PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROJECT TITLE	**DESIGN AND BUILD CONTRACT FOR THE CONSTRUCTION OF ONE (1) 13-STOREY 336 UNITS MRB HOUSING**
LOCATION	**AT TAWIRAN STREET, BRGY. SANTOLAN, PASIG CITY**
PROJECT COMPLETION	**465 CALENDAR DAYS**
APPROVED BUDGET FOR THE CONTRACT (ABC)	**PHP 652,439,789.30**

ITB NO. PB-04-01-2024-01

Sixth Edition
July 2020

Preface

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

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

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

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

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

a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.

b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.

c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.

d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.

f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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Glossary of Terms, Abbreviations, and Acronyms

ABC –Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

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

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

a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;

b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;

c. The deadline for the submission and receipt of bids; and

d. Any important bid evaluation criteria.

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

Invitation to Bid
for the

DESIGN AND BUILD CONTRACT FOR THE CONSTRUCTION OF ONE (1) 13-STOREY 336 UNITS MRB HOUSING AT TAWIRAN STREET, BRGY. SANTOLAN, PASIG CITY

1. The ***City Government of Pasig***, through the ***Annual or Supplemental Budget approved by the Sangguniang Panlungsod*** intends to apply the sum of ***PhP 652,439,789.30*** being the Approved Budget for the Contract (ABC) to payments under the contract for ***DESIGN AND BUILD CONTRACT FOR THE CONSTRUCTION OF ONE (1) 13-STOREY 336 UNITS MRB HOUSING AT TAWIRAN STREET, BRGY. SANTOLAN, PASIG CITY under ITB No. PB-04-01-2024-01.*** Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The ***City Government of Pasig*** now invites bids for the above Procurement Project. Completion of the Works is required ***465 Calendar Days (C.D.)***. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Interested bidders may obtain further information from ***City Government of Pasig*** and inspect the Bidding Documents at the address given below from *8:00 A.M. to 5:00 P.M.*

5. A complete set of Bidding Documents may be acquired by interested bidders on ***12 March 2024*** from given address and website/s below {*Insert if necessary: and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of* ***PhP 75,000.00***.The Procuring Entity shall allow the bidder to present its proof of payment for the fees presented in person.

6. The ***City Government of Pasig*** will hold a Pre-Bid Conference[1] on **1:30 P.M.** ***20 March 2024*** at *7th Floor Meeting Room, Pasig City Hall, Caruncho Ave., San Nicolas, Pasig City,* which shall be open to prospective bidders.

7. Bids must be duly received by the Procurement Management Office (BAC Secretariat Office) through manual submission at the office address as indicated below on or before ***9:30 A.M. 01 April 2024***. **Late bids shall not be accepted.**

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

8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause **15**.

9. Bid opening shall be on ***10:00 A.M. 01 APRIL 2024*** at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. The address for submission of bids is at the Procurement Management Office (BAC Secretariat Office), 4th Floor Pasig City Hall Caruncho Avenue, San Nicolas Pasig City.

    Each Bidder shall submit ***ONE (1) SEALED MOTHER ENVELOPE*** *containing:*

    1. ***ORIGINAL (SEALED AND LABELED)***
       1.1 Hard Copy Original Technical Components;
       1.2 Hard Copy Original Financial Components and
       *1.3 One (1)**USB Flash Drive** containing scanned P.D.F. Documents of the Original Technical Components and Original Financial Components.*

    2. ***COPY 1 (SEALED AND LABELED)***
       *2.1 One (1)**USB Flash Drive** or **CD** sealed and labeled as **"COPY 1"** containing scanned P.D.F Documents of Technical and Financial Components.*

11. The ***City Government of Pasig*** 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.

12. For further information, please refer to:

    ATTY. BEA THERESE P. VILLANUEVA
    Officer in Charge, Procurement Management Office
    CITY GOVERNMENT OF PASIG
    Procurement Management Office, 4th Floor, Pasig City Hall,
    Caruncho Ave., San Nicolas Pasig City
    bidsandawards@pasigcity.gov.ph
    8643-1111 loc. *1461*

13. You may visit the following websites:

    For downloading of Bidding Documents:
    PS-PhilGEPS Website at http://notices.philgeps.gov.ph/ ; or
    City Government of Pasig Website at https://www.pasigcity.gov.ph/full-disclosure-portal

12 March 2024

SGD.
ATTY. JOSEPHINE C. LATI-BAGAOISAN
Chairperson, Bids and Awards Committee

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, ***City Government of Pasig,*** invites Bids for the ***DESIGN AND BUILD CONTRACT FOR THE CONSTRUCTION OF ONE (1) 13-STOREY 336 UNITS MRB HOUSING AT TAWIRAN STREET, BRGY. SANTOLAN, PASIG CITY*** with Project Identification Number **ITB No. PB-04-01-2024-01.**

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 ***CY 2024*** in the amount of ***PhP652,439.789.30.***

2.2. The source of funding is:***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 City Government of Pasig has prescribed that:

a. Subcontracting is allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS,** which shall not exceed fifty percent (50%) of the contracted Works.

7.2. 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.

7.3. 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.

7.4. 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 at its physical address as indicated in paragraph 6 of the **IB.**

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 special PCAB License in case of Joint Ventures, 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 inPhilippine 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 shall be valid until *[indicate date]*. 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 7 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**.

Additional Instructions to Bidders

Project Title: DESIGN AND BUILD CONTRACT FOR THE CONSTRUCTION OF ONE (1) 13-STOREY 336 UNITS MRB HOUSING AT TAWIRAN STREET, BRGY. SANTOLAN, PASIG CITY

Project Identification Number: ITB No. PB-04-01-2024-01

This shall form an integral part of the Bid Documents.

A. Bidders are requested to organize and submit their bids on the following requirements:

1. Submit First (1st) Envelope containing one (1) hardcopy of the ORIGINAL Technical Component, including the Eligibility Requirements. 1st Envelope shall be sealed and labeled as "ORIGINAL TECHNICAL COMPONENT".

2. Submit Second (2nd) Envelope containing one (1) hard copy of the ORIGINAL Financial Component. 2nd Envelope shall be sealed and labeled as "ORIGINAL FINANCIAL COMPONENT".

3. Submit USB Flash Drive containing one (1) soft/scanned copy of the ORIGINAL Technical Component and Financial Component;

4. Note: The 1st Envelope, 2nd Envelope and the USB flash drive containing the soft/scanned copy of the original technical and financial components shall be enclosed in a single envelope, sealed and labeled as "ORIGINAL BID".

5. Submit USB Flash Drive containing one (1) soft/scanned copy of the Technical Component and Financial Component. USB flash drive shall be enclosed in a separate envelope, sealed and labeled as "COPY1".

6. The "ORIGINAL BID" and "COPY 1" envelopes shall be enclosed in a single MOTHER ENVELOPE sealed and properly labeled.

*Sections of the bid shall be separated by dividers, proper tabs;
*NO scratch papers.

All envelopes (1st Envelope, 2nd Envelope, Original Bid Envelope, Copy 1 Envelope and Mother Envelope) shall be labeled as follows:

- Addressed to the procuring entity's BAC Chairperson
- Name of the project/contract to be bid
- Name, address and contact details of the bidder including e-mail address
- "DO NOT OPEN BEFORE <bid opening date and time>"
- Unsealed or unmarked bid envelopes shall be rejected. However, bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall be accepted, provided that the bidder or its duly

authorized representative shall acknowledge such condition of the bid as submitted. The Procuring Entity shall not be responsible for misplaced Bidding Documents and premature opening.

B. Bidding Documents availability and fee:

- Bidding Documents is available from 12 March 2024 to 01 April 2024 until 9:30 A.M. upon payment of applicable fees for the Bidding Documents at the City Treasurer's Office. Standard rates for bidding documents are as follows:

Approved Budget for the Contract	Maximum Cost of Bidding Documents
500,000 and below	P500.00
More than 500,000 up to 1 million	1,000.00
More than 1 million up to 5 million	5,000.00
More than 5 million up to 10 million	10,000.00
More than 10 million up to 50 million	25,000.00
More than 50 million up to 500 million	50,000.00
More than 500 million	75,000.00

- Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

C. Instruction to Bidders on payment of Bidding Documents

- Secure Order of Payment for the bidding documents at the Procurement Management Office, 4th Floor Pasig City Hall.

- Proceed to City Treasurer's Office, 1st Floor Pasig City Hall for the payment of bidding documents.

- Mode of payment: Cashier Manager's/Cashier's Check payable to City Government of Pasig. ***Personal Check shall not be accepted.***

- Present the Official Receipt to the BAC Secretariat's Office for the release of the complete set of bidding documents.

D. REMINDERS:

- The deadline for the submission of bid is on 01 April 2024 at 9:30 AM at the Procurement Management Office, 4th Floor Pasig City Hall, Caruncho Ave., San Nicolas Pasig City. The digital clock at the Procurement Management Office that is set to the Philippine Time (PhST) shall be used as reference in determining the time for the submission of bids, hence, participating bidders are advised to synchronize their timepiece with the said digital clock. Late bids or those who submitted after 9:30 AM of 01 April 2024 shall not be accepted.

- Bidders may submit their bid documents days ahead of the deadline for the submission in order to avoid late submission.

- Bid opening shall be on 01 April 2024 at 10:00 AM at 7th Floor Meeting Room, Pasig City Hall, Caruncho Ave., San Nicolas Pasig City. Bids will be opened in the presence of the bidders' representatives who choose to attend.

- All licenses, permits and other required clearances should be valid at the time of the submission of bids, Post-Qualification Evaluation and signing of the contract.

- The BAC expects the bidders to exercise due diligence in going through the bid documents so that they can prepare their bids intelligently.

- The Bids and Awards Committee will still continue to implement social distancing and shall require only one (1) Representative per company.

- All attendees will be subjected to thermal scan prior to entry of the venue and shall:

    1. Wear medical face mask and face shield at all times–"No Mask No Entry"
    2. Bring black ballpen
    3. Bring alcohol

Please be reminded that all queries after the issuance of Bid Bulletin will not be entertained.

SGD.
ATTY. JOSEPHINE C. LATI-BAGAOISAN
BAC Chairperson

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	Pursuant to Annex G No. 9.2 of the revised IRR of RA No. 9184, a modified set of requirements integrating eligibility documents and criteria for infrastructure projects and consulting services shall be adopted, as follows: 1. Class "A" Documents (Legal, Technical and Financial Documents) and Class "B" Documents. The prospective bidder shall submit all the required Class "A" and Class "B" documents for infrastructure projects and the following: a. relevant statements of all on-going, completed, awarded but not yet started design/design and build related contracts, curriculum vitae of key staff, partners or principal officers; and b. valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals. 2. Eligibility Criteria a. The eligibility of design and build contractors shall be based on the legal, technical and financial requirements abovementioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirement under the IRR of R.A. 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the ABC. b. If the bidder has no experience in design and build projects on its own it may enter into subcontracting, partnerships, or joint venture with design or engineering firms for the design portion of the contract. c. The relevant provisions under Section 23.4.2 of the IRR of RA No. 9184 on eligibility requirements shall be observed, with the following exceptions: Joint ventures/consortia among Filipino contractors and consultants or among Filipino contractors and foreign consultants shall be allowed subject to pertinent laws and the relevant provisions of the IRR of R.A. 9184. The joint venture/consortia shall be jointly and severally responsible for the obligations and the civil liabilities arising from the design and build contract: Provided, however, That Filipino ownership or interest thereof shall be at least seventy five percent (75%): Provided further, That joint ventures/consortia in which Filipino ownership or interest is less than seventy-five percent (75%) may be eligible where the structures to be built require the application of

	techniques and/or technologies which are not adequately possessed by Filipinos and that Filipino ownership or interest shall not be less than twenty-five percent (25%): Provided, finally, that when the design services in which the joint venture wishes to engage involve the practice of professions regulated by law, all those who will actually perform the services shall be Filipino citizens and registered professionals authorized by the appropriate regulatory body to practice those professions and allied professions and where foreign designers are required, the foreign designer must be authorized by the appropriate Philippine Government professional regulatory body to engage in the practice of those professions and allied professions.
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: The bidder's designer must have successfully or substantially completed the design of a project similar in nature and complexity as this contract under bidding and shall have earned a fee amounting to at least 50% of the ABC of the design and build component.
7.1	Subcontracting is allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS,** which shall not exceed fifty percent (50%) of the contracted Works. Specialty contractors for elevators, CATV, solar panel installation, etc. can be employed by the General Contractor as sub-contracting partners.
10.1	For the procurement of Infrastructure Project, the first envelope shall contain the following technical information/documents: 1. PhilGEPS Certificate of Registration and membership in accordance with Section 8.5.2 of this IRR. For procurement to be performed overseas, it shall be subject to the Guidelines to be issued by the GPPB. 2. PCAB License and Registration **or** Special PCAB License in case of Joint Ventures.Bidders must have a valid Philippine Contractors Accreditation Board (PCAB) license and registration for Size Range – **Large B- Building & Industrial Plant** and License Category of at least: **General Building- AAA**; 3. Statement of all Ongoing Government and Private Contracts; 4. Statement of SLCC; 5. NFCC Computation; 6. JVA, if applicable; 7. Bid security in the prescribed form, amount and validity period; 8. Project Requirements, which shall include the following: (1) Organizational chart for the contract to be bid; (2) List of contractor's 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; (3) List of contractor's major equipment units, which are owned, leased,

and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be;
(4)Duly signed Manpower Schedule;
(5) Equipment utilization schedule;
(6) Duly signed Construction Schedule (PERT/CPM) and S-curve;
(7) Duly signed Construction Method in narrative form;
(8) Construction Safety and Health Program; and
(9) Additional documents pursuant to Annex G:
(9.1) Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity;
> Cover Sheet
> General Index
> Vicinity and Key Map
> Location plan/ Lay out
> Legend, Abbreviation and Symbols
> General Notes
> Perspective Views
> Building Design Plan including floor plans, sections, and elevations
> Site Development Plan
> Engineering Plans, Layout, and Schematic Diagram
(9.2) Design and construction methods;
(9.3) List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data;
(9.4) Value engineering analysis of design and construction method
(9.5) Relevant statements of all on-going, completed, awarded but not yet started design/design and build related contracts, curriculum vitae of key personnel, staff, partners or principal officers;
(9.6) Valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals; and
9. Omnibus Sworn Statement in accordance with Section 25.3 of this IRR

