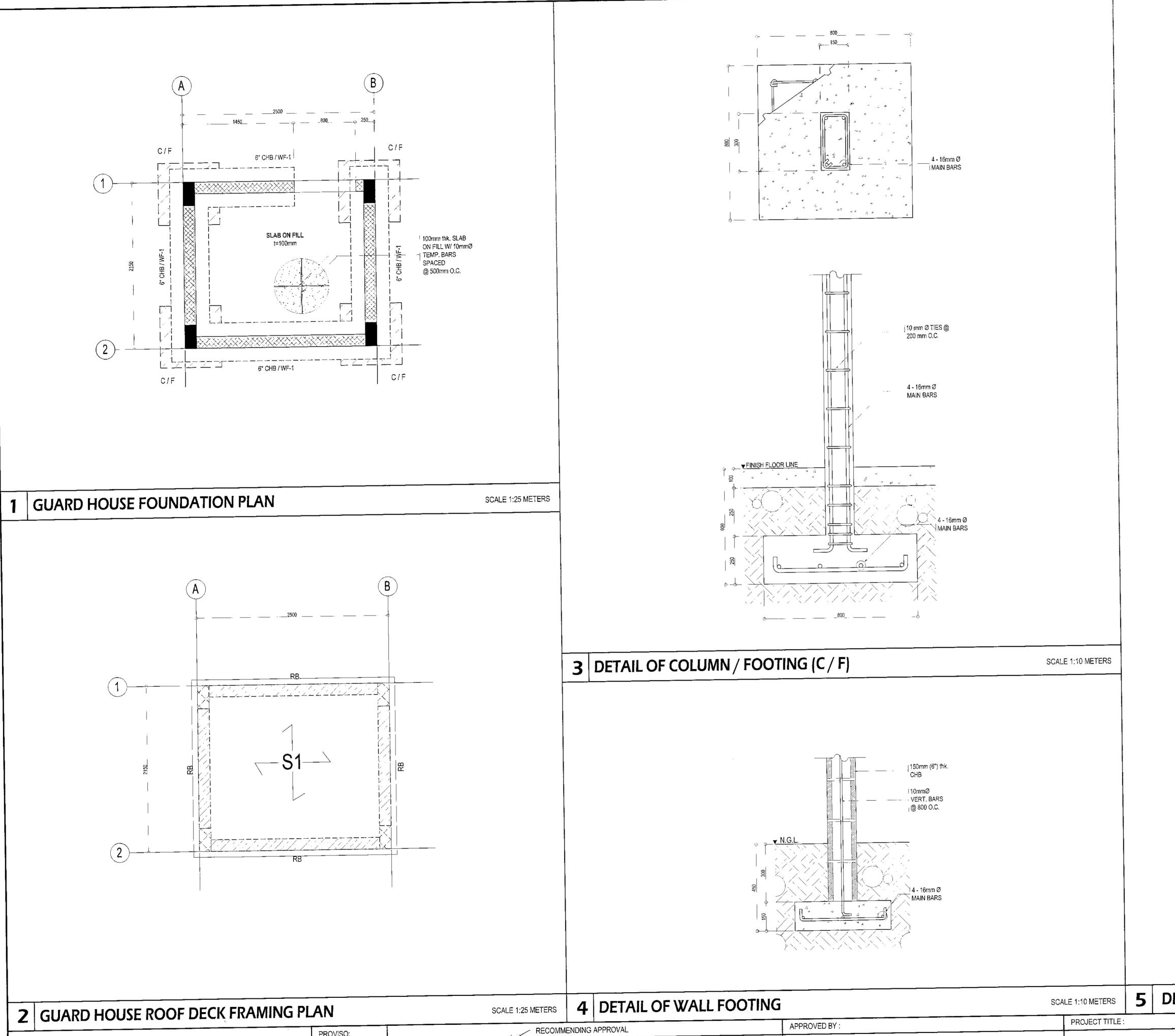
PROJECT NO .: SHEET NO.: DATE March 2020
DRAWN BY Ar. A.V. Gamboa
DESIGNED BY Engl. R.E. Debalocos Ir III

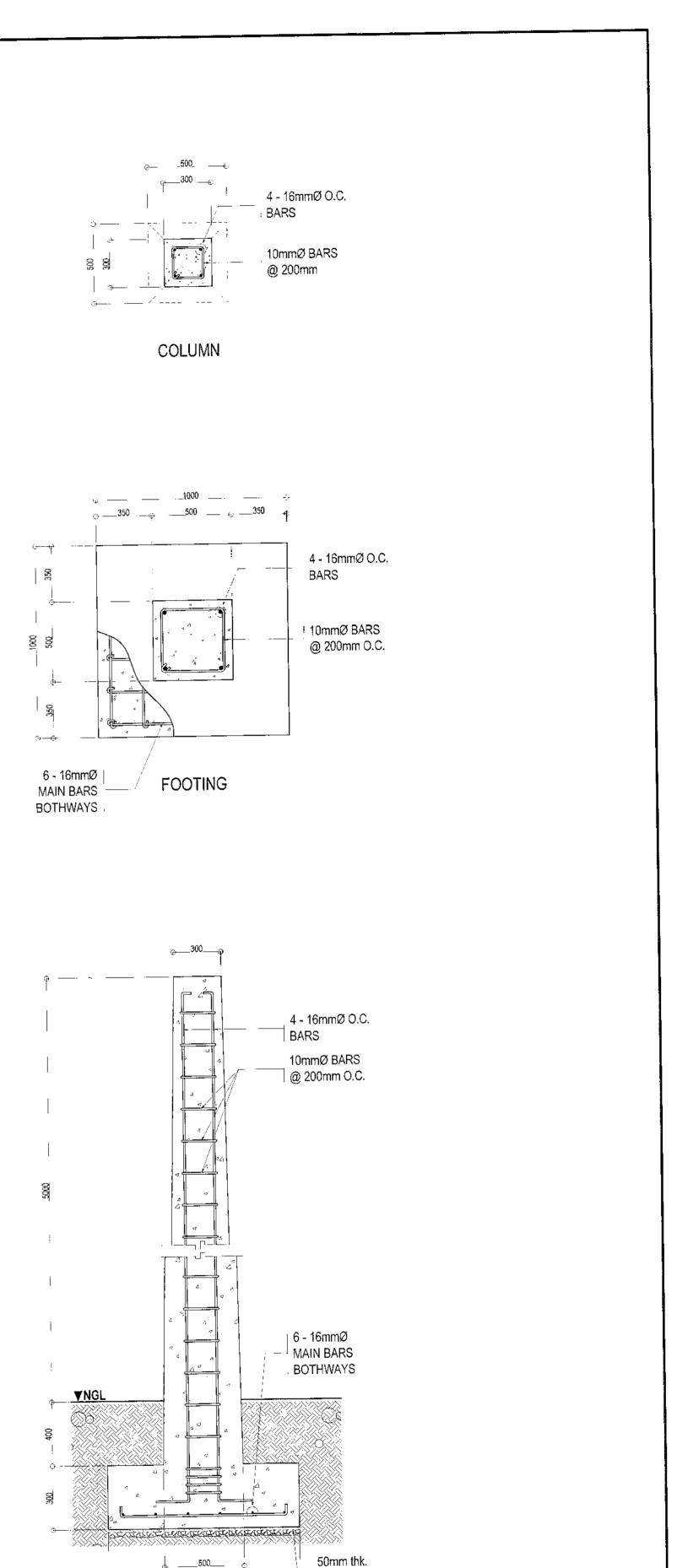
**ST-05** 











SECTION 5 DETAIL OF SERVICE ENTRANCE COLUMN SCALE 1:20 METERS SHEET NO.: PROJECT NO.: SHEET CONTENTS: GUARD HOUSE FOUNDATION PLAN



Republika ng Pilipinas

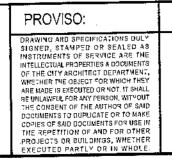
Lungsod ng Quezon

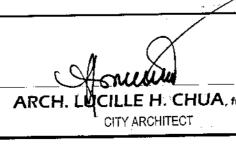
CITY ARCHITECT DEPARTMENT

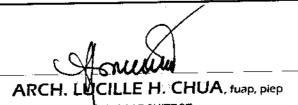
5/F CIVIC CENTER - D (BRO, Bidg), QUEZON CITY HALL COMPOUND,

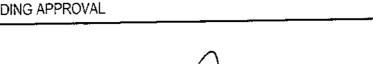
ELLIPTICAL ROAD, DILIMAN, QUEZON CITY











ENGR. ISAGANI R. VERZOSA, JR

HON. MA. JOSEFINA G. BELMONTE

PROPOSED CONSTRUCTION OF **NEW KAMUNING PUBLIC MARKET** (PHASE 1)

LOCATION: BRGY, KAMUNING, QUEZON CITY

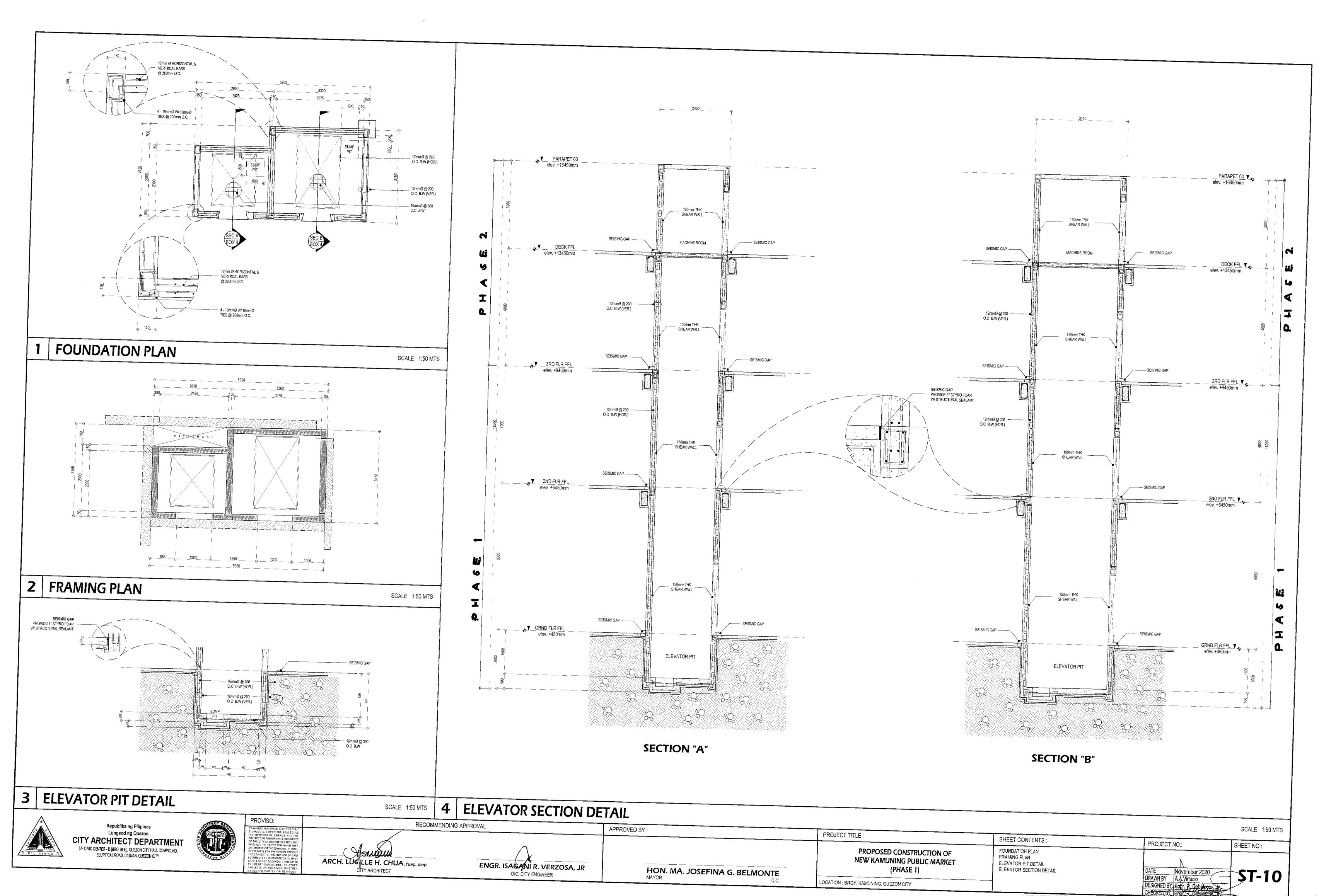
GUARD HOUSE ROOF DECK FRAMING PLAN DETAIL OF COLUMN AND FOOTING DETAIL OF WALL FOOTING DETAIL OF SERVICE ENTRANCE COLUMN

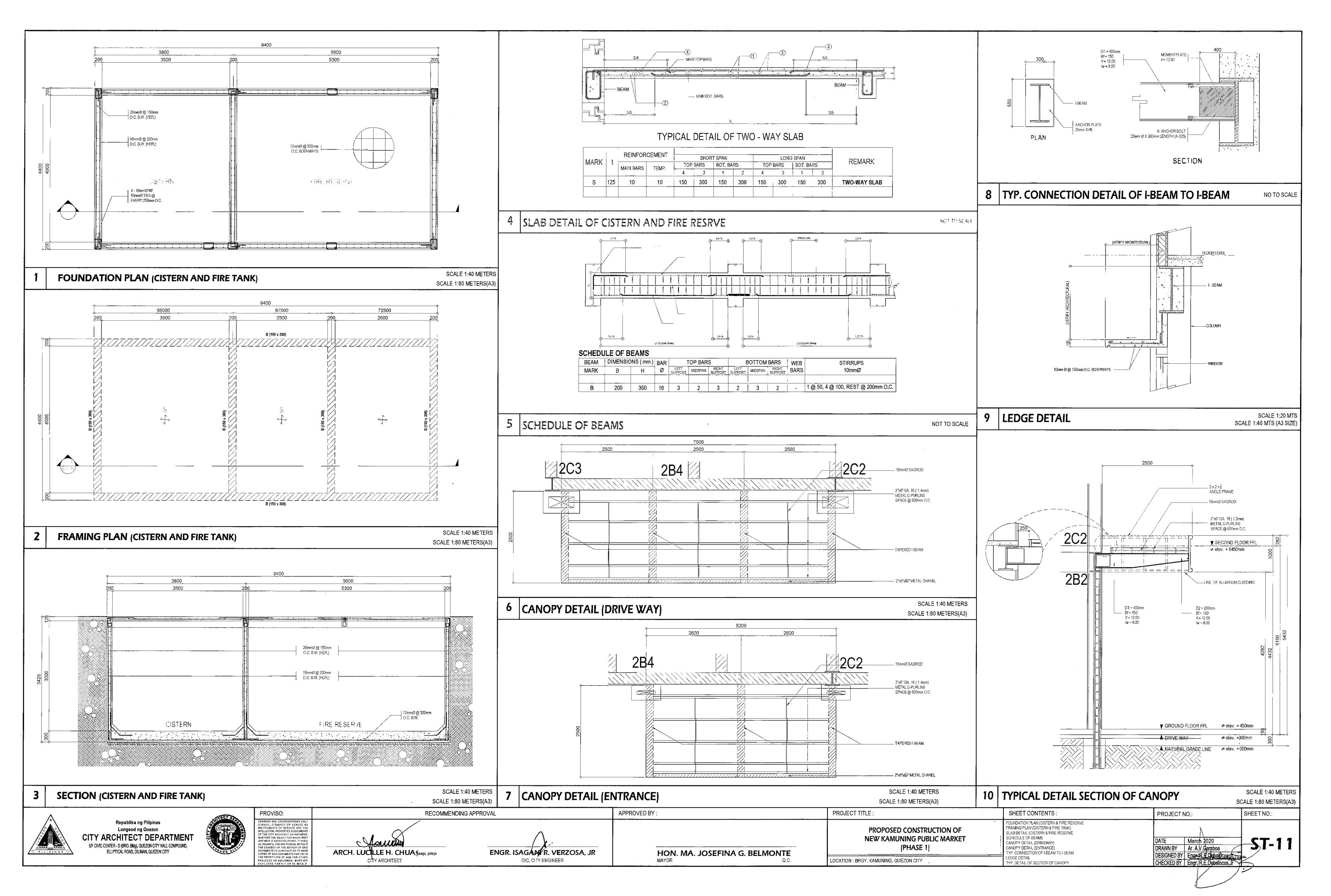
DATE November 2020

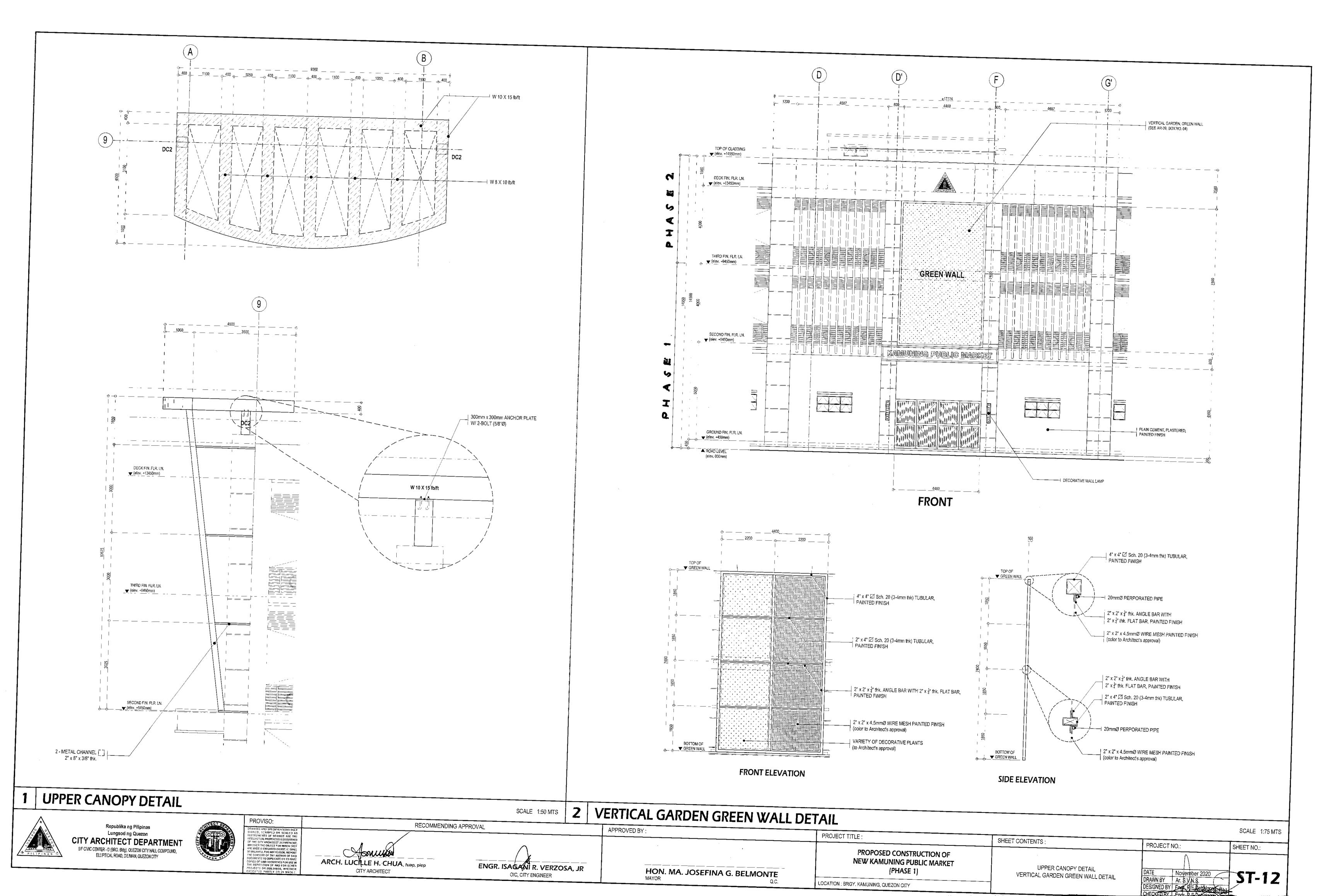
DRAWN BY N.L. ABADOR

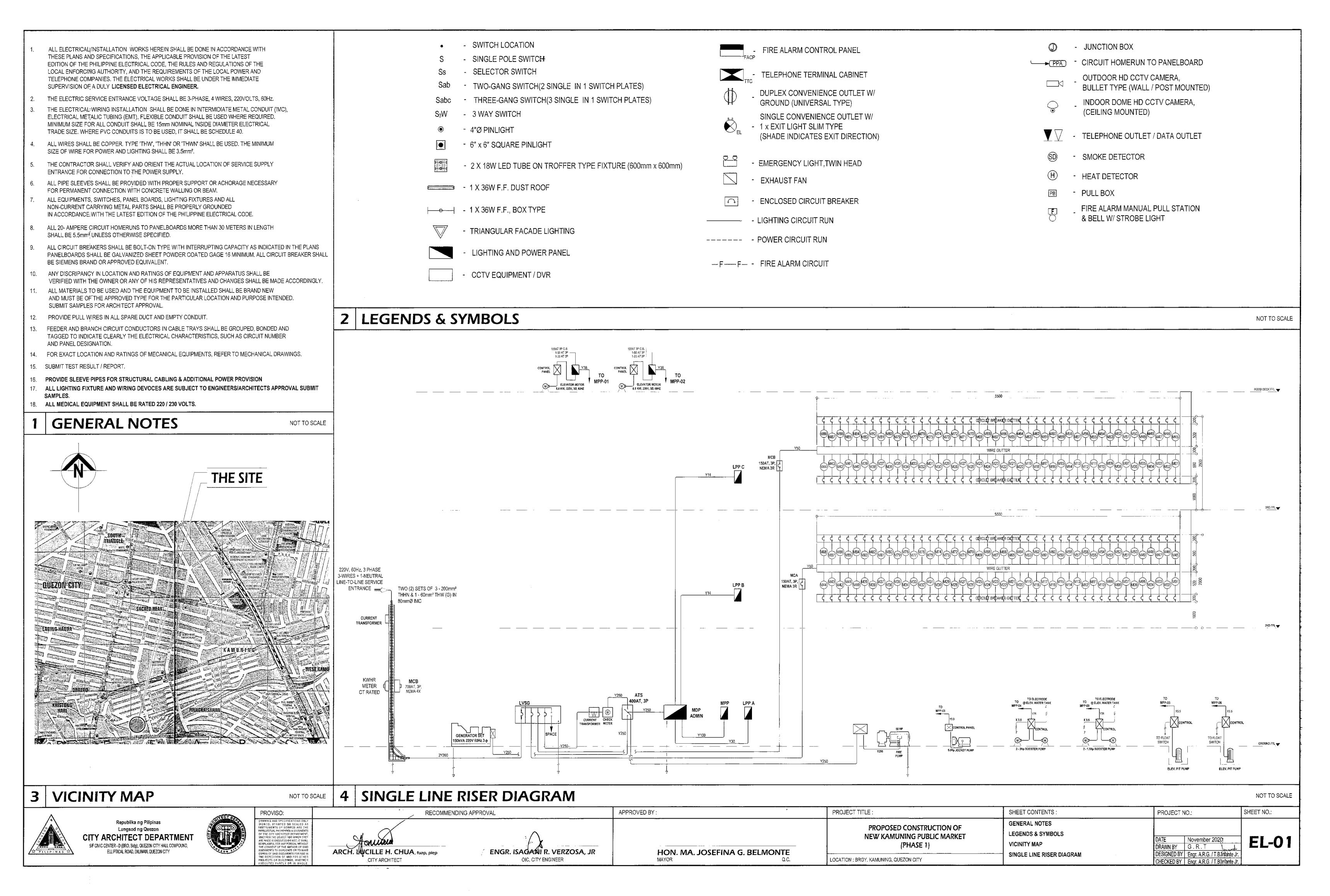
DESIGNED BY Engr R Debalogos Checked BY Engr R.E. Debalogos St.

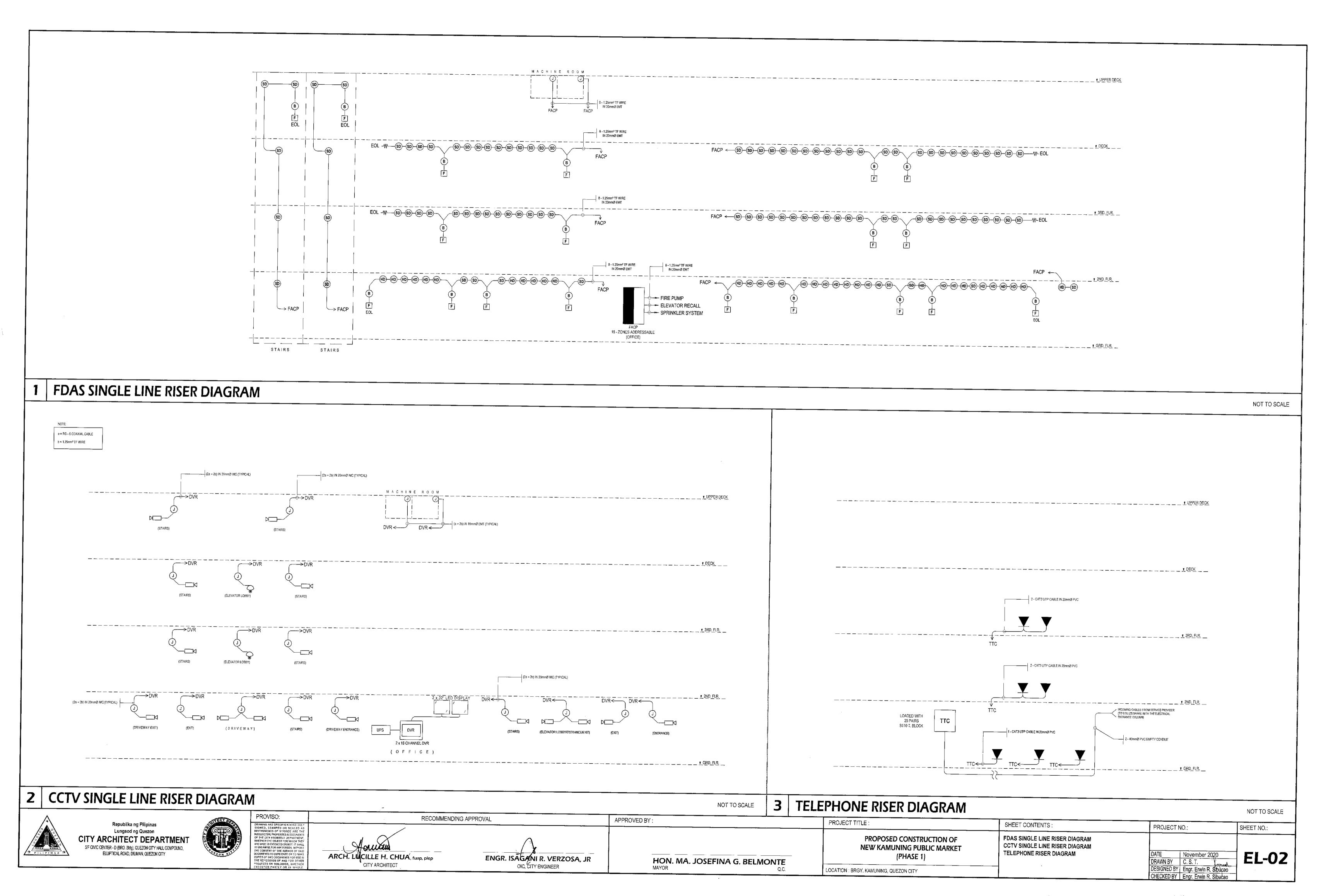
**ST-09** 













Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DIEIMAN, QUEZON CITY

 $I_t = 47.55 * \sqrt{3} = 82.36$  Amperes



PROVISO: ORAWING AND SPECIFICATIONS DULY STONED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DIGUMENTS TO DUPLICATE OR TO MAKE COMES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE

ARCH. QUCILLE H. CHUA, fuap, piep CITY ARCHITECT

RECOMMENDING APPROVAL

ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

HON. MA. JOSEFINA G. BELMONTE
MAYOR Q.C.

APPROVED BY:

PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1) LOCATION: BRGY, KAMUNING, QUEZON CITY

PROJECT TITLE:

DATE November 2020
DRAWN BY G. R. T
DESIGNED BY Engr. A.R.G. / T.8. Infante Jr.
CHECKED BY Engr. A.R.G. / T.8. Infante Jr.