10.3 *[Specify if another Contractor license or permit is required*.] Bidders must submit a Certification/Accreditation by **Accreditation of Innovative Technologies for Housing (AITECH) Committee**

10.4 The key personnel must meet the required minimum years of experience set below:

1. **DETAILED ARCHITECTURAL AND ENGINEERING DESIGN**

KEY PERSONNEL	QTY	GENERAL EXPERIENCE	RELEVANT EXPERIENCE	QUALIFICATIONS
Architect	1	12 Years	8 Years	A licensed Architect with Detailed Engineering Design (DED) experience in medium to high-rise housing project
Structural Engineer	1	12 Years	10 Years	A licensed Civil Engineer with Detailed Engineering Design (DED) experience

				preferably with Master's Degree in Civil/Structural Engineer
Sanitary Engineer	1	12 Years	8 Years	A licensed Sanitary Engineer with Detailed Engineering Design (DED) experience in medium to high-rise housing project
Professional Electrical Engineer	1	12 Years	8 Years	A licensed Professional Electrical Engineer with Detailed Engineering Design (DED) experience in medium to high-rise housing project
Professional Mechanical Engineer	1	12 Years	8 Years	A licensed Professional Mechanical Engineer with Detailed Engineering Design (DED) experience in medium to high-rise housing project

2. **CONSTRUCTION**

KEY PERSONNEL	QTY	GENERAL EXPERIENCE	RELEVANT EXPERIENCE	QUALIFICATIONS
Project Manager	1	12 Years	10 Years	A licensed Civil Engineer with experience as Project Manageron design and build of related structures
Project Engineer	1	8 Years	5 Years	A licensed Civil Engineer with experience in construction as Project Engineer
Materials Engineer	1	8 Years	5 Years	DPWH Accredited Materials Engineer I
Cost/Specs/ Quantity Engineer	2	5 Years	5 Years	A licensed Civil Engineer with experience as Quantity Surveyor
Safety Officer	1	8 Years	5 Years	With COSH Training conducted by DOLE
Electrical Engineer	1	8 Years	5 Years	A licensed Electrical Engineer with construction experience as Project Manager
Mechanical Engineer	1	8 Years	5 Years	A licensed Mechanical Engineer with construction experience as Project Manager
Sanitary Engineer	1	8 Years	5 Years	A licensed Sanitary Engineer with construction experience as Project Manager
Foreman	1	8 Years	5 Years	With experience in building as Foreman

The Bidder shall submit the corresponding Curriculum Vitae (CV) of the above key personnel that includes description of his/her relevant experience.

<table>
<tr><td></td><td>The CV shall include a statement of availability of the key personnel for the duration of the project, signed by the named key personnel. The key personnel can be a current or on-call employee, or a consultant of the company.</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>Equipment</th><th>Capacity</th><th>Number of Units</th></tr>
<tr><td>Pneumatic rollers</td><td>As required</td><td>1</td></tr>
<tr><td>Vibrating plate compactors</td><td>As required</td><td>1</td></tr>
<tr><td>Bulldozer</td><td>As required</td><td>1</td></tr>
<tr><td>Excavator</td><td>As required</td><td>1</td></tr>
<tr><td>Backhoe</td><td>As required</td><td>1</td></tr>
<tr><td>Dump Truck</td><td>As required</td><td>1</td></tr>
<tr><td>Concrete Mixer</td><td>As required</td><td>1</td></tr>
<tr><td>Tower Crane</td><td>As required</td><td>1</td></tr>
<tr><td>Passenger Hoist</td><td>As required</td><td>1</td></tr>
<tr><td>Crawler-mounted Crane</td><td>As required</td><td>1</td></tr>
<tr><td>Mobile Hoist</td><td>As required</td><td>1</td></tr>
<tr><td>Pumping Equipment</td><td>As required</td><td>1</td></tr>
<tr><td>Emergency generator set</td><td>350kw</td><td>1 set</td></tr>
<tr><td>Welding/Cutting Tools</td><td>As required</td><td>1</td></tr>
<tr><td>Portable/ One-bagger Mixer</td><td>As required</td><td>1</td></tr>
</table></td></tr>
<tr><td>11</td><td>The second envelope (Financial Proposal) shall contain all the required documents for infrastructure projects under Section 25.3 of the IRR of R.A 9184 and the following additional documents:

1. Lump sum bid prices, which shall include the detailed engineering cost, in the prescribed Bid Form;
2. Detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the bid; and
3. Cash flow by the quarter and payments schedule.</td></tr>
<tr><td>12</td><td>Value Engineering Studies

> Information Phase - the activities include Project information gathering and investigation and performing functional analysis of systems and subsystems to identify high cost areas of the project

> Speculative/Creative Phase - involves developing effective and efficient group interaction process (brainstorming) to identify alternative ideas, proposals and solutions for accomplishing the function of a system or subsystem</td></tr>
</table>

	> Evaluation/Analytical Phase - the Contractor shall evaluate and analyze process to determine which ideas, solutions and measures would show greater potential for cost savings and project improvement > Development/Recommendation Phase - Activities under this phase include description of project components, preparation of sketches, and estimations of life cycle cost to be used in justifying and supporting value engineering recommendations > Report or Presentation Phase - the Contractor shall prepare and present its report shall contain information such as but not limited to list of items or processes examined, alternatives, functional and the life cycle analyses, value engineering proposals and supporting information > Design Analysis and Computation > Sources of Construction Materials
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than *two percent (2%) of ABC,* if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than *five percent (5%) of ABC,* if bid security is in Surety Bond.
19.2	No instruction.
20	The following licenses/s and permit/s shall be required: 1. Registration certificate form Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives of its equivalent document 2. Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located. 3. Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR) 4. Valid PCAB License Category: General Building- AAAA and AAA and Registration of at least Large B- Building & Industrial Plant 5. 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. 6. Latest income and business tax returns; and 7. Valid licenses issued by the Professional Regulatory Commission (PRC); No other acceptable proof of registration is recognized.

21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.

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

<table>
<tr><th>GCC Clause</th><th></th></tr>
<tr><td>2</td><td>The intended Completion of Works for the project is <u>465 Calendar Days</u>with the following time frame:

<table>
<tr><th>ACTIVITY</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr>
<tr><td>Pre-Design including Owner’s approval</td><td>→</td><td>20 days</td><td></td><td></td><td></td></tr>
<tr><td>Detailed design including Owner’s approval</td><td>→</td><td></td><td>60days</td><td></td><td></td></tr>
<tr><td>Application and Issuance of applicable permits</td><td>→</td><td></td><td></td><td>30 days</td><td></td></tr>
<tr><td>Construction Phase</td><td>→</td><td></td><td></td><td></td><td>18 months</td></tr>
</table></td></tr>
<tr><td>3.1</td><td>The Procuring Entity shall give possession of all parts of the Site to the Contractor upon the issuance of Notice to Proceed.</td></tr>
<tr><td>6</td><td>Surveys and investigations of the site includes boundaries of the property, elevation and contours (at 0.5m interval), soil tests, location, dimension, existing floor elevations and other pertinent data on existing buildings and improvements and existing utility lines.</td></tr>
<tr><td>7.2</td><td>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.</td></tr>
<tr><td>10</td><td>Dayworks are applicable at the rate shown in the Contractor’s original Bid.</td></tr>
<tr><td>11.1</td><td>The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within fourteen (14)calendar days upon issuance of the Notice of Award.</td></tr>
<tr><td>11.2</td><td>The amount to be withheld for late submission of an updated Program of Work is one percent (1%).</td></tr>
<tr><td>13</td><td>Advance payment shall be made only upon the submission to and acceptance by the Procuring Entity. The amount of the advance payment is fifteen percent (15%) of the Contract price.</td></tr>
<tr><td>14</td><td>Materials and equipment delivered on the site but not completely put in place shall be included for payment.</td></tr>
<tr><td>15.1</td><td>If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals within thirty (30) calendar days from the completion of the project.</td></tr>
<tr><td>15.2</td><td>The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is one percent (1%) of the final contract amount.</td></tr>
</table>

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.

Section VII. Drawings

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

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and

b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

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

Daywork Schedule

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

a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.

b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

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

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

Signature Box

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

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

SUBJECT:	**BILL OF QUANTITIES / COST ESTIMATE**				
NAME OF PROJECT:	*Design and Build Contract for the Construction of One (1) – 13 Storey 336 Units MRB Housing Project*				
LOCATION:	*at Tawiran Street, Brgy. Santolan, Pasig City*				
ITEM NO.	***DESCRIPTION***	***QTY.***	***UNIT***	***UNIT PRICE (Php)***	***AMOUNT (Php)***
	Earthworks (Pesos)	1.00	LS		
	Pile Works (Pesos)	*1.00*	*LS*		
	Structural Works *(Pesos)*	*1.00*	*LS*		
	Masonry Works *(Pesos)*	*1.00*	*LS*		
	Roofing Works *(Pesos)*	*1.00*	*LS*		
	Architectural Works *(Pesos)*	*1.00*	*LS*		
	Plumbing and Sanitary Works *(Pesos)*	*1.00*	*LS*		
	Electrical Works *(Pesos)*	*1.00*	*LS*		
	Mechanical Works *(Elevator, Generator)* *(Pesos)*	*1.00*	*LS*		
	Fire Detection and alarm systems, and fire protection system	*1.00*	*LS*		

	(Pesos)				
	Data Communication *(Pesos)*	*1.00*	*LS*		
	Community Antenna Television (CATV) System *(Pesos)*	*1.00*	*LS*		
	Structural Health Monitoring and Earthquake Building Instrumentation *(Pesos)*	*1.00*	*LS*		
	Cistern and Elevated Water Tanks *(Pesos)*	*1.00*	*LS*		
	Rain Water Harvesting System *(Pesos)*	*1.00*	*LS*		
	Main Drainage System *(Pesos)*	*1.00*	*LS*		
	Pumps and Pump House *(Pesos)*	*1.00*	*LS*		
	Sewage Treatment Plant *(Pesos)*	*1.00*	*LS*		
	Site Development *(Pesos)*	*1.00*	*LS*		
	Total Amount in words: _____ _____				

	_____ _____	
	GRAND TOTAL	

	(Signature)
(Name & Address of Bidder)	(Name, Designation of Authorized Signing Official)

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.

Republic of the Philippines
BIDS AND AWARDS COMMITTEE
City Government of Pasig

Name of Bidder :_____
Name of Contract :_____
_____
Approved Budget Contract :_____
Bidding Date :_____

(Note: Checklist is to be filled up by the BAC only)

I. TECHNICAL COMPONENT ENVELOPE FOR THE PROCUREMENT OF INFRASTRUCTURE PROJECTS

- Class "A" Documents -

Legal Documents

No.	TYPE OF DOCUMENT	PASS/FAIL	REMARKS/FINDINGS
1.	Valid PhilGEPS Certificate of Platinum Registration and Membership with additional caveat in accordance with Section 8.5.2 of the 2016 Revised IRR of RA 9184 amended through GPPB Resolution No. 15-2021, provided that all of Class "A" eligibility documents submitted to PhilGEPS are maintained and updated		

Technical Documents

No.	TYPE OF DOCUMENT	PASS/FAIL	REMARKS/FINDINGS
2.	A valid Philippine Contractors Accreditation Board (PCAB) License or Special PCAB License in case of Joint Ventures, and registration for the type and cost of the contract to be bid		
3.	Statement of the 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.		
4.	Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules (Contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB		
5.	Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission; **or** Original copy of Notarized Bid Securing Declaration		
6.	Project Requirements, which shall include the following:		
	6.1 Organizational chart for the contract to be bid		
	6.2 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		
	6.3 List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be		
	6.4 Duly signed Manpower Schedule		
	6.5 Equipment utilization schedule		
	6.6 Duly signed Construction Schedule (PERT/CPM) and S-curve		
	6.7 Duly signed Construction Method in narrative form		
	6.8 Construction Safety and Health Program		
In addition to the above, the Technical Component shall include the following requirements, pursuant to Annex G or the revised IRR of RA No. 9184:			
7.	Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity:		
	> Cover Sheet		
	> General Index		
	> Vicinity and Key Map		
	> Location plan/ Lay out		
	> Legend, Abbreviation and Symbols		
	> General Notes		
	> Perspective Views		
	> Building Design Plan including floor plans, sections, and elevations		
	> Site Development Plan		
	> Engineering Plans, Layout, and Schematic Diagram		
8.	Design and Construction Methods which shall conform with the MPSS		
9.	List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data		
10.	Value Engineering (VE) Analysis of design and construction methods which shall be undertaken in accordance with the DPWH Guidelines for VE given in Appendix 2.1 of the Main Guidelines of the DPM Volume II		
11.	Relevant statements of all on-going, completed, awarded but not yet started design/design and build related contracts, curriculum vitae of key staff, partners or principal officers;		
12.	Valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals		

Financial Documents

No.	**TYPE OF DOCUMENT**	**PASS/FAIL**	**REMARKS/FINDINGS**
13.	The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).		

- Class "B" Documents –

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

NOTE: Any missing document/s on the above mentioned checklist is a ground for outright disqualification/ rejection of the bid.

REMARKS: ☐**PASSED** ☐ **FAILED**

ACKNOWLEDGMENT: (Please see above "note" Do not fill up/sign if documents are marked passed)
This is to acknowledge receipt of the first and second envelopes which is being returned because of disqualification due to deficiencies and non-compliance with checklist therein.

_____ _____
Signature over printed name/Representative of Bidder Date Received

CHECKED AND VERIFIED BY:

☐**ATTY. JOSEPHINE C. LATI-BAGAOISAN**
Chairperson

☐ **ATTY. DIEGO LUIS S. SANTIAGO**
Vice Chairperson

☐ **DR. EMMA MEJIA-SANCHEZ**
Member

☐ **DR. STUART G. SANTOS**
Member

☐ **DR. JEANNA V. PLES**
Member

☐ **ARCH. LEA V. OLIVAR**
Member

☐ **ENGR. JOHNNY L. CALATA**
Member

☐ **ATTY. KATHLEEN MAE M. VILLAMIN**
Alternate Member

☐ **MR. JOSE REY Q. ESPINA**
Alternate Member

☐ **ATTY. BERNICE C. MENDOZA**
Alternate Member

☐ **ATTY. RAUL G. CORALDE**
Alternate Member

☐ **ATTY. JOHNSON L. VILLARUEL**
Alternate Member

Attested by:

ATTY. BEA THERESE P. VILLANUEVA
Officer in Charge, Procurement Management Office

Republic of the Philippines
BIDS AND AWARDS COMMITTEE
City Government of Pasig

Name of Bidder : _____
Name of Contract : _____
_____
Approved Budget Contract: _____
Bidding Date : _____

(Note: Checklist is to be filled up by the BAC only)

II. FINANCIAL COMPONENT ENVELOPE FOR THE PROCUREMENT OF INFRASTRUCTURE PROJECTS

No.	TYPE OF DOCUMENT	PASS/FAIL	REMARKS/FINDINGS
15.	Original of duly signed and accomplished Financial Bid Form		
Other documentary requirements under RA No. 9184			
16.	Original of duly signed Bid Prices in the Bill of Quantities		
17.	Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid		
18.	Cash Flow by Quarter		
Additional Documentary Requirements as per Annex G of the revised IRR of RA No. 9184			
19.	Lump sum bid prices, which shall include the detailed engineering cost, in the prescribed Bid Form		
20.	Detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the bid; and		
21.	Cash flow by the quarter and payments schedule		

NOTE:
Any missing document/s on the above-mentioned checklist is a ground for outright disqualification/ rejection of the bid.

REMARKS: ☐**PASSED** ☐ **FAILED**

ACKNOWLEDGMENT: (Please see above "note" Do not fill up/sign if documents are marked passed)
This is to acknowledge receipt of the first and second envelopes which is being returned because of disqualification due to deficiencies and non-compliance with checklist therein.

_____ _____
Signature over printed name/Representative of Bidder Date Received

☐**ATTY. JOSEPHINE C. LATI-BAGAOISAN**
Chairperson

☐ **ATTY. DIEGO LUIS S. SANTIAGO**
Vice Chairperson

☐ **DR. EMMA MEJIA-SANCHEZ**
Member

☐ **DR. STUART G. SANTOS**

☐ **DR. JEANNA V. PLES**

Member

Member

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☐ **ATTY. JOHNSON L. VILLARUEL**
Alternate Member

Attested by:

ATTY. BEA THERESE P. VILLANUEVA
Officer in Charge, Procurement Management Office


Republic of the Philippines
gppb
Government Procurement Policy Board

TERMS OF REFERENCE

CONSTRUCTION OF ONE (1) – 13 STOREY 336 UNITS MRB HOUSING PROJECT at TAWIRAN STREET, BRGY. SANTOLAN, PASIG CITY

A. GENERAL INFORMATION

This Terms of Reference (TOR) provides interested Bidders/Contractors the guidelines and standards for the procurement under the design and build arrangement of **One (1) - 13 Storey Medium Rise Building at Tawiran Street, Brgy. Santolan, Pasig City** as resettlement sites for the Santolan Riverside Neighborhood Federation Housing Cooperative (SRNFHC) to address their housing needs and in accordance with the provisions of the *Implementing Rules and Regulations* R. A. 9184, as amended and its Annex "G" – Guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects, as modified.

To address the concern of the National Government to relocate families from flood prone and danger areas, the site was identified to be utilized for housing development for the 6-year resettlement program of informal settler families living along waterways in Metro Manila.

The total number of housing needs in Pasig City according to our Local Shelter Plan is 4,240 displaced households were either living in danger areas and affected by infrastructure projects.

B. THE PROGRAM

This project is part of Pasig City's Zero Informal Settler Families (ISF) Program which aims to provide decent, affordable and sustainable housing for our poor and underprivileged citizens living in danger areas and in private and public lands without formal rights. In the particular case of this housing project in Tawiran, Santolan, the beneficiaries are those who are facing displacement as a result of the project of the Department of Public Works and Highways (DPWH)to complete the Revetment Wall along the Barangay Santolan side of the Marikina River.

This project is part of the Pasig City Government's contribution to the **Pambansang Pabahay para sa Pilipino Program (4PH)** of the National Government which aspires to end the 6.5 million housing backlog by targeting a million housing units built every year within the six year period , 2022 – 2028.

C. FRAMEWORK

The Design and Build Contract is hereby adopted for the design and construction of one (1) medium-rise building in order to fast track the implementation of the above mentioned housing program.

By incorporating the planning and design aspect in the proposed construction of one medium-rise building, the winning Bidder/Contractor will be bringing in an experienced team of Architects, Designers, and Engineers in the field who has completed similar multi-storey residential buildings,

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has experience in complying with the standards of socialized housing projects, and will be using expectedly, the latest appropriate technical standards for this facility.

D. OBJECTIVES

1. Provide housing facilities through the construction of One (1) - 13 Storey 336 Units MRB Housing and provision of space allocation for the community facilities Tawiran Street, Santolan, Pasig City as prescribed and at the date set by the Pasig City LGU.

2. Maximize the utilization of the identified site to generate at least three hundred thirty six (336) housing units that will not exceed the total cost of **Six Hundred Fifty Two Million Four Hundred Thirty Nine Thousand Seven Hundred Eighty Nine Pesos and Thirty Centavos (Php 652,439,789.30).**

3. To develop the whole property with ample road network, drainage system, sewage treatment plant/facility, perimeter fence and entrance gate, guard house, electrical facilities and amenity areas (open parks and playgrounds, community center)for future development of facilities.

4. Encourage the use of sustainable and innovative building technologies, systems and materials to reduce the cost of development and construction and to fast track project implementation. Design and branding of the building/structure should coincide with that of the City.

E. THE PROJECT

The proposed project calls for the Construction of **One (1) - 13 Storey 336 Units MRB** Housing where work components include the general requirements;

a. Earthworks
b. Pile works
c. Structural works
d. Masonry works
e. Roofing works
f. Architectural works
g. Plumbing and Sanitary works
h. Electrical works
i. Mechanical works (elevator, generator)
j. Fire detection and alarm systems, and fire protection system
k. Data, communication
l. Community antenna television (CATV) system
m. Structural health monitoring and earthquake building instrumentation
n. Cistern and elevated water tanks
o. Rain water harvesting system
p. Main drainage system

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q. Pumps and pump house
r. Sewage treatment plant
s. Site Development

Each unit has a floor area of 45 square meters, thirty (30) square meters at main floor and fifteen (15) square meters at the mezzanine. The total number of units to be generated is 336. The proposed site is a vacant lot. Main access to the site is through a 4-meter wide (4.00 m ROW). The total lot area measures **4,750 square meters.**

F. PROJECT COMPONENTS

Site and space planning were governed by the standards, rules and regulations on the design of **13 Storey 336 Units Medium Rise Building** as prescribed by the department and other concerned agencies. Building design shall conform to the provisions of the National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), Fire Code (RA 9514) and other laws and regulations covering environmental concerns and local ordinances and regulations.

Pre-Detailed Design

Engineering Surveys and Investigations
Surveys and investigations of the site includes boundaries of the property, elevations and contours (at 0.5m interval), soil tests, location, dimension, existing floor elevations and other pertinent data on existing buildings and improvements and existing utility lines.

Design Development Drawings

Preparation of the following schematic drawings and documents for design development based on the space program prepared by the Pasig City Engineering Department.

a. Perspective Views
b. Floor plans, sections and elevations
c. Site Development Plan
d. Engineering Plans, Layout and Schematic Diagram
e. Other necessary related works

Other Requirements

a. The winning bidder / contractor shall provide the following set of plans and supporting documents, free of charge:
    i. Two (2) sets Construction Plans; Project Specification; Cost Estimate/ Bill of Materials; Structural Analysis and Design Computation; Geotech report/Soil Boring Test Report, Signed and Sealed by the professionals
    ii. Five (5) sets Construction Plans; Project Specification; Cost Estimate/ Bill of Materials; Structural Analysis and Design Computation; Geotech report/Soil Boring Test Report, Hydraulic Computation, Signed and Sealed by the professionals -

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Application of Locational Clearance, Fire Safety Permit, Building Permit; inclusive of Fees. (3) Sets of Site Development Plans and Architectural Floor Plans.

b. Upon completion of the Project the winning bidder / Contractor shall provide the following requirement:
   i. Three (3) sets of As-built plans, Signed and Sealed by the professionals (20" x 30" Blueprint and electronic file)
   ii. Tabulated List of finishes
   iii. Equipment Brochures and Catalogues
   iv. Warranty/Brand New Certificates for new equipment.
      1. Five (5) years warranty for LED lamps and bulbs; and Fire rated D Door, including spare parts and services, for all equipment and services except for consumables and materials with expiration and conduct validation with issued certification.
      2. At least one (1) year warranty for workmanship and fixtures/equipment installed
      3. Test Results
   v. Permits and Licenses

      To secure and provide computations and reports needed for the application of permits and licenses at Contractor's expense. The winning bidder must also validate the existing facilities and utilities to determine capacity.

Detailed Design

Preparation of the following Detailed Design Drawings based on the approved Design Development Drawings and Design Parameters including any revisions and refinements as approved and required by the procuring entity:

a. Detailed Architectural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
b. Detailed Structural Plans (refer to Checklist of Drawings Requirements and Design Parameters).
c. Detailed Electrical Plans (refer to Checklist of Drawings Requirements and Design Parameters)
d. Structural Computations and Seismic Analysis and Electrical Design Computations
e. General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
f. Detailed Bill of Quantities, Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.
g. Summary of Works

Construction

As a rule, contract implementation guidelines for procurement of infrastructure projects shall comply with Annex "E" and guidelines for the implementation of contracts for DESIGN AND BUILD

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infrastructure projects shall comply with Annex "G" of IRR, RA 9184. The following provisions shall supplement these procedures:

a. The contractor shall commence works upon issuance of Building Permit for the project by the Building Official. Work execution shall be in accordance with reviewed and approved documents.
b. The contractor shall be responsible for obtaining all necessary information as to risks, contingencies and other circumstances which may affect the works and shall prepare and submit all necessary documents specified by the concerned Building Officials to meet all regulatory approvals as specified in the contract documents.
c. The contractor shall submit a detailed program of works within **fourteen (14) calendar days** after the issuance of the Notice to Commence for approval by the procuring entity that shall include, among others:
    i. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
    ii. Periods for review of specific outputs and any other submissions and approvals;
    iii. Sequence of timing for inspection and tests;
    iv. General description of the design and construction methods to be adopted;
    v. Number and names of personnel to be assigned for each stage of the work;
    vi. List of equipment required on site for each stage of the work; and
    vii. Description of the quality control system to be utilized for the project.
d. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the contractor wishes to modify and design or document which has been previously submitted, reviewed and approved, the contractor shall notify the procurement within a reasonable period of time and shall shoulder the cost of such changes.
e. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
    i. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the Owner.
    ii. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the Owners performance specifications and parameters, the contractor shall be entitled to either one of the following:
        1. An extension of time for any such delays under Section 10 of Annex "E" of IRR (RA 9184); or
        2. Payment for such costs as specified in the contract documents, provided that the cumulative amount of the variation order does not exceed ten percent (10%) of the original project cost.
        3. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installment in which the contract will be paid.