PROJECT NO.:

**EL-03** 

SHEET NO.:

SCHEDULE OF LOADS

NOT TO SCALE

Feeder Line: Use: 3 - 30mm<sup>2</sup> THHN + 1 - 14.0mm<sup>2</sup> THW (G) in 32mmØ IMC / Y30

CKT	VOLTS	OUT	LET	OTHER LOAD SERVICE	AM	PERE LOA	(D	3Ø	VOLT	CIRCUIT	OLZE OF MADE
NO.	VOLIS	LO	CO	OTHER LOAD SERVICE	AB	ВС	CA	310	AMPERE	BREAKER	SIZE OF WIRE
1	220	13			5.91			· · · · · · · · · · · · · · · · · · ·	1,300	20AT, 2P, Bolt-On	2 - 3.5mm² T HHN + 1 - 2.0mm² T HW in 20mmØ IMC / X3.5
2	220	16			7.27			· ·	1,600	20AT, 2P, Bolt-On	2 - 3.5mm <sup>2</sup> THHN + 1 - 2.0mm <sup>2</sup> THW in 20mmØ IMC / X3.5
3	220	20					9.09		2,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5
4	220	15					6.82		1,500	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5
5	220	19		10 - Exhaust Fan		9.77			2,150	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5
6	220	17				7.73			1,700	20AT, 2P, Bolt-On	2 - 3.5mm <sup>2</sup> T HHN + 1 - 2.0mm <sup>2</sup> T HW in 20mmØ IMC / X3.5
7	220	17			7.73				1,700	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5
8	220	5	1		3.09				680	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5
9	220			13- Emergency Light			10.64		2,340	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5
10	220		7	2- Emergency Light			7.36		1,620	20AT , 2P, Bolt-On	2 - 3.5mm² T HHN + 1 - 2.0mm² T HW in 20mmØ IMC / X3.5
11	220			1.5 Hp Window Type ACU		10.00			2,200	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> T HHN + 1 - 3.5mm <sup>2</sup> T HW in 225mmØ IMC / X5.5
12	220		·	FACP		6.82			1,500	30AT, 2P, Bolt-On	2 - 5.5mm² T HHN + 1 - 3.5mm² T HW in 225mmØ IMC / X5.5
13	220			DVR & DISPLAY	6.82				1,500	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW in 225mmØ IMC / X5.5
14	220			SIGNAGE POWER PROVISION			6.82		1,500	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW in 225mmØ IMC / X5.5
15	220			EXHAUST FAN POWER PROVISION			6.82		1,500	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW in 225mmØ IMC / X5.5
16	220			SPARE		6.82			1,500	30AT, 2P, Bolt-On	
			TO	TAL	30.82	41.14	47.55		26,290		

PANEL: LPPA MAIN: 100AT, 100AF, 3P

18KAIC, 240V, BOLT-ON

GENERATOR SET Use: 1 - 150kVA, 3P, 220V, 60Hz, 1800 rpm with 0.8 pf, Diesel Engine Driven Stand-By Generator Set

**ATS**: 400AT, 500AF, 3P, 220V, 60 Hz

Use: 3 - 250mm<sup>2</sup> THHN + 1 - 60mm<sup>2</sup> THW (G) in 90mmØ IMC / Y250

 $I_t = 141.54 * \sqrt{3} + 99.20 + (42.00 \times 0.25) = 354.84$  Amperes Feeder Line:

CKT	100KAIC,		LET		AMPERE LOAD			3Ø	VOLT	T		
NO.	VOLTS	LO		OTHER LOAD SERVICE	AB	ВС	CA	3Ø	AMPERE	CIRCUIT BREAKER	SIZE OF WIRE	
1	220			LPPA	30.82	41.14	47.55		26,290	100AT, 3P, MCCB	3 - 30mm² THHN + 1 - 14.0mm² THW (G) in 32mmØ IMC / Y30	
2	220			LPPB	26.82	27.95	28.55		18,330	70AT, 3P, MCCB	3 - 14mm² THHN + 1 - 5.5mm² THW (G) in 25mmØ IMC / Y14	
3	220			LPPC	40.45	27.95	28.55		21,330	100AT, 3P, MCCB	3 - 30mm <sup>2</sup> THHN + 1 - 14.0mm <sup>2</sup> THW (G) in 32mmØ IMC / Y30	
4	220			MPP	21.72	37.61	36.90	99.20	64,935	200AT, 3P, MCCB	3 - 100mm2 THHN + 1 - 22.0mm2 THW (G) in 65mmØ IMC / Y100	
5	220			SPACE					· · · · · · · · · · · · · · · · · · ·			
6	220			SPACE								
	<u> </u>		TOTA	AL	119.81	134.65	141.54	99.20	130,885	<u> </u>		

Use: 2 Sets 3 - 200mm<sup>2</sup> THHN + 1 - 50mm<sup>2</sup> THW (G) in 80mmØ IMC / 2Y200

 $I_t = 294.46 * \sqrt{3} + 99.20 + (42 \times 0.25) = 619.71$  Amperes

PANEL: LOW VOLTAGE SWITCH GEAR "LVSG"

MAIN: **700AT**, 7**00AF**, **3P** 

Service Entrance Conductor:

PANEL: MDPAD (ADMIN)

	100KAIC,		i										
CKT	VOLTS	OUT	'LET	OTHER LOAD SERVICE	AM	IPERE LOA	AD	3ø	VOLT	CIRCUIT	SIZE OF WIRE		
NO.	102.0	LO	CO	OTHER COAD CERTICE	AB	ВС	CA	36	AMPERE	BREAKER	SIZE OF WIKE		
1	220			MCA (METER CENTER A)	76.45	71.36	76.46		49,280	150AT, 3P, MCCB	3 - 50mm <sup>2</sup> THHN + 1 - 14.0mm <sup>2</sup> THW (G) in 40mmØ IMC / Y50		
2	220			MCB (METER CENTER B)	76.45	71.36	76.46		49,280	150AT, 3P, MCCB	3 - 50mm <sup>2</sup> THHN + 1 - 14.0mm <sup>2</sup> THW (G) in 40mmØ IMC / Y50		
3	220	·		MDPAD (ADMIN)	119.81	134.65	141.54	99.20	130,885	400AT, 3P, MCCB	3 - 250mm <sup>2</sup> THHN + 1 - 60mm <sup>2</sup> THW (G) in 90mmØ IMC / Y250		
4	220			SPACE			<del></del>						
				\L	272.72	277.38	294.46	99.20	229,445				

Feeder Line: Use: 3 - 100mm<sup>2</sup> THHN + 1 - 22.0mm<sup>2</sup> THW (G) in 65mmØ IMC / Y100

 $I_t = 37.61 * \sqrt{3} + 99.20 + (42.00 \times 0.25) = 174.84$  Amperes

CKT	VOLTS	OUT	TLET	OTHER LOAD SERVICE	AM	PERE LOA	ND	3Ø	VOLT	CIRCUIT	OLZE OF MADE		
NO.	VOLIG	LO	co	OTHER LOAD SERVICE	AB	ВС	CA	36	AMPERE	BREAKER	SIZE OF WIRE		
1	220			15Hp Elevator Motor				42.00	16,712	125AT, 3P, MCCB	3 - 38mm² THHN + 1 - 8.0mm² TW (G) in 32mmØ IMC / Y3		
2	220			15Hp Elevator Motor				42.00	16,712	125AT, 3P, MCCB	3 - 38mm² THHN + 1 - 8.0mm² TW (G) in 32mmØ IMC / Y		
3	220			5Hp Jockey Pump				15.20	6,048	50AT, 3P, Bolt-On	3 - 8.0mm² THHN + 1 - 5.5mm² THW in 25mmØ IMC / Y8.0		
4	220			2 - 2Hp Booster Pump			24.00	·····	13,529	50AT, 3P, Bolt-On	3 - 8.0mm <sup>2</sup> THHN + 1 - 5.5mm <sup>2</sup> THW in 25mmØ IMC / Y8.0		
5	220			3/4Hp Elevator Pit Pump		6.90			1,587	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW in 20mmØ IMC / X5.5		
6	220			3/4Hp Elevator Pit Pump	6.90				1,587	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW in 20mmØ IMC / X5.5		
7	220	2				0.91			200	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 3.5mm² THW in 20mmØ IMC / X3.5		
8	220			STP POWER PROVISION	14.82	9.80	12.90		8,561	70AT, 3P, Bolt-On	3 - 14.0mm <sup>2</sup> THHN + 1 - 5.5mm <sup>2</sup> THW in 20mmØ IMC/Y14		
9	220			2 - 1.5Hp Booster Pump		20.00			7,958	50AT, 3P, Bolt-On	3 - 8.0mm <sup>2</sup> THHN + 1 - 5.5mm <sup>2</sup> THW in 25mmØ IMC / Y8.0		
10	220			SPARE									
			TOTA	\L	21.72	37.61	36.90	99.20	64,935				

SHEET CONTENTS:

SCHEDULE OF LOADS

PANEL: MECHANICAL POWER PANEL "MPP"

Use: 3 - 30mm<sup>2</sup> THHN + 1 - 14.0mm<sup>2</sup> THW (G) in 32mmØ IMC / Y30

Feeder Line:

 $I_t = 40.45 * \sqrt{3} = 70.07 \text{ Amperes}$ 

CKT	VOLTS	OUT	LET	OTHER LOAD SERVICE	AM	IPERE LOA	ND	3Ø	VOLT	CIRCUIT	SIZE OF MIDE		
NO.	VOLIG	LO	CO	OTHER LOAD SERVICE	AB	BC	CA	שנ	AMPERE	BREAKER	SIZE OF WIRE		
1	220	11			5.00				1,100	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
2	220	12			5.45				1,200	20AT , 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
3	220	19					8.64		1,900	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
4	220	15					6.82	-	1,500	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
5	220	13		4 - Exhaust Fan		6.36			1,400	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
6	220	13		6 - Exhaust Fan	İ	6.59			1,450	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
7	220			9 - Emergency Light / 1 - Exit Light	8.18				1,800	20AT , 2P, Bolt-On	2 - 3.5mm <sup>2</sup> THHN + 1 - 2.0mm <sup>2</sup> THW in 20mmØ IMC / X3.5		
8	220			9 - Emergency Light / 1 - Exit Light	8.18				1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
9	220			6 - Ceiling Fan	7		4.91		1,080	20AT, 2P, Bolt-On	2 - 3.5mm <sup>2</sup> THHN + 1 - 2.0mm <sup>2</sup> THW in 20mmØ IMC / X3.5		
10	220	·· <u>-</u> ·		10 - Ceiling Fan			8.18		1,800	20AT, 2P, Bolt-On	2 - 3.5mm <sup>2</sup> THHN + 1 - 2.0mm <sup>2</sup> THW in 20mmØ IMC / X3.5		
11	220		•	10 - Ceiling Fan		8.18			1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5		
12	220			SIGNAGE POWER PROVISION		6.82			1,500	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW in 25mmØ IMC / X5.5		
13	220			SPARE	6.82				1,500	30AT, 2P, Bolt-On			
14	220			SPARE	6.82				1,500	30AT, 2P, Bolt-On			
		<del></del>	TOT	TAL	40.45	27.95	28.55		21,330				

MAIN: 100AT, 100AF, 3P 18KAIC, 240V, MCCB

PANEL: LIGHTING & POWER PANEL C "LPP C" (THIRD FLOOR)

PANEL: LIGHTING & POWER PANEL B "LPP B" (SECOND FLOOR)

Feeder Line: Use: 3 - 14mm<sup>2</sup> THHN + 1 - 5.5mm<sup>2</sup> THW (G) in 25mmØ IMC / Y14

 $I_t = 28.55 * \sqrt{3} = 49.45 \text{ Amperes}$ 

MAIN: 70AT, 100AF, 3P

	18KAIC, 2	240V, MC	СВ											
CKT	VOLTS	OUT	LET	OTHER LOAD SERVICE	AM	PERE LOA	AD	3Ø	VOLT	CIRCUIT	SIZE OF WIDE			
NO.	VOLIG	LO	CO	OTHER EOAD SERVICE	AB	ВС	CA	310	AMPERE	BREAKER	SIZE OF WIRE			
1	220	11			5.00				1,100	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
2	220	12	•		5.45		**		1,200	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
3	220	19					8.64		1,900	20AT , 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
4	220	15	_				6.82	·	1,500	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
5	220	13		4 - Exhaust Fan		6.36			1,400	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
6	220	13		6 - Exhaust Fan		6.59			1,450	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
7	220			9 - Emergency Light / 1 - Exit Light	8.18				1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
8	220			9 - Emergency Light / 1 - Exit Light	8.18				1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
9	220	_		6 - Ceiling Fan			4.91		1,080	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
10	220		<u>-</u>	10 - Ceiling Fan			8.18		1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
11	220			10 - Ceiling Fan		8.18			1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² THW in 20mmØ IMC / X3.5			
12	220			Spare		6.82			1,500	30AT, 2P, Bolt-On				
			тот	AL	26.82	27.95	28.55		18,330					

Republika ng Pilipinas Lungsod ng Quezon
CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO: Bldg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

PROVISO: DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PIRSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS FOR DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

ARCHILUCILLE H. CHUA, fuap, piep ·CITY ARCHITECT

ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.

**NEW KAMUNING PUBLIC MARKET** (PHASE 1) LOCATION : BRGY. KAMUNING, QUEZON CITY

DATE November 2020
DRAWN BY G . R . T
DESIGNED BY Engr. A.R.G. / T.B.Infante Jr.
CHECKED BY Engr. A.R.G. / T.B.Infante Jr. **EL-04** 

RECOMMENDING APPROVAL

APPROVED BY:

PROJECT TITLE: PROPOSED CONSTRUCTION OF SHEET CONTENTS: SCHEDULE OF LOADS

SHEET NO.: PROJECT NO.:

NOT TO SCALE

1 | SCHEDULE OF LOADS

PANEL: TYPICAL MCA & MCB (METER CENTER A & METER CENTER B)

MAIN: 150AT, 100AF, 3P

25KAIC, 240V, MCCB

|--|

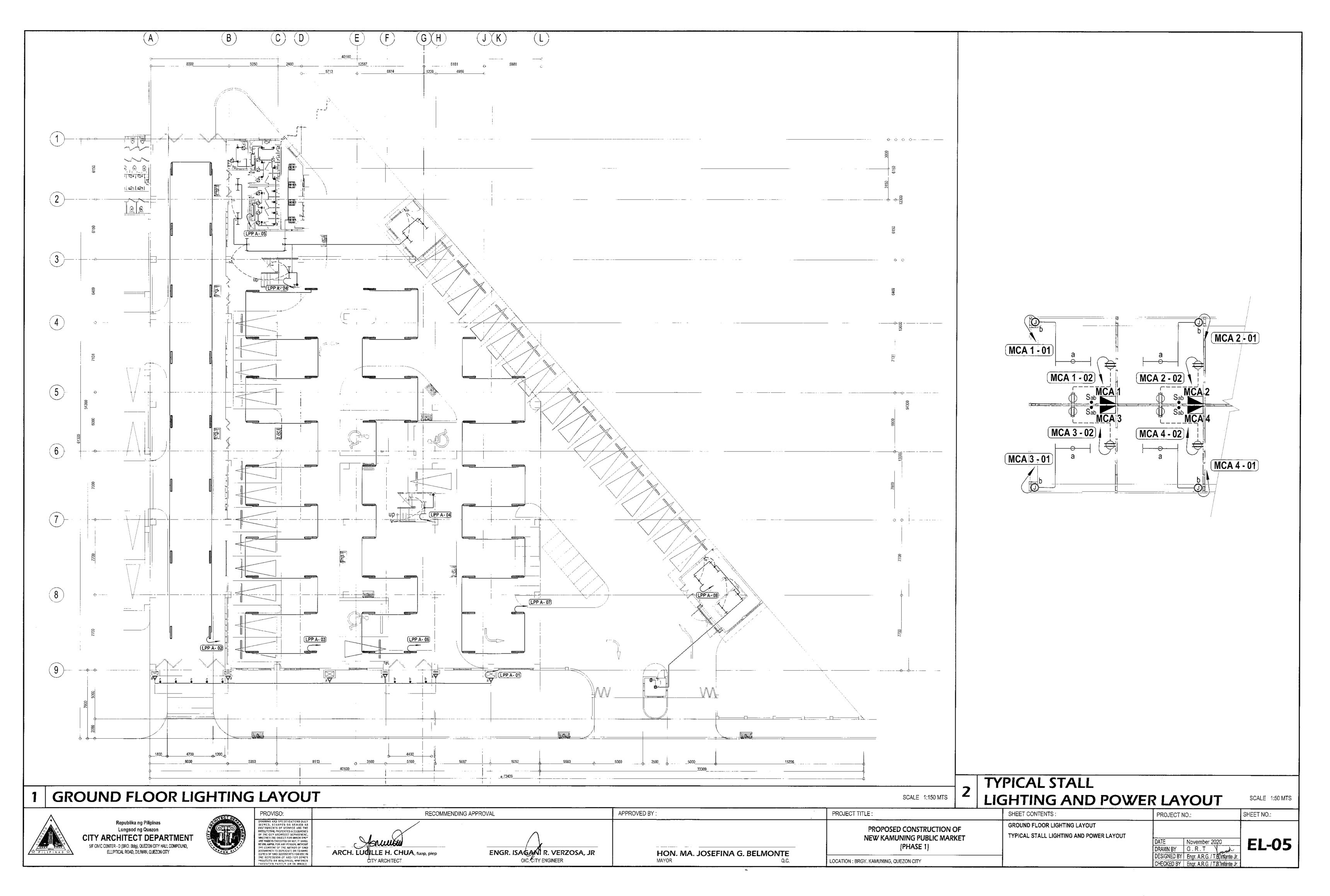
CKT	VOLTS	OUT	LET	OTUED LOAD CEDVICE	AM	PERE LOA	\D	20	VOLT	CIRCUIT	0175.05.14805	
NO.	VOLTS _	LO	CO	OTHER LOAD SERVICE	AB	ВС	CA	3Ø	AMPERE	BREAKER	SIZE OF WIRE	
1	220			KILOWATTHOUR METER 01	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
2	220			KILOWATTHOUR METER 02	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
3	220			KILOWATTHOUR METER 03			2.55	•	560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray	
4	220			KILOWATTHOUR METER 04			2.55	<del></del>	560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray	
5	220			KILOWATTHOUR METER 05		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
6	220			KILOWATTHOUR METER 06		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
7	220			KILOWATTHOUR METER 07	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
8	220			KILOWATTHOUR METER 08	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
9	220			KILOWATTHOUR METER 09			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
10	220			KILOWATTHOUR METER 10		- · <del>-</del> ·	2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
11	220			KILOWATTHOUR METER 11		2.55		<del> </del>	560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
12	220			KILOWATTHOUR METER 12		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
13	220			KILOWATTHOUR METER 13	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
14	220			KILOWATTHOUR METER 14	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
15	220			KILOWATTHOUR METER 15			2.55	•	560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
16	220			KILOWATTHOUR METER 16			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
17	220			KILOWATTHOUR METER 17		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
18	220			KILOWATTHOUR METER 18		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
19	220			KILOWATTHOUR METER 19	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray	
20	220			KILOWATTHOUR METER 20	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
21	220			KILOWATTHOUR METER 21			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
22	220			KILOWATTHOUR METER 22			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
23	220			KILOWATTHOUR METER 23		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
24	220	•		KILOWATTHOUR METER 24		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
25	220			KILOWATTHOUR METER 25	2.55	· · · -			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
26	220	<u></u>		KILOWATTHOUR METER 26	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
27	220			KILOWATTHOUR METER 27			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
28	220			KILOWATTHOUR METER 28			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
29	220			KILOWATTHOUR METER 29		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
30	220			KILOWATTHOUR METER 30		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
31	220			KILOWATTHOUR METER 31	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
32	220			KILOWATTHOUR METER 32	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
33	220			KILOWATTHOUR METER 33			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
34	220			KILOWATTHOUR METER 34			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray	
35	220			KILOWATTHOUR METER 35		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray	
36	220	· ·		KILOWATTHOUR METER 36		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
37	220	<del> </del>		KILOWATTHOUR METER 37	2.55			<del>-</del>	560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
38	220			KILOWATTHOUR METER 38	2.55			·	560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
39	220			KILOWATTHOUR METER 39			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray	
40	220			KILOWATTHOUR METER 40			2.55		560	30AT, 2P, Bolt-On		
41	220	· · ·	-	KILOWATTHOUR METER 41		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
42	220			KILOWATTHOUR METER 42		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	
43	220			KILOWATTHOUR METER 43	2.55			<u>-</u>	560	30AT, 2P, Bolt-On		
44	220			KILOWATTHOUR METER 44	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray	

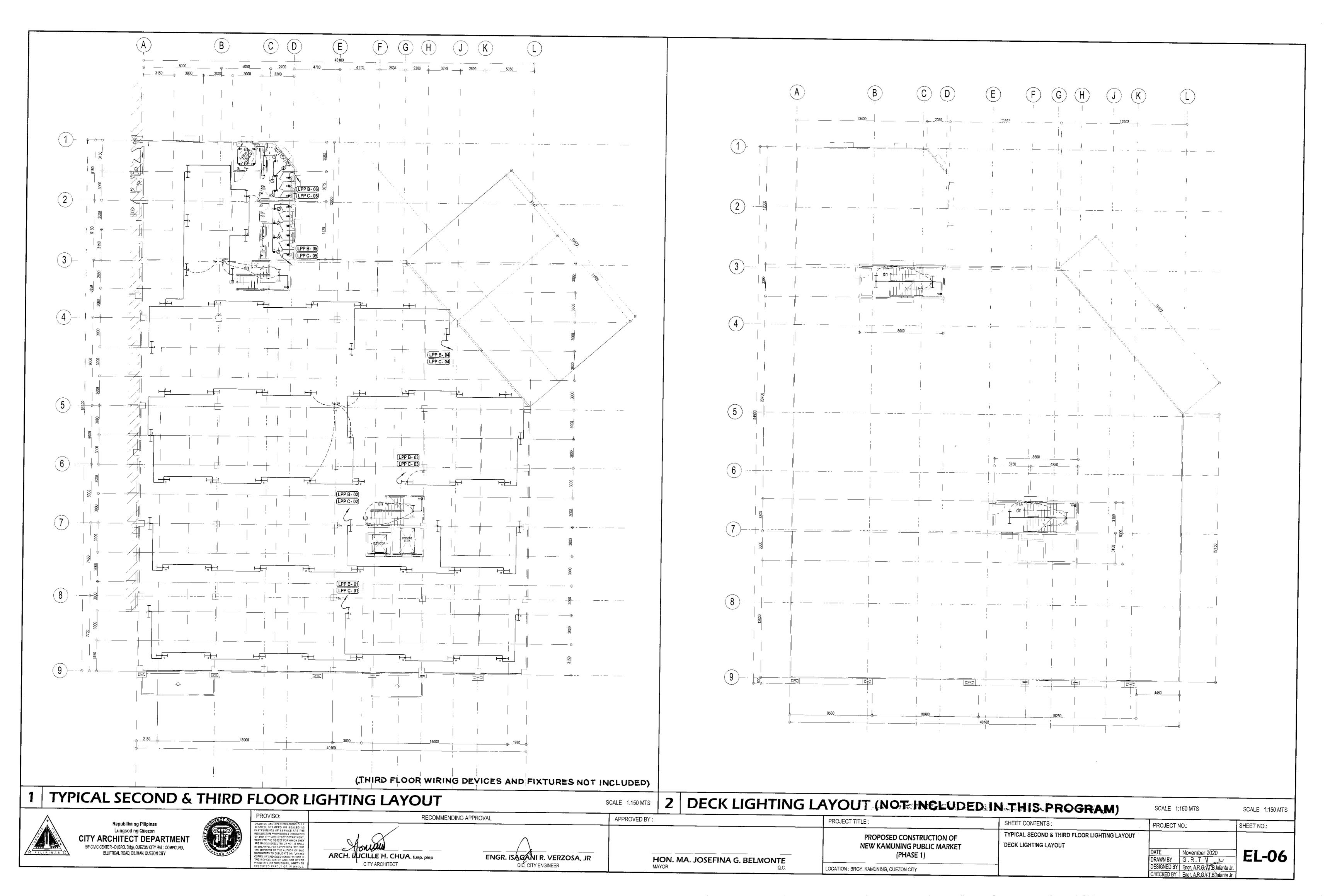
Use: 3 - 50mm<sup>2</sup> THHN + 1 - 14.0mm<sup>2</sup> THW (G) in 50mmØ IMC / Y50

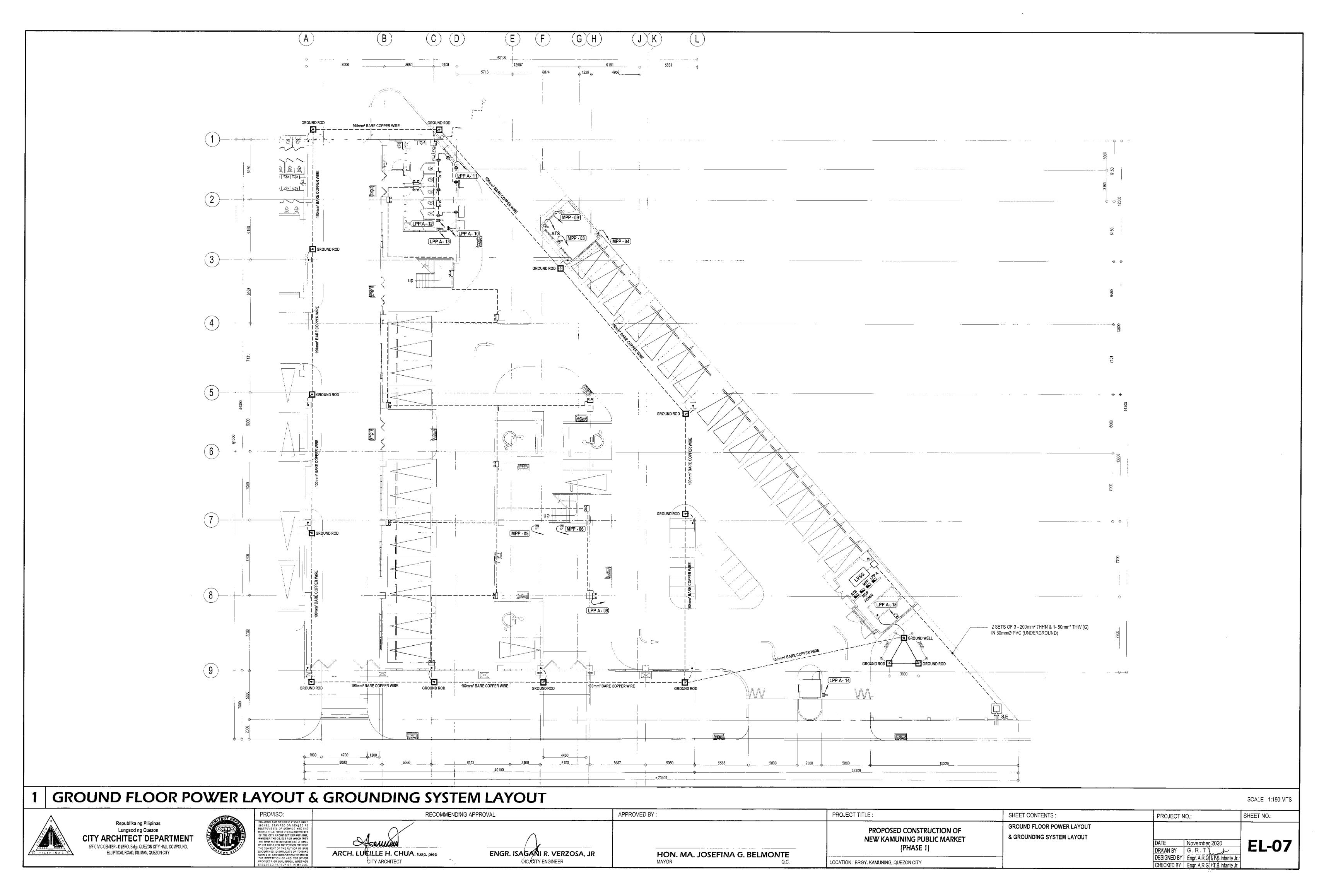
Feeder Line:

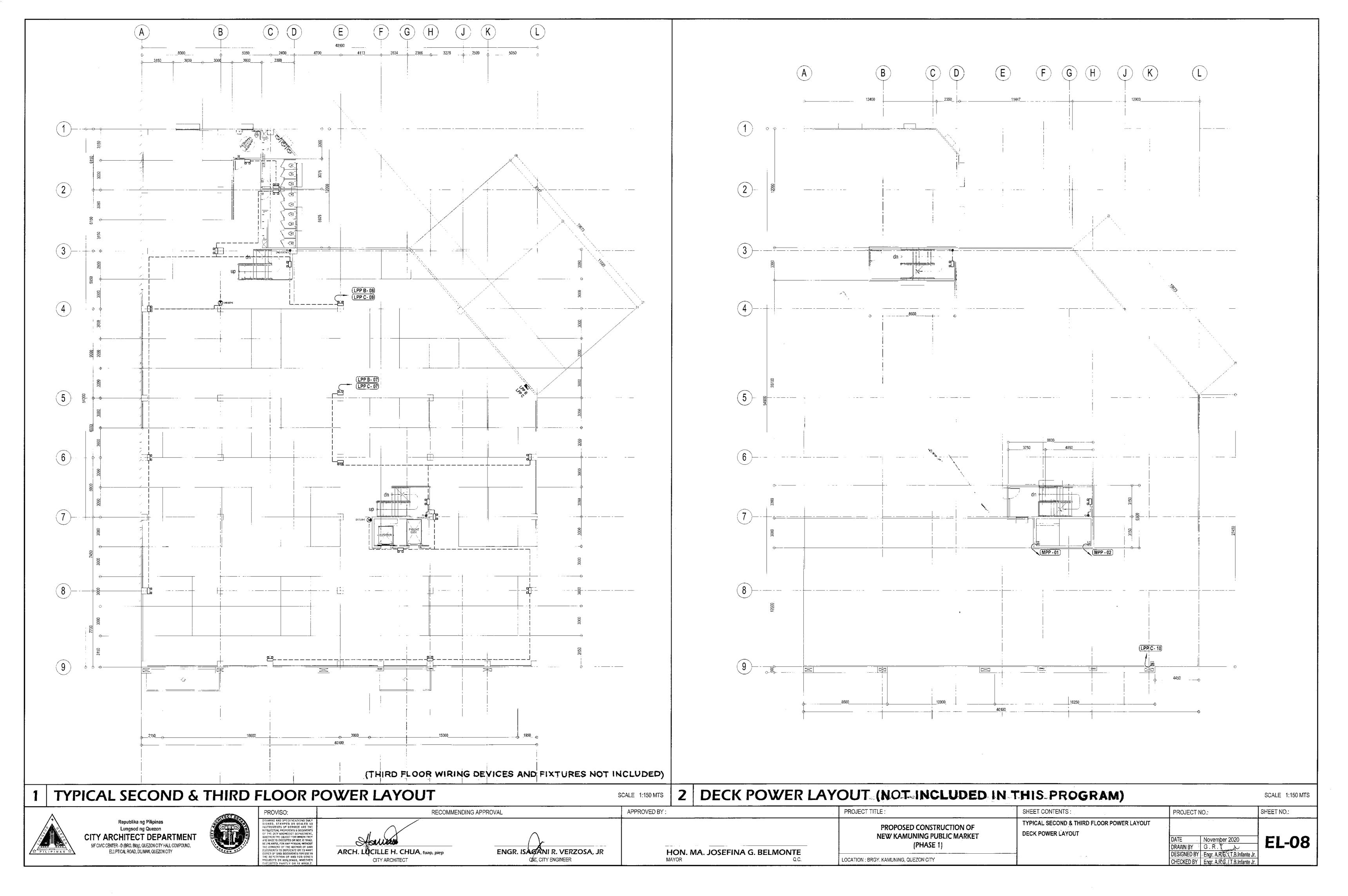
 $I_t = 76.46 * \sqrt{3} = 132.44 \text{ Amperes}$ 

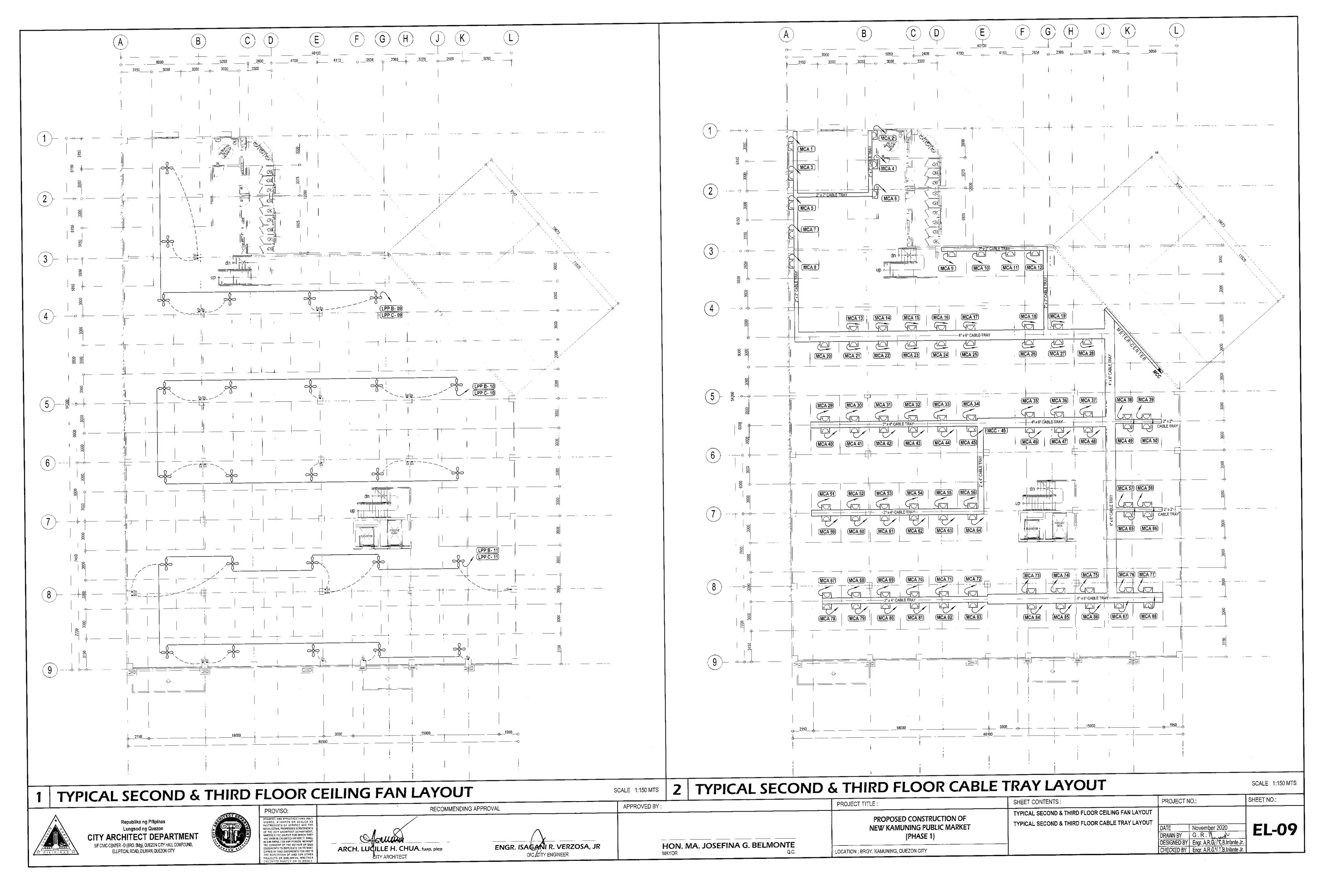
45	220	KILOWATTHOUR METER 45			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
46	220	KILOWATTHOUR METER 46			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
47	220	KILOWATTHOUR METER 47		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
48	220	KILOWAT THOUR METER 48		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
49	220	KILOWATTHOUR METER 49	2,55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
50	220	KILOWATTHOUR METER 50	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
51	220	KILOWATTHOUR METER 51			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
52	220	KILOWATTHOUR METER 52			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
53	220	KILOWATTHOUR METER 53		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
54	220	KILOWATTHOUR METER 54		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
55	220	KILOWATTHOUR METER 55	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
56	220	KILOWATTHOUR METER 56	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
57	220	KILOWATTHOUR METER 57			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
58	220	KILOWATTHOUR METER 58			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
59	220	KILOWATTHOUR METER 59		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
60	220	KILOWATTHOUR METER 60		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
61	220	KILOWATTHOUR METER 61	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
62	220	KILOWATTHOUR METER 62	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
63	220	KILOWATTHOUR METER 63			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
64	220	KILOWATTHOUR METER 64			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
65	220	KILOWATTHOUR METER 65		2.55			560	30AT , 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
66	220	KILOWATTHOUR METER 66		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
67	220	KILOWATTHOUR METER 67	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
68	220	KILOWATTHOUR METER 68	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
69	220	KILOWATTHOUR METER 69			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
70	220	KILOWATTHOUR METER 70			2.55	1	560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
71	220	KILOWATTHOUR METER 71		2.55		;	560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
72	220	KILOWATTHOUR METER 72		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
73	220	KILOWATTHOUR METER 73	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
74	220	KILOWATTHOUR METER 74	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
75	220	KILOWATTHOUR METER 75			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
76	220	KILOWATTHOUR METER 76			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
77	220	KILOWATTHOUR METER 77		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
78	220	KILOWATTHOUR METER 78		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
79	220	KILOWATTHOUR METER 79	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
80	220	KILOWATTHOUR METER 80	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
81	220	KILOWATTHOUR METER 81			2.55		560	30AT , 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
82	220	KILOWATTHOUR METER 82			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
83	220	KILOWATTHOUR METER 83		2.55			560	30AT , 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
84	220	KILOWATTHOUR METER 84		2.55			560	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² THW (G) in Cable Tray
85	220	KILOWATTHOUR METER 85	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
86	220	KILOWATTHOUR METER 86	2.55				560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
87	220	KILOWATTHOUR METER 87			2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
88	220	KILOWATTHOUR METER 88	-		2.55		560	30AT, 2P, Bolt-On	2 - 5.5mm <sup>2</sup> THHN + 1 - 3.5mm <sup>2</sup> THW (G) in Cable Tray
		TOTAL	76.45	71.36	76.46	49	9,280		