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4. The procuring entity shall define the quality control procedures for the design and construction in accordance with the DPWH guidelines and shall issue the proper certificates of acceptance for sections of the works or whole of the works as provided for in the contract documents.
5. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.
6. This design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice to the liabilities imposed upon the engineer/architect who drew up the plans and specification for building sanctioned under Section 1723 of the New Civil Code of the Philippines.
7. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty period of 15 years for permanent structures/buildings as specified in Section 62.2.3.2 of the IRR (RA 9184).

G. MINIMUM PERFORMANCE SPECIFICATIONS AND PARAMETERS

General Planning Guidelines

Proposals shall meet the minimum performance specifications herein set forth.

a. The building designs shall conform to the provisions of the Batas Pambansa 220 on Multi-Family Dwellings, the Accessibility Law (BP 344), the Fire Code of the Philippines, the National Structural Code of the Philippines, Electrical Engineering Code of the Philippines, the National Building Code of the Philippines, and the local ordinances of the City.
b. Adoption of the green infrastructure and preservation of existing natural assets of the land such as trees, including the main **Balete Tree** identified on the property, ground cover and vegetation, and natural waterways.
c. The Bidder shall prepare the structural design in accordance with the existing government codes, ordinances, rules and regulations of the particular government agencies and local government works.
d. Given the scale, material requirements and time frame of the project, the Bidder is required to present a MOA from construction suppliers (portland cement, structural steel, course and fine aggregates, etc.) to ensure a stable and efficient supply of materials.

Water and Power Supply

Water Supply Lines

Supply of water shall be sourced from the existing water line.

Proper coordination and institutional arrangement with the MWSS and the appropriate concessionaire in the project site shall be undertaken by the Winning Bidder/Contractor.

Power Supply / MERALCO

The procuring entity through the concerned Project Office shall provide all pertinent documents necessary for MERALCO/other service providers to enable the Winning Bidder/Contractor to prepare the Master Plan for the power supply distribution system to include the primary line and distribution facilities and transformers. The bidder shall include in the project costs all pertinent costs relative to the installation and energization of the power system of the project as follows:

a. Supply and installation of the needed secondary connection poles including load side wires, messenger wires and other pole accessories.
b. New scheme imposed by MERALCO for service application and connection for all medium-rise buildings.
c. Fees and expenses related to the provision of electrical facilities as required by the Local Government of Pasig City shall likewise be included in the Project Cost by the Winning Bidder/Contractor as well as wiring permit fees (CEIs), wiring permit application signed and sealed by an Electrical Engineer, and the occupancy permits for each of the housing units.
d. Individual unit applications.
e. Metering centers (EMC) for each building shall be provided by the Contractor.

Building Design and Standard

a. The project shall require advance engineering or construction technologies or whose intellectual property rights belong to private companies. The minimum floor area of each residential unit shall be forty five (45) square meters. Design of the buildings should conform to the provisions of BP220 and the National Building Code as applicable. Accessibility Law for the differently abled, and the applicable local ordinances where the site is located. The use of **passive solar architecture, passive ventilation strategies** and new materials and technologies that are AITECH-accredited shall also be required.
b. The bidders shall prepare the architectural, structural plumbing/sanitary, electrical, fire protection, Fire Detection and Alarm System and Data, Community and Communication Antenna Television (CATV) System plans of the building in the preparation of their bid proposals. The details to be submitted are based on the prescribed minimum design requirements and on existing government codes and government guidelines on building construction, fire code and MWSS specifications.
c. There shall be two (2) units for persons with disabilities/differently-abled to be located at the ground floor, design of which should comply with the provisions of the Accessibility Law.
d. For the soil bearing capacity that will be used as basis for structural design of the MRB, the procuring entity shall provide the Geotechnical Evaluation Report/Subsurface Investigation of the project site which was conducted by the LGU-Pasig.
e. The winning bidder,shall conduct further soil boring test. The investigation shall be conducted in accordance with the latest standard of the National Structural Code of the Philippines and shall follow the ASTM Standard for drilling and sampling procedures.

   All necessary data and processes in the conduct of this undertaking shall be submitted to the procuring entity by the Contractor through a duly signed and sealed Final Record reflecting the desired information.

f. Provision of a waste management system such as a pyrolysis machine.

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g. Structural Health Monitoring and Earthquake Recording Instrumentation must be compliant to Memorandum Circular No. 1, Series of 2015 of the Department of Public Works and Highways.

H. GENERAL REQUIREMENTS

All provision for transportation of supplies and personnel should be on the account of the winning contractor.

ELIGIBILITY CRITERIA, GENERAL TERMS AND CONDITION AND SUBMITTALS

ELIGIBILITY REQUIREMENTS

All bidders are required to comply with the following eligibility requirements.

Basic

a. The eligibility requirements for Design and Build Scheme shall comply with the applicable provisions of Sections 23 – 24 of Revised IRR of RA 9184.
b. A modified set of requirements integrating eligibility documents and criteria for infrastructure projects and consulting services shall be adopted in accordance with Annex G - Guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects Annex "G" of Revised IRR of RA 9184.
c. The bidder must have completed similar projects in the amount of at least fifty percent (50%) of the ABC and the largest of these similar contracts must be equivalent to at least half of the fifty percent (50%) as required above from the date of submission and receipt of bids.

Specialized

a. Design/Engineering Firm

The bidder's designer must have successfully or substantially completed the design of a project similar in nature and complexity as this contract under bidding and shall have earned a fee amounting to at least 50% of the ABC of the design and build component.

The bidder must have a PCAB Categorization of AAA (GB-1) as general contractor. Specialty contractors for elevators, generators, fire detection and alarm system / fire protection system, structural health monitoring and earthquake building instrumentation, Community Antenna television (CATV) system, data and communication system, solar panels installation and sewage treatment plant can be employed by the General Contractor as sub-contracting partners, pursuant to Section II.7 of the Standard Bidding Documents and complying with the Eligibility Criteria in accordance with Section 23.4 of the 2016 revised IRR of R.A. No. 9184 pursuant to Section thereof.

b. Detailed Architectural and Engineering Design Key Personnel

Key Personnel	QTY	General Experience (Years)	Relevant Experience (Years)	Qualifications
1 Architect	1	12	8	A licensed Architect with Detailed Engineering Design (DED) experience in medium to high-rise housing or residential projects.
1 Structural Engineer	1	12	10	A licensed Civil Engineer with DED experience with Master's Degree in Civil/Structural Engineering.
1 Sanitary Engineer	1	12	8	A licensed Sanitary Engineer with DED experience in medium to high-rise housing or residential projects.
1 Professional Electrical Engineer	1	12	8	A licensed Professional Electrical Engineer with DED experience in medium to high-rise housing or residential projects.
1 Professional Mechanical Engineer	1	12	8	A licensed Professional Mechanical Engineer with DED experience in medium to high-rise housing or residential projects.

c. Construction

Key Personnel	QTY	General Experience (Years)	Relevant Experience (Years)	Qualifications
1 Project Manager	1	12	10	A licensed Civil Engineer with construction experience as Project Manager on design and build of related structures
1 Project Engineer	1	8	5	A Civil Engineer with experience in construction of building as Project Engineer
1 Materials Engineer	1	8	5	DPWH Accredited Materials Engineer I

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Cost/Specs/ Quantity Engineer	2	5	5	A licensed Civil Engineer with experience as Quantity Surveyor
1 Safety Officer	1	8	5	With COSH Training conducted by DOLE
1 Electrical Engineer	1	8	5	A licensed Electrical Engineer with experience in construction of building
1 Mechanical Engineer	1	8	5	A licensed Mechanical Engineer with experience in construction of building
1 Sanitary Engineer	1	8	5	A licensed Sanitary Engineer with experience in construction of building
1 Foreman	1	8	5	With experience in Building as Foreman

d. Minimum required equipment

1. Compacting equipments - pneumatic rollers, vibrating plate compactors
2. Earth-moving equipments - bulldozers, excavators, backhoes
3. Hauling equipments - dump trucks, concrete mixers
4. Hoisting equipments - tower cranes, passenger hoists, crawler-mounted cranes, mobile hoists
5. Pumping equipments
6. Emergency generator set 350kW
7. Welding / cutting tools
8. Portable / one-bagger mixer

e. For a detailed bid evaluation, the following criteria and characteristics must be satisfied by the bidder:

PLAN APPROACH:

- **Clarity** – clarity of narrative description of methodology and work plan

1. The description fully discussed all aspects of the Design Services
2. The work plan is described in proper order of work activities
3. There are no significant errors and irrelevant discussions

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- **Feasibility** – do ability of work plan

1. The proposed team all required key personnel, and the tasks of each key personnel are clearly defined in Team Composition and Tasks
2. The work activities are achievable and given in logical sequence in Activity Work Schedule
3. The assignment of personnel in the Manpower Schedule is consistent with the work activities in the Construction Schedule (PERT-CPM and S-Curve)
4. Each of the key personnel has a letter of commitment to work on the project

- **Innovativeness** – adoption of quality standards or new technology or tools of approach

1. There is innovation with discussion on how the methodology will enhance the quality of work outputs and ensure the timely completion of the Design Services in the Construction Method
2. The methodology completely describes the technology and tools to be used

- **Comprehensiveness** – completeness and adequate level of detail of work plan as to how the Design Services shall be carried out in the Minimum Performance Specifications and Parameters (MPSP)

1. All works required in the Design are sufficiently covered in the Activity Work Schedule
2. All of the required key personnel are covered in the Team Composition and Tasks
3. There is a clear presentation of interdependency of work activities, such as PERT-CPM

INTERPRETATION OF PROJECT PROBLEMS, RISKS AND SUGGESTED SOLUTIONS

- Interpretation of problems and risks that may be encountered in performing the Design Services

1. There is a clear discussion on possible problems and risks based on the actual site inspection

- Appropriateness or doability of suggested solutions to the problems and risks

1. The suggested solutions are responsive to the problems and practical
2. There is a clear discussion on how the proposed solutions shall be carried out

SCOPE OF WORKS

Work Item and Description:

Pre-Detailed Design Work

a. Surveys and Investigation of the site including establishment of boundaries.
b. Other Necessary Survey and Related Works including verification on-site the capacity of existing utilities.

Design Development of the Building

a. Schematic Plans

Detailed Design Works

a. Detailed Architecture and Engineering Design
b. Technical Specifications
c. Detailed Cost Estimates
d. Engineering Computations
e. Value Engineering
    1. Information Phase - the activities include Project information gathering and investigation and performing functional analysis of systems and subsystems to identify high cost areas of the project
    2. Speculative/Creative Phase - involves developing effective and efficient group interaction process (brainstorming) to identify alternative ideas, proposals and solutions for accomplishing the function of a system or subsystem
    3. Evaluation/Analytical Phase - the Contractor shall evaluate and analyze process to determine which ideas, solutions and measures would show greater potential for cost savings and project improvement
    4. Development/Recommendation Phase - Activities under this phase include description of project components, preparation of sketches, and estimations of life cycle cost to be used in justifying and supporting value engineering recommendations
    5. Report or Presentation Phase - the Contractor shall prepare and present its report shall contain information such as but not limited to list of items or processes examined, alternatives, functional and the life cycle analyses, value engineering proposals and supporting information
    6. Design Analysis and Computation
    7. Sources of Construction Materials

Construction Works (inclusive of Building/Construction Permits, Fees, Licenses)

a. Mobilization and Temporary Facilities
b. Foundation Works for the entire structure
c. Complete Structural Works
d. Complete Roofing System for the entire structure
e. Complete Architectural and Engineering Works
f. Complete Sanitary, Electrical, Mechanical and Auxiliary Works for all floor area up to top floor
g. Other necessary related Works

Other Requirements

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a. The winning bidder/contractor shall provide the following set of plans and supporting documents:
   i. Two (2) sets of Construction Plans; Project Specification; Cost Estimate/ Bill of Materials; Structural Analysis and Design Computation; Geotech report/Soil Boring Test Report, Signed and Sealed by the professionals;
   ii. Six (6) sets of Construction Plans
   iii. Two (2) sets of Project Specification;
   iv. Three (3) sets of Cost Estimate/ Bill of Materials;
   v. One (1) set of Structural Analysis and Design Computation;
   vi. One (1) set of Geotech report/Soil Boring Test Report; and
   vii. Two (2) sets of Hydraulic Computation, Signed and Sealed by the professionals; and
   viii. Locational Clearance, Fire Safety Evaluation Clearance, Building Permit; inclusive of Fees.

b. Upon completion of the Project the winning bidder/contractor shall provide the following documents:
   i. Three (3) sets of As-built plans, Signed and Sealed by the professionals (20" x 30" Blueprint and electronic file);
   ii. Tabulated List of Finishes ;
   iii. Equipment Manual and Catalogues;
   iv. Warranty and Supplier's Certificate for the following equipment
      1. One(1) year warranty for LED lamps and bulbs
      2. Fire-rated Door (Class D);
      3. Including spare parts and services,or all equipment except for consumables and materials with expiration and conduct validation with issued certification; At least one (1) year warranty for workmanship and fixtures/equipment installed; and
      4. Test Results.
   v. Permits and Licenses
      1. To secure and provide computations and reports needed for the application of permits and licenses at Contractor's expense. The Contractor must also validate the existing facilities and utilities to determine capacity.
      2. Submit the Occupancy Permit, Fire Safety Inspection Clearance, Permit to Operate (Elevator, Generator Set, Pumps, Sewage Treatment Plant, etc.)

MINIMUM REQUIREMENTS FOR CONSTRUCTION SAFETY AND HEALTH

General Requirements

No contractor or subcontractor shall require any employee to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his health or safety.

In order to meet this general requirement, the contractor must:

a. Initiate and maintain programs (written or otherwise) to comply with this general requirement.
b. Provide frequent and regular inspections of the job sites by competent persons
    i. Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to prompt corrective measures to eliminate them.
c. Prohibit the use of any machinery, tool, material, or equipment that is not in compliance with applicable requirements.
d. Permit only those employees adequately trained to operate machinery or equipment.
e. Provide training for all employees in:
    i. Recognition and avoidance of unsafe conditions
    ii. Workplace safety and health requirements.
    iii. Applicable hazards, safe handling, and personal protective equipment necessary for handling poisons, caustics, flammables, and other harmful substances relevant to their job duties.
    iv. Specific hazards and procedures for entering confined spaces if applicable.
f. Provisions of medical care and first aid kits.
g. Develop an effective fire protection and prevention plan.
h. Ensure appropriate housekeeping measures including clear walkways and removal of combustible scrap and debris.
i. Require the wearing of appropriate personal protective equipment such as hard hats, safety glasses, steel toe shoes, or other appropriate protective equipment in all operations.
j. Develop an emergency action plan covering designated actions employers and employees must take to ensure employees safety from fire and other emergency.
    i. Plan must be in writing for employers with greater than 10 employees
    ii. All employees must be trained upon initial assignment on the parts of the plan the employee needs to know in the event of an emergency.
k. Provide access to hand washing facilities, toilets, and an adequate supply of drinking water.
l. Provide safety and health signs that are clearly visible to construction workers and public.
m. Conduct regular safety meetings (toolbox meetings).
n. Observe strict compliance of the IATF-DPWH Construction Safety Guidelines and enforce standard safety procedures throughout the contract period. Presence of Safety Officer is required to record health conditions of worker daily.

DESIGN PARAMETERS

ARCHITECTURAL WORKS

Codes and Standards

The Architectural Works shall be in accordance with the following Laws, Codes and Standards:

Laws and Codes

a. National Building Code of the Philippines (PD 1096) and its Latest and Amended IRR;
b. Philippine Green Building Code, A Referral Code of PD 1096;
c. RA 9266 or Architecture Law and its Latest and Amended IRR;
d. BP 344 or Accessibility Law and its Latest and Amended IRR;
e. RA 9514 Fire Code of the Philippines;
f. Existing Local Codes and Ordinances; and
g. Other Laws that applies to the projects

Standards

a. Bureau of Product Standards (BPS)
b. Underwriters Laboratory (UL)
c. Accreditation of Innovative Technologies for Housing (AITECH)

General Drawing Guidelines

General

a. All drawings shall be computer-drafted. Drawings shall be submitted both in printed (20"x 30" or larger, if necessary) and electronic copies.
b. Keep the same orientation for all plans. The north orientation shall be indicated in all architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans.
c. Existing buildings and new works shall be clearly indicated and labeled in the site plans.
d. Detailed plans shall have a scale not smaller than 1: 50 meters.
e. Spot detailed plans, elevations, and sections shall have a scale not smaller than 1: 10 meters.
f. Avoid notes such as 'see architectural detail' or 'see structural'. Always refer with a callout to the specific detail drawing and sheet number

Site Plans

a. The site plans shall have a scale not smaller than 1:400 meters.

Floor Plans

a. All plans shall be 1: 100 meters. The same scale shall be used for the rest of the architectural, structural, sanitary, plumbing, electrical and mechanical plans, except for each trade's site plan, detailed plans and spot details.
b. Elevation callouts shall be indicated on the floor plans and shall be consistent with the elevation drawing.
c. Section line callouts on the floor plans shall be consistent with the section drawing.
d. Floor plans shall be indicated with boxed room callout numbers, including the callout for floor finishes and wall finishes.
e. Floor elevations shall be indicated in the floor plans. This shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings.
f. The location of mechanical equipment, e.g. air conditioning shall be indicated in the floor plans. This shall be consistent with the mechanical and electrical plans.

g. Door callouts shall be circles with the proper numbering, e.g. D-01.
h. Window callouts shall be hexagons with the proper numbering, e.g. W-01.

Elevations and Section

a. Finish floor lines and top of truss lines shall be consistent in all the elevations, sections and structural plans and details.

Reflected Ceiling Plans

a. Reflected ceiling plans shall be indicated with boxed room callout numbers, including the callout for ceiling finishes and lighting fixtures.
b. Ceiling height relative and in reference to the finish floor line shall be indicated in the reflected ceiling plans in each room with boxed dimensions. This is to ensure that the ceiling heights of all rooms are established whether or not reflected in the sections.
c. The description and location of the fixtures, e.g. lighting, smoke detectors, air condition vents, exhaust fans, in the reflected ceiling plans shall be consistent with the electrical and mechanical plans.

Roof Plans

a. Location of all downspouts shall be indicated in the roof plans.

Doors and Windows

a. Door and window schedules shall indicate the type of door or window, the number of sets, the location/s of the door or window, the materials and accessories included and other special specifications, e.g. color or finish. 8. Details.
b. Provide a minimum of one (1) bay section of a scale not smaller than 1:50 meters preferably cut along the area with special construction design.
c. Provide spot detail plans, elevations and sections of a scale not smaller than 1:10 meters for gutter, eaves, parapet and aluminum-cladded panel canopy.
d. Centerline location of plumbing fixtures shall be indicated in detailed plans with lines of reference and its corresponding dimensions. This is to indicate the exact locations of the plumbing/sanitary roughing-ins.

Details

a. Provide a minimum of one (1) bay section of a scale not smaller than 1:50 meters preferably cut along the area with special construction design.
b. Provide spot detail plans, elevations and sections of a scale not smaller than 1:10 meters for gutter, eaves, parapet and aluminum-cladded panel canopy.
c. Centerline location of plumbing fixtures shall be indicated in detailed plans with lines of reference and its corresponding dimensions. This is to indicate the exact locations of the plumbing/sanitary roughing-ins.

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Building Architectural Works

Floor Plans

a. The structural, sanitary, plumbing, electrical and mechanical designs are required to refer to the architectural plans and specifications in case of discrepancies. If an engineering design will have any possible conflict or interference on the architectural design, the latter may be adjusted provided that the aesthetic value will not be compromised.
b. The architectural and engineering plans shall be consistent all throughout in terms of dimensions and locations of columns, beams, walls, roof line, conduits, ducts, pipes, and fixtures, among others. Column and beam grid lines shall also be consistent in all the architectural and engineering plans.

Walls

a. Walls shall have an insulation coefficient appropriate for the type of occupancy of the building.
b. Interior walls shall be floor-to-floor height to prevent cross contamination and for fire safety compartmentalization.
c. For toilet wall tiles, material samples shall be submitted for approval before installation. But generally, tile size of 300 mm. X 300 mm. is being adopted.
d. Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
e. All edges, corners and intersections of toilet tiles, including the top-most tile not reaching the ceiling shall be provided with polyvinyl chloride tile trims.

Floors

a. Samples for flooring materials shall be submitted for approval before installation.
b. Generally, floor finish to be considered are the following: (1) Main floor tiles shall be 600mm x 600mm ceramic floor tiles. (2) Toilet floor tiles shall be 300mm x 300mm.
c. Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
d. All edges, corners and intersections of toilet tiles, shall be provided with polyvinyl chloride.

Ceiling Works

a. Ceiling/roofing system shall have an insulation coefficient appropriate for the type occupancy of the building.
b. Interior ceiling height shall not be lower than 2.20 m.
c. If acoustic boards on aluminum T-runners shall be used for the ceiling, layout should be on center and avoiding cut pieces. Provide details.

Doors and Windows

a. Door finish and color shall be approved first before installation.
b. Generally, Technical Specifications of Socialized housing require that:
    i. Major rooms that require security shall have sturdy doors e.g. wood panel, and metal;
    ii. Minor rooms that do not require security shall at least have wood flush doors; and

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iii. Toilets shall use polyvinyl chloride doors. Door jambs with no moulding/casing installed on concrete walls shall have construction grooves all around.

c. Door width shall be 0.90 m. or wider to accommodate passage of equipment.
d. Doors shall be with locking and self-closing mechanism.
e. Window sills shall be slightly sloped outwards to prevent damage to windows and paint due to water seepage.
f. All doors and windows shall have reinforced concrete lintel beams. Provide details.

Fixtures and Accessories

a. Electrical light switches shall be located by the knob side of the door.
b. Electrical switches and outlets shall be installed plumb and level.
c. Power Outlets are to be provided to supply all needed appliances. Appliances with a load of 10A and more are to be provided with a dedicated special feeder circuits and outlets.
d. Lighting and Power Outlets System are to be designed in accordance with the Philippine Electrical Code including associated requirement in the Occupational Safety and Health Standard.
e. Electrical Panels are to be provided to interface the new electrical loads with the existing electrical system. All cables, circuit breakers, bus works for any AC system expansions are to be provided.
f. A drainage line shall be provided for window-type air-conditioners. Likewise, split-type air-conditioners located in the interior part of the building shall be so located adjacent to areas with drainage lines, e.g. toilets, downspouts, balconies
g. All installations must meet the minimum required standards set by the Philippine Electrical Code of 2017.

Roofing Works

a. Roofing/Ceiling system shall have an insulation coefficient appropriate for the type of occupancy of the building.
b. The section of the roof gutters shall be designed, in case of a clogged downspout, so that the overflow of water will be directed outside of the building and not towards the eaves or interior ceiling to prevent any damage. Provide details.
c. Avoid valley or inside gutters in roof design. But in cases required in aesthetic design, valley or inside gutters shall be in stainless steel or concrete gutters with membrane-type waterproofing, and the section shall be designed with a capacity for big volume to prevent any damage due to overflow. Provide details.
d. Parapets, designed as a roof protection from the winds, must be designed to satisfy the preceding parameters. Provide details.
e. The slope of the roof shall not be less than 30 degrees.

Building Protection Works

a. Moisture Vapor Barrier Works (where applicable)- All concrete floor slabs in direct contact with the ground shall be provided with moisture vapor barrier to stop movement of moisture from the ground through capillary action or osmotic pressure.

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Painting

a. Color of Prefab material shall be approved first before installation.
b. For other materials:
    i. Painted ceiling shall be in flat latex finish, while cornices and mouldings shall be in gloss enamel finish.
    ii. Painted interior wall shall be at least in semi-gloss latex finish for ordinary rooms.
    iii. Painted exterior wall shall be at least in moisture-resistant/water-repellant solvent-based paint finish, textured or smooth, unless otherwise specified.
    iv. Paint color and shade shall be approved first before application.

STRUCTURAL/CIVIL WORKS

Codes and Standards

The Civil/Structural Works shall be in accordance with the following Codes and Standards:

Codes

a. National Structural Code of the Philippines (NSCP) 2015
b. National Building Code of the Philippines and its revised IRR
c. Accessibility Law
d. Local Codes and Ordinances

Standards

a. Bureau of Product Standards (BPS)
b. Philippine National Standards (PNS)
c. American Concrete Institute (ACI)
d. American Society for Testing Materials (ASTM)
e. American Welding Society (AWS)
f. Accreditation of Innovative Technologies for Housing (AITECH)

General Guidelines

Site Works

Site Development Plan of housing, provide where applicable complete design and details of sidewalks (concrete with curb and gutter, including drainage) network, walkways parking areas and fencing.

a. The main road shall be capable of two-way traffic (at least 6 m width) with a minimum thickness of 150 mm (8 inches). Concrete strength should be at least 3500 psi. Interior road (leading to support facilities) shall be designed to accommodate delivery vehicles, and fire trucks in case of emergency.
b. Walkways should be at least 100 mm thick with concrete strength of 2500 psi. Ramps should be provided, instead of steps, for any change in elevations.

c. Parking area slabs should be at least 150 mm thick with concrete strength of 3500 psi.

For the housing building, all materials, labor, tools and equipment shall be provided. The scope shall include the following works:

a. Site clearing and preparation including leveling of soil, cutting, breaking of affected concrete slab, etc.
b. Support and protection of slopes & ramp; adjacent properties, and restoration of any existing structures that may be damaged/affected during the execution of the proposed works;
c. Clearing and grubbing of all trees, and brush.