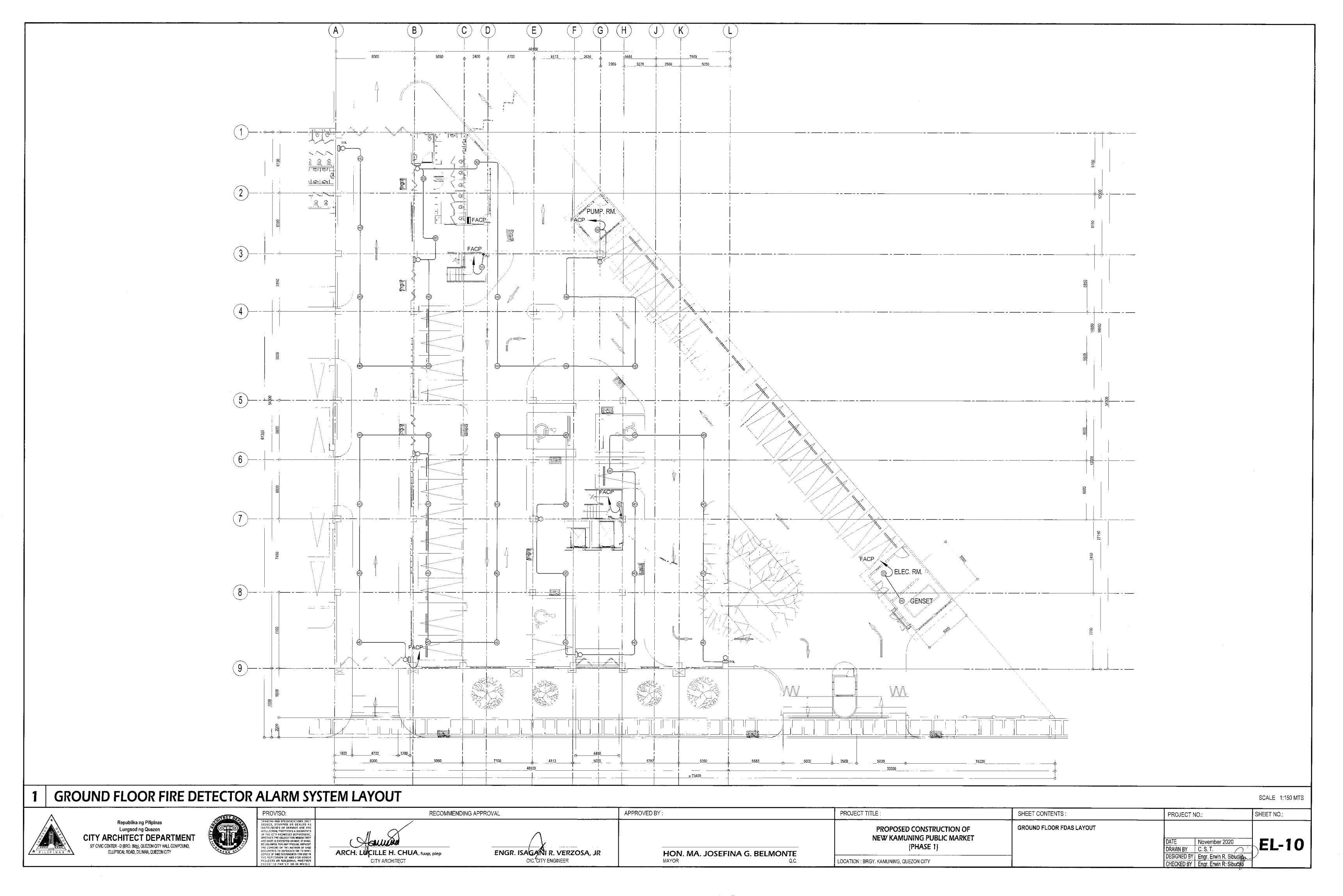


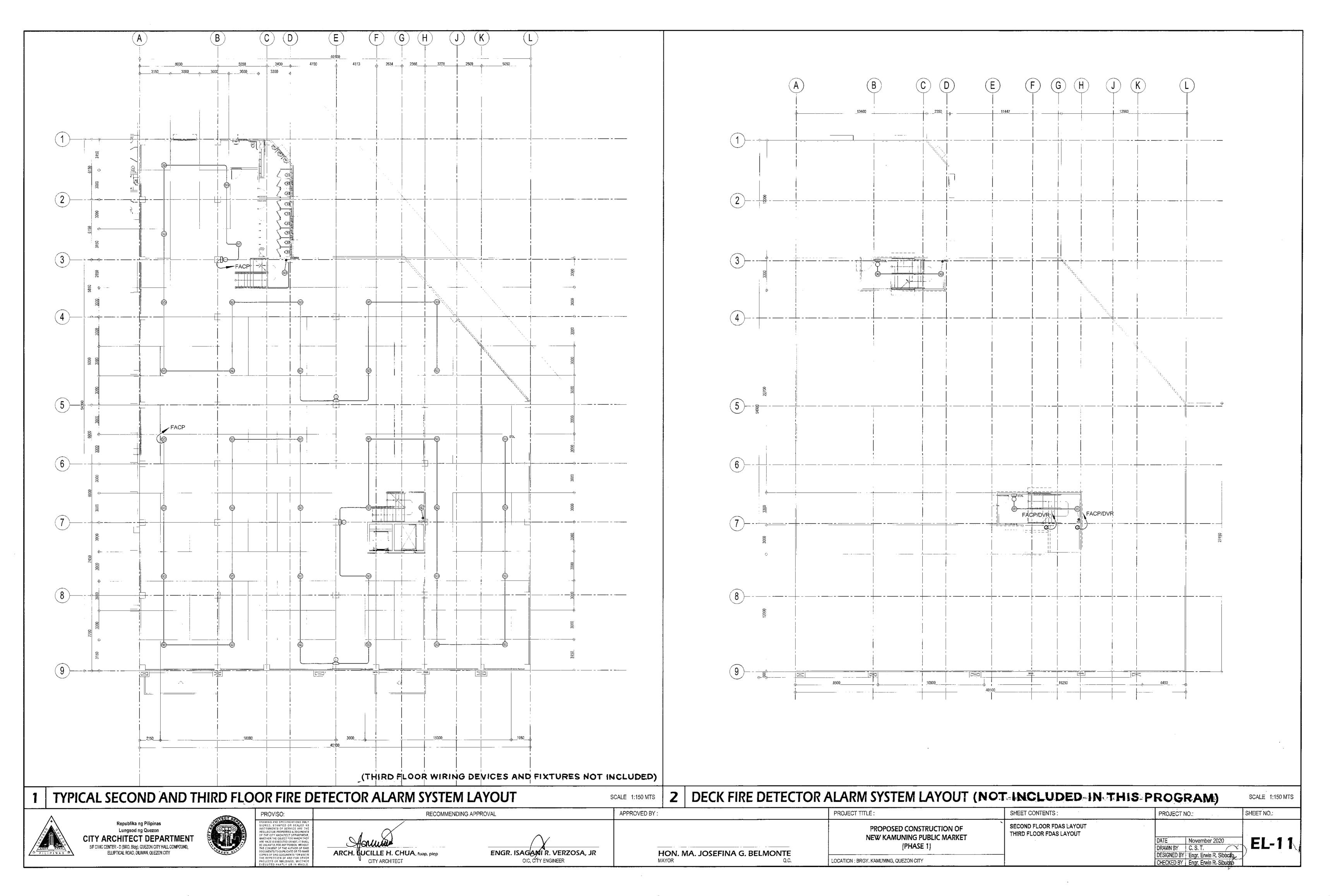


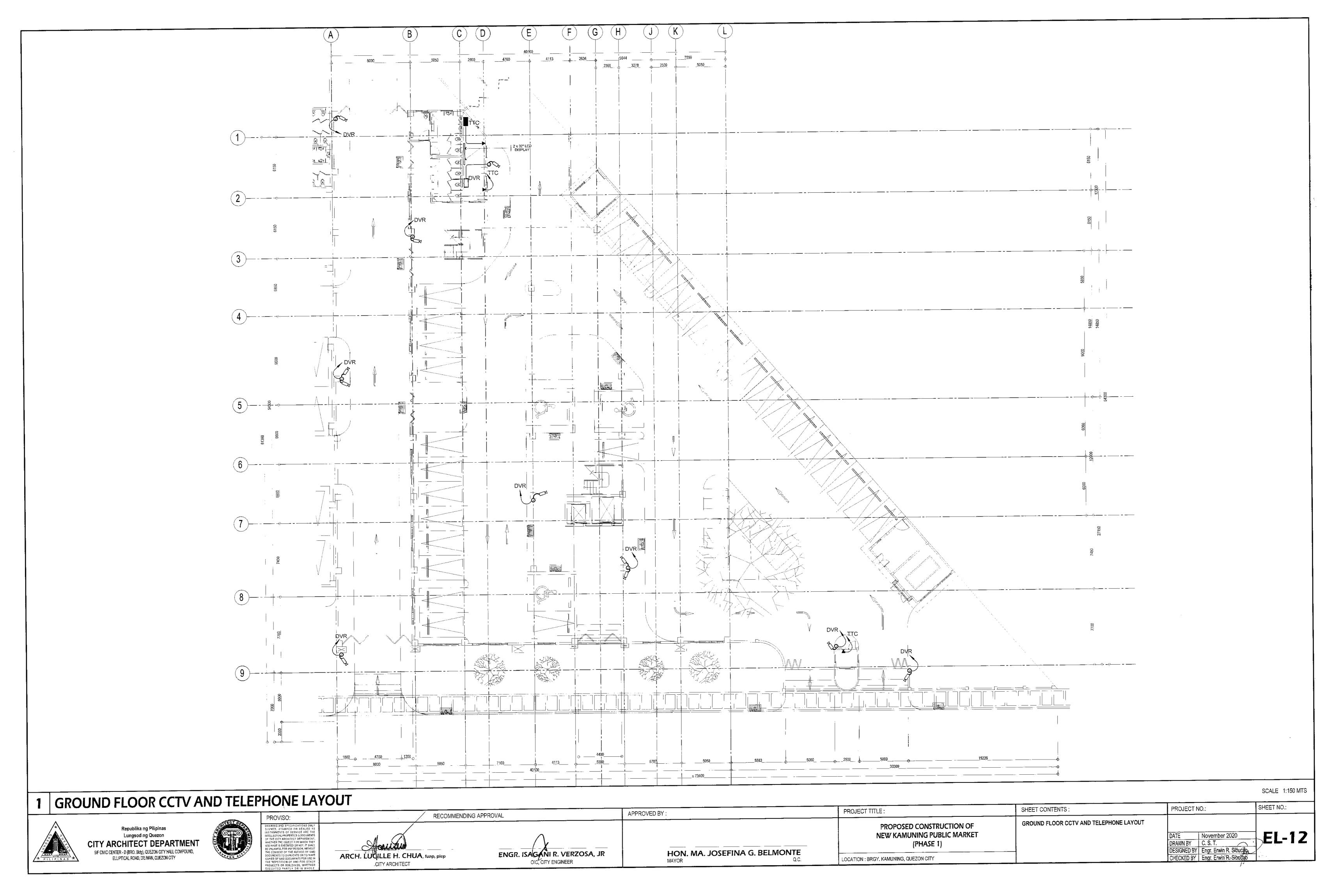


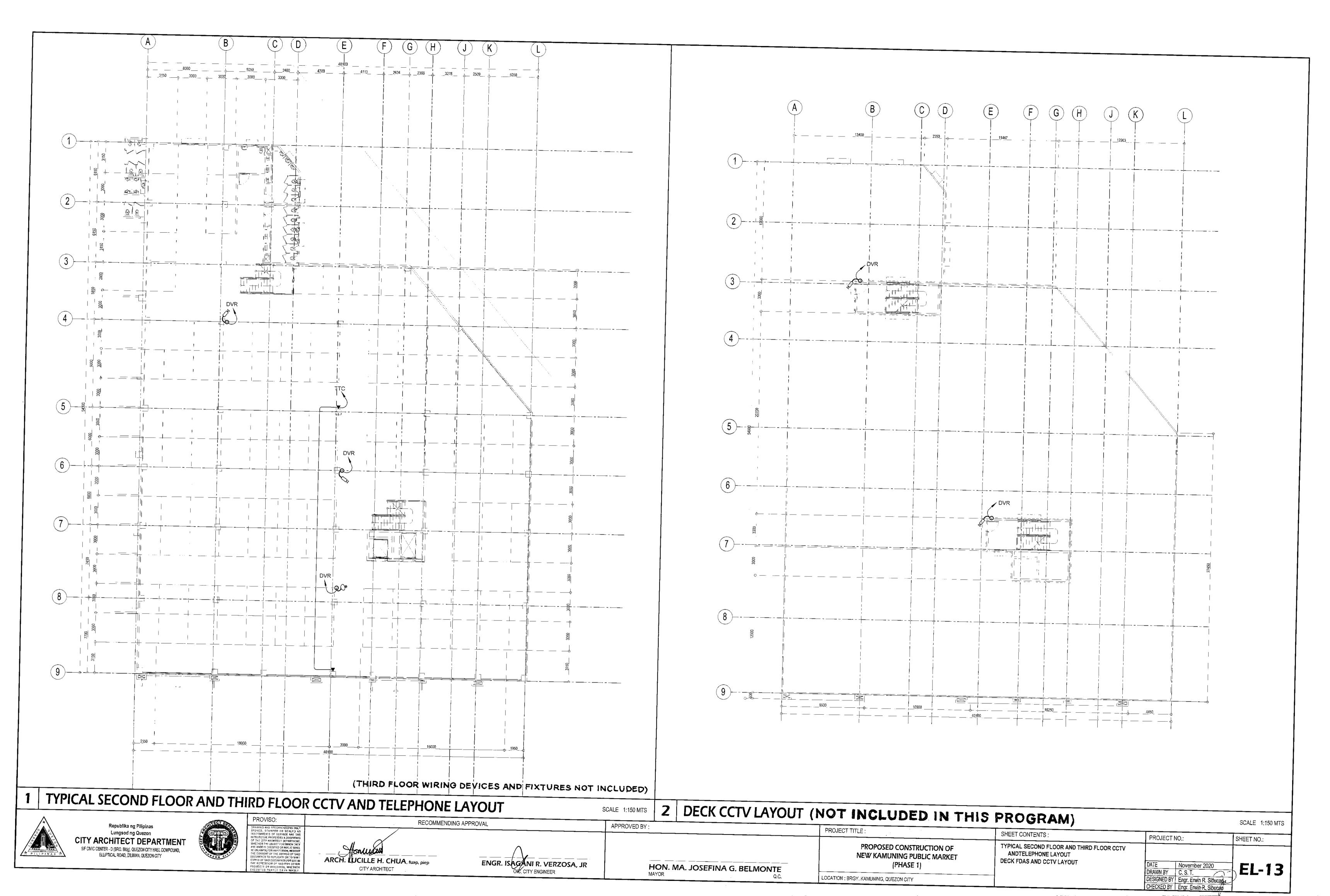


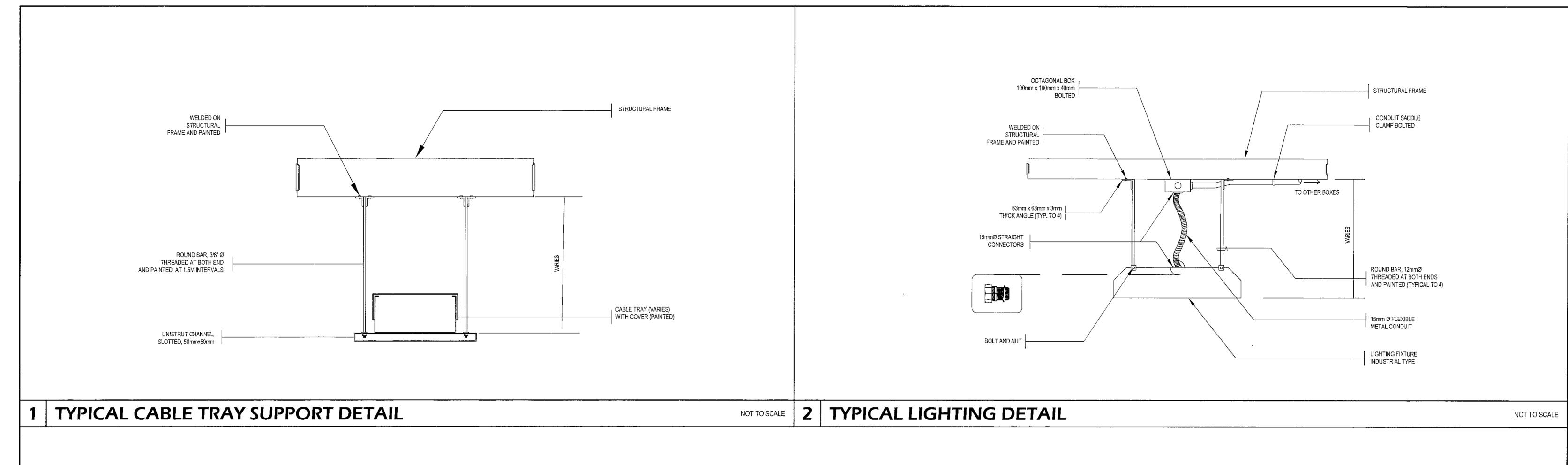


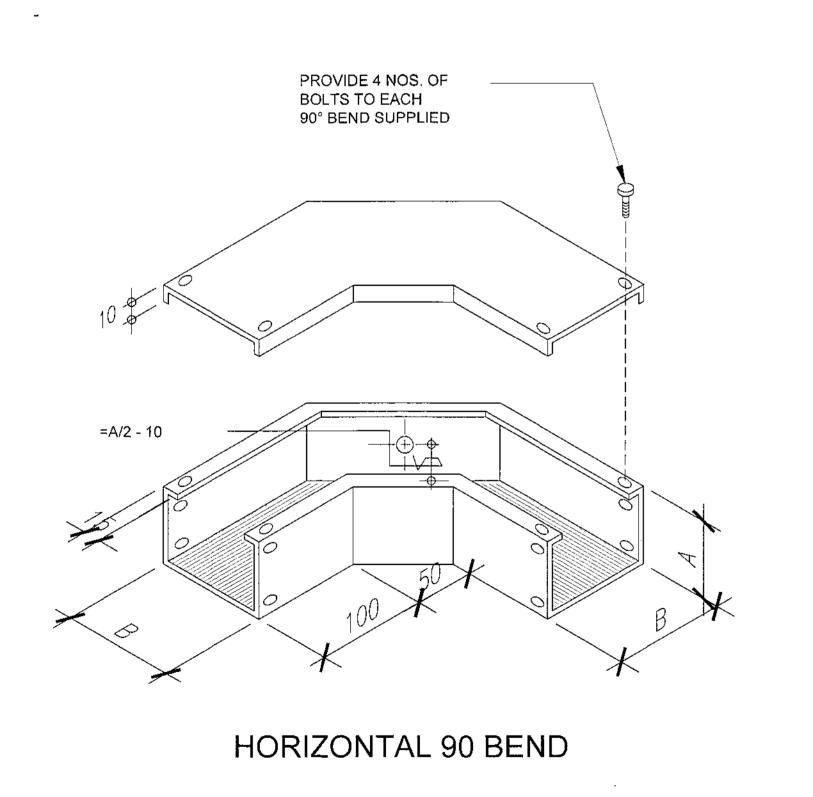


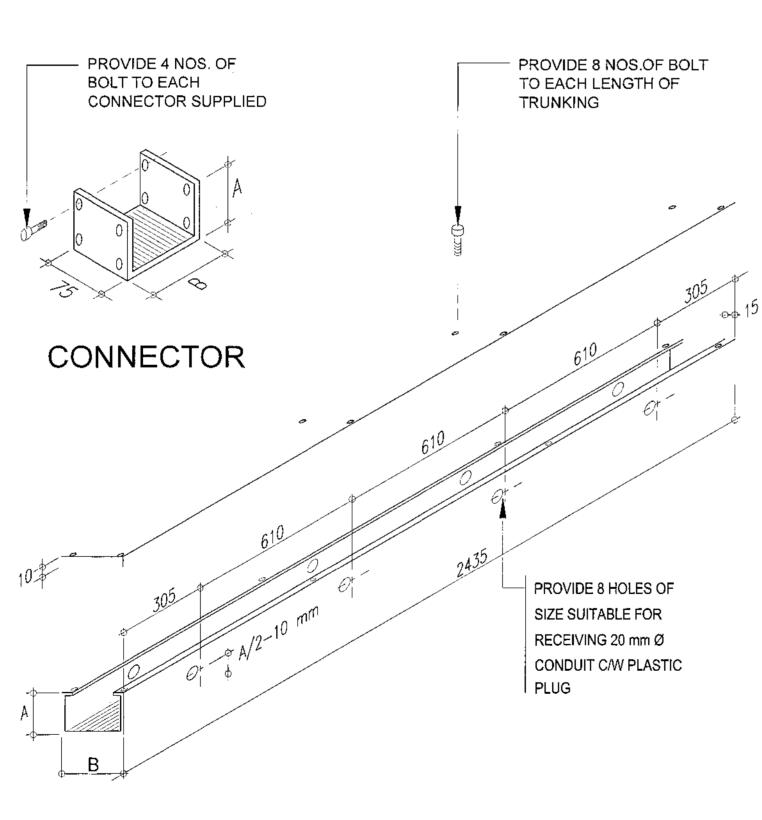


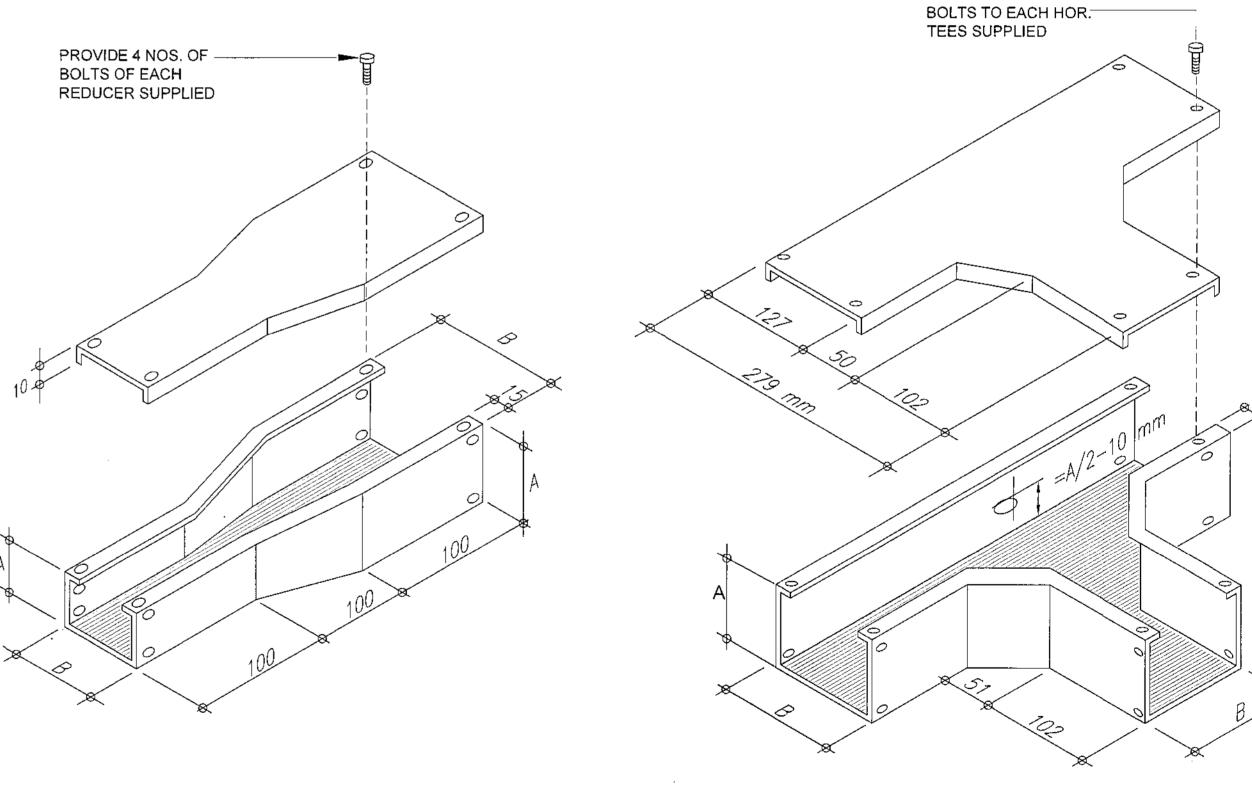










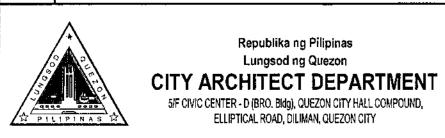


TRUNKING DETAIL

REDUCER

HORIZONTAL TEE

# CABLE TRAY DETAIL





	PROVISO:
O THE STATE OF THE	DRAWING AND SPECIFIC SIGNED, STAMPED OF SER INTELLECTUAL PROPERTIE OF THE CITY ARCHITEC WHETHER THE OBJECT FARE MADE IS EXECUTED OF BEUILLAWFUL FOR ANY PITHE CONSENT OF THE A DOCUMENTS TO OPPILICATION OF ANY PROJECTS OF SAID DOCUMENTS TO SAID DOCUMENTS OF SAID DOC

RECOMMENDING APPROVAL THE CATIONS DULY
OR SEALED AS
SERVICE ARE THE
SERVICE ARE THE
SECTION OF THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEALED AND
THE SEAL ARCH. LUCILLE H. CHUA, fuap, piep
City ARCHITECT

ENGR. ISAGANI R. VERZOSA, JR
OIC, CITY ENGINEER

APPROVED BY:

PROJECT TITLE: PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1)

SHEET CONTENTS: TYPICAL CABLE TRAY SUPPORT DETAIL TYPICAL LIGHTING DETAIL CABLE TRAY DETAIL

PROJECT NO.: SHEET NO.: EL-14

NOT TO SCALE

DATE November 2020

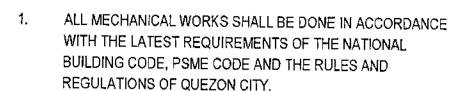
DRAWN BY G . R . T . . .

DESIGNED BY Engr. A.R.G.Y.T.B.Infante Jr.

CHECKED BY Engr. A.R.G.Y.T.B.Infante Jr.

HON. MA. JOSEFINA G. BELMONTE Q.C.

LOCATION : BRGY, KAMUNING, QUEZON CITY



- 2. THE SCOPE OF WORK SHALL INCLUDE ALL WORKS DESCRIBED IN PLANS.
- 3. THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION WITH ALL OTHER TRADES.
- 4. ALL AIRCONDITIONED SPACES SHALL BE MAINTAINED AT 24°C DB AND 50% RH.
- 5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS,
  MANUFACTURERS CATALOGUE, SPECIFICATIONS,
  SAMPLES, INCLUDING VIBRATION ISOLATORS BEFORE
  EXECUTION OF WORK.
- 6. ALL FLOOR SLAB MOUNTED VIBRATING EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATORS TO PREVENT VIBRATIONS AND NOISE TRANSMISSION.
- 7. EXHAUST FAN SHALL BE PROVIDED WITH SUITABLE FLEXIBLE CONNECTIONS TO DISCHARGE DUCT.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF THE WHOLE VENTILATION AND AIRCONDITIONING SYSTEM AND INSTALLATION.
- 9. ALL POWER WIRING SHALL BE ELECTRICAL AND TERMINATION TO EQUIPMENT SHALL BE MECHANICAL.
- 10. PROVIDE CONTROL WIRING FOR AIRCONDITIONING EQUIPMENT.
- 11. PROVIDE THERMOSTAT FOR ALL INDOOR UNITS / FAN COIL UNITS.
- 12. VERIFY LOCATION OF CONTROLLERS AND SWITCHES ON ELECTRICAL PLANS.
- 13. ALL PIPE EQUIPMENT CONDENSATE DRAIN SHALL BE CONNECTED TO THE NEAREST FLOOR DRAIN / AD /CB.
- 14. PROVIDE GUIDES, HANGERS, AND SUPPLEMENTAL STEEL SUPPORT FOR ALL PIPING, DUCTING AND EQUIPMENTS.
- 15. PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THRU
  BUILDING STRUCTURE.
- 16. ALL PIPE DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE NOTED.