Building

a. The structural designer is encouraged to use fire-resistive and non-toxic materials.
b. The designer must provide structural design and analysis.
c. The building should be designed using seismic importance factor of 1.50 for immediate occupancy category. Buildings should be designed in accordance with NSCP Requirements up to Magnitude ($7.0 \leq M \leq 8.5$) for those near seismic source Type A. Seismic gaps between buildings (old and new) should be properly observed.
d. The building should be designed also using wind importance factor of 1.15 (especially for design of trusses/roofing system) or Wind pressure from wind Maps based on NSCP 2015 (whichever is higher). Concrete gutters and parapet walls should be provided as additional protection to the roofing system during strong typhoons.
e. Soil investigation number of bored holes as required by NSCP 2015 should be conducted to determine soil bearing capacity and recommended foundation design (applicable even for one storey structure).
f. The structural designer is encouraged to use fire-resistive and non-toxic materials.
g. If modification on the existing structure is necessary, the contractor shall submit drawings prior to the execution of work. NGCP's approval shall be construed to relieve the contractor of its responsibility, liability and obligations;
h. Connection details of panel joints (interior and exterior) and roofing system with structural design and analysis including the structural analysis of existing beams if necessary.

Implementation

Key Expert's Qualifications and Requirements

The following experts/professionals and their member shall be required to carry out the Design and Build Services for the project and should have appropriate educational degree, relevant training and adequate years of experience in the design and build of housing/building (medium rise) and on a full-time basis:

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KEY STAFF	NO. OF STAFF	REQUIRED QUALIFICATIONS
Project Manager	1	a. Duly licensed/registered civil engineer; MS or Doctoral degree is an added advantage; b. At least 10-years experience on design and build of related structures
Structural Engineer	1	a. License Civil Engineer; b. At least 10 years' experience in Structural Designing
Cost / Specs / Quantity Engineer	2	a. BS in Civil Engineering; b. At least 5 years' experience as quantity surveyor

The Consultant shall provide technical support staff as may be required. The technical support staff shall be composed of junior engineers in the various disciplines of structural, drainage and cost /specification engineering.

The deployment of these personnel shall be necessary in accordance with the project requirements and with the prior approval of the City Engineering Office.

Design Review by the Design and Build Committee for the Procurement and Implementation of the Construction of a Medium Rise Building at Marcelino Street, Tawiran, Brgy. Santolan

After the contract has been awarded, the Design and Build Committee shall conduct a design review wherein the following activities shall be undertaken:

a. Presentation to and discussion with the Design and Build Committee for the Inception Report;
b. Submit to the Design and Build Committee for approval the Design Criteria and Specifications prior to detailed design;
c. Presentation to and discussion with the Design and Build Committee of the preliminary design; and
d. Presentation to and discussion with the Design and Build Committee draft final design (Note: Presentation of documents shall include computer program/software)

SANITARY/PLUMBING WORKS

Codes and Standards

The Sanitary/Plumbing Works shall be in accordance with the following Codes and Standards.

Codes

a. National Building Code of the Philippines and Its New IRR RA 1378
b. RevisedPlumbing Code of the Philippines (UPCP)
c. Fire Code of the Philippines
d. National Plumbing Code of the Philippines (NPCP)
e. Sanitation Code of the Philippines 6. Existing Local Codes and Ordinances.
f. Existing Local Codes and Ordinances

Standards

a. Bureau of Product Standards (BPS)
b. Philippine National Standards for Drinking-Water
c. Underwriters Laboratory (UL)
d. DOH National/ Laboratory (NRL)
e. DOH Health Care Waste Management Manual
f. National Water Resources Board (NWRB)
g. National Plumbers Association of the Philippines (NAMPAP)
h. Philippine Society of Sanitary Engineers, Inc. (PSSE)

Site Works

Based on the Master Site Development, the Site Works shall provide complete layout of the following:

a. Storm Drainage Network, indicating Drainage Manholes and Pipe Culvert;
b. Sewerage Pipe Network, indicating Sewage Manholes, Sewage pipes and;
c. Water Supply Network, indicating the location of Water Service entrance.
d. Storm Drainage Layout and Isometric Diagram including all miscellaneous details for the housing building
e. Sanitary line layout and Isometric Diagram including all miscellaneous details for New Buildings
    i. The Storm Drainage Network shall accommodate the magnitude of peak rates of surface run-off including drainage coming from the buildings. The system shall be capable of handling the design flows routing to the designated outfall; For rainfall calculation and sizing of drainage pipes, refer to UPCP and current rainfall record from PAGASA.
    ii. The Sewerage Pipe Network design shall accommodate all sewage coming from all the facilities, conveyed by gravitational flow leading to the existing Sewage Treatment Plant;

Building Facilities Sanitary/Plumbing System

Sewer line and Vent System

a. Provide complete Sewer line and Vent System from all (Domestic) plumbing fixtures and floor drains, laid by gravity flow leading to the Sewage Treatment Plant (STP);

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Waterline System (Potable Water)

a. Provide complete cold water supply pipes to all plumbing fixtures.

Storm Drainage System

a. Complete Storm Drainage System shall be provided for all roofs, canopies, concrete ledges and balconies including condensate drains laid for gravity flow connected to a leader/pipe line leading to the natural ground level storm drainage network.

Condensate Drain / Air-conditioning Drain

a. Provide complete air conditioning drain system for all air conditioning unit tap to nearest ledge leading to storm drainage system as indirect wastewater connection provided with air gap, or provide separate riser to accommodate all air-conditioning unit.

Summary of Materials

a. Sewer and Vent pipes; Unplasticized Polyvinyl Chloride (uPVC) extra series 1000 (Conforming to ISO 3633 ASTM D2729 including Trims and Fittings)
b. Storm Drainage pipes; Downspouts, Unplasticized Polyvinyl Chloride (uPVC) extra series 1000 (Conforming to ISO 3633 ASTM D2729 including Trims and Fittings , BPS Certified)
c. Drainage Pipes; 250mm dia. and below, Non-Reinforced Concrete Pipe (NRCP) 300mm dia. and above, Reinforced Concrete Pipe (RCDP)
d. Drainage Manholes; Street Inlet, Curb Inlet, Traffic Type Reinforced Concrete Area drain/Catch Basin, Reinforced Load Bearing CHB
e. Sewage Manholes; Traffic Type Reinforced Concrete with Standard Steel Brass Cover
f. Wastewater pipeline; Extra Heavy (XH) Single Hub, Hubless Cast Iron Pipes and Fittings (CIP) conforming to ASTM Standard
g. Cleanouts; **Cast Iron Brass with counter sunk plug (BPS Certified)**
h. Floor Drains; Concealed type stainless steel
i. Deck Drains; stainless steel (BPS Certified)
j. Gutter Drains; stainless steel Dome Type Brass (BPS Certified)
k. Slop Sink (If applicable) • Cold Waterline pipes; for buildings, Polypropylene Pn25 Fusion Weld Pipes including Trims and Fittings (BPS Certified) if applicable
l. Hot Waterline System; for buildings, Polypropylene Pn25 Fusion Weld Pipes including Trims and Fittings (BPS Certified), if applicable
m. Trench Grating; Galvanized/Stainless Steel Iron grates
n. Plumbing Fixtures including Trims, Fittings and accessories; (BPS Certified)
    i. Water Closet -FlushType
    ii. Lavatory - (Wall hung) with self-closing, press action tap model with timed flow and anti-blocking system
    iii. Shower head and valve, including faucet
    iv. Grease Traps (5 GPM) shall be stainless steel.

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Fire Detection and Alarm System

General

This section covers the design, supply, delivery, installation, test and commissioning of the fire detection and alarm system, complete in every aspect and suitable for reliable and satisfactory operation.

System Description

The purpose of the fire alarm system is to guarantee a reliable and fault-free early warning system in the event of fire, so that orders for extinguishing the fire can be issued from a central point, as the permanently installed Total Gas Flooding Fire Suppression equipment be automatically activated, where applicable. The extreme climatic and other conditions must be taken fully into account in the dimensioning of all parts of the equipment.

The fire alarm system provides for early detection of fire by means of automatically tripping indicators or by means of analytical tests for the detection of smoke, gases and particles from a fire in continuously extracted samples of air. Plug-in units using electronic modules must be used.

The alarm signal-receiving units must be so designed such that by the use of a standardized alarm unit socket, any of the following types of detectors maybe used with equal facility of any of the fire alarm circuits:

a. Addressable photoelectric detector for the detection of visible smoke formation and burning gas
b. Addressable thermal heat detector for detecting a rise in maximum temperature
c. Addressable ionization detector for the detection of smoke and burning gas.

In this way, by using the appropriate type of detector or indicator for the fire alarm system, it can be ensured that the latter can meet freely and without restriction, the particular technical requirements and conditions of the fire protection.

Power supply for the fire alarm system must come from the "UPS" (Uninterruptible Power Supply) 120 volts or 240 volts AC of adequate capacity, which shall be electrically supervised. Transfer from normal to emergency power or restoration to normal power shall be fully automatic and shall not cause transmission of false alarm.

For the whole system, the following should be supplied and installed in sufficient numbers:

a. Addressable photoelectric detector circuits
b. Addressable thermal heat detector circuits
c. Addressable fire alarm control panel complete with modules, chargers and battery
d. Addressable contact input device
e. Fire alarm bell
f. Multi-signal horn with strobe light
g. Airconditioning and Ventilation system
h. Fire Protection System

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ELECTRICAL WORKS

Codes and Standards

The Electrical System Design Parameters shall be in accordance with the following Codes and Standards:

Codes

a. Philippine Electrical Code
b. National Electrical Code
c. New Fire Code of the Philippines
d. National Building Code of the Philippines and its New IRR
e. Existing Local Codes and Ordinances

Standards

a. Bureau of Product Standards (BPS)
b. Underwriters Laboratory (UL)
c. National Fire Protection Association
d. International Electrotechnical Commission (IEC)
e. Illumination Engineering Society (IES)
f. National Electrical Manufacturer's Association (NEMA)

General Specifications

a. All electrical works shall be in accordance with the latest edition of the Philippine Electrical Code (PEC), the laws and ordinances of the local enforcing authorities and the requirements of the local power utility.
b. Whichever is applicable based on the plans and computations, the type of electrical service to be supplied shall be:
    i. Single phase, 3-wire, 230V, 60Hz; or
    ii. Three phase, 4-wire, 230V, 60Hz
c. If the electrical service to be used is three phase, 4-wire, 230V, 60Hz, wire color coding are as follows:
    i. Phase conductors – R (Red), Y (Yellow), and B (Blue) for lines 1, 2, and 3, respectively.
    ii. Neutral conductors – White or gray.
    iii. Ground conductor – green.
d. The type of wiring shall be done in Polyvinyl Chloride (PVC) pipe for branch circuits and Rigid Steel Conduit (RSC) for main service entrance.
e. No branch circuit wiring in lighting and power shall have a load more than 80% of its rating.
f. Light control switches shall be rated 15A, 230V only.
g. Mounting heights shall be as follows:
    i. Light control switches – 1.40m above floor finished
    ii. Convenience outlets – 0.30m above floor finished
    iii. Special purpose outlets – as required by the equipment
    iv. Panelboard – 1.40m above floor finished

h. The minimum size of wire and conduit shall be 3.5mm2 THHN and 20mmø conduit, respectively. Brand of wires and conduits must be approved by the Project-In-Charge/Electrical Engineer.
i. Methods of wiring shall be done in the following manner:
    i. Intermediate Metallic Conduit (IMC) – for exposed power service entrance and those specified on the plan, if any.
    ii. Polyvinyl Chloride (PVC) Pipe – for embedded power service entrance, branch circuit run for lighting and convenience outlets and auxiliary system. Unless otherwise indicated on the plan.
    iii. Electrical Metallic Tubing (EMT) – for installation layout inside drop ceiling, exposed and double wall partition. Unless otherwise indicated on the plan.
    iv. Flexible Metal Conduit (FMC) – for connection between junction box inside to lighting outlets or fixtures at drop ceiling.
    v. Rigid Steel Conduit (RSC) – for service entrance.
j. Unless otherwise specified pull boxes or junction boxes shall be provided whenever required and necessary, although such boxes are not included on the plan.
k. All materials and equipment shall be new and of the approved type for both location and purpose intended.
l. All non-current carrying metal parts of electrical equipment shall be effectively grounded. Connection to ground rod shall be exposed readily accessible for inspection.
m. Contractor to conduct earth ground test, wire insulation test, and load test shall be conducted upon completion of works.
n. In case of any discrepancy between the plans and site condition, specification and revisions/changes, the contractor should immediately verify and consult to the Project-In-Charge/Electrical Engineer.
o. Contractor shall submit sample of materials, equipment, and shop drawings for approval of the Project-In-Charge/Electrical Engineer before installation.
p. Electrical plans/drawings are diagrammatic layout only. Any materials and fittings not shown on the plans/drawings but needed to complete the system and operation shall be included with the contractor's scope of works.
q. All electrical works shall be done under the direct supervision of a duly licensed Electrical Engineer (REE) or Registered Master Electrician (RME).

<u>Site Works</u>

Based on the Master Site Development of the Building, the Site Works shall provide complete Electrical layout of the following:

a. KVA rating and other specifications of Transformer
    i. Primary voltage 13.8KV / secondary voltage 380V, 3 phase, 4 wire + G
    ii. Isolation monitoring system where applicable
b. Switchgear requirements
c. Panel Board Layout
d. Electrical Metering Devices and Metering Center
e. Service Conductors and Conduit Layout
f. Grounding System

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g. Emergency Standby Generators
h. Street and Perimeter Lighting System

Building Facilities Electrical System

Lighting System

Provide and install adequate normal branch circuits for Lighting System to all areas using the standard Lighting Design Analysis. Utilize the standard Illumination requirements per area of concern using the preferred particular type of luminaire.

Power System

Provide and install adequate equipment, life safety and critical emergency branch circuits for lighting and utilization equipment connected to the alternate power source.

Standby Emergency System

Provide and install adequate equipment, life safety and critical emergency branch circuits for lighting and utilization equipment connected to the alternate power source.

Auxiliary System

Provide and install the following Auxiliary System:

a. Communication System
b. Local Area Network System
c. Public Address Paging System
d. Fire Alarm System

Provide Details of the following:

a. Lighting Fixtures/Luminaires;
b. Panel Board and Circuit Breakers;
c. Installation and Termination of Auxiliary and other special Devices and Equipment;
d. Power and Telephone Hand Holes (as may be required);
e. Others as may be required.

Scope of Work

Provide labor, materials, tools, machinery, equipment, and services necessary to complete the Electrical Work under the Contract. All systems and equipment shall be complete in every aspect and all items of material, equipment shall be provided for a fully operational system and ready for use. Coordinate the work with the work of the other trades in order to resolve all conflicts without impeding the job progress.

Provide all materials, equipment and perform all the work necessary for the complete execution of all the Electrical and Auxiliary Works as shown in the Drawings and Specifications, as herein specified or both except as otherwise excluded, and which, without excluding generality of the foregoing shall include but not limited to the following principal items of work:

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a. Supply, Installation, Testing, and Commissioning of Transformers, Automatic Transfer Switch, Switch Boards, Panel Boards, Grounding and Bonding Materials
b. Supply, Installation, Testing, and Commissioning of electrical wiring, conduit, raceway and cable tray system, metring center including necessary hanger/supports.
c. Supply, Installation, Testing, and Commissioning of lighting fixtures/luminaries and wiring devices (switches and outlets).
d. Supply, Installation, Testing, and Commissioning of complete electrical and auxiliary wiring devices.
e. Supply, Installation, Testing, and Commissioning of ventilating/ceiling fans.
f. Testing and commissioning of all installations (1-5)
g. Painting of electrical equipment, boxes, enclosures, metal conduits, and hanger/supports.
h. Shop Drawings and Sample Approvals

The Contractor shall use due care and diligence in removing, replacing, adjusting, cutting, drilling, and installing any equipment/apparatus. Should any damage, due to the execution of this Contract, occur to the existing or adjacent facilities/utilities, shall be repaired/restored by the Contractor without charge. Coordinate with the Engineers/Architect for any actions/work activity.

Summary of Materials

Standard of Materials

All materials and supplies shall be new and shall conform to the provisions of the latest editions of the following standards:

a. Underwriters Laboratories, Inc. (UL)
b. National Electrical Manufacturer's Association (NEMA) Philippine Electrical Code (PEC)

All materials on all systems shall comply with the following specifications, unless specifically exempted, and all materials not specified shall be of the best of their respective kind. All electrical equipment, appliances, fixtures, and devices shall be the latest of the current year in design, material and workmanship, and shall be the type or model called for in these Specifications. Samples of any material shall be submitted for approval as required by the Engineers prior to purchase and installation.

Products/ Materials

a. Wires and Cables

Minimum wire size shall be not less than indicated in the plan. Branch circuit conductors shall be not smaller than 3.5 mm^2 (#12 AWG). Branch circuit of 220 volts more than 30 meters long shall be 5.5 mm^2 (#10 AWG).

Wire Description 120 Conductors shall be soft-annealed copper of 98% conductivity. Conductors shall be thermo-plastic polyvinyl chloride insulation (THHN/THWN) with nylon jacket rated 600 volts 90°C. All conductors shall have identifiable lettering on the insulator jacket as to voltage rating, wire type, AWG size, insulation, and manufacturer ID.

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b. Wire Color Coding

Conductor identification of each phase shall be color-coded insulation. The color of the insulation of the conductors of different voltage systems shall be as follows:

i. 480/240 volts, 3-phase: red, yellow, blue; neutral: white(if required); ground: green
ii. 240 volts, 1-phase: depends on the branch circuit phasing of panel boards.

c. Conduits and Fittings

Provide raceways, conduits, fittings, supports, and accessories required for a complete system and its proper operation. Coordinate layout and installation of raceways, conduits, and suspension system with other trade. All conduits, raceways, and fittings on exposed work shall be secured by means of metal clamps, which shall be held in place by means of metal screws. When running over concrete surfaces, clamps shall be held by means of expansion bolt. All conduits on exposed work shall be run at right angles to and parallel with the surrounding walls and no diagonal runs shall be allowed and all ends and off-sets shall be avoided as far as possible. Conduit shall be supported at 1.50 meter interval minimum.

i. Electric Metallic Tubing (EMT) and fittings shall be industry standard, Underwriters Laboratories listed.
ii. Flexible Metal Conduit (FMC) and fittings shall be galvanized, Underwriters Laboratories listed. It will only be use to connect from junction box to recessed/suspended lighting fixtures, motors, and equipment subject to vibration and adjustment.
iii. Polyvinyl Chloride Pipes (PVC) and fittings shall be thick wall type schedule 40, Underwriters Laboratories listed. - Minimum size to be used in any system shall be 15mm diameter for EMT, 20mm diameter for PVC. Maximum of three 90 degree bends in any one run, and where necessary, pull boxes shall be provided as directed.
iv. Boxes shall be provided in the wiring or raceway systems wherever required for pulling wires, making connections, and mounting of devices or fixtures. All metal boxes shall be gauge 16 galvanized steel. Nominal sizes of boxes are as follows:
    1. Junction Box – 110mm x 110mm x 56mm
    2. Utility Box – 110mm x 55mm x 56mm
    3. Pull Box – dimension as shown in the bill of materials. Pull boxes in finished places shall be located and installed with the permission and to the satisfaction of the Architect/Engineer.

d. Supporting Devices

i. Separate hangers shall be installed for supporting conduits. Wherever possible, hangers shall be supported from concrete slab by inserts. Hangers and piping installed by other trades shall not be used for supporting electric conduits.

ii. Individual and multiple pipe hangers and riser clamps including all parts and hardware shall be galvanized. All U-bolts, clamps, attachments and hardware for hanger assembly and conduits shall be provided.
iii. Use "C" beam clamps and hangers where conduit is supported from steel beams.
iv. Use channel support system supported from structural steel for multiple parallel conduits.
v. Where conduits are installed above ceiling, do not rest conduit directly on t-runners, metal furring, etc.
vi. Conduits shall be supported at 1.5 meter interval minimum. This shall apply to both horizontal and vertical runs.
vii. Where conduits are installed above ceiling, do not rest conduit directly on t-runners, metal furring, etc. Conduits shall be supported at 1.5 meter interval minimum. This shall apply to both horizontal and vertical runs.

e. Wall Switches
i. Wall switches shall be rated at 15 amperes with voltage rating as required. Switches shall be of the silent type, spring operated, and tumbler type. Plating and appearance of wall plates shall be as required or selected by the Architect and appropriate samples shall be submitted prior to the purchase of wall switches and faceplates.
ii. Install wiring devices in outlet boxes, level, plumb and square.
iii. Install blank plates on outlet boxes which are for future equipment.

f. Wall Receptacles
i. Receptacle outlets shall be duplex rated at 10 amperes, 240 volts, grounding type, parallel/flat pin slots or as indicated.
ii. Weatherproof receptacles shall be mounted in a box with a gasket, weatherproof, cover plate, duplex, rated 10 amperes, 240 volts, grounding type, parallel/flat pin slots or as indicated.
iii. Special purpose or heavy-duty receptacles shall be of the type and of ratings, number of poles indicated or required for the purpose.
iv. Install wiring devices in outlet boxes, level, plumb and square. Install receptacles with ground pole in up position.
v. Install blank plates on outlet boxes which are for future equipment.

g. Luminaries, Lamps, Ballast and Accessories
i. Luminaries/lighting fixtures shall be as shown and shall conform to the following specifications and shall be as detailed. Illustrations shown on drawings are indicative of the general type desired and are not intended to restrict selection to fixtures of any particular manufacturer. Fixtures of similar designs and equivalent energy

efficiency, light distribution and brightness characteristics, and of equal finish and quality will be acceptable if approved.

ii. Install all luminaries/lighting fixtures as shown in the drawings, including supports and accessories. Any modification on installation manner shall be approved by the Engineers/Architect.

iii. All fluorescent luminaries/lighting fixture shall be of gauge 22 Zinc phosphate steel sheet housing, and powder coated finish, troffer type with 3 mm thick prismatic acrylic diffuser, aluminum reflector and louvers, surface mounted with mounting holes.

iv. Ballast shall be electronic and high power factor rated 240 volts, 1 phase, 60 Hz, ±10% voltage variation, and UL listed.

v. All down light/pin light fixture shall be powder coated white rim, recessed mounted with tempered glass cover, aluminum matte finished reflector and gear box. Fitted for PL, HID, and compact fluorescent lamps, rated 240 volts, 60 Hz, E27 socket.

h. Mounting Height

Unless otherwise indicated, mounting heights of wall outlets shall be as follows:

i. Single & Duplex Receptacles: 16 inches above finished floor to bottom of outlet box, 44 inches above finished floor for counter height.

ii. For ceiling height receptacles, coordinate with the Engineers/Architect for the actual height.

iii. Switches and Controls: 140 inches above finished floor to bottom of outlet box.

iv. Luminaries/Lighting Fixtures: As indicated on the drawing.

v. CATV: Verify with Architect or Engineer for actual location and height

MECHANICAL GENERAL

a. It is not intended that the drawings shall show every pipe fitting, valves, hangers and supports, etc., all such items whether specifically mentioned or not, or indicated on the plans/drawings shall be furnished and installed if necessary to complete the system to the satisfaction of the engineer and the owner.

b. If applicable, copper tube must be type "L", hard drawn.

c. Provide standard hungering separation (1.2-1.5 meters).

d. Contractor shall be responsible in verifying and coordinating the following in accordance with the manufacturer's data and recommendations:

i. Floor and wall openings.

ii. Equipment pads/pedestals.

e. Condensate drain pipes shall be tapped to the nearest downspout or drain connection and shall run at 1% slope.

f. All structural and architectural finishes damaged during the course of work shall be restored to its original condition or as approved by the engineer and/or owner.

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g. All insulated mechanical pipes that are exposed shall be cladded with aluminum sheet of machine/shop fabricated.
h. Contractor should be familiar with the actual site condition and installation to verify if the work is in conformance to the manufacturer's recommendations and should rectify work non-conformance if such condition exist.
i. All mechanical equipment and installation should strictly comply with the mechanical equipment recommended installation and acceptable standards.
j. Any adjustment for equipment relocation at site that will deviate from the plans/drawings, the contractor shall submit shop drawings for approval of the Project-In-Charge or consultant.

CCTV, DATA, AND TELEPHONY GENERAL SPECIFICATIONS

a. All electronics works shall be done in accordance with the provisions of the latest edition of the Philippine Electronics Code.
b. All electronics works and installation shall be performed under the strict supervision of a duly licensed Professional Electronics Engineer (PECE) as per Republic Act 9292.
c. All materials to be used and equipment (CCTV and NVR) must be of high quality and conforms to the industry standard.
d. Installing party should consult the owner and other trades working in the site to properly schedule to avert conflict working schedules.
e. Should the cabling of CCTV be installed in a conduit, CCTV cabling must be separated and not joined in with power cabling.
f. Mounting of CCTV should be in a manner that is not obstructed and mounting height should not be low and too high to maximize the field of view but not degrade the image quality.
g. Use a minimum of 4-megapixel camera with IP65 protection with a sensor of CCD/CMO.
h. CCTV Camera lens specifications:
    i. 2.8mm – minimum diameter of CCTV camera lens for "wider view".
    ii. 12.0mm – minimum diameter of CCTV camera lens for "narrow view".
i. Provide name tag/s from end-to-end of the cable.
j. Provide cable testing.
k. All materials, devices, and equipment must be UL listed.
l. Plans/drawings as drawn are based upon the architectural plans and details. These plans are diagrammatic layout only. Do not scale show all fittings. The location of CCTV and other equipment is approximate.