## EQUIPMENT DESIGNATION

- AIR COOLED CONDENSING UNIT

FAN COIL UNIT

-RP---- REFRIGERANT PIPING

- EXHAUST FAN

ELBOW DOWN

- CEILING FAN

m² - SQUARE METER

CCU - AIR-COOLED CONDENSING UNIT

SFCU - MULTI-SPLIT FAN COIL UNIT

F - EXHAUST FAN

/ - VOLTS

IP - HORSEPOWER

**H** - HERT7

W - WATTS

Fm - CUBIC FEET PER MINUTE

nm - MILLIMETER

al/HR - KILO CALORIE PER HOUR

RPM - REVOLUTION PER MINUTE

## **EXHAUST FAN**

DESIGNATION	LOCATION	QUANTITY	TYPE	AIR FLOW	DIMENSIONS (H x W x D)	POWER CONSUMPTION	1	ECTRIC SUPPLY		REMARKS
	. <u></u>					WATTS	VOLTS	PHASE	HERTZ	
EF 1	GROUND FLOOR SECOND FLOOR THIRD FLOOR	1 UNIT 1 UNIT 1 UNIT	DUCTMOUNTED CEILING VENTILATING FAN	200 - 205	202 x 250 x 285	19 - 20	220	1Ø	60.0	UNIT SHALL BE CASSETTE TYPE OPENING, EASY TO CLEAN AND INSTALL. TOP OR SIDE DISCHARGED DUCT CONNECTION W/ REVERSE FLOW PREVENTION SHUTTER.
EF 2	GROUND FLOOR SECOND FLOOR THIRD FLOOR	8 UNITS 8 UNITS 8 UNITS	DUCTMOUNTED CEILING VENTILATING FAN	140 - 150	202 x 250 x 285	14 - 15	220	1Ø	60.0	UNIT SHALL BE CASSETTE TYPE OPENING, EASY TO CLEAN AND INSTALL. TOP OR SIDE DISCHARGED DUCT CONNECTION W/ REVERSE FLOW PREVENTION SHUTTER.
EF 3	GROUND FLOOR	1 UNIT	INDUSTRIAL WALL MOUNTED EXHAUST FAN	1260	370 x 370 x 201	46 - 52	220	1Ø	60.0	HIGH STATIC PRESSURE, LOW NOISE OPERATION

## WINDOW TYPE AIR-CONDITIONER

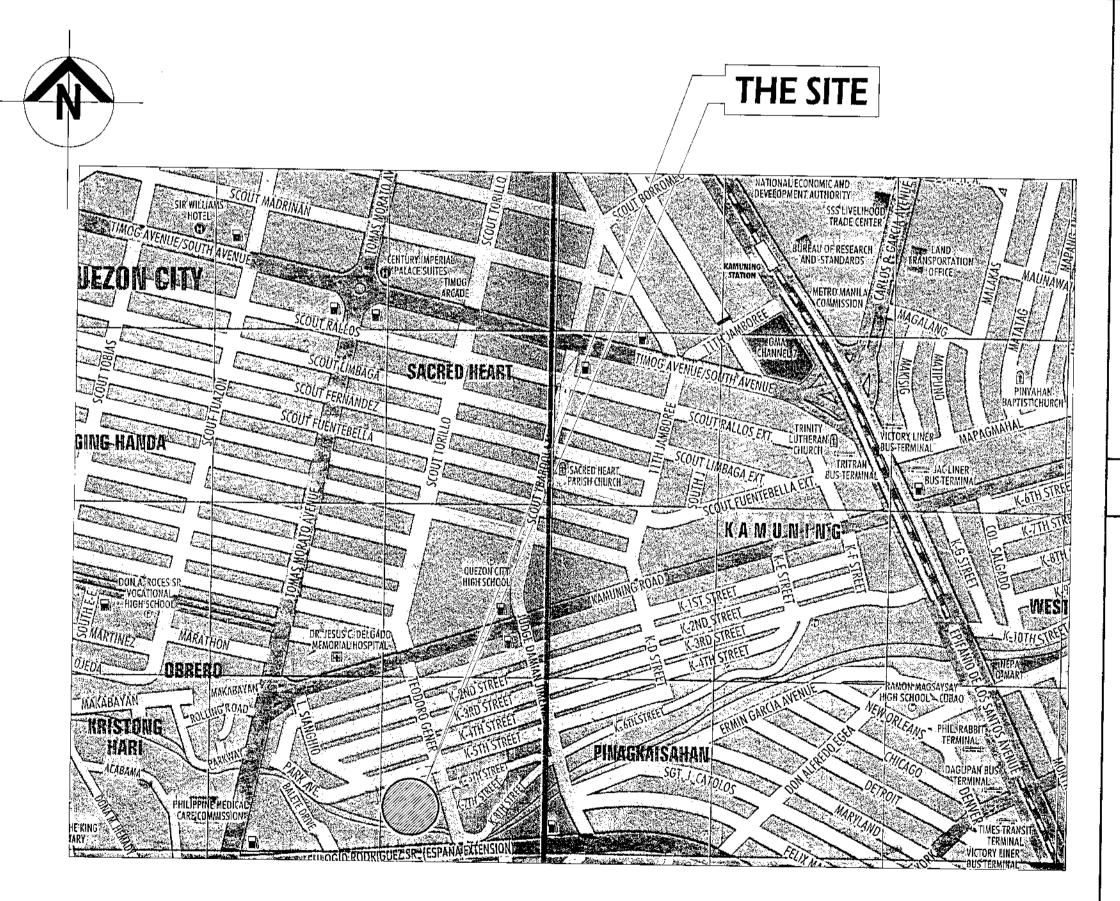
DESIGNATION	LOCATION	QUANTITY	SIZE HP	COOLING CAPACITY KJ/HR	POWER CONSUMPTION WATTS	OPERATING SYSTEM	AIR CIRCULATION	ELE	CTRICAL SL	JPPLY	БЕМАЛИО
/WAC\				10,111	WAIIS	AMPS	cmm	VOLTS	PHASE	HERTZ	REMARKS
1	GROUND FLOOR	1 UNIT	1.5	13,500.0	1,205.0	5.49	270,0	220.0	1Ø	60.0	IT SHALL BE EQUIPPED W/ WASHABLE FILTER, ON/OFF PROG. TIMER AND W/ REMOTE CONTROL

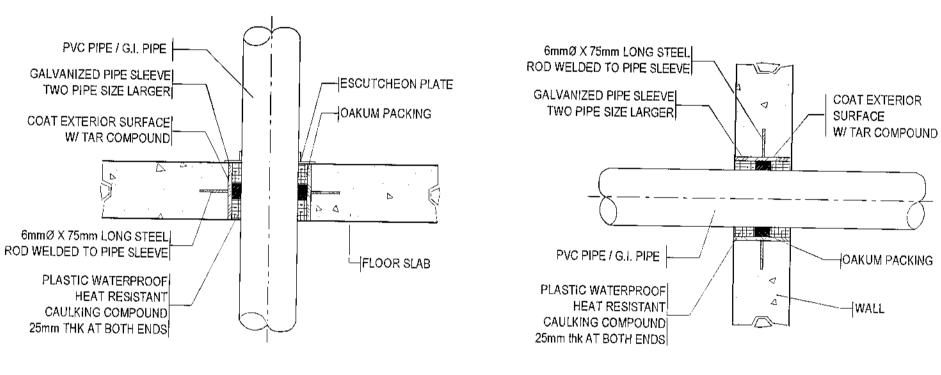
CEILING FAN										
DESIGNATION	LOCATION	QUANTITY	TYPE	FAN BLADE	MOTOR	FAN SPEED	ELECTRICAL SUPPLY			
				in.	W	RPM	VOLTS	PHASE	HERTZ	REMARKS
CF 1	SECOND FLOOR THIRD FLOOR	26 UNITS 26 UNITS	CEILING MOUNTED	56	90	350	220.0	1Ø	60.0	3 SPEED, METAL PROPELLER TYPE BLADES, WITH THERMAL FUSE

## GENERAL NOTES

# 2 LEGENDS & SYMBOLS

# 3 EQUIPMENT SCHEDULE





PIPE SLEEVE THRU WALL

# POLY-ETHYLENE FILM TAPE CLADDING CLOSE CELL RUBBER INSULATION 20mm thk. REFRIGERANT SUCTION LINE

CLOSE CELL RUBBER
INSULATION 12mm thk.

CONDENSATE DRAIN
PIPE (PVC. S40)

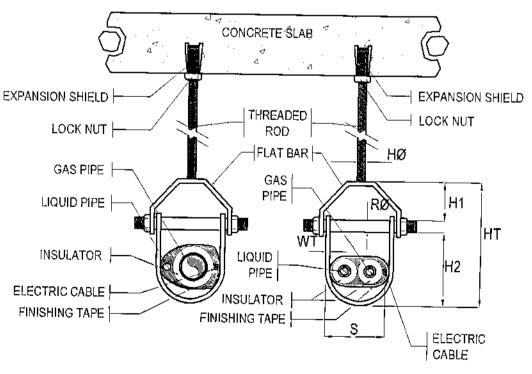
POLY-ETHYLENE FILM

TAPE CLADDING

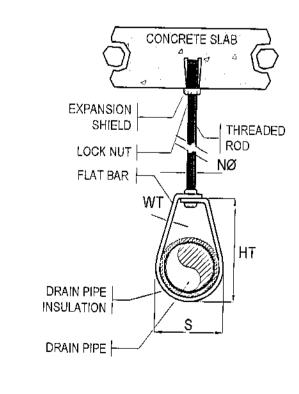
# PIPE SLEEVE DETAIL

PIPE SLEEVE THRU FLOOR

# 6 REFRIGERANT & CONDENSATE DRAIN PIPE DETAIL



NOMINAL		1		<u> </u>				MAY LOAD
PIPE SIZE	HT	H1	·H2	HØ	RØ	WT	s	MAX LOAE
·	<del> </del>				<u> </u>			Recom'd LBS
INCHES	MM	MM	MM	MM	MM	MM	MM	LBS.
2	117.00	70.50	37.00	10.00	5.20	2.10	65.00	810
2 1/2	137.20	80.60	43.00	13.50	8.30	3.00	80,00	1130
3	155,00	96.00	45.50	13.50	8.30	3.00	94.00	1130
4	197.00	135.00	49.00	16.00	8.30	3.00	116.30	1430
6	247.00	182.00	55.50	19,50	11,00	4.00	117.60	1940
8	323.00	235.00	76.00	23.50	14.00	4.20	226.00	2000
10	414.00	291.00	108,00	24.00	17.00	5.50	284,00	3600
12	475.00	343.00	112.50	24.00	17.00	6.00	345.00	3800



G	ALVA	VIZED	LOOP	HANG	ER
NOMINAL PIPE SIZE	WT	S	НТ	NØ	MAX LOAD
INCHES	MM	ММ	MM	ММ	LBS.
1/2	0.80	27.00	64.00	9.50	300
3/4	0.80	31.00	68.00	9.50	300
1	0.80	37.00	68.00	9.50	300
1 1/4	0.80	45.00	76.00	9.50	300
1 1/2	0.80	48.50	84.00	9,50	300
2	1.00	63.00	97.50	9.50	300
4	2.00	116.50	161.00	9.50	650
6	3.00	169.00	234.00	12,70	1250
8	3.00	226.00	305.00	12.70	1250

PROJECT NO .:

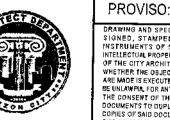
# 4 VICINITY MAP

# DETAIL OF GALVANIZED CLEVIS HANGER

# 8 DETAIL OF GALVANIZED LOOP HANGER



Republika ng Pilipinas
Lungsod ng Quezon
CITY ARCHITECT DEPARTMENT
5/F CIVIC CENTER - D (BRO. Bldg), QUEZON CITY HALL COMPOUND,
ELLIPTICAL ROAD, DILIMAN, QUEZON CITY



PROVISO:

DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE GITY ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SMALL BE UNLAWFUL FOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE

ARCH. LUCILLE H. CHUA, trap, piep

CITY ARCHITECT

ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

HON. MA. JOSEFINA G. BELMONTE

PROPOSED CONSTRUCTION OF
NEW KAMUNING PUBLIC MARKET
(PHASE 1)
LOCATION: BRGY, KAMUNING, QUEZON CITY

PROJECT TITLE:

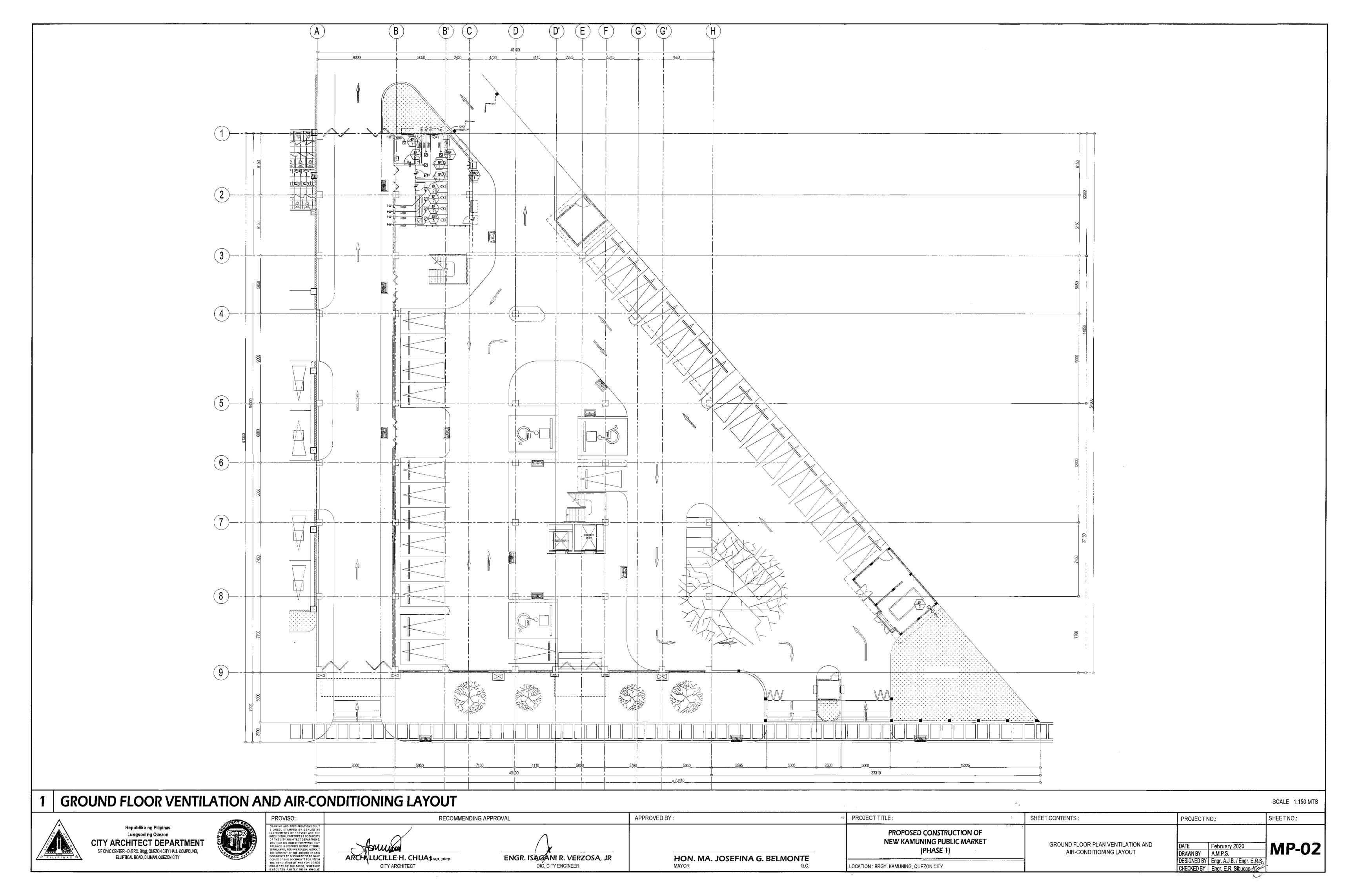
GENERAL NOTES

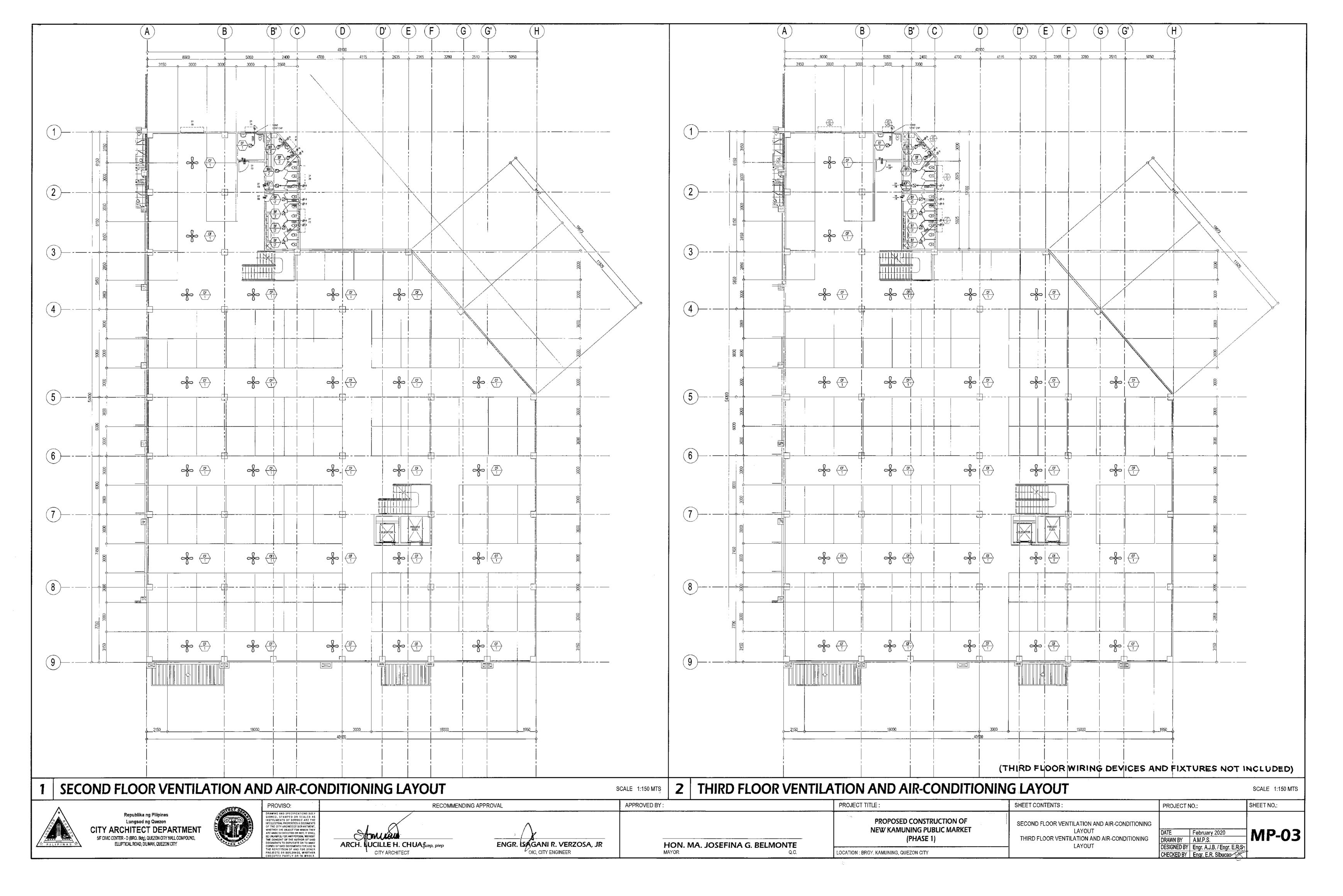
LEGENDS AND SYMBOLS
PIPE SLEEVE DETAIL
REFRIGERANT AND CONDENSATE DRAIN PIPE DETAIL
VICINITY MAP

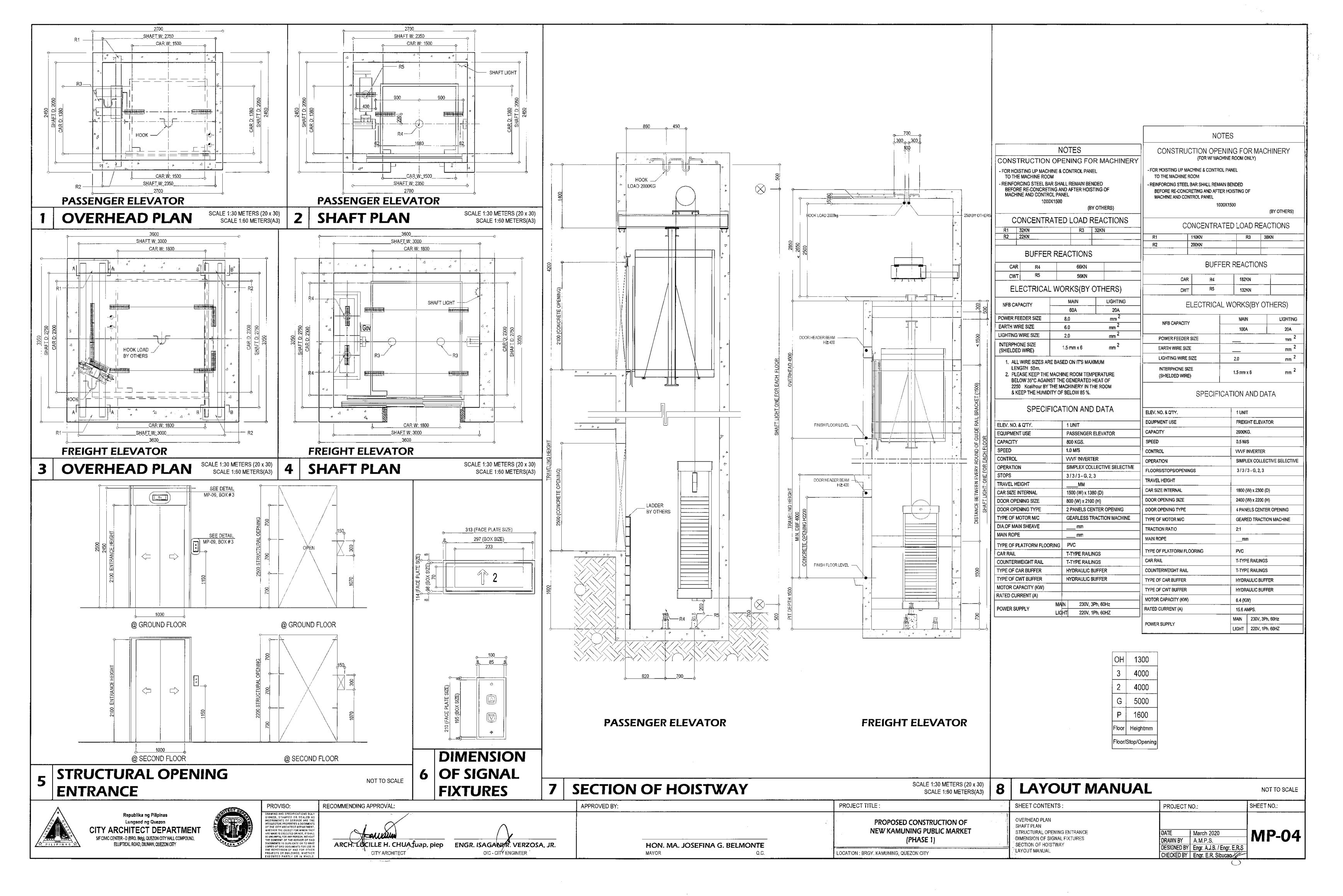
DET. OF GALVANIZED CLEVIS HANGER & GALVANIZED LOOP HANGER

DATE February 2020
DRAWN BY A.M.P.S.
DESIGNED BY Engr. A.J.B. / Engr. E.R.S
CHECKED BY Engr. E.R. Sibucao

SHEET NO .:







ALL FIRE PROTECTION WORKS SHALL CONFORM WITH THE LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES NO. 13 & 20.

READ THE DRAWINGS IN CONNECTION WITH OTHER RELATED DRAWINGS & SPECIFICATIONS. THE ARCHITECT & ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES FOUND THEREIN.

THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE SPRINKLER HEADS IN COORDINATION WITH THE ARCHITECTURAL CEILING LAYOUT. ANY RELOCATION SHALL BE SUBJECT TO ARCHITECT'S & ENGINEER'S APPROVAL.

ALL DRAIN PIPES FOR INSPECTORS TEST CONNECTION DRAIN VALVES SHALL BE PIPED TO THE NEAREST AREA DRAIN PROVIDED BY THE PLUMBING CONTRACTOR.

PIPE SLEEVES SHALL BE PROVIDED FOR ALL PIPES PASSING THRU SLABS, WALLS, GIRDERS & BEAMS.

MINIMUM PIPE SIZE FOR ALL SPRINKLER HEADS SHALL BE 25mm Ø UNLESS OTHERWISE NOTED.

ALL PIPES ARE IN MILLIMETER UNLESS OTHERWISE NOTED.

WORKMANSHIP: THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST & MOST THOROUGH MANNER KNOWN TO TRADE & TO THE SATISFACTION OF THE ARCHITECT & THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL GOVERNMENT / LOCAL CONSTRUCTION & OPERATION PERMITS & PAY ALL THE REQUIRED FEES.

REFER TO TECHNICAL SPECIFICATIONS FOR PUMPS & MATERIALS SPECIFICATIONS.

MAINTAIN MINIMUM DISTANCE OF 300mm BETWEEN SPRINKLER HEAD & LIGHTING FIXTURE.

## NOTES

SENSORS (FLOW SWITCHES, LOW WATER LEVEL SENSOR, SUPERVISORY SWITCHES, FOR ZONE ACTIVATION SHALL BE INCLUDED IN THE CONTRACT, WIRING FROM THESE DEVICES TO THE SPRINGKLER ANNUNCIATOR PANEL SHALL BE DONE BY ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE AFFECTIVE TRADE CONTRACTOR.

OPENING OF THE SPRINGKLER HEAD OR INSPECTOR'S TEST VALVE SHALL CAUSE THE OPERATION OF THE FLOW SWITCH, WHICH SHALL ACTIVATE THE ANNUNCIATOR LIGHT FOR THE SPRINGKLER ZONE INVOLVE AND SHALL CAUSE THE OPERATION OF THE BUILDING FIRE ALARM. (FIRE ALARM CONDITION.)

CLOSING OF THE NORMALLY OPEN SUPERVISED VALVE OF THE SPRINGKLER SYSTEM SHAL CAUSE THE SUPERVISORY SWITCH TO OPERATE A TROUBLE ALARM IN THE BUILDING FIRE ALARM SYSTEM (TROUBLE ALARM CONDITITON)

FIRE PUMP RUNNING CONDITION OF THE FIRE PUMP CONTROL PANEL SHALL CAUSE THE OPERATION OF THE BUILDING FIRE ALARM SYSTEM (FIRE ALARM CONDITION)

ACTIVATION OF THE LOW WATER LEVEL SWITCH IN THE STORAGE TANK SHALL CAUSE A TROUBLE ALARM CONDITION IN THE FIRE ALARM SYSTEM.

INSTALLATION OF THE SPRINGKLER SYSTEM SHALL BE IN ACCORDANCE WITH THE NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINGKLER SYSTEM.

INSTALLATION OF FIRE PUMP SHALL BE IN ACCORDANCE WITH NFPA 20 STANDARD FOR THE INSTALLATION OF FIRE PUMPS.

INSTALLATION FIRE PUMPS SHALL BE IN ACCORDANCE WITH THE NFPA 20 400 HOSE VALVES SHALL BE PRESSURE REDUCING TYPE OR SHALL BE PROVIDED WITH PRESSURE RESTRITING DISC.

NON COMBUSTIBLE CEILINGS SHALL BE USED THIS CEILINGS WILL BE USED IN THIS PROJECT. NOTIFY THE CONSULTANT IF SOME TENANTS WILL USE COMBUSTIBLE CEILING. COMBUSTIBLE CEILINGS WILL BE ALLOWED.

1. FLOOR CONTROL VALVE AT EACH FLOOR SHALL BE PROVIDED WITH A TAMPER SWITCH. THE TAMPER SWITCH SHALL BE INTERLOCK WITH THE FULLY ADDRESSABLE FIRE ALARM CONTROL PANEL (FACP) FOR GATE VALVE SUPERVISORY MONITORING. SUPERVISORY MONI-TORING MEANS THAT CLOSING ANY ONE OF THE CONTROL A DISTRICT ALARM SIGNAL TO ONE THE SPECIFIED LOCATED ON THE FACP.

2. WATER FLOW DEVICE OF EACH FLOOR SHALL BE LIKEWISE INTERLOCK WITH THE FACP IN SUCH A MANNER THAT OPERATION OF ONE SPRINKLER WILL ACTIVATE THE ALARM SYSTEM, AND THE LOCATION OF THE OPERATED FLOW DEVICE SHALL BE INDICATED ON THE FACP.

3. ALL CONTROL, DRAIN AND TEST CONNECTION VALVES BE PROVIDED WITH PERMANENTLY MARKED WEATHER PROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGNS. THE SIGNS SHALL BE SECURED WITH CORROSION-RESISTANT WIRE CHAIN OR OTHER APPROVED MEANS.

4. FIRE DEPARMENT CONNECTION SHALL BE DESIGNATED BY A SIGN HAVING A RAISED LETTERS AT LEASE 25.4mm IN HEIGHT, CAST ON PLATE OR FITTING READING SERVICE DESIGN, e.g. "AUTOSPKR", OPEN SPKR AND STANDPIPE", & "DRY STANDPIPE".

## SEQUENCE OF OPERATION

WHEN THE SYSTEM PRESSURE AT THE MAIN DISCHARGE OF LINE DECREASES DUE TO LEAKAGES IN THE PPING SYSYTEM, THE JOCKEY PUMP(JP-1) WILL AUTOMATICALLY START TO MAINTAIN THE PRESSURE IN THE SYSTEM IN ACCORDANCE WITH THE FOLLOWING SET POINTS.

> CUT-IN 90 PSI CUT - OUT 100 PSI

A FURTHER DECREASE IN THE SYSTEM PRESSURE DUE TO THE ACTIVATION OF ONE OR MORE SPRINGKLER HEADS, FIRE HOSE CABINETS WILL CAUSE THE FIRE PUMP (FP-1) TO START AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SET POINTS

CUT - IN 80 PSI CUT - OUT MANUAL

AN ELECTRICALLY OPERATED AUDIBLE ALARM SHALL BE ACTIVATED WHEN ANY OF THE FOLLOWING CONDITIONS EXIST. AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SET POINTS FIRE PUMP IS RUNNING

b. FIRE PUMP CONTROLLER MAIN SWITCH IS DE-ACTIVATED OR IN MANUAL POSITION

c. POWER FAILURE d. LOW WATER LEVEL IN THE STORAGE TANK

## MATERIALS SPECIFICATION

PIPING SYSTEM

PIPE SHALL BE STEEL, SCHEDULE 40, BLACK AND IN ACCORDANCE WITH THE SPECIFICATIONS ASTM A - 120 ORA53.

FITTING SCREWED ALL SHALL BE MALLEABLE IRON, 300 LBS, CLASS BLACK IN ACCORDANCE WITH ANSI B16.3. FLANGED

SHALL BE STEEL, SHORT BODY, 150 LBS. CLASS BLACK IN ACCORDANCE B16.1.

WELD SHALL BE STEEL, STANDARD WEIGHT, BLACK AND IN ACCORDANCE WITH ANSI B. 16.9 ASTM A 234 AND ANSIB16.5 / B16.11.

3.1 BUTTERFLY VALVE SHALL BE FLANGED, IRON BODY, 175 PSI WORKING PRESSURE, VALVES SHALL BE UL LISTED AND FM

APPROVED MANUFACTURER - GEM, CENTRAL, KENNEDY & CRANE. 3.2 CHECK VALVE SHALL BE FLANGED, SWING TYPE, IRON BODY, BRONZES EAT AND DISC RING, 175PSI WORKING PRESSURE,

UL LISTED FM APPROVED. 3.3 GATE VALVE GLOBE TYPE, BRONZE BODY, SCREWED, 175 PSI PRESSURE APPROVED MANUFACTURER - CRANE,

## CENTRAL, GEM. 4. FIRE DEPARTMENT CONNECTION

SHALL BE 1000 x 650 x 650 SIAMESE CONNECTION BRASS BODY, BRASS CHAIN & PLUGS. INLET THREADING SHALL BE NATIONAL STANDARD, SAME AS MUNICIPAL FIRE DEPARTMENT CONN. UL LISTED & FM APPROVED.

FIRE HOSE CABINET WALL MOUNTED, 16 GAUGE STEEL BODY ALUMINUM DOOR TRIM WITH LOCK AND KEY, STANDARD SIZE 32" x

27" x 7" AND WIT THE FOLLOWING ACCESSORIES. 40Ø ADJUSTABLE FOG NOZZLE UL LISTED & FM APPROVED POWHATTAN, GEM, CENTRAL.

40Ø HOSE VALVE UL LISTED & FM APPROVED POWHATTAN, GEM, CENTRAL.

5.3 HOSE RACK FOR 100 FT, FIRE HOSE AND RACK NIPPLE LOCAL MANUFACTURED. 5.4 FIRE HOSE, 1 3 x 100 FT. SINGLE JACKET, RUBBER LINED HOSE WITH WAX AND GUM TREATMENT ULLISTED &

FM APPROVED GEM, CENTRAL. 5.5 FIRE EXTINGUISHER, ABC DRY POWDER CHEMICAL, 10 LBS. HOSE WITH WAX & GUM TREATMENT UL LISTED &

FM APPROVED GEM, CENTRAL. 6. SPRINKLER HEADS SHALL BE PENDENT TYPE, UPRIGHT & SIDEWALL POLISH BRASS X WALE NST THREADS CHROMIUM PLATED

AND UL LISTED & FM APPROVED. APPROVED MANUFACTURER - GEM, CENTRAL, 7. ALARM CHECK VALVE

SHALL BE BUTTERFLY WAFER STYLE, IRON BODY, RUBBER SEAL AND 175 PSI PRESSURE RATING . VALVES SHALL BE TESTED AND LISTED BY UL & FM APPROVED MANUFACTURER - GEM, CENTRAL, KENNEDY.

$\longleftrightarrow$	-	EQUIPMENT DESIGNATION	FL	-	FIRE LINE
	-	FIRE LINE	RM	-	ROOF MANIFOLD
	-	PIPE HANGER	RN	-	RISER NIPPLE
F	-	FIRE HOSE CABINET	ITC	-	INSPECTOR TEST CONNECTION
<b>-</b> \$	-	FIRE DEPARTMENT CONNECTION	BIP	-	BLACK IRON PIPE
•	-	PENDENT SPRINKLER HEAD	CMH	-	CUBIC METER PER HOUR
<b>©</b>	-	UPRIGHT SPRINKLER HEAD	TDH	-	TOTAL DYNAMIC HEAD
$\triangleleft$	-	SIDEWALL SPRINKLER HEAD	Ø	-	DIAMETER
$lackbox{}$	-	FIRE EXTINGUISHER	М	-	METER
—⋈—₃	-	FIRE HOSE VALVE	mm	-	MILLIMETER
<u> </u>	-	BUTTERFLY VALVE W/ TAMPER SWITCH	KW	-	KILOWATT
—⋈—	-	GATE VALVE / GLOBE VALVE	<del></del>	-	SIGHT GLASS
N	-	CHECK VALVE	— <u>II</u> —	-	FLOW METER
—₩—	-	OS & Y GATE VALVE	<b>⊘</b> †	-	PRESSURE GAUGE
₩0	-	INSPECTOR TEST CONNECTION		-	WATER FLOW SWITCH
0	-	WET-STANDPIPE RISER		-	BASKET STRAINER
$\otimes$	-	DRY-STANDPIPE RISER	· · · · · · · · · · · · · · · · · · ·	-	TWO-WAY BRACE
<b>—</b> ⊳—	-	REDUCER		-	FOUR-WAY BRACE
	-	FLEXIBLE CONNECTOR		-	END CAP
— <b>&gt;</b>	-	ALARM GONG	$\Leftrightarrow$	-	DIRECTION OF FLOW
	-	FLOAT VALVE	<u> </u>	-	UNION PATENT
-c	-	PRESSURE RELIEF VALVE	——<\c^3	-	ROOF MANIFOLD
$\phi$	-	ALARM CHECK VALVE	<b>—</b>	-	FLOOR CONTROL VALVE ASSEMBLY

2 MATERIAL SPECIFICATION

NOT TO SCALE

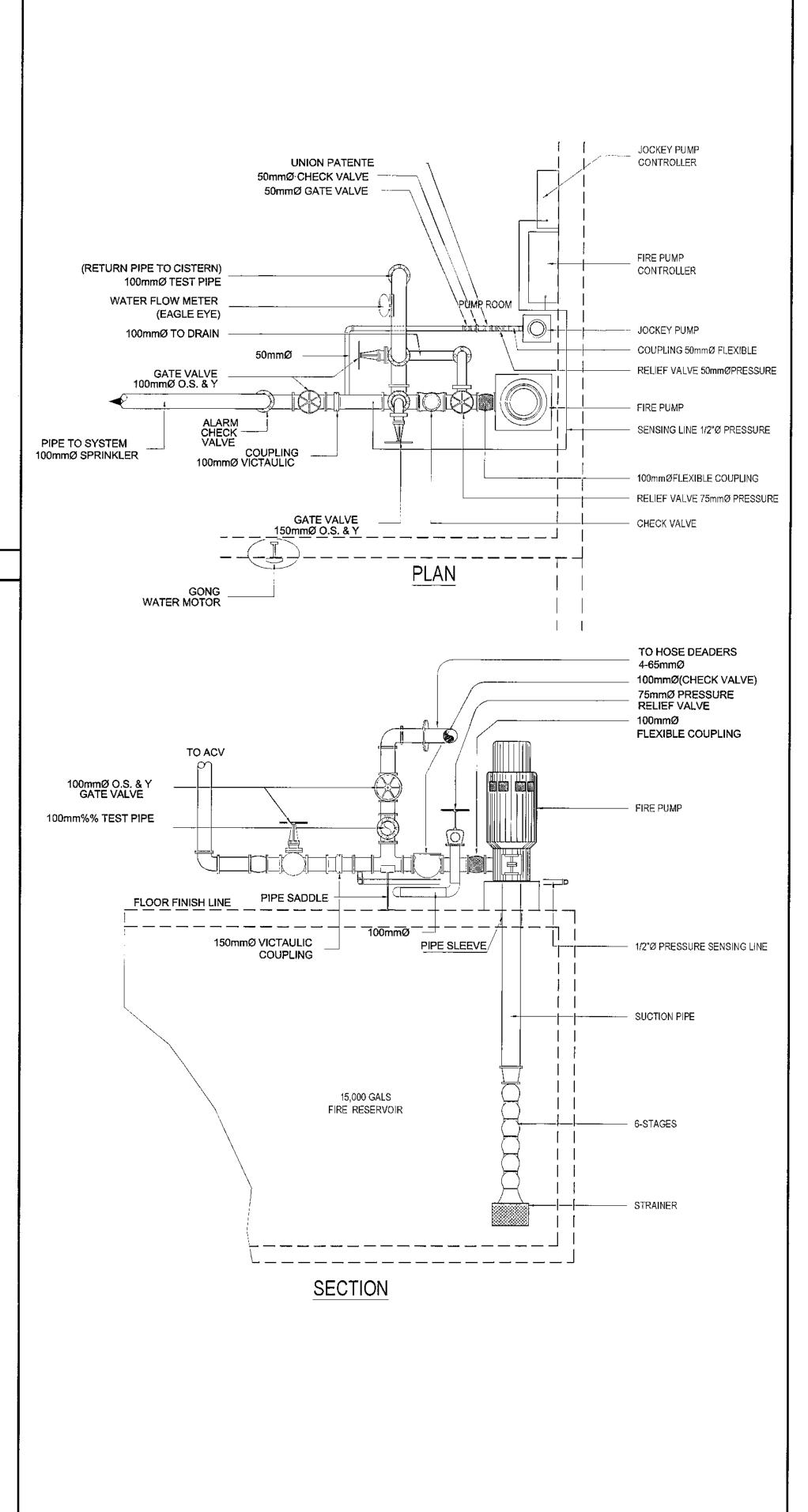
3 LEGEND & SYMBOLS

NOT TO SCALE

## PUMP SCHEDULE

DESIGNATION	LOCATION	QUANTITY	TYPE	CAPACITY	TDH	MOTOR INPUT	ELECTRIC	AL CHARAC	TERISTICS	REMARKS		
DESIGNATION	LOCATION	QUANTITY	1176	СМН	M	; KW	VOLTS	PHASE	HERTZ	KEINUKA		
FP 1	GROUND FLOOR	1 !	VERTICAL TURBINE	113.5	78.0	37,3	220	3Ø	60	PUMP SHALL BE NON UL- FM DRIVEN BY A FRANKLIN MOTOR WITH AUTOMATIC & MANUAL MOTOR CONTROLS & OTHER ACCESSORIES TO COMPLETE THE SYSTEM. PUMP SHALL BE WATER LUBRICATED. INSTALLATION SHALL CONFORM TO NFPA STANDARD, CONTRACTOR INSTALL AND SUPPLY. NOT INCLUDED IN PHASE 2.		
JP 1	GROUND FLOOR	1	VERTICAL TURBINE	5.67	78.0	3.73	220	3Ø	60	PUMP SHALL BE NON UL- FM DRIVEN BY A FRANKLIN MOTOR WITH AUTOMATIC & MANUAL MOTOR CONTROLS & OTHER ACCESSORIES TO COMPLETE THE SYSTEM, INSTALLATION SHALL CONFORM TO NFPA STANDARD, CONTRACTOR INSTALL AND SUPPLY, NOT INCLUDED IN PHASE 2.		

		SPRINKLER HEAD							FIRE DEDARTMENT		
FLOOR DESTINATION	UPRIG	UPRIGHT TYPE		PENDENT TYPE		ALL TYPE	FIRE HOSE CABINET	FIRE HOSE VALVE	FIRE DEPARTMENT	ROOF MANIFOLD	REMARKS
	ORDINARY INTERMIDIA		ORDINARY	INTERMIDIATE	ORDINARY	INTERMIDIATE	(SET)	(65mm Ø)	CONNECTION	(65mm Ø)	
	57°C to 77°C	79°C to 107°C	57°C to 77°C	79°C to 107°C	57°C to 77°C	79°C to 107°C		``	100mm Ø x 65mm Ø x 65mm Ø		
GROUND FLOOR	119		8		4		2	2	2		A SUPPLY OF SPARE SPRINKLERS OF NOT
SECOND FLOOR	122		5		4		2	2			LESS THAN 6 PCS, SHALL BE MAINTAINED ON THE PREMISES SO THAT ANY SPRINKLER THAT HAVE OPERATED OR DAMAGED IN ANY
THIRD FLOOR	122		5		4		2	2			WAY CAN BE REPLACED. PENDENT TYPE SPRINKLER HEAD SHALL BE ACCOMPANIED
ROOFDECK	4		0	:	0						WITH ESCUTCHEON PLATES. SPRINKLER HEADS SHALL HAVE A ½" Ø NPT TYPE
TOTAL	367		18		12		6	6	2	· · · · · · · · · · · · · · · · · · ·	OF THREAD. SEE SPECS FOR TYPE OF FE.



I GENERAL NOTES

4 EQUIPMENT SCHEDULE

RECOMMENDING APPROVAL

APPROVED BY:

PROJECT TITLE: PROPOSED CONSTRUCTION OF **NEW KAMUNING PUBLIC MARKET** (PHASE 1)

SHEET CONTENTS: GENERAL NOTES MATERIAL SPECIFICATION LEGEND & SYMBOLS **EQUIPMENT SCHEDULE** DETAIL OF FIRE PUMP & JOCKEY PUMP

NOTTO SCALE 5 DETAIL OF FIRE PUMP & JOCKEY PUMP

PROJECT NO.: SHEET NO.: DRAWN BY A.M.P.S.

Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CMIC CENTER - D (BRO, Bldg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

PROVISO: DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED DR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE CHY ARROHAGE TO DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFULFOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS TO DUPLICATE OR TO MAKE THE OPICE OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER THE REPETITION OF AND FOR OTHER

ARCH.\LUCILLE H. CHUAfuap, piep CITY ARCHITECT

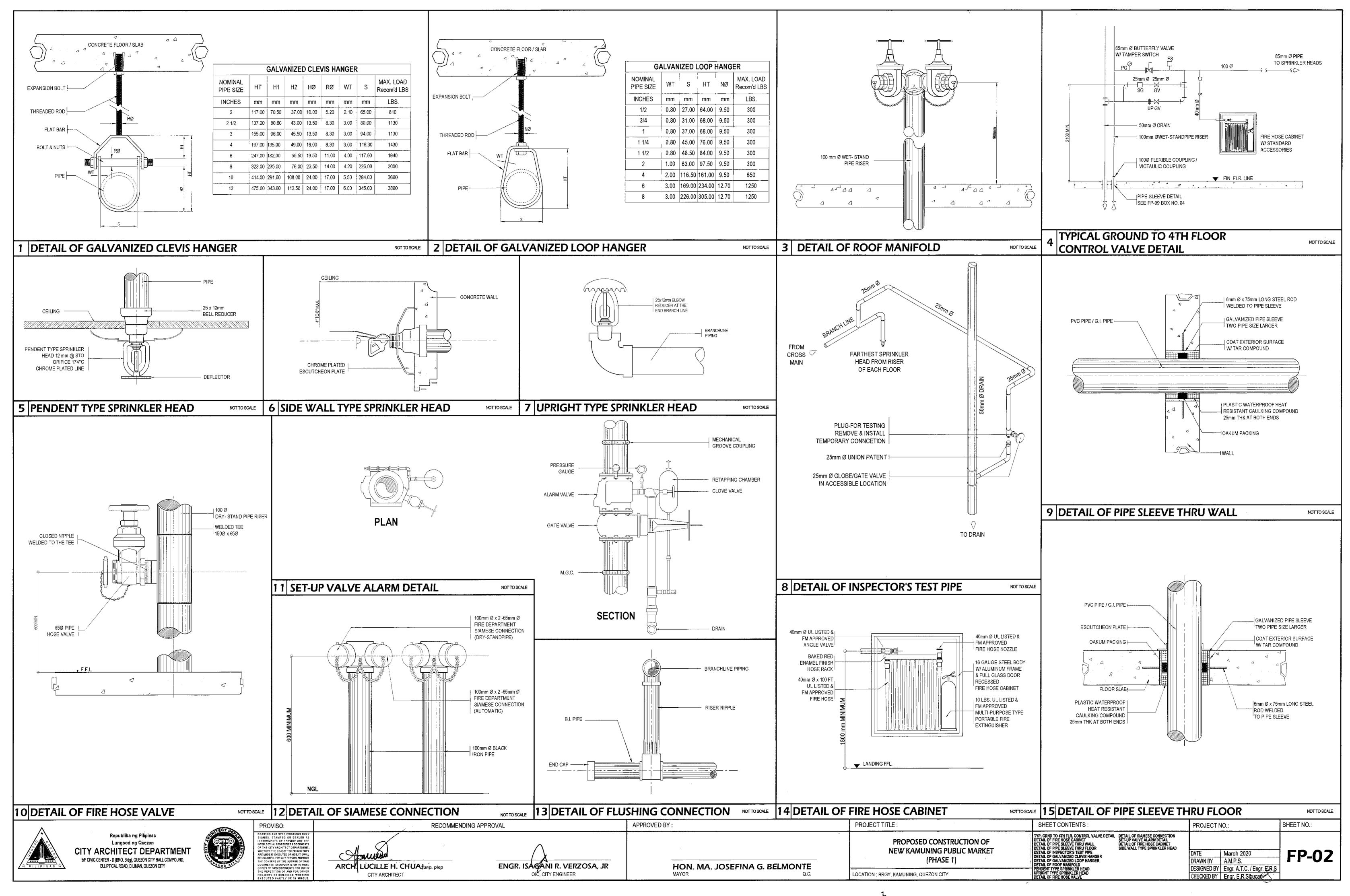
ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

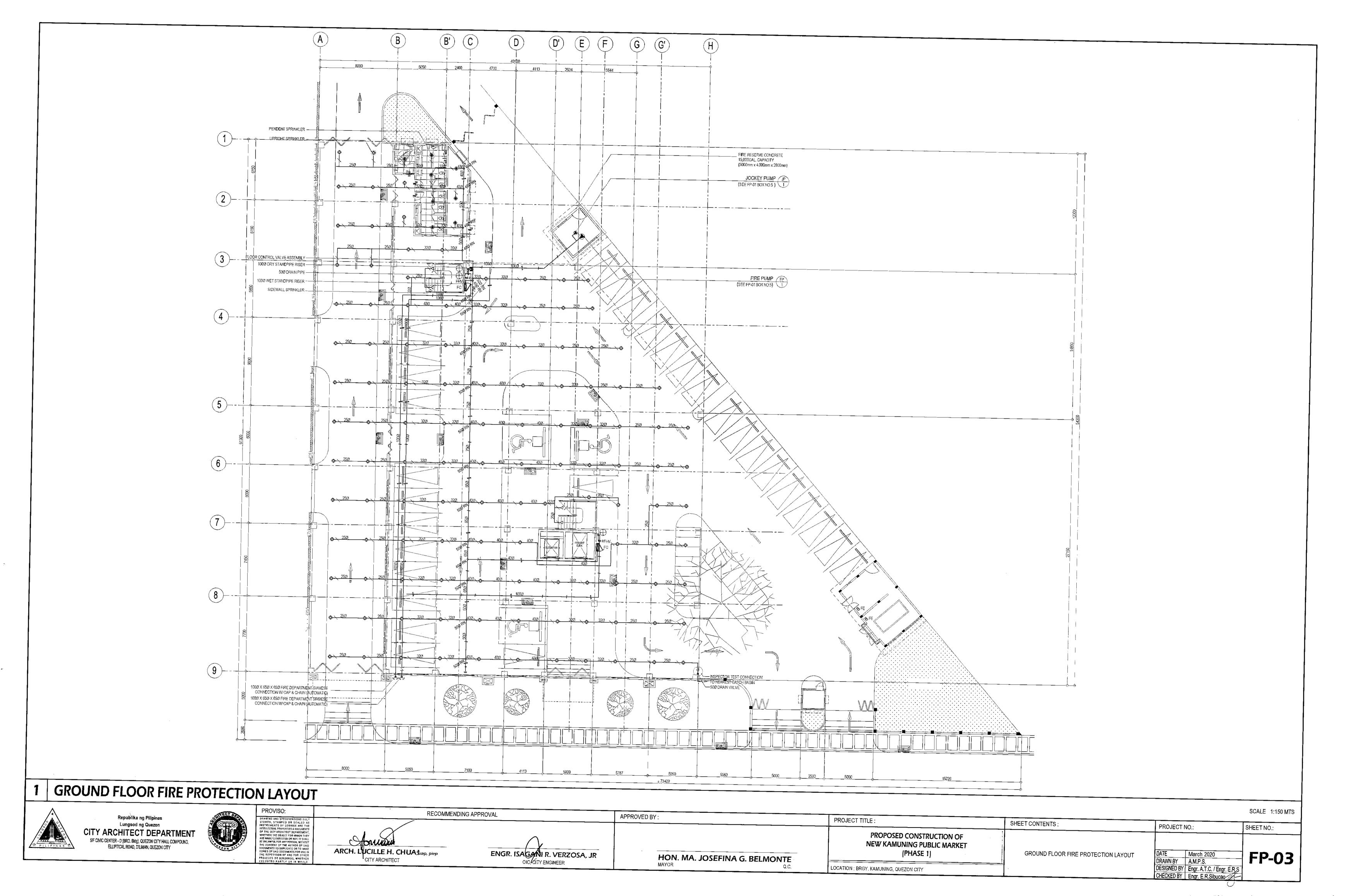
HON. MA. JOSEFINA G. BELMONTE

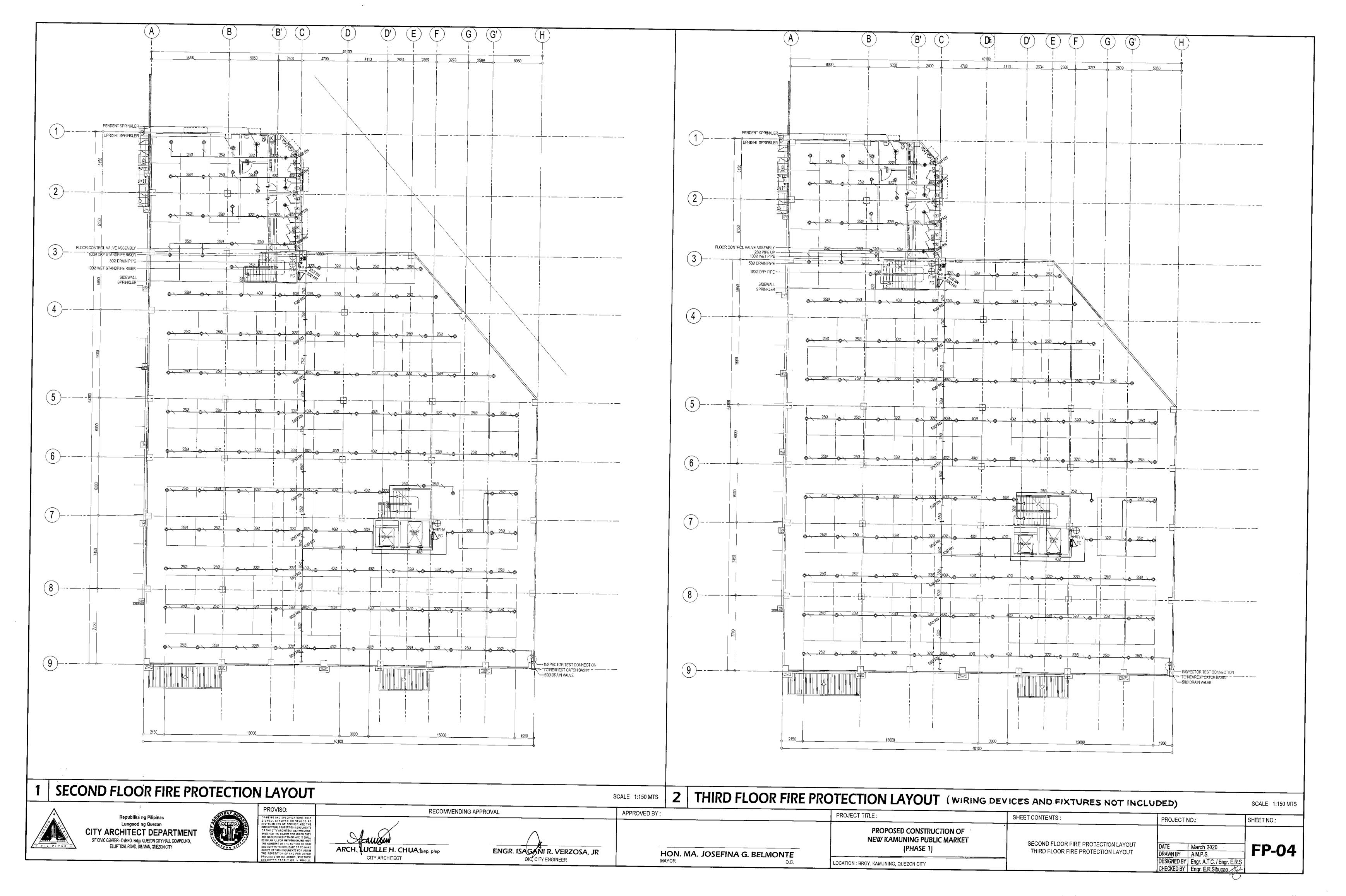
LOCATION: BRGY, KAMUNING, QUEZON CITY

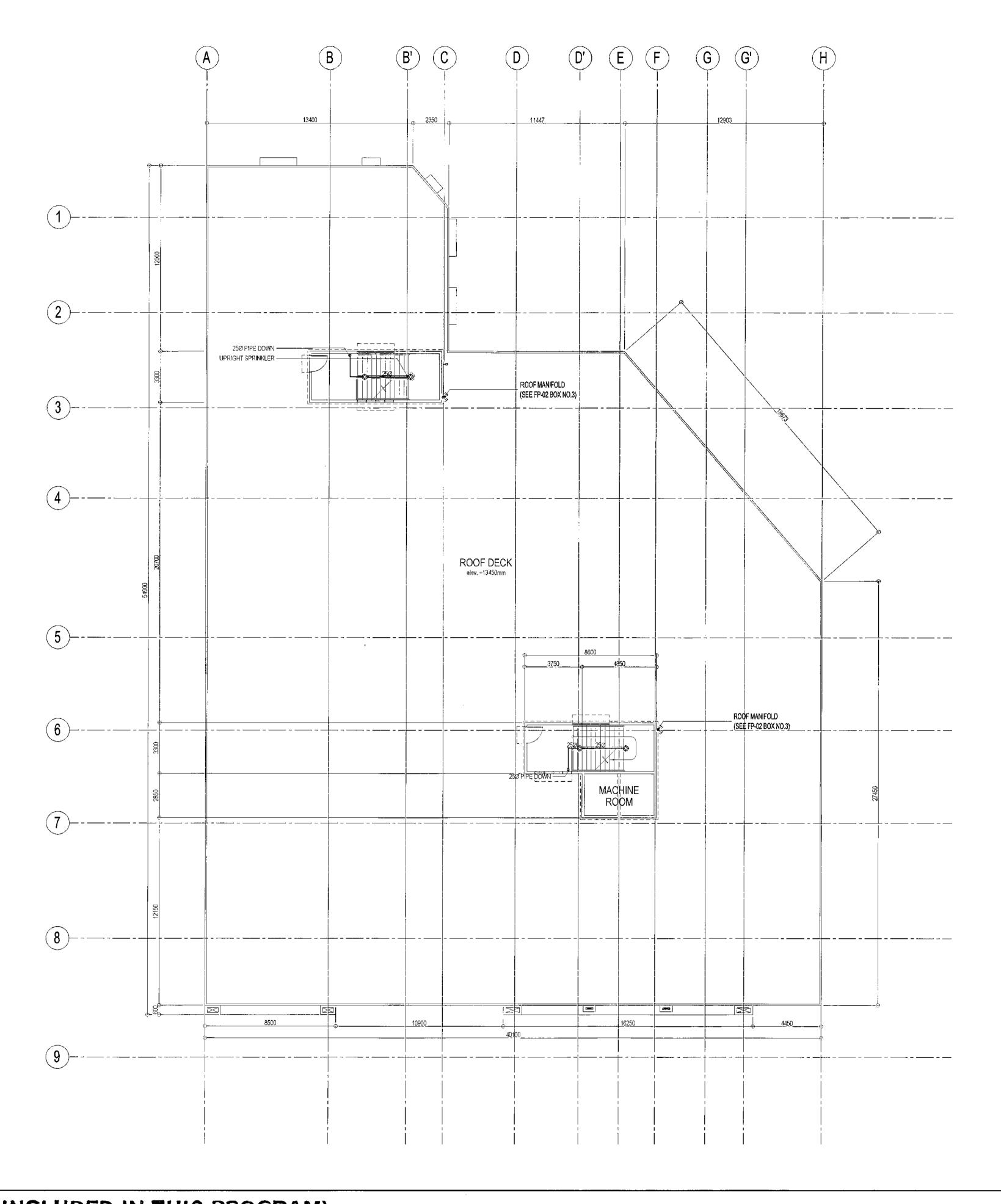
DESIGNED BY Engr. A.T.C. / Engr. E.R.S CHECKED BY Engr. E.R.Sibucao

NOT TO SCALE

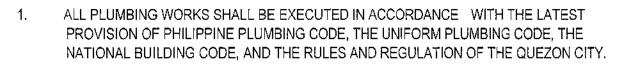








### DECK FIRE PROTECTION LAYOUT (NOT INCLUDED IN THIS PROGRAM) SCALE 1:150 MTS PROVISO: DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHIGH THEY ARE MADE IS SAECUTED OR MOT, IT SHALL BE UNLAWFULFOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID DOCUMENTS TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE. PROJECT TITLE : RECOMMENDING APPROVAL APPROVED BY: SHEET NO.: SHEET CONTENTS: PROJECT NO.: Republika ng Pilipinas PROPOSED CONSTRUCTION OF Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY **NEW KAMUNING PUBLIC MARKET** DATE March 2020 DRAWN BY A.M.P.S. DESIGNED BY Engr. A.T.C. / Engr. E.B.S. CHECKED BY Engr. E.R.Sibucao FP-05 DECK FIRE PROTECTION LAYOUT (PHASE 1) ENGR. ISAGANI R. VERZOSA, JR ARCH. QUCILLE H. CHUA, Juap, piep HON. MA. JOSEFINA G. BELMONTE LOCATION: BRGY, KAMUNING, QUEZON CITY



- ALL SLOPES FOR SANITARY AND STORM DRAINAGE LINES SHALL MAINTAIN A ONE PERCENT (0.01) AND ONE-HALF (0.005) MIN.RESPECTIVELY UNLESS OTHERWISE
- PROPOSED SANITARY UTILITIES SHALL CONFORM TO ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES & STRUCTURES.
- ALL WATER SUPPLY PIPES & DRAIN SIZES OF FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- TESTING OF SANITARY AND WATERLINES SHALL CONFORM TO THE LATEST REQUIREMENTS OF PHILIPPINE PLUMBING CODE AND UNIFORM PLUMBING CODE.
- ALL PIPES SIZES AND DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- WATERLINE SHALL BE PPR TYPE OR FUSION WELD TYPE.
- SOIL PIPE, WASTE & VENT SHALL BE PVC SANIMOLD EXTRA OR APPROVAL EQUAL. STORM DRAINAGE LINE 200mmØ AND BELOW SHALL BE POLYVINYL CHLORIDE. 250mmØ AND ABOVE SHALL BE REINFORCED CONCRETE PIPE.
- GATE VALVE SHALL BE PPR TYPE.
- WATER METER SHALL BE ANY ANY BRAND APPROVE BY MWSS.
- ROOF DRAIN SHALL BE ASA 10-12, PIPE SIZE 4" Ø BY ASA METAL OR APPROVAL EQUAL.
- WATER CLOSET SHALL BE VITREOUS CHINA, FREE STANDING TOILET COMBINATION, ROUND FRONT BOTTOM OUTLET SIPHON VORTEX OR WASH-DOWN BOWL WITH EXTENDED REAR SELF AND CLOSED COUPLED TANK WITH COVER COMPLETE WITH FITTING AND MOUNTING ACCESSORIES.
- LAVATORY SHALL BE VITREOUS CHINA, WALL HUNG WITH REAR OVERFLOW AND CAST IN SOAP DISHES, POCKET HANGER WITH INTEGRAL CHINA BRACKET, COMPLETE WITH TWIN FAUCETS, SUPPLY PIPES, P-TRAP AND MOUNTING ACCESSORIES.
- 14. WHERE INDICATED ON PLANS, THE COUNTER TOP MODEL MAKE AND COLOR SHALL BE APPROVED BY THE DESIGNING ARCHITECT.
- 15. URINAL SHALL BE WATER LESS, WALL HUNG, CONCEALED WALL HANGER POCKETS, COMPLETE WITH FITTING AND MOUNTING ACCESSORIES. MODEL MAKE AND COLOR SHALL APPROVED BY THE DESIGNING ARCHITECT.
- SHOWER HEAD AND FITTING SHALL BE MOVABLE, CONE TYPE WITH ESCUTCHEON ARM COMPLETE WITH STAINLESS STEEL SHOWER VALVE AND CONTROL LEVEL. ALL EXPOSED SURFACE TO BE CHROMIUM FINISH.
- 17. GRAB BARS SHALL BE MADE OF TUBULAR STAINLESS STEEL PIPE PROVIDED WITH SAFETY GRIP AND MOUNTING FLANGE.
- FLOOR DRAINS SHALL BE MADE OF STAINLESS STEEL BEEHIVE TYPE, MEASURING 10cm X 10cm AND PROVIDED WITH DETACHABLE STAINLESS STRAINER, EXPANDED METAL LATH TYPE.
- SOAP HOLDER SHALL BE VITREOUS CHINA WALL MOUNTED. COLOR SHALL RECONCILE WITH THE ADJACENT TILE WORKS.
- TOILET PAPER HOLDER SHALL BE VITREOUS CHINA WALL MOUNTED. COLOR SHALL RECONCILE WITH THE ADJACENT FIXTURE AND FACING TILES.
- FAUCETS SHALL BE MADE OF STAINLESS STEEL FOR INTERIOR USE.
- HOSE BIBS SHALL BE MADE OF BRONZE CAST FINISH.
- KITCHEN SINK SHALL BE MADE OF STAINLESS STEEL SELF RIMMING, SINGLE / DOUBLE COMPARTMENT COMPLETE WITH SUPPLY FITTINGS, STRAINER TRAPS, DUAL CONTROL LEVEL AND OTHER ACCESSORIES.
- 24. FIRE LINE SHALL BE BLACK IRON PIPE SCHEDULE 40

	-	UNION PATENT	mm	-	MILLIMETER
$\overline{}$	-	CHECK VALVE	UR	-	URINAL
SSK	-	SLOPE SLUK	GV	-	GATE VALVE
BS	-	BUILDING SEWER	GIP	-	GALVANIZED IRON PIPE
BD	-	BUILDING DRAIN	PVC	-	POLYVINYL CHLORIDE
cco	-	CEILING CLEAN OUT	WC	-	WATER CLOSET
GT	-	GREAST TRAP	DD	-	DECK DRAIN
PD	-	PARKING DRAIN	WC	-	WATER CLOSET
AD / CB	-	AREA DRAIN / CATCH BASIN	LAV	-	LAVATORY
	-	WASTE LINE	SP	-	SOIL PIPE
	-	WATER LINE	MH	-	MANHOLE
——⋈——	-	GATE VALVE	GCO	-	GROUND CLEANOUT
	-	PIPE DOWN	FCO	-	FLOOR CLEANOUT
С	-	PIPE UP	FD	-	FLOOR DRAIN
]	-	END CAP	Ø	-	DIAMETER
<u> </u>	-	DIRECTION OF FLOW / SLOPE	BP	-	BOOSTER PUMP
НВ	-	HOSE BIBB	SS	-	SOIL STACK
=========	-	STORM DRAIN LINE	VS	-	VENT STACK
	-	VENT LINE	VTR	-	VENT THRU ROOF
CF	-	CYCLONE FILTER	CWR	-	COLD WATER RISER
FD	-	FLUSH DIVERTER	EPP	-	ELEVATOR PIT PUMP
PT	-	PRESSURE TANK			