TIME FRAME

The Contractor is required to complete the Project within an indicative period as shown below, to start upon the Contractor's receipt and signing of Notice to Proceed. The time frame to be followed for the project is as follows:

Design and Construction Schedule

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ACTIVITY	1	2	3	4	5
Pre-Design including Owner's approval		15 days			
Detailed Design including Owner's approval			30 days		
Application and Issuance of Building Permits				30 days	
Construction Phase					13 months

a. The duly signed Design Preparation Schedule should be prepared considering a timeline of **fourteen (14) calendar days** (c.d.) reckoned from the date of the issuance of the Notice of Award.
b. The duly signed Construction Schedule-PERT/CPM with Manpower Schedule, Equipment Schedule and S-Curve should be prepared and submitted to consider the correct time duration of **465 calendar days** reckoned from the timeline stated in the approved Notice to Proceed (NTP).
c. The Outline Technical Specification for the MRB architectural, structural, plumbing/sanitary and fire protection components duly signed by the respective Registered Licensed Professionals should be submitted by the Bidder in comparative presentation vis-à-vis the minimum performance specifications in a format prescribed by the procuring entity.
d. For the structural plans and specifications by a Licensed Civil/Structural Engineer.
e. The president or the Chief Executive Officer (CEO) of the company bidding for the project shall likewise sign and concur with the submitted Technical Specifications in comparative form.
f. Bidders are enjoined to provide additional information if deemed necessary to clearly illustrate their respective specifications.
g. All plans, technical specifications and cost estimates submitted by the bidders should be correlated with one another. Should there be any difference or variation among these documents, the technical specifications which shall prevail shall become the basis of bid evaluation.
h. List of design and construction personnel to be assigned to the contract to be bid, with their complete qualification and experience data.
i. The construction team/members should have experience in the construction of multi-storey buildings at least five-storey high, for any building type.

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TERMS AND CONDITIONS OF THE CONTRACT

Manner of Payment

The procuring entity shall grant the winning Bidding/Contractor the right to design and develop the identified property, design and construct the MRBs thereto and collect payment for the works completed based on the agreed construction and delivery schedule. Further, the winning bidder shall be provided a maximum of five (5) progress billings upon sufficient accomplishment based on the total contract cost as indicated in the Special Conditions of the Contract. The initial progress billing shall only be released upon the actual accomplishment of at least 20% of the contract, submission of necessary permits and after the approval of end-user / procuring entity of the final designs for the project, submission of which by the winning bidder should be within the prescribed 30 calendar-day period in the Notice to Proceed (NTP).

Contract Time Duration

The Bidder/Contractor shall undertake the delivery of the completed MRBs with complete basic utilities within the contract duration of **Four Hundred Sixty-Five (465) calendar days**. The Bidder/Contractor shall submit a detailed construction schedule within the prescribed period stated in the Notice of Award.

Role and Responsibilities

The Design and Build Committee shall:

a. Review and approve structural plans, designs, technical specifications, cost estimates, cash flow and delivery schedule.
b. Provide assistance to the Contractor in securing all necessary permits, licenses and clearance for the Project from concerned government agencies.
c. Ensure compliance with the requirements such as warranty for the complete satisfactory and faithful performance of all works in accordance with the approved design and specifications.

The Winning Bidder/Contractor shall:

a. Prepare all architectural and engineering designs/plans and specifications for the construction of MRBs, including cash flow and implementation/delivery schedule.
b. Upon the award of the design and build contract, the winning bidder shall be responsible for the preparation and submission of all necessary detailed architectural and engineering plans and specifications, including building plans for the project within Thirty (30) calendar days upon the receipt of the Notice of Award (NOA).
c. Secure all necessary permits and licenses upon approval by DBC of all plans and designs for the buildings. Submit copies of the permits upon approval of the concerned agencies.
d. Shoulder all expenses related to the processing and final approval of the housing/building designs and plans by the Local Government of Pasig City (for building permits), the Department of Human Settlements and Urban Development (DHSUD) and Home Guaranty Corporation (HGC, if necessary) and the Department of Environment and Natural Resources (for ECC) including payment of all other fees, permits and licenses that may be required in

the implementation of the Project, as well as occupancy permits and ensure the smooth turn-over of the completed project to Pasig City LGU.

e. Provide warranty for the complete, satisfactory and faithful performance of all works in accordance with the approved design and specifications.
   To guarantee the faithful performance by the winning bidder of its obligations under the contract in accordance with the Bidding Documents, it shall post a performance security prior to the signing of the contract as provided for in the Bid Data Sheet.
f. Secure, for the account of the project, a Fire Insurance equal to 100% of the project cost and maintain such insurance policy until these medium-rise buildings have been completed and accepted by the Pasig-LGU.
g. Coordinate and consult all matters with DBC pertaining to the actual implementation of the Project through monthly submission of reports, requests and recommendations.
h. Assume any or all claims for damages and/or liabilities arising out of defects or imperfections in the construction or in the quality of works performed in the project.

Warranty

In accordance with the pertinent provisions of the RIRR of RA 9184, the warranty against structural defects and failures shall be fifteen (15) years from final acceptance of the project, except those occasioned by force majeure.

Prepared by:

Engr. GLENFORD D. FLORES
HHRO II, PUSO

Submitted by:

RICARDO B. REYES
OIC, PUSO

CONCEPTUAL DESIGN

SOCIALIZED HOUSING PROJECT FOR 336 ISFs AFFECTED BY PASIG MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT

TAWIRAN, BRGY. SANTOLAN, PASIG CITY

The elongated rectangular geometry of the lot calls for the same manner as the building would be formed and situated thus a single building with three cluster segmentation was schemed with a loop type one way access road to maximize the utilization of the property without compromising governing housing laws and building codes.

Open parking spaces at the ground floor was considered to meet required slots per units with utility facilities such as water and fire supply pump rooms, garbage disposal holding room, building maintenance room, electrical room, and utility storage room to facilitate basic needs of residents. Further, a playground is also allotted at the rightmost portion of the ground area to accommodate share and protection for children to weather.

The residential unit was conceived to a free flow accessibility as the entrance door is centrally placed for each unit and opens to a hallway separating the living and dining area, kitchen, and utility area to the bedrooms. The living area was cantilevered to maximize light and ventilation to the unit as well as the view from the exterior adjacent to a balcony which shall also serve as drying area for laundry. Toilet and bath is situated in between the bedrooms for ease of comfort. The kitchen is located near the entrance so as not to disrupt activity in the living area with a pass-through opening to stimulate openness. A utility area was also provided for laundry and will also serve as dirty kitchen.

The Roof Deck comprises of communal amenities for social, religious, and recreation. It shall be provided with a multipurpose and function area, a chapel, and a basketball court. The deck will also serve as a facility for mechanical equipment, water tanks, as well as solar panels mounting to support sustainability. The façade offers a simple composition of traditional lines and finishes with vertical accents, grooved walls, and upper horizontal termination synonymous with multilevel residential buildings to give a classy and decent yet economical appearance. Painted plain cement plaster is the predominant finishing material. Aluminium was considered for the exterior windows for added durability and aesthetics.

[redacted]

PROJECT DESCRIPTION:

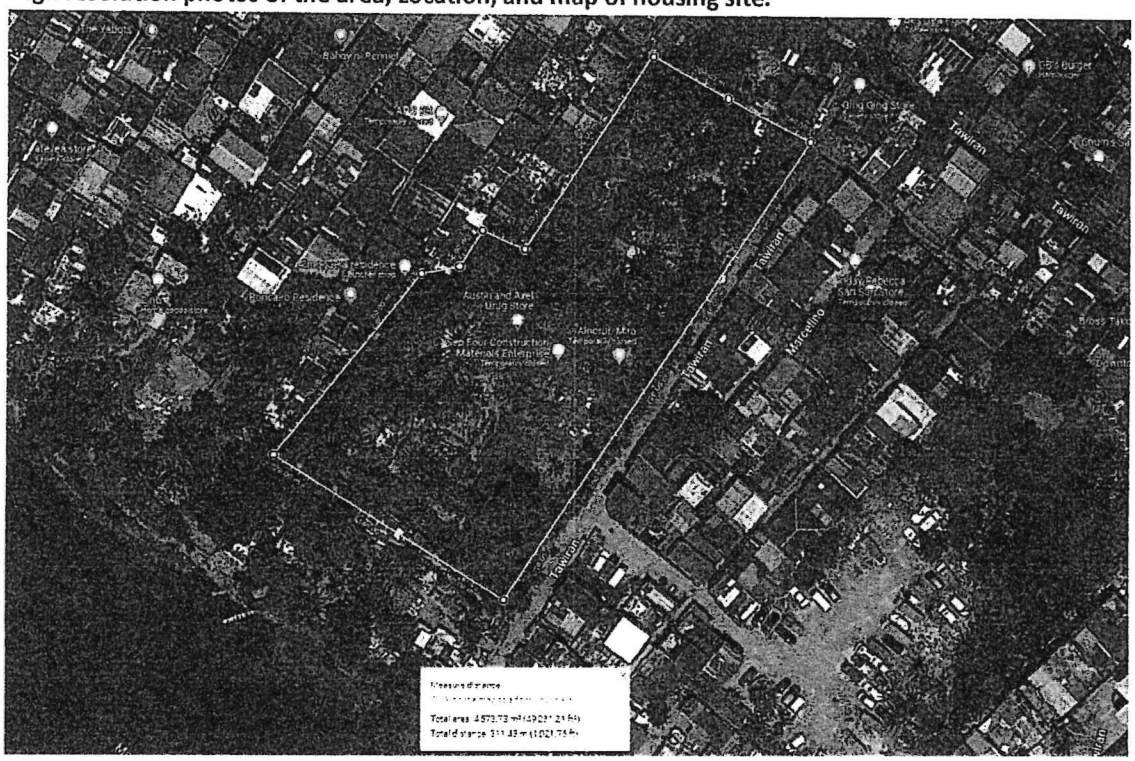
Socialized Housing Project for 336 ISFs affected by Pasig Marikina River Channel Improvement Project at Tawiran Street, Brgy. Santolan, Pasig

1. Summary

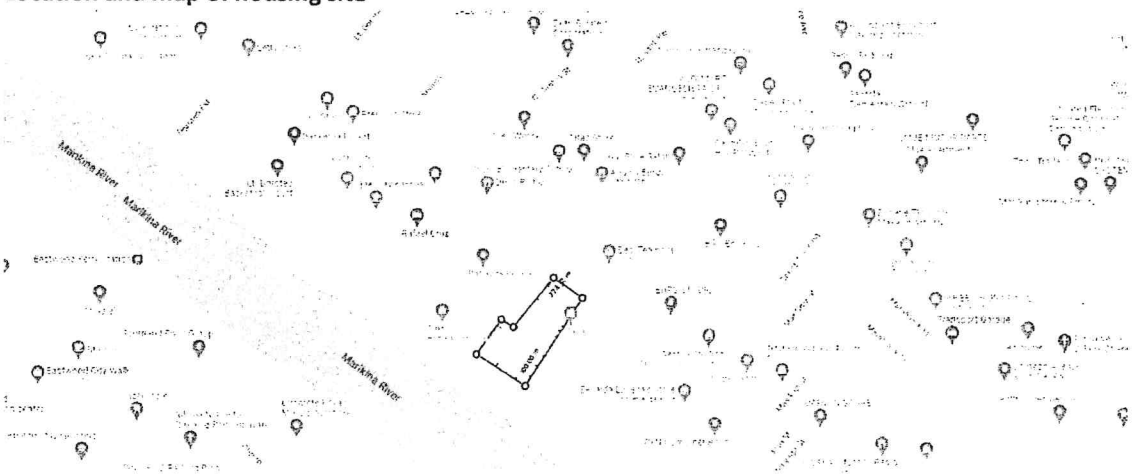
This is a housing project to resettle three hundred and thirty six (336) Informal Settler families (ISFs) who will be displaced by the completion of the Santolan, Pasig part of the Revetment Wall project of the DPWH , along the Marikina River due the end of the current year. It is a twelve (12) story that will be buit on a 4, 750 sq m lot recently purchased by the City Government from a private owner. The lot is located in Tawiran-Animales in barangay Santolan.

The housing project will be fully financed and developed by the City Government. With the Program of Works completed by the Engineering Department of the City, it will soon be up for bidding. It is going to be run under a public rental mode, the first of its kind in the City. As owner and developer, the City will manage the operations of the project with the assistance of the community association.

2. **High resolution photos of the area, Location, and map of housing site.**



3. **Location and map of housing site**



Tawiran, Brgy. Santolan, Pasig City.

4. **Land Area**
   - Land Area = 4,570 Sq. m.

5. **Target number of beneficiaries and original location**
   - 336 Informal Settlers Families (ISFs) affected by the Pasig Marikina River Channel Improvement Project at Brgy. Santolan, Pasig City.

[redacted]

6. **Zoning classification**
   - Pasig Zoning Classification: Residential 3

7. **Brief description of the proposed housing project**

   - LOCATION: Tawiran, Brgy. Santolan, Pasig City
   - Land Area = 4,750 sqm
   - No. of Buildings= One (1) - 12 Storey 336 Units MRB
   - No. of Units/Floor
     - (Back-to-back)
     - Bldg. 1 : 28 units x 12 floors = 336units
   - Total no. of units = 336units
   - Area of one (1) unit:
     - Living Area : 5x6 = 30 sqm
     - Loft Area : 5x3 = 15 sqm
     - Total Area/unit = 45 sqm
   - No. of Beneficiaries: 336 families
   - Total Cost of Project: 336 x P1.25M/unit = **P420M**
   - OTHER AMENITIES TO INCLUDE:
     - Admin Office
     - Delivery Area + Bodega
     - Multi-Purpose Area
     - Basketball Court
     - Wet & Dry Market
     - Commercial Stalls Area
     - Chapel for all
     - Burulan

8. Site Development Plan

   (To be furnished by Engineering Department.)

[redacted]

9. Hazard assessment

- Flood Hazard Level: High
- Landslide Hazard Level: Little to none
- Storm Surge Hazard Level: Low