## LEGENDS & SYMBOLS

NOT TO SCALE

<>>

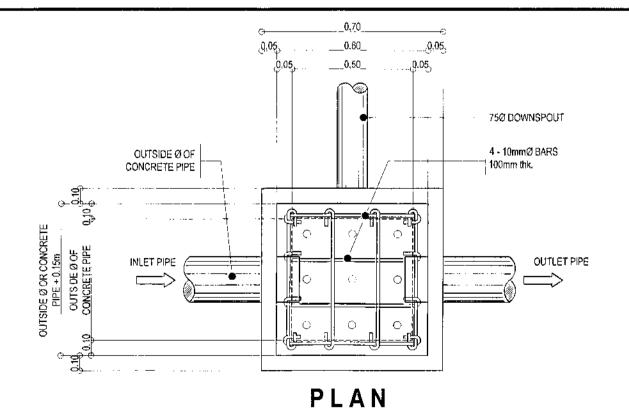
DESIGNATION	LOCATION	QUANTITY	DESCRIPTION	REMARKS
BP 1	PUMP ROOM	2.0	BOOSTER PUMP, HORIZONTAL END SUCTION, CENTRIFUGAL TYPE, STAINLESS STEEL SHAFT, CAST-IRON CONSTRUCTION, MECHANICAL SEAL, HARD PLASTIC IMPELER W/ A CAPACITY OF 50 GPM AGAINST 100 FT TDH, CLOSE-COUPLED TO A 2.0HP, 220V, 1Ø, 60HZ HIGH EFICIENT ALL WEATHER MOTOR. COMPLETE W/ MOTOR CONTROL FOR ALTERNATE & PARALLEL OPERATION.	CONTRACTOR SUPPLY & INSTALL, UNITS ARE FOR BOOSTING / PUMPING HARVESTED RAINWATER TO WATER CLOSETS & URINALS ONLY.
BP 2	PUMP ROOM	2.0	BOOSTER PUMP, HORIZONTAL END SUCTION, CENTRIFUGAL TYPE, STAINLESS STEEL SHAFT, CAST-IRON CONSTRUCTION, MECHANICAL SEAL, HARD PLASTIC IMPELER W/A CAPACITY OF 38 GPM AGAINST 100 FT TDH, CLOSE-COUPLED TO A 1.5HP, 220V, 1Ø, 60HZ HIGH EFICIENT ALL WEATHER MOTOR. COMPLETE W/ MOTOR CONTROL FOR ALTERNATE & PARALLEL OPERATION.	CONTRACTOR SUPPLY & INSTALL. UNITS ARE FOR BOOSTING / PUMPING POTABLE COLD WATER TO KITCHEN SINK, LAVATORY; FAUCETS, HOSE BIBBS, ETC.
PT 1	PUMP ROOM	1.0	PRESSURE TANK, STAINLESS STEEL #G.A. 14. 200 GALS CAPACITY. COMPLETE W/ INLET PORT OUTLET PORT, DRAIN PORT, PRESSURE GAUGE & PRESSURE SWITCH SET AT 20/40 PSI CUT IN/ CUT OFF PRESSURE	CONTRACTOR SUPPLY OF INSTALL, FACTORY TESTED AT 150 PSI mm PRESSURE FOR RAINWATER
PT 2	PUMP ROOM	1.0	PRESSURE TANK, STAINLESS STEEL #G.A. 14. 80 GALS CAPACITY. COMPLETE W/ INLET PORT OUTLET PORT. DRAIN PORT, PRESSURE GAUGE & PRESSURE SWITCH SET AT 20/40 PSI CUT IN/ CUT OFF PRESSURE	CONTRACTOR SUPPLY OF INSTALL, FACTORY TESTED AT 150 PSI mm PRESSURE FOR POTABL WATER
EPP 1	SUMP PIT	1,0	ELEVATOR PIT PUMP, SUBMERSIBLE TYPE, NON-CLOG, DESIGNED TO PUMP WASTE WATER. PUMP SHALL HAVE A CAPACITY OF 20.0 GPM VS 40 FT TDH AND DRIVEN BY A 1/2 HP, 220V, 1Ø, 60 Hz SUBMERSIBLE MOTOR - COMPLETE W/ FLOAT SWITCHES.	CAPACITY AND HP RATINGS OF ELEVATOR P PUMP MAY CHARGE DEPENDING UPON THE ACTUAL SEEPAGE AT JOBSITE, ENCOUNTER DURING CONSTRUCTION,

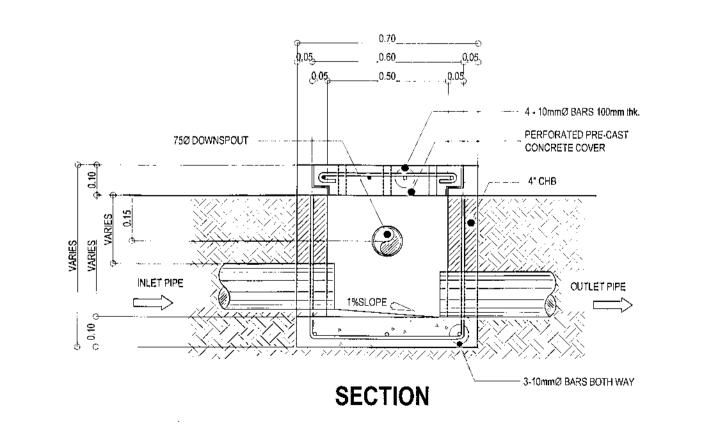
# **GENERAL NOTES**

NOT TO SCALE

# **EQUIPMENT SCHEDULE**

NOT TO SCALE





# 4 DETAIL OF AREA DRAIN / CATCH BASIN

PROVISO: AWING AND SPECIFICATIONS DULY INED, STAMPED OR SEALED AS TRUMENTS OF SERVICE ARE THE INSTRUMENTS OF SERVICE ARE THE INTELLEGITUAL PROPERTIES & BOCUMENTS OF THE CITY ARCHITECT DEPARTMENT, WHETMER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL SE WILLWIFLE FOR ANY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAID COCUMENTS TO DUPLICATE OR TO MAKE COPIES OF SAID COCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

RECOMMENDING APPROVAL ARCH. LUCILLE H. CHUA, fuap, piep CITY ARCHITECT

ENGR. ISAGANI R. VERZOSA, JR OIC, CITY ENGINEER

N.T.S.

APPROVED BY:

PROPOSED CONSTRUCTION OF **NEW KAMUNING PUBLIC MARKET** 

**GENERAL NOTES LEGENDS & SYMBOLS** EQUIPMENT SCHEDULE DETAIL OF AREA DRAIN / CATCH BASIN

PROJECT NO.:

SCALE 1:150 MTS

SHEET NO.:

ISOMETRIC VIEW OF SEWER LINE LAYOUT

(PHASE 1)

PROJECT TITLE:

HON. MA. JOSEFINA G. BELMONTE

LOCATION: BRGY, KAMUNING, QUEZON CITY

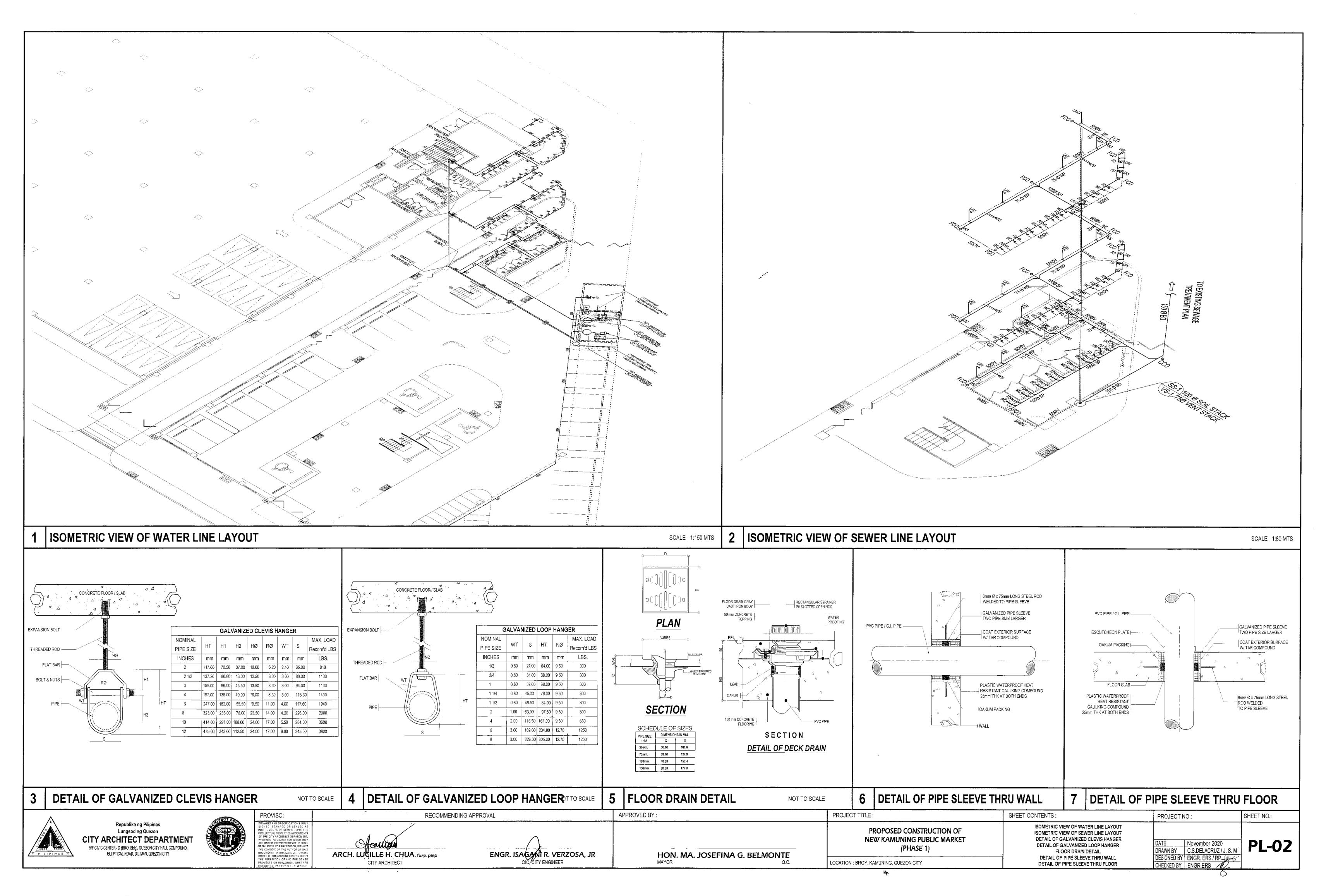
DATE November 2020
DRAWN BY C.S.DELACRUZ / J. S. M
DESIGNED BY ENGR. ERS / RP
CHECKED BY ENGR. ERS ISOMETRIC VIEW OF SEWER LINE LAYOUT

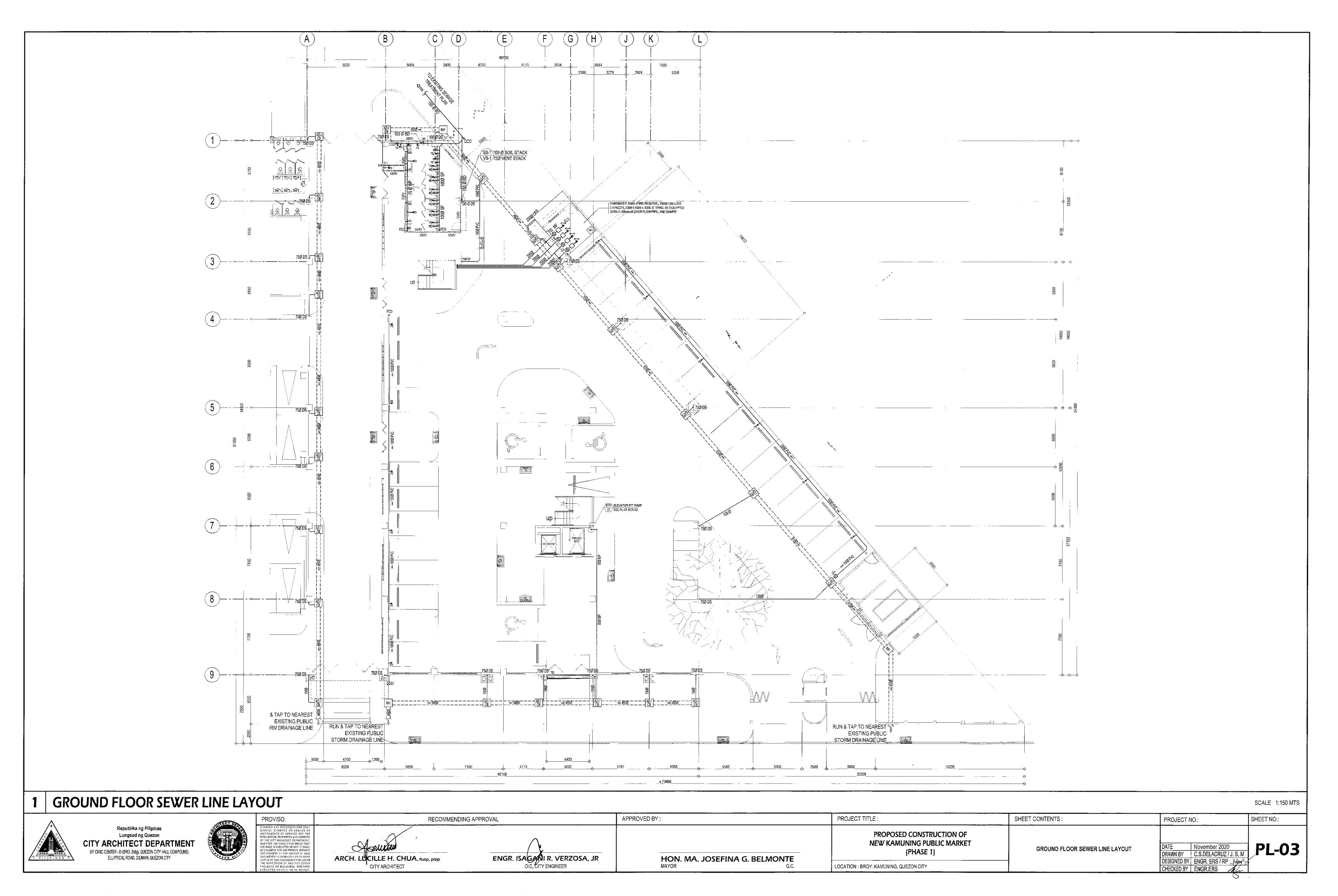
SHEET CONTENTS:

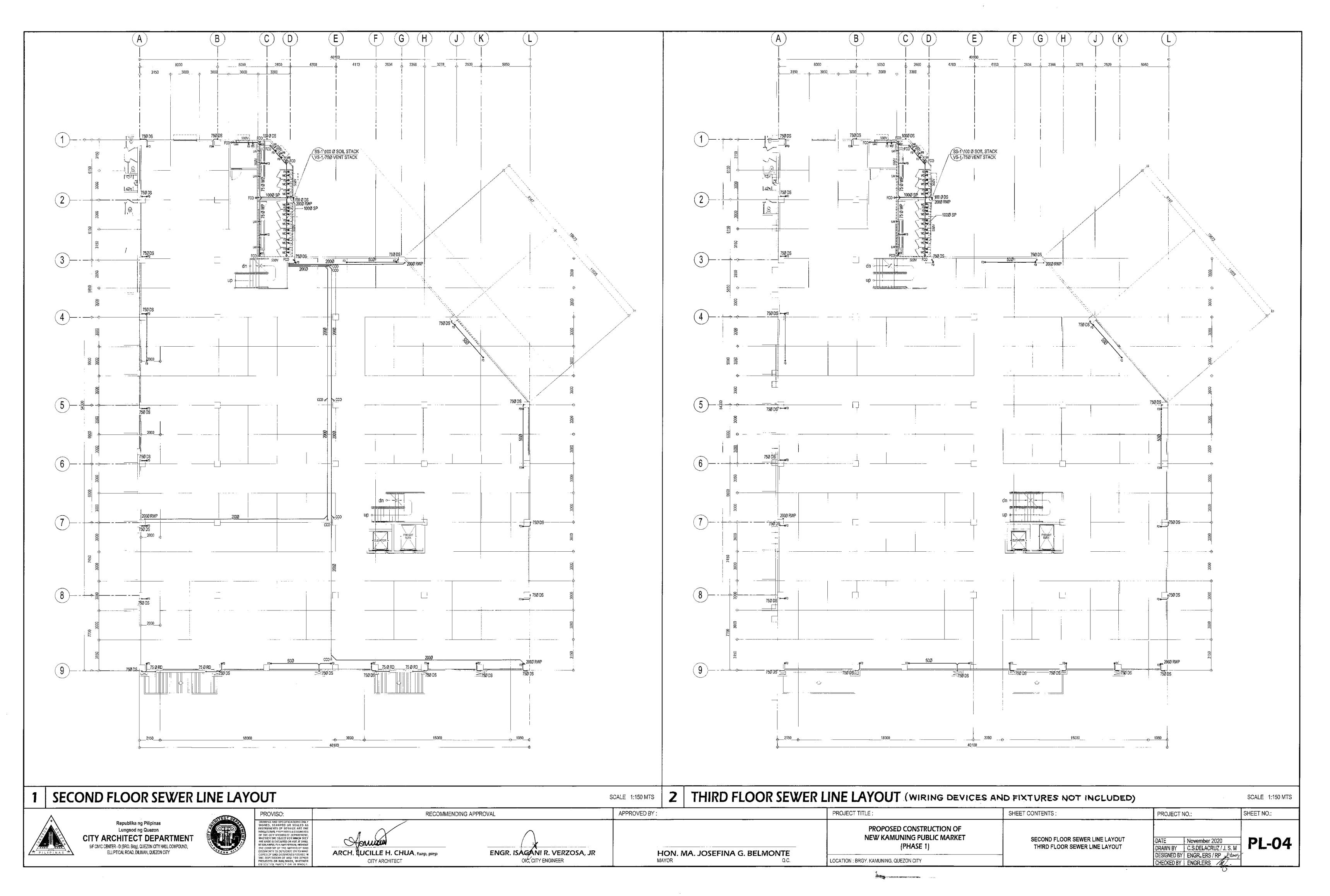
# Lungsod ng Quezon

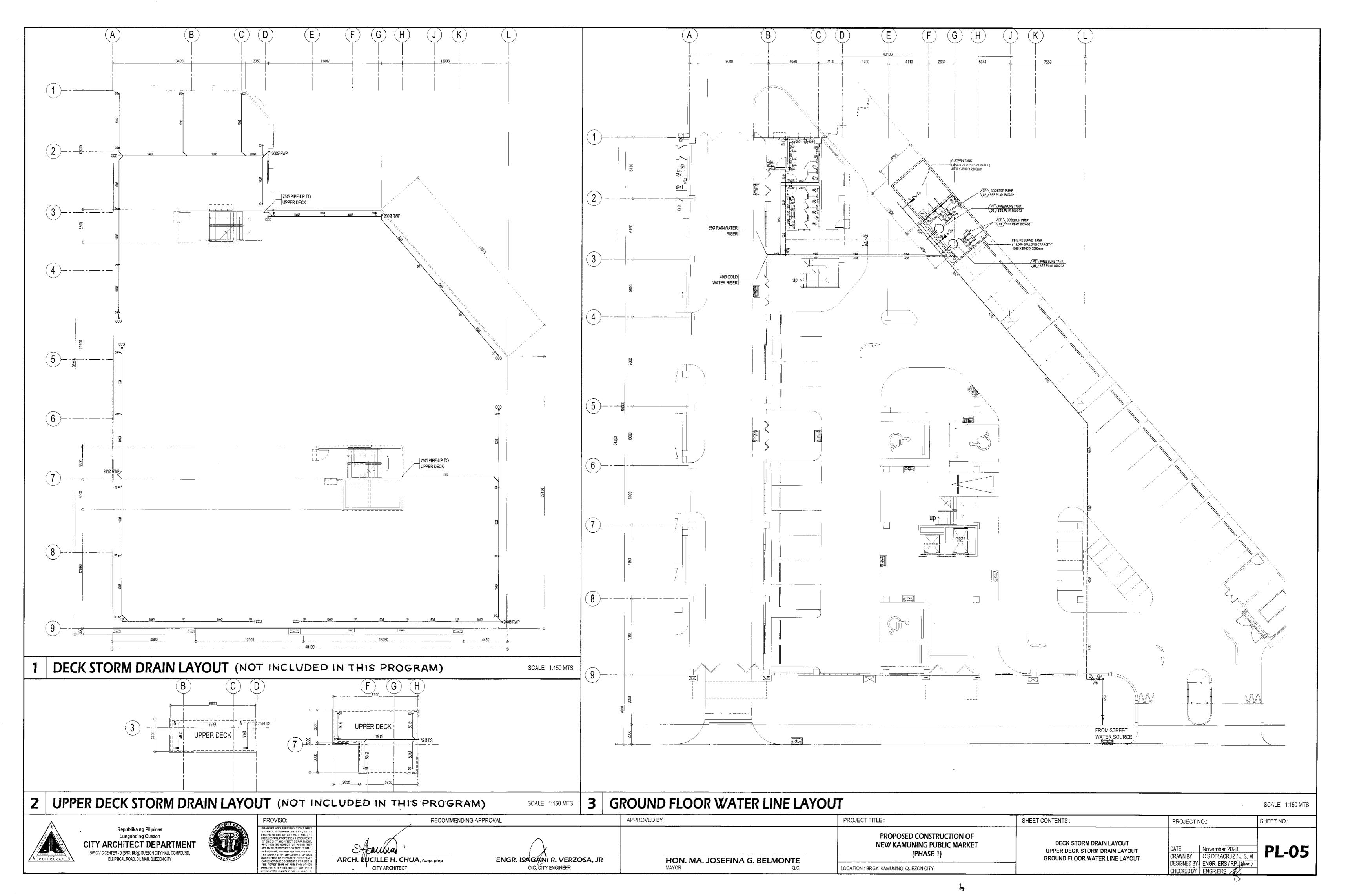
**CITY ARCHITECT DEPARTMENT** 

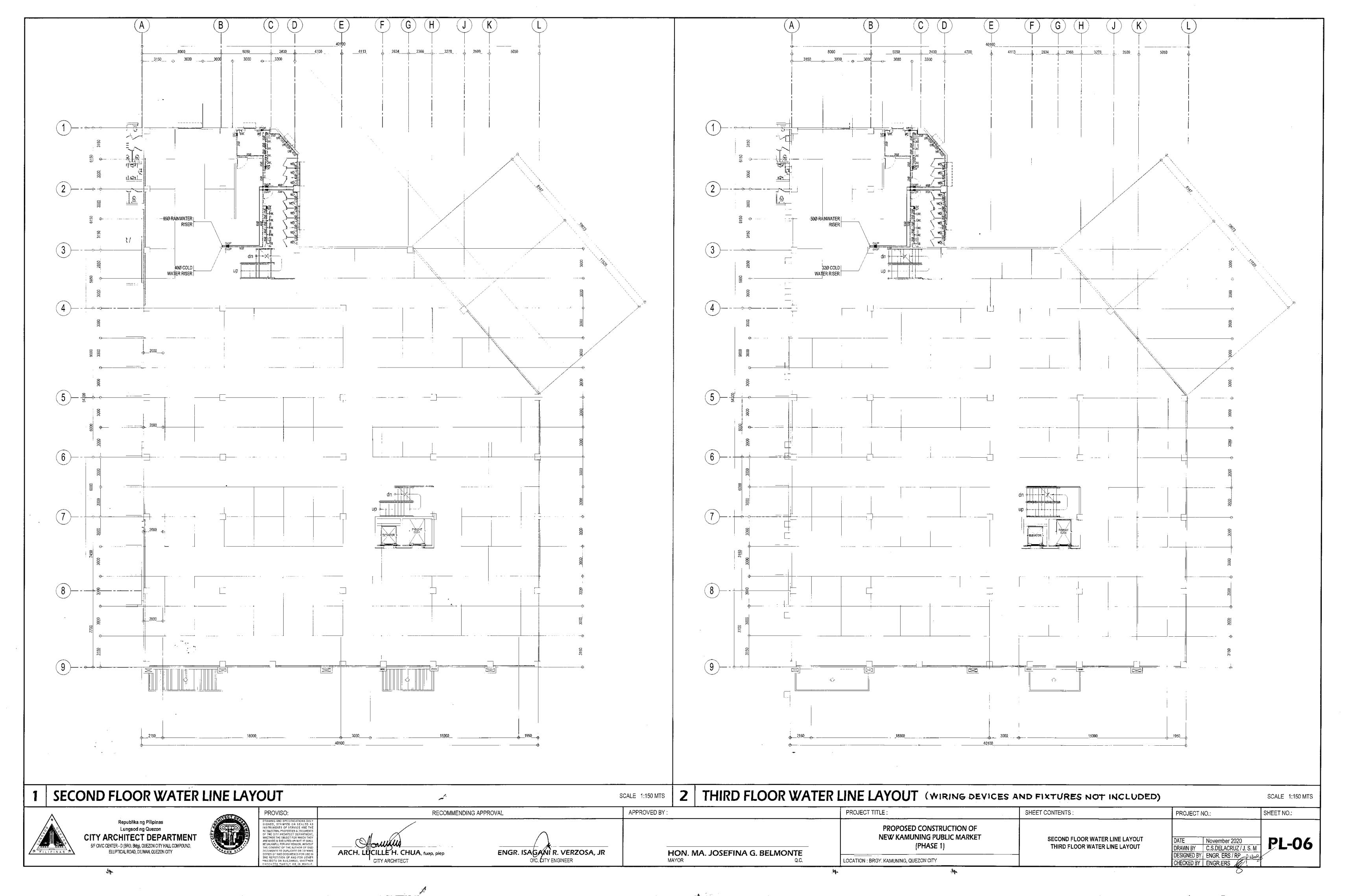
5/F CIVIC CENTER - D (BRO. Bldg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY











PROJECT TITLE :	PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1)
LOCATION :	BARANGAY KAMUNING, DISTRICT 4, QUEZON CITY
PROJECT NO. :	20 - 00150B
DURATION .	Five Hundred Ten (510) Calendar Days

## **BREAKDOWN OF COST**

	Item of Work (Description)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
I	GENERAL REQUIREMENTS				
П	CONSTRUCTION OF MAIN BUILDING				
Ш	LAND DEVELOPMENT WORKS				

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

TOTAL COST P

Contractor:

Bid Form Page 3 of 3

## **BILL OF QUANTITIES**

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF NEW KAMUNING PUBLIC MARKET (PHASE 1)

LOCATION : BARANGAY KAMUNING, DISTRICT 4, QUEZON CITY

PROJECT NO. : 20 - 000150B

**DURATION**: Five Hundred Ten (510) Calendar Days

## **SCOPE OF WORKS:**

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

- II Construction of Main Building
- 1 Site Works include site clearing and preparation, layout and staking, and earthworks.
- Civil and Structural Works include concrete works, steel framing and masonry works from foundation to 3rd floor column (first lift); metal works (other than steel framing) from ground to 2nd floor.
- 3 Provision of moisture protection includes vapor barrier and waterproofing.
- 4 Architectural works include floor finishes, wall finishes and partitions, ceiling finishes, and painting works, from ground floor to 2nd floor.
- Installation of sanitary / plumbing roughing-ins from ground floor to 3rd floor; equipment, fixtures and accessories from ground floor to 2nd floor.
- 6 Installation of gates, doors, door jambs and windows from ground floor to 2nd floor.
- 7 Installation of temporary stalls at ground floor including electrical provisions.
- 8 Installation of textile stalls at 2nd floor.
- 9 Installation of electrical roughing-ins from ground floor to 3rd floor; wirings, devices and fixtures from ground floor to 2nd floor.
- 10 Installation of panel board and its accessories.
- 11 Installation of mechanical roughing-ins from ground floor to 3rd floor; wirings, devices and equipments from ground floor to 2nd floor.
- 12 Auxillary System Works include installation of fire detection and alarm system (FDAS), closed-circuit television (CCTV) system, and telephone and data system at ground floor.
- 13 All necessary testing of materials and commissioning works must be performed as per standard procedures.

NOTE: STP System and equipment excluded in this program.

- III Land development Works
- 1 Construction of Perimeter Fence

Site Works include site clearing and preparation, layout and staking, and earthworks.

Civil and Structural Works include concrete works, masonry works and metal works.

Provision of moisture protection includes vapor barrier.

Architectural works include wall finishes and painting works.

## 2 Construction of Guard House

Site Works include site clearing and preparation, layout and staking, and earthworks.

Civil and Structural Works include concrete works, masonry works and metal works.

Provision of moisture protection includes vapor barrier.

Architectural works include wall finishes, ceiling finishes, and painting works.

Installation of doors, door jambs and windows.

Installation of electrical roughing-ins, wirings, devices and fixtures.

## 3 Construction of Pump Room

Site Works include site clearing and preparation, layout and staking, and earthworks.

Civil and Structural Works include concrete works, masonry works, roofing works and metal works.

Provision of moisture protection includes vapor barrier.

Architectural works include ceiling finishes, and painting works.

Installation of doors and door jambs.

Installation of electrical roughing-ins, wirings, devices and fixtures.

4 Construction of Power House for Electrical Room and Generator Set

Site Works include site clearing and preparation, layout and staking, and earthworks.

Civil and Structural Works include concrete works, masonry works, roofing works and metal works.

Provision of moisture protection includes vapor barrier.

Architectural works include painting works.

Installation of doors and door jambs.

Installation of electrical roughing-ins, wirings, devices and fixtures.

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	pcs	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	71	t.l.		
	Construction Health and Safety	1	unit		
	Scaffolding (Rental)	1,328	sq.m.		
	Temporary Electrical and Water Facilities	510	day		
	Temporary Enclosure around the Construction Area (H=2.4m)	194	l.m.		
				Direct Cost I	₽
II	CONSTRUCTION OF MAIN BUILDING				
Α	SITE WORKS				
	Demolition of Existing Stalls	2,835	sq.m.	₽	₽
	Site Clearing and Preparation	1,776	sq.m.		
	Layout and Staking	1,776	sq.m.		
	Excavation for Structures				
	Column Footing	901	cu.m.		
	Footing Tie Beam	289	cu.m.		
	Wall Footing	78	cu.m.		
	Stair Footing	1	cu.m.		
	Elevator Pit	34	cu.m.		
				Subtotal	₽
	Soil Treatment				
	Column Footing	1,539	sq.m.	₽	₽
	Footing Tie Beam	1,658	sq.m.		
	Wall Footing	423	sq.m.		
	Stair Footing	4	sq.m.		
	Elevator Pit	64	sq.m.		
	Gravel Bedding				
	Column Footing	19	cu.m.		
	Wall Footing	6	cu.m.		
	Stair Footing	1	cu.m.		
	Slab-On-Fill	185	cu.m.		
	Elevator Pit	1	cu.m.		
	Imported Earthfill	670	cu.m.		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
	Backfill and Compaction	1,019	cu.m.	₽	₽
				Subtotal	₽
				Materials Cost A	₱
				Labor Cost A	
				Direct Cost A	₽
В	CIVIL WORKS / STRUCTURAL WORKS				
	Concrete Works				
	Ready Mix Concrete, 3/4" Gravel, 21MPa				
	Wall Footing	78	cu.m.	₽	₽
	Stairs	3	cu.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Canopy	9	cu.m.		
	Ready Mix Concrete, 3/4" Gravel, 28MPa				
	Column Footing	168	cu.m.		
	Footing Tie Beam	90	cu.m.		
	Slab-On-Fill	292	cu.m.		
	Pedestal	38	cu.m.		
	Suspended Slab	468	cu.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Elevator Shear Wall	42	cu.m.		
	Concrete Wheel Stopper, Painted Finish	30	units		
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	10mmØ Footing Tie Beam	2,618	kg		
	10mmØ Pedestal	2,801	kg		
	10mmØ Slab-On-Fill	968	kg		
	10mmØ Stairs	314	kg		
	10mmØ Suspended Slab	20,471	kg		
	10mmØ Canopy	26378.295	kg		
	10mmØ Elevator Shear Wall	376	kg		
	12mmØ Footing Tie Beam	810	kg		
	12mmØ Stairs	173	kg		
	12mmØ Suspended Slab	24,717	kg		
	12mmØ Wall Footing	1,202	kg		
	12mmØ Elevator Shear Wall	4,575	kg		
	Grade 60 Reinforcing Steel Bars including G.I. Tie Wire # 16				
	16mmØ Column Footing	4,900	kg		
	16mmØ Footing Tie Beam	5,522	kg		
	16mmØ Elevator Shear Wall	1,208	kg		
	20mmØ Pedestal	626	kg		
	20mmØ Column Footing	415	kg		
	25mmØ Pedestal	10,570	kg		
	25mmØ Column Footing	24,124	kg		
	Formworks	,	J		
	Column Footing	217	sq.m.		
	Footing Tie Beam	372	sq.m.		
	Wall Footing	106	sq.m.		
	Pedestal	222	sq.m.		
	Stairs	27	sq.m.		
	Canopy	192	sq.m.		
	Elevator Shear Wall	534	sq.m.		
	Scaffoldings / Shoring		- 1		
	Pedestal	91	l.m.		
	Stairs	14	sq.m.		
	Masonry Works		- 1		
	100mm CHB Laying including Mortar, Reinforcement	127	sq.m.		
	and Two-Face Plastering		94		
	150mm CHB Laying including Mortar, Reinforcement	1,083	sq.m.		
	and Two-Face Plastering	1,000	94		
	Floor Topping Preparation and Finishing	2,824	sq.m.		
	Metal Works	_,-,	- 4		
	Structural Steel Frames for Beams (Wide Flange)	376,870	kg		
	Structural Steel Frames for Columns (Wide Flange)	103,447	kg		
	Steel Connection		۳۰۰		
	Base Plates for Columns	3,504	kg		
	Connector Plates for Beams	35,174	kg		
	Metal Deck	6,796.63	sq.m.		
	Temporary Stall	0,7 90.03	5 <b>4</b> .111.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	12mmØ Sag Rod	139	kg		
	40mm x 40mm 6mm Angular Bar	1,643	kg		
	50mm x 50mm x 6mm Angular Bar	2,553	kg		
	50mm x 100mm x 1.2mm Metal C-Purlin	897	kg		
	75mmØ G.I. Pipe	1,976	kg		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Steel Gates				
	G1 - 4.4 x 2.50 Steel Gate	1	set		
	G2 - 7.10 x 2.50 Steel Gate	2	sets		
	G3 - 5.40 x 2.50 Steel Gate	1	set		
	G4 - 3.00 x 2.50 Steel Gate	2	sets		
	G5 - 2.675 x 2.50 Steel Gate	1	set		
	G6 - 5.00 x 2.65 Steel Gate	2	sets		
	Steel Louver Type Windows				
	W8 - 0.60 x 2.40 Heavy Duty G.I. Louver Type Window	3	sets		
	W9 - 0.60 x 1.20 Heavy Duty G.I. Louver Type Window	1	set		
	W10 - 1.20 x 1.80 Heavy Duty G.I. Louver Type Window	2	sets		
	Miscellaneous & Consumables				
	Acetylene Tank Refill	652	tanks		
	Cut Off Blade	489	pcs		
	Grinding Disc Metal	367	pcs		
	Oxygen Tank Refill	1,303	tanks		
	Welding Rod	640	boxes		
	Roofing Works for Temporary Stalls				
	Pre-Painted Rib-type G.I. Roofing	239	sq.m		
	Pre-Painted G.I. End Flashing	68	lm		
	Tekscrew	1,190	рс		
	Silicon Sealant	8	tube		
	Thermal and Moisture Protection				
	Vapor Barrier	513	sq.m.		
	Cementitous Capillary Type Waterproofing	73	sq.m.		
	, , ,,		'	Materials Cost B	₽
				Labor Cost B	
				Direct Cost B	₽
				2001.0001.2	•
С	ARCHITECTURAL WORKS				
	Floor Finishes				
	600mm x 600mm Homogeneous/Porcelain Non-Skid Floor Tiles with	994	sq.m.	₽	P
	Pebble Washout Border 600mm x 600mm Homogeneous/Porcelain Non-Skid Floor Tiles				
	300mm x 600mm Homogeneous/Porcelain Non-Skid Floor Tiles	64	sq.m.		
	Wall Finishes	33	sq.m.		
	300mm x 300mm Homogeneous Countertop Tiles	6	sq.m.		
	300mm x 600mm Homogeneous Wall Tiles	107	sq.m.		
	Toilet Partition including Accessories	19	sq.m.		
	Urinal Partition including Accessories	3	sq.m.		
	Ceiling Finishes	40			
	12mm Thk Gypsum Board with Complete Framing and Accessories	19	sq.m.		
	12mm Thk. Moisture Resistant Gypsum Board with Complete Framing and Accessories	77	sq.m.		
				Material Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	Door				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	D1 - 2.10 x 0.80 Panel Door	1	set	₱	₱
	D2 - 2.10 x 1.00 Panel Door with Louvers and Kick Plate	2	sets		
	D3 - 2.10 x 0.80 Panel Door with Louvers and Kick Plate	4	sets		
	D5 - 2.10 x 0.70 Panel Door	1	set		
	Door Jambs				
	D1 - 2.10 x 0.80 Wood Jamb	1	set		
	D2 - 2.10 x 1.00 Wood Jamb	2	sets		
	D3 - 2.10 x 0.80 Wood Jamb	4	sets		
	D5 - 2.10 x 0.70 Wood Jamb	1	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
110	Hardwares and Accessories				
	Door Hinges	24	sets		
	Door Knobs	8	sets		
	Installation of Windows				
	W1 - 0.80 x 3.60 Aluminum Framed Awning Type Window	6	sets		
	W2 - 0.80 x 1.80 Aluminum Framed Awning Type Window	1	set		
	W3 - 1.50 x 1.20 Aluminum Framed Casement Type Window	3	sets		
	W4 - 0.40 x 2.40 Aluminum Framed Awning Type Window	3	sets		
	W5 - 0.40 x 1.20 Aluminum Framed Awning Type Window	5	sets		
	3 /1			Material Cost	₱
				Labor Cost	
				Subtotal	₽
	Painting Works				
	Elastomeric Paint Finish ( Exterior Wall )	3,121	sq.m.	₽	₽
	Epoxy Enamel Paint Finish				
	Flooring	35	sq.m.		
	Metal Surfaces	7,513	sq.m.		
	Fire Red Paint Finish (Fire Protection Works)	100	sq.m.		
	Latex Paint Finish		·		
	Interior Wall	477	sq.m.		
	Ceiling	96	sq.m.		
	Stalls		·		
	Textile Stall	100	units	₽	₽
	Textile Stall (Corner)	76	units		
	Tokalo otali (comor)			Material Cost	₽
				Labor Cost	
				Subtotal	₽
				Materials Cost C	₽
				Labor Cost C	
				Direct Cost C	₽
D	PLUMBING & SANITARY WORKS				
	Sanitary Line / Storm Drain System				
	50mm Ø PVC with Hub	150	pcs	₽	₽
	75mm Ø PVC with Hub	103	pcs		
	100mm Ø PVC with Hub	59	pcs		
	150mm Ø PVC with Hub	22	pcs		
	200mm Ø PVC with Hub	62	pcs		
	50mm Ø X 50 Ø Wye	42	pcs		
	75mm Ø X 50 Ø Wye	80	pcs		
	75mm Ø X 75 Ø Wye	9	pcs		
	100mm Ø X 50 Ø Wye	26	pcs		
	100mm Ø X 75 Ø Wye	8	pcs		
	100mm Ø X 100 Ø Wye	28	pcs		
	150mm Ø X 100 Ø Wye	6	pcs		
	150mm Ø X 150 Ø Wye	4	pcs		
	200mm Ø X 200 Ø Wye	8	pcs		
	200mm Ø X 100 Ø Reducer	4	pcs		
	200mm Ø X 150 Ø Reducer	7	pcs		
	The state of the s			1	1

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø X 50 Ø Tee	195	pcs		
	75mm Ø X 50 Ø Tee	8	pcs		
	100mm Ø X 50 Ø Tee	20	pcs		
	100mm Ø X 75 Ø Tee	6	pcs		
	100mm Ø X 100 Ø Tee	4	pcs		
	50mm Ø x 1/4 Bend	122	pcs		
	75mm Ø x 1/4 Bend	24	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	100mm Ø x 1/4 Bend	24	pcs		
	150mm Ø x 1/4 Bend	120	pcs		
	50mm Ø x 1/8 Bend	200	pcs		
	75mm Ø x 1/8 Bend	12	pcs		
	100mm Ø x 1/8 Bend	36	pcs		
	150mm Ø x 1/8 Bend	6	pcs		
	200mm Ø x 1/8 Bend	6	pcs		
	50mm Ø x 32 Ø Tap Tee	12	pcs		
	50mm Ø x 40 Ø Tap Tee	4	pcs		
	50mm Ø x 50 Ø No-Hub Coupling	2	pcs		
	50mm Ø Cleanout	2	pcs		
	75mm Ø Cleanout	7	pcs		
	100mm Ø Cleanout	9	pcs		
	150mm Ø Cleanout	2	pcs		
	200mm Ø Cleanout	7	pcs		
	50mm Ø P-Trap	65	pcs		
	Waterline System				
	20mm Ø PPR Pipe	30	pcs		
	25mm Ø PPR Pipe	6	pcs		
	32mm Ø PPR Pipe	9	pcs		
	40mm Ø PPR Pipe	7	pcs		
	50mm Ø PPR Pipe	5	pcs		
	65mm Ø PPR Pipe	20	pcs		
	20mm Ø x 20mm Ø Tee Equal	20	pcs		
	25mm Ø x 25mm Ø Tee Equal	4	pcs		
	32mm Ø x 32mm Ø Tee Equal	3	pcs		
	40mm Ø x 40mm Ø Tee Equal	3	pcs		
	50mm Ø x 50mm Ø Tee Equal	3	pcs		
	65mm Ø x 65mm Ø Tee Equal	10	pcs		
	25mm Ø x 20mm Ø Unequal Tee	15	pcs		
	32mm Ø x 20mm Ø Unequal Tee	2	pcs		
	32mm Ø x 25mm Ø Unequal Tee	6	pcs		
	40mm Ø x 20mm Ø, Unequal Tee	4	pcs		
	40mm Ø x 25mm Ø, Unequal Tee	3	pcs		
	40mm Ø x 32mm Ø, Unequal Tee	2	pcs		
	50mm Ø x 40mm Ø, Unequal Tee	2	pcs		
	65mm Ø x 40mm Ø, Unequal Tee	2	pcs		
	25mm Ø x 20mm Ø Reducer	12	pcs		
	32mm Ø x 20mm Ø Reducer	3	pcs		
	32mm Ø x 25mm Ø Reducer	6	· ·		
	40mm Ø x 32mm Ø Reducer	9	pcs		
	50mm Ø x 40mm Ø Reducer	2	pcs		
	65mm Ø x 50mm Ø Reducer	2	pcs		
	90mm Ø x 65mm Ø Reducer	2	pcs		
	20mm Ø x 90° Elbow	40	pcs		
	25mm Ø x 90° Elbow		pcs		
		20	pcs		
	32mm Ø x 90° Elbow	10	pcs		
	40mm Ø x 90° Elbow	10	pcs		
	50mm Ø x 90° Elbow	5	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	65mm Ø x 90° Elbow	5	pcs		
	20mm Ø x 15mm Ø Female Threaded Tee	17	pcs		
	25mm Ø x 20mm Ø Female Threaded Tee	3	pcs		
	20mm Ø End Cap	17	pcs		
	25mm Ø End Cap	3	pcs		
	20mm Ø Union Patente	10	pcs		
	25mm Ø Union Patente	10	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	32mm Ø Union Patente	4	pcs		
	40mm Ø Union Patente	10	pcs		
	50mm Ø Union Patente	4	pcs		
	65mm Ø Union Patente	14	pcs		
	20mm Ø Coupling	36	pcs		
	25mm Ø Coupling	8	pcs		
	32mm Ø Coupling	11	pcs		
	40mm Ø Coupling	9	pcs		
	50mm Ø Coupling	6	pcs		
	65mm Ø Coupling	24	pcs		
	20mm Ø Male Adaptor	10	pcs		
	25mm Ø Male Adaptor	10	pcs		
	32mm Ø Male Adaptor	4	pcs		
	40mm Ø Male Adaptor	10	pcs		
	50mm Ø Male Adaptor	6	pcs		
	65mm Ø Male Adaptor	14	pcs		
	Valves & Appurtenances		Poo		
	20mm Ø Gate Valve	5	pcs		
	25mm Ø Gate Valve	5	pcs		
	32mm Ø Gate Valve	2	pcs		
	40mm Ø Gate Valve	5	· ·		
	50mm Ø Gate Valve	1	pcs		
	65mm Ø Gate Valve		рс		
	50mm Ø Check Valve	7	pcs		
	65mm Ø Float Valve	1	pcs		
			pc		
	90mm Ø Water Meter	1	рс		
	Pipe Hangers and Supports	05	1		
	For horizontal Pipes Less than 50mm Ø (2m interval)	25	I.m.		
	For horizontal Pipes Greater than 50mm Ø (1m interval)	192	l.m.		
	Downspout Brackets	172	pcs		
	Fixtures (Water Efficient)	_			
	Water Closet, Tank Type	7	sets		
	Lavatory, Wall-Hung	1	set		
	Lavatory Countertop	7	sets		
	Urinal , Flush Valve	3	sets		
	Stainless Slop Sink	2	sets		
	Hardwares & Acccessories				
	100mm Ø Trench Drain	1	рс		
	100mm x 100mm Parking Drain	12	pcs		
	100mm x 100mm Floor Drain	13	pcs		
	Bathroom Accessories (Bidet, Tissue and Soap Holder, Towel Hool		sets		
	Stainless Flexible Hose	17	pcs		
	Stainless Grease Trap (7GPM)	2	sets/s		
	Heavy-duty Lavatory Faucet	8	pcs		
	Heavy-duty Slop Sink Faucet	2	pcs		
	Stainless Single-Way Angle Valve	13	pcs		
	Stainless Two-Way Angle Valve	7	pcs		
	Wall Metal Door Hook Hanger	7	pcs		
	Miscellaneous & Consumables				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	400cc Solvent Cement	95	cans		
	All Around Sealant	7	cans		
	Fixture Sealant	7	tubes		
	Hacksaw Blade	4	pcs		
	Teflon Tape	510	rolls		
	Waste Cloth	3	kg		
				Materials Cost D	₱
	·			Labor Cost D	
				Direct Cost D	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
E	ELECTRICAL WORKS				
	Roughing-ins				
	20mm Ø PVC Pipe	1,338	pcs	₽	₱
	80mm Ø PVC Pipe	25	pcs		
	15mm Ø IMC Pipe	876	pcs		
	20mm Ø IMC Pipe	79	pcs		
	25mm Ø IMC Pipe	56	pcs		
	32mm Ø IMC Pipe	45	pcs		
	40mm Ø IMC Pipe	4	pcs		
	75mm Ø IMC Pipe	8	pcs		
	100mm Ø IMC Pipe	28	pcs		
	20mm Ø Flexible Metallic Conduit	250	l.m.		
	20mm Ø PVC Adaptor	1,446	pcs		
	80mm Ø PVC Adaptor	3	pcs		
	80mm Ø PVC (90° Elbow)	8	pcs		
	80mm Ø PVC (110° Elbow)	8	pcs		
	15mm Ø IMC Elbow	400	pcs		
	20mm Ø IMC Elbow	51	pcs		
	25mm Ø IMC Elbow	28	pcs		
	32mm Ø IMC Elbow	17	pcs		
	40mm Ø IMC Elbow	3	pcs		
	75mm Ø IMC Elbow	6	pcs		
	100mm Ø IMC Elbow	11	pcs		
	20mm Ø PVC Locknut & Bushing	1,542	pcs		
	80mm Ø PVC Locknut & Bushing	15	pcs		
	15mm Ø IMC Locknut & Bushing	710	pcs		
	20mm Ø IMC Locknut & Bushing	50	pcs		
	25mm Ø IMC Locknut & Bushing	60	pcs		
	32mm Ø IMC Locknut & Bushing	28	pcs		
	40mm Ø IMC Locknut & Bushing	4	pcs		
	75mm Ø IMC Locknut & Bushing	11	pcs		
	100mm Ø IMC Locknut & Bushing	23	pcs		
	20mm Ø Straight Connector with locknut	335	pcs		
	100mm Ø PVC Coupling	10	pcs		
	15mm Ø IMC Coupling	400	pcs		
	20mm Ø IMC Coupling	46	pcs		
	25mm Ø IMC Coupling	28	pcs		
	32mm Ø IMC Coupling	15	pcs		
	40mm Ø IMC Coupling	3	pcs		
	75mm Ø IMC Coupling	6	pcs		
	100mm Ø IMC Coupling	11	pcs		
	100mm Ø IMC Entrance Cap Diecast	1	рс		
	50mm x 100mm Utility Box	357	pcs		
	100mm x 100mm Junction Box with cover	414	pcs		
	118mm PVC Square Box	12	pcs		
	Wire and Circuit Breaker Gutter (200mm x 300mm x 6750mm)	4	sets		
	50mm x 100mm x 2400mm Ga.16 Cable Tray with Cover and Coup		pcs		
	Powdercoated in Black Color	, <u>,</u>	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	100mm x 150mm x 2400mm Ga.16 Cable Tray with Cover and Coupling Powdercoated in Black Color	70	pcs		
	100mm x 150mm x 2400mm Ga.16 Cable Tray with Cover and Coupling Powdercoated in Black Color	70	pcs		
	Wires and Cables				
	2.0mm <sup>2</sup> THW Wire	41	rolls		
	3.5mm <sup>2</sup> THW Wire	52	rolls		
	5.5mm <sup>2</sup> THW Wire	2	rolls		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	8.0mm <sup>2</sup> THW Wire	2	rolls		
	14mm <sup>2</sup> THW Wire	117	l.m.		
	60mm² THW Wire	423	l.m.		
	3.5mm² THHN Wire	91	rolls		
	5.5mm² THHN Wire	102	rolls		
	8.0mm² THHN Wire	356	l.m.		
	14mm² THHN Wire	263	l.m.		
	30mm² THHN Wire	261	l.m.		
	38mm² THHN Wire	240	l.m.		
	50mm² THHN Wire	261	l.m.		
	250mm² THHN Wire	142	l.m.		
	100mm² BCW Wire (uncut)	167	l.m.		
	Wiring Devices				
	Outlet with Grounding, Plate and Cover, One-Gang	15	pcs		
	Outlet with Grounding, Plate and Cover, Duplex	8	pcs		
	Aircon Outlet, Multipurpose outlet 250V/20A	2	pcs		
	Switch w/ plate & cover, Single Gang	6	pcs		
	Switch w/ plate & cover, Two Gang	1	рс		
	Switch w/ plate & cover, Three Gang	3	pcs		
	Switch w/ plate & cover, Three way	2	pcs		
	Lighting Fixtures (Energy Efficient)		poo		
	1x36W Fluorescent Light, Dust Proof	70	pcs		
	1x20W Fluorescent Light, Box Type	8	pcs		
	2x18W Fluorescent Light, Troffer Type, 600mm x 600mm Fabricated Outdoor Triangular Façade Luminaire with 2x18W LED	4	pcs		
	Tube	6	pcs		
	100mm Ø Pinlight	23	pcs		
	150mm 23W Ø Square Pinlight	1	рс		
	Emergency Light	15	pcs		
	Miscellaneous & Consumables				
	400cc Solvent Cement	67	cans		
	Concrete Nails	34	kg		
	Electrical Tape	200	rolls		
	Eyebolt	1	рс		
	G.I. Tie Wire (for Cable Pulling)	67	kg		
	Hacksaw Blade	134	pcs		
	Rubber Tape	134	rolls		
	Temporary Stalls				
	Roughing-ins				
	20mm Ø PVC Pipe	24	pcs		
	25mm Ø PVC Pipe	3	pcs		
	25mm Ø PVC Elbow	2	pcs		
	25mm Ø PVC Coupling	2	pcs		
	20mm Ø PVC Locknut & Bushing	78	pcs		
	25mm Ø PVC Locknut & Bushing	2	pcs		
	50mm x 100mm Utility Box	39			
	100mm x 100mm Junction Box with cover	39	pcs		
	Wires and Cables	38	pcs		
	2.0mm² THW Wire	4	rollo		
	Z.UIIIII I I I I I I VV VVII E	1	rolls		<u> </u>

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	3.5mm² THHN Wire	2	rolls		
	5.5mm² THHN Wire	20	l.m.		
	Wiring Devices				
	Switch w/ plate & cover, Single Gang	39	pcs		
	Lighting Fixtures (Energy Efficient)				
	1 x 8W LED Light Bulb with Receptacle	39	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Panelboard				
	LP-STALLS	1	assy		
	Main:1- 30 AT 3P 18 KAIC @ 220V				
	Branches:				
	3 - 20AT 2P BOLT-ON				
	1 - SPARE				
	Enclosure: NEMA 3R				
	Miscellaneous & Consumables				
	400cc Solvent Cement	12	cans		
	Concrete Nails	4	kg		
	Electrical Tape	60	rolls		
	Eyebolt	1	рс		
	G.I. Tie Wire (for Cable Pulling)	12	kg		
	Hacksaw Blade	10	pcs		
	Rubber Tape	45	rolls		
				Material Cost	₽
				Labor Cost	
				Subtotal	₽
	Panelboard				
	MCB	1	assy	₱	₽
	Main: 1-700 AT 3P 100 KAIC @ 600V				
	Enclosure: NEMA 4X				
	MCA	1	Assy		
	Main: 150 AT 3P 65 KAIC @ 600V				
	Enclosure: NEMA 3R				
	Low Voltage Switch Gear (LVSG)	1	assy		
	Main: 1-700 AT 3P 100 KAIC @ 600V				
	Branches:				
	1 - 400AT 3P MCCB				
	2 - 150AT 3P MCCB				
	1 - Space				
	Enclosure: NEMA 1				
	AUTOMATIC TRANSFER SWITCH (ATS)	1	assy		
	Main: 2-400 AT 3P 65 KAIC @ 600V				
	MDP AD(ADMIN)	1	assy		
	Main:1-400 AT 3P 100 KAIC @ 600V				
	Branches:				
	1 - 200AT 3P MCCB				
	2 - 100AT 3P MCCB				
	1 - 70AT 3P MCCB				
	2 - Space				
	Enclosure: NEMA 1				
	MPP	1	assy		
	Main: 1-225 AT 3P 25 KAIC @ 240V				
	Branches:				
	2 - 125AT 3P MCCB				
	1 - 70AT 3P BOLT-ON				
	1 - 50AT 3P BOLT-ON				
	2 - 50AT 2P MCCB				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	2 - 30AT 2P BOLT-ON				
	1 - 20AT 2P BOLT-ON				
	1 - Space				
	Enclosure: NEMA 1				

ITEM	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
NO				01411 00001	TOTAL GOST
	LPPA	1	assy		
	Main:1- 100 AT 3P 18 KAIC @ 240V				
	Branches:				
	6 - 30AT 2P BOLT-ON				
	10 - 20AT 2P BOLT-ON				
	Enclosure: NEMA 1				
	ENCLOSED CIRCUIT BREAKER				
	400AT, 3P, NEMA 3R	1	Assy		
	125AT, 3P, NEMA 3R	2	Assy		
	70AT, 3P, NEMA 3R	1	Assy		
	50AT, 3P, NEMA 3R	1	Assy		
	50AT, 2P, NEMA 3R	2	Assy		
	30AT, 2P, NEMA 3R	90	Assy		
	Kilowatthour Meter (Submeter)	88	set		
	CT Rated Kilowatthour Meter (Submeter)	1	set		
	, ,		1	Material Cost	₽
				Labor Cost	
				Subtotal	₽
	Grounding and Lightning Protection System				
	Base Plate for Teel Mast	1	рс	₽	₽
	Cadweld Powder No. 90	20	packs		1
	Copper Bonded Ground Rod 20mm x 3m	15	pcs		
	Ground Well / Pit 200mm Ø Depth with S/S Cover	13	·		
	Handle Clamp Mold	2	pc pcs		
	riandie Ciamp Moid		pcs		₽
				Material Cost	Г
				Labor Cost	B
	0: 11 0 0 .			Subtotal	₽
	Stand by Generator Set				
	Generator Set	1	assy	P	₽
	Diesel Fed Engine, Silent Type				
	Rating: 150 KVA				
	Electrical Supply 230V, Three Phase, 4W, 60Hz, 0.80 p.f. 1800rpm				
				Direct Cost	₱
		Labor C	Cost with Te	echnical Supervision	
				Direct Cost	₱
				Materials Cost E	₱
				Labor Cost E	
				Direct Cost E	₱
F	AUXILIARY WORKS				
	Fire Detection and Alarm System (FDAS)				
	Roughing-ins				
	20mm Ø EMT Pipe	355	pcs	₱	₽
	25mm Ø EMT Pipe	3	pcs		
	32mm Ø EMT Pipe	4	pcs		
	20mm Ø Flexible Metal Conduit	100	l.m.		
	20mm Ø EMT Coupling, Set Screw Type	285	pcs		
	25mm Ø EMT Coupling, Set Screw Type	2	pcs		
	32mm Ø EMT Coupling, Set Screw Type	4	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø EMT Connector, Set Screw Type	330	pcs		
	25mm Ø EMT Connector, Set Screw Type	3	pcs		
	32mm Ø EMT Connector, Set Screw Type	3	pcs		
	20mm Ø Straight Connector	126	pcs		
	20mm Ø EMT Locknut & Bushing	284	pairs		
	25mm Ø EMT Locknut & Bushing	2	pairs		
	32mm Ø EMT Locknut & Bushing	4	pairs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	100mm x 100mm Metal Junction Box with cover	84	pcs		
	50mm x 100mm Metal Utility Box with cover	26	pcs		
	100mm Square Box with cover	3	pcs		
	300mm x 300mm x 200mm, Pullbox	1	assy		
	Wires and Cables				
	1.25mm <sup>2</sup> TF Wire	45	rolls		
	Fixtures, Devices & Equipment				
	Combination Smoke & Carbon Monoxide Detector, Addressable	6	pcs		
	Heat Detector, Addressable	31	pcs		
	Fire Alarm Manual Pull Station	7	pcs		
	Bell 150mm Ø / Horn w/ Strobe Light	7	sets		
	Fire Alarm Control Panel (FACP), 16-zones min., Addressable	1	unit		
	Back-Up Battery pack and Charging Unit (w/ indicators) w/ sufficient A- hr rating to operate the whole system as required	1	set		
	Hangers & Supports				
	Horizontal layout for pipes with less than 50mm diameter	360	l.m.		
	Miscellaneous and Consumables				
	400cc Solvent Cement	2	cans		
	Electrical Tape	20	rolls		
	GI Tie Wire, Ga. 16 (Cable Pulling)	14	kg		
	Hacksaw Blade	6	pcs		
	Pulling Lubricant	1	gal		
	Rugs	8	kg		
				Material Cost	₽
				Labor Cost	
				Subtotal	₽
	Telephone and Data System				
	Roughing-ins				
	20mm Ø PVC Pipe	57	pcs	₽	₽
	40mm Ø PVC Pipe	57	pcs		
	20mm Ø PVC Adaptor	44	pcs		
	40mm Ø PVC Adaptor	44	pcs		
	40mm Ø PVC Elbow	4	pcs		
	20mm Ø PVC Locknut & Bushing	44	pairs		
	40mm Ø PVC Locknut & Bushing	44	pairs		
	40mm Ø IMC Weatherproof Entrance Cap, Diecast	4	pcs		
	50mm x 100mm PVC Utility Box	5	pcs		
	100mm x 100mm PVC Junction Box with cover	18	pcs		
	Pullbox, 0.2m x 0.2m x 0.15m	7	assy		
	Telecom Backboard, Flame Retardant		рс		
	Wires and Cables	•			
	8.0mm² THHN Wire	8	l.m.		
	Cat3 UTP Cable, 2 pairs	2	rolls		
	Cat3 UTP Patch cord, 550 Mhz, 3 ft.	5	pcs		
	20mm Ø x 3000mm Grounding Rod (Copper Clad) w/ Ground Clamp	1	рс		
	Wiring Devices, Equipments and Enclosures				
	Outlet, Data Connection	3	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Telephone Terminal Cabinet (TTC), loaded w/ 50-pairs	1	assy		
	S110 TB * 460mmW x 610mmL x 200mmD				
	Hangers & Supports				
	Horizontal Layout for Pipes with less than or equal 50mm Ø	114	l.m.		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	cans		
	Electrical Tape	4	rolls		
	Masking Tape	7	rolls		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Rubber Tape	4	rolls		
	Hacksaw Blade	4	pcs		
	Rugs	2	kg		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱
	CCTV and Security System				
	Roughing-ins				
	15mm Ø IMC Pipe	150	pcs	₱	₱
	20mm Ø IMC Pipe	20	pcs		
	32mm Ø IMC Pipe	4	pcs		
	40mm Ø IMC Pipe	10	pcs		
	15mm Ø Flexible Metallic Conduit, Ordinary	20	l.m.		
	20mm Ø Flexible Metallic Conduit, Ordinary	7	l.m.		
	15mm Ø IMC Coupling	123	pcs		
	20mm Ø IMC Coupling	17	pcs		
	32mm Ø IMC Coupling	20	pcs		
	40mm Ø IMC Coupling	8	pcs		
	15mm Ø PVC Locknut & Bushing	34	Pairs		
	20mm Ø PVC Locknut & Bushing	4	Pairs		
	32mm Ø PVC Locknut & Bushing	6	Pairs		
	40mm Ø IMC Locknut & Bushing	4	Pairs		
	20mm Ø IMC Elbow	4	pcs		
	40mm Ø IMC Elbow	4	pcs		
	15mm Ø Straight Connector	20	pcs		
	20mm Ø Straight Connector	7	pcs		
	RG-6/U Straight Connector	19	pcs		
	RG-6/U Terminal Connector	26	pcs		
	100mm x 100mm Square Box with cover	2	boxes		
	100mm x 100mm Metal Junction Box with cover	14	pcs		
	Pullbox, 300mm x 200mm x 200mm	1	assy		
	Pullbox, 400mm x 300mm x 300mm	2	assy		
	Wires and Cables	_	400)		
	RG 6/u Coaxial Cable	6	rolls		
	1.25mm² TF Wire	10	rolls		
	8.0mm² THW Wire (Grounding Wire)	8	I.m.		
	A/V (VGA and HDMI) Cables	20	l.m.		
	Wiring Devices, Equipments and Enclosures				
	HD Compact Bullet Camera, Outdoor Wall Mounted	11	pcs		
	· · · · · · · · · · · · · · · · · · ·				
	HD Digital Video Recorded (DVR), 16-Channel with DVD Burner	2	units		
	DVR Securty Lock Box, Low Profile	1	assy		
	Multi- Function Keyboard Controller	1	unit		
	32" LED Display/Monitor	2	units		
	UPS, 1000VA ≥ 5 mins "on-line"	1	unit		
	Hangers & Supports				
	Horizontal layout for pipes with less than or equal 50mm	628	l.m.		
	diameter Missellangous & Consumables				
	Miscellaneous & Consumables	4	- اا ــــــــــــــــــــــــــــــــــ		
	Electrical Tape	4	rolls		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	GI Tie Wire (for cable pulling)	2	kg		
	Hacksaw Blade	4	pcs		
	Masking Tape	3	rolls		
	Pulling Lubricant	1	can		
	Rubber Tape	2	rolls		
	Rugs	4	kg		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱

ΓΕΜ NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Materials Cost F	₱
				Labor Cost F	
				Direct Cost F	₱
G	MECHANICAL WORKS				
	Condensate Water Drainage System				
	32mm Ø x 3m uPVC Pipe	1	рс	₽	₽
	32mm Ø uPVC Elbow	2	pcs		
	Ventilation System				
	150mm Ø x 3m PVC Pipe	9	pcs		
	150mm Ø Air Vent Cap	9	pcs		
				Material Cost	₽
				Labor Cost	
				Subtotal	₽
	Equipment and Accessories				
	EF 1 - Ceiling Mounted Exhaust Fan, 205CMH, 230V / 1φ / 60Hz	1	unit	₽	₽
	EF 2 - Ceiling Mounted Exhaust Fan, 150CMH, 230V / 1φ / 60Hz	8	unit		
	EF 3 - Wall Mounted Industrial Exhaust Fan, 1260CMH, 230V / 1φ / 60Hz	1	unit		
	WAC 1 - 1.5hp, 300cfm, 1152W, 230V / 1¢ / 60Hz	1	unit		
			G	Material Cost	₽
				Labor Cost	•
				Subtotal	₽
	Pipe Hangers and Supports			Gubtotai	1
	Condensate Water Drainage System Support for Window-type ACU	3	l.m.	₽	₽
	Exhaust Duct System Support	36	l.m.		
	Window Type Aircon Wall Mounted Support	1	unit		
	Miscellaneous & Consumables	ı	unit		
		10	000		
	400cc Pipe Solvent Cement		can		
	Hacksaw Blade	10	pcs		
	Waste Cloth	10	kg		
				Material Cost	₽
				Labor Cost	_
				Subtotal	₱
				Materials Cost G	₱
				Labor Cost G	
				Direct Cost G	₽
Н	FIRE PROTECTION WORKS				
	Roughing-ins, Pipes and Fittings				
	25mm Ø x 6m B.I. Pipe, Schedule 40	13	pcs	₽	₽
	32mm Ø x 6m B.I. Pipe, Schedule 40	4	pcs		
	40mm Ø x 6m B.I. Pipe, Schedule 40	3	pcs		
	50mm Ø x 6m B.I. Pipe, Schedule 40	6	pcs		
	65mm Ø x 6m B.I. Pipe, Schedule 40	21	pcs		
	75mm Ø x 6m B.I. Pipe, Schedule 40	30	pcs		
	100mm Ø x 6m B.I. Pipe, Schedule 40	53	pcs		
	65mm Ø x 50mm Ø B.I. Tee, Weldable	10	pcs		
	75mm Ø x 50mm Ø B.I. Tee, Weldable	13	pcs		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75mm Ø x 75mm Ø B.I. Tee, Weldable	3	pcs		
	100mm Ø x 65mm Ø B.I. Tee, Weldable	5	pcs		
	100mm Ø x 100mm Ø B.I. Tee, Weldable	4	pcs		
	65mm Ø B.I. 90° Elbow, Weldable	8	pcs		
	100mm Ø B.I. 90° Elbow, Weldable	12	pcs		
	65mm Ø x 50mm Ø B.I. Reducer, Weldable	3	pcs		
	75mm Ø x 50mm Ø B.I. Reducer, Weldable	3	pcs		
	75mm Ø x 65mm Ø B.I. Reducer, Weldable	3	pcs		

NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	25mm Ø x 25mm Ø B.I. Tee, Threaded	35	pcs		
	32mm Ø x 25mm Ø B.I. Tee, Threaded	50	pcs		
	32mm Ø x 32mm Ø B.I. Tee, Threaded	3	pcs		
	40mm Ø x 25mm Ø B.I. Tee, Threaded	35	pcs		
	40mm Ø x 40mm Ø B.I. Tee, Threaded	10	pcs		
	50mm Ø x 50mm Ø B.I. Tee, Threaded	5	pcs		
	25mm Ø 90° B.I. Elbow, Threaded	52	pcs		
	32mm Ø 90° B.I. Elbow, Threaded	3	pcs		
	40mm Ø 90° B.I. Elbow, Threaded	11	pcs		
	50mm Ø 90° B.I. Elbow, Threaded	7	pcs		
	32mm Ø x 25mm Ø B.I. Reducer, Threaded	33	pcs		
	40mm Ø x 32mm Ø B.I. Reducer, Threaded	33	pcs		
	50mm Ø x 25mm Ø B.I. Reducer, Threaded	2	pcs		
	50mm Ø x 40mm Ø B.I. Reducer, Threaded	7	pcs		
	65mm Ø B.I. Slip-on-Flange	36	pcs		
	75mm Ø B.I. Slip-on-Flange	23	pcs		
	100mm Ø B.I. Slip-on-Flange	67	pcs		
	32mm Ø B.I. Threadolet, Threaded	2	pcs		
	40mm Ø B.I. Threadolet, Threaded	4	pcs		
	25mm Ø B.I. Union Patent, Threaded	2	pcs		
	50mm Ø B.I. Union Patent, Threaded	1	рс		
	40mm Ø B.I. End Cap, Threaded	3	pcs		
	13mm Ø B.I. Plug, Threaded	131	pcs		
	Valves and Appurtenances	101	pcs		
	65mm Ø Fire Hose Valve	2	pcs		
	25mm Ø Sight Glass	1	рс		
	25mm Ø Globe Valve	6			
	50mm Ø Globe Valve	1	pcs		
	50mm Ø Check Valve	1	pc pc		
	100mm Ø Check Valve	2			
			pcs		
	100mm Ø Alarm Check Valve 75mm Ø Relief Valve	1	pc		
		1	pc		
	75mm Ø Butterfly Valve with Tamper Switch	1	pc		
	75mm Ø Flow Switch	1	рс		
	300psi Pressure Gauge	1	рс		
	750gpm Flow Meter	1	рс		
	Fixtures				
	Fire Sprinkler Head	110			
	13mm Ø Upright-type Fire Sprinkler Head, 68°C	119	pcs		
	13mm Ø Pendent-type Fire Sprinkler Head, 68°C	8	pcs		
	13mm Ø Sidewall-type Fire Sprinkler Head, 68°C	4	pcs		
	Fire Department Connection	2	sets		
	Fire Extinguisher	2	pcs		
	Fire Hose Cabinet	2	sets		
				Material Cost	₱
				Labor Cost	
				Subtotal	₽
	Equipment and Accessories				
	FP 1 - Vertical Turbine Fire Pump, 113.5cmh, 82.0m head,	1	unit	₽	₽

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	55.95kW, 230V / 3φ / 60Hz				
	JP 1 - Submersible Jockey Pump, 5.67cmh, 73.0m head, 3.73kW, 230V / 3φ / 60Hz	1	unit		
				Material Cost	₱
				Labor Cost	
				Subtotal	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Pipe Hangers and Supports				
	Hangers for 25mm Ø B.I. Pipe	78	l.m.	₽	₽
	Hangers for 40mm Ø B.I. Pipe	42	l.m.		
	Hangers for 50mm Ø B.I. Pipe	36	l.m.		
	Hangers for 65mm Ø B.I. Pipe	126	l.m.		
	Hangers for 75mm Ø B.I. Pipe	180	l.m.		
	Hangers for 100mm Ø B.I. Pipe	318	l.m.		
	Support for Vetical Pipes	200	l.m.		
	Miscellaneous & Consumables				
	20mm Ø Masonry Drill Bit	7	pcs		
	20mm Ø Metal Drill Bit	10	pcs		
	40mm Paint Brush	14	pcs		
	Gasket Maker	10	tube		
	Hacksaw Blade	10	pcs		
	Rubber Gasket	1	l.m.		
	Teflon Tape	315	rolls		
	Threading Oil	4	gal		
	Waste Cloth	7	kg		
	Welding Rod	4	boxes		
	Wording Roa	<u> </u>	БОЛОО	Motorial Coat	₽
				Material Cost Labor Cost	1
				Subtotal	₽
				Gubiotai	1
				Materials Cost H	₽
				Labor Cost H	1
				Direct Cost H	₽
1	LITH ITV AND ANOUL ADVINODICS			Direct Cost 11	1
'	UTILITY AND ANCILLARY WORKS				
	Equipments & Accessories				
	Pumps, Pressure Tank, Pressure Tank Booster Pump	2	units	₽	₽
	Horizonally end section centrifugal, cast-iron construction, stainless steel shaft, mechanical seal, hard plastic impeller, double mechanical seal with a capacity of 50 GPM against 100 FT. TDH, close coupled to a 2 HP, 220V,1Ø, 60 Hz, high efficient motor	-	armo		
	Booster Pump Horizonally end section centrifugal, cast-iron construction, stainless steel shaft, mechanical seal, hard plastic impeller, double mechanical seal with a capacity of 38 GPM against 100 FT. TDH, close coupled to a 1.5 HP, 220V,1Ø, 60 Hz, high efficient mot	2	units		
	Pressure Tank	1	set		
	Stainless steel, Ga #14, 80 Gallons capacity, complete with inlet				
	port, outlet port, drain port, pressure gauge, and pressure switch s	et			
	at 20/40 psi cut-in/cut-off pressure & other accessories to complete				
	system  Proceure Tank	1	set		
	Pressure Tank	I	351		
	Stainless steel, Ga #14, 150 Gallons capacity, complete with inlet	-1			
	port, outlet port, drain port, pressure gauge, and pressure switch s at 20/40 psi cut-in/cut-off pressure & other accessories to complete				
	system				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Elevator Pit Pump Submersible-type	1	sets		
	Submersible type, non-clog, designed to pump waste water. Pump shall have a capacity of 26.42 GPM against a total dynamic head of 20 ft and driven by 560 Watts, 220V, 1dia., 60Hz submersible mote Complete with float switches for aautomatic alternating & parallel	of			
	operation.				
				Materials Cost	₱
		Labor C	ost with Te	chnical Supervision	
				Subtotal	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Storm Drainage System/Cistern & Fire Reserve Tanks				
	460mm Ø Manhole	2	unit	₽	₽
	460mm Ø Area Drain/Catch Basin	17	unit		
	460mm Ø Reinforced Concrete Pipe	124	l.m.		
	910mm Ø Manhole	1	unit		
	910mm Ø Area Drain/Catch Basin	5	units		
	910mm Ø Reinforced Concrete Pipe	53	l.m.		
	Excavation for Drainage Pipes	280	cu.m.		
	Backfill and Compaction for Drainage	225	cu.m.		
	Hauling and Disposal of Excess Materials	55	cu.m.		
	Cistern Tank (4.5m L x 4.0m W x 2.1m D)	38	cu.m.		
	Rainwater/Fire Reserve Tank (5.3m L x 4m W x 3m D)	64	cu.m.		
				Subtotal	₱
				Materials Cost I	₽
				Labor Cost I	
				Direct Cost I	₽
				Materials Cost II	₽
				Labor Cost II	
				Direct Cost II	₽
III	LAND DEVELOPMENT WORKS				
Α	CONSTRUCTION OF PERIMETER FENCE				
1	Site Works				
	Site Cleaning & Preparation	41	sq.m.	₱	₱
	Layout & Staking	41	sq.m.		
	Excavation				
	Column Footing	14	cu.m.		
	Wall Footing	16	cu.m.		
				Subtotal	₱
	Soil Treatment	41	sq.m.	₱	₽
	Gravel Bedding	3	cu.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Backfill and Compaction	17	cu.m.	₱	₱
				Subtotal	₽
				Materials Cost 1	₽
				Labor Cost 1	
				Subtotal 1	₽
2	Civil Works / Structural Works				
	Concrete Works				
	On Site Mix Concrete				
	Column	4	cu.m.	₽	₽
	Column Footing	3	cu.m.		
	Wall Footing	6	cu.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16				
	10mm Ø Column	175	kg		
	12mm Ø Wall Footing	117	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16				
	16mm Ø Column	531	kg		
	16mm Ø Column Footing	758	kg		

ITEM	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
NO	Formworks	<b></b>	0	0	1017/2 0001
		170	00 m		
	Column Column Footing	170 12	sq.m.		
	Scaffolding and Shoring	12	sq.m.		
	Column	41	l ma		
		41	l.m.		
	Masonry Works	00			
	150mm CHB Laying including Mortar, Reinforcement and Two-Face Plastering	69	sq.m.		
	Concrete Moulding	14	l.m.		
	Metal Works				
	Perimeter Fence Steel Members				
	50mm x 75mm x 0.004mm Tubular Bar				
	Horizontal Members	495	kg		
	Vertical Members	594	kg		
	25mm x 25mm x 0.004mm Tubular Bar				
	Horizontal Members	1,524	kg		
	Miscellaneous and Consumables				
	Acetylene Tank Refill	1	tank		
	Assorted Metal Drill Bit	5	pcs		
	Cut Off Blade	5	pcs		
	Grinding Disc Metal	5	pcs		
	Oxygen Tank Refill	7	tanks		
	Welding Rod	4	boxes		
			БОХСЗ	Materials Cost 2	₽
				Labor Cost 2	
				Subtotal 2	₽
3	Architectural Works				
	Painting Works				
	Elastomeric Paint Finish (Perimeter Fence CHB Wall)	130	sq.m.	₱	₱
	Epoxy Enamel Paint Finish (Perimeter Fence Steel Members)	73	sq.m.		
	· · ·			Materials Cost 3	₽
				Labor Cost 3	
				Subtotal 3	₽
				Materials Cost A	₽
				Labor Cost A	
				Direct Cost A	₽
В	CONSTRUCTION OF GUARD HOUSE				
1	Site Works				
	Site Clearing and Preparation	6	sq.m.	₽	₽
	Layout and Staking	6	sq.m.		
	Excavation for Structures				
	Footing	2	cu.m.		
	Wall Footing	2	cu.m.		
		_		Subtotal	₽
				Japicial	
	Soil Treatment	6	sq.m.	₽	₽
	Gravel Bedding	3	cu.m.	1	-

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Labor Cost	
				Subtotal	₱
	Backfill and Compaction	2	cu.m.	₱	₱
				Subtotal	₱
				Materials Cost 1	₱
				Labor Cost 1	₱
			·	Subtotal 1	₱

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
2	Civil Works / Structural Works				
	Concreting				
	On-site Mix Concrete				
	Footing	1	cu.m.	₽	₽
	Slab-on-Fill	1	cu.m.		
	Wall Footing	1	cu.m.		
	Column	1	cu.m.		
	Beam	1	cu.m.		
	Suspended Slab	1	cu.m.		
	Canopy	1	cu.m.		
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16				
	10mmØ Wall Footing	8	kg		
	10mmØ Column	8	kg		
	10mmØ Slab-on-Fill	37	kg		
	10mmØ Beam	83	kg		
	10mmØ Canopy	18	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16	1.5	ı, a		
	16mmØ Footing	48	kg		
	16mmØ Column	105	kg		
	16mmØ Beam	48	kg		
	Formworks	70	Ng		
	Column Footing	4	ca m		
	Column	20	sq.m.		
	Beam	7	+		
	Scaffolding and Shoring	,	sq.m.		
	Column	15	l.m.		
	Beam Masonry Works	10	l.m.		
		20	00.00		
	150mm CHB Laying including Mortar, Reinforcement and and Two-Face Plastering	30	sq.m.		
	Concrete Moulding	10	l.m.		
	Floor Topping and Finishing Preparation	6	sq.m.		
	Thermal and Moisture Protection				
	Vapor Barrier	6	sq.m.		
				Materials Cost 2	₽
				Labor Cost 2	
				Subtotal 2	₱
3	Architectural Works				
	Wall Finishes				
	Plastering Guide/Grooves	44	l.m.	₱	₱
	Ceiling Finishes				
	Plain Cement Finish	6	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	Door				
	D5 - 0.7m x 2.1m Panel Door, Wooden	1	set	₽	₽

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Door Jambs				
	D5 - 0.70 x 2.10 Wood Jamb	1	set		
	Hardwares and Accessories				
	Door Hinges	3	sets		
	Door Knobs	1	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Installation of Windows				
	W6 - 1.20 x 1.60 Aluminum Framed Fixed Type Window	1	set		
	W7 - 1.20 x 1.00 Aluminum Framed Sliding Type Window	2	sets		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				-
	Elastomeric Paint Finish (Exterior Wall)	27	sq.m.	₱	₱
	Flat Latex Paint Finish				
	Interior Wall	27	sq.m.		
	Slab Soffit	6	sq.m.		
			·	Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Materials Cost 3	₽
				Labor Cost 3	
				Subtotal 3	₽
4	Electrical Works				-
•	Roughing-Ins				
	20mm Ø PVC Pipe	18	pcs	₽	₽
	20mmØ PVC Adaptor	10	pcs		
	20mmØ PVC Locknut and Bushing	10	pcs		
	50mm x 100mm Metal Utility Box	1	рс		
	100mmx 100mm Metal Junction Box with Cover	1	pcs		
	Wires and Cables	•	Poo		
	3.5mm² TW Wire	1	roll		
	5.5mm² THHN Wire	1	roll		
	Wiring Devices	•	1011		
	Weatherproof Outlet	1	рс		
	Switch w/ Plate & Cover, One Gang	1	рс		
	Lighting Fixtures (Energy Efficient)	•	ρυ		
	1 x 8W LED Light Bulb with Receptacle	1	pcs		
	Miscellaneous & Consumables	1	pos		
	Electrical Tape	7	rolls		
	G.I. Tie Wire (for Cable Pulling)	1	kg		
	Rubber Tape	2	rolls		
	Masking Tape	4	rolls		
	masking rapo	7	10113	Materials Cost 4	₽
				Labor Cost 4	1
				Subtotal 4	₽
				Subitital 4	1
				Materials Cost B	₽
				Labor Cost B	T-
				Direct Cost B	₽
С	CONSTRUCTION OF PUMP ROOM		-	- Direct Cost B	
1	Site Works				
'	Site Clearing and Preparation	21	60 50	₽	₽
			sq.m.	Γ'	Г
	Layout and Staking	21	sq.m.		

ITEM				1	<u> </u>
NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Excavation for Structures				
	Column Footing	2	cu.m.		
	Wall Footing	5	cu.m.		
				Subtotal	₽
	Soil Treatment	37	sq.m.	₱	₽
	Gravel Bedding	2	cu.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Backfill and Compaction	4	cu.m.	₱	₱
				Subtotal	₱
				Materials Cost 1	₱
				Labor Cost 1	₱
				Subtotal 1	₱
2	Civil Works / Structural Works				
	Concreting				
	On-site Mix Concrete				
	Column Footing	1	cu.m.	₽	₽
	Wall Footing	2	cu.m.		
	Slab-on-Fill	2	cu.m.		
	Column	1	cu.m.		
	Beam	2	cu.m.		
	Suspended Slab	2	cu.m.		
	Canopy	1	cu.m.		
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16				
	10mm Ø Wall Footing	39	kg		
	10mm Ø Slab-on-Fill	67	kg		
	10mm Ø Column	71	kg		
	10mm Ø Beam	137	kg		
	10mm Ø Canopy	36	kg		
	12mm Ø Wall Footing	64	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16				
	16mm Ø Footing	80	kg		
	16mm Ø Column	95	kg		
	16mm Ø Beam	190	kg		
	Formworks	1	3		
	Column	13	sq.m.		
	Beam	28	sq.m.		
	Scaffolding and Shoring		× 4		
	Column	13	l.m.		
	Beam	25	l.m.		
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and	85	sq.m.		
	and Two-Face Plastering		34.111.		
	Thermal and Moisture Protection				
	Vapor Barrier	21	ea m		
	vapui baillei	41	sq.m.		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roofing Works				
	Pre-Painted G.I. Roofing	68	sq.m.		
	Roofing Accessories				
	G.I. Flashing	32	l.m.		
	G.I. Gutter	15	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	15	l.m.		
	Tekscrew	544	pcs		
	Silicon Sealant	4	tubes		
	Metal Works				
	Roof Truss				
	50mm x 100mm x 1.2mm Channel Bar	119	kg		
	50mm x 50mm x 6.35mm Angular Bar	164	kg		
	12mm Ø Sagrod	4	kg		
	Window				
	W8 - 0.60 x 2.40 Heavy Duty G.I. Louver Type Window	3	sets		
	W9 - 0.60 x 1.20 Heavy Duty G.I. Louver Type Window	1	set		
	Miscellaneous & Consumables				
	Acetylene Tank Refill	1	tank		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Assorted Metal Drill Bit	2	pcs		
	Cut Off Blade	2	pcs		
	Grinding Disc Metal	2	pcs		
	Oxygen tank Refill	2	tanks		
	Welding Rod	1	box		
				Materials Cost 2	₱
				Labor Cost 2	
				Subtotal 2	₱
3	Architectural Works				
	Ceiling Finish				
	12mm thk. Gypsum Board with Complete Framing and Accessories	68	sq.m.	₽	₽
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	Door				
	D6 - 2.10 x 1.00 Steel Door with Louvers	1	set	₱	₱
	Door Jambs				
	D6 - 2.10 x 1.00 Metal Jamb	1	set		
	Hardwares and Accessories				
	Door Hinges (Metal Door)	3	sets		
	Door Knobs	1	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Painting Works				
	Elastomeric Paint Finish ( Exterior Wall )	108	sq.m.	₱	₱
	Epoxy Enamel Paint Finish				
	Flooring	22	sq.m.		
	Metal Works	7	sq.m.		
	Latex Paint Finish				
	Interior Wall	49	sq.m.	₱	₽
	Ceiling	68	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				Materials Cost 3	₱
				Labor Cost 3	
				Subtotal 3	₱
4	Electrical Works				
	Roughing-Ins				
	20mm Ø PVC Pipe	25	pcs	₱	₱
	20mmØ PVC Adaptor	12	pcs		
	20mmØ PVC Locknut and Bushing	12	pcs		
	50mm x 100mm Metal Utility Box	1	рс		
	100mmx 100mm Metal Junction Box with cover	4	pcs		
	Wires and Cables				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	3.5mm² TW Wire	1	roll		
	5.5mm² THHN Wire	1	roll		
	Wiring Devices				
	Weatherproof Outlet	2	pcs		
	Switch w/ Plate & Cover, One Gang	1	рс		
	Lighting Fixtures (Energy Efficient)				
	Wall Lamp	2	pcs		
	1 x 36w LED, Dust Proof Cover, w/ Complete Accessories,	2	pcs		
	Recessed Type				

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	Electrical Tape	7	rolls		
	G.I. Tie Wire (for Cable Pulling)	1	kg		
	Rubber Tape	2	rolls		
	Masking Tape	4	rolls		
				Materials Cost 4	₽
				Labor Cost 4	
				Subtotal 4	₽
				Materials Cost C	₽
				Labor Cost C	
				Direct Cost C	₽
D	CONSTRUCTION OF POWER HOUSE FOR ELECTRICAL ROOM				
	AND GENSET				
1	Site Works				
	Site Clearing and Preparation	38	sq.m.	₽	₽
	Layout and Staking	38	sq.m.		
	Excavation for Structures				
	Column Footing	4	cu.m.		
	Wall Footing	7	cu.m.		
				Subtotal	₽
	Soil Treatment	38	sq.m.	₽	₽
	Gravel Bedding	3	cu.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Backfill and Compaction	9	cu.m.	₽	₽
				Subtotal	₽
				Materials Cost 1	₽
				Labor Cost 1	
				Subtotal 1	₽
2	Civil Works / Structural Works				
	Concreting				
	On-site Mix Concrete	•		_	
	Slab-on-Fill	3	cu.m.	₽	₽
	Column Footing	2	cu.m.		
	Wall Footing	2	cu.m.		
	Column	2	cu.m.		
	Beam	2	cu.m.		
	Suspended Slab	3	cu.m.		
	Canopy	1	cu.m.		
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16	4			
	10mm Ø Column	178	kg		
	10mm Ø Slab-on-Fill	364	kg		
	10mm Ø Beam	126	kg		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	10mm Ø Canopy	30	kg		
	12mm Ø Genset Pad	56	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire Ga. 16				
	16mm Ø Footing	152	kg		
	16mm Ø Column	181	kg		
	16mm Ø Beam	247	kg		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Formworks				
	Column	10	sq.m.		
	Beam	30	sq.m.		
	Genset Pad	1	sq.m.		
	Scaffolding and Shoring				
	Column	26	l.m.		
	Beam	37	l.m.		
	Masonry Works				
	150mm CHB Laying including Mortar, Reinforcement and	97	sq.m.		
	and Two-Face Plastering				
	Thermal and Moisture Protection				
	Vapor Barrier	38	sq.m.		
	Metal Works				
	Roof Framing				
	50mm x 100mm x 1.2mm Channel Bar	238	kg		
	50mm x 50mm x 6.35mm Angular Bar	175	kg		
	50mm x 50mm x 6.35mm Angular Bar	119	kg		
	12mm Ø Sagrod	10	kg		
	Roofing Works		ING		
	Pre-Painted Rib Type G.I. Roofing	96	sq.m.		
	Pre-Painted G.I. Flashing	45	I.m.		
	Pre-Painted G.I. Gutter	18	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	18	l.m.		
	6mm thk Thermal Insulation, Single SIded Aluminum Foil	96	1		
	Tekscrew	375	sq.m.		
	Silicon Sealant	5	pcs		
	Window		tubes		
	W10 - 1.20 x 1.80 Heavy Duty G.I. Louver Type Window	2	sets		
	Miscellaneous and Consumables		3013		
	Acetylene Tank Refill	2	tonko		
	Assorted Metal Drill Bit	2	tanks		
	Cut Off Blade	2	pcs		
	Grinding Disc Metal	2	pcs		
	Oxygen Tank Refill	4	pcs		
	Welding Rod	1	tanks		
	Wolding Rod	<u>'</u>	box	Materials Cost 2	₽
				Labor Cost 2	'
				Subtotal 2	₽
3	Architectural Works			Subitital 2	'
3	Installation of Doors				
+	Door				
	D4 - 2.10 x 1.20 Steel Door with Louvers	1	set	₽	₽
	D6 - 2.10 x 1.20 Steel Door with Louvers	1	set	1	1
	D8 - 2.40 x 2.00 Steel Door with Louvers	1	set		
	Door Jambs	1	ક <b>લ</b> ા		
	D00 Jambs  D4 - 2.10 x 1.20 Metal Jamb	1	CC+		
			set		
+	D6 - 2.10 x 1.00 Metal Jamb	1	set		
	D8 - 2.40 x 2.00 Metal Jamb  Hardwares and Accessories	1	set		

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Door Hinges (Metal Doors)	9	pcs		
	Door Knobs	5	pcs		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽

ITEM NO	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	101	sq.m.	₽	₽
	Flat Latex Paint Finish				
	Interior Wall	59	sq.m.		
	Slab Soffit	56	sq.m.		
	Epoxy Enamel Paint Finish (Metal Works)	13	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	P
				Materials Cost 3	₽
				Labor Cost 3	
				Subtotal 3	₽
4	Electrical Works				
	Roughing-Ins				
	20mm Ø PVC Pipe	25	pcs	₽	₱
	20mmØ PVC Adaptor	12	pcs		
	20mmØ PVC Locknut and Bushing	12	pcs		
	50mm x 100mm Metal Utility Box	1	рс		
	100mmx 100mm Metal Junction Box with cover	4	pcs		
	Wires and Cables				
	3.5mm² TW Wire	1	roll		
	5.5mm² THHN Wire	1	roll		
	Wiring Devices				
	Weatherproof Outlet	2	pcs		
	Switch w/ Plate & Cover, Two Gang	2	рс		
	Lighting Fixtures (Energy Efficient)				
	1 x 36w LED, Dust Proof Cover, w/ Complete Accessories,	2	pcs		
	Recessed Type				
	Miscellaneous & Consumables				
	Electrical Tape	7	rolls		
	G.I. Tie Wire (for Cable Pulling)	1	kg		
	Rubber Tape	2	rolls		
	Masking Tape	4	rolls		
				Materials Cost 4	₽
				Labor Cost 4	
				Subtotal 4	₽
				Materials Cost D	₽
				Labor Cost D	
				Direct Cost D	₽
				Materials Cost III	₽
				Labor Cost III	
				Direct Cost III	₽

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

#### SUMMARY

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	TOTAL COST
    	GENERAL REQUIREMENTS CONSTRUCTION OF MAIN BUILDING LAND DEVELOPMENT WORKS	₽
	TOTAL DIRECT COST  Overhead, Contingencies and Miscellaneous Expenses (OCM)  Profit  VAT	P
	TOTAL ESTIMATED COST	₽

## 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.

## Section IX. Checklist of Technical and Financial Documents

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

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

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

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

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

#### I. TECHNICAL COMPONENT ENVELOPE

#### Class "A" Documents

<u>Leg</u>	al Do	<u>cuments</u>
	(a)	Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
	(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	hnica	l Documents
	(f)	Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid (please see attached prescribed forms required by the QC – BAC for Infrastructure
	(g)	and Consultancy); <u>and</u> 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); <u>and</u>
	(h)	Philippine Contractors Accreditation Board (PCAB) License;
	(i)	or Special PCAB License in case of Joint Ventures; and registration for the type and cost of the contract to be bid; and 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) (q) Duly accomplished Detailed Estimates Form, including a summary shee

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.

(r)

indicating the unit prices of construction materials, labor rates, and equipmen

### **Bid Form for the Procurement of Infrastructure Projects**

[shall be submitted with the Bid]

BID FORM	
Date : Project Identification No. :	

To: [name and address of Procuring Entity]

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

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

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

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

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

#### **Bid Securing Declaration Form**

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

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

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

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

I/We, the undersigned, declare that:

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

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

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

[Jurat]

#### 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.
- 2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz.*:
  - a. Philippine Bidding Documents (PBDs);
    - 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. Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.
- 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.

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]

<u>Acknowledgment</u>

#### Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINE	S)
CITY/MUNICIPALITY OF	18.8

#### **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:
- [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:
  - Carefully examining all of the Bidding Documents;
  - 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].
- [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN	WITNESS	WHEREOF,	1	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]

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;
- 3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
  - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
    - Procuring Entity has no claims filed against the contract awardee;
    - ii. It has no claims for labor and materials filed against the contractor; and
    - iii. Other terms of the contract; or
  - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

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

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

[Jurat]

#### LIST OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS

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

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Dame	- 6	
Page	of	

## NAME OF CONTRACTOR: PROJECT TITLE: \_\_\_\_\_ ROLE OF BIDDER IN THE CONTRACT PRICE MAJOR SCOPE OF WORKS & DATE NAME AND ADDRESS DATE OF SCHEDULED **CONTRACT SOLE** 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 DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR, PARTHNER IN A JV) and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION or ESTIMATED COMPLETIONTIME	TOTAL CONTRACT VALUE AT COMPLETION IF APPLICABLE

Page	~ C	
1.956	of	

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

NAME OF CONTRACTOR:	
PROJECT TITLE:	

STATUS OF VAILABILITY (NED/LEASED)

Dage	-6	
Page	of	

#### 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.

D	C	
Page	of	

## COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

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

NOTES:

<sup>\*</sup> CURRENT ASSETS AND LIABILITIES BASED ON AUDITED FINANCIAL STATEMENT FOR THE PRECEDING CALENDAR YEAR SUBMITTED TO B.I.R.

<sup>\*\*</sup> BASED ON LIST OF ON-GOING AND AWRDED BUT NOT YEY STARTED CONTRACTS SUBMITTED

REPUB	LIC OF TH	E PHILIPPINES	)						
			) S. S.						
		AFF	IDAVIT OF	UNDE	ERTA	KING			
REPRE	I, SENTATIV	Ε]	, of	legal	age,	Filipino,	-	[OFFICER	OR
with of having	fice address been duly s	at worn to in accor	dance with law,	hereby	volun	tary depos	e and sta	nte:	after
	That I am	duly authorized g as evidenced b	representative	of the _	Nam	e of Bidde	er		e this
	ThatIN	ame of Bidder]	bidding for t	he (Nai	me of l	Project)			
	that the equ	e to the aforeme sipment to be use erform to the said	e and the key pe	ersonne	l to be	assign sha	]here	eby undertak vely be used	e and
	That I am e with the sul	xecuting this aff	idavit to attest to echnical require	the truents	uth of for the	the foregoi public bid	ng and ir ding of t	n compliance he said projec	ct.
of	IN WITNE	SS HEREOF, I	have hereunt	o sign	ed m	y name b	elow th	is	day
	AFFIANT F	URTHER SAYE	TH NAUGHT.						
						Affiant			
-	SUBSCRIB	ED AND SWOR	RN TO BEFORE	ME th	is	day of		-	
affiant	exhibiting	to me his/ on_	her					issued	at
Doc. No.	, ;								
Page No Book No									
Series of				_					
					N	lotary Publ	ic		